

# **HEALTHY YOUTH DEVELOPMENT: THE ROLE OF YOUTH ASSETS**

by

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## ABSTRACT

Much of the literature investigating adolescent health focuses on risk and problem behaviours and factors related to risk reduction. Recently, however, there has been increasing interest in identifying factors related to the positive aspects of adolescent health and development as opposed to the absence of risk. The current research extends this recent work by examining the relationship between youth assets and positive indicators of health and well-being among 30,588 adolescents in British Columbia using the Adolescent Health Survey III. The youth assets measures consist of family connectedness, parental presence at home, teacher connectedness, school belonging, perceived competence, peer influences, other adult support, religiosity, volunteerism, and extra-curricular activities. Positive indicators of health and well-being include perceived health status, physical activity, academic achievement, seatbelt use, and bicycle helmet use. The results indicate that adolescents who possessed more youth assets had more positive outcomes than those with fewer assets. All possible subsets regression analyses revealed that the best subsets of youth assets predictors for perceived health, academic achievement, seatbelt use and bicycle helmet use included all 13 youth assets, further supporting the cumulative effect of assets on health outcomes. The regression analyses conducted on physical activity produced a 12 predictor best subset of youth assets that excluded parental presence at bedtime. The most consistent predictor of each positive indicator or health and well-being was family connectedness. Adolescents' relationship to school (either in terms of school belonging or connectedness to teachers) also emerged as a consistent predictor for each positive health outcome. In contrast to the research on risk and resilience, other adult support

was not a consistent predictor of any of the outcome measures in the current study. In general, the results did not differ by grade level. These findings suggest that connections to family and school are important for healthy youth development. However, these connections alone are not sufficient. Adolescents need a broad array of youth assets such as connections to the community (i.e., volunteering and extracurricular activities) in order to achieve the most successful outcomes.

**Keywords:** youth assets; adolescent health; positive youth development; British Columbia

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## INTRODUCTION

Much of the literature investigating adolescent health focuses on negative indicators of health and the factors related to risk reduction. Consequently, the health and well-being of adolescents has often been defined in terms of the absence of problem behaviours rather than the presence of positive desirable behaviours. Recently, however, there has been increasing interest in identifying the factors related to the positive aspects of adolescent health and development (e.g., Canadian Institute for Health Information, 2005; Flay, 2002; Larson, 2000; Moore, 1997; Moore & Halle, 1999; Moore, Lippman, & Brown, 2004; Rich, 2003; Scales & Leffert, 1999; Steen, Kacharek, & Peterson, 2003; Takanishi, Mortimer, & McGourthy, 1997). The current research extends this recent work by examining the relationship between positive youth assets and positive indicators of health and well-being among British Columbia (B.C.) adolescents using the BC Adolescent Health Survey (AHS) III from the McCreary Centre Society. The McCreary Centre Society is a non-profit organization that conducts a large school-based survey in B.C. every five years concerning youth health issues.

Although the prevalence statistics vary depending upon the type of specific problem identified, approximately 20% of children and youth in Canada are at risk for developing health-compromising problems (Schonert-Reichl, 2000). Key areas that adolescent health researchers have focused on include alcohol and substance abuse, smoking, violence and crime, depression, sexually transmitted diseases, and teen pregnancies. Consequently, attention and resources have been focused on reducing risk or problem behaviours. In this deficit reduction model the aim is toward prevention of negative outcomes. As a result, the health and well-being of adolescents has often been

defined in terms of the absence of problem behaviours. Those adolescents who are not smoking, drinking, being violent, engaging in unprotected sex, or taking illegal drugs are deemed healthy. Arguably, these adolescents are healthier than those who do engage in these risk behaviours since decreasing or preventing negative outcomes has been shown to increase an adolescent's chance for healthy development (Halle & Moore, 1998). However, health and well-being encompass proactive positive behaviours as well as the absence of risk. For example, Weissberg and Greenberg (1997) note, "Young people who are neither drug abusers, teen parents, in jail, nor dropouts may be considered 'problem free' and yet may still lack skills, attitudes, and knowledge to be good family members, productive workers, and contributing members of the community" (p. 878). Indeed, the World Health Organization in 1948 stated that "Health is the state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (Preamble to the Constitution of the World Health Organization, p. 100).

Despite the interest in achieving positive outcomes, there is relatively little research documenting the successful healthy behaviours of adolescents. Thus, researchers have argued that more research is needed that specifically investigates the positive outcomes of youth development such as positive and healthy behaviours, pro-social behaviour, mental health and educational achievement (Flay, 2002; Takanishi et al., 1997).

## **Positive Youth Development**

The Positive Youth Development (PYD) approach is a guiding framework for designing programs, opportunities, and social supports for all youth that will allow them to thrive and successfully transition to adulthood. As PYD is a general approach rather

than a specific program, there is a range of definitions as to what constitutes positive youth development (Catalano et al., 1998; Damon, 2004; Grantmakers in Health, 2002). Positive youth development programs seek to achieve one or more of the following objectives: competence (social, emotional, behavioural, moral, and cognitive), bonding, resilience, self-determination, spirituality, positive identity, belief in the future, opportunities for prosocial involvement, the fostering of prosocial norms, recognition for positive behaviour, and self-efficacy (Catalano et al., 2002). More generally these objectives have been combined to generate the “6 C’s”: competence, confidence (positive self-concept), connections (to one’s family, peers, and community), character (moral values), caring and contribution (Lerner, 2004). The PYD approach acknowledges that adolescents can be resources for their own positive development as well as contributing to their families, schools, and communities (Grantmakers in Health, 2002). Programs supporting the PYD approach appear to both increase positive behaviours as well as decrease problem behaviours. For example, a recent analysis of 25 youth programs (e.g., Big Brothers) utilizing the PYD approach found that 19 of these programs were successful in demonstrating positive changes in behaviour such as improved interpersonal skills, better peer and adult relationships, improved self-control, cognitive competencies, self-efficacy, and increased commitment to school and academic achievement (Catalano et al., 1998). In addition, 24 of the 25 programs showed improvements in problem behaviours such as substance use and aggressive behaviour (Catalano et al., 1998). The focus on positive developmental outcomes has led to the view of youth ‘assets’ as the necessary attributes for creating successful outcomes.

## Youth Assets

Youth assets are viewed as psychological and social strengths that contribute to successful outcomes. The presence of assets is presumed to both reduce risk behaviours and increase positive outcomes. Youth assets are similar to the notion of protective factors in the resiliency literature. Whereas protective factors only operate in the presence of risk (Rutter, 2000), youth assets are considered strengths that operate in a variety of contexts. Consequently, the same variable, for example family connectedness, could be seen as either a protective factor or an asset depending upon the context.

One popular paradigm employed to assess the impact of positive influences in adolescents' lives is the Search Institute's (a nonprofit organization) Developmental Assets Framework (Scales & Leffert, 1999). The developmental assets are 40 psychological and social strengths that enhance youth health outcomes. These developmental assets were derived from the scientific literature on youth development and resilience and represent the experiences and skills related to successful outcomes in adolescents (Mannes, Roehlkepartain, & Benson, 2005). The 40 developments assets are categorized into eight subscales (support, empowerment, boundaries and expectations, constructive use of time, commitment to learning, positive values, social competencies, and positive identity) (Benson & Leffert, 2001). Data from the Search Institute is derived from the Profiles of Student Life: Attitudes and Behaviors Survey which has been conducted three times in the United States: 1996-1997, 1999-2000, and 2003. These are large-scale surveys involving upwards of 99,000 youth in grades 6 through 12 from self-selected communities. Note that the first survey conducted in 1996-

1997 was not representative of the overall U.S. population (it under-represented minority, urban, and lower socio-economic youth) and survey weights were not applied to adjust to the population proportions. Thus, the research based on the early survey should not be generalized to the broader adolescent population. Research utilizing the first Profiles of Student Life Survey demonstrated that developmental assets were associated with greater family communication, self-esteem, personal control, leadership, and decision making (Scales & Leffert, 1999), and decreased substance use, depression, school problems, sexual activity, and gambling (Leffert et al., 1998). Later surveys based on the Profiles of Student Life demonstrated an association between developmental assets and greater academic achievement (Scales & Roehlkepartain, 2003), and decreased substance use (Benson, Roehlkepartain, & Sesma, 2004). Furthermore, the presence of developmental assets related to positive identity (i.e., self-esteem) was protective against eating disordered behaviour among a large sample of males and females in grades 6 through 12 (French et al., 2001).

### **Cumulative Effect of Multiple Assets**

Previous research investigating the role of youth assets on health behaviour has typically examined the cumulative effect of the number of assets that youth possess. For example, adolescents may be grouped according to whether or not they possess zero or one asset, two or three assets, or four or more. These studies have typically found that the more assets youth possess the less likely they are to engage in risk behaviours such as early sexual intercourse (e.g., Vesely et al., 2004) tobacco, drug and alcohol use, and violent behaviours such as fighting (e.g., Canadian Institute for Health Information, 2005; French et al., 2001; Leffert et al., 1998; Murphrey, Lamonda, Carney, & Duncan, 2004;

Oman et al., 2004; Scales, Benson, Leffert, & Blyth, 2000; Scales, Leffert, & Vraa, 2003).

For example, research in the United States using the Search Institute data by Nancy Leffert and colleagues in 1998 found that youth in grades 6 through 12 possessing more assets are less likely to be involved in antisocial behaviours such as shoplifting, trouble with the police or vandalism, less likely to have school problems such as skipping or failing classes, or violence problems such as fighting, less likely to gamble, or use alcohol, tobacco, and illicit drugs. Similarly in Canada, research conducted by the Canadian Institute for Health Information in 2005 on adolescents 12 - 15 years old also found that a greater number of assets were related to decreased risk behaviours and more positive health. Specifically, adolescents who had 4 - 5 assets such as parental nurturance, parental monitoring, peer connectedness, school engagement, and volunteerism were less likely to use alcohol, less likely to smoke or use marijuana, and more likely to rate their health as excellent or good compared to adolescents who had fewer assets.

The cumulative effect of multiple assets does not seem surprising given that other positive behaviours are known to cluster together (Flay, 2002). However, one drawback of the cumulative approach is that it cannot determine which (if any) predictors are most important in producing health-promoting behaviours. It assumes all of the assets are equally important. It may be that only one or two predictors are most important in producing positive benefits. Thus, individuals who possess multiple assets may also be advantaged in also possessing the necessary critical assets. However, those individuals possessing only one or two assets may be at a disadvantage, not

merely because they have fewer overall assets, but because they may lack the critical ones.

Despite the lack of consensus regarding *which* youth assets are most important in determining health outcomes, the existing literature does document that those who possess assets have better health outcomes than those who do not.

## **Psychosocial Correlates of Adolescent Health Behaviour**

The emerging research on the role of psychological and social factors (assets) in adolescent development has focused on a variety of factors such as interpersonal relationships with families, peers and non-parental adults, school connectedness, extracurricular activities, religiosity, and self-concept.

### ***Interpersonal Connectedness***

A large body of research has documented the importance of parents, family, and peers in influencing the health of adolescents (e.g., Blum & Mann Rinehart, 1998; Henrich et al., 2005; Resnick et al., 1997).

Parental or family connectedness has been related to decreased risk behaviours such as suicidality, substance abuse, delinquent behaviours, violence, poor body image, disordered eating, and emotional stress (e.g., Anteghini, Fonseca, Ireland, & Blum, 2001; Blum, Kelly, & Ireland, 2001; Henrich, Brookmeyer, & Shahar, 2005; Markham et al., 2003; Resnick, Bearman, & Blum et al., 1997; Resnick, Harris, & Blum, 1993; Neumark-Sztainer et al., 1997). For example, research utilizing the large school-based National Longitudinal Study on Adolescent Health (ADD Health) found that feeling close to one's parents (i.e., feeling cared for, close, loved, wanted, and satisfied with the

relationship) was protective against every risk behaviour measured with the exception of pregnancy (Resnick et al., 1997). Similarly, research utilizing a small convenience sample of Latino adolescents found that family connectedness (i.e., feeling close, listened to, going to for help, enjoying doing things together, and talking) was associated with less alcohol, drug, and violence-related problems. A Brazilian school-based survey of more than 2,500 students ages 13-17 also found that good family relationships were associated with a reduced risk of smoking, drug use, early sexual activity, pregnancy, suicidality, and gun carrying (Anteghini et al., 2001). Thus, across survey types and operational definitions, family connectedness remains a significant correlate of adolescent health behaviours.

Similarly, the presence of a parent in the home during critical periods of the day has also been associated with fewer risk behaviours (Resnick et al., 1997). Adolescents who ate meals more frequently with their family were less likely to use tobacco or drugs, and less likely to have depressive symptoms or suicidal thoughts than those adolescents who ate meals less frequently with their family (Blum et al., 2001; Eisenberg et al., 2004). The association between frequent family meals and reduced risk behaviours may be due to a variety of factors such as greater parental monitoring, increased dialogue between parents and adolescents, or decreased time with negative peer influences (Eisenberg et al., 2004).

Past research has also demonstrated that interpersonal relationships with peers and adults outside the family can influence adolescent risk-taking behaviours. For example, Reininger and colleagues (Reininger et al., 2005) found that adolescents who engaged in multiple risk behaviours were more likely to have friends who had similar values regarding risk behaviours. Peers can also have a positive influence on

adolescents. Inner-city adolescents who reported having responsible peers were less likely to use alcohol or drugs (Oman et al., 2004). Similarly, adolescents who had at least one non-parental role model were more likely to report having never engaged in sexual intercourse (Vesely et al., 2004) and more likely to report non-use of drugs (Oman et al., 2004).

### ***School Connectedness***

Although various definitions of school connectedness exist (belonging, engagement, attachment, etc.) in a review of the literature, Libbey (2004) identified nine themes common to many of the school connectedness measures: academic engagement, belonging, fairness, safety, extracurricular activities, liking school, student voice (opportunity to participate in decision making), peer relations, and teacher support. School connectedness has been related to decreased suicide attempts (Blum et al., 2001; Neumark-Sztainer, Story, French, & Resnick, 1997; Resnick et al., 1997), substance use (Blum et al., 2001; Catalano, Haggerty, Oesterle, Fleming, & Hawkins, 2004; Neumark-Sztainer et al., 1997), delinquent behaviours (Catalano et al., 2004; Neumark-Sztainer et al., 1997; Resnick et al., 1997), poly drug use, risk of unintentional injury (e.g., not wearing a seat belt), and pregnancy risk (Resnick, Harris, & Blum, 1993). Research by Bonny and colleagues (Bonny, Britto, Klostermann, Hornung, & Slap, 2000) on a sample of Ohio public school adolescents in grades 7 through 12 found that high levels of school connectedness was related to better health status, more involvement in extracurricular activities, fewer school nurse visits, and decreased cigarette use among adolescents in schools with high rates of teen pregnancy, abuse, and school failure. This study also found gender and cultural differences in school connectedness: adolescent

boys were more connected to school than adolescent girls and white adolescents were more connected than black adolescents. Similarly, Resnick and colleagues found that among adolescent boys, low school connectedness was found to be the strongest predictor of high risk behaviours (Resnick et al., 1993).

More recently a prospective study by Shochet and colleagues (Shochet, Dadds, Ham, & Montague, 2006) examining the link between school connectedness and mental health found that high levels of school connectedness are associated with less concurrent and future depressive symptomology among Australian youth ages 12 to 14 years. Notably, prior mental health did not predict future school connectedness after controlling for prior school connectedness. That is, the results are not due to adolescents with poor mental health feeling less connectedness to their school but rather due to those with low levels of connectedness having more depressive symptoms one year later.

In summary, the majority of studies document the importance of school connectedness for a variety of health-related and academic outcomes.

### ***Extracurricular Activities***

Participation in extracurricular activities may provide adolescents with positive social supports, a sense of belonging, as well as increases in specific skills. Research has demonstrated that adolescents who participate in extracurricular activities are more likely to have higher levels of academic achievement and are less likely to engage in risky behaviours such as substance abuse (Eccles & Barber, 1999). In addition, participation in youth activities is linked to positive outcomes such as school success

(Mahoney, Cairns, & Farmer, 2003), physical health, leadership, and prosocial behaviour (Scales et al., 2000).

Similarly, researchers have found that adolescents who volunteer are more likely to have greater academic aspirations and achievement, greater intrinsic work motivation, and higher academic self-esteem (Johnson et al., 1998). Furthermore, volunteering was more likely to predict a greater value being placed on career and community involvement (Johnson et al., 1998). The research on extracurricular activities and volunteerism both suggest that constructive use of time is associated with more positive outcomes.

### ***Religiosity***

Past research indicates that religiosity is weakly related to decreased suicide attempts, substance abuse, and delinquent behaviours (Neumark-Sztainer et al., 1997). It may be that religiosity overlaps with other psychosocial variables such as family connectedness. That is, those who are more religious may also have stronger family connections and this may explain the relatively weak association found in the literature (Neumark-Sztainer et al., 1997). However, the strength of religiosity as a correlate of health may be related to the type of outcome that is measured. For example, a stronger association is found between religiosity and health outcomes such as decreased sexual risk behaviour (specifically the likelihood of never having had sexual intercourse) (Vesely et al., 2004). These types of outcomes are more likely to be directly related to religious teachings opposing premarital intercourse.

In addition, when religion is measured by assessing the frequency of participating in religious activities as opposed to merely whether or not adolescents are religious, a stronger association is found with certain risk behaviours such as alcohol and substance

use (Oman et al., 2004). Blum et al. (2001) also found that increased religiosity as measured by attendance at services, importance of religion, and frequency of prayer was associated with fewer negative health outcomes (suicide attempts, sexual abuse, and cigarette, alcohol, and marijuana use) for both adolescents with emotional disabilities and non-disabled adolescents but not for those with learning disabilities or mobility impairments. It may be that learning disabilities and mobility impairments limit the extent to which these adolescents participate in, and thus benefit from, religious activities. Thus, participation in religious activities may decrease risk behaviours to the extent that adolescents are occupying their out of school time with constructive activities that are incompatible with risk behaviours.

### ***Positive Self-Concept***

A positive self-concept or high self-esteem is viewed as an important developmental asset for adolescents (e.g., Benson & Leffert, 2001). Self-esteem is conceptualized as the evaluative or affective component of self-concept. To date, the majority of studies have focused on the impact of self-esteem on adolescent health outcomes. Adolescents with higher self-esteem are less likely to exhibit eating disorder behaviours (French et al., 2001), less likely to report suicidal thoughts or attempts (Neumark-Sztainer et al., 1997), less likely to report substance abuse or delinquent behaviours (Neumark-Sztainer et al., 1997; Trzesniewski et al., 2006), and more likely to report increased overall general health behaviours and better mental health (Torres, Fernandez, & Maceira, 1995).

The correlational nature of many of these studies makes the directionality of the relationship unclear (Baumeister, Campbell, Krueger, & Vohs, 2003; MacDonald &

Martineau, 2002). Lower self-esteem may lead to engagement in problem or risk behaviours or participation in various types of risk behaviours could lead to detrimental consequences for self-esteem. Longitudinal studies may shed light on the directionality of the association between self-esteem and health. For example, a recent prospective study among adolescents found that initial low levels of self-esteem predicted worse mental and physical health and higher rates of criminal activity in early adulthood (Trzesniewski et al., 2006).

In contrast to these studies that are supportive of the self-esteem and health relationship, a recent study by Blum et al. (2001) found that self-esteem was not a significant protective factor against suicide attempts, sexual abuse, and alcohol or marijuana use for adolescents. This study primarily focused on adolescents with mobility impairments and emotional and learning disabilities. These adolescents also had greater exposure to factors predisposing them to risk; for example, they were more likely to report emotional distress, be receiving social assistance, and more likely to have a history of family suicide. Consequently self-esteem may be less protective in the face of a multitude of risk factors.

## **Positive Indicators of Health and Well-Being**

Although the vast majority of adolescent health outcomes have been framed in terms of risk, theorists have suggested a wide array of potential indicators of positive health and developmental outcomes. Many of the positive outcome measures identified by researchers overlap with the objectives identified by the positive youth development perspective.

Research from the Search Institute in Minnesota has identified eight behavioural measures of positive outcomes called 'thriving' based on either the measures' empirically established relationship in the literature to successful outcomes or based on the measures' conceptual relationship to the theorized developmental tasks of adolescence (Leffert et al., 1998; Scales et al., 2000). These outcomes include school success, leadership, helping others, feeling healthy, maintenance of physical health, delay of gratification, valuing diversity, and overcoming adversity.

Similarly, the Academy of Educational Development's Center for Youth Development and Policy Research (MacDonald & Valdivieso, 2001) suggests that there are six aspects of identity and six aspects of ability that represent the successful outcomes required for healthy youth development. The six areas of identity are described as (a) safety and structure self-worth, (b) self-worth, (c) a sense of mastery and future, (d) belonging and membership, (e) responsibility, and (f) spirituality and self-awareness and the six areas of ability are described as (a) physical health, (b) mental health, (c) intellectual ability, (d) employment, (e) civic and social ability, and (f) cultural awareness.

Although there appear to be many potentially positive outcomes for youth, the current study focuses on three main outcomes: perceptions regarding physical health, education, and responsible decision-making. Both health-enhancing behaviour and succeeding in school have previously been identified as two positive indicators of adolescent development (Moore, Lippman, & Brown, 2004; Scales et al., 2003; Takanishi et al., 1997).

For example, academic success is believed to be an indicator of positive adolescent development as it may reflect an adolescent's ability to successfully

transition to adult work roles (Takanishi et al., 1997). Specifically, adolescents who do well in school are more likely than their peers to report occupational and educational success (Redd, Cochran, Hair, & Moore, 2002).

Responsible/healthy decision-making is characterized by the extent to which adolescents make safe choices regarding their health. Making responsible choices has been shown to be a protective factor against risk behaviours such as alcohol and drug use (Oman et al., 2004). Responsible decision-making behaviours appear to cluster together. For example, adolescents who report a higher frequency of contraceptive use are also more likely to use seatbelts, have better dental hygiene, have a healthier diet, and to exercise regularly (Costa et al., 1996). In addition, a positive orientation to school, positive peer influences, prosocial activities, and church attendance are related to a variety of responsible decision-making behaviours such as seatbelt use, adequate sleep, a healthy diet, and good dental hygiene (Jessor, Turbin, & Costa, 1998). Further, previous research has shown that both seatbelt use and bicycle helmet use were positively associated with a greater number of youth assets (Murphrey et al., 2004).

In summary, although several potentially positive indicators of health and well-being among youth have been identified few have been examined in the context of youth assets.

## Canadian Context

Although very few studies have been conducted on the role of youth assets on positive outcomes, even less have been conducted with a Canadian population. One notable exception is the previously mentioned Canadian Institute for Health Information (2005) study that assessed the cumulative effect of youth assets on mostly risk

outcomes. In British Columbia, the McCreary Centre Society, a non-profit organization devoted to youth health issues, has published several reports on the role of protective factors (youth assets) and risk behaviours using the same data as the current study (e.g., McCreary Centre Society, 2002; 2004; Saewyc, Wang, Chittenden, Murphy, & The McCreary Centre Society, 2006). For example, findings from the 2003 Adolescent Health Survey in British Columbia indicate that adolescents with high levels of family connectedness were less likely to have sex, use tobacco, marijuana, or alcohol, report emotional distress, or have suicidal thoughts (McCreary Centre Society, 2004). Further, school connectedness, volunteerism, and extracurricular activities were protective against risk behaviours (McCreary Centre Society, 2004). Similarly, findings from the 1998 Adolescent Health Survey in British Columbia indicate that high levels of family and school connectedness were associated with fewer risks such as marijuana use and sexual activity at a young age (McCreary Centre Society, 2002). In addition, family connectedness was protective against emotional distress for abused adolescents and school connectedness was protective against suicidality among bullied adolescents (McCreary Centre Society, 2002). Taken together, these findings indicate that within British Columbia the presence of youth assets is related to decreased risk taking.

Among vulnerable youth in British Columbia (i.e., those who have experienced abuse or unstable home lives), family connectedness, school connectedness, and positive peer influences were protective against risk behaviours such as suicide attempts, problem substance use, and violence and associated with increased positive outcomes such as school achievement, post secondary aspirations, and perceived health (Saewyc et al., 2006). This research suggests that youth assets may protect against risk behaviours as well as promote positive outcomes among a subgroup of the

adolescent population in British Columbia. However, the relationship of youth assets to a broad array of positive outcomes for the general adolescent population is yet undetermined.

## **Current Research**

The current research expands upon the past research in several important ways: (1) by examining the role of youth assets in the lives of *British Columbian* youth, (2) by examining positive indicators of health and well-being as opposed to the absence of risk, (3) by examining youth assets in terms of the best subset of predictors in addition to the cumulative effect, and (4) by examining whether or not the youth assets differ depending on grade level.

The current research investigates the relationship between positive youth assets and overall health, educational outcomes, and responsible decision-making behaviours. Positive youth asset variables include family connectedness, parental presence at home, school connectedness, perceived competence, peer influences, other adult support, religiosity, volunteerism, and extra-curricular activities. Overall health outcomes include perceived health status and physical activity. Educational outcomes include academic achievement and educational expectations. Seatbelt and bicycle helmet use were selected as behaviours demonstrating responsible decision-making.

The objective of the present study is to determine the characteristics of B.C. adolescents who are experiencing positive health outcomes. Three research questions are addressed:

1. *What is the cumulative effect of youth assets on health outcomes?*

Consistent with the past research on the cumulative effect of youth assets, it is hypothesized that B.C. adolescents possessing a greater number of assets will have more positive health outcomes. Although most research examining youth assets has focused on risk behaviours, it is expected that youth assets will be similarly related to positive outcomes.

*2. What is the best subset of youth asset predictors for each health outcome?*

Specifically, the current research assesses which group of youth assets best predicts positive outcomes. It may be that not all youth assets are necessary to predict each health outcome. A central theme of much of the past research on adolescent health focuses on the role of family, schools, and peers in preventing negative outcomes. It may be that adolescents with these central supports in their lives also experience more positive outcomes than those without these central supports. In addition, the current research will assess which assets or factors are the strongest predictors of positive health, well-being, and educational outcomes for B.C. adolescents.

*3. Do the youth assets predictors differ by grade level?*

The current research assesses whether the relationship between positive assets and health and educational outcomes differs by grade level. Previous research has demonstrated that adolescents in higher grades are less likely to engage in healthy behaviours than adolescents in lower grades (Anteghini et al., 2001; He, Kramer, Houser, Chomitz, & Hacker, 2004). Conceivably, assets such as family connectedness may be more important in earlier grades but may be less important in later grades when adolescents' social networks expand and peers exert more influence. Thus, it may be that the youth assets that promote

good health outcomes in younger adolescents are not the same for older adolescents.

## METHOD

### Participants

Data for the present study was derived from the British Columbia Adolescent Health Survey (BC AHS III) that surveyed 30,588 British Columbian public school students, from grades 7 to 12, in the Spring of 2003.

The BC AHS III is a 140-item pencil and paper test assessing factors related to adolescents' physical and emotional health. The survey is administered by the McCreary Centre Society, a non-profit organization concerned with youth health issues. Random cluster sampling stratified by geographic region and grade level was employed to obtain a sample that was representative of the 290,000 British Columbian students enrolled in public schools during the 2002/2003 academic year. 1,557 classrooms of students were randomly selected for the sampling frame according to grade level and Health Service Delivery area. Participation in the survey was voluntary and students were assured that their responses were confidential and anonymous. A total of 45 out of a possible 59 British Columbia school districts (72%) agreed to participate in the survey. Classrooms from non-participating school districts were resampled from participating school districts within the same Health Service Delivery area where possible. The overall response rate for the survey was 76%. Twelve school districts required written parental consent, 24 school districts required only parental notification and student consent, and 9 school districts required both types of consent (typically written parental consent for younger students and parental notification for older students). The response rate for the survey in districts requiring written parental consent was 58%. In contrast, school districts that

required only parental notification and student consent had an 84% participation rate. Although the response rate was lower in districts requiring written parental consent, only 2% of parents in these districts refused to provide consent for participation. Thus, the lower participation rate is attributed to absenteeism (12%) and a failure to return forms (7%) rather than an unwillingness to participate in the survey.

The BC AHS III survey employed stratified cluster sampling to obtain statistically reliable estimates for each grade level and for the 16 Health Service Delivery areas within the Province. Therefore, the sampling was conducted with known but very unequal probabilities in order to provide an accurate representation of all 290,000 public school students. Consequently, in order to obtain an unbiased estimate of the population, survey weights for the BC AHS III were calculated by Rita Green, a survey consultant from Statistics Canada. The weighting for the BC AHS III adjusts for the probability of selection, non-response, and population adjustments to ensure representation at the regional and grade level. The current analysis used the weighted data to correct for sampling design.

The BC AHS III was administered to students by either a Public Health Nurse or health unit representative during one school period. The survey administrators were given standardized instructions to deliver to students on how to complete the survey as well as standardized answers to common student questions.

## Procedure

### ***Demographic Variables***

Participants were asked to indicate their age, gender, and grade level (see Appendix A for all survey questions).

## ***Youth Assets***

### ***Family Connectedness***

A students' feeling of connectedness to his or her family was measured by 11 questions that asked students to rate the extent to which they feel (a) close to his or her mother, (b) his or her mother cares about them, (c) close to his or her father, (d) his or her father cares about them, (e) his or her mother is warm and loving, (f) satisfied with the relationship with his or her mother, (g) his or her father is warm and loving, (h) satisfied with the relationship with his or her father, (i) people in his or her family understand them, (j) their family has fun together, and (k) their family pays attention to them. The items were on a scale ranging from 1 to 3 (see Appendix A). A fourth option of "doesn't know or doesn't apply" was not included in the analysis as it was determined that not knowing how connected one feels to his or her family is very different from the connectedness questions not applying. The 11 items of this scale were adapted from questions from the National Longitudinal Study of Adolescent Health (Resnick et al., 1997).

### ***Parental Presence at Home***

Parental presence at home was measured by four questions that asked students to rate how many of the past 5 school days was at least one of their parents (a) at home when he or she woke up in the morning, (b) at home when he or she came home from school, (c) in the room during evening meals, and (d) home when he or she went to bed. Response options ranged from 0 to 5 days.

### ***School Connectedness***

Students' feelings of connectedness to his or her school was measured by nine questions that asked students to rate the extent to which they (a) liked school (ranging from 1 = don't like school to 3 = like school very much), (b) skipped or "cut" classes (ranging from 1 = never to 4 = 11 or more times, reverse scored, (c) feel that his or her teacher cared about them (1 = not at all to 5 = very much), (d) had trouble getting along with their teachers (1 = never to 5 = everyday, reverse scored), (e) had trouble getting along with other students (1 = never to 5 = everyday, reverse scored), (f) feel like they were a part of school (1 = strongly agree to 5 = strongly disagree, reverse scored, (g) are happy at school (1 = strongly agree to 5 = strongly disagree, reverse scored, (h) felt the teachers treated them fairly (1 = strongly agree to 5 = strongly disagree, reverse scored, and (i) feel safe at school (1 = strongly agree to 5 = strongly disagree, reverse scored). The school connectedness items in the BC AHS III were based on questions taken from the National Longitudinal Study of Adolescent Health (Resnick et al., 1997).

### ***Other Adult Support***

Students were asked whether or not they had another adult in their life, other than family, to whom they would feel comfortable talking to. This was rated on a dichotomous scale where 0 = absent and 1 = present.

### ***Positive Peer Influences***

Students were asked whether or not their friends would be upset if the student (a) got arrested, (b) beat someone up, (c) carried a weapon for protection, (d) got pregnant or got someone else pregnant, (d) dropped out of school, (e) got drunk, and (f) used marijuana. This was rated on a dichotomous scale where no = 0 and yes = 1.

These seven items were then summed so that a score of 7 reflects a more positive peer influence. These items were previously used in Minnesota's Urban Indian Youth Survey (Bearinger et al., 2005).

### ***Religiosity***

Students were asked to rate the extent to which they think of themselves as religious or spiritual on a three point scale ranging from 1 = not at all to 3 = very much. This question was previously used in the American Indian Adolescent Health Survey (Dexheimer Pharris, Resnick, & Blum, 1997) and the Caribbean Youth Health Survey (Blum & Ireland, 2004).

### ***Perceived Competence***

Students were asked whether or not they could think of some things that they were really good at. This was rated on a dichotomous scale where no = 0 and yes = 1 as well as allowing an open-ended response for those that indicated yes. This measure assesses perceived competence. This item was taken from the Minnesota Adolescent Health Survey. Tafarodi and Swann (2001) argue that self-esteem is comprised of two dimensions: self-competence and selfliking. The perceived competence measure used in the current study incorporates the self-competence dimension of self-esteem.

### ***Volunteerism***

Volunteerism was measured by asking students whether or not they were involved in (a) school activities, (b) helping a cause, (c) fundraising, (d) helping out in the community, (e) helping neighbours or relatives, or (f) some other activity without pay. This was rated on a dichotomous scale where no = 0 and yes = 1 for each activity.

Students who reported that they did not volunteer for any activity received a score of 0. Students who responded yes to any of the six activities received a score of 1. This was done since the question did not ask the extent to which students' volunteered (e.g., how many hours). Consequently, degree of volunteering cannot be ascertained only whether or not students did volunteer (i.e., extensively volunteering for one activity might be equivalent to volunteering briefly for several activities).

### ***Extracurricular Activities***

Students' participation in extracurricular activities was measured by six questions that asked students to rate how often they (a) played sports without a coach, (b) played sports with a coach, (c) take part in dance or aerobic classes, (d) take part in art, drama, or music, (e) take part in clubs, groups, or church activities, and (f) do hobbies or crafts. Items were rated on a 4-point scale ranging from 1 = never to 4 = 4 or more times a week. These items were taken from the National Longitudinal Survey of Children and Youth (Human Resources Development Canada and Statistics Canada).

### ***Positive Indicators of Adolescent Health and Development***

#### ***Perceived Health Status***

Perceived health status was measured by asking students to assess their own health on a 4-point scale ranging from poor to excellent. Although perceived health status is a subjective assessment, it is highly related to other objective measures of health (Idler & Benyamin, 1997) and has been shown to be stable over repeated observations (Boardman, 2006). For example, perceived health status has been shown to be a reliable indicator of physical health (Piko, 2000). A recent Canadian study

indicates that, compared to healthier adolescents, youth with chronic health conditions, lower levels of physically activity, obesity, or depression tend to report lower perceived health (Tremblay, Dahinten, & Kohen, 2003). This item was taken from the Minnesota Adolescent Health Survey.

### ***Physical Activity***

Physical activity was assessed by asking students on how many of the past 7 days (0 to 7 days) did they exercise for at least 20 minutes to the extent that it made them sweat or breathe hard. This question was previously used on the Centers for Disease Control and Prevention's (2001) Youth Risk Behavior Surveillance Survey (YRBSS).

### ***Academic Achievement***

Academic achievement was measured by asking students' to self-assess what their grades are right now ranging from 1 = mostly A's to 4 = mostly D's and F's (reverse scored).

### ***Educational Expectations***

Educational expectations were assessed by asking when students expect to finish their education. Response options included "Before I graduate from high school", "When I graduate from high school", "When I graduate from community college or a technical institute", "When I graduate from university", "Don't know" or "Other". For the purposes of this study graduating from community college and graduating from university were collapsed into one item since students can graduate with a four year

degree from either type of institution in British Columbia thus making any distinction between the two arbitrary.

### ***Seatbelt and Bicycle Helmet Use***

Responsible decision-making in terms of making safe health choices was measured by two questions assessing seatbelt and bicycle helmet use. Students were asked how often they wear a seatbelt when riding in a vehicle ranging from 1 = never to 5 = always and how often they wore a helmet when riding their bicycle in the past 12 months ranging from 1 = never to 5 = always. These items were taken from the Youth Risk Behavior Surveys (US Centers for Disease Control and Prevention).

### **Composite Indices**

In order to justify composing the items for school connectedness, parental presence at home, family connectedness, and peer influence into individual scales, the items were submitted to a Confirmatory Factor Analysis (CFA) using LISREL 8.72 (Jöreskog & Sörbom, 2005) to assess for unidimensionality of the items. CFA is a type of structural equation modelling concerned with measurement models that allows researchers to test the relationship between indicators (e.g., questionnaire items) and latent factors (Brown, 2006). However, unlike Exploratory Factor Analysis (EFA), CFA requires the researcher to specify *a priori* the elements of the model (Brown, 2006). Thus, the goal of EFA is to identify the factor structure of a set of variable whereas the goal of CFA is to test or confirm whether a hypothesized factor structure or model fits the data (Swisher, Beckstead, & Bebeau, 2004).

For each proposed index in the current study, the covariance matrices of the individual items were analysed using the maximum likelihood method estimation for the congeneric model (i.e., each indicator loads on only one factor but the factor loadings and error variances can vary).

Numerous fit indices have been developed to evaluate the goodness of fit between the proposed model and the data (Hu & Bentler, 1999). The  $\chi^2$  statistic is the most commonly used criteria to evaluate fit but it is severely biased in the presence of large sample sizes and therefore was not used in the current analysis (Brown, 2006; Thompson, 2004). It is recommended that multiple fit indices are consulted when evaluating model fit (Thompson, 2004) and that combinations of fit indexes may be better at assessing fit than any individual fit index (Hu & Bentler, 1999). Following the recommendation of Kline (2005), the fit of each model was evaluated using the Root Mean Square Error of Approximation (RMSEA), the Comparative Fit Index (CFI), and the Standardized Root Mean Square Residual (SRMR). In addition, the Tucker-Lewis Index, also referred to as the Non-Normed Fit Index (NNFI), is reported as it has shown to be robust with large sample sizes (Marsh, Balla, & McDonald, 1988).

The RMSEA is a type of parsimony-adjusted index (i.e., it adjusts for model complexity and favours simpler models) (Kline, 2005). The RMSEA measures the degree to which the model reasonably fits in the population by assessing the discrepancy between the implied covariance matrix and the population covariance matrix (Brown, 2006). Lower numbers indicate better fit (e.g., 0 would indicate perfect fit). An RMSEA of .08 or lower is considered reasonable fit (Browne & Cudeck, 1993).

The SRMR is a measure of the difference between the observed and predicted model covariances (Kline, 2005). An SRMR below .08 is considered reasonable fit (Hu & Bentler, 1999).

The CFI is a type of incremental fit index that assesses the relative improvement in fit by comparing the proposed model with a null model (Kline, 2005). Similarly, the NNFI is also a type of comparative fit index; however, it compensates for model complexity. Values over .95 for the CFI and NNFI are interpreted as representing a reasonable fit (Hu & Bentler, 1999; Thompson, 2004).

The one-factor model of the four parental presence at home items was a poor fit to the data ( $\text{RMSEA} = 0.10$ ,  $\text{SRMR} = 0.03$ ,  $\text{CFI} = 0.96$ ,  $\text{NNFI} = 0.89$ ). Therefore, these items concerning parental presence were analysed separately.

The results for the school connectedness items indicated that a one-factor model including all 9 items also exhibited a poor fit (see Table 1).

**Table 1.****Summary of Fit Indices from Confirmatory Factor Analyses of School Connectedness**

| Model | RMSEA | 90% Confidence Interval for RMSEA | SRMR | NNFI | CFI  |
|-------|-------|-----------------------------------|------|------|------|
| 1     | 0.129 | 0.012; 0.013                      | .060 | .870 | .900 |
| 2     | 0.079 | 0.079; 0.081                      | .030 | .970 | .980 |

**Note.** Model 1 contains all 9 items concerning school connectedness.  
 Model 2 has 6 items and implies 2 factors, interpreted as teacher connectedness and school belonging.

RMSEA = Root mean square of approximation,

SRMR = Standardized root mean square residual,

NNFI = Non-normed fit index,

CFI = comparative fit index.

Recently, research on similar school connectedness items using the National Longitudinal Study of Adolescent Health (ADD Health) found that a 6 item two-factor solution (representing social belonging and students' relationship with teachers) was a better fit to the data (McNeely, 2003). Specifically, this research found that student-teacher items loaded on one factor (e.g., "The teachers at your school treat students fairly", "Since school started this year, how often have you had trouble getting along with your teachers?" and "How much do you feel that your teachers care about you?") and the social belonging items loaded on another factor ("You feel close to people at your school", "You feel like a part of your school", and "You are happy to be at your school") (McNeely, 2003). An additional question concerning safety at school, "You feel safe at your school", was omitted from the ADD Health model since it loaded on both factors and did not increase the consistency of either scale (McNeely, 2003).

Based on the similarity of the questions from the ADD Health survey and the BC AHS III (e.g., many of the items were taken from the ADD Health survey) it was decided to examine a similar 2-factor model with the constraint that the teacher items load only

on a teacher connectedness factor and that the rest of the items concerning school load on a school belonging factor. Based on the past research by McNeely (2003) and an examination of the factor loadings it was decided to omit the questions concerning cutting classes (factor loading = 0.025) and getting along with students (factor loading = 0.024). Additionally, the question concerning cutting classes has never been a part of any BC AHS III analyses concerning school connectedness (E. Saewyc, personal communication, July 20, 2007) further supporting its omission from the scale.

The resulting 2-factor model included the 3 questions concerning teacher connectedness (teachers care about you, teachers treat students fairly, and you get along with teachers) and 3 questions concerning school belonging (feel a part of your school, feel happy being at school, and feel safe at school). This two-factor model represents a good overall fit to the data (see Table 1) and closely resembles the two-factor solution obtained by McNeely (2003) (5 out of 6 of the questions are the same as those examined by McNeely). As a result, a composite index was created for school connectedness by averaging the responses for the 6 items. The internal consistency for the composite of the items representing teacher connectedness and school belonging were marginally acceptable ( $\alpha = .71$  for teacher connectedness and  $\alpha = .76$  for school belonging). Note that internal consistency does not address dimensionality.

The other two remaining composite indices, i.e., those comprised of items pertaining to family connectedness and peer influences, were not submitted to latent variable modeling due to pragmatic reasons. Specifically, both indices required software to analyze dichotomous and polytomous items that was not available at the McCreary Centre Society. However, the family connectedness index has been used in several other research projects (McCreary Centre Society, 2004; Poon, Chittenden, Saewyc,

Murphy, & The McCreary Centre Society, 2006; Saewyc et al., 2006) as has the peer influence measure (Saewyc et al., 2006). Composite indices for family connectedness and peer influences were created by averaging responses to the items. The internal consistency of family connectedness and peer influences was good ( $\alpha = .86$  and  $.80$  respectively).

## RESULTS

### Characteristics of the Sample

A total of 30,588 students (representing the 290,000 students enrolled in public schools) completed the survey. The survey response rate was 76%. Overall, 49.7% of the sample was male and 50.3% was female. In terms of ethnicity, 61% reported that they were from a European background, 18% from an East Asian background (e.g., Chinese, Japanese, Korean, etc.), 7% were from an Aboriginal background, 5% from a South Asian background (e.g., East Indian, Sri Lankan), 4% from a Southeast Asian background, 2% from an African background, 2% from a West Asian background, 3% from an 'other' background, and 8% reported that they did not know their ethnic background (McCreary Centre Society, 2004). Note that students could choose more than one option for ethnicity; thus the percentages total more than 100%.

Given the size of the sample, there was a remarkably low percentage of missing data (ranging from a low of 0.2 for family connectedness to a high of 3.5 for volunteerism). It is important to note the higher rate of missing data for volunteerism may be due to the fact that the question appeared at the very end of the survey and was subject to a declining response rate.

### Descriptive Statistics

Adolescents in British Columbia reported relatively high levels of perceived health ( $M= 3.17$  out of a possible 4), academic achievement ( $M= 2.95$  out of a possible 4), and seatbelt use ( $M= 4.27$  out of a possible 5). In contrast, adolescents' mean ratings

of physical activity ( $M= 3.83$  out of a possible 7) and bicycle helmet use ( $M= 2.85$  out of a possible 5) were much lower. Descriptive statistics (frequencies for categorical variables and means and standard deviations for continuous variables) are displayed in Tables 2 and 3 for each of the variables in question.

Adolescents reported higher frequencies of parental presence at bedtime and in the morning than after school or at evening meals. Further, although a majority of adolescents reporting engaging in extracurricular activities that were primarily physical in nature (66% played sports with a coach, 71% played sports without a coach in the past year, and 31% took a dance or aerobic class) many still engaged in non-physical activities (37% participated in arts, drama, or music lessons, 26% participated in clubs, community or religious groups, and 47% participated in hobbies or crafts).

**Table 2.*****Descriptive Statistics for Continuous Youth Assets and Outcome Variables***

| Continuous Variables               | Mean | Minimum | Maximum | Standard Deviation |
|------------------------------------|------|---------|---------|--------------------|
| Family Connectedness               | 2.56 | 1       | 3       | 0.38               |
| Parental presence in morning       | 4.31 | 0       | 5       | 1.49               |
| Parental presence after school     | 3.12 | 0       | 5       | 1.95               |
| Parental presence at evening meals | 3.89 | 0       | 5       | 1.60               |
| Parental presence at bed           | 4.63 | 0       | 5       | 1.05               |
| School Belonging                   | 3.66 | 1       | 5       | 0.87               |
| Teacher Connectedness              | 3.53 | 1       | 5       | 0.78               |
| Peer Influences                    | 3.81 | 1       | 7       | 2.23               |
| Religiosity                        | 1.69 | 1       | 3       | .68                |
| Physical Activity                  | 3.83 | 0       | 7       | 2.20               |
| Perceived Health                   | 3.17 | 1       | 4       | .69                |
| Academic Achievement               | 2.95 | 1       | 4       | .81                |
| Seatbelt Use                       | 4.27 | 1       | 5       | 1.88               |
| Bicycle Helmet Use                 | 2.85 | 1       | 5       | 1.63               |

**Table 3.*****Descriptive Statistics for Categorical Youth Assets***

| Categorical Variables      | Frequencies | Minimum | Maximum |
|----------------------------|-------------|---------|---------|
| Self Concept               |             |         |         |
| High                       | 81.4        |         |         |
| Low                        | 16.5        | 0       | 1       |
| Other Adult Support        |             |         |         |
| Present                    | 57.8        |         |         |
| Absent                     | 40.5        | 0       | 1       |
| Extracurricular Activities |             |         |         |
| Present                    | 89.3        |         |         |
| Absent                     | 8.1         | 0       | 1       |
| Volunteerism               |             |         |         |
| Present                    | 78.2        |         |         |
| Absent                     | 18.3        | 0       | 1       |

Bivariate associations between the positive asset variables and the outcomes variables were examined with Pearson correlation coefficients for continuous by continuous variables, point biserial correlations for continuous by categorical variables, and phi for categorical by categorical variables (see Table 4). Due to the large sample size all youth asset correlations were significant except between extracurricular activities and parental presence after school and between physical activity and seatbelt use. Examination of the correlations indicates a positive relationship among each of the youth assets; however, most are low correlations. A notable exception was the relationship between teacher connectedness and school belonging, which showed a moderate positive correlation ( $r = .56$ ). Among the health outcome variables, only the association between physical activity and seatbelt use was not significant. The remaining health outcome variables showed small positive correlations with each other ( $r$ s ranging from .04 to .37).

The relationship between youth assets and the healthy outcome variables demonstrated a slightly different pattern of results. Although the majority of the youth assets revealed positive associations with each of the health outcomes, teacher connectedness, peer influences, and religiosity showed an inverse relationship with physically activity ( $r = -.018$ ,  $-.041$  and  $-.006$  respectively). Other adult support was also inversely related to bicycle helmet use ( $r = -.005$ ).

**Table 4.****Correlations Among Youth Assets and Health Outcomes**

| <b>Youth Asset Variables</b>  | 1    | 2    | 3     | 4     | 5     | 6      | 7    | 8     | 9    | 10   | 11   | 12    | 13    | 14   | 15     | 16   | 17   |
|-------------------------------|------|------|-------|-------|-------|--------|------|-------|------|------|------|-------|-------|------|--------|------|------|
| 1. Family Connectedness       | —    |      |       |       |       |        |      |       |      |      |      |       |       |      |        |      |      |
| 2. School Belonging           | .372 | —    |       |       |       |        |      |       |      |      |      |       |       |      |        |      |      |
| 3. Teacher Connectedness      | .327 | .557 | —     |       |       |        |      |       |      |      |      |       |       |      |        |      |      |
| 4. Peer Influences            | .185 | .266 | .290  | —     |       |        |      |       |      |      |      |       |       |      |        |      |      |
| 5. Parents in morning         | .189 | .130 | .113  | .103  | —     |        |      |       |      |      |      |       |       |      |        |      |      |
| 6. Parents after school       | .176 | .104 | .106  | .068  | .299  | —      |      |       |      |      |      |       |       |      |        |      |      |
| 7. Parents at meals           | .343 | .198 | .167  | .115  | .294  | .262   | —    |       |      |      |      |       |       |      |        |      |      |
| 8. Parents at bed             | .208 | .130 | .108  | .082  | .374  | .207   | .413 | —     |      |      |      |       |       |      |        |      |      |
| 9. Extracurricular Activities | .105 | .107 | .047  | .060  | .056  | .003** | .085 | .060  | —    |      |      |       |       |      |        |      |      |
| 10. Volunteerism              | .105 | .178 | .140  | .192  | .048  | .013   | .060 | .050  | .154 | —    |      |       |       |      |        |      |      |
| 11. Perceived competence      | .134 | .157 | .085  | .065  | .050  | .030   | .063 | .035  | .191 | .106 | —    |       |       |      |        |      |      |
| 12. Other Adult Support       | .072 | .114 | .075  | .040  | .005* | .005*  | .023 | .025  | .056 | .105 | .074 | —     |       |      |        |      |      |
| 13. Religiosity               | .072 | .085 | .086  | .158  | .031  | .043   | .022 | .004* | .050 | .110 | .066 | .070  | —     |      |        |      |      |
| <b>Health Outcomes</b>        |      |      |       |       |       |        |      |       |      |      |      |       |       |      |        |      |      |
| 14. Perceived Health          | .298 | .267 | .162  | .063  | .072  | .079   | .175 | .081  | .125 | .061 | .159 | .052  | .007  | —    |        |      |      |
| 15. Physical Activity         | .128 | .105 | -.018 | -.041 | .041  | .006   | .075 | .045  | .256 | .086 | .153 | .059  | -.006 | .269 | —      |      |      |
| 16. School Achievement        | .250 | .81  | .307  | .296  | .123  | .068   | .178 | .108  | .111 | .163 | .086 | .006  | .078  | .189 | .040   | —    |      |
| 17. Bike Helmet Use           | .225 | .215 | .264  | .268  | .124  | .059   | .190 | .092  | .066 | .133 | .075 | -.005 | .024  | .151 | .058   | .122 | —    |
| 18. Seatbelt Use              | .198 | .199 | .246  | .238  | .094  | .065   | .151 | .110  | .036 | .136 | .054 | .024  | .049  | .119 | .002** | .140 | .367 |

Note: All correlations significant at  $p < .0001$  except those marked with an \* which are significant at  $p < .01$ , \*\*is ns.

## Cumulative Effect of Assets

The assets were dichotomized (0 = low, 1= high) in order to assess the cumulative effect of the reported assets. Specifically, categorical variables were scored such that the absence of the variable equals 0 and presence of the variable equals 1. For the question concerning whether or not adolescents' had a non-family adult they could talk to if needed (other adult support), a score of 0 was assigned if participants indicated that they did not have another adult outside the family that they could talk to and a score of 1 was assigned if participants indicated that they did have another adult to talk to. For volunteerism, participants received a score of 0 if they did not volunteer and a score of 1 if they volunteered for any activity. For extracurricular activities, participants who indicated that they engaged in activities less than once a week received a score of 0. Participants who participated in activities 1 or more times a week received a score of 1. Finally, for perceived competence, participants received a score of 0 if they indicated that they could not think of some things that they are really good at and a score of 1 if they could think of some things they are good at.

Continuous variables were dichotomized such that presence of the asset (1) indicates a high score on that variable: for example "often very true" or "very much". Note that this method of dichotomizing the youth assets is consistent with previous research in which presence of assets is determined on a conceptual basis indicating an extremely high level of the assets in question (see French et al., 2001; Leffert et al., 1998; Murphrey et al., 2004; Oman et al., 2004; 2005) and allows for a relative comparison to the results found in these studies. While problems arising from dichotomizing continuous variables have been previously noted within the youth asset

literature (e.g., Leffert et al., 1998), the majority of studies to date have employed this methodology in part to facilitate ease of communication to non-academic groups (see Leffert et al., 1998). The current study maintained consistency with past research in this area.

For family connectedness scores of 1 (e.g., not at all close to mother or father or mother or father is never warm and loving, etc.) or 2 (e.g. somewhat close to mother or father) were recoded to 0 indicating low family connectedness and a scores of 3 (e.g., very close to mother or father) were recoded as 1 indicating a high level of family connectedness. For parental presence at home either in the morning, after school, at evening meal, or at bedtime, participants who indicated that, on average, at least one of their parents was home 3 or less days out of 5 days received a score of 0 indicating a low level of parental presence and a score of 1 if their parents were home 4 or 5 days. For teacher connectedness and school belonging, participants received a 1 if their average score on the composite index was a 4 or 5 (e.g., students felt that their teachers cared quite a bit or very much about them or they agreed or strongly agreed that they were happy to be at their school) whereas scores under 4 were given a score of 0. For positive peer influence, participants received a score of 0 if they indicated that their peers would not object if they engaged any of the negative behaviours or if their peers would only object to 1, 2, or 3 negative behaviours and a score of 1 if they indicated that their peers would object to the majority (4 or more out of 7) of the negative behaviours. For religiosity, participants who indicated that they were not at all religious received a score of 0 and a score of 1 if they indicated they were somewhat or very religious.

The frequency of the dichotomized assets indicates that most adolescents report possessing 9 out of 13 youth assets (see Table 5). Cross tabulations were conducted in order to describe the frequency of the reported assets by grade level (see Table 6).

**Table 5.*****Overall Frequency of Reported Assets***

| Number of Assets | %     | Weighted N |
|------------------|-------|------------|
| 0                | .02   | 43         |
| 1                | .09   | 235        |
| 2                | .32   | 823        |
| 3                | .87   | 2275       |
| 4                | 1.99  | 5188       |
| 5                | 3.90  | 10145      |
| 6                | 6.66  | 17331      |
| 7                | 10.33 | 26906      |
| 8                | 14.45 | 37641      |
| 9                | 17.03 | 44346      |
| 10               | 16.88 | 43959      |
| 11               | 14.28 | 37192      |
| 12               | 9.68  | 25208      |
| 13               | 3.50  | 9107       |

**Table 6.*****Frequency of Assets by Grade Level***

| Youth Asset           | %    | Total |
|-----------------------|------|-------|
| Family Connectedness  |      | 88.9  |
| Grade 7               | 94.5 |       |
| Grade 8               | 90.3 |       |
| Grade 9               | 87.7 |       |
| Grade 10              | 86.9 |       |
| Grade 11              | 87.5 |       |
| Grade 12              | 87.0 |       |
| Teacher Connectedness |      | 37.7  |
| Grade 7               | 51.8 |       |
| Grade 8               | 38.2 |       |
| Grade 9               | 31.3 |       |
| Grade 10              | 29.5 |       |
| Grade 11              | 33.5 |       |
| Grade 12              | 43.1 |       |
| School Belonging      |      | 46.9  |
| Grade 7               | 61.4 |       |
| Grade 8               | 46.9 |       |
| Grade 9               | 43.0 |       |
| Grade 10              | 43.4 |       |
| Grade 11              | 41.1 |       |
| Grade 12              | 46.7 |       |
| Peer Influences       |      | 55.2  |
| Grade 7               | 64.6 |       |
| Grade 8               | 56.9 |       |
| Grade 9               | 52.1 |       |
| Grade 10              | 52.6 |       |
| Grade 11              | 51.9 |       |
| Grade 12              | 54.2 |       |
| Perceived Competence  |      | 83.5  |
| Grade 7               | 89.1 |       |
| Grade 8               | 84.9 |       |
| Grade 9               | 82.0 |       |
| Grade 10              | 82.9 |       |
| Grade 11              | 81.9 |       |
| Grade 12              | 80.1 |       |
| Other Adult Support   |      | 58.8  |
| Grade 7               | 50.8 |       |
| Grade 8               | 53.3 |       |
| Grade 9               | 57.3 |       |
| Grade 10              | 61.3 |       |
| Grade 11              | 62.1 |       |
| Grade 12              | 67.7 |       |

**Table 6.** continued

| Youth Asset                      | %    | Total |
|----------------------------------|------|-------|
| Extracurricular activities       |      | 91.7  |
| Grade 7                          | 93.8 |       |
| Grade 8                          | 93.8 |       |
| Grade 9                          | 93.2 |       |
| Grade 10                         | 92.6 |       |
| Grade 11                         | 89.1 |       |
| Grade 12                         | 87.7 |       |
| Parental Presence in the Morning |      | 83.0  |
| Grade 7                          | 86.9 |       |
| Grade 8                          | 84.8 |       |
| Grade 9                          | 84.1 |       |
| Grade 10                         | 83.3 |       |
| Grade 11                         | 81.6 |       |
| Grade 12                         | 77.1 |       |
| Parental Presence After School   |      | 52.7  |
| Grade 7                          | 59.7 |       |
| Grade 8                          | 57.9 |       |
| Grade 9                          | 53.2 |       |
| Grade 10                         | 51.3 |       |
| Grade 11                         | 49.8 |       |
| Grade 12                         | 44.4 |       |
| Parental Presence during Meals   |      | 70.6  |
| Grade 7                          | 81.4 |       |
| Grade 8                          | 76.1 |       |
| Grade 9                          | 73.2 |       |
| Grade 10                         | 69.6 |       |
| Grade 11                         | 65.0 |       |
| Grade 12                         | 58.7 |       |
| Parental Presence at Bedtime     |      | 91.5  |
| Grade 7                          | 92.8 |       |
| Grade 8                          | 91.2 |       |
| Grade 9                          | 92.6 |       |
| Grade 10                         | 92.1 |       |
| Grade 11                         | 90.3 |       |
| Grade 12                         | 89.9 |       |
| Religiosity                      |      | 56.4  |
| Grade 7                          | 52.2 |       |
| Grade 8                          | 57.4 |       |
| Grade 9                          | 56.6 |       |
| Grade 10                         | 55.7 |       |
| Grade 11                         | 58.2 |       |
| Grade 12                         | 58.3 |       |
| Volunteerism                     |      | 81.1  |
| Grade 7                          | 87.7 |       |
| Grade 8                          | 78.5 |       |
| Grade 9                          | 78.9 |       |
| Grade 10                         | 78.6 |       |
| Grade 11                         | 79.5 |       |
| Grade 12                         | 83.6 |       |

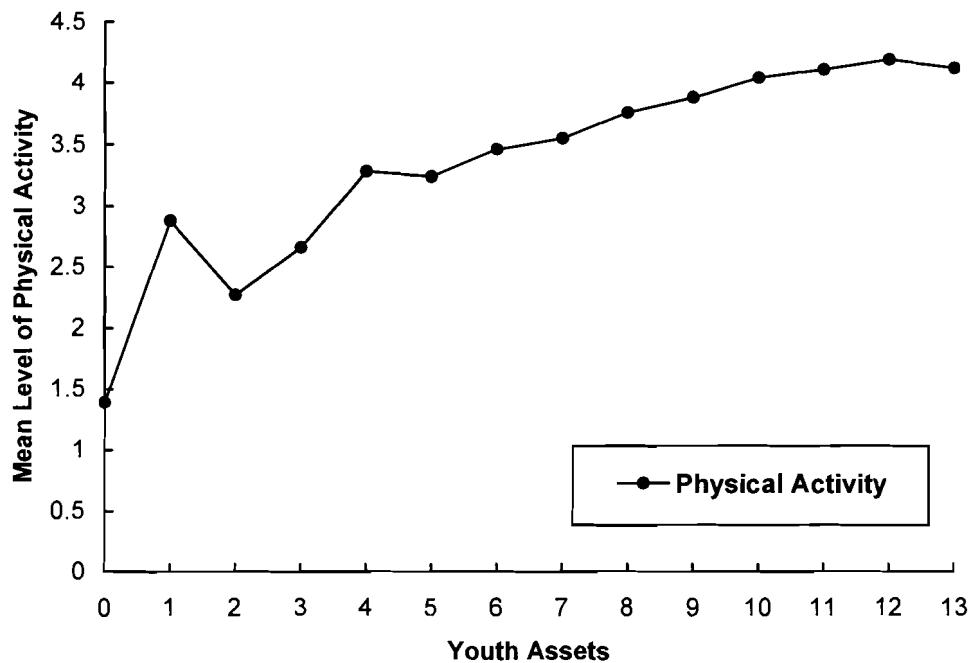
The analyses to assess the cumulative effect of youth assets were conducted with the Complex Samples module of SPSS 13.0 in order to account for the cluster stratified sampling design of the BC AHS III survey. Large complex surveys have design effects which represent the ratio of the actual variance obtained from the sample (in this case using stratified cluster sampling) compared to the variance that would be obtained using simple random sampling (Shackman, 2001). Well designed surveys typically have design effects ranging from 1 to 3 (Shackman, 2001). A design effect of 1 indicates that the sample variance obtained through complex sampling is equivalent to what would be expected through random sampling. A design effect of 3 indicates that the sample variance based on complex sampling is 3 times what would be expected based on random sampling. The BC AHS III has a design effect of 2.75 for Provincial estimates. These design effects make typical significance testing assuming random sampling inappropriate and thus other analytic techniques are required. SPSS's Complex Samples Module adjusts the standard errors according to the complex design as opposed to using the standard errors associated with simple random sampling.

It was predicted that the number of assets would be related to more positive outcomes. A one-way (number of youth assets: 0 to 13) analysis of variance revealed support for this prediction. Number of youth assets was significantly related to greater physical activity,  $F(13, 526) = 20.885, p < .0001$ , perceived health,  $F(13, 526) = 97.00, p < .001$ , academic achievement,  $F(13, 526) = 139.95, p < .0001$ , bicycle helmet use,  $F(13, 526) = 857.07, p < .0001$  and seatbelt use,  $F(13, 526) = 113.32, p < .0001$ . See Figure 1 for the relationship between youth assets and physical health, Figure 2 for the relationship between youth assets and perceived health, Figure 3 for the relationship between youth assets and academic achievement, and Figure 4 for the relationship

between youth assets and seatbelt and bicycle helmet use. A significant linear trend was apparent for all outcome variables: physical activity,  $F (1, 538) = 15.29, p < .0001$ , perceived health,  $F (1, 538) = 145.89, p < .0001$ , academic achievement,  $F (1, 538) = 56.49, p < .0001$ , bicycle helmet use,  $F (1, 535) = 81133.24, p < .0001$  and seatbelt use,  $F (1, 538) = 179.85, p < .0001$ . Perceived health also revealed a significant quadratic trend in addition to the linear trend,  $F (1, 538) = 4.12, p < .043$ , indicating that increases in perceived health levelled off as the number of assets increased. Finally, the linear trends for bicycle helmet use and seatbelt use were accompanied by both quadratic ( $F (1, 538) = 5.34, p < .021$  for bicycle helmet use and  $F (1, 538) = 8.79, p < .003$  for seatbelt use) and cubic trends ( $F (1, 538) = 31.46, p < .0001$  for bicycle helmet use and  $F (1, 538) = 15.68, p < .0001$  for seatbelt use) suggesting a flattened S-shape to the levels of bicycle helmet and seatbelt use across youth assets.

**Figure 1.**

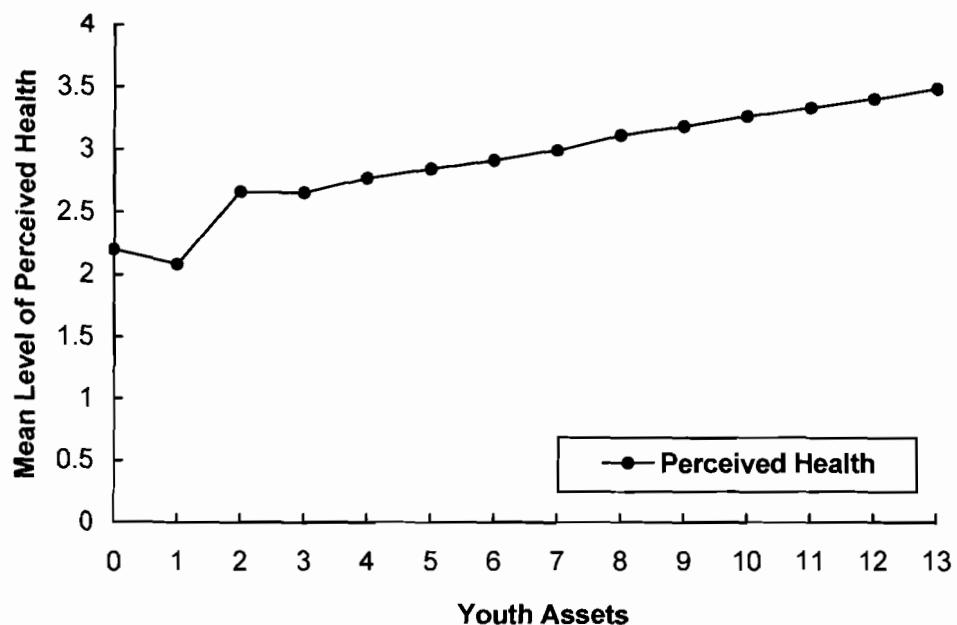
**Mean Level of Physical Activity by Number of Youth Assets**



Note. Physical activity scores range from 0-7.

**Figure 2.**

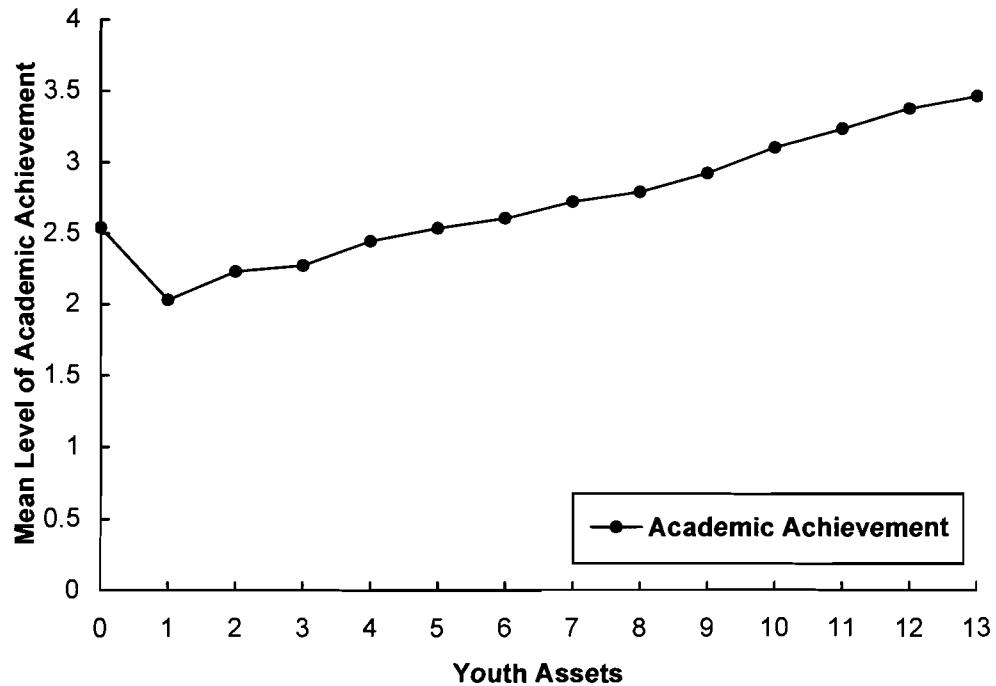
**Mean Level of Perceived Health by Number of Youth Assets**



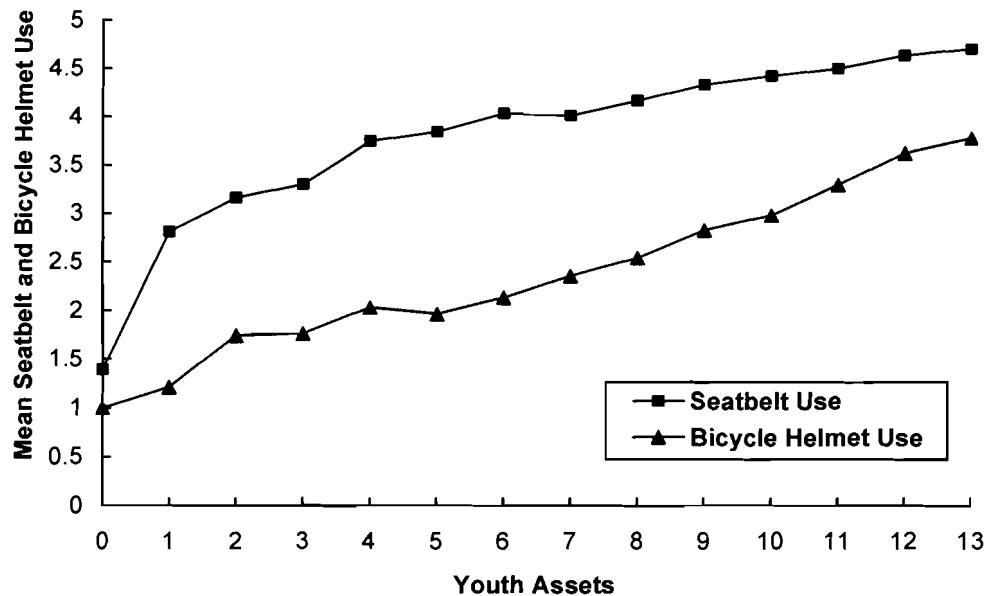
Note. Perceived Health scores range from 1-4.

**Figure 3.**

**Mean Level of Academic Achievement by Number of Youth Assets**



Note. Academic achievement scores range from 1-4.

**Figure 4.*****Mean Seatbelt and Bicycle Helmet Use by Number of Youth Assets***

Note. Seatbelt use and bicycle helmet use scores range from 1-5.

## **Multiple Regressions**

An all possible subsets regression approach was employed to determine the optimal set of predictors for each outcome variable using the BDMP 9R software (BMDP, 1992). An all possible subsets approach assesses all combinations of the predictor variables of varying sizes in order to determine the best subset (Thompson, 1995). For example, this type of analysis produces the best subsets that contain one predictor variable, two predictor variables, etc.

The all possible subsets approach is deemed superior to stepwise regression in finding the optimum set of predictors (Kleinbaum, Kupper, Muller, & Nizam, 1998; Thompson, 1995). Whereas stepwise regression can identify a good set of predictors it

does not always identify the best set of predictors (Fox, 1997; Huberty, 1994; Knapp & Sawilowsky, 2001; Thompson, 1995; 2001; 2004). That is, stepwise regression identifies a set of predictors based on sequential entry of the best individual predictors and these best individual predictors might not be as good a subset as other groupings of predictors. In addition, stepwise regression often obscures evidence that there are a number of equally good predictors (e.g., Fox, 1997; Huberty, 1994) that differ in  $R^2$  by often only 2 or 3 decimal places. In comparison, all possible subsets regression allows the researcher to examine competing models that are equally good at predicting the outcome. All possible subsets regression is also recommended when the goal is to select predictors based on the existing data (Huberty, 1994).

Consequently, it was decided that all possible subsets regression would best identify the best subsets of predictors for each of the health outcomes. Further, examination of the all possible subsets regression tables allows the researcher to determine which predictors tend to frequently be in each subset and which predictors are rarely in any subset.

In the current study the criteria for selecting the best possible subsets was determined by Mallow's Cp. Mallow's Cp is an estimate of the total squared error of the subset regression model (Kutner, Nachtsheim, & Neter, 2004). Specifically, it assesses the error associated with a reduced model compared to the full model. Good subsets are identified as those with small Cp values that are close in value to the number of predictors in the regression equation (Kleinbaum, Kupper, Muller, & Nizam, 1998; Kutner et al., 2004). In the current study, given 13 predictors a Cp value close to 13 would be considered a good fit.

The assumptions necessary for multiple regression were examined by conducting an analysis of the residuals. No violations of normality, linearity, or homoscedasticity of residuals were observed for perceived health, physical health, academic achievement, seatbelt use, and bicycle helmet use. The residuals for educational expectations, however, showed severe violations of the regression assumptions. Thus, educational expectations was omitted from the regression analyses.

Prior to being entered into the regression equation, each continuous variable was centered by subtracting each variable's mean to reduce multicollinearity (Aiken & West, 1991). Multicollinearity exists when there is a high intercorrelation among predictor variables and often indicates redundancy among predictors. Examination of the tolerances did not indicate that multicollinearity was a problem in the current research.

### ***Multiple Regression Outcomes for Physical and Perceived Health***

The all possible subsets multiple regression conducted on the physical activity variable produced a best subset that included 12 predictors,  $F(12, 260138) = 2556.31, p < .001$ . Parental presence at bedtime was the only predictor missing from this subset. This subset produced an adjusted  $R^2 = .11$  and a Mallows' Cp = 11.61. The statistics for the best subset are presented in Table 7. Examination of the all possible subsets tables for physical activity (see Appendix B<sup>1</sup>) indicates that extracurricular activities ( $\beta = .22$ ), perceived competence ( $\beta = .09$ ), family connectedness ( $\beta = .10$ ), school belonging ( $\beta = .10$ ), and teacher connectedness ( $\beta = -.11$ ), are consistent predictors of physical activity in subsets of varying sizes.<sup>2</sup> Parental presence at home during critical periods of the day (morning, after school, at evening meals, and at bed) appeared infrequently in the best subsets.

**Table 7.****Statistics for Best Subset for Physical Activity**

| Youth Asset Variables              | B    | SE  | $\beta$ | t         | Tolerance | Contribution to R <sup>2</sup> |
|------------------------------------|------|-----|---------|-----------|-----------|--------------------------------|
| Family Connectedness               | .56  | .01 | .10*    | 45.89***  | .75       | .01                            |
| School Belonging                   | .25  | .01 | .10*    | 43.19***  | .62       | .01                            |
| Teacher Connectedness              | -.30 | .01 | -.11*   | -46.75*** | .65       | .01                            |
| Peer Influences                    | -.08 | .00 | -.09*   | -42.24*** | .86       | .01                            |
| Perceived Competence               | .54  | .01 | .09*    | 48.02***  | .93       | .01                            |
| Other Adult Support                | .12  | .01 | .03*    | 14.40***  | .97       | .00                            |
| Extracurricular Activities         | 1.72 | .02 | .22*    | 112.08*** | .93       | .04                            |
| Parental presence in the morning   | .02  | .00 | .01*    | 6.33***   | .85       | .00                            |
| Parental presence after school     | -.02 | .00 | -.02*   | -9.66***  | .87       | .00                            |
| Parental presence at evening meals | .03  | .00 | .03*    | 11.89***  | .80       | .00                            |
| Parental presence at bedtime       | -    | -   | -       | -         | -         | -                              |
| Volunteerism                       | .23  | .01 | .04*    | 21.27***  | .91       | .00                            |
| Religiosity                        | -.07 | .01 | -.02*   | -11.25*** | .96       | .00                            |

Note. \*\*\* p<.001. Parental presence at bedtime was not included in the best subset.

Note. Due to rounding up the Contribution to R<sup>2</sup> column does not total the overall R<sup>2</sup>.

Parental presence after school may have acted as a suppressor variable in the regression of youth assets on physical activity. Suppressor variables typically are correlated with other predictor variables, have a low or zero correlation with the criterion variable, and yet increase the overall R<sup>2</sup> by taking up the invalid variance associated with the other predictors (see Friedman & Wall, 2005). An indication of a suppressor variable is a positive or zero correlation with the criterion variables and a negative  $\beta$  weight (Friedman & Wall, 2005). Parental presence after school has a negligible positive correlation with the outcome variable, physical activity ( $r = .006$ ) and a negative  $\beta$  weight (-.02). However, its inclusion in the regression equation does not appear to have dramatically increased the R<sup>2</sup>; typically a requirement of a suppressor variable

(Freidman & Wall, 2005). The full model including parental presence after school accounts for 10.548% of the variance whereas the 12 predictor model excluding parental presence after school accounts for 10.516% of the variance.

The all possible subsets regression conducted on adolescents' perceived health produced found the 'best' subset included all 13 predictors,  $F(13, 259013) = 3288.77, p <.001$ . This subset produced an adjusted  $R^2 = .14$  and a Mallows' Cp=13. See Table 8. Consistent predictors of perceived health across varying subset sizes included family connectedness ( $\beta = .21$ ), school belonging ( $\beta = .17$ ) and perceived competence ( $\beta = .09$ ). Parental presence in the morning, teacher connectedness, and other adult support appeared less often in the majority of best subsets. The statistics for the best subset are presented in Table 8.

Examination of the subsets in Appendix B shows that many smaller subsets produced similar adjusted  $R^2$  values but had much higher Mallow's Cp values indicating a poorer fit than the full model. For example, a subset with only 6 variables (family connectedness, school belonging, perceived competence, extracurricular activities, parental presence during evening meals, and religiosity) produced an adjusted  $R^2 = .14$ ; however the Mallows' Cp = 367.62.

The regression on perceived health may also contain suppressor variables. Specifically, teacher connectedness, peer influences, parental presence in the morning and at bedtime, volunteerism, and religiosity all show negative  $\beta$  weights but positive correlations with the outcome variable, perceived health. A 12 variable model excluding each potential suppressor variable individually does not dramatically decrease the adjusted  $R^2$ . Consequently, it may be that these variables are operating in conjunction

with each other to decrease the irrelevant variance of the other predictors. However, these potential suppressors do not appear to be very strong.

**Table 8.****Statistics for Best Subset for Perceived Health**

| Youth Asset Variables              | B    | SE  | $\beta$ | t         | Tolerance | Contribution to $R^2$ |
|------------------------------------|------|-----|---------|-----------|-----------|-----------------------|
| Family Connectedness               | .37  | .00 | .21     | 97.46***  | .75       | .03                   |
| School Belonging                   | .14  | .00 | .17     | 75.19***  | .62       | .02                   |
| Teacher Connectedness              | -.01 | .00 | -.01    | -2.92**   | .65       | .00                   |
| Peer Influences                    | -.01 | .00 | -.03    | -14.59*** | .86       | .00                   |
| Perceived Competence               | .18  | .00 | .09     | 49.99***  | .93       | .01                   |
| Other Adult Support                | .01  | .00 | .01     | 3.95***   | .97       | .00                   |
| Extracurricular Activities         | .17  | .00 | .07     | 34.24***  | .93       | .00                   |
| Parental presence in the morning   | -.00 | .00 | -.00    | -2.18*    | .79       | .00                   |
| Parental presence after school     | .00  | .00 | .01     | 5.99***   | .87       | .00                   |
| Parental presence at evening meals | .03  | .00 | .07     | 32.85***  | .72       | .00                   |
| Parental presence at bedtime       | -.01 | .00 | -.01    | -5.18     | .75       | .00                   |
| Volunteerism                       | -.01 | .00 | -.01    | -4.23***  | .91       | .00                   |
| Religiosity                        | -.03 | .00 | -.03    | -16.29*** | .96       | .00                   |

Note. \*p<.05, \*\*p<.01, \*\*\*p<.001.

Note. Due to rounding up the contribution to  $R^2$  column does not total the overall  $R^2$ .

**Multiple Regression Outcomes for Academic Achievement**

The regression analysis for academic achievement produced a 'best' subset retaining all predictors,  $F(13, 259738) = 4542.47$ ,  $p < .001$ . This subset accounted for 19% of the variance (adjusted  $R^2 = .19$ ) and produced a Mallows' Cp = 13. The statistics for the best subset are presented in Table 9. Examination of the all possible subsets (see Appendix B) produced similar  $R^2$ 's with 9, 10, 11 and 12 variables but the Mallows' Cp was again much higher indicating those models do not fit as well as the full model.

Examination of the all possible subset tables indicated consistent predictors of academic achievement across subsets of varying sizes peer influences ( $\beta = .19$ ), teacher connectedness ( $\beta = .15$ ), and family connectedness ( $\beta = .10$ ). Volunteerism was a consistent predictor for subsets that had more than 4 variables. Perceived competence, other adult support, parental presence in the morning, after school, and at bedtime were not frequently included in the best subsets of varying sizes.

**Table 9.*****Statistics for Best Subset for Academic Achievement***

| Youth Asset Variables              | B    | SE  | $\beta$ | t        | Tolerance | Contribution to $R^2$ |
|------------------------------------|------|-----|---------|----------|-----------|-----------------------|
| Family Connectedness               | .21  | .00 | .10     | 47.96**  | .75       | .03                   |
| School Belonging                   | .07  | .00 | .08     | 35.38**  | .65       | .01                   |
| Teacher Connectedness              | .16  | .00 | .15     | 69.09**  | .65       | .01                   |
| Peer Influences                    | .07  | .00 | .19     | 97.18**  | .86       | .03                   |
| Perceived Competence               | .03  | .00 | .01     | 6.94**   | .93       | .00                   |
| Other Adult Support                | -.08 | .00 | -.05    | -25.65** | .97       | .00                   |
| Extracurricular Activities         | .15  | .01 | .05     | 28.63**  | .93       | .00                   |
| Parental presence in the morning   | .02  | .00 | .03     | 16.37**  | .79       | .00                   |
| Parental presence after school     | -.01 | .00 | -.02    | -7.74**  | .87       | .00                   |
| Parental presence at evening meals | .03  | .00 | .07     | 31.60**  | .72       | .00                   |
| Parental presence at bedtime       | .00  | .00 | .00     | 1.83*    | .75       | .00                   |
| Volunteerism                       | .15  | .00 | .07     | 32.28**  | .91       | .00                   |
| Religiosity                        | .01  | .00 | .01     | 6.90**   | .96       | .00                   |

Note. \* $p < .10$ , \*\* $p < .001$ .

Note. Due to rounding up the contribution to  $R^2$  column does not total the overall  $R^2$ .

Other adult support and parental presence after school may have operated as suppressor variables in the regression given their low but positive correlation with academic achievement and negative  $\beta$  weights.

Notably, a 12 variable subset (excluding parental presence at bedtime) also accounted for 19% of the variance (adjusted  $R^2 = .19$ ) and produced a Mallows' Cp similar to the full model ( $Cp = 14.34$ ). See Appendix B.

### ***Multiple Regression Outcomes for Seatbelt and Bicycle Helmet Use***

The all possible subsets regression conducted on adolescents' use of seatbelts produced a best subset that included all 13 predictors,  $F(13, 258696) = 3482.43, p < .001$ . This subset produced an adjusted  $R^2 = .15$  and a Mallows' Cp = 13.01. Examination of the all possible subsets for seatbelt use (see Appendix B) indicates that consistent predictors of seatbelt use across subsets of varying sizes were peer influences ( $\beta = .18$ ), teacher connectedness ( $\beta = .15$ ), family connectedness ( $\beta = .10$ ), and parental presence during evening meals ( $\beta = .10$ ) (see Table 10). Parental presence after school and at bedtime, and religiosity were infrequently included in the best subsets.

**Table 10.****Statistics for Best Subset for Seatbelt Use**

| Youth Asset Variables              | B    | SE  | $\beta$ | t         | Tolerance | Contribution to $R^2$ |
|------------------------------------|------|-----|---------|-----------|-----------|-----------------------|
| Family Connectedness               | .42  | .01 | .10     | 46.16***  | .75       | .01                   |
| School Belonging                   | .03  | .00 | .02     | 6.30***   | .62       | .00                   |
| Teacher Connectedness              | .31  | .00 | .15     | 64.77***  | .64       | .01                   |
| Peer Influences                    | .13  | .00 | .18     | 92.29***  | .85       | .03                   |
| Perceived Competence               | .11  | .01 | .02     | 12.82***  | .95       | .00                   |
| Other Adult Support                | -.12 | .01 | -.04    | -19.63*** | .97       | .00                   |
| Extracurricular Activities         | .21  | .01 | .03     | 15.28***  | .96       | .00                   |
| Parental presence in the morning   | .06  | .00 | .05     | 26.74***  | .81       | .00                   |
| Parental presence after school     | -.02 | .00 | -.02    | -12.09*** | .88       | .00                   |
| Parental presence at evening meals | .10  | .00 | .10     | 46.05***  | .74       | .01                   |
| Parental presence at bedtime       | -.04 | .00 | -.02    | -10.24*** | .77       | .00                   |
| Volunteerism                       | .30  | .01 | .07     | 36.13***  | .92       | .00                   |
| Religiosity                        | -.06 | .00 | -.03    | -14.10*** | .97       | .00                   |

Note. \*\*\*p<.001.

Note. Due to rounding up the contribution to  $R^2$  column does not total the overall  $R^2$ .

Again several predictors appear to be suppressor variables (other adult support, parental presence after school, parental presence at bedtime, and religiosity).

The regression analysis conducted on adolescents' use of bicycle helmets produced a best subset that included all 13 predictor variables  $F(13, 189272) = 2547.088$ ,  $p < .001$ , adjusted  $R^2 = .15$  and a Mallows' Cp = 13. Statistics for the best subset are presented in Table 11. Similar to seatbelt use, consistent predictors of bicycle helmet use in this subset were peer influences ( $\beta = .18$ ), teacher connectedness ( $\beta = .15$ ), family connectedness ( $\beta = .10$ ), and parental presence during evening meals ( $\beta = .10$ ). Parental presence at evening meals was a consistent predictor in subsets that included 5 or more variables. School belonging, other adult support, extracurricular

activities, religiosity, parental presence in the morning, and parental presence at bedtime were infrequently included in the best subset predictors of bicycle helmet use.

Similar to the results found for seatbelt use, other adult support, parental presence after school and at bedtime, and religiosity appear to be suppressor variables.

**Table 11.**

**Statistics for Best Subset for Bicycle Helmet Use**

| Youth Asset Variables              | B    | SE  | $\beta$ | t         | Tolerance | Contribution to $R^2$ |
|------------------------------------|------|-----|---------|-----------|-----------|-----------------------|
| Family Connectedness               | .42  | .01 | .10     | 39.48***  | .75       | .01                   |
| School Belonging                   | .03  | .01 | .02     | 5.39***   | .64       | .01                   |
| Teacher Connectedness              | .31  | .01 | .15     | 55.40***  | .64       | .01                   |
| Peer Influences                    | .13  | .00 | .18     | 78.94***  | .85       | .03                   |
| Perceived Competence               | .11  | .01 | .02     | 10.96***  | .95       | .00                   |
| Other Adult Support                | -.12 | .01 | -.04    | -16.79*** | .97       | .00                   |
| Extracurricular Activities         | .21  | .02 | .03     | 13.07***  | .96       | .00                   |
| Parental presence in the morning   | .05  | .00 | .05     | 22.87***  | .81       | .00                   |
| Parental presence after school     | -.02 | .00 | -.02    | -10.34*** | .88       | .00                   |
| Parental presence at evening meals | .10  | .00 | .10     | 39.39***  | .74       | .01                   |
| Parental presence at bedtime       | -.04 | .00 | -.02    | -8.76***  | .77       | .00                   |
| Volunteerism                       | .30  | .01 | .07     | 30.90***  | .92       | .00                   |
| Religiosity                        | -.06 | .00 | -.03    | -12.06*** | .97       | .00                   |

Note. \*\*\*p<.001.

Note. Due to rounding up the contribution to  $R^2$  column does not total the overall  $R^2$ .

### Multiple Regression Outcomes by Grade Level

The following regression results examine whether youth assets differ according to grade level. Note that, unlike the overall multiple regressions, examination of the all possible subsets for each outcome by grade indicated a number of equally good subsets

that account for similar amounts of variance and had similar Mallows Cp values (see Appendix C).

### ***Physical Activity by Grade Level***

The best subsets for physical activity by each grade level are presented in Table 12. Summary statistics for regression of youth assets on physical activity by grade level are presented in Table 13.

Family connectedness, school belonging, teacher connectedness, peer influences, perceived competence, other adult support, extracurricular activities, and parental presence at bedtime are consistent predictors of physical activity across all grades. In terms of the best subset for physical activity by each grade level, volunteerism predicts physical activity in all grades but 8 and 12. Religiosity predicts physical activity in all grades except 10 and 11. However, a mixed pattern of results is seen for the parental presence at home measures. Parental presence in the morning predicts physical activity only in grade 7 and 10, whereas parental presence after school significantly predicts activity in all grades except grade 9. Parental presence during evening meals does not predict physical activity in the early grades but does predict activity in grades 10 through 12.

**Table 12.*****Best Subsets for Physical Activity by Grade Level***

| Grade Level | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|             | FC           | SB | TC | PI | PC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| 7           | X            | X  | X  | X  | X  | X   | X   | X      | X       |        | X     | X   | X   |
| 8           | X            | X  | X  | X  | X  | X   | X   |        | X       |        | X     |     | X   |
| 9           | X            | X  | X  | X  | X  | X   | X   |        |         |        | X     | X   | X   |
| 10          | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| 11          | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     | X   | X   |
| 12          | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     |     | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC = perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence during evening meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table 13.*****Summary Statistics for Physical Activity by Grade Level***

| Grade Level | # of variables in best subset | F      | df        | Adjusted R <sup>2</sup> | Mallows Cp |
|-------------|-------------------------------|--------|-----------|-------------------------|------------|
| 7           | 12                            | 258.80 | 12, 39302 | .07                     | 11.91      |
| 8           | 10                            | 407.05 | 10, 42447 | .09                     | 7.47       |
| 9           | 10                            | 526.69 | 10, 45195 | .10                     | 7.81       |
| 10          | 12                            | 453.32 | 12, 42692 | .11                     | 12.67      |
| 11          | 11                            | 562.67 | 11, 47076 | .12                     | 10.15      |
| 12          | 11                            | 541.93 | 11, 43372 | .12                     | 9.68       |

Examination of the all possible subsets for physical activity by grade level (see Appendix C) indicates that there are a number of good subsets for each grade level. For example, although the best subset for physical activity for adolescents in grade 8 reported in Table 13 is a 10 variable subset that accounts for 9% of the variance and has a Mallows Cp = 7.47, there are 3 other 10 variables subsets that account for 9% of the variance and that also have a Mallows Cp close to the number of parameters (ranging from 10.50 to 10.70). In addition, a 9 variables subset including family connectedness, school belonging, teacher connectedness, peer influences, perceived competence, other

adult support, extracurricular activities, parental presence at bedtime, and volunteerism also accounts for 9% of the variance and has a low Mallows Cp ( $C_p = 8.70$ ).

### ***Perceived Health by Grade Level***

Family connectedness, school belonging, peer influences, perceived competence, extracurricular activities, parental presence at home during evening meals, and religiosity were consistent predictors of perceived health across all grades (see Tables 14 and 15). Teacher connectedness predicted perceived health for all grades except grade 7. Other adult support predicted perceived health for all grades except grade 8.

A mixed pattern of results is seen for parental presence at home in the morning, after school, and at bedtime, and volunteerism.

**Table 14.*****Best Subsets for Perceived Health by Grade Level***

| Grade Level | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|             | FC           | SB | TC | PI | PC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| 7           | X            | X  |    | X  | X  | X   | X   |        | X       | X      |       |     | X   |
| 8           | X            | X  | X  | X  | X  |     | X   |        | X       | X      | X     |     | X   |
| 9           | X            | X  | X  | X  | X  | X   | X   | X      |         | X      | X     | X   | X   |
| 10          | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       | X   | X   |
| 11          | X            | X  | X  | X  | X  | X   | X   |        |         | X      |       |     | X   |
| 12          | X            | X  | X  | X  | X  | X   | X   | X      |         | X      | X     | X   | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence during evening meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table 15.*****Summary Statistics for Perceived Health by Grade Level***

| Grade Level | # of variables in best subset | F      | df        | Adjusted R <sup>2</sup> | Mallows Cp |
|-------------|-------------------------------|--------|-----------|-------------------------|------------|
| 7           | 9                             | 618.75 | 9, 39205  | .12                     | 10.29      |
| 8           | 10                            | 605.06 | 10, 42328 | .12                     | 7.35       |
| 9           | 12                            | 669.95 | 12, 44913 | .15                     | 12.08      |
| 10          | 12                            | 655.20 | 12, 42383 | .16                     | 12.46      |
| 11          | 9                             | 952.55 | 9, 46842  | .15                     | 5.10       |
| 12          | 12                            | 459.16 | 12, 43291 | .11                     | 11.32      |

Note that family connectedness, school belonging, peer influence, perceived competence, and extracurricular activities were consistent predictors of both physical and perceived health across all grades. Peer influence appears as a suppressor variable in the regressions on physical activity and perceived health at each grade level as it did in the overall regression analyses.

***Academic Achievement by Grade Level***

All 13 youth assets variables predicted academic achievement across all grades with the exception that parental presence after school did not predict achievement for

adolescents in grade 8 or 10, and extracurricular activities did not predict achievement for adolescents in grade 12. See Table 16 for a comparison of the best subsets in each grade level and Table 17 for the summary statistics for the best subsets regression by grade level.

**Table 16.*****Best Subsets for Academic Achievement by Grade Level***

| Grade Level | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|             | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| 7           | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| 8           | X            | X  | X  | X  | X  | X   | X   | X      |         | X      | X     | X   | X   |
| 9           | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| 10          | X            | X  | X  | X  | X  | X   | X   | X      |         | X      | X     | X   | X   |
| 11          | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| 12          | X            | X  | X  | X  | X  | X   |     | X      | X       | X      | X     | X   | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence during evening meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table 17.*****Summary Statistics for Academic Achievement by Grade Level***

| Grade Level | # of variables in best subset | F       | df        | Adjusted R <sup>2</sup> | Mallows Cp |
|-------------|-------------------------------|---------|-----------|-------------------------|------------|
| 7           | 13                            | 521.48  | 13, 39211 | .15                     | 13.00      |
| 8           | 12                            | 793.67  | 12, 42371 | .18                     | 12.22      |
| 9           | 13                            | 847.02  | 13, 45117 | .20                     | 13.00      |
| 10          | 12                            | 1129.30 | 12, 42611 | .24                     | 11.13      |
| 11          | 13                            | 920.23  | 13, 46911 | .20                     | 13.00      |
| 12          | 12                            | 682.56  | 12, 43375 | .16                     | 11.65      |

***Seatbelt Use by Grade Level***

Family connectedness, teacher connectedness, peer influences, parental presence in the morning and at meals, and volunteerism were consistent predictors of

seatbelt use across all grades (See Tables 18 and 19). The number of predictors in the best subsets for seatbelt use range from 9 to 13 depending on the grade level.

**Table 18.*****Best Subsets for Seatbelt Use by Grade Level***

| Grade Level | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|             | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| 7           | X            | X  | X  | X  |    | X   | X   | X      |         | X      | X     | X   | X   |
| 8           | X            | X  | X  | X  | X  | X   | X   | X      |         | X      | X     | X   | X   |
| 9           | X            |    | X  | X  | X  | X   |     | X      | X       | X      | X     | X   |     |
| 10          | X            |    | X  | X  | X  |     |     | X      | X       | X      | X     | X   | X   |
| 11          | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| 12          | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       | X   | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence during evening meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table 19.*****Summary Statistics for Seatbelt Use by Grade Level***

| Grade Level | # of variables in best subset | F      | df        | Adjusted R <sup>2</sup> | Mallows Cp |
|-------------|-------------------------------|--------|-----------|-------------------------|------------|
| 7           | 11                            | 580.09 | 11,39016  | .14                     | 10.12      |
| 8           | 12                            | 538.04 | 12,42047  | .13                     | 11.87      |
| 9           | 10                            | 721.21 | 10, 45006 | .14                     | 11.15      |
| 10          | 9                             | 602.67 | 9,42505   | .11                     | 5.88       |
| 11          | 13                            | 401.91 | 13,46867  | .10                     | 13.00      |
| 12          | 12                            | 428.18 | 12,43200  | .11                     | 11.02      |

***Bicycle Helmet Use by Grade Level***

Family connectedness, teacher connectedness, peer influences, parental presence at home in the morning and at meals, volunteerism, and religiosity were consistent predictors of bicycle helmet use across all grades (see Tables 20 and 21).

Perceived competence and parental presence at bedtime predicted bicycle helmet use only in the later grades.

**Table 20.*****Best Subsets for Bicycle Helmet Use by Grade Level***

| Grade Level | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|             | FC           | SB | TC | PI | PC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| 7           | X            | X  | X  | X  |    |     | X   | X      | X       | X      |       | X   | X   |
| 8           | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       | X   | X   |
| 9           | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| 10          | X            | X  | X  | X  | X  |     | X   | X      |         | X      | X     | X   | X   |
| 11          | X            | X  | X  | X  | X  | X   |     | X      | X       | X      | X     | X   | X   |
| 12          | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence during evening meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table 21.*****Summary Statistics for Bicycle Helmet Use by Grade Level***

| Grade Level | # of variables in best subset | F      | df        | Adjusted R <sup>2</sup> | Mallows Cp |
|-------------|-------------------------------|--------|-----------|-------------------------|------------|
| 7           | 10                            | 552.39 | 10, 34514 | .14                     | 9.55       |
| 8           | 12                            | 434.54 | 12, 34214 | .13                     | 11.36      |
| 9           | 13                            | 469.08 | 13, 34545 | .15                     | 13.00      |
| 10          | 11                            | 424.81 | 11, 30562 | .12                     | 9.52       |
| 11          | 12                            | 362.75 | 12, 30058 | .13                     | 11.00      |
| 12          | 12                            | 321.50 | 12, 25320 | .13                     | 11.24      |

## DISCUSSION

Previous research indicates that higher levels of youth assets are associated with less adverse health outcomes. Much of this research focuses on health outcomes defined in terms of the absence of negative risk behaviours. The current study extends prior research by documenting the importance of youth assets for a variety of positive outcomes. The results indicate that many B.C. adolescents are attaining successful outcomes. Overall, they report relatively high levels of perceived health, academic achievement, and seatbelt use; possessing, on average, a high number of youth assets (9 out of 13 assets).

### Cumulative Effect of Youth Assets

The current research indicates that adolescents who possess a greater number of assets in their lives have more positive health and educational outcomes than those with fewer assets. This pattern of findings is consistent with prior research assessing the cumulative effect of youth assets on risk behaviors (Canadian Institute for Health Information, 2005; Murphrey et al., 2004; Scales et al., 2003). The present research extends past work by documenting the cumulative effect of youth assets for a variety of positive outcomes. In addition, the results indicate that all 13 predictors were included in the best subsets for each positive health outcome (only the regression on physical activity produced a 12 predictor best subset). Note however, the best subset results for physical activity also revealed three predictors with negative relationships to the criterion. Thus, for this particular outcome variable the cumulative effect of assets is limited to the nine predictors showing a positive relationship with physical activity.

However, overall these findings document that youth experience better outcomes when they have more assets in their lives.

## Youth Asset Predictors of Health Outcomes

As previously noted, all 13 predictors were included in the best subsets for perceived health, academic achievement, and seatbelt and bicycle helmet use. Inclusion of all 13 youth assets best predicted positive health outcomes.

Among the youth assets measured, the best predictors of perceived health were family connectedness, school belonging, and perceived competence. Those adolescents who felt close to their families and school and who felt good about themselves were also more likely to perceive themselves to be in good health.

Peer influences, and teacher and family connectedness were consistent predictors of academic achievement, seatbelt use, and bicycle helmet use. The relationship of teacher connectedness to seatbelt and bicycle helmet use seems somewhat surprising. Teachers are believed to reinforce school-sanctioned behaviours (McNeely & Falci, 2004). Thus, it may be that adolescents who perceive their teachers favourably tend to adopt more behaviours sanctioned by the school (e.g., wearing a bicycle helmet when riding to school). Alternatively, it may be that adolescents who are more rule-oriented (i.e., those who feel compelled to obey rules) are consequently more likely to get along with their teachers and feel that their teachers care about them (teacher connectedness) and as such, they are also more likely to obey safety rules such as wearing a seatbelt or bicycle helmet.

The regression on physical activity produced a 12 predictor subset that excluded parental presence at bedtime. Among the youth assets measured, the best predictors of

physical activity were extracurricular activity, teacher connectedness, school belonging, family connectedness, and perceived competence. The emergence of extracurricular activities as one of the most consistent predictors of physical activity is not particularly surprising given the high percentage of British Columbian youth who reported engaging in physically active extracurricular activities. However, many youth in this survey also reported engaging in non-physical extracurricular activities such as hobbies and crafts, arts, and drama. Indeed, several researchers have suggested that extracurricular activities promote positive youth development in a variety of non-physical ways (e.g., Eccles, Barber, Stone, & Hunt, 2003; Eccles & Barber, 1999; Mahoney et al., 2003). For example, Mahoney and colleagues suggest that extracurricular activities promote interpersonal skills and competence, goal setting and initiative, and school engagement. Constructive activities further provide opportunities for adolescents to establish social networks, belong to valued groups, practice skill sets, contribute to the community, and to encounter and cope with challenges (Eccles et al., 2003). Thus, although many of the out of school activities are primarily physical in nature in the current study, it is likely that these other interpersonal and social factors are also contributing to the association with physical activity.

Note that teacher connectedness was inversely related to physical activity (i.e., youth who reported high levels of teacher connectedness also reported being less physically active). Perhaps students who report high levels of teacher connectedness tend to focus more on academics to the exclusion of physical activity. More research would be needed to clarify the relationship between the role of teachers and student activity levels. However, not all school factors showed this inverse relationship: a sense of school belonging was positively associated with physical activity. Peer influences and

religiosity also showed an inverse relationship with physical activity. Those adolescents who reported more positive peer influences (i.e., their peers would object if they engaged in risk behaviours) and high levels of religiosity were less likely to be physically active. Semi-structured interviews with New Zealand high school students also uncovered a negative association between peer influences and participation in physical activities (Hohepa, Scholfield, & Kolt, 2006). These adolescents suggested that a lack of interest and availability of peers to be active with in addition to pressure from peers to partake in sedentary activities (e.g., computer games) hindered participation in physical activity (Hohepa et al., 2006). Similarly, in the current study peers may also be exerting an influence over physical activity levels. Conceivably, the current measure of peer influence may be tapping into the overall degree to which peers are influencing adolescents rather than solely whether or not peers approve of risk behaviours. This explanation would be consistent with having many peers who also did not participate in physical activities and consequently were objecting to others engaging in these activities. The current results indicated that the average number of days adolescents exercised was less than 4 out of 7 days. Previous research using the BC AHS III has shown that most adolescents (71%) exercised at least 3 out of 7 days (McCreary Centre Society, 2004). Thus, a majority of B.C. youth engage in some physical activity just not on a daily basis; therefore, it seems unlikely that most adolescents have peers who disapprove of participation in physical activities. It may be that peers positively impact physical activity behaviour only to the extent that they hold similar values regarding physical activity. Unfortunately, attitudes towards physical activity were not measured in this study and thus further research is needed to assess this explanation.

Higher levels of religiosity as measured in the current study also predicted lower levels of physical activity. Although past research has shown a link between religiosity and decreased risk behaviours (e.g., Blum et al., 2001; Neumark-Sztainer et al., 1997; Vesely et al., 2004) the current research did not find a positive association between religiosity and physical activity. Religiosity as measured in this study assesses beliefs (do you think of yourself as a religious person?) as opposed to behaviour (how often do you attend religious services, etc.). Conceivably, measures of religious behavior may be more likely to be related to health behaviours whereas measures of the strength of religious beliefs may be more likely to be related to other values or attitudes.

In sum, family connectedness, school belonging and perceived competence were consistent predictors of both physical activity and perceived health.

Most notably, family connectedness was one of the best predictors among the specific youth assets measured and a consistent predictor for each health outcome examined. Although peer influences have often identified as a significant influence on adolescent behaviour, the current research suggests that families are an important aspect of healthy adolescent behaviour. This is consistent with past research suggesting that family support is a protective factor for risk behaviours (i.e., reduces risk behaviours) (see Kingon & O' Sullivan, 2001). It is important to note that family connectedness was a consistent predictor of health outcomes without stipulating the form of the family unit. That is, adolescents could be referring to a one-parent family, adoptive parents, stepparents, same sex parents, or foster parents. Regardless of the type of family unit, adolescents reported more positive outcomes when they had close connections with family members. However, future research is needed to assess whether or not positive outcomes vary by type of family unit.

However, not all types of family support or involvement are equally predictive of decreased risk behaviours. For example, Resnick and colleagues (1997) found that although parental presence in the home at critical periods of the day was associated with reduced risk behaviours, it was less significant than parental connectedness. The results from the present study support those of Resnick et al. (1997). Connectedness to one's family was a more consistent predictor of health outcomes than parental presence at home. Parental presence at home during various times of the day was an inconsistent predictor of health outcomes in this study. Only parental presence at home during evening meals was a consistent predictor of primarily seatbelt and bicycle helmet use. Although parental presence at home during key periods of the day was shown to relate to health outcomes in this and other studies (e.g., Neumark-Sztainer, Wall, Story, & Fulkerson, 2004; Resnick et al., 1997), it seems unlikely that merely physical presence at home relates to better outcomes. It is more likely that this factor serves as a proxy variable for increased parental monitoring or communication, which in turn may be related to more positive outcomes. Therefore, the importance is on what parents are doing when they are home not merely that they are home. For example, one recent study found that adolescents who reported frequent family meals were less likely to report disordered eating behaviors (Neumark-Sztainer et al., 2004). A positive atmosphere during meals (e.g., enjoyment and high levels of talking), structured meal settings (e.g., eating at a table), and a high priority placed on family meals were also significantly related to decreased disordered eating behaviors (Neumark-Sztainer et al., 2004). Thus, the significance of family meals as an asset may be related to its capability to increase dialogue and socialization among family members and to convey the importance of family membership.

Further, previous research suggests that parental presence during family meals predicts decreased risk behaviours such as substance use, low academic achievement, depressive symptoms, suicidal involvement (Eisenberg et al., 2004), sexual activity, delinquent behaviours, violence (Fulkerson et al., 2006), and eating disordered behaviour (Neumark-Sztainer et al., 2004). The impact of parental presence during family meals remained even after controlling for family connectedness (Eisenberg et al., 2004), family communication and support (Fulkerson et al., 2006). Fulkerson and colleagues (2006) suggest that family mealtimes may reflect the quality of family interactions. Thus, parental presence during meals is not merely a proxy variable for connectedness and communication. It is not that parents communicate with their children, but rather how and what they communicate about that appears to relate to better outcomes.

Studies that assess specific types of parental behaviours may shed more light on the relationship between parental involvement and health outcomes. For example, adolescents may achieve better outcomes when they have parents who know their favourite activities, their friends' names, and whether or not they have homework. Future research could also assess the interaction between family connectedness and parental monitoring. Specifically, high levels of parental monitoring could be perceived by adolescents as intrusive and overbearing and may impact adolescents' perceptions of the family as warm and loving (i.e., connectedness). It may be that successful health outcomes are achieved only to the extent that adolescents perceive parental monitoring to be indicative of caring and concern.

Adolescents' relationship to school (either in terms of school belonging or connectedness to teachers) also emerged as a consistent predictor for each positive

health outcome. This finding is consistent with past research assessing the impact of school connectedness on health-risk behaviours (Bonny et al., 2000; Catalano et al., 2004; Henrich et al., 2005; McNeely & Falci, 2004). Students who feel cared for by teachers and staff at their school and who feel a sense of belonging at their school are less likely to engage in a variety of risk behaviours (McNeely, Nonnemaker, & Blum, 2002; Resnick et al., 1997). This growing body of research suggests that the school environment does more than just foster academic growth. Schools provide an important opportunity for adolescents to engage in positive peer and adult relationships, and to develop a sense of autonomy, belonging, and engagement. Factors that have been shown to increase school connectedness include smaller school size, participation in extracurricular activities, liberal discipline policies, and good classroom management strategies (McNeely et al., 2002). Research further suggests that perceptions of school connectedness can be altered and that early interventions (prior to grade 5) can increase students' feelings of bonding to their school (Hawkins, Guo, Hill, Battin-Pearson, & Abbott, 2001). This provides an important avenue for intervention that can potentially impact a variety of health outcomes.

In addition to adolescents' relationships within the school environment, previous research has found that supportive relationships with non-parental adults are associated with decreased adolescent risk behaviours (Vesely et al., 2004). Interestingly, other adult support was not a consistent predictor of any of the outcome measures in the current study. These results suggest that other adult support may be more important as a protective factor for risk behaviours than as an asset for promoting positive health behaviours. Alternatively, it may be that the current study's single-item measure of other adult support may not be capturing the variety of ways in which non-parental adults can

be supportive (the current measure only asks if there is a non-family adult that adolescents could talk to if needed). Non-parental adults can also encourage school success, decision-making, responsibility, honesty, and respect for cultural differences in addition to seeking input from adolescence, passing down cultural traditions, and participating in sports and activities with them (Scales, Benson, & Mannes, 2006). All of these types of adult-adolescent engagement can be done without adolescents explicitly asking to talk to a non-parental adult. Moreover, teachers may be the most salient non-parental adults that adolescents interact with on a daily basis and the impact of teacher connectedness was assessed in the current research through other questions.

Volunteerism and religiosity were also weakly associated with health outcomes. A recent longitudinal study by Scales and colleagues (2006) investigating similar variables found that adolescent participation in religious organizations, volunteering, and youth programs was significantly related to greater engagement with non-family adults and fewer risk behaviours and more thriving behaviours. These researchers suggest that youth involvement with religious communities and volunteering creates opportunities for youth to engage with non-family adults who may provide support, a sense of empowerment, and boundary-setting expectations. The current study supports the findings of Scales et al. (2006) despite the relatively weak contribution of other-adult support, volunteerism, and religiosity to health outcomes.

## **Suppressor Variables**

Several of the youth assets predictors emerged as potential suppressor variables. Suppressor variables act to enhance the overall prediction of multiple regression by suppressing the criterion irrelevant variance associated with one or more

of the other predictors (Friedman & Walls, 2005); therefore enhancing the predictive power of one or more of the other independent variables (Tabachnick & Fidell, 2007). Much of the past literature focuses on the definitions and identification of suppressor variables (e.g., Conger, 1974) with less information focusing on the interpretation of these suppressor variables in multiple regressions. Suppressors are more than nuisance variables. Wooley (1997) has argued that suppressor variables can make excellent predictors. Further, other researchers (Paulus, Robins, Trzesniewski, & Tracy, 2004) have argued that suppressors can be both replicable and have theoretical importance. Consistent with this premise, peer support has emerged as a suppressor variable in past research concerning adolescent health (Turbin et al., 2006; Wills, Resko, Ainette, & Mendoza, 2004).

Tzelgov and Henik (1991) recommend that in the presence of three or more variables it is advisable to refer to suppressor situations rather than suppressor variables. They contend that with multiple variables complex relationships emerged that make it difficult to interpret characteristics of single suppressor variables. For example, variables can act as mutual suppressors in which two or more variables act to suppress criterion irrelevant variance in each other and in other variables.

Due to their low correlation with the criterion, suppressor variables may often be excluded from analyses as unimportant, particularly in regression analyses using forward selection procedures. In contrast, the all possible subsets regression analysis utilized here is more likely to reveal suppressor situations. Interestingly, despite the emergence of several potential suppressor variables, their effects appear to be very weak as their inclusion does little to increase the variance accounted for. It may be that some overlap in the measurement of the various constructs exists and is contributing to

the potential suppressor situations. For example, in the regression on perceived health teacher connectedness, positive peer influence, volunteerism, religiosity, and parental presence at home in the morning and at bedtime all emerged as potential suppressors. It is possible that these variables share some variance unrelated to the outcome of perceived health (perhaps youth who score high on these constructs tend to be more popular). Alternatively, it could be that one or two of the potential suppressors share common variance while the other potential suppressors share other common variance. Unfortunately, with so many potential suppressors it is impossible to tell. Wooley (1997) suggest that pure suppressors increase the  $R^2$ ; something that did not seem to occur in the current situation. Given the low magnitude of the suppressor situation it would appear to have exerted little influence over the current analyses.

### **Youth Asset Predictors by Grade Level**

The current research also assessed whether the relationship between youth assets and positive outcomes differed by grade level. In general, the predictors of health outcomes across grade level were similar. It was not the case that youth assets such as family connectedness were significant only in the early grades and then decreased in the later grades. Specifically, the findings suggest that family connectedness and peer influences were consistent predictors of each health outcome across every grade. Teacher connectedness and perceived competence consistently predicted each health outcome across every grade except for grade 7. Further, one form of parental presence at home (e.g., during evening meals, bedtime, or in the morning) consistently predicted each health outcome.

## Methodological Concerns

The relatively small adjusted  $R^2$  for the multiple regressions (ranging from .11 to .19) suggest that there might be important predictor variables that were not examined in this study. Indeed, the majority of variance associated with the specific health outcomes studied here is not accounted for. Previous studies investigating youth assets have typically explained higher levels of variance in health risk behaviours ranging from 7.1%–30% for emotional distress, suicidality, and substance use (Resnick et al., 1997), 50.6% for violence behaviours (Resnick et al., 1997), and 29% to 44% for alcohol and tobacco use and number of sexual partners (Reininger et al., 2005). However, the current results are similar in magnitude to those of Scales and colleagues (2006) who also found that youth assets accounted for only a small proportion of variance (10% – 14%) in risk behaviours.

Why might there be discrepancies in the amount of variance accounted for among different studies? The research in this area assesses a variety of different outcome measures, particularly those related to risk behaviours. In the current study, there are only 5 measures of positive outcomes looking at broad areas such as health, education, and responsible decision-making. It may be that youth assets predict risk behaviours better than positive outcomes. More likely, it may be that the prediction of specific behaviours such as seatbelt and bicycle helmet use requires specific predictors such as family seatbelt and bicycle helmet use. However, that does not negate the use of general youth asset predictors. The goal here is to examine the impact of a broad array of existing youth assets for a variety of positive adolescent health outcomes. The youth assets may act as a buffer against risk behaviours and increase healthy youth

development over and above what would be expected by targeting specific behaviours. Conceptually, the use of a broad spectrum of youth assets for positive health outcomes is similar to the universal prevention approaches applied in the prevention field for at-risk youth (Weissberg, Kumpfer, & Seligman, 2003).

In addition, the restriction of range of variables will affect the magnitude of the resulting  $R^2$  (Cohen et al., 2003). In the current research, several of the variables demonstrate a small range, primarily due to the scale of measurement. For example, most adolescents report high level of connectedness with their family. However, scores only range from a possible 1 to 3 therefore the high level of connectedness and the limited range in scores may be an artifact of the measurement scale.

## **Strengths and Limitations**

The current study has a number of strengths. First, although several studies have examined the role of youth assets in relation to risk behaviours, few have examined the relationship of assets to all positive outcomes. Much of the past research has assessed either all risk behaviors (e.g., French et al., 2001; Leffert et al., 1998; Oman et al., 2004; Reininger et al., 2005; Vesely et al., 2004) or a mixture of risk behaviours and some positive outcomes (e.g., Canadian Institute for Health Information, 2005; Murphrey et al., 2004; Oman et al., 2005). An exception to this are two studies based on the Search Institute's Profiles of Student Life Attitudes and Behavior Survey (Theokas et al., 2005; Scales et al., 2000). These studies examined the contribution of youth assets to thriving indicators such as school success, leadership, valuing diversity, maintaining physical health, helping others, delay of gratification, and overcoming adversity. These individual thriving indicators were combined to form a thriving index scale. The results of both

studies revealed a positive association between youth assets and thriving indicators.

The current study further supports the relationship between youth assets and positive outcomes specifically among British Columbia youth.

In contrast the current research is able to shed light on the association between youth assets and a variety of positive outcomes. Researchers have suggested that communities who want to decrease adolescents' involvement in risk behaviours should focus their efforts on increasing youths' assets (Leffert et al., 1998). Similarly, the findings from this study suggest that communities who want to increase adolescents' positive behaviours should also focus on increasing youth assets.

Second, the extremely large number of adolescents who participated in the BC AHS III and the large range of grades (7 - 12) is another strength of the study. This extends the prior research on youth assets among young adolescents (12 – 15 years) (Canadian Institute for Health Information, 2005) by including both younger and older adolescents.

Third, the self-reported aspect of the BC AHS III questionnaire is critical to research on youth assets. While self-report studies are often criticized as lacking objectivity, it is precisely this subjective aspect that determines the influence of youth assets. That is, for many of the youth assets they are potentially only effective if adolescents perceive them as such. For example, many parents may believe that they have a very close caring relationship with their children. However, if the adolescents themselves do not perceive that they are close or connected to their parents then this is unlikely to be an asset in their lives. The potential bias associated with self-reported measures may be more problematic in terms of the health and well-being outcomes measured in this study. Specifically, the measures of physical activity, academic

achievement, and seatbelt and bicycle helmet use may be prone to biases in recall. For example, although the research generally supports the accuracy of self-reported physical activity when compared to more objective measures among adults (e.g., Speck and Looney, 2006), self-reported physical activity appears to be prone to under-reporting in children (e.g., Baranowski & Moor, 2000) primarily due to recall difficulties stemming from daily fluctuations in the degree of physical activity. However, despite the identified problems associated with survey based methods of estimating physical activity, some research has still shown relatively high agreement (73 %– 86%) between surveys and direct observations (Sirad & Pate, 2001). In the context of the current study, the results may be more applicable to adolescents who perceive themselves to be physically active. Similarly, the results may better reflect perceptions of academic achievement and responsible-decision making behaviours.

There are a number of limitations to this study that should be noted. First, the cross sectional nature of the BC AHS III makes it impossible to determine the direction of influence. For example, the relationship between family connectedness and physical activity may have emerged because families who feel particularly close and connected want to do more activities together or it may be that families that are physically fit tend to exercise more together and that brings them closer. Longitudinal studies that assess the ability of assets to create positive outcomes in adolescence are needed (cf. Baumeister et al., 2003).

Second, this research is limited by the validity of single item measures: specifically, the measures of other adult support, religiosity, parental presence at home, perceived competence, perceived health status, physical activity, academic achievement, and seatbelt and bicycle helmet use. However, as in other large-scale

adolescent health surveys, single item measures are often necessary to obtain information about a variety of health-related factors in a short period of time (see Scales, 1999). More detailed or precise questions may yield different results.

Third, although the participation rate for the survey was high, 24% of adolescents sampled in public schools did not participate in the survey. The most frequent reason for non-participation was absenteeism and a failure to return forms accounting for 12% and 7% of those not participating respectively. It is difficult to estimate the impact of those not participating on the results of this study. Those absent from school on the day the survey was administered might represent the typical percent of students away from schools on any given day. It is possible that those students who were away the day the survey was administered are also more likely to have higher absentee rates in general. Conceivably, these students are likely to differ from those attending school in other systematic ways. That is, they may have more health problems that keep them away from school or they may be engaging in higher risk behaviours that are incompatible with school attendance. This would impact the study by retaining a healthier, less risk involved sample. Consequently it may be that the current results concerning youth assets apply only to a healthy well-adjusted sample of adolescents.

However, it also may be the case that parents or adolescents not wanting to be involved in the survey chose to stay away from school or forgot to return the forms rather than overtly decline their consent. The reasons why parents might not want their adolescents to participate are potentially varied. Perhaps parents with more problems in the home (e.g., abuse, alcoholism) do not want their adolescents asked about home life. Alternatively, perhaps some parents object to the nature of some of the sexual activity and substance use questions that are included in the study. The impact of absent

students who may or may not be absent to consciously avoid participation in the survey may introduce potentially less of a systematic bias than the impact of chronically absent students due to the potentially diverse number of reasons for conscious non-participation. That is, chronically absent students may be a more homogenous group than students who are absent due to unwillingness to participate on their or their parents' part. Nonetheless, the current results should be interpreted with regard to students who are (or were) attending school only.

Fourth, research concerning positive health and developmental outcomes in adolescence is further complicated by the interchangeability of the assets and outcomes measures. For example, extracurricular activities, perceived competence, and volunteerism have been conceptualized as both predictors of positive outcomes and as positive outcomes themselves. The correlational nature of much of this research makes it impossible to determine what are the antecedent variables. Indeed, the relationship among these variables may be bi-directional. For example, perceived competence may lead to increased participation in extracurricular activities. This participation may then foster increased feelings of competence further contributing to a higher level of perceived competence.

Finally, the question as to the accuracy of adolescent self-reported surveys should be noted. Various studies suggest that there is some false responding on adolescent self-reported behaviour (Brener et al., 2002; Fan et al., 2006; William & Nowatzki, 2005). For example, Williams and Nowatzki (2005) found inconsistencies in self-reported substance use among adolescents in an addiction outpatient centre. Compared to responses from a urine analysis, 26% of adolescents incorrectly reported non-substance use and 34% incorrectly reported substance use. However, it could be

argued that adolescents with addiction problems are more prone to biases in responding. An analysis of the large school-based Youth Risk Behavior Survey in the United States indicated that despite some inconsistencies in responding, most of the health risk behaviours demonstrated substantial test-retest reliability (Brener et al., 2002). Note that the reliability of this measure does not ensure that inaccurate responding does not occur. It could be that adolescents who are providing inaccurate responses are merely doing so consistently. However, the assumption is that inaccurate responses due to carelessness or confusion would likely be inconsistent between measurement times.

More directly relevant to the current study, is a recent analysis by Fan and colleagues (2006) of the National Longitudinal Study of Adolescent Health (ADD Health). By assessing multiple data sources (self-administered questionnaires, parent interviews, etc.) these researchers determined that less than one percent of respondents inaccurately reported that they were adopted, were born in the United States, or had an artificial limb. These respondents were classified as jokesters if they had inaccurate responses in more than one question and inaccurate responders if they were inaccurate in only 1 question. Although the degree of misresponding is extremely small, these authors determined that inaccurate responses primarily from jokesters does have an effect on a variety of other psychosocial and behavioural outcomes typically measured in adolescent research. The authors note that the impact to analyses for large-scale groups would be negligible but that some concern is warranted for analyses with special smaller populations. Thus, in the context of the current study any inaccurate responding is unlikely to bias the results.

## **Future Directions**

The assets and the outcomes studied here represent only a small subset of a number of possible asset and outcomes measures. For example, research from the Search Institute in the United States suggests that there are at least 40 developmental assets. They suggest that assets include categories such as a caring neighborhood, a community that values youth, and an individual sense of purpose (e.g., Scales et al., 2000). There are likely many other assets not yet identified. The current research only assessed 13 potential youth assets. Further, the majority of youth assets examined represent what the Search Institute classifies as external assets (e.g., family connectedness and school belonging) as opposed to internal assets (e.g., perceived competence). Moreover, the current study assessed only 5 positive outcome measures looking at broad areas such as health, education, and responsible decision-making. Clearly, there are many other indicators of health and well-being in youth such as positive mental health and subjective well-being and future research may look at developing these further. The identification of additional positive outcome measures may help to establish a more balanced perspective of development in adolescents.

More information is needed about the role of peers in relation to youth assets and health outcomes. The current study only assesses a small aspect of the peer relationship (whether or not peers approve of risk behaviours). Further, the current measure of peer influence does not assess peer influence over positive events and thus more research is needed to clarify the manner in which peers impact adolescent behaviour. Further research might assess how many friends an adolescent has (peer support), and whether or not they have at least one close friend.

Future research should also evaluate the role of gender differences in relation to youth assets and positive health outcomes. To date, the research findings are mixed. Gender differences have been documented for a variety of assets such as connectedness to school (Bonny et al., 2000) and self-esteem (Khanlou, 2004). However, many studies show no difference or a negligible difference between genders on health and well-being outcomes. For example, the association between youth assets and grade point average is similar for both males and females (Scales & Roehlkepartain, 2003). It is likely that gender differences depend on the type of outcome measured.

Finally, the self-concept measure utilized in this study specifically assessed perceived competence. Although Tafarodi and Swann (2001) suggest that self-competence is one component of global self-esteem (the other component being selfliking), the current measure may not be comparable to much of the past research specifically utilizing self-esteem as a youth asset. The difference between the two concepts may be significant. Self-competence generally incorporates a cognitive behavioural assessment of one's worth whereas self-esteem often incorporates an evaluative or affective appraisal of one's worth. The next BC AHS IV to be conducted in the Spring of 2008 will assess a more common measure of self-esteem (the Rosenberg's self-esteem scale) and therefore will shed light on whether more traditional measures of self-esteem lead to different results.

## Conclusion

The results of the current study suggest that adolescents need a broad array of youth assets to achieve successful and healthy outcomes. Although the current research emphasizes the importance of close families in promoting positive development, being

connected to one's family is not enough. This research demonstrates that youth having more assets have better outcomes. Therefore, it is important to encourage the growth of a variety of diverse assets and support systems in adolescents' lives in order to foster the best outcomes for youth. There is a need for families, schools, and communities to work together to support adolescents.

The current findings further demonstrate that many of the same youth assets that have been shown to reduce risk behaviours in other studies also are associated with positive health outcomes. From a practical perspective, this finding is important in terms of the development of programs and inventions designed to increase adolescents' health. Strengthening these same youth assets can both reduce risk and increase positive outcomes.

Despite the emerging interest in youth assets there is relatively little research evaluating the efficacy of programs or interventions that promote youth assets. One exception is the research by Catalano et al. (1998) on the evaluation of positive youth development programs. Their research examined 25 youth programs incorporating a diversity of positive youth development approaches. The findings indicate that effective youth development programs featured at least five positive youth development constructs such as competence, prosocial norms, opportunities for prosocial engagement, recognition of positive behaviour, and bonding. Nineteen of the 25 program demonstrated increases in positive youth behaviour. Overall, this research indicates that there is a wide diversity in youth development approaches that can be utilized to strengthen positive outcomes in adolescents. Additionally, the majority of effective programs integrated their programs in two or more social settings (e.g., families, schools, and communities) indicating the importance of social contexts.

There is a need to also involve youth in program development and intervention. Adolescents' views of successful development may differ from those of adults. For example, Alberts and colleagues (2006) found that adolescents and their parents had dramatically different descriptions of what constitutes thriving youth. Compared to their parents, adolescents were more likely to perceive thriving as including high levels of competence, family connections, positive character (respectful), contributions to self and others, high professional aspiration, and being smart. In contrast, parents were more likely to perceive thriving as including a lower degree of the above items and a higher degree of happiness. In fact, adolescents' and their parents definitions of thriving differed most in terms of competence (63% vs. 35%), respectful interactions with others (i.e., character) (49% vs. 14%) and contributions to others (42% vs. 14%). Although these findings may appear to be counterintuitive, adolescents' view of thriving may be shaped, in part, by the messages parents and other important adults have conveyed. That is, parents and other adults have likely expressed to youth the importance of doing well, being polite, and giving back to others and these principles are then internalized by youth. Parents are perhaps less likely to convey being happy as a developmental outcome and, as a result, adolescents may assume it is less important. Consequently, health promotion strategies thus need to address the perceptions of adolescents in order to achieve optimal outcomes.

Finally, the current research adds to the growing body of literature on positive psychology. Positive psychology stresses the strengths and virtues that facilitate thriving among individuals and communities (Linley, Joseph, Harrington, & Wood, 2006; Seligman & Csikszentmihalyi, 2000). While much of the past research in psychology has been focused on disorder and dysfunction, positive psychology emphasizes that

strengths are as important as weaknesses. Thus, positive psychology attempts to address the existing imbalance in the literature while not negating the importance of research concerning dysfunction. The present findings complement this area of research. It is as important to understand the factors that contribute to successful outcomes during adolescence, as it is to understand the factors that contribute to negative outcomes.

## ENDNOTES

<sup>1</sup> The all possible subsets regression analyses conducted with BMDP 9R generates a number of good subsets for each number of predictor variables. The tables in Appendix B and C report a maximum of eight good subsets for each number of predictor variables. However, in some cases eight good subsets of predictor variables were not obtained (that is, various combinations of predictor variables did not produce better subsets than the ones already generated) and therefore fewer than eight are reported in the tables.

<sup>2</sup> The all possible subsets regression analyses allows for an examination of the predictor variables that consistently appear in subsets of varying sizes. Consistency of a variable in all possible subsets regression is often interpreted as the relative importance of a predictor for the criterion in question. That is, predictor variables that appear frequently or consistently do so across different contexts and in subsets of varying sizes and with different combinations of predictors. Note that the standardized beta weights from the regression analyses are also reported. There is some controversy in the literature as to whether or not the standardized betas can be interpreted as an indication of the importance of the predictor in the context of a specific regression analyses. The standardization of the betas allows for a comparison across predictors and therefore some authors suggest that this can be interpreted as an indication of the 'importance' of a predictor when the other predictors are held constant (Field, 2005). Other authors suggest caution in using the standardized regression coefficients alone for interpreting importance as they are dependent on uncorrelated predictor variables and are context-specific (Courville & Thompson, 2001). This discussion relates to the interpretation of

standardized regression coefficients as denoting importance among predictor variables in multiple regression. However, there may be a distinction to be made between the importance of a predictor and the strength of a predictor within a specific multiple regression. Some authors do suggest that standardized regression coefficients are an appropriate indication of the strength and direction of the relationship between the predictor and criterion (Chan, 2004; Field, 2005).

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## **APPENDICES**

## **APPENDIX A.**

### **ADOLESCENT HEALTH SURVEY III**

The following questions from the B.C Adolescent Health Survey III were used in the current study.

#### **Demographic Variables**

##### **Grade**

What grade level are you in?

##### **Age**

How old are you?

- 12 years old or younger
- 13 years
- 14 years
- 15 years
- 16 years
- 17 years
- 18 years
- 19 years or older

#### **Youth Asset Variables**

##### **Family Connectedness**

How close do you feel to your mother?

- Not at all
- Some
- A lot
- Don't know or doesn't apply

How much do you think your mother cares about you?

- Not at all
- Some
- A lot
- Don't know or doesn't apply

How close do you feel to your father?

- Not at all
- Some
- A lot
- Don't know or doesn't apply

How much do you think your father cares about you?

- Not at all
- Some
- A lot
- Don't know or doesn't apply

How true are the following statements?

Most of the time my mother is warm and loving toward me

- Often very true
- Sometimes or somewhat true
- Never or not true
- Doesn't know/does not apply

Overall, I am satisfied with my relationship with my mother

- Often very true
- Sometimes or somewhat true
- Never or not true
- Doesn't know/does not apply

Most of the time my father is warm and loving toward me

- Often very true
- Sometimes or somewhat true
- Never or not true
- Doesn't know/does not apply

Overall, I am satisfied with my relationship with my father

- Often very true
- Sometimes or somewhat true
- Never or not true
- Doesn't know/does not apply

How much do you feel that people in your family understand you?

- Not at all
- Some
- A lot

How much do you feel that you and your family have fun together?

- Not at all
- Some
- A lot

How much do you feel that your family pays attention to you?

- Not at all
- Some
- A lot

### **Parental Presence at Home**

On how many of the past five school days was at least one of your parents at home with you when you woke up in the morning?

- 0 days
- 1 day
- 2 days
- 3 days
- 4 days
- 5 days

On how many of the past five day was at least one of your parents at home when you came home from school?

- 0 days
- 1 day
- 2 days
- 3 days
- 4 days
- 5 days

On how many of the past five school days was at least one of your parents in the room with you while you ate your evening meal?

- 0 days
- 1 day
- 2 days
- 3 days
- 4 days
- 5 days

On how many of the past five school days was at least one of your parents at home with you when you went to bed?

- 0 days
- 1 day
- 2 days
- 3 days
- 4 days
- 5 days

### School Connectedness

How do you feel about going to school?

- Don't like school
- Like school some
- Like school very much

During the last month, how often have you missed full days of school because you skipped or "cut" classes?

- Never
- Once or Twice
- 3 to 10 times
- 11 or more times

How much do you feel that your teachers care about you?

- Not at all
- Very little
- Somewhat
- Quite a bit
- Very much

Since you started school this year, how often have you had trouble getting along with your teachers?

- Never
- Just a few times
- About once a week
- Almost every day
- Every day

Since you started school this year, how often have you had trouble getting along with other students?

- Never
- Just a few times
- About once a week
- Almost every day
- Every day

How much do you agree or disagree with the following statements?

I feel like I am part of my school

- Strongly agree
- Agree
- Neither agree or disagree
- Disagree
- Strongly disagree

I am happy to be at my school

- Strongly agree
- Agree
- Neither agree or disagree
- Disagree
- Strongly disagree

The teachers at my school treat me fairly

- Strongly agree
- Agree
- Neither agree or disagree
- Disagree
- Strongly disagree

I feel safe at my school

- Strongly agree
- Agree
- Neither agree or disagree
- Disagree
- Strongly disagree

### Other Adult Support

If you were having a serious problem, is there an adult who is NOT in your family that you would feel okay talking to?

- Yes
- No

### **Peer Influences**

Would your friends be upset with you if you:

Got arrested?

- Yes
- No

Beat someone up?

- Yes
- No

Carried a weapon for protection?

- Yes
- No

Got pregnant or got someone pregnant?

- Yes
- No

Dropped out of school?

- Yes
- No

Got drunk?

- Yes
- No

Used marijuana?

- Yes
- No

### **Religiosity**

Do you think of yourself as a religious or spiritual person?

- Very much so
- Somewhat
- Not at all

## Extracurricular Activities

In the past 12 months, how often have you...

Played sports or done physical activities WITHOUT a coach or instructor (biking, skateboarding, roller blading, road hockey, etc.)?

- Never
- Less than once a week
- 1 or 3 times a week
- 4 or more times a week

Played sports WITH a coach or instructor, other than in gym class (school teams, swimming lessons, etc.)?

- Never
- Less than once a week
- 1 or 3 times a week
- 4 or more times a week

Taken part in dance or aerobic class or lessons, other than in gym class?

- Never
- Less than once a week
- 1 or 3 times a week
- 4 or more times a week

Taken part in art, drama, singing or music (groups, clubs or lessons), outside of class?

- Never
- Less than once a week
- 1 or 3 times a week
- 4 or more times a week

Taken part in clubs or groups such as Guides or Scouts, 4-H club, community, church or other religious groups?

- Never
- Less than once a week
- 1 or 3 times a week
- 4 or more times a week

Done a hobby or craft (drawing, model building, etc.)?

- Never
- Less than once a week
- 1 or 3 times a week
- 4 or more times a week

### **Volunteerism**

In the past 1 month, did you help others without pay by:

Doing activities at school (yearbook, school patrol, student council)

- Yes
- No

Supporting or helping a cause (food bank, environmental group, etc.)

- Yes
- No

Fund raising (for a charity, for school trips, etc.)

- Yes
- No

Helping out in your community (hospital volunteering, etc.)

- Yes
- No

Helping neighbours or relatives (cutting grass, baby-sitting, shovelling snow)

- Yes
- No

Some other activity, specify: \_\_\_\_\_

- Yes
- No

### **Perceived Competence**

Can you think of some things that you are really good at?

- Yes, specify: \_\_\_\_\_
- No

## **Positive Indicators of Health and Well-Being**

### **Perceived Health Status**

In general, how would you describe your health?

- Excellent
- Good
- Fair
- Poor

### **Physical Activity**

On how many of the past 7 days did you exercise or participate in physical activities for at least 20 minutes that made you sweat and breathe hard, such as soccer, jogging, dancing, swimming, tennis, bicycling, or similar aerobic activities?

- 0 days
- 1 day
- 2 days
- 3 days
- 4 days
- 5 days
- 6 days
- 7 days

### **Educational Expectations**

When do you expect to finish your education?

- Before I graduate from high school
- When I graduate from high school
- When I graduate from community college or a technical institute
- When I graduate from university
- Don't know
- Other, specify: \_\_\_\_\_

### **Academic Achievement**

In general, what are your marks right now?

- Mostly A's
- Mostly B's
- Mostly C's
- Mostly D's & F's

### **Responsible Decision Making**

#### **Seatbelt Use**

How often do you wear a seatbelt when riding in a car, truck, or van?

- Never
- Rarely
- Sometimes
- Most of the time
- Always

### Bicycle Helmet Use

When you rode a bicycle in the past 12 months, how often did you wear a helmet?

- I did not ride a bike
- Never
- Rarely
- Sometimes
- Most of the time
- Always

**APPENDIX B.**

**ALL SUBSET REGRESSIONS OF YOUTH ASSETS ON POSITIVE OUTCOMES**

**Table B1.** All Subsets Regression of Youth Assets on Overall Perceived Health

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | PC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>1 Variable</b>       |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0917                   | 15081.87   | X            |    |    |    |    |     |     |        |         |        |       |     |     |
| .0736                   | 20543.38   |              | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0323                   | 33007.59   |              |    |    |    |    |     |     |        |         |        |       | X   |     |
| .0291                   | 33955.38   |              |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0260                   | 34877.97   |              |    |    | X  |    |     |     |        |         |        |       |     |     |
| .0161                   | 37889.72   |              |    |    |    |    | X   |     |        |         |        |       |     |     |
| .0080                   | 40320.03   |              |    |    |    |    |     |     |        |         |        |       | X   |     |
| .0063                   | 10831.61   |              |    |    |    |    |     |     |        | X       |        |       |     |     |
| <b>2 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1207                   | 6308.65    | X            | X  |    |    |    |     |     |        |         |        |       |     |     |
| .1066                   | 10577.31   | X            |    |    |    | X  |     |     |        |         |        |       |     |     |
| .1005                   | 12416.90   | X            |    |    |    |    |     | X   |        |         |        |       |     |     |
| .0979                   | 13197.19   | X            |    |    |    |    |     |     |        |         |        |       | X   |     |
| .0972                   | 13405.44   | X            |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0925                   | 14831.44   | X            |    |    |    |    | X   |     |        |         |        |       |     |     |
| .0924                   | 14858.70   | X            |    |    |    |    |     |     |        |         |        |       |     | X   |
| .0924                   | 14863.94   | X            |    |    |    |    |     |     |        |         | X      |       |     |     |
| <b>3 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1312                   | 3139.56    | X            | X  |    |    | X  |     |     |        |         |        |       |     |     |
| .1274                   | 4291.17    | X            | X  |    |    |    |     | X   |        |         |        |       |     |     |
| .1250                   | 5025.70    | X            | X  |    |    |    |     |     |        |         |        | X     |     |     |
| .1216                   | 6064.30    | X            | X  |    | X  |    |     |     |        |         |        |       |     |     |
| .1215                   | 6086.03    | X            | X  |    |    |    |     |     |        |         |        |       |     | X   |
| .1211                   | 6197.06    | X            | X  |    |    |    |     |     |        |         | X      |       |     |     |
| .1209                   | 6241.53    | X            | X  |    |    |    |     |     |        |         |        |       | X   |     |
| .1209                   | 6263.44    | X            | X  |    |    |    |     |     |        | X       |        |       |     |     |
| <b>4 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1355                   | 1868.60    | X            | X  |    |    | X  |     |     |        |         |        |       | X   |     |
| .1354                   | 1873.48    | X            | X  |    |    | X  |     | X   |        |         |        |       |     |     |
| .1322                   | 2830.25    | X            | X  |    |    | X  |     |     |        |         |        |       |     | X   |
| .1321                   | 2869.13    | X            | X  |    | X  | X  |     |     |        |         |        |       |     |     |
| .1316                   | 3026.44    | X            | X  |    |    | X  |     |     |        | X       |        |       |     |     |
| .1315                   | 3069.81    | X            | X  |    |    | X  |     |     |        |         |        |       |     | X   |
| .1314                   | 3103.87    | X            | X  | X  |    | X  |     |     |        |         |        |       |     |     |
| .1314                   | 3105.71    | X            | X  |    |    | X  |     |     |        | X       |        |       |     |     |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table B1.** *continued*

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | PC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>5 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1393                   | 712.77     | X            | X  |    |    | X  |     | X   |        |         |        | X     |     |     |
| 1365                    | 1555.48    | X            | X  |    | X  | X  |     |     |        |         |        | X     |     |     |
| .1365                   | 1565.54    | X            | X  |    |    | X  |     |     |        |         |        | X     |     | X   |
| .1356                   | 1817.56    | X            | X  | X  |    | X  |     |     |        |         |        | X     |     |     |
| .1355                   | 1844.45    | X            | X  |    |    | X  |     |     |        |         |        | X     | X   |     |
| .1355                   | 1856.25    | X            | X  |    |    | X  | X   |     |        |         |        | X     |     |     |
| .1355                   | 1857.50    | X            | X  |    |    | X  |     |     |        |         |        | X     |     | X   |
| .1355                   | 1861.03    | X            | X  |    |    | X  |     |     |        |         | X      | X     |     |     |
| <b>6 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1404                   | 367.62     | X            | X  |    |    | X  |     | X   |        |         |        | X     |     | X   |
| .1424                   | 371.11     | X            | X  |    | X  | X  |     | X   |        |         |        | X     |     |     |
| 1395                    | 650.30     | X            | X  |    |    | X  |     | X   |        |         |        | X     |     | X   |
| .1394                   | 673.21     | X            | X  | X  |    | X  |     | X   |        |         |        | X     |     |     |
| .1394                   | 682.57     | X            | X  |    |    | X  |     | X   |        |         |        | X     | X   |     |
| .1393                   | 697.64     | X            | X  |    |    | X  |     | X   |        |         | X      | X     |     |     |
| .1393                   | 701.84     | X            | X  |    |    | X  |     | X   | X      |         |        | X     |     |     |
| .1393                   | 708.14     | X            | X  |    |    | X  | X   | X   |        |         |        | X     |     |     |
| <b>7 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1413                   | 107.60     | X            | X  |    | X  | X  |     | X   |        |         |        | X     |     | X   |
| .1406                   | 328.70     | X            | X  |    |    | X  |     | X   |        |         |        | X     |     | X   |
| .1405                   | 335.57     | X            | X  |    |    | X  |     | X   |        |         |        | X     | X   | X   |
| .1405                   | 338.85     | X            | X  | X  |    | X  |     | X   |        |         |        | X     |     | X   |
| .1405                   | 347.30     | X            | X  |    |    | X  |     | X   |        |         | X      | X     |     | X   |
| .1405                   | 356.56     | X            | X  |    |    | X  | X   | X   |        |         |        | X     |     | X   |
| .1405                   | 358.65     | X            | X  |    |    | X  |     | X   | X      |         |        | X     |     | X   |
| <b>8 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1414                   | 79.88      | X            | X  |    | X  | X  |     | X   |        |         | X      | X     | X   | X   |
| .1414                   | 84.63      | X            | X  |    | X  | X  |     | X   |        | X       | X      |       |     | X   |
| .1414                   | 92.06      | X            | X  |    | X  | X  |     | X   |        |         |        | X     |     | X   |
| .1413                   | 96.88      | X            | X  |    | X  | X  | X   | X   |        |         |        | X     |     | X   |
| .1413                   | 101.31     | X            | X  | X  | X  | X  |     | X   |        |         |        | X     |     | X   |
| .1413                   | 103.00     | X            | X  |    | X  | X  |     | X   | X      |         |        | X     |     | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table B1.** *continued*

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | PC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>9 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1415                   | 50.44      | X            | X  |    | X  | X  |     | X   |        |         | X      | X     | X   | X   |
| .1415                   | 64.74      | X            | X  |    | X  | X  |     | X   |        |         | X      | X     | X   | X   |
| .1414                   | 68.94      | X            | X  |    | X  | X  | X   | X   |        |         | X      | X     | X   | X   |
| .1414                   | 69.80      | X            | X  |    | X  | X  |     | X   |        | X       | X      |       | X   | X   |
| .1414                   | 73.84      | X            | X  | X  | X  | X  |     | X   |        |         | X      | X     |     | X   |
| .1414                   | 80.78      | X            | X  |    | X  | X  |     | X   | X      |         | X      | X     |     | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>10 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1415                   | 36.13      | X            | X  |    | X  | X  |     | X   |        | X       | X      | X     | X   | X   |
| .1415                   | 39.08      | X            | X  |    | X  | X  | X   | X   |        | X       | X      | X     |     | X   |
| .1415                   | 43.41      | X            | X  | X  | X  | X  |     | X   |        | X       | X      | X     |     | X   |
| .1415                   | 47.05      | X            | X  |    | X  | X  |     | X   | X      | X       | X      | X     |     | X   |
| .1415                   | 56.38      | X            | X  |    | X  | X  | X   | X   |        | X       | X      |       | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>11 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1416                   | 22.41      | X            | X  |    | X  |    | X   | X   |        | X       | X      | X     | X   | X   |
| .1416                   | 29.69      | X            | X  | X  | X  | X  |     | X   |        | X       | X      | X     | X   | X   |
| .1416                   | 31.77      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     |     | X   |
| .1416                   | 32.92      | X            | X  |    | X  | X  |     | X   | X      | X       | X      | X     | X   | X   |
| .1416                   | 36.00      | X            | X  |    | X  | X  | X   | X   | X      | X       | X      | X     |     | X   |
| .1415                   | 40.18      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     |     | X   |
| .1415                   | 44.36      | X            | X  |    | X  | X  | X   | X   | X      | X       | X      |       | X   | X   |
| .1415                   | 49.56      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      |       | X   | X   |
| <b>12 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1416                   | 15.74      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     | X   | X   |
| .1416                   | 19.51      | X            | X  |    | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1416                   | 26.63      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     | X   | X   |
| .1416                   | 28.86      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     |     | X   |
| .1416                   | 37.81      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       | X   | X   |
| .1415                   | 46.85      | X            | X  | X  | X  | X  | X   | X   | X      |         | X      | X     | X   | X   |
| .1409                   | 223.99     | X            | X  | X  |    | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1408                   | 276.20     | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |

*Note.* FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table B2. All Subsets Regression of Youth Assets on Overall Physical Health**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | PC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>1 Variable</b>       |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0646                   | 11866.46   |              |    |    |    |    |     | X   |        |         |        |       |     |     |
| .0239                   | 23708.43   |              |    |    |    |    | X   |     |        |         |        |       |     |     |
| .0176                   | 25542.79   | X            |    |    |    |    |     |     |        |         |        |       |     |     |
| .0112                   | 27404.44   |              | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0070                   | 28621.14   |              |    |    |    |    |     |     |        |         |        |       | X   |     |
| .0057                   | 28995.81   |              |    |    |    |    |     |     |        |         |        | X     |     |     |
| .0033                   | 29695.96   |              |    |    |    |    | X   |     |        |         |        |       |     |     |
| .0020                   | 30068.88   |              |    |    |    |    |     |     |        |         |        | X     |     |     |
| <b>2 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0761                   | 8521.09    |              |    |    |    | X  |     | X   |        |         |        |       |     |     |
| .0757                   | 8641.76    | X            |    |    |    |    |     | X   |        |         |        |       |     |     |
| .0709                   | 10051.68   |              | X  |    |    |    | X   |     |        |         |        |       |     |     |
| .0681                   | 10874.28   |              |    | X  |    |    | X   |     |        |         |        |       |     |     |
| .0676                   | 11006.60   |              |    |    |    |    |     | X   |        |         | X      |       |     |     |
| .0666                   | 11297.05   |              |    |    |    |    |     | X   |        |         |        |       | X   |     |
| .0665                   | 11333.79   |              |    |    |    |    | X   | X   |        |         |        |       |     |     |
| .0656                   | 11598.27   |              |    |    |    |    | X   |     |        |         |        |       | X   |     |
| <b>3 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0849                   | 5972.44    | X            |    |    |    | X  |     | X   |        |         |        |       |     |     |
| .0803                   | 7317.51    |              | X  |    |    | X  |     | X   |        |         |        |       |     |     |
| .0803                   | 7319.38    |              |    | X  | X  |    |     | X   |        |         |        |       |     |     |
| .0786                   | 7800.77    |              |    |    | X  |    | X   | X   |        |         |        |       | X   |     |
| .0775                   | 8134.20    |              | X  |    | X  |    | X   |     |        |         |        |       |     |     |
| .0775                   | 8141.63    |              |    |    |    | X  |     | X   |        |         |        |       | X   |     |
| .0774                   | 8154.82    |              |    |    |    | X  | X   | X   |        |         |        |       |     |     |
| .0769                   | 8294.65    |              |    |    |    | X  |     | X   |        |         |        |       | X   |     |
| <b>4 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0917                   | 3991.98    | X            |    |    | X  | X  |     | X   |        |         |        |       |     |     |
| .0899                   | 4532.64    | X            |    | X  |    | X  |     | X   |        |         |        |       |     |     |
| .0860                   | 5651.66    | X            | X  |    |    | X  |     | X   |        |         |        |       |     |     |
| .0858                   | 5714.59    | X            |    |    |    | X  | X   | X   |        |         |        |       |     |     |
| .0858                   | 5715.11    | X            |    |    |    | X  |     | X   |        |         |        |       |     | X   |
| .0857                   | 5736.56    | X            |    |    |    | X  |     | X   |        |         |        |       |     | X   |
| .0853                   | 5867.67    | X            |    |    |    | X  |     | X   |        |         |        | X     |     |     |
| .0852                   | 5899.18    | X            |    |    |    | X  |     | X   |        |         | X      |       |     |     |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table B2.** *continued*

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | PC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| 5 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0961                   | 2724.42    | X            | X  | X  |    | X  |     | X   |        |         |        |       |     |     |
| .0945                   | 3194.61    | X            | X  |    |    | X  | X   |     | X      |         |        |       |     |     |
| .0943                   | 3233.04    | X            |    | X  | X  | X  |     | X   |        |         |        |       |     |     |
| .0936                   | 3443.90    | X            |    |    |    | X  | X   |     | X      |         |        |       |     | X   |
| .0927                   | 3699.05    | X            |    |    |    | X  | X   | X   | X      |         |        |       |     |     |
| .0922                   | 3835.08    | X            |    |    |    | X  | X   |     | X      |         |        | X     |     |     |
| .0921                   | 3895.87    | X            |    |    |    | X  | X   |     | X      |         |        |       |     | X   |
| .0919                   | 3944.37    | X            |    |    |    | X  | X   |     | X      |         | X      |       |     |     |
| 6 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1018                   | 1054.74    | X            | X  | X  | X  | X  |     | X   |        |         |        |       |     |     |
| .0959                   | 2767.23    | X            | X  |    |    | X  | X   |     | X      |         |        |       |     | X   |
| .0952                   | 2977.82    | X            | X  |    |    | X  | X   | X   | X      |         |        |       |     |     |
| .0949                   | 3082.93    | X            | X  |    |    | X  | X   |     | X      |         |        | X     |     |     |
| .0949                   | 3084.10    | X            | X  |    |    | X  | X   |     | X      |         |        |       |     | X   |
| .0947                   | 3130.67    | X            | X  |    |    | X  | X   |     | X      |         | X      |       |     |     |
| .0946                   | 3165.57    | X            | X  |    |    | X  | X   |     | X      | X       |        |       |     |     |
| .0946                   | 3168.44    | X            | X  |    |    | X  | X   |     | X      |         |        | X     |     |     |
| 7 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1035                   | 575.26     | X            | X  | X  | X  | X  |     | X   |        |         |        |       |     | X   |
| .1026                   | 821.19     | X            | X  | X  | X  | X  | X   | X   | X      |         |        |       |     |     |
| .1023                   | 916.33     | X            | X  | X  | X  | X  |     | X   |        |         |        | X     |     |     |
| .1021                   | 968.95     | X            | X  | X  | X  | X  |     | X   |        |         |        |       |     | X   |
| .1020                   | 1011.55    | X            | X  | X  | X  | X  |     | X   | X      |         |        |       |     |     |
| .1020                   | 1015.29    | X            | X  | X  | X  | X  |     | X   |        | X       |        |       |     |     |
| .1020                   | 1019.44    | X            | X  | X  | X  | X  |     | X   |        |         |        | X     |     |     |
| 8 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1041                   | 390.28     | X            | X  | X  | X  | X  | X   | X   |        |         |        |       |     | X   |
| .1040                   | 437.43     | X            | X  | X  | X  | X  |     | X   |        |         | X      |       |     | X   |
| .1039                   | 457.53     | X            | X  | X  | X  | X  |     | X   |        |         |        |       |     | X X |
| .1036                   | 534.38     | X            | X  | X  | X  | X  |     | X   | X      |         |        |       |     | X   |
| .1036                   | 539.96     | X            | X  | X  | X  | X  |     | X   |        | X       |        |       |     | X   |
| .1036                   | 541.78     | X            | X  | X  | X  | X  |     | X   |        |         | X      | X     |     |     |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table B2.** *continued*

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | PC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>9 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1046                   | 248.64     | X            | X  | X  | X  | X  | X   | X   |        |         | X      |       | X   |     |
| .1046                   | 256.54     | X            | X  | X  | X  | X  | X   | X   |        |         |        |       | X   | X   |
| .1043                   | 345.56     | X            | X  | X  | X  | X  | X   | X   | X      |         |        |       | X   |     |
| .1042                   | 356.65     | X            | X  | X  | X  | X  | X   | X   |        | X       |        |       | X   |     |
| .1042                   | 356.70     | X            | X  | X  | X  | X  | X   | X   |        |         | X      | X     |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>10 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1051                   | 118.36     | X            | X  | X  | X  | X  | X   | X   |        |         | X      |       | X   | X   |
| .1049                   | 174.09     | X            | X  | X  | X  | X  | X   | X   |        | X       | X      |       | X   |     |
| .1047                   | 226.57     | X            | X  | X  | X  | X  | X   | X   |        | X       |        |       | X   | X   |
| .1047                   | 234.11     | X            | X  | X  | X  | X  | X   | X   | X      |         | X      |       | X   |     |
| .1046                   | 247.86     | X            | X  | X  | X  | X  | X   | X   |        |         | X      | X     | X   |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>11 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1053                   | 49.71      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      |       | X   | X   |
| .1051                   | 102.98     | X            | X  | X  | X  | X  | X   | X   | X      |         | X      |       | X   | X   |
| .1051                   | 118.05     | X            | X  | X  | X  | X  | X   | X   |        |         | X      | X     | X   | X   |
| .1050                   | 136.47     | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       | X   |     |
| .1050                   | 151.05     | X            | X  | X  | X  | X  | X   | X   | X      | X       |        |       | X   | X   |
| .1049                   | 169.30     | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     | X   |     |
| .1049                   | 181.24     | X            | X  | X  | X  | X  | X   | X   |        | X       |        | X     | X   | X   |
| .1048                   | 199.81     | X            | X  | X  | X  | X  | X   | X   | X      |         |        | X     | X   | X   |
| <b>12 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1054                   | 11.61      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       | X   | X   |
| .1053                   | 45.80      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     | X   | X   |
| .1051                   | 104.87     | X            | X  | X  | X  | X  | X   | X   | X      |         | X      | X     | X   | X   |
| .1050                   | 134.15     | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       | X   | X   |
| .1050                   | 137.31     | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1047                   | 218.22     | X            | X  | X  | X  | X  |     |     |        | X       | X      | X     | X   | X   |
| .1039                   | 463.04     | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .0993                   | 1796.05    | X            | X  | X  |    | X  | X   | X   | X      | X       | X      | X     | X   | X   |

**Note.** FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table B3. All Subsets Regression of Youth Assets on Overall Academic Achievement**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | PC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| 1 Variable              |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0966                   | 28236.26   |              |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0902                   | 30288.79   |              |    |    | X  |    |     |     |        |         |        |       |     |     |
| .0810                   | 33230.69   |              | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0641                   | 38603.38   | X            |    |    |    |    |     |     |        |         |        |       |     |     |
| .0325                   | 48687.90   |              |    |    |    |    |     |     |        |         |        | X     |     |     |
| .0272                   | 50357.32   |              |    |    |    |    |     |     |        |         |        |       | X   |     |
| .0148                   | 54334.47   |              |    |    |    |    |     |     | X      |         |        |       |     |     |
| .0123                   | 55112.02   |              |    |    |    |    |     |     |        |         |        | X     |     |     |
| 2 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1437                   | 13226.35   |              |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .1220                   | 20135.16   | X            |    | X  |    |    |     |     |        |         |        |       |     |     |
| .1143                   | 22605.35   |              | X  | X  |    |    |     |     |        |         |        |       |     |     |
| .1129                   | 23049.20   |              |    | X  |    |    |     |     |        |         | X      |       |     |     |
| .1115                   | 23500.29   |              | X  |    |    |    |     |     |        |         |        |       | X   |     |
| .1057                   | 25350.06   |              |    | X  |    |    |     | X   |        |         |        |       |     |     |
| .1039                   | 25912.13   |              |    | X  |    |    |     |     | X      |         |        |       |     |     |
| .1024                   | 26411.49   |              | X  |    |    |    |     |     |        |         |        | X     |     |     |
| 3 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1628                   | 7151.50    | X            |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .1565                   | 9139.88    |              |    | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1548                   | 9689.79    |              | X  | X  | X  |    |     |     |        |         |        |       |     |     |
| .1515                   | 10750.93   |              |    | X  | X  |    |     |     |        |         |        |       | X   |     |
| .1508                   | 10959.18   |              |    | X  | X  |    |     | X   |        |         |        |       |     |     |
| .1487                   | 11645.72   |              |    | X  | X  |    |     |     | X      |         |        |       |     |     |
| .1478                   | 11913.99   |              |    | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1460                   | 12507.63   |              | X  | X  | X  |    |     |     |        |         |        |       |     |     |
| 4 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1695                   | 5024.12    | X            |    | X  | X  |    |     |     |        |         |        |       | X   |     |
| .1685                   | 5329.19    | X            | X  | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1683                   | 5389.95    | X            |    | X  | X  |    |     | X   |        |         |        |       |     |     |
| .1679                   | 5516.96    | X            |    | X  | X  |    |     |     | X      |         |        |       |     |     |
| .1653                   | 6348.00    | X            |    | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1643                   | 6659.04    | X            |    | X  | X  | X  |     |     |        |         |        |       |     |     |
| .1639                   | 6806.08    | X            |    | X  | X  |    | X   |     |        |         |        |       |     |     |
| .1637                   | 6846.69    | X            |    | X  | X  |    |     |     |        |         |        |       | X   |     |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table B3.** *continued*

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | PC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>5 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1748                   | 3307.92    | X            |    | X  | X  |    |     |     |        |         |        | X     |     | X   |
| .1741                   | 3528.65    | X            | X  | X  | X  |    |     |     |        |         |        |       |     | X   |
| .1731                   | 3856.68    | X            |    | X  | X  |    |     |     | X      |         |        |       |     | X   |
| .1718                   | 4261.79    | X            |    | X  | X  |    |     |     |        | X       |        |       |     | X   |
| .1709                   | 5448.68    | X            |    | X  | X  |    |     | X   |        |         |        |       |     | X   |
| .1709                   | 4558.21    | X            |    | X  | X  |    |     |     |        |         |        | X     | X   |     |
| .1701                   | 4805.30    | X            |    | X  | X  | X  |     |     |        |         |        |       |     | X   |
| .1696                   | 4984.98    | X            |    | X  | X  |    |     |     |        |         |        |       | X   | X   |
| <b>6 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1790                   | 1970.13    | X            | X  | X  | X  |    |     |     |        |         |        | X     |     | X   |
| .1781                   | 2268.32    | X            |    | X  | X  |    |     |     | X      |         |        | X     |     | X   |
| .1763                   | 2845.73    | X            |    | X  | X  |    | X   |     |        |         |        | X     |     | X   |
| .1759                   | 2982.16    | X            |    | X  | X  |    |     |     |        | X       |        | X     |     | X   |
| .1755                   | 3097.01    | X            |    | X  | X  | X  |     |     |        |         |        | X     |     | X   |
| .1750                   | 3262.41    | X            |    | X  | X  |    |     |     |        |         |        | X     |     | X   |
| .1750                   | 3264.00    | X            |    | X  | X  |    |     |     |        |         |        | X     | X   | X   |
| .1749                   | 3295.17    | X            |    | X  | X  |    |     |     |        |         | X      | X     |     | X   |
| <b>7 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1819                   | 1057.62    | X            | X  | X  | X  |    |     | X   |        |         |        | X     |     | X   |
| .1809                   | 1384.32    | X            | X  | X  | X  |    | X   |     |        |         |        | X     |     | X   |
| .1800                   | 1673.08    | X            | X  | X  | X  |    |     |     | X      |         |        | X     |     | X   |
| .1794                   | 1850.31    | X            | X  | X  | X  | X  |     |     |        |         |        | X     |     | X   |
| .1792                   | 1929.13    | X            | X  | X  | X  |    |     |     |        |         |        | X     |     | X   |
| .1792                   | 1933.85    | X            | X  | X  | X  |    |     |     |        |         |        | X     | X   | X   |
| .1791                   | 1955.57    | X            | X  | X  | X  |    |     |     |        |         | X      | X     |     | X   |
| <b>8 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1839                   | 421.92     | X            | X  | X  | X  |    | X   | X   |        |         |        | X     |     | X   |
| .1828                   | 784.03     | X            | X  | X  | X  |    |     | X   | X      |         |        | X     |     | X   |
| .1820                   | 1022.47    | X            | X  | X  | X  | X  |     | X   |        |         |        | X     |     | X   |
| .1820                   | 1026.75    | X            | X  | X  | X  |    |     | X   |        |         |        | X     | X   | X   |
| .1820                   | 1027.19    | X            | X  | X  | X  |    |     | X   |        |         |        | X     |     | X   |
| .1819                   | 1049.12    | X            | X  | X  | X  |    |     | X   |        |         | X      | X     |     | X   |

*Note.* FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table B3.** *continued*

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | PC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>9 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1847                   | 162.61     | X            | X  | X  | X  |    |     | X   | X      |         |        | X     |     | X   |
| .1841                   | 370.33     | X            | X  | X  | X  |    | X   | X   |        |         |        | X     |     | X   |
| .1841                   | 374.43     | X            | X  | X  | X  |    |     | X   |        |         |        | X     | X   | X   |
| .1840                   | 389.75     | X            | X  | X  | X  |    |     | X   |        |         | X      | X     | X   | X   |
| .1839                   | 412.09     | X            | X  | X  | X  |    |     | X   |        | X       | X      |       | X   |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>10 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1849                   | 108.78     | X            | X  | X  | X  |    |     | X   | X      | X       | X      |       | X   |     |
| .1849                   | 113.50     | X            | X  | X  | X  |    | X   | X   | X      |         | X      |       | X   |     |
| .1849                   | 117.16     | X            | X  | X  | X  |    |     | X   | X      |         | X      |       | X   | X   |
| .1847                   | 162.84     | X            | X  | X  | X  |    |     | X   | X      |         | X      | X     | X   |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>11 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1850                   | 59.52      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       | X   |     |
| .1850                   | 60.32      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      |       | X   | X   |
| .1850                   | 71.27      | X            | X  | X  | X  | X  | X   | X   | X      |         | X      |       | X   | X   |
| .1849                   | 108.13     | X            | X  | X  | X  |    | X   | X   | X      | X       | X      |       | X   | X   |
| .1849                   | 113.53     | X            | X  | X  | X  | X  | X   | X   | X      |         | X      | X     | X   | X   |
| .1849                   | 117.10     | X            | X  | X  | X  |    | X   | X   |        |         | X      | X     | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>12 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1852                   | 14.34      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       | X   | X   |
| .1850                   | 58.60      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       | X   | X   |
| .1850                   | 59.22      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      |       | X   | X   |
| .1850                   | 70.97      | X            | X  | X  | X  | X  | X   | X   | X      |         | X      | X     | X   | X   |
| .1844                   | 275.65     | X            | X  | X  | X  | X  | X   | X   |        | X       | X      |       | X   | X   |
| .1831                   | 668.98     | X            | X  | X  | X  | X  |     | X   | X      | X       | X      |       | X   | X   |
| .1826                   | 830.51     | X            | X  | X  | X  | X  | X   |     | X      | X       | X      |       | X   | X   |
| .1821                   | 1009.76    | X            | X  | X  | X  | X  | X   | X   | X      | X       |        | X     | X   | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table B4. All Subsets Regression of Youth Assets Overall Seatbelt Use**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | PC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>1 Variable</b>       |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0758                   | 22222.12   |              |    |    | X  |    |     |     |        |         |        |       |     |     |
| .0723                   | 23268.83   |              |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0525                   | 29302.69   | X            |    |    |    |    |     |     |        |         |        |       |     |     |
| .0476                   | 30805.10   |              | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0346                   | 34748.09   |              |    |    |    |    |     |     |        |         | X      |       |     |     |
| .0195                   | 39338.57   |              |    |    |    |    |     |     |        |         |        |       | X   |     |
| .0149                   | 40728.98   |              |    |    |    |    |     |     |        | X       |        |       |     |     |
| .0079                   | 42869.96   |              |    |    |    |    |     |     |        |         |        | X     |     |     |
| <b>2 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1128                   | 10976.43   |              |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .1081                   | 12389.96   | X            |    |    | X  |    |     |     |        |         |        |       |     |     |
| .0997                   | 14965.56   |              |    |    | X  |    |     |     |        |         | X      |       |     |     |
| .0968                   | 15825.27   |              | X  |    | X  |    |     |     |        |         |        |       |     |     |
| .0850                   | 19420.04   |              |    |    | X  |    |     |     |        | X       |        |       |     |     |
| .0833                   | 19939.07   |              |    |    | X  |    |     |     |        |         |        |       | X   |     |
| .0802                   | 20884.82   |              |    |    | X  |    |     |     |        |         |        | X     |     |     |
| .0793                   | 21169.47   |              |    | X  | X  |    |     |     |        |         |        |       |     |     |
| <b>3 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1297                   | 5825.93    | X            |    | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1293                   | 5964.47    |              |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .1194                   | 8980.05    |              | X  | X  |    |    |     |     |        | X       |        |       |     |     |
| .1180                   | 9379.19    |              | X  | X  |    |    |     |     |        |         |        |       | X   |     |
| .1155                   | 10159.34   |              | X  | X  | X  |    |     |     |        |         |        |       |     |     |
| .1153                   | 10223.41   |              |    | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1152                   | 10238.77   |              |    | X  | X  |    |     |     | X      |         |        |       |     |     |
| .1147                   | 10382.92   |              |    | X  | X  | X  |     |     |        |         |        |       |     |     |
| <b>4 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1382                   | 3253.32    | X            |    | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1342                   | 4462.23    | X            |    | X  | X  |    |     |     |        |         |        |       | X   |     |
| .1336                   | 4667.48    | X            |    | X  | X  |    |     |     |        | X       |        |       |     |     |
| .1313                   | 5349.15    | X            |    | X  | X  |    |     | X   |        |         |        |       |     |     |
| .1306                   | 5553.38    | X            |    | X  | X  | X  |     |     |        |         |        |       |     |     |
| .1306                   | 5597.35    | X            |    | X  | X  |    | X   |     |        |         |        |       |     |     |
| .1304                   | 5627.71    | X            |    | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1303                   | 5669.28    | X            |    | X  | X  |    |     |     |        |         |        |       |     | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table B4.** *continued*

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | PC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>5 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1428                   | 1869.34    | X            |    | X  | X  |    |     |     |        |         |        | X     |     | X   |
| .1400                   | 2698.11    | X            |    | X  | X  |    |     |     | X      |         |        | X     |     |     |
| .1396                   | 2817.25    | X            |    | X  | X  |    |     | X   |        |         |        | X     |     |     |
| .1391                   | 2973.52    | X            |    | X  | X  | X  |     |     |        |         |        | X     |     |     |
| .1390                   | 3018.74    | X            |    | X  | X  |    | X   |     |        |         |        | X     |     |     |
| .1386                   | 3119.09    | X            |    | X  | X  |    |     |     |        |         |        | X     |     | X   |
| .1385                   | 3150.59    | X            | X  | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1384                   | 3192.20    | X            |    | X  | X  |    |     |     |        | X       | X      |       |     |     |
| <b>6 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1446                   | 1318.41    | X            |    | X  | X  |    |     |     | X      |         |        | X     |     | X   |
| .1439                   | 1511.49    | X            |    | X  | X  |    | X   |     |        |         |        | X     |     | X   |
| .1437                   | 1583.53    | X            |    | X  | X  |    |     | X   |        |         |        | X     |     | X   |
| .1435                   | 1660.46    | X            |    | X  | X  |    |     |     |        |         |        | X     |     | X   |
| .1434                   | 1669.21    | X            |    | X  | X  | X  |     |     |        |         |        | X     |     | X   |
| .1429                   | 1816.88    | X            |    | X  | X  |    |     |     |        | X       | X      |       |     | X   |
| .1429                   | 1818.87    | X            | X  | X  | X  |    |     |     |        |         |        | X     |     | X   |
| .1428                   | 1856.01    | X            |    | X  | X  |    |     |     |        |         | X      | X     | X   |     |
| <b>7 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1457                   | 971.72     | X            |    | X  | X  |    | X   |     | X      |         |        | X     |     | X   |
| .1455                   | 1045.67    | X            |    | X  | X  |    |     | X   | X      |         |        | X     |     | X   |
| .1453                   | 1106.91    | X            |    | X  | X  |    |     |     | X      |         |        | X     |     | X   |
| .1452                   | 1129.22    | X            |    | X  | X  | X  |     |     | X      |         |        | X     |     | X   |
| .1451                   | 1153.15    | X            |    | X  | X  |    |     |     | X      | X       | X      |       |     | X   |
| .1449                   | 1208.64    | X            |    | X  | X  |    |     |     | X      |         | X      | X     |     | X   |
| .1447                   | 1272.98    | X            | X  | X  | X  |    |     |     | X      |         | X      |       |     | X   |
| <b>8 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1467                   | 674.43     | X            |    | X  | X  |    | X   | X   | X      |         |        | X     |     | X   |
| .1465                   | 748.76     | X            |    | X  | X  | X  | X   |     | X      |         |        | X     |     | X   |
| .1463                   | 784.68     | X            |    | X  | X  |    | X   |     | X      |         |        | X     |     | X   |
| .1463                   | 802.23     | X            |    | X  | X  |    | X   |     | X      | X       | X      |       |     | X   |
| .1461                   | 867.37     | X            |    | X  | X  |    | X   |     | X      |         | X      | X     |     | X   |
| .1459                   | 909.80     | X            | X  | X  | X  |    | X   |     | X      |         | X      |       |     | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table B4.** *continued*

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | PC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>9 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1474                   | 475.94     | X            |    | X  | X  |    | X   | X   | X      |         |        | X     |     | X X |
| .1472                   | 512.33     | X            |    | X  | X  | X  | X   | X   | X      |         |        | X     |     | X   |
| .1472                   | 513.71     | X            |    | X  | X  |    | X   | X   | X      | X       |        | X     |     | X   |
| .1471                   | 552.09     | X            |    | X  | X  | X  | X   |     | X      |         |        | X     |     | X X |
| .1471                   | 566.71     | X            |    | X  | X  |    | X   | X   | X      |         | X      | X     | X   | X   |
| .1469                   | 625.65     | X            | X  | X  | X  |    | X   | X   | X      |         | X      |       | X   |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>10 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1479                   | 306.44     | X            |    | X  | X  | X  | X   | X   | X      |         |        | X     |     | X X |
| .1489                   | 325.73     | X            |    | X  | X  |    | X   | X   | X      | X       |        | X     |     | X X |
| .1478                   | 348.15     | X            |    | X  | X  | X  | X   | X   | X      | X       |        | X     |     | X   |
| .1477                   | 365.55     | X            |    | X  | X  |    | X   | X   | X      |         |        | X     | X   | X X |
| .1476                   | 390.15     | X            |    | X  | X  | X  | X   |     | X      | X       | X      |       | X   | X   |
| .1475                   | 428.37     | X            | X  | X  | X  |    | X   | X   | X      |         | X      |       | X   | X X |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>11 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1484                   | 153.00     | X            |    | X  | X  | X  | X   | X   | X      | X       | X      |       | X   | X   |
| .1483                   | 192.96     | X            |    | X  | X  | X  | X   | X   | X      |         | X      | X     | X   | X X |
| .1482                   | 226.33     | X            |    | X  | X  |    | X   | X   | X      | X       | X      | X     | X   | X X |
| .1481                   | 248.86     | X            |    | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1480                   | 271.50     | X            | X  | X  | X  | X  | X   | X   | X      |         | X      |       | X   | X X |
| .1480                   | 275.62     | X            | X  | X  | X  |    | X   | X   | X      | X       | X      |       | X   | X   |
| .1480                   | 290.70     | X            |    | X  | X  | X  | X   |     | X      | X       | X      | X     | X   | X X |
| .1479                   | 309.66     | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       | X   |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>12 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1488                   | 50.75      | X            |    | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X X |
| .1486                   | 115.92     | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       | X   | X X |
| .1484                   | 157.27     | X            | X  | X  | X  | X  | X   | X   | X      |         |        | X     | X   | X X |
| .1484                   | 175.31     | X            | X  | X  | X  |    | X   | X   | X      | X       | X      | X     | X   | X X |
| .1482                   | 209.68     | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X X |
| .1481                   | 244.58     | X            | X  | X  | X  | X  | X   |     | X      | X       | X      | X     | X   | X X |
| .1476                   | 396.51     | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     | X   | X X |
| .1465                   | 725.85     | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     | X   | X X |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table B5. All Subsets Regression of Youth Assets on Overall Bike Helmet Use**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | PC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>1 Variable</b>       |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0758                   | 16255.61   |              |    |    | X  |    |     |     |        |         |        |       |     |     |
| .0723                   | 17021.42   |              |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0525                   | 21436.03   | X            |    |    |    |    |     |     |        |         |        |       |     |     |
| .0476                   | 22535.25   |              | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0346                   | 25420.08   |              |    |    |    |    |     |     |        |         | X      |       |     |     |
| .0195                   | 28778.67   |              |    |    |    |    |     |     |        |         |        |       | X   |     |
| .0149                   | 29795.96   |              |    |    |    |    |     |     |        | X       |        |       |     |     |
| .0079                   | 31362.36   |              |    |    |    |    |     |     |        |         |        | X     |     |     |
| <b>2 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1128                   | 8028.36    |              |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .1081                   | 9062.56    | X            |    |    |    | X  |     |     |        |         |        |       |     |     |
| .0997                   | 10946.97   |              |    |    | X  |    |     |     |        |         |        | X     |     |     |
| .0968                   | 11575.98   |              | X  |    | X  |    |     |     |        |         |        |       |     |     |
| .0850                   | 14206.05   |              |    |    | X  |    |     |     |        | X       |        |       |     |     |
| .0833                   | 14585.77   |              |    |    |    | X  |     |     |        |         |        |       | X   |     |
| .0802                   | 15277.71   |              |    |    |    | X  |     |     |        |         |        |       | X   |     |
| .0793                   | 15485.98   |              |    |    |    | X  | X   |     |        |         |        |       |     |     |
| <b>3 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1297                   | 4260.61    | X            |    |    | X  | X  |     |     |        |         |        |       |     |     |
| .1293                   | 4361.95    |              |    |    | X  | X  |     |     |        |         |        | X     |     |     |
| .1193                   | 6568.27    |              |    |    | X  | X  |     |     |        |         | X      |       |     |     |
| .1180                   | 6860.29    |              |    |    | X  | X  |     |     |        |         |        |       | X   |     |
| .1155                   | 7431.10    |              | X  | X  | X  |    |     |     |        |         |        |       |     |     |
| .1153                   | 7477.96    |              |    |    | X  | X  |     |     |        |         |        |       | X   |     |
| .1152                   | 7489.21    |              |    |    | X  | X  |     |     | X      |         |        |       |     |     |
| .1147                   | 7594.66    |              |    |    | X  | X  | X   |     |        |         |        |       |     |     |
| <b>4 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1381                   | 2378.91    | X            |    |    | X  | X  |     |     |        |         |        |       | X   |     |
| .1342                   | 3263.40    | X            |    |    | X  | X  |     |     |        |         |        |       |     | X   |
| .1335                   | 3413.56    | X            |    |    | X  | X  |     |     |        |         | X      |       |     |     |
| .1313                   | 3912.29    | X            |    |    | X  | X  |     |     | X      |         |        |       |     |     |
| .1306                   | 4061.72    | X            |    |    | X  | X  | X   |     |        |         |        |       |     |     |
| .1306                   | 4071.95    | X            |    |    | X  | X  |     | X   |        |         |        |       |     |     |
| .1304                   | 4116.10    | X            |    |    | X  | X  |     |     |        |         |        |       | X   |     |
| .1303                   | 4146.52    | X            |    |    | X  | X  |     |     |        |         |        |       |     | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table B5.** *continued*

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | PC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| 5 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1427                   | 1366.87    | X            |    | X  | X  |    |     |     |        |         |        | X     |     | X   |
| .1400                   | 1973.23    | X            |    | X  | X  |    |     |     | X      |         |        | X     |     |     |
| .1396                   | 2060.40    | X            |    | X  | X  |    |     | X   |        |         |        | X     |     |     |
| .1391                   | 2174.73    | X            |    | X  | X  | X  |     |     |        |         |        | X     |     |     |
| .1390                   | 2207.81    | X            |    | X  | X  |    | X   |     |        |         |        | X     |     |     |
| .1386                   | 2281.24    | X            |    | X  | X  |    |     |     |        |         |        | X     |     | X   |
| .1385                   | 2304.27    | X            | X  | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1384                   | 2334.74    | X            |    | X  | X  |    |     |     |        | X       |        | X     |     |     |
| 6 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1446                   | 964.33     | X            |    | X  | X  |    |     |     | X      |         |        | X     |     | X   |
| .1439                   | 1105.60    | X            |    | X  | X  |    | X   |     |        |         |        | X     |     | X   |
| .1437                   | 1158.29    | X            |    | X  | X  |    |     | X   |        |         |        | X     |     | X   |
| .1434                   | 1214.58    | X            |    | X  | X  |    |     |     |        |         |        | X     |     | X   |
| .1434                   | 1220.99    | X            |    | X  | X  | X  |     |     |        |         |        | X     |     | X   |
| .1429                   | 1329.03    | X            |    | X  | X  |    |     |     |        | X       | X      |       |     | X   |
| .1429                   | 1330.48    | X            | X  | X  | X  |    |     |     |        |         |        | X     |     | X   |
| .1428                   | 1357.65    | X            |    | X  | X  |    |     |     |        |         | X      | X     |     | X   |
| 7 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1457                   | 711.23     | X            |    | X  | X  |    | X   |     | X      |         |        | X     |     | X   |
| .1455                   | 765.33     | X            |    | X  | X  |    |     | X   | X      |         |        | X     |     | X   |
| .1453                   | 810.13     | X            |    | X  | X  |    |     |     | X      |         |        | X     |     | X   |
| .1452                   | 826.46     | X            |    | X  | X  | X  |     |     | X      |         |        | X     |     | X   |
| .1451                   | 843.97     | X            |    | X  | X  |    |     |     | X      | X       | X      |       |     | X   |
| .1449                   | 884.54     | X            |    | X  | X  |    |     |     | X      |         | X      |       | X   | X   |
| .1447                   | 931.63     | X            | X  | X  | X  |    |     |     | X      |         | X      |       |     | X   |
| 8 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1467                   | 429.25     | X            |    | X  | X  |    | X   | X   | X      |         |        | X     |     | X   |
| .1464                   | 548.64     | X            |    | X  | X  | X  | X   |     | X      |         |        | X     |     | X   |
| .1463                   | 574.91     | X            |    | X  | X  |    | X   |     | X      |         |        | X     |     | X   |
| .1463                   | 587.74     | X            |    | X  | X  |    | X   |     | X      | X       | X      |       |     | X   |
| .1461                   | 635.39     | X            |    | X  | X  |    | X   |     | X      |         | X      | X     |     | X   |
| .1459                   | 666.44     | X            | X  | X  | X  |    | X   |     | X      |         | X      |       |     | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table B5.** *continued*

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | PC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>9 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1473                   | 349.55     | X            |    | X  | X  |    | X   | X   | X      |         |        | X     |     | X X |
| .1472                   | 376.17     | X            |    | X  | X  | X  | X   | X   | X      |         |        | X     |     | X   |
| .1472                   | 377.20     | X            |    | X  | X  |    | X   | X   | X      | X       |        | X     |     | X   |
| .1471                   | 405.26     | X            |    | X  | X  | X  | X   |     | X      |         |        | X     |     | X X |
| .1470                   | 415.97     | X            |    | X  | X  |    | X   | X   | X      |         |        | X     | X   | X   |
| .1469                   | 459.09     | X            | X  | X  | X  |    | X   | X   | X      |         |        | X     |     | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>10 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1479                   | 226.08     | X            |    | X  | X  | X  | X   | X   | X      |         |        | X     |     | X X |
| .1478                   | 240.19     | X            |    | X  | X  |    | X   | X   | X      | X       |        | X     |     | X X |
| .1478                   | 256.59     | X            |    | X  | X  | X  | X   | X   | X      | X       |        | X     |     | X   |
| .1477                   | 269.32     | X            |    | X  | X  |    | X   | X   | X      |         |        | X     | X   | X X |
| .1476                   | 287.31     | X            |    | X  | X  | X  | X   |     | X      | X       |        | X     |     | X X |
| .1475                   | 315.28     | X            | X  | X  | X  |    | X   | X   | X      |         |        | X     |     | X X |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>11 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1484                   | 114.36     | X            |    | X  | X  | X  | X   | X   | X      | X       |        | X     |     | X X |
| .1483                   | 143.59     | X            |    | X  | X  | X  | X   | X   | X      |         |        | X     | X   | X X |
| .1482                   | 168.00     | X            |    | X  | X  |    | X   | X   | X      | X       |        | X     | X   | X X |
| .1481                   | 184.49     | X            |    | X  | X  | X  | X   | X   | X      | X       |        | X     | X   | X X |
| .1480                   | 201.06     | X            | X  | X  | X  | X  | X   | X   | X      |         |        | X     |     | X X |
| .1480                   | 204.06     | X            | X  | X  | X  |    | X   | X   | X      | X       |        | X     |     | X X |
| .1480                   | 215.09     | X            |    | X  | X  | X  | X   |     | X      | X       |        | X     | X   | X X |
| .1479                   | 228.96     | X            | X  | X  | X  | X  | X   | X   | X      | X       |        | X     |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>12 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1488                   | 40.09      | X            |    | X  | X  | X  | X   | X   | X      | X       |        | X     | X   | X X |
| .1485                   | 87.77      | X            | X  | X  | X  | X  | X   | X   | X      | X       |        | X     |     | X X |
| .1484                   | 118.00     | X            | X  | X  | X  | X  | X   | X   | X      |         |        | X     | X   | X X |
| .1483                   | 131.22     | X            | X  | X  | X  |    | X   | X   | X      | X       |        | X     | X   | X X |
| .1482                   | 156.36     | X            | X  | X  | X  | X  | X   | X   | X      | X       |        | X     | X   | X X |
| .1481                   | 181.89     | X            | X  | X  | X  | X  | X   |     | X      | X       |        | X     | X   | X X |
| .1476                   | 293.04     | X            | X  | X  | X  | X  |     | X   | X      | X       |        | X     | X   | X X |
| .1465                   | 534.02     | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     | X   | X X |

**Note.** FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**APPENDIX C.**

**ALL SUBSETS REGRESSIONS OF YOUTH ASSETS ON  
POSITIVE OUTCOMES BY GRADE LEVEL**

**Table C1. All Subsets Regression of Youth Assets on Perceived Health Gr7**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | PC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>1 Variable</b>       |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0913                   | 1475.69    | X            |    |    |    |    |     |     |        |         |        |       |     |     |
| .0589                   | 2923.39    |              | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0270                   | 4353.06    |              |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0263                   | 4384.98    |              |    |    |    |    |     |     |        |         | X      |       |     |     |
| .0212                   | 4611.52    |              |    |    |    | X  |     |     |        |         |        |       |     |     |
| .0122                   | 5016.36    |              |    |    |    |    |     |     |        |         |        | X     |     |     |
| .0090                   | 5157.68    |              |    |    |    |    |     |     | X      |         |        |       |     |     |
| .0078                   | 5210.73    |              |    |    |    |    |     |     |        | X       |        |       |     |     |
| <b>2 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1085                   | 706.81     | X            | X  |    |    |    |     |     |        |         |        |       |     |     |
| .1005                   | 1063.48    | X            |    |    |    | X  |     |     |        |         |        |       |     |     |
| .0963                   | 1249.32    | X            |    |    |    |    |     |     |        |         |        | X     |     |     |
| .0953                   | 1295.92    | X            |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0934                   | 1381.24    | X            |    |    |    |    | X   |     |        |         |        |       |     |     |
| .0933                   | 1385.71    | X            |    |    |    |    |     | X   |        |         |        |       |     |     |
| .0932                   | 1389.06    | X            |    |    |    |    |     |     | X      |         |        |       |     |     |
| .0926                   | 1418.93    | X            |    |    |    |    |     |     | X      |         |        |       |     |     |
| <b>3 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1163                   | 358.22     | X            | X  |    |    | X  |     |     |        |         |        |       |     |     |
| .1121                   | 544.74     | X            | X  |    |    |    |     |     |        |         |        | X     |     |     |
| .1103                   | 627.15     | X            | X  |    |    |    |     |     |        |         |        |       | X   |     |
| .1097                   | 652.84     | X            | X  |    |    | X  |     |     |        |         |        |       |     |     |
| .1096                   | 655.05     | X            | X  |    |    |    | X   |     |        |         |        |       |     |     |
| .1096                   | 656.29     | X            | X  |    |    |    |     |     | X      |         |        |       |     |     |
| .1092                   | 672.69     | X            | X  |    |    |    |     |     |        |         |        | X     |     |     |
| .1092                   | 675.66     | X            | X  |    |    |    |     | X   |        |         |        |       |     |     |
| <b>4 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1198                   | 200.44     | X            | X  |    |    | X  |     |     |        |         |        | X     |     |     |
| .1182                   | 272.62     | X            | X  |    |    | X  |     |     |        |         |        |       | X   |     |
| .1175                   | 305.28     | X            | X  |    |    | X  |     |     |        |         |        | X     |     |     |
| .1172                   | 315.65     | X            | X  |    |    | X  | X   |     |        |         |        |       |     |     |
| .1170                   | 326.56     | X            | X  |    |    | X  |     |     |        |         |        | X     |     |     |
| .1169                   | 332.56     | X            | X  |    |    | X  |     |     | X      |         |        |       |     |     |
| .1168                   | 335.02     | X            | X  |    |    | X  |     | X   |        |         |        |       |     |     |
| .1165                   | 351.05     | X            | X  |    | X  | X  |     |     |        |         |        |       |     |     |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C1.** *continued*

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | PC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>5 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1217                   | 119.07     | X            | X  |    |    |    | X   |     |        |         |        |       | X   | X   |
| .1207                   | 161.22     | X            | X  |    |    |    | X   | X   |        |         |        |       | X   |     |
| .1204                   | 173.42     | X            | X  |    |    |    | X   |     |        |         |        | X     | X   |     |
| .1203                   | 181.80     | X            | X  |    |    |    | X   |     | X      |         |        |       | X   |     |
| .1200                   | 190.45     | X            | X  |    |    | X  | X   |     |        |         |        |       | X   |     |
| .1199                   | 196.37     | X            | X  |    |    |    | X   |     |        | X       |        |       | X   |     |
| .1199                   | 198.09     | X            | X  | X  |    |    | X   |     |        |         |        |       | X   |     |
| .1198                   | 199.99     | X            | X  |    |    |    | X   |     |        |         |        | X     | X   |     |
| <b>6 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1227                   | 75.11      | X            | X  |    |    |    | X   | X   |        |         |        |       | X   | X   |
| .1224                   | 87.69      | X            | X  |    |    |    | X   |     |        |         |        | X     | X   | X   |
| .1222                   | 97.58      | X            | X  |    |    |    | X   |     | X      |         |        | X     |     | X   |
| .1218                   | 114.32     | X            | X  |    |    | X  | X   |     |        |         |        |       | X   | X   |
| .1218                   | 114.38     | X            | X  |    |    |    | X   |     |        | X       |        |       | X   | X   |
| .1217                   | 117.83     | X            | X  | X  |    |    | X   |     |        |         |        |       | X   | X   |
| .1217                   | 118.90     | X            | X  |    |    |    | X   |     |        |         |        | X     | X   | X   |
| .1217                   | 119.19     | X            | X  |    |    |    | X   |     |        |         |        | X     | X   | X   |
| <b>7 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1235                   | 39.60      | X            | X  |    |    |    | X   | X   |        |         |        | X     | X   | X   |
| .1231                   | 55.03      | X            | X  |    |    |    | X   | X   | X      |         |        | X     |     | X   |
| .1228                   | 68.69      | X            | X  |    |    | X  | X   | X   |        |         |        | X     |     | X   |
| .1228                   | 69.81      | X            | X  |    |    |    | X   | X   |        | X       |        | X     |     | X   |
| .1227                   | 73.68      | X            | X  | X  |    |    | X   | X   |        |         |        | X     |     | X   |
| .1227                   | 75.00      | X            | X  |    |    |    | X   | X   |        |         |        | X     | X   | X   |
| .1227                   | 75.87      | X            | X  |    |    |    | X   | X   |        |         |        | X     |     | X   |
| <b>8 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1240                   | 19.36      | X            | X  |    |    |    | X   | X   | X      |         |        | X     | X   | X   |
| .1236                   | 33.11      | X            | X  |    |    | X  | X   | X   |        |         |        | X     | X   | X   |
| .1235                   | 37.80      | X            | X  | X  |    |    | X   | X   |        |         |        | X     | X   | X   |
| .1235                   | 39.61      | X            | X  |    |    |    | X   | X   |        | X       | X      | X     |     | X   |
| .1235                   | 39.99      | X            | X  |    |    |    | X   | X   |        |         | X      | X     |     | X   |
| .1235                   | 40.49      | X            | X  |    |    |    | X   | X   |        |         | X      | X     | X   | X   |

**Note.** FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C1.** *continued*

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |  |  | vol | rel |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|--|--|-----|-----|
|                         |            | FC           | SB | TC | PI | PC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed |  |  |     |     |
| <b>9 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |  |  |     |     |
| .1242                   | 10.29      | X            | X  |    | X  | X  | X   | X   |        | X       | X      |       |  |  |     | X   |
| .1240                   | 18.28      | X            | X  | X  |    | X  | X   | X   |        | X       | X      |       |  |  |     | X   |
| .1240                   | 19.76      | X            | X  |    |    | X  | X   | X   | X      | X       | X      |       |  |  |     | X   |
| .1239                   | 20.71      | X            | X  |    |    | X  | X   | X   |        | X       | X      |       |  |  | X   | X   |
| .1239                   | 20.89      | X            | X  |    |    | X  | X   | X   |        | X       | X      | X     |  |  |     | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |  |  |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |  |  |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |  |  |     |     |
| <b>10 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |  |  |     |     |
| .1242                   | 10.43      | X            | X  |    | X  | X  | X   | X   | X      | X       | X      |       |  |  |     | X   |
| .1242                   | 10.64      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      |       |  |  |     | X   |
| .1242                   | 10.72      | X            | X  |    | X  | X  | X   | X   |        | X       | X      |       |  |  | X   | X   |
| .1242                   | 11.49      | X            | X  |    | X  | X  | X   | X   |        | X       | X      | X     |  |  |     | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |  |  |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |  |  |     |     |
| <b>11 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |  |  |     |     |
| .1242                   | 10.87      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       |  |  |     | X   |
| .1242                   | 10.94      | X            | X  |    | X  | X  | X   | X   | X      | X       | X      |       |  |  | X   | X   |
| .1242                   | 11.00      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      |       |  |  | X   | X   |
| .1242                   | 11.88      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     |  |  |     | X   |
| .1242                   | 11.94      | X            | X  |    | X  | X  | X   | X   |        | X       | X      | X     |  |  | X   | X   |
| .1242                   | 12.09      | X            | X  |    | X  | X  | X   | X   | X      | X       | X      | X     |  |  |     | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |  |  |     |     |
| <b>12 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |  |  |     |     |
| .1242                   | 11.33      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       |  |  | X   | X   |
| .1242                   | 12.27      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     |  |  | X   | X   |
| .1242                   | 12.54      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     |  |  | X   | X   |
| .1242                   | 12.60      | X            | X  |    | X  | X  | X   | X   | X      | X       | X      | X     |  |  | X   | X   |
| .1240                   | 21.93      | X            | X  | X  |    | X  | X   | X   | X      | X       | X      | X     |  |  | X   | X   |
| .1237                   | 33.00      | X            | X  | X  | X  | X  | X   |     | X      | X       | X      | X     |  |  | X   | X   |
| .1235                   | 44.13      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     |  |  | X   | X   |
| .1231                   | 61.16      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     |  |  | X   | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C2. All Subsets Regression of Youth Assets on Perceived Health Gr8**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | PC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>1 Variable</b>       |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0799                   | 2172.74    | X            |    |    |    |    |     |     |        |         |        |       |     |     |
| .0559                   | 3334.62    |              | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0345                   | 4369.92    |              |    |    |    |    |     |     |        |         |        | X     |     |     |
| .0321                   | 4487.42    |              |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0222                   | 4966.87    |              |    |    |    | X  |     |     |        |         |        |       |     |     |
| .0173                   | 5201.23    |              |    |    |    |    |     |     |        |         | X      |       |     |     |
| .0109                   | 5512.81    |              |    |    |    |    |     | X   |        |         |        |       |     |     |
| .0070                   | 5700.75    |              |    |    |    |    |     |     | X      |         |        |       |     |     |
| <b>2 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0994                   | 1230.44    | X            | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0943                   | 1475.91    | X            |    |    |    | X  |     |     |        |         |        |       |     |     |
| .0874                   | 1810.60    | X            |    |    |    |    |     |     |        |         |        | X     |     |     |
| .0874                   | 1812.06    | X            |    |    |    |    |     | X   |        |         |        |       |     |     |
| .0861                   | 1873.73    | X            |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0853                   | 1915.18    | X            |    |    |    |    |     |     |        |         | X      |       |     |     |
| .0810                   | 2120.28    | X            |    |    |    |    |     |     |        |         |        |       | X   |     |
| .0806                   | 2139.35    | X            |    |    |    |    |     |     | X      |         |        |       |     |     |
| <b>3 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1099                   | 724.57     | X            | X  |    |    | X  |     |     |        |         |        |       |     |     |
| .1058                   | 924.73     | X            | X  |    |    |    |     | X   |        |         |        |       |     |     |
| .1054                   | 943.87     | X            | X  |    |    |    |     |     |        |         |        | X     |     |     |
| .1039                   | 1014.92    | X            | X  |    |    |    | X   |     |        |         |        | X     |     |     |
| .0996                   | 1220.05    | X            | X  |    |    |    |     |     |        |         |        |       |     | X   |
| .0996                   | 1221.44    | X            | X  |    |    |    |     | X   |        |         |        |       |     |     |
| .0996                   | 1222.24    | X            | X  |    |    |    |     |     |        |         |        |       | X   |     |
| .0996                   | 1222.82    | X            | X  |    | X  |    |     |     |        |         |        |       |     |     |
| <b>4 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1157                   | 446.57     | X            | X  |    |    | X  |     |     |        |         |        | X     |     |     |
| .1140                   | 526.97     | X            | X  |    |    | X  |     |     |        | X       |        |       |     |     |
| .1135                   | 549.60     | X            | X  |    |    | X  |     | X   |        |         |        |       |     |     |
| .1101                   | 713.36     | X            | X  |    | X  | X  |     |     |        |         |        |       |     |     |
| .1101                   | 715.66     | X            | X  | X  |    | X  |     |     |        |         |        |       |     |     |
| .1100                   | 719.54     | X            | X  |    |    | X  |     |     | X      |         |        |       |     |     |
| .1100                   | 721.61     | X            | X  |    |    | X  |     |     |        |         |        |       |     | X   |
| .1099                   | 723.82     | X            | X  |    |    | X  |     |     |        |         |        | X     |     |     |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C2.** *continued*

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | PC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>5 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1192                   | 277.13     | X            | X  |    |    | X  |     | X   |        |         | X      |       |     |     |
| .1184                   | 313.88     | X            | X  |    |    | X  |     |     |        | X       | X      |       |     |     |
| .1172                   | 374.68     | X            | X  |    |    | X  |     |     |        |         | X      | X     |     |     |
| .1160                   | 429.47     | X            | X  |    | X  | X  |     |     |        |         | X      |       |     |     |
| .1158                   | 442.12     | X            | X  | X  |    | X  |     |     |        |         | X      |       |     |     |
| .1158                   | 443.01     | X            | X  |    |    | X  |     |     |        |         | X      |       |     | X   |
| .1157                   | 447.36     | X            | X  |    |    | X  |     |     |        |         | X      |       |     | X   |
| .1157                   | 447.50     | X            | X  |    |    | X  | X   |     |        |         | X      |       |     |     |
| <b>6 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1220                   | 140.96     | X            | X  |    |    | X  |     | X   |        | X       | X      |       |     |     |
| .1207                   | 202.86     | X            | X  |    |    | X  |     | X   |        |         | X      | X     |     |     |
| .1196                   | 258.00     | X            | X  |    | X  | X  |     | X   |        |         | X      |       |     |     |
| .1193                   | 272.86     | X            | X  | X  |    | X  |     | X   |        |         | X      |       |     |     |
| .1193                   | 274.40     | X            | X  |    |    | X  |     | X   |        |         | X      |       |     | X   |
| .1192                   | 277.73     | X            | X  |    |    | X  |     | X   | X      |         | X      |       |     |     |
| .1192                   | 278.87     | X            | X  |    |    | X  |     | X   |        |         | X      |       |     | X   |
| .1192                   | 278.91     | X            | X  |    |    | X  | X   | X   |        |         | X      |       |     |     |
| <b>7 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1241                   | 40.25      | X            | X  |    |    | X  |     | X   |        | X       | X      | X     |     |     |
| .1225                   | 117.80     | X            | X  |    | X  | X  |     | X   |        | X       | X      |       |     |     |
| .1222                   | 130.88     | X            | X  |    |    | X  |     | X   | X      | X       | X      |       |     |     |
| .1221                   | 138.61     | X            | X  | X  |    | X  |     | X   |        | X       | X      |       |     |     |
| .1221                   | 139.72     | X            | X  |    |    | X  |     | X   |        | X       | X      |       |     | X   |
| .1220                   | 142.60     | X            | X  |    |    | X  |     | X   |        | X       | X      |       |     | X   |
| .1220                   | 142.89     | X            | X  |    |    | X  | X   | X   |        | X       | X      |       |     |     |
| <b>8 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1246                   | 19.47      | X            | X  |    | X  | X  |     | X   |        | X       | X      | X     |     |     |
| .1242                   | 37.27      | X            | X  | X  |    | X  |     | X   |        | X       | X      | X     |     |     |
| .1242                   | 38.48      | X            | X  |    |    | X  |     | X   |        | X       | X      | X     |     | X   |
| .1241                   | 41.89      | X            | X  |    |    | X  | X   | X   |        | X       | X      | X     |     |     |
| .1241                   | 41.97      | X            | X  |    |    | X  |     | X   | X      | X       | X      | X     |     |     |
| .1241                   | 42.14      | X            | X  |    |    | X  |     | X   |        | X       | X      | X     |     | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C2.** *continued*

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | PC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>9 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1248                   | 10.96      | X            | X  | X  | X  | X  |     | X   |        | X       | X      | X     |     |     |
| .1248                   | 15.55      | X            | X  |    | X  | X  |     | X   |        | X       | X      | X     |     | X   |
| .1246                   | 21.25      | X            | X  |    | X  | X  | X   | X   |        | X       | X      | X     |     |     |
| .1246                   | 21.37      | X            | X  |    | X  | X  |     | X   |        | X       | X      | X     | X   |     |
| .1245                   | 21.40      | X            | X  |    | X  | X  |     | X   | X      | X       | X      | X     |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>10 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1249                   | 7.35       | X            | X  | X  | X  | X  |     | X   |        | X       | X      | X     |     | X   |
| .1247                   | 12.77      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     |     |     |
| .1247                   | 12.78      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     |     |     |
| .1247                   | 12.80      | X            | X  | X  | X  | X  |     | X   |        | X       | X      | X     | X   |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>11 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1248                   | 9.14       | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     |     | X   |
| .1248                   | 9.25       | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     |     | X   |
| .1248                   | 9.31       | X            | X  | X  | X  | X  |     | X   |        | X       | X      | X     | X   | X   |
| .1247                   | 14.65      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     | X   |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>12 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1248                   | 11.04      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     |     | X   |
| .1248                   | 11.09      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     | X   | X   |
| .1248                   | 11.21      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     | X   | X   |
| .1247                   | 16.47      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1246                   | 21.31      | X            | X  |    | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1242                   | 40.84      | X            | X  | X  |    | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1230                   | 101.28     | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     |     | X   |
| .1215                   | 172.79     | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |

**Note.** FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C3. All Subsets Regression of Youth Assets on Perceived Health Gr9**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | PC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>1 Variable</b>       |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0973                   | 2876.41    | X            |    |    |    |    |     |     |        |         |        |       |     |     |
| .0704                   | 4299.85    |              | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0396                   | 5929.12    |              |    |    |    |    |     |     |        |         |        | X     |     |     |
| .0356                   | 6144.39    |              |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0348                   | 6187.03    |              |    |    |    | X  |     |     |        |         |        |       |     |     |
| .0120                   | 7390.29    |              |    |    |    |    |     | X   |        |         |        |       |     |     |
| .0120                   | 7394.99    |              |    |    |    |    |     |     |        |         |        | X     |     |     |
| .0063                   | 7695.76    |              |    |    |    |    |     |     |        | X       |        |       |     |     |
| <b>2 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1227                   | 1533.24    | X            | X  |    |    |    |     |     |        |         |        |       |     |     |
| .1165                   | 1860.96    | X            |    |    |    | X  |     |     |        |         |        |       |     |     |
| .1072                   | 2353.51    | X            |    |    |    |    |     |     |        |         |        | X     |     |     |
| .1042                   | 2509.47    | X            |    | X  |    |    |     |     |        |         |        |       |     |     |
| .1033                   | 2561.97    | X            |    |    |    |    |     | X   |        |         |        |       |     |     |
| .0991                   | 2779.72    | X            |    |    |    |    |     |     |        |         |        |       | X   |     |
| .0979                   | 2845.42    | X            |    |    |    |    |     |     |        |         | X      |       |     |     |
| .0975                   | 2868.19    | X            |    |    |    | X  |     |     |        |         |        |       |     |     |
| <b>3 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1380                   | 723.82     | X            | X  |    |    | X  |     |     |        |         |        |       |     |     |
| .1302                   | 1136.25    | X            | X  |    |    |    |     |     |        |         |        | X     |     |     |
| .1277                   | 1267.68    | X            | X  |    |    |    |     | X   |        |         |        |       |     |     |
| .1241                   | 1458.40    | X            | X  |    |    |    |     |     |        |         |        |       | X   |     |
| .1240                   | 1465.39    | X            | X  |    | X  |    |     |     |        |         |        |       |     |     |
| .1231                   | 1510.44    | X            | X  |    |    |    |     |     |        | X       |        |       |     |     |
| .1229                   | 1520.72    | X            | X  |    |    |    |     |     |        |         |        |       |     | X   |
| .1228                   | 1525.88    | X            | X  |    |    |    |     |     |        |         |        |       |     |     |
| <b>4 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1455                   | 326.64     | X            | X  |    |    | X  |     |     |        |         |        | X     |     |     |
| .1402                   | 608.40     | X            | X  |    |    | X  |     | X   |        |         |        |       |     |     |
| .1395                   | 646.82     | X            | X  |    | X  | X  |     |     |        |         |        |       |     |     |
| .1393                   | 654.66     | X            | X  |    |    | X  |     |     |        |         |        |       | X   |     |
| .1386                   | 693.55     | X            | X  |    |    | X  |     |     |        |         |        |       |     | X   |
| .1385                   | 696.73     | X            | X  |    |    | X  |     |     |        |         |        |       |     | X   |
| .1383                   | 710.34     | X            | X  |    |    | X  |     |     |        | X       |        |       |     |     |
| .1381                   | 716.60     | X            | X  |    |    | X  |     |     | X      |         |        |       |     |     |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C3.** *continued*

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | PC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>5 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1477                   | 211.74     | X            | X  |    |    | X  |     | X   |        |         |        | X     |     |     |
| .1471                   | 244.07     | X            | X  |    | X  | X  |     |     |        |         |        | X     |     |     |
| .1464                   | 282.55     | X            | X  |    |    | X  |     |     |        | X       |        | X     |     |     |
| .1462                   | 290.96     | X            | X  |    |    | X  |     |     |        |         |        | X     |     | X   |
| .1461                   | 294.76     | X            | X  |    |    | X  |     |     |        |         | X      |       | X   |     |
| .1456                   | 323.87     | X            | X  |    |    | X  | X   |     |        |         | X      |       |     |     |
| .1455                   | 325.36     | X            | X  |    |    | X  |     |     |        |         | X      |       | X   |     |
| .1455                   | 328.26     | X            | X  |    |    | X  |     |     |        | X       | X      |       |     |     |
| <b>6 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1494                   | 123.20     | X            | X  |    | X  | X  |     | X   |        |         |        | X     |     |     |
| .1487                   | 161.97     | X            | X  |    |    | X  |     | X   |        |         |        | X     |     | X   |
| .1485                   | 168.74     | X            | X  |    |    | X  |     | X   | X      |         |        | X     |     |     |
| .1485                   | 169.36     | X            | X  |    |    | X  |     | X   |        |         |        | X     |     | X   |
| .1478                   | 204.99     | X            | X  |    |    | X  | X   | X   |        |         |        | X     |     |     |
| .1477                   | 209.73     | X            | X  |    |    | X  |     | X   |        |         |        | X     | X   |     |
| .1477                   | 213.66     | X            | X  | X  |    | X  |     | X   |        |         |        | X     |     |     |
| .1477                   | 213.69     | X            | X  |    |    | X  |     | X   |        |         | X      | X     |     |     |
| <b>7 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1501                   | 84.38      | X            | X  |    | X  | X  |     | X   | X      |         |        | X     |     |     |
| .1500                   | 92.78      | X            | X  |    | X  | X  |     | X   |        |         |        | X     |     | X   |
| .1500                   | 94.00      | X            | X  |    | X  | X  |     | X   |        |         |        | X     |     | X   |
| .1495                   | 118.23     | X            | X  |    | X  | X  | X   | X   |        |         |        | X     |     |     |
| .1495                   | 119.13     | X            | X  |    | X  | X  |     | X   |        |         |        | X     | X   |     |
| .1494                   | 121.47     | X            | X  | X  | X  | X  |     | X   |        |         |        | X     |     |     |
| .1494                   | 125.18     | X            | X  |    | X  | X  |     | X   |        |         | X      | X     |     |     |
| <b>8 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1507                   | 54.90      | X            | X  |    | X  | X  |     | X   | X      |         |        | X     |     | X   |
| .1507                   | 54.98      | X            | X  |    | X  | X  |     | X   | X      |         |        | X     |     | X   |
| .1504                   | 70.56      | X            | X  |    | X  | X  |     | X   | X      |         |        | X     | X   |     |
| .1502                   | 79.91      | X            | X  |    | X  | X  | X   | X   | X      |         |        | X     |     |     |
| .1502                   | 81.87      | X            | X  | X  | X  | X  |     | X   | X      |         |        | X     |     |     |
| .1501                   | 85.27      | X            | X  |    | X  | X  |     | X   | X      | X       | X      |       |     |     |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C4.** *continued*

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | PC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>9 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1512                   | 30.31      | X            | X  |    | X  | X  |     | X   | X      |         | X      |       | X   | X   |
| .1510                   | 42.31      | X            | X  |    | X  | X  |     | X   | X      |         | X      | X     |     | X   |
| .1508                   | 51.19      | X            | X  |    | X  | X  | X   | X   | X      |         | X      |       |     | X   |
| .1509                   | 52.28      | X            | X  | X  | X  | X  |     | X   | X      |         | X      |       |     | X   |
| .1507                   | 55.40      | X            | X  |    | X  | X  |     | X   | X      | X       | X      |       |     | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>10 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1515                   | 17.39      | X            | X  |    | X  | X  |     | X   | X      |         | X      | X     | X   | X   |
| .1513                   | 26.80      | X            | X  | X  | X  | X  |     | X   | X      |         | X      |       | X   | X   |
| .1513                   | 28.35      | X            | X  |    | X  | X  | X   | X   | X      |         | X      |       | X   | X   |
| .1512                   | 30.61      | X            | X  |    | X  | X  |     | X   | X      | X       | X      |       | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>11 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1515                   | 13.97      | X            | X  | X  | X  | X  |     | X   | X      |         | X      | X     | X   | X   |
| .1515                   | 15.56      | X            | X  |    | X  | X  | X   | X   | X      |         | X      | X     | X   | X   |
| .1515                   | 18.08      | X            | X  |    | X  | X  |     | X   | X      | X       | X      | X     | X   | X   |
| .1513                   | 24.79      | X            | X  | X  | X  | X  | X   | X   | X      |         | X      |       | X   | X   |
| .1513                   | 27.42      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      |       | X   | X   |
| .1513                   | 28.62      | X            | X  |    | X  | X  | X   | X   | X      | X       | X      |       | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>12 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1516                   | 12.08      | X            | X  | X  | X  | X  | X   | X   | X      |         | X      | X     | X   | X   |
| .1515                   | 14.93      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     | X   | X   |
| .1515                   | 16.21      | X            | X  |    | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1513                   | 25.37      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       | X   | X   |
| .1511                   | 36.43      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1511                   | 37.15      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     |     | X   |
| .1507                   | 61.95      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1504                   | 75.76      | X            | X  | X  |    | X  | X   | X   | X      | X       | X      | X     | X   | X   |

**Note.** FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C4. All Subsets Regression of Youth Assets on Perceived Health Gr10**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>1 Variable</b>       |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1054                   | 2556.35    | X            |    |    |    |    |     |     |        |         |        |       |     |     |
| .0748                   | 4094.72    |              | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0326                   | 6213.38    |              |    |    |    |    |     |     |        |         |        |       | X   |     |
| .0227                   | 6709.55    |              |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0226                   | 6715.68    |              |    |    |    |    |     | X   |        |         |        |       |     |     |
| .0170                   | 6997.36    |              |    |    |    | X  |     |     |        |         |        |       |     |     |
| .0081                   | 7442.84    |              |    |    |    |    |     |     |        |         |        |       | X   |     |
| .0069                   | 7504.22    |              |    |    |    |    |     |     |        | X       |        |       |     |     |
| <b>2 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1328                   | 1180.10    | X            | X  |    |    |    |     |     |        |         |        |       |     |     |
| .1199                   | 1828.21    | X            |    |    |    |    |     |     | X      |         |        |       |     |     |
| .1130                   | 2173.84    | X            |    |    |    | X  |     |     |        |         |        |       |     |     |
| .1105                   | 2302.93    | X            |    |    |    |    |     |     |        |         |        |       | X   |     |
| .1076                   | 2446.89    | X            |    | X  |    |    |     |     |        |         |        |       |     |     |
| .1069                   | 2479.99    | X            |    |    |    |    | X   |     |        |         |        |       |     |     |
| .1066                   | 2494.63    | X            |    |    |    |    |     |     |        | X       |        |       |     |     |
| .1061                   | 2519.71    | X            |    |    |    |    |     |     |        |         |        |       |     | X   |
| <b>3 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1451                   | 562.86     | X            | X  |    |    |    |     | X   |        |         |        |       |     |     |
| .1378                   | 927.70     | X            | X  |    |    | X  |     |     |        |         |        |       |     |     |
| .1366                   | 990.48     | X            | X  |    |    |    |     |     |        |         |        | X     |     |     |
| .1344                   | 1099.95    | X            | X  |    |    |    |     |     |        |         |        |       |     | X   |
| .1340                   | 1118.70    | X            | X  | X  |    |    |     |     |        |         |        |       |     |     |
| .1337                   | 1135.47    | X            | X  |    | X  |    |     |     |        |         |        |       |     |     |
| .1336                   | 1140.30    | X            | X  |    |    |    |     |     |        | X       |        |       |     |     |
| .1332                   | 1159.94    | X            | X  |    |    |    | X   |     |        |         |        |       |     |     |
| <b>4 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1486                   | 389.07     | X            | X  |    |    |    |     | X   |        |         |        | X     |     |     |
| .1479                   | 424.53     | X            | X  |    |    | X  |     | X   |        |         |        |       |     |     |
| .1473                   | 454.75     | X            | X  |    |    |    |     | X   |        |         |        |       |     | X   |
| .1461                   | 511.52     | X            | X  | X  |    |    |     | X   |        |         |        |       |     |     |
| .1461                   | 516.22     | X            | X  | X  |    |    |     | X   |        |         |        |       |     |     |
| .1457                   | 536.53     | X            | X  |    |    |    |     | X   | X      |         |        |       |     |     |
| .1455                   | 541.99     | X            | X  |    |    |    |     | X   |        |         |        |       |     | X   |
| .1453                   | 553.27     | X            | X  |    |    |    |     | X   |        |         |        | X     |     |     |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C4.** *continued*

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     | vol | rel |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |     |     |
| <b>5 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
| .1515                   | 242.16     | X            | X  |    |    |    | X   |     | X      |         |        |       | X   |     |     |     |
| .1506                   | 287.68     | X            | X  |    |    |    |     |     | X      |         |        |       | X   |     |     | X   |
| .1497                   | 333.52     | X            | X  | X  |    |    |     |     | X      |         |        |       | X   |     |     |     |
| .1497                   | 335.98     | X            | X  |    |    | X  |     |     | X      |         |        |       | X   |     |     |     |
| .1492                   | 359.85     | X            | X  |    |    |    |     |     | X      |         |        | X     | X   |     |     |     |
| .1491                   | 366.01     | X            | X  |    |    |    |     |     | X      |         |        |       | X   |     |     | X   |
| .1487                   | 383.13     | X            | X  |    |    |    |     | X   | X      |         |        |       | X   |     |     |     |
| .1487                   | 385.84     | X            | X  |    |    |    |     |     | X      | X       |        |       | X   |     |     |     |
| <b>6 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
| .1537                   | 134.04     | X            | X  |    |    |    | X   |     | X      |         |        |       | X   |     |     | X   |
| .1527                   | 186.78     | X            | X  |    |    | X  | X   |     | X      |         |        |       | X   |     |     |     |
| .1525                   | 193.39     | X            | X  | X  |    |    | X   |     | X      |         |        |       | X   |     |     |     |
| .1523                   | 210.57     | X            | X  |    |    |    | X   |     | X      |         |        |       | X   |     |     | X   |
| .1520                   | 217.49     | X            | X  |    |    |    | X   |     | X      |         |        | X     | X   |     |     |     |
| .1517                   | 235.76     | X            | X  |    |    |    | X   |     | X      | X       |        |       | X   |     |     |     |
| .1516                   | 239.38     | X            | X  |    |    |    | X   | X   | X      |         |        |       | X   |     |     |     |
| .1512                   | 243.52     | X            | X  |    |    |    | X   |     | X      |         |        |       | X   | X   |     |     |
| <b>7 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
| .1545                   | 94.67      | X            | X  | X  |    |    | X   |     | X      |         |        |       | X   |     |     | X   |
| .1543                   | 103.48     | X            | X  |    |    | X  | X   |     | X      |         |        |       | X   |     |     | X   |
| .1542                   | 111.71     | X            | X  |    |    |    | X   |     | X      |         |        | X     | X   |     |     | X   |
| .1541                   | 113.87     | X            | X  |    |    |    | X   |     | X      |         |        |       | X   |     | X   | X   |
| .1539                   | 125.68     | X            | X  |    |    |    | X   |     | X      | X       |        |       | X   |     |     | X   |
| .1538                   | 128.23     | X            | X  |    |    |    | X   | X   | X      |         |        |       | X   |     |     | X   |
| .1537                   | 135.32     | X            | X  |    |    |    | X   |     | X      |         |        |       | X   | X   |     | X   |
| <b>8 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
| .1549                   | 74.07      | X            | X  | X  | X  | X  |     |     | X      |         |        |       | X   |     |     | X   |
| .1549                   | 75.20      | X            | X  | X  |    | X  |     |     | X      |         |        | X     | X   |     |     | X   |
| .1549                   | 77.68      | X            | X  | X  |    |    | X   |     | X      |         |        | X     |     |     | X   | X   |
| .1548                   | 80.65      | X            | X  |    |    | X  | X   |     | X      |         |        | X     | X   |     |     | X   |
| .1547                   | 85.42      | X            | X  | X  |    |    | X   |     | X      | X       |        |       | X   |     |     | X   |
| .1546                   | 89.42      | X            | X  | X  |    |    | X   | X   | X      |         |        |       | X   |     |     | X   |
| .1545                   | 96.02      | X            | X  | X  |    |    | X   |     | X      |         |        |       | X   | X   |     | X   |

*Note.* FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C4.** *continued*

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     | vol | rel |   |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|-----|-----|---|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |     |     |   |
| 9 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |   |
| .1554                   | 53.87      | X            | X  | X  | X  | X  |     | X   |        | X       | X      |       |     |     |     | X   |   |
| .1553                   | 57.98      | X            | X  | X  |    | X  |     | X   | X      | X       | X      |       |     |     |     | X   |   |
| .1552                   | 60.95      | X            | X  |    | X  | X  |     | X   | X      | X       | X      |       |     |     |     | X   |   |
| .1552                   | 61.06      | X            | X  | X  | X  | X  |     | X   |        |         | X      |       |     |     | X   | X   |   |
| .1552                   | 63.00      | X            | X  | X  | X  | X  |     | X   | X      |         | X      |       |     |     | X   | X   |   |
| .1550                   | 69.64      | X            | X  | X  | X  | X  | X   | X   |        |         | X      |       |     |     |     | X   |   |
| .1549                   | 75.47      | X            | X  | X  | X  | X  |     | X   |        |         | X      | X     |     |     |     | X   |   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |   |
| 10 Variables            |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |   |
| .1558                   | 34.04      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      |       |     |     |     | X   |   |
| .1557                   | 39.53      | X            | X  | X  |    | X  |     | X   | X      | X       | X      |       |     |     | X   | X   |   |
| .1556                   | 40.58      | X            | X  | X  | X  | X  |     | X   |        | X       | X      |       |     |     | X   | X   |   |
| .1555                   | 45.19      | X            | X  |    | X  | X  |     | X   | X      | X       | X      |       |     |     | X   | X   |   |
| .1555                   | 49.59      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      |       |     |     |     | X   |   |
| .1553                   | 55.76      | X            | X  | X  | X  | X  |     | X   |        | X       | X      | X     |     |     |     | X   |   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |   |
| 11 Variables            |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |   |
| .1561                   | 19.96      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      |       |     |     |     | X   | X |
| .1559                   | 28.51      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       |     |     |     | X   | X |
| .1559                   | 30.90      | X            | X  | X  |    | X  | X   | X   | X      | X       | X      |       |     |     |     | X   | X |
| .1558                   | 34.25      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      |       |     |     |     | X   | X |
| .1557                   | 40.05      | X            | X  | X  |    | X  |     | X   | X      | X       | X      | X     |     |     | X   | X   | X |
| .1554                   | 51.52      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     |     |     |     | X   | X |
| .1554                   | 51.94      | X            | X  | X  |    | X  | X   | X   | X      | X       | X      | X     |     |     |     | X   | X |
| .1554                   | 52.73      | X            | X  | X  |    | X  | X   | X   |        | X       | X      | X     | X   |     |     | X   | X |
| 12 Variables            |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |   |
| .1562                   | 12.46      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       |     |     |     | X   | X |
| .1561                   | 20.40      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     |     |     | X   | X   | X |
| .1559                   | 28.81      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     |     |     |     | X   | X |
| .1559                   | 31.52      | X            | X  | X  |    | X  | X   | X   | X      | X       | X      | X     | X   |     |     | X   | X |
| .1558                   | 36.53      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     | X   |     |     | X   | X |
| .1557                   | 37.80      | X            | X  |    | X  | X  | X   | X   | X      | X       | X      | X     | X   |     |     | X   | X |
| .1557                   | 41.86      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   |     |     | X   | X |
| .1547                   | 88.48      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   |     |     | X   | X |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C5. All Subsets Regression of Youth Assets on Perceived Health Gr11**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>1 Variable</b>       |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0907                   | 3532.71    |              | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0798                   | 4136.87    | X            |    |    |    |    |     |     |        |         |        |       |     |     |
| .0290                   | 6954.89    |              |    |    |    | X  |     |     |        |         |        |       |     |     |
| .0219                   | 7347.86    |              |    |    |    |    |     |     |        |         |        | X     |     |     |
| .0215                   | 7369.55    |              |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0187                   | 7525.33    |              |    |    |    |    |     | X   |        |         |        |       |     |     |
| .0069                   | 8176.14    |              |    |    |    |    |     |     |        |         |        |       | X   |     |
| .0055                   | 8258.06    |              |    |    |    |    |     |     | X      |         |        |       |     |     |
| <b>2 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1264                   | 1555.34    | X            | X  |    |    |    |     |     |        |         |        |       |     |     |
| .1065                   | 2661.02    |              | X  |    |    | X  |     |     |        |         |        |       |     |     |
| .1016                   | 2930.34    | X            |    |    |    |    |     | X   |        |         |        |       |     |     |
| .0993                   | 3058.35    | X            |    |    |    |    |     |     |        |         |        | X     |     |     |
| .0928                   | 3416.65    | X            |    |    |    |    |     |     |        |         |        |       | X   |     |
| .0926                   | 3432.11    | X            |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0921                   | 3460.52    | X            |    |    |    |    |     |     | X      |         |        |       |     |     |
| .0920                   | 3460.95    | X            |    |    |    |    |     |     |        |         |        |       |     | X   |
| <b>3 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1405                   | 778.96     | X            | X  |    |    | X  |     |     |        |         |        |       |     |     |
| .1343                   | 1122.48    | X            | X  |    |    |    |     | X   |        |         |        |       |     |     |
| .1304                   | 1337.88    | X            | X  |    | X  |    |     |     |        |         |        |       |     |     |
| .1289                   | 1419.20    | X            | X  |    |    |    |     |     |        |         |        |       |     | X   |
| .1285                   | 1443.44    | X            | X  |    |    |    |     |     |        |         |        | X     |     |     |
| .1279                   | 1476.91    | X            | X  | X  |    |    |     |     |        |         |        |       |     |     |
| .1269                   | 1528.88    | X            | X  |    |    |    |     |     |        |         |        | X     |     |     |
| .1269                   | 1533.32    | X            | X  |    |    |    | X   |     |        |         |        |       |     |     |
| <b>4 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1454                   | 503.94     | X            | X  |    |    | X  |     | X   |        |         |        |       |     |     |
| .1443                   | 568.33     | X            | X  |    | X  | X  |     |     |        |         |        |       |     |     |
| .1439                   | 595.91     | X            | X  |    |    | X  |     |     |        |         |        |       |     | X   |
| .1424                   | 674.51     | X            | X  |    |    | X  |     |     |        |         |        | X     |     |     |
| .1418                   | 706.37     | X            | X  | X  |    | X  |     |     |        |         |        |       |     |     |
| .1409                   | 756.46     | X            | X  |    |    | X  |     |     |        |         |        |       | X   |     |
| .1406                   | 771.01     | X            | X  |    |    | X  | X   |     |        |         |        |       |     |     |
| .1406                   | 775.29     | X            | X  |    |    | X  |     |     | X      |         |        |       |     |     |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C5.** *continued*

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>5 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1496                   | 277.19     | X            | X  |    | X  | X  |     | X   |        |         |        |       |     |     |
| .1490                   | 306.11     | X            | X  |    |    | X  |     | X   |        |         |        |       |     | X   |
| .1470                   | 417.30     | X            | X  |    |    | X  |     | X   |        |         |        |       |     |     |
| .1468                   | 431.52     | X            | X  | X  |    | X  |     | X   |        |         |        |       |     |     |
| .1457                   | 489.09     | X            | X  |    |    | X  |     | X   |        |         |        |       |     | X   |
| .1455                   | 499.73     | X            | X  |    |    | X  | X   | X   |        |         |        |       |     |     |
| .1455                   | 500.34     | X            | X  |    |    | X  |     | X   |        |         |        |       |     | X   |
| .1455                   | 502.33     | X            | X  |    |    | X  |     | X   |        |         |        |       |     |     |
| <b>6 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1519                   | 150.05     | X            | X  |    | X  | X  |     | X   |        |         |        |       |     | X   |
| .1513                   | 179.26     | X            | X  |    | X  | X  |     | X   |        |         |        |       |     |     |
| .1502                   | 242.16     | X            | X  | X  | X  | X  |     | X   |        |         |        |       |     |     |
| .1499                   | 260.71     | X            | X  |    | X  | X  |     | X   |        |         |        |       |     | X   |
| .1497                   | 270.77     | X            | X  |    | X  | X  | X   | X   |        |         |        |       |     |     |
| .1496                   | 274.29     | X            | X  |    | X  | X  |     | X   | X      |         |        |       |     |     |
| .1496                   | 274.93     | X            | X  |    | X  | X  |     | X   |        |         |        |       |     |     |
| .1495                   | 279.18     | X            | X  |    | X  | X  |     | X   |        |         |        |       |     | X   |
| <b>7 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1536                   | 54.15      | X            | X  |    | X  | X  |     | X   |        |         |        |       |     | X   |
| .1524                   | 119.56     | X            | X  | X  | X  | X  |     | X   |        |         |        |       |     | X   |
| .1521                   | 136.38     | X            | X  |    | X  | X  |     | X   |        |         |        |       |     | X   |
| .1521                   | 138.57     | X            | X  |    | X  | X  | X   | X   |        |         |        |       |     | X   |
| .1519                   | 146.97     | X            | X  |    | X  | X  |     | X   |        |         |        |       |     | X   |
| .1519                   | 147.18     | X            | X  |    | X  | X  |     | X   | X      |         |        |       |     | X   |
| .1519                   | 151.60     | X            | X  |    | X  | X  |     | X   |        |         |        |       |     | X   |
| <b>8 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1543                   | 19.00      | X            | X  | X  | X  | X  |     | X   |        |         |        |       |     | X   |
| .1539                   | 39.23      | X            | X  |    | X  | X  | X   | X   |        |         |        |       |     | X   |
| .1536                   | 55.92      | X            | X  |    | X  | X  |     | X   |        |         |        |       |     | X   |
| .1536                   | 56.06      | X            | X  |    | X  | X  |     | X   | X      |         |        |       |     | X   |
| .1536                   | 56.12      | X            | X  |    | X  | X  |     | X   |        |         |        |       |     | X   |
| .1536                   | 56.15      | X            | X  |    | X  | X  |     | X   |        |         |        |       | X   | X   |

*Note.* FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C5.** *continued*

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| 9 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1545                   | 5.10       | X            | X  | X  | X  | X  | X   | X   |        |         |        | X     |     | X   |
| .1543                   | 20.67      | X            | X  | X  | X  | X  |     | X   |        |         |        | X     | X   |     |
| .1543                   | 20.98      | X            | X  | X  | X  | X  |     | X   | X      |         |        | X     |     | X   |
| .1543                   | 21.00      | X            | X  | X  | X  | X  |     | X   |        |         | X      | X     |     | X   |
| .1543                   | 21.00      | X            | X  | X  | X  | X  |     | X   |        | X       | X      |       |     | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| 10 Variables            |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1545                   | 7.02       | X            | X  | X  | X  | X  | X   | X   |        |         |        | X     | X   | X   |
| .1545                   | 7.09       | X            | X  | X  | X  | X  | X   | X   |        | X       | X      |       |     | X   |
| .1545                   | 7.09       | X            | X  | X  | X  | X  | X   | X   | X      |         |        | X     |     | X   |
| .1545                   | 7.10       | X            | X  | X  | X  | X  | X   | X   |        |         | X      | X     |     | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| 11 Variables            |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1545                   | 9.01       | X            | X  | X  | X  | X  | X   | X   |        |         | X      | X     |     | X   |
| .1545                   | 9.01       | X            | X  | X  | X  | X  | X   | X   | X      |         |        | X     | X   | X   |
| .1545                   | 9.02       | X            | X  | X  | X  | X  | X   | X   |        |         | X      | X     | X   | X   |
| .1545                   | 9.08       | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     |     | X   |
| .1545                   | 9.09       | X            | X  | X  | X  | X  | X   | X   | X      |         | X      | X     |     | X   |
| .1545                   | 9.09       | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     |     | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| 12 Variables            |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1545                   | 11.00      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     |     | X   |
| .1545                   | 11.01      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     | X   | X   |
| .1545                   | 11.01      | X            | X  | X  | X  | X  | X   | X   | X      |         | X      | X     | X   | X   |
| .1545                   | 11.08      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     |     | X   |
| .1542                   | 26.64      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     | X   | X   |
| .1538                   | 47.04      | X            | X  |    | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1530                   | 96.17      | X            | X  | X  | X  | X  | X   | X   | X      | X       |        | X     | X   | X   |
| .1522                   | 138.55     | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C6. All Subsets Regression of Youth Assets on Perceived Health Gr12**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>1 Variable</b>       |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0658                   | 2288.97    | X            |    |    |    |    |     |     |        |         |        |       |     |     |
| .0622                   | 2463.16    |              | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0276                   | 4150.80    |              |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0202                   | 4512.60    |              |    |    | X  |    |     |     |        |         |        |       |     |     |
| .0193                   | 4555.95    |              |    |    |    |    |     |     |        |         |        | X     |     |     |
| .0158                   | 4725.88    |              |    |    |    |    |     | X   |        |         |        |       |     |     |
| .0062                   | 5195.96    |              |    |    |    | X  |     |     |        |         |        |       |     |     |
| .0044                   | 5281.95    |              |    |    |    |    |     |     |        |         |        |       | X   |     |
| <b>2 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0977                   | 733.15     | X            | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0790                   | 1645.24    | X            |    |    |    | X  |     |     |        |         |        |       |     |     |
| .0760                   | 1791.53    | X            |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0751                   | 1835.51    | X            |    |    |    |    |     | X   |        |         |        |       |     |     |
| .0685                   | 2157.43    | X            |    |    |    |    |     |     |        |         |        | X     |     |     |
| .0685                   | 2157.67    | X            |    |    |    | X  |     |     |        |         |        |       |     |     |
| .0673                   | 2213.99    | X            |    |    |    |    |     |     |        |         |        |       |     | X   |
| .0658                   | 2288.19    | X            |    |    |    |    |     |     |        |         |        |       | X   |     |
| <b>3 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1055                   | 352.96     | X            | X  |    |    | X  |     |     |        |         |        |       |     |     |
| .1034                   | 435.58     | X            | X  |    |    |    |     | X   |        |         |        |       |     |     |
| .0990                   | 669.68     | X            | X  |    | X  |    |     |     |        |         |        |       |     |     |
| .0989                   | 671.36     | X            | X  |    |    |    |     |     |        |         |        | X     |     |     |
| .0983                   | 703.42     | X            | X  |    |    |    | X   |     |        |         |        |       |     |     |
| .0979                   | 721.56     | X            | X  |    |    |    |     |     |        |         |        |       |     | X   |
| .0977                   | 730.36     | X            | X  | X  |    |    |     |     |        |         |        |       |     |     |
| .0977                   | 733.59     | X            | X  |    |    |    |     |     |        |         |        |       |     | X   |
| <b>4 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1092                   | 172.29     | X            | X  |    |    | X  |     | X   |        |         |        |       |     |     |
| .1069                   | 284.86     | X            | X  |    |    | X  |     |     |        |         |        | X     |     |     |
| .1066                   | 299.92     | X            | X  |    | X  | X  |     |     |        |         |        |       |     |     |
| .1059                   | 332.56     | X            | X  |    |    | X  |     |     |        |         |        |       |     | X   |
| .1058                   | 337.99     | X            | X  |    |    | X  | X   |     |        |         |        |       |     |     |
| .1055                   | 352.04     | X            | X  | X  |    |    | X   |     |        |         |        |       |     |     |
| .1055                   | 353.05     | X            | X  |    |    |    | X   |     |        | X       |        |       |     |     |
| .1055                   | 354.46     | X            | X  |    |    | X  |     |     |        |         |        |       |     | X   |

**Note.** FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C6.** *continued*

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>5 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1104                   | 116.79     | X            | X  |    |    | X  |     | X   |        |         |        | X     |     |     |
| .1102                   | 124.06     | X            | X  |    |    | X  | X   |     | X      |         |        |       |     |     |
| .1097                   | 146.93     | X            | X  |    |    | X  |     | X   |        |         |        |       |     | X   |
| .1095                   | 160.19     | X            | X  |    |    | X  | X   | X   |        |         |        |       |     |     |
| .1093                   | 166.40     | X            | X  |    |    | X  |     | X   |        |         |        |       |     | X   |
| .1092                   | 171.49     | X            | X  |    |    | X  |     | X   | X      |         |        |       |     |     |
| .1092                   | 171.68     | X            | X  | X  |    | X  |     | X   |        |         |        |       |     |     |
| .1092                   | 173.66     | X            | X  |    |    | X  |     | X   |        | X       |        |       |     |     |
| <b>6 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1115                   | 64.28      | X            | X  |    |    | X  | X   |     | X      |         |        | X     |     |     |
| .1109                   | 90.95      | X            | X  |    |    | X  |     | X   |        |         |        | X     |     | X   |
| .1107                   | 102.19     | X            | X  |    |    | X  |     | X   |        |         |        | X     | X   |     |
| .1107                   | 102.85     | X            | X  |    |    | X  |     | X   | X      |         |        | X     |     |     |
| .1106                   | 104.15     | X            | X  |    |    | X  | X   | X   |        |         |        | X     |     |     |
| .1105                   | 110.67     | X            | X  |    |    | X  |     | X   |        |         |        | X     |     | X   |
| .1104                   | 117.12     | X            | X  | X  |    | X  |     | X   |        |         |        | X     |     |     |
| .1104                   | 117.21     | X            | X  |    |    | X  |     | X   |        | X       | X      |       |     |     |
| <b>7 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1118                   | 47.91      | X            | X  |    |    | X  | X   | X   |        |         |        | X     |     | X   |
| .1118                   | 50.18      | X            | X  |    |    | X  | X   | X   |        |         |        | X     | X   |     |
| .1118                   | 50.45      | X            | X  |    |    | X  | X   | X   | X      |         |        | X     |     |     |
| .1117                   | 54.24      | X            | X  |    |    | X  | X   | X   | X      |         |        | X     |     |     |
| .1116                   | 59.88      | X            | X  | X  |    | X  | X   | X   |        |         |        | X     |     |     |
| .1115                   | 63.77      | X            | X  |    |    | X  | X   | X   |        |         |        | X     |     | X   |
| .1114                   | 65.64      | X            | X  |    |    | X  | X   | X   |        | X       | X      |       |     |     |
| <b>8 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1122                   | 32.21      | X            | X  |    |    | X  | X   | X   | X      |         |        | X     |     | X   |
| .1121                   | 33.55      | X            | X  |    |    | X  | X   | X   |        |         |        | X     | X   | X   |
| .1120                   | 38.23      | X            | X  |    |    | X  | X   |     | X      | X       |        | X     |     | X   |
| .1119                   | 42.56      | X            | X  | X  |    | X  | X   | X   |        |         |        | X     |     | X   |
| .1118                   | 48.12      | X            | X  |    |    | X  | X   | X   |        |         |        | X     | X   | X   |
| .1118                   | 49.55      | X            | X  |    |    | X  | X   | X   |        | X       | X      |       |     | X   |

**Note.** FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C6.** *continued*

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| 9 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1125                   | 18.17      | X            | X  |    | X  | X  | X   | X   |        |         | X      | X     |     | X   |
| .1123                   | 23.54      | X            | X  |    | X  | X  | X   | X   | X      |         | X      |       |     | X   |
| .1123                   | 27.99      | X            | X  | X  | X  | X  | X   | X   |        |         | X      |       |     | X   |
| .1122                   | 31.60      | X            | X  |    | X  | X  | X   | X   |        |         | X      |       | X   | X   |
| .1121                   | 33.89      | X            | X  |    | X  | X  | X   | X   |        | X       | X      |       |     | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| 10 Variables            |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1126                   | 13.65      | X            | X  | X  | X  | X  | X   | X   |        |         | X      | X     |     | X   |
| .1125                   | 16.30      | X            | X  |    | X  | X  | X   | X   | X      |         | X      | X     |     | X   |
| .1125                   | 17.81      | X            | X  |    | X  | X  | X   | X   |        |         | X      | X     | X   | X   |
| .1124                   | 20.16      | X            | X  |    | X  | X  | X   | X   |        | X       | X      | X     |     | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| 11 Variables            |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1126                   | 11.93      | X            | X  | X  | X  | X  | X   | X   | X      |         | X      | X     |     | X   |
| .1126                   | 12.98      | X            | X  | X  | X  | X  | X   | X   |        |         | X      | X     | X   | X   |
| .1126                   | 15.64      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     |     | X   |
| .1125                   | 15.98      | X            | X  |    | X  | X  | X   | X   | X      |         | X      | X     | X   | X   |
| .1125                   | 17.83      | X            | X  |    | X  | X  | X   | X   | X      | X       | X      | X     |     | X   |
| .1125                   | 19.80      | X            | X  |    | X  | X  | X   | X   |        | X       | X      | X     | X   | X   |
| .1124                   | 24.88      | X            | X  |    | X  | X  | X   | X   | X      | X       | X      |       | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| 12 Variables            |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1127                   | 11.32      | X            | X  | X  | X  | X  | X   | X   | X      |         | X      | X     | X   | X   |
| .1126                   | 13.54      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     |     | X   |
| .1126                   | 14.98      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     | X   | X   |
| .1125                   | 17.58      | X            | X  |    | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1125                   | 20.58      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       | X   | X   |
| .1123                   | 27.43      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     | X   | X   |
| .1122                   | 31.39      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1118                   | 54.06      | X            | X  | X  |    | X  | X   | X   | X      | X       | X      | X     | X   | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C7. All Subsets Regression of Youth Assets on Physical Activity GR7**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>1 Variable</b>       |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0312                   | 1772.73    |              |    |    |    |    |     | X   |        |         |        |       |     |     |
| .0154                   | 2443.23    | X            |    |    |    |    |     |     |        |         |        |       |     |     |
| .0138                   | 2509.70    |              |    |    |    | X  |     |     |        |         |        |       |     |     |
| .0114                   | 2610.98    |              |    |    |    |    |     |     |        |         |        |       | X   |     |
| .0076                   | 2770.57    |              |    |    |    |    |     |     |        |         |        | X     |     |     |
| .0065                   | 2819.39    |              | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0055                   | 2862.48    |              |    |    |    |    | X   |     |        |         |        |       |     |     |
| .0035                   | 2946.23    |              |    |    |    |    |     |     |        |         |        | X     |     |     |
| <b>2 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0422                   | 1307.15    | X            |    |    |    |    |     | X   |        |         |        |       |     |     |
| .0398                   | 1409.50    |              |    |    |    | X  |     | X   |        |         |        |       |     |     |
| .0386                   | 1460.32    |              |    |    |    |    | X   | X   |        |         |        |       | X   |     |
| .0357                   | 1582.27    |              |    |    |    |    | X   | X   |        |         |        |       |     |     |
| .0356                   | 1584.88    |              |    |    |    |    | X   |     |        |         |        |       | X   |     |
| .0347                   | 1623.49    |              | X  |    |    |    |     | X   |        |         |        |       |     |     |
| .0333                   | 1684.72    |              |    |    |    |    |     | X   |        |         |        | X     |     |     |
| .0332                   | 1688.10    |              |    |    |    |    |     | X   | X      |         |        |       |     |     |
| <b>3 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0482                   | 1054.12    | X            |    |    |    | X  |     | X   |        |         |        |       |     |     |
| .0481                   | 1058.25    | X            |    |    |    |    |     | X   |        |         |        |       | X   |     |
| .0470                   | 1103.52    | X            |    | X  |    |    |     | X   |        |         |        |       |     |     |
| .0458                   | 1154.70    | X            |    |    |    |    | X   | X   |        |         |        |       |     |     |
| .0445                   | 1211.34    | X            |    |    |    |    |     | X   |        |         | X      |       |     |     |
| .0440                   | 1231.01    | X            |    |    |    |    |     | X   |        |         |        |       | X   |     |
| .0431                   | 1268.00    | X            |    |    |    |    |     | X   |        |         |        |       |     |     |
| .0428                   | 1280.65    | X            |    |    | X  |    |     | X   |        |         |        |       |     | X   |
| <b>4 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0537                   | 819.19     | X            |    | X  |    |    |     | X   |        |         |        |       |     | X   |
| .0536                   | 825.06     | X            |    |    |    | X  |     | X   |        |         |        |       |     | X   |
| .0531                   | 843.59     | X            |    | X  |    | X  |     | X   |        |         |        |       |     |     |
| .0514                   | 918.93     | X            |    |    |    |    | X   | X   | X      |         |        |       |     |     |
| .0504                   | 959.15     | X            |    |    |    |    | X   |     | X      |         | X      |       |     |     |
| .0499                   | 979.76     | X            |    |    |    |    | X   |     | X      |         |        |       | X   |     |
| .0492                   | 1011.20    | X            |    |    |    |    | X   |     | X      |         |        |       |     | X   |
| .0491                   | 1015.41    | X            |    |    | X  | X  |     | X   |        |         |        |       |     |     |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C7.** *continued*

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>5 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0594                   | 580.26     | X            |    | X  |    | X  |     | X   |        |         |        |       |     | X   |
| .0564                   | 705.90     | X            |    |    |    | X  | X   | X   |        |         |        |       |     | X   |
| .0557                   | 735.58     | X            |    |    |    | X  |     | X   |        |         | X      |       |     | X   |
| .0554                   | 750.37     | X            |    |    | X  | X  |     | X   |        |         |        |       |     | X   |
| .0553                   | 753.10     | X            |    |    |    | X  |     | X   |        |         |        | X     | X   |     |
| .0551                   | 760.98     | X            |    |    |    | X  |     | X   |        |         |        |       | X   | X   |
| .0540                   | 806.50     | X            |    |    |    | X  |     | X   | X      |         |        |       | X   |     |
| .0538                   | 818.07     | X            |    |    |    | X  |     | X   |        |         | X      |       |     | X   |
| <b>6 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0633                   | 413.45     | X            | X  | X  |    | X  |     | X   |        |         |        |       |     | X   |
| .0626                   | 443.86     | X            |    | X  |    | X  | X   | X   |        |         |        |       |     | X   |
| .0613                   | 500.33     | X            |    | X  |    | X  |     | X   |        |         |        | X     | X   |     |
| .0611                   | 509.05     | X            |    | X  |    | X  |     | X   |        |         | X      |       |     | X   |
| .0606                   | 528.67     | X            |    | X  |    | X  |     | X   |        |         |        |       | X   | X   |
| .0600                   | 555.83     | X            |    | X  | X  | X  |     | X   |        |         |        |       | X   |     |
| .0599                   | 557.44     | X            |    | X  |    | X  |     | X   | X      |         |        |       | X   |     |
| .0597                   | 566.07     | X            |    | X  |    | X  |     | X   |        |         | X      |       |     | X   |
| <b>7 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0662                   | 294.45     | X            | X  | X  |    | X  | X   | X   |        |         |        |       |     | X   |
| .0653                   | 329.63     | X            | X  | X  |    | X  |     | X   |        | X       |        |       |     | X   |
| .0650                   | 342.95     | X            | X  | X  |    | X  |     | X   |        |         |        | X     | X   |     |
| .0647                   | 357.44     | X            | X  | X  |    | X  |     | X   |        |         |        |       | X   | X   |
| .0643                   | 371.68     | X            | X  | X  | X  | X  |     | X   |        |         |        |       | X   |     |
| .0637                   | 397.51     | X            | X  | X  |    | X  |     | X   | X      |         |        |       | X   |     |
| .0636                   | 404.43     | X            | X  | X  |    | X  |     | X   |        |         | X      |       |     | X   |
| <b>8 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0680                   | 219.27     | X            | X  | X  |    | X  | X   | X   |        | X       |        |       |     | X   |
| .0678                   | 225.07     | X            | X  | X  |    | X  | X   | X   |        |         |        | X     | X   |     |
| .0676                   | 232.81     | X            | X  | X  |    | X  | X   | X   |        |         |        |       | X   | X   |
| .0673                   | 246.63     | X            | X  | X  | X  | X  | X   | X   |        |         |        |       | X   |     |
| .0666                   | 277.17     | X            | X  | X  |    | X  | X   | X   | X      |         |        |       | X   |     |
| .0664                   | 287.00     | X            | X  | X  |    | X  | X   | X   |        |         | X      |       |     | X   |

**Note.** FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C7.** *continued*

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     | vol | rel |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |     |     |
| <b>9 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
| .0701                   | 129.58     | X            | X  | X  |    | X  | X   | X   |        |         |        | X     |     | X   | X   |     |
| .0693                   | 163.11     | X            | X  | X  |    | X  | X   | X   |        |         |        | X     |     | X   | X   |     |
| .0691                   | 172.66     | X            | X  | X  | X  | X  | X   | X   |        |         |        | X     |     | X   |     |     |
| .0690                   | 175.26     | X            | X  | X  |    | X  | X   | X   | X      | X       | X      |       |     | X   |     |     |
| .0684                   | 200.17     | X            | X  | X  |    | X  | X   | X   |        |         | X      | X     |     | X   |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
| <b>10 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
| .0715                   | 73.36      | X            | X  | X  | X  | X  | X   | X   |        |         |        | X     |     | X   | X   |     |
| .0714                   | 77.21      | X            | X  | X  |    | X  | X   | X   |        |         |        | X     |     | X   | X   | X   |
| .0705                   | 113.27     | X            | X  | X  |    | X  | X   | X   | X      | X       | X      |       |     | X   | X   |     |
| .0703                   | 124.01     | X            | X  | X  | X  | X  | X   | X   |        |         |        | X     |     | X   | X   | X   |
| .0701                   | 129.26     | X            | X  | X  |    | X  | X   | X   |        |         | X      | X     | X   | X   | X   |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
| <b>11 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
| .0725                   | 29.13      | X            | X  | X  | X  | X  | X   | X   |        |         |        | X     |     | X   | X   | X   |
| .0719                   | 56.20      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       |     | X   | X   |     |
| .0718                   | 60.76      | X            | X  | X  |    | X  | X   | X   | X      | X       | X      |       |     | X   | X   | X   |
| .0715                   | 72.90      | X            | X  | X  | X  | X  | X   | X   |        |         |        | X     | X   | X   | X   |     |
| .0714                   | 77.27      | X            | X  | X  |    | X  | X   | X   |        |         |        | X     | X   | X   | X   | X   |
| .0714                   | 77.76      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       |     | X   | X   |     |
| .0707                   | 104.95     | X            | X  | X  | X  | X  | X   | X   |        |         |        | X     | X   |     | X   | X   |
| .0706                   | 111.73     | X            | X  | X  |    | X  | X   | X   | X      | X       | X      |       |     | X   | X   |     |
| <b>12 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
| .0729                   | 11.91      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       |     | X   | X   | X   |
| .0725                   | 29.05      | X            | X  | X  | X  | X  | X   | X   |        |         |        | X     | X   | X   | X   | X   |
| .0719                   | 57.04      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       |     | X   | X   | X   |
| .0718                   | 61.93      | X            | X  | X  |    | X  | X   | X   | X      | X       | X      |       |     | X   | X   | X   |
| .0716                   | 68.81      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       |     | X   | X   | X   |
| .0705                   | 117.83     | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       |     | X   | X   | X   |
| .0701                   | 131.80     | X            | X  | X  | X  | X  |     | X   | X      | X       | X      |       |     | X   | X   | X   |
| .0690                   | 181.05     | X            |    | X  | X  | X  | X   | X   | X      | X       | X      |       |     | X   | X   | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C8. All Subsets Regression of Youth Assets on Physical Activity GR8**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>1 Variable</b>       |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0427                   | 2070.89    |              |    |    |    |    |     | X   |        |         |        |       |     |     |
| .0217                   | 3048.20    |              |    |    |    | X  |     |     |        |         |        |       |     |     |
| .0118                   | 3510.27    | X            |    |    |    |    |     |     |        |         |        |       |     |     |
| .0100                   | 3595.42    |              |    |    |    |    |     |     |        |         |        |       | X   |     |
| .0077                   | 3699.61    |              |    |    |    |    | X   |     |        |         |        |       |     |     |
| .0077                   | 3701.87    |              | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0039                   | 3877.22    |              |    |    | X  |    |     |     |        |         |        |       |     |     |
| .0026                   | 3935.90    |              |    |    |    |    |     |     |        |         |        | X     |     |     |
| <b>2 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0541                   | 1543.17    |              |    |    |    | X  |     | X   |        |         |        |       |     |     |
| .0518                   | 1649.07    | X            |    |    |    |    |     |     | X      |         |        |       |     |     |
| .0485                   | 1801.98    |              |    |    |    |    | X   | X   |        |         |        |       |     |     |
| .0481                   | 1820.43    |              | X  |    |    |    |     |     | X      |         |        |       |     |     |
| .0480                   | 1827.74    |              |    |    | X  |    |     |     | X      |         |        |       |     |     |
| .0476                   | 1844.71    |              |    |    |    |    |     | X   |        |         |        |       | X   |     |
| .0446                   | 1983.08    |              |    |    |    |    |     | X   |        |         |        | X     |     |     |
| .0444                   | 1992.14    |              |    |    |    |    |     | X   |        |         | X      |       |     |     |
| <b>3 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0615                   | 1201.38    | X            |    |    |    | X  |     | X   |        |         |        |       |     |     |
| .0605                   | 1246.71    |              |    |    | X  | X  |     |     | X      |         |        |       |     |     |
| .0592                   | 1305.79    |              |    |    |    | X  | X   | X   |        |         |        |       |     |     |
| .0579                   | 1365.16    |              |    |    |    | X  |     | X   |        |         |        |       | X   |     |
| .0575                   | 1387.92    |              | X  |    |    | X  |     |     | X      |         |        |       |     |     |
| .0555                   | 1477.22    |              |    |    |    | X  |     | X   |        |         |        | X     |     |     |
| .0554                   | 1484.10    |              |    |    |    | X  |     | X   |        |         |        | X     |     |     |
| .0548                   | 1509.77    |              |    | X  |    | X  |     | X   |        |         |        |       |     |     |
| <b>4 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0713                   | 745.73     | X            |    |    | X  | X  |     | X   |        |         |        |       |     |     |
| .0661                   | 986.75     | X            |    |    |    | X  | X   | X   |        |         |        |       |     |     |
| .0655                   | 1013.50    | X            |    | X  |    | X  |     |     | X      |         |        |       |     |     |
| .0647                   | 1050.96    | X            |    |    |    | X  |     | X   |        |         |        |       | X   |     |
| .0623                   | 1165.76    | X            | X  |    |    | X  |     | X   |        |         |        |       |     |     |
| .0618                   | 1189.17    | X            |    |    |    | X  |     | X   |        |         |        | X     |     |     |
| .0615                   | 1198.91    | X            |    |    |    | X  |     | X   |        |         | X      |       |     |     |
| .0615                   | 1202.21    | X            |    |    |    | X  |     | X   |        |         | X      |       |     |     |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C8.** *continued*

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |     |     |     |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|-----|-----|-----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC  | PI  | SC  | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>5 Variables</b>      |            |              |    |     |     |     |     |     |        |         |        |       |     |     |
| .0768                   | 492.01     | X            |    |     |     | X X |     | X   |        |         |        |       |     | X   |
| .0759                   | 530.20     | X            |    |     |     | X X | X   | X   |        |         |        |       |     |     |
| .0744                   | 603.56     | X X          |    |     |     | X X |     | X   |        |         |        |       |     |     |
| .0726                   | 686.78     | X            |    | X   | X X |     |     | X   |        |         |        |       |     |     |
| .0718                   | 722.14     | X            |    |     | X X |     |     | X   |        |         |        |       | X   |     |
| .0714                   | 742.09     | X            |    |     | X X |     |     | X   |        |         |        | X     |     |     |
| .0713                   | 745.37     | X            |    |     | X X |     |     | X   | X      |         |        |       |     |     |
| .0713                   | 745.56     | X            |    |     | X X |     |     | X   |        |         |        |       |     | X   |
| <b>6 Variables</b>      |            |              |    |     |     |     |     |     |        |         |        |       |     |     |
| .0804                   | 321.77     | X            |    |     |     | X X | X   | X   |        |         |        |       |     | X   |
| .0792                   | 380.37     | X X          |    |     |     | X X |     | X   |        |         |        |       |     | X   |
| .0790                   | 388.92     | X X          | X  | X X |     | X X |     | X   |        |         |        |       |     |     |
| .0782                   | 428.44     | X            |    | X   | X X |     |     | X   |        |         |        |       |     | X   |
| .0772                   | 473.34     | X            |    |     | X X |     |     | X   |        |         |        | X     | X   |     |
| .0768                   | 489.54     | X            |    |     | X X |     |     | X   |        |         | X      |       |     | X   |
| .0768                   | 492.78     | X            |    |     | X X |     |     | X   |        | X       |        |       |     | X   |
| .0768                   | 493.04     | X            |    |     | X X |     |     | X   |        |         |        |       | X   | X   |
| <b>7 Variables</b>      |            |              |    |     |     |     |     |     |        |         |        |       |     |     |
| .0836                   | 175.73     | X X          | X  | X X |     | X X |     | X   |        |         |        |       |     | X   |
| .0824                   | 233.22     | X X          |    | X X |     | X X | X   | X   |        |         |        |       |     | X   |
| .0821                   | 245.40     | X            |    | X X | X X | X X |     | X   |        |         |        |       |     | X   |
| .0808                   | 307.59     | X            |    |     | X X | X X | X X | X   |        |         |        | X     | X   |     |
| .0805                   | 320.42     | X            |    |     | X X | X X | X X | X   |        | X       |        |       |     | X   |
| .0805                   | 321.79     | X            |    |     | X X | X X | X X | X   |        | X       |        |       |     | X   |
| .0804                   | 322.84     | X            |    |     | X X | X X | X X | X X | X      |         |        |       |     | X   |
| .0804                   | 323.70     | X            |    |     | X X | X X | X X | X X |        |         |        |       | X   | X   |
| <b>8 Variables</b>      |            |              |    |     |     |     |     |     |        |         |        |       |     |     |
| .0869                   | 22.09      | X X          | X  | X X | X X | X X | X X | X   |        |         |        |       |     | X   |
| .0826                   | 222.66     | X X          |    | X X | X X | X X | X X |     |        |         | X      |       |     | X   |
| .0824                   | 232.51     | X X          |    | X X | X X | X X | X X |     | X      |         |        |       |     | X   |
| .0824                   | 233.43     | X X          |    | X X | X X | X X | X X |     |        | X       |        |       |     | X   |
| .0824                   | 234.99     | X X          |    | X X | X X | X X | X X |     |        |         | X      |       |     | X X |
| .0824                   | 235.03     | X X          |    | X X | X X | X X | X X | X X | X      |         |        |       |     | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C8.** *continued*

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| 9 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0872                   | 8.70       | X            | X  | X  | X  | X  | X   | X   |        |         |        |       | X   | X   |
| .0870                   | 20.51      | X            | X  | X  | X  | X  | X   | X   |        |         | X      |       |     | X   |
| .0869                   | 22.35      | X            | X  | X  | X  | X  | X   | X   | X      |         |        |       |     | X   |
| .0869                   | 22.78      | X            | X  | X  | X  | X  | X   | X   |        | X       |        |       |     | X   |
| .0869                   | 24.07      | X            | X  | X  | X  | X  | X   | X   |        |         |        | X     |     | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| 10 Variables            |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0873                   | 7.47       | X            | X  | X  | X  | X  | X   | X   |        | X       |        |       | X   | X   |
| .0872                   | 10.50      | X            | X  | X  | X  | X  | X   | X   |        |         | X      | X     | X   |     |
| .0872                   | 10.67      | X            | X  | X  | X  | X  | X   | X   |        |         |        | X     | X   | X   |
| .0872                   | 10.70      | X            | X  | X  | X  | X  | X   | X   | X      |         |        | X     | X   |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| 11 Variables            |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0873                   | 9.05       | X            | X  | X  | X  | X  | X   | X   |        | X       | X      |       | X   | X   |
| .0873                   | 9.41       | X            | X  | X  | X  | X  | X   | X   | X      | X       |        |       | X   | X   |
| .0873                   | 9.45       | X            | X  | X  | X  | X  | X   | X   |        | X       |        |       | X   | X   |
| .0872                   | 12.67      | X            | X  | X  | X  | X  | X   | X   | X      |         |        | X     | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| 12 Variables            |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0873                   | 11.02      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       | X   | X   |
| .0873                   | 11.04      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      |       | X   | X   |
| .0872                   | 11.39      | X            | X  | X  | X  | X  | X   | X   | X      | X       |        |       | X   | X   |
| .0872                   | 14.46      | X            | X  | X  | X  | X  | X   | X   | X      |         | X      | X     | X   | X   |
| .0870                   | 22.81      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       |     | X   |
| .0840                   | 163.55     | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     | X   | X   |
| .0835                   | 185.96     | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .0827                   | 225.11     | X            | X  |    | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |

*Note.* FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C9. All Subsets Regression of Youth Assets on Physical Activity GR9**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| 1 Variable              |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0570                   | 2379.71    |              |    |    |    |    |     | X   |        |         |        |       |     |     |
| .0312                   | 3679.93    |              |    |    |    | X  |     |     |        |         |        |       |     |     |
| .0200                   | 4243.84    | X            |    |    |    |    |     |     |        |         |        |       |     |     |
| .0106                   | 4722.83    |              | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0089                   | 4805.18    |              |    |    |    |    | X   |     |        |         |        |       |     |     |
| .0082                   | 4840.80    |              |    |    |    |    |     |     |        |         |        |       | X   |     |
| .0034                   | 5085.39    |              |    |    |    |    |     |     |        |         | X      |       |     |     |
| .0032                   | 5093.88    |              |    |    |    |    |     |     |        |         |        | X     |     |     |
| 2 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0733                   | 1555.72    |              |    |    |    | X  |     | X   |        |         |        |       |     |     |
| .0707                   | 1691.07    | X            |    |    |    |    |     | X   |        |         |        |       |     |     |
| .0642                   | 2016.53    |              | X  |    |    |    |     | X   |        |         |        |       |     |     |
| .0620                   | 2129.27    |              |    |    |    |    | X   | X   |        |         |        |       |     |     |
| .0600                   | 2230.01    |              |    |    |    |    |     | X   |        |         |        |       | X   |     |
| .0599                   | 2234.78    |              |    |    |    |    |     | X   |        |         |        | X     |     |     |
| .0594                   | 2261.18    |              |    |    |    |    |     | X   |        |         | X      |       |     |     |
| .0591                   | 2275.00    |              |    |    | X  |    | X   |     |        |         |        |       |     |     |
| 3 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0833                   | 1053.59    | X            |    |    |    | X  |     | X   |        |         |        |       |     |     |
| .0780                   | 1322.08    |              | X  |    |    | X  |     | X   |        |         |        |       |     |     |
| .0767                   | 1385.53    |              |    |    | X  | X  | X   | X   |        |         |        |       |     |     |
| .0762                   | 1413.30    |              |    | X  | X  |    |     | X   |        |         |        |       |     |     |
| .0756                   | 1441.93    |              |    |    |    | X  |     | X   |        |         |        |       | X   |     |
| .0752                   | 1463.51    |              |    |    |    | X  |     | X   |        |         |        |       |     | X   |
| .0751                   | 1467.84    |              |    |    |    | X  |     | X   |        |         |        |       | X   |     |
| .0743                   | 1506.68    |              |    | X  |    | X  |     | X   |        |         |        |       |     |     |
| 4 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0887                   | 783.51     | X            |    |    | X  | X  |     | X   |        |         |        |       |     |     |
| .0882                   | 806.89     | X            |    | X  |    | X  |     | X   |        |         |        |       |     |     |
| .0857                   | 935.02     | X            |    |    |    |    | X   | X   | X      |         |        |       |     |     |
| .0845                   | 994.44     | X            | X  |    |    | X  |     | X   |        |         |        |       |     |     |
| .0844                   | 999.55     | X            |    |    |    | X  |     | X   |        |         |        |       | X   |     |
| .0840                   | 1017.82    | X            |    |    |    | X  |     | X   |        |         |        |       | X   |     |
| .0835                   | 1044.73    | X            |    |    |    | X  |     | X   |        |         |        |       |     | X   |
| .0834                   | 1051.05    | X            |    |    |    | X  |     | X   |        |         |        | X     |     |     |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C9.** *continued*

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| 5 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0942                   | 504.88     | X            | X  | X  |    | X  |     |     | X      |         |        |       |     |     |
| .0915                   | 639.84     | X            |    | X  | X  | X  |     |     | X      |         |        |       |     |     |
| .0914                   | 646.96     | X            |    |    |    | X  | X   | X   | X      |         |        |       |     |     |
| .0913                   | 651.77     | X            | X  |    |    | X  | X   |     |        | X       |        |       |     |     |
| .0910                   | 669.47     | X            |    |    |    | X  | X   |     |        | X       |        |       |     | X   |
| .0900                   | 735.24     | X            |    |    |    | X  | X   |     |        | X       |        |       |     | X   |
| .0888                   | 778.36     | X            |    |    |    | X  | X   |     |        | X       |        |       |     | X   |
| .0888                   | 780.94     | X            |    |    |    | X  | X   |     |        | X       | X      |       |     |     |
| 6 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0987                   | 281.67     | X            | X  | X  | X  | X  |     |     | X      |         |        |       |     |     |
| .0944                   | 494.93     | X            |    | X  | X  | X  | X   |     | X      | X       |        |       |     |     |
| .0943                   | 501.74     | X            |    | X  | X  | X  |     |     | X      |         |        |       |     | X   |
| .0927                   | 584.84     | X            |    | X  | X  | X  |     |     | X      |         |        |       |     | X   |
| .0918                   | 627.72     | X            |    | X  | X  | X  |     |     | X      |         |        |       |     | X   |
| .0917                   | 633.67     | X            |    | X  | X  | X  |     |     | X      | X       |        |       |     |     |
| .0916                   | 640.44     | X            |    | X  | X  | X  |     |     | X      |         |        |       |     | X   |
| .0915                   | 641.74     | X            |    | X  | X  | X  |     |     | X      |         |        |       |     | X   |
| 7 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1013                   | 151.35     | X            | X  | X  | X  | X  | X   |     | X      | X       |        |       |     |     |
| .1008                   | 176.88     | X            | X  | X  | X  | X  |     |     | X      |         |        |       |     | X   |
| .0998                   | 227.43     | X            | X  | X  | X  | X  |     |     | X      |         |        |       |     | X   |
| .0988                   | 274.93     | X            | X  | X  | X  | X  |     |     | X      |         |        |       |     | X   |
| .0987                   | 278.83     | X            | X  | X  | X  | X  |     |     | X      | X       |        |       |     |     |
| .0987                   | 282.04     | X            | X  | X  | X  | X  |     |     | X      |         |        |       |     | X   |
| .0987                   | 283.24     | X            | X  | X  | X  | X  |     |     | X      |         |        |       |     | X   |
| 8 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1030                   | 63.68      | X            | X  | X  | X  | X  | X   | X   |        |         |        |       |     | X   |
| .1024                   | 97.39      | X            | X  | X  | X  | X  | X   | X   |        |         |        |       |     | X   |
| .1014                   | 145.73     | X            | X  | X  | X  | X  | X   | X   |        |         |        |       |     | X   |
| .1013                   | 149.29     | X            | X  | X  | X  | X  | X   | X   |        |         |        |       |     |     |
| .1013                   | 150.83     | X            | X  | X  | X  | X  | X   | X   |        |         |        |       |     | X   |
| .1013                   | 153.11     | X            | X  | X  | X  | X  | X   | X   |        |         |        |       |     |     |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C9.** *continued*

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |   |   |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|---|---|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |   |   |
| <b>9 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |   |   |
| .1041                   | 10.98      | X            | X  | X  | X  | X  | X   | X   |        |         |        |       |     | X   | X |   |
| .1032                   | 58.06      | X            | X  | X  | X  | X  | X   | X   |        |         |        |       |     | X   | X |   |
| .1031                   | 59.96      | X            | X  | X  | X  | X  | X   | X   |        |         |        |       |     | X   | X |   |
| .1031                   | 62.03      | X            | X  | X  | X  | X  | X   | X   | X      |         |        |       |     | X   |   |   |
| .1030                   | 65.60      | X            | X  | X  | X  | X  | X   | X   |        | X       |        |       |     | X   |   |   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |   |   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |   |   |
| <b>10 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |   |   |
| .1042                   | 7.81       | X            | X  | X  | X  | X  | X   | X   |        |         |        |       |     | X   | X | X |
| .1041                   | 12.35      | X            | X  | X  | X  | X  | X   | X   |        | X       |        |       |     | X   | X | X |
| .1041                   | 12.88      | X            | X  | X  | X  | X  | X   | X   |        |         | X      |       |     | X   | X | X |
| .1041                   | 12.98      | X            | X  | X  | X  | X  | X   | X   | X      |         |        |       |     | X   | X | X |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |   |   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |   |   |
| <b>11 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |   |   |
| .1042                   | 9.31       | X            | X  | X  | X  | X  | X   | X   |        | X       |        |       |     | X   | X | X |
| .1042                   | 9.64       | X            | X  | X  | X  | X  | X   | X   |        |         | X      |       |     | X   | X | X |
| .1042                   | 9.80       | X            | X  | X  | X  | X  | X   | X   | X      |         |        |       |     | X   | X | X |
| .1041                   | 14.87      | X            | X  | X  | X  | X  | X   | X   | X      |         | X      |       |     | X   | X | X |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |   |   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |   |   |
| <b>12 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |   |   |
| .1042                   | 11.00      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      |       |     | X   | X | X |
| .1041                   | 11.30      | X            | X  | X  | X  | X  | X   | X   | X      | X       |        |       |     | X   | X | X |
| .1041                   | 11.63      | X            | X  | X  | X  | X  | X   | X   | X      |         | X      |       |     | X   | X | X |
| .1041                   | 16.12      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       |     | X   | X | X |
| .1033                   | 55.60      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       |     | X   | X | X |
| .1023                   | 102.70     | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       |     | X   | X | X |
| .1019                   | 126.92     | X            | X  | X  | X  | X  |     | X   | X      | X       | X      |       |     | X   | X | X |
| .0987                   | 288.23     | X            | X  | X  |    | X  | X   | X   | X      | X       | X      |       |     | X   | X | X |

**Note.** FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C10. All Subsets Regression of Youth Assets on Physical Activity GR10**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| 1 Variable              |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0590                   | 2588.12    |              |    |    |    |    |     | X   |        |         |        |       |     |     |
| .0196                   | 4486.08    |              |    |    |    | X  |     |     |        |         |        |       |     |     |
| .0175                   | 4585.10    | X            |    |    |    |    |     |     |        |         |        |       |     |     |
| .0122                   | 4844.56    |              | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0108                   | 4911.97    |              |    |    |    |    |     |     |        |         |        |       | X   |     |
| .0072                   | 5081.10    |              |    |    | X  |    |     |     |        |         |        |       |     |     |
| .0055                   | 5162.56    |              |    |    |    |    |     |     |        |         | X      |       |     |     |
| .0046                   | 5206.96    |              |    |    |    | X  |     |     |        |         |        |       |     |     |
| 2 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0711                   | 2009.47    | X            |    |    |    |    |     | X   |        |         |        |       |     |     |
| .0682                   | 2145.49    |              |    |    |    | X  |     | X   |        |         |        |       |     |     |
| .0682                   | 2146.01    |              |    | X  |    |    |     | X   |        |         |        |       |     |     |
| .0669                   | 2208.19    |              | X  |    |    |    |     | X   |        |         |        |       |     |     |
| .0637                   | 2363.49    |              |    |    |    |    | X   |     |        |         |        |       | X   |     |
| .0627                   | 2412.86    |              |    |    |    |    |     | X   |        |         |        | X     |     |     |
| .0616                   | 2467.59    |              |    |    |    |    | X   | X   |        |         |        |       |     |     |
| .0604                   | 2525.32    |              |    |    |    |    | X   |     |        | X       |        |       |     |     |
| 3 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0844                   | 1369.93    | X            |    |    | X  |    |     | X   |        |         |        |       |     |     |
| .0780                   | 1676.53    | X            |    |    |    | X  |     | X   |        |         |        |       |     |     |
| .0749                   | 1826.54    | X            |    |    |    |    |     | X   |        |         |        |       | X   |     |
| .0749                   | 1826.63    | X            | X  |    |    |    |     | X   |        |         |        |       |     |     |
| .0738                   | 1877.52    | X            | X  |    |    |    |     | X   |        |         |        |       |     |     |
| .0737                   | 1884.97    | X            |    |    |    |    |     | X   |        |         | X      |       |     |     |
| .0728                   | 1925.69    | X            |    |    |    |    | X   | X   |        |         |        |       |     |     |
| .0717                   | 1980.60    | X            |    |    |    |    | X   |     |        |         |        | X     |     |     |
| 4 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0919                   | 1010.14    | X            |    |    | X  | X  |     | X   |        |         |        |       |     |     |
| .0908                   | 1061.34    | X            |    |    | X  |    |     | X   |        |         |        |       | X   |     |
| .0903                   | 1087.86    | X            | X  | X  |    |    |     | X   |        |         |        |       |     |     |
| .0869                   | 1250.17    | X            |    |    | X  |    |     | X   |        |         | X      |       |     |     |
| .0861                   | 1286.51    | X            |    |    | X  |    | X   | X   |        |         |        |       |     |     |
| .0856                   | 1310.00    | X            |    | X  | X  |    |     | X   |        |         |        |       |     |     |
| .0851                   | 1335.74    | X            |    |    | X  |    |     | X   |        |         |        | X     |     |     |
| .0849                   | 1344.81    | X            |    |    | X  |    |     | X   |        |         |        |       | X   |     |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C10. continued**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| 5 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0974                   | 745.89     | X            |    |    | X  | X  |     | X   |        |         |        |       |     | X   |
| .0967                   | 780.07     | X            | X  |    | X  | X  |     | X   |        |         |        |       |     |     |
| .0965                   | 790.08     | X            | X  | X  | X  |    |     | X   |        |         |        |       |     |     |
| .0941                   | 904.45     | X            |    |    | X  | X  |     | X   |        |         |        |       |     | X   |
| .0932                   | 946.84     | X            |    |    | X  | X  | X   | X   |        |         |        |       |     |     |
| .0932                   | 949.50     | X            |    | X  | X  | X  |     | X   |        |         |        |       |     |     |
| .0927                   | 970.53     | X            |    |    | X  | X  |     | X   |        |         |        |       |     | X   |
| .0923                   | 989.95     | X            |    |    | X  | X  |     | X   |        |         |        |       |     | X   |
| 6 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1024                   | 506.92     | X            | X  | X  | X  | X  |     | X   |        |         |        |       |     |     |
| .1014                   | 555.66     | X            | X  |    | X  | X  |     | X   |        |         |        |       |     | X   |
| .0996                   | 639.26     | X            |    |    | X  | X  |     | X   |        |         |        |       |     | X   |
| .0991                   | 663.24     | X            |    | X  | X  | X  |     | X   |        |         |        |       |     | X   |
| .0983                   | 705.12     | X            |    |    | X  | X  | X   | X   |        |         |        |       |     | X   |
| .0981                   | 710.80     | X            |    |    | X  | X  |     | X   |        |         |        |       |     | X   |
| .0979                   | 720.46     | X            |    |    | X  | X  |     | X   |        |         |        |       |     | X   |
| .0975                   | 742.13     | X            |    |    | X  | X  |     | X   | X      |         |        |       |     | X   |
| 7 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1075                   | 260.35     | X            | X  | X  | X  | X  |     | X   |        |         |        |       |     | X   |
| .1039                   | 432.27     | X            | X  |    | X  | X  |     | X   |        |         |        |       |     | X   |
| .1020                   | 526.47     | X            | X  |    | X  | X  |     | X   |        |         |        |       |     | X   |
| .1019                   | 529.06     | X            | X  |    | X  | X  |     | X   |        |         |        |       |     | X   |
| .1019                   | 530.87     | X            | X  |    | X  | X  | X   | X   |        |         |        |       |     | X   |
| .1014                   | 553.64     | X            | X  |    | X  | X  |     | X   | X      |         |        |       |     | X   |
| .1014                   | 553.86     | X            | X  |    | X  | X  |     | X   |        |         |        |       |     | X   |
| 8 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1097                   | 157.70     | X            | X  | X  | X  | X  |     | X   |        |         |        |       |     | X   |
| .1082                   | 226.49     | X            | X  | X  | X  | X  |     | X   |        |         |        |       |     | X   |
| .1081                   | 234.48     | X            | X  | X  | X  | X  |     | X   |        |         |        |       |     | X   |
| .1080                   | 237.66     | X            | X  | X  | X  | X  | X   | X   |        |         |        |       |     | X   |
| .1076                   | 256.67     | X            | X  | X  | X  | X  |     | X   | X      |         |        |       |     | X   |
| .1075                   | 260.57     | X            | X  | X  | X  | X  |     | X   |        |         |        |       |     | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C10. continued**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| 9 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1109                   | 98.16      | X            | X  | X  | X  | X  |     | X   |        | X       | X      |       |     | X   |
| .1102                   | 125.08     | X            | X  | X  | X  | X  |     | X   | X      | X       |        |       |     | X   |
| .1102                   | 135.27     | X            | X  | X  | X  | X  | X   | X   |        | X       |        |       |     | X   |
| .1100                   | 145.00     | X            | X  | X  | X  | X  |     | X   |        | X       |        | X     | X   |     |
| .1097                   | 158.37     | X            | X  | X  | X  | X  |     | X   |        | X       |        |       | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| 10 Variables            |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1118                   | 56.46      | X            | X  | X  | X  | X  |     | X   |        | X       | X      | X     | X   | X   |
| .1114                   | 78.14      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      |       |     | X   |
| .1111                   | 87.95      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      |       |     | X   |
| .1109                   | 99.43      | X            | X  | X  | X  | X  |     | X   |        | X       | X      |       | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| 11 Variables            |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1123                   | 33.63      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     | X   | X   |
| .1122                   | 37.81      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     | X   | X   |
| .1118                   | 57.63      | X            | X  | X  | X  | X  |     | X   |        | X       | X      | X     | X   | X   |
| .1116                   | 66.12      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       |     | X   |
| .1114                   | 78.88      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      |       | X   | X   |
| .1112                   | 89.11      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      |       | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| 12 Variables            |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1128                   | 12.67      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1123                   | 34.60      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     | X   | X   |
| .1122                   | 38.44      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     | X   | X   |
| .1116                   | 66.69      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       | X   | X   |
| .1113                   | 83.85      | X            | X  | X  | X  | X  | X   | X   | X      | X       |        | X     | X   | X   |
| .1101                   | 142.73     | X            | X  | X  | X  | X  | X   | X   | X      |         | X      | X     | X   | X   |
| .1080                   | 243.01     | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     |     | X   |
| .1078                   | 250.12     | X            | X  | X  | X  |    | X   | X   | X      | X       | X      | X     | X   | X   |

**Note.** FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C11. All Subsets Regression of Youth Assets on Physical Activity GR11**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>1 Variable</b>       |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0767                   | 2094.72    |              |    |    |    |    |     | X   |        |         |        |       |     |     |
| .0215                   | 5013.16    |              |    |    |    |    | X   |     |        |         |        |       |     |     |
| .0130                   | 5485.94    | X            |    |    |    |    |     |     |        |         |        |       |     |     |
| .0063                   | 5841.69    |              |    |    |    | X  |     |     |        |         |        |       |     |     |
| .0054                   | 5890.74    |              |    |    |    |    |     |     |        |         |        |       | X   |     |
| .0054                   | 5892.84    |              | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0033                   | 6001.15    |              |    |    |    |    |     | X   |        |         |        |       |     |     |
| .0016                   | 6093.97    |              | X  |    |    |    |     |     |        |         |        |       |     |     |
| <b>2 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0867                   | 1562.61    |              |    |    |    |    | X   |     | X      |         |        |       |     |     |
| .0862                   | 1590.27    |              |    |    |    | X  |     |     | X      |         |        |       |     |     |
| .0835                   | 1733.56    | X            |    |    |    |    |     |     | X      |         |        |       |     |     |
| .0801                   | 1914.33    |              |    | X  |    |    |     |     | X      |         |        |       |     |     |
| .0785                   | 1997.78    |              | X  |    |    |    |     |     | X      |         |        |       |     |     |
| .0782                   | 2011.75    |              |    |    |    |    |     | X   | X      |         |        |       |     |     |
| .0772                   | 2064.96    |              |    |    |    |    |     |     | X      |         |        |       |     | X   |
| .0769                   | 2083.37    |              |    |    |    |    |     | X   |        | X       |        |       |     |     |
| <b>3 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0966                   | 1033.45    |              |    |    |    | X  | X   |     | X      |         |        |       |     |     |
| .0963                   | 1049.68    | X            |    |    |    | X  |     |     | X      |         |        |       |     |     |
| .0924                   | 1258.48    | X            |    |    |    |    | X   |     | X      |         |        |       |     |     |
| .0908                   | 1339.08    |              |    | X  |    | X  |     |     | X      |         |        |       |     |     |
| .0877                   | 1508.10    |              |    |    |    |    | X   | X   | X      |         |        |       |     |     |
| .0876                   | 1517.03    |              | X  |    |    |    | X   |     | X      |         |        |       |     |     |
| .0870                   | 1544.28    |              |    |    |    |    | X   |     | X      |         |        |       |     | X   |
| .0869                   | 1549.42    |              |    |    |    | X  |     | X   |        |         |        | X     |     |     |
| <b>4 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1055                   | 561.34     | X            |    |    |    | X  | X   |     | X      |         |        |       |     |     |
| .0997                   | 871.60     |              | X  |    |    | X  | X   |     | X      |         |        |       |     |     |
| .0982                   | 949.63     |              |    |    |    | X  | X   |     | X      |         |        |       |     | X   |
| .0981                   | 954.82     |              |    | X  | X  | X  |     |     | X      |         |        |       |     |     |
| .0981                   | 955.32     |              |    |    | X  | X  | X   |     | X      |         |        |       |     |     |
| .0969                   | 1017.73    |              |    |    | X  | X  |     |     | X      |         |        |       |     | X   |
| .0968                   | 1027.72    |              |    |    | X  | X  |     |     | X      |         |        | X     |     |     |
| .0967                   | 1029.78    |              |    | X  | X  |    |     | X   |        |         |        | X     |     |     |

**Note.** FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C11. continued**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>5 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1096                   | 344.16     | X            |    | X  | X  | X  |     |     | X      |         |        |       |     |     |
| .1067                   | 498.80     | X            |    |    | X  | X  |     |     | X      |         |        |       |     | X   |
| .1065                   | 509.61     | X            |    |    | X  | X  | X   | X   |        |         |        |       |     |     |
| .1063                   | 521.94     | X            | X  |    | X  | X  |     |     | X      |         |        |       |     |     |
| .1062                   | 524.98     | X            |    |    | X  | X  |     |     | X      |         | X      |       |     |     |
| .1058                   | 547.87     | X            |    |    | X  | X  |     |     | X      |         |        |       |     | X   |
| .1057                   | 552.18     | X            |    |    | X  | X  |     |     | X      | X       |        |       |     |     |
| .1055                   | 562.20     | X            |    |    | X  | X  |     |     | X      |         |        |       |     | X   |
| <b>6 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1134                   | 140.81     | X            | X  | X  | X  | X  |     |     | X      |         |        |       |     |     |
| .1111                   | 266.51     | X            |    | X  | X  | X  |     |     | X      |         |        |       |     | X   |
| .1107                   | 286.74     | X            |    | X  | X  | X  | X   | X   |        |         |        |       |     |     |
| .1102                   | 315.50     | X            |    | X  | X  | X  |     |     | X      |         | X      |       |     |     |
| .1098                   | 337.56     | X            |    | X  | X  | X  |     |     | X      |         |        |       |     | X   |
| .1097                   | 342.59     | X            |    | X  | X  | X  |     |     | X      | X       |        |       |     |     |
| .1097                   | 342.86     | X            |    | X  | X  | X  |     |     | X      |         |        |       |     | X   |
| .1096                   | 345.59     | X            |    | X  | X  | X  |     |     | X      |         |        |       |     | X   |
| <b>7 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1145                   | 83.43      | X            | X  | X  | X  | X  |     |     | X      |         |        |       |     | X   |
| .1142                   | 103.83     | X            | X  | X  | X  | X  | X   |     | X      |         |        |       |     |     |
| .1141                   | 108.36     | X            | X  | X  | X  | X  |     |     | X      |         |        |       |     |     |
| .1137                   | 129.08     | X            | X  | X  | X  | X  |     |     | X      |         |        |       |     | X   |
| .1135                   | 137.86     | X            | X  | X  | X  | X  |     |     | X      | X       |        |       |     |     |
| .1135                   | 141.52     | X            | X  | X  | X  | X  |     |     | X      |         |        |       |     | X   |
| .1134                   | 142.33     | X            | X  | X  | X  | X  |     |     | X      |         |        |       |     | X   |
| <b>8 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1151                   | 53.40      | X            | X  | X  | X  | X  | X   | X   |        |         |        |       |     | X   |
| .1151                   | 54.69      | X            | X  | X  | X  | X  |     | X   |        |         | X      |       |     | X   |
| .1148                   | 70.58      | X            | X  | X  | X  | X  |     | X   |        |         | X      |       |     | X   |
| .1146                   | 81.03      | X            | X  | X  | X  | X  |     | X   | X      |         |        |       |     | X   |
| .1146                   | 83.73      | X            | X  | X  | X  | X  |     | X   |        |         | X      |       |     | X   |
| .1145                   | 85.32      | X            | X  | X  | X  | X  |     | X   |        |         |        |       |     | X X |

**Note.** FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C11. continued**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     | vol | rel |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |     |     |
| <b>9 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
| .1157                   | 24.24      | X            | X  | X  | X  | X  | X   | X   |        |         | X      |       |     |     | X   |     |
| .1153                   | 42.44      | X            | X  | X  | X  | X  | X   | X   |        |         | X      |       |     |     | X   |     |
| .1152                   | 50.85      | X            | X  | X  | X  | X  | X   | X   | X      | X       |        |       |     |     | X   |     |
| .1151                   | 53.57      | X            | X  | X  | X  | X  | X   | X   |        |         |        |       |     |     | X   | X   |
| .1151                   | 55.40      | X            | X  | X  | X  | X  | X   | X   |        |         |        |       |     |     | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
| <b>10 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
| .1158                   | 20.22      | X            | X  | X  | X  | X  | X   | X   |        |         | X      |       |     |     | X   | X   |
| .1158                   | 20.90      | X            | X  | X  | X  | X  | X   | X   |        |         | X      | X     |     |     | X   | X   |
| .1157                   | 26.08      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       |     |     | X   |     |
| .1157                   | 26.24      | X            | X  | X  | X  | X  | X   | X   |        |         | X      |       |     |     | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
| <b>11 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
| .1160                   | 10.15      | X            | X  | X  | X  | X  | X   | X   |        |         | X      | X     |     |     | X   | X   |
| .1158                   | 20.48      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       |     |     | X   | X   |
| .1158                   | 22.20      | X            | X  | X  | X  | X  | X   | X   |        |         | X      |       |     |     | X   | X   |
| .1158                   | 22.90      | X            | X  | X  | X  | X  | X   | X   |        |         | X      | X     |     |     | X   | X   |
| .1158                   | 22.91      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     |     |     | X   |     |
| .1157                   | 28.08      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       |     |     | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
| <b>12 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
| .1160                   | 11.02      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     |     |     | X   | X   |
| .1160                   | 12.12      | X            | X  | X  | X  | X  | X   | X   |        |         | X      | X     |     |     | X   | X   |
| .1158                   | 22.46      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       |     |     | X   | X   |
| .1157                   | 24.90      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     |     |     | X   | X   |
| .1156                   | 33.66      | X            | X  | X  | X  | X  | X   | X   | X      | X       |        |       |     |     | X   | X   |
| .1154                   | 41.69      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     |     |     | X   | X   |
| .1150                   | 62.08      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     |     |     | X   | X   |
| .1128                   | 183.11     | X            |    | X  | X  | X  | X   | X   | X      | X       | X      | X     |     |     | X   | X   |

**Note.** FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C12. All Subsets Regression of Youth Assets on Physical Activity GR12**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| 1 Variable              |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0794                   | 2033.91    |              |    |    |    |    |     | X   |        |         |        |       |     |     |
| .0239                   | 4773.06    |              |    |    |    | X  |     |     |        |         |        |       |     |     |
| .0172                   | 5103.31    |              | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0130                   | 5306.21    |              |    |    | X  |    |     |     |        |         |        |       |     |     |
| .0090                   | 5505.30    | X            |    |    |    |    |     |     |        |         |        |       |     |     |
| .0089                   | 5512.12    |              |    |    |    |    | X   |     |        |         |        |       |     |     |
| .0032                   | 5789.90    |              |    |    |    |    |     |     |        |         |        |       | X   |     |
| .0013                   | 5885.33    |              | X  |    |    |    |     |     |        |         |        |       |     |     |
| 2 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0925                   | 1389.63    |              |    |    | X  |    |     | X   |        |         |        |       |     |     |
| .0891                   | 1554.65    |              |    |    |    | X  |     |     | X      |         |        |       |     |     |
| .0877                   | 1625.10    |              | X  |    |    |    |     |     | X      |         |        |       |     |     |
| .0849                   | 1763.81    |              |    |    |    |    | X   |     | X      |         |        |       |     |     |
| .0832                   | 1845.14    | X            |    |    |    |    |     |     | X      |         |        |       |     |     |
| .0805                   | 1978.13    |              |    |    |    |    |     |     | X      |         |        |       |     | X   |
| .0797                   | 2020.45    |              |    |    |    |    |     |     | X      |         | X      |       |     |     |
| .0795                   | 2030.49    |              | X  |    |    |    |     | X   |        |         |        |       |     |     |
| 3 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1060                   | 723.74     |              | X  |    | X  |    |     | X   |        |         |        |       |     |     |
| .1024                   | 901.97     |              |    |    | X  | X  |     |     | X      |         |        |       |     |     |
| .0990                   | 1069.12    |              |    | X  |    |    | X   |     |        | X       |        |       |     |     |
| .0985                   | 1092.52    | X            |    |    | X  |    |     |     | X      |         |        |       |     |     |
| .0940                   | 1312.99    |              |    | X  | X  |    |     |     | X      |         |        |       |     |     |
| .0932                   | 1352.60    |              |    |    | X  |    |     |     | X      |         |        |       |     | X   |
| .0927                   | 1377.74    |              |    | X  |    |    |     | X   |        |         |        |       |     | X   |
| .0925                   | 1389.12    |              |    |    | X  |    |     | X   |        |         |        | X     |     |     |
| 4 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1127                   | 391.94     |              | X  |    | X  | X  |     |     | X      |         |        |       |     |     |
| .1099                   | 530.39     |              | X  |    | X  |    | X   |     | X      |         |        |       |     |     |
| .1082                   | 616.57     | X            | X  |    | X  |    |     |     | X      |         |        |       |     |     |
| .1066                   | 693.14     |              | X  | X  | X  |    |     |     | X      |         |        |       |     |     |
| .1065                   | 696.93     |              | X  |    | X  |    |     |     | X      |         |        |       |     |     |
| .1062                   | 714.11     |              | X  |    | X  |    |     |     | X      |         |        |       | X   |     |
| .1062                   | 715.34     |              | X  |    | X  |    |     |     | X      |         | X      |       |     |     |
| .1061                   | 718.72     |              | X  |    | X  |    |     |     | X      |         | X      |       |     |     |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C12. continued**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>5 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1159                   | 234.10     |              | X  |    | X  | X  | X   | X   |        |         |        |       |     |     |
| .1146                   | 300.77     | X            | X  |    | X  | X  |     |     | X      |         |        |       |     |     |
| .1135                   | 353.58     |              | X  | X  | X  | X  |     |     | X      |         |        |       |     |     |
| .1135                   | 353.62     | X            |    |    | X  | X  |     |     | X      |         |        |       |     | X   |
| .1129                   | 383.93     |              | X  |    | X  | X  |     |     | X      |         | X      |       |     |     |
| .1128                   | 386.64     | X            |    |    | X  | X  |     |     | X      |         |        |       | X   |     |
| .1128                   | 387.92     |              | X  |    | X  | X  |     |     | X      |         |        | X     |     |     |
| .1127                   | 392.01     |              | X  |    | X  | X  |     |     | X      | X       |        |       |     |     |
| <b>6 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1176                   | 153.33     | X            | X  |    | X  | X  | X   | X   |        |         |        |       |     |     |
| .1169                   | 185.07     |              | X  | X  | X  | X  | X   | X   |        |         |        |       |     |     |
| .1169                   | 186.34     | X            |    |    | X  | X  | X   | X   |        |         |        |       |     | X   |
| .1161                   | 226.12     | X            |    |    | X  | X  | X   | X   |        |         | X      |       |     |     |
| .1161                   | 229.12     |              | X  |    | X  | X  | X   | X   |        |         |        |       | X   |     |
| .1161                   | 229.64     | X            |    |    | X  | X  | X   | X   |        |         |        | X     |     |     |
| .1159                   | 235.11     |              | X  |    | X  | X  | X   | X   | X      |         |        |       |     |     |
| .1159                   | 236.10     | X            |    |    | X  | X  | X   | X   |        |         |        |       |     | X   |
| <b>7 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1189                   | 88.57      | X            | X  | X  | X  | X  | X   | X   |        |         |        |       |     |     |
| .1186                   | 103.86     | X            | X  |    | X  | X  | X   | X   |        |         |        |       |     | X   |
| .1182                   | 123.66     | X            | X  |    | X  | X  | X   | X   |        |         |        |       | X   |     |
| .1180                   | 133.76     | X            | X  |    | X  | X  | X   | X   |        |         | X      |       |     |     |
| .1180                   | 136.04     | X            | X  |    | X  | X  | X   | X   |        |         |        |       | X   |     |
| .1177                   | 149.26     | X            | X  |    | X  | X  | X   | X   | X      |         |        |       |     |     |
| .1176                   | 155.33     | X            | X  |    | X  | X  | X   | X   |        |         |        |       |     | X   |
| <b>8 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1199                   | 43.36      | X            | X  | X  | X  | X  | X   | X   |        |         |        |       |     | X   |
| .1195                   | 61.81      | X            | X  | X  | X  | X  | X   | X   |        |         | X      |       |     |     |
| .1193                   | 71.20      | X            | X  | X  | X  | X  | X   | X   |        |         |        |       |     |     |
| .1193                   | 73.35      | X            | X  | X  | X  | X  | X   | X   |        |         |        |       | X   |     |
| .1190                   | 84.73      | X            | X  | X  | X  | X  | X   | X   | X      |         |        |       |     |     |
| .1189                   | 90.51      | X            | X  | X  | X  | X  | X   | X   |        |         |        |       |     | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C12. continued**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     | vol | rel |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |     |     |
| <b>9 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
| .1204                   | 16.67      | X            | X  | X  | X  | X  | X   | X   |        |         |        |       | X   |     |     | X   |
| .1202                   | 27.81      | X            | X  | X  | X  | X  | X   | X   |        |         |        |       | X   |     |     | X   |
| .1202                   | 28.48      | X            | X  | X  | X  | X  | X   | X   |        | X       |        |       |     |     |     | X   |
| .1200                   | 39.93      | X            | X  | X  | X  | X  | X   | X   | X      |         |        |       |     |     |     | X   |
| .1199                   | 45.01      | X            | X  | X  | X  | X  | X   | X   |        |         |        |       | X   |     |     | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
| <b>10 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
| .1206                   | 10.76      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      |       |     |     |     | X   |
| .1205                   | 13.79      | X            | X  | X  | X  | X  | X   | X   |        |         | X      | X     |     |     |     | X   |
| .1204                   | 17.96      | X            | X  | X  | X  | X  | X   | X   | X      |         | X      |       |     |     |     | X   |
| .1204                   | 18.35      | X            | X  | X  | X  | X  | X   | X   |        |         | X      |       |     |     |     | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
| <b>11 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
| .1206                   | 9.68       | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     |     |     |     | X   |
| .1206                   | 12.53      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      |       |     |     |     | X   |
| .1206                   | 12.76      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       |     |     |     | X   |
| .1205                   | 15.41      | X            | X  | X  | X  | X  | X   | X   |        |         | X      | X     | X   |     |     | X   |
| .1205                   | 15.79      | X            | X  | X  | X  | X  | X   | X   | X      |         | X      | X     |     |     |     | X   |
| .1204                   | 19.62      | X            | X  | X  | X  | X  | X   | X   | X      |         | X      |       |     |     |     | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
| <b>12 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
| .1206                   | 11.26      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     |     |     |     | X   |
| .1206                   | 11.40      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     | X   |     |     | X   |
| .1205                   | 14.41      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     |     |     |     | X   |
| .1205                   | 17.41      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   |     |     | X   |
| .1204                   | 23.54      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   |     |     | X   |
| .1197                   | 56.95      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   |     |     | X   |
| .1194                   | 69.37      | X            | X  |    | X  | X  | X   | X   | X      | X       | X      | X     | X   |     |     | X   |
| .1180                   | 139.72     | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   |     |     | X   |

**Note.** FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C13. All Subsets Regression of Youth Assets on Seatbelt Use GR7**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>1 Variable</b>       |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0662                   | 3362.93    |              |    |    | X  |    |     |     |        |         |        |       |     |     |
| .0638                   | 3472.24    |              |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0628                   | 3519.06    | X            |    |    |    |    |     |     |        |         |        |       |     |     |
| .0503                   | 4087.77    |              | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0211                   | 5412.04    |              |    |    |    |    |     |     |        |         |        |       | X   |     |
| .0182                   | 5545.57    |              |    |    |    |    |     |     |        |         |        | X     |     |     |
| .0170                   | 5597.35    |              |    |    |    |    |     |     |        |         |        |       | X   |     |
| .0157                   | 5659.16    |              |    |    |    |    |     |     |        | X       |        |       |     |     |
| <b>2 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1088                   | 1430.75    | X            |    |    | X  |    |     |     |        |         |        |       |     |     |
| .1008                   | 1797.23    |              |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .0907                   | 2252.13    |              | X  |    | X  |    |     |     |        |         |        |       |     |     |
| .0793                   | 2771.71    |              |    |    | X  |    |     |     |        |         |        |       | X   |     |
| .0780                   | 2829.80    |              |    |    | X  |    |     |     |        |         |        | X     |     |     |
| .0771                   | 2871.43    |              |    |    | X  |    |     |     |        | X       |        |       |     |     |
| .0738                   | 3019.43    |              |    |    | X  |    |     |     |        |         |        |       | X   |     |
| .0718                   | 3111.97    |              |    |    | X  |    |     | X   |        |         |        |       |     |     |
| <b>3 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1255                   | 675.70     | X            |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .1163                   | 1090.32    | X            | X  |    | X  |    |     |     |        |         |        |       |     |     |
| .1143                   | 1184.13    | X            |    |    | X  |    |     |     |        |         |        |       | X   |     |
| .1137                   | 1209.00    | X            |    |    | X  |    |     |     |        |         |        |       | X   |     |
| .1136                   | 1215.85    | X            |    |    | X  |    |     |     |        | X       |        |       |     |     |
| .1122                   | 1279.16    | X            |    |    | X  |    |     |     | X      |         |        |       |     |     |
| .1114                   | 1315.74    | X            |    |    | X  |    |     |     |        |         |        | X     |     |     |
| .1094                   | 1405.31    | X            |    |    | X  |    |     |     |        |         | X      |       |     |     |
| <b>4 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1303                   | 456.63     | X            |    | X  | X  |    |     |     |        |         |        |       |     | X   |
| .1302                   | 463.61     | X            |    | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1299                   | 476.73     | X            |    | X  | X  |    |     |     |        | X       |        |       |     |     |
| .1291                   | 513.52     | X            |    | X  | X  |    |     | X   |        |         |        |       |     |     |
| .1274                   | 589.35     | X            |    | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1260                   | 655.11     | X            | X  | X  | X  |    |     |     |        |         |        |       |     |     |
| .1257                   | 664.46     | X            |    | X  | X  |    |     |     |        |         | X      |       |     |     |
| .1257                   | 668.31     | X            |    | X  | X  | X  |     |     |        |         |        |       |     |     |

**Note.** FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C13. continued**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     | vol | rel |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |     |     |
| <b>5 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
| .1350                   | 243.94     | X            |    | X  | X  |    |     |     |        |         |        |       |     |     | X   | X   |
| .1346                   | 263.54     | X            |    | X  | X  |    |     |     |        |         |        |       |     |     |     | X   |
| .1332                   | 326.20     | X            |    | X  | X  |    |     |     |        |         |        |       |     |     |     | X   |
| .1324                   | 364.70     | X            |    | X  | X  |    |     |     |        |         |        |       |     |     |     | X   |
| .1307                   | 439.70     | X            | X  | X  | X  |    |     |     |        |         |        |       |     |     |     | X   |
| .1307                   | 441.90     | X            |    | X  | X  |    |     |     |        |         |        |       |     |     |     | X   |
| .1305                   | 450.13     | X            |    | X  | X  |    |     |     |        |         |        |       |     |     |     | X   |
| .1305                   | 450.26     | X            |    | X  | X  |    | X   |     |        |         |        |       |     |     |     | X   |
| <b>6 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
| .1374                   | 136.57     | X            |    | X  | X  |    |     |     | X      |         |        |       |     |     | X   | X   |
| .1373                   | 142.81     | X            |    | X  | X  |    |     |     | X      | X       |        |       |     |     |     | X   |
| .1373                   | 144.07     | X            |    | X  | X  |    |     |     | X      |         |        |       |     |     | X   | X   |
| .1356                   | 220.98     | X            |    | X  | X  |    |     |     |        |         |        |       |     |     | X   | X   |
| .1353                   | 231.65     | X            | X  | X  | X  |    |     |     |        |         |        |       |     |     |     | X   |
| .1352                   | 237.02     | X            |    | X  | X  |    | X   |     |        |         |        |       |     |     | X   | X   |
| .1352                   | 239.36     | X            |    | X  | X  |    |     |     |        |         |        |       |     |     | X   | X   |
| .1351                   | 240.34     | X            |    | X  | X  |    |     |     |        |         | X      |       |     |     | X   | X   |
| <b>7 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
| .1396                   | 38.78      | X            |    | X  | X  |    |     | X   | X      |         |        |       |     |     | X   | X   |
| .1379                   | 115.03     | X            |    | X  | X  |    |     | X   |        |         |        |       |     |     | X   | X   |
| .1376                   | 128.21     | X            |    | X  | X  |    | X   | X   |        |         |        |       |     |     | X   | X   |
| .1376                   | 129.54     | X            | X  | X  | X  |    |     | X   |        |         |        |       |     |     | X   | X   |
| .1376                   | 130.88     | X            |    | X  | X  |    |     | X   |        |         |        |       |     |     | X   | X   |
| .1375                   | 132.91     | X            |    | X  | X  |    |     | X   |        |         | X      |       |     |     | X   | X   |
| .1374                   | 137.20     | X            |    | X  | X  | X  |     | X   |        |         |        |       |     |     | X   | X   |
| <b>8 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
| .1398                   | 28.48      | X            |    | X  | X  |    |     | X   | X      |         |        |       |     |     | X   | X   |
| .1398                   | 31.29      | X            |    | X  | X  |    | X   | X   | X      |         |        |       |     |     | X   | X   |
| .1398                   | 32.52      | X            |    | X  | X  |    |     | X   | X      |         |        |       |     |     | X   | X   |
| .1397                   | 34.32      | X            | X  | X  | X  |    |     | X   | X      |         |        |       |     |     | X   | X   |
| .1396                   | 39.80      | X            |    | X  | X  | X  |     | X   | X      |         |        |       |     |     | X   | X   |
| .1396                   | 40.76      | X            |    | X  | X  |    |     | X   | X      | X       |        |       |     |     | X   | X   |

**Note.** FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C13. continued**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>9 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1400                   | 20.46      | X            |    | X  | X  |    | X   | X   | X      |         |        | X     | X   | X   |
| .1400                   | 22.47      | X            |    | X  | X  |    |     | X   | X      |         |        | X     | X   | X   |
| .1400                   | 24.68      | X            | X  | X  | X  |    |     | X   | X      |         |        | X     | X   | X   |
| .1399                   | 25.58      | X            |    | X  | X  |    | X   | X   | X      |         |        | X     | X   | X   |
| .1398                   | 29.52      | X            |    | X  | X  | X  |     | X   | X      |         |        | X     | X   | X   |
| .1398                   | 30.42      | X            |    | X  | X  |    |     | X   | X      | X       | X      | X     | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>10 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1402                   | 15.02      | X            |    | X  | X  |    | X   | X   | X      |         |        | X     | X   | X   |
| .1402                   | 15.77      | X            | X  | X  | X  |    | X   | X   | X      |         |        | X     | X   | X   |
| .1401                   | 21.27      | X            |    | X  | X  | X  | X   | X   | X      |         |        | X     | X   | X   |
| .1400                   | 22.31      | X            |    | X  | X  |    | X   | X   | X      | X       | X      | X     | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>11 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1403                   | 10.12      | X            | X  | X  | X  |    | X   | X   | X      |         |        | X     | X   | X   |
| .1402                   | 15.81      | X            |    | X  | X  | X  | X   | X   | X      |         |        | X     | X   | X   |
| .1402                   | 16.78      | X            | X  | X  | X  | X  | X   | X   | X      |         |        | X     | X   | X   |
| .1402                   | 16.94      | X            |    | X  | X  |    | X   | X   | X      | X       | X      | X     | X   | X   |
| .1402                   | 17.53      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      | X     | X   | X   |
| .1400                   | 23.13      | X            |    | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1399                   | 27.79      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     | X   | X   |
| .1399                   | 28.89      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| <b>12 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1403                   | 11.12      | X            | X  | X  | X  | X  | X   | X   | X      |         |        | X     | X   | X   |
| .1403                   | 11.99      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      | X     | X   | X   |
| .1402                   | 17.75      | X            |    | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1402                   | 18.55      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1401                   | 21.61      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     | X   | X   |
| .1401                   | 22.99      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1386                   | 87.56      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1385                   | 94.20      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     | X   | X   |

**Note.** FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C14. All Subsets Regression of Youth Assets on Seatbelt Use GR8**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>1 Variable</b>       |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0641                   | 3334.71    |              |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0553                   | 3761.42    |              |    |    |    | X  |     |     |        |         |        |       |     |     |
| .0510                   | 3970.05    |              | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0486                   | 4090.12    | X            |    |    |    |    |     |     |        |         |        |       |     |     |
| .0393                   | 4540.01    |              |    |    |    |    |     |     |        |         |        | X     |     |     |
| .0274                   | 5114.03    |              |    |    |    |    |     |     |        |         |        |       | X   |     |
| .0139                   | 5769.18    |              |    |    |    |    |     |     |        |         |        |       | X   |     |
| .0084                   | 6037.70    |              |    |    |    |    |     | X   |        |         |        |       |     |     |
| <b>2 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0887                   | 2144.78    |              |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .0865                   | 2250.99    |              | X  |    |    |    |     |     |        |         | X      |       |     |     |
| .0846                   | 2341.40    |              | X  |    |    |    |     |     |        |         |        | X     |     |     |
| .0824                   | 2449.69    | X            |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0744                   | 2839.30    |              | X  | X  |    |    |     |     |        |         |        |       |     |     |
| .0713                   | 2989.64    |              |    |    | X  |    |     |     |        |         |        |       | X   |     |
| .0705                   | 3025.43    |              |    | X  |    |    |     |     |        |         |        |       | X   |     |
| .0704                   | 3032.50    |              | X  |    |    |    | X   |     |        |         |        |       |     |     |
| <b>3 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1081                   | 1203.96    |              |    | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1035                   | 1427.04    | X            |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .1032                   | 1442.76    |              | X  | X  |    |    |     |     |        |         |        |       | X   |     |
| .0947                   | 1854.08    |              | X  | X  | X  |    |     |     |        |         |        |       |     |     |
| .0941                   | 1885.49    |              |    | X  | X  |    |     | X   |        |         |        |       |     |     |
| .0937                   | 1902.41    |              | X  | X  |    |    |     |     |        |         |        |       | X   |     |
| .0906                   | 2051.05    |              | X  | X  | X  |    |     |     |        |         |        |       |     |     |
| .0897                   | 2095.44    |              | X  | X  |    |    |     |     | X      |         |        |       |     |     |
| <b>4 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1218                   | 540.75     |              |    | X  | X  |    |     |     |        |         |        | X     |     | X   |
| .1146                   | 887.75     | X            |    | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1129                   | 973.50     |              |    | X  | X  |    |     | X   |        |         |        | X     |     |     |
| .1121                   | 1010.23    |              | X  | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1096                   | 1134.18    |              | X  | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1088                   | 1170.78    |              | X  | X  |    |    |     |     |        |         |        | X     |     | X   |
| .1083                   | 1196.59    |              | X  | X  |    |    |     |     |        |         |        | X     | X   |     |
| .1081                   | 1204.62    |              | X  | X  |    | X  |     |     |        |         |        | X     |     |     |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C14. continued**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>5 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1279                   | 244.72     | X            |    | X  | X  |    |     |     |        |         |        | X     |     | X   |
| .1246                   | 405.65     |              |    | X  | X  |    |     | X   |        |         |        | X     |     | X   |
| .1245                   | 412.98     |              | X  | X  | X  |    |     |     |        |         |        | X     |     | X   |
| .1226                   | 504.10     |              |    | X  | X  | X  |     |     |        |         |        | X     |     | X   |
| .1221                   | 525.18     |              |    | X  | X  |    | X   |     |        |         |        | X     |     | X   |
| .1221                   | 528.26     |              |    |    | X  | X  |     |     |        |         |        | X     |     | X X |
| .1219                   | 537.73     |              |    | X  | X  |    |     |     |        |         |        | X     | X   | X   |
| .1218                   | 541.44     |              | X  | X  |    |    |     | X   |        |         |        | X     |     | X   |
| <b>6 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1304                   | 123.62     | X            |    | X  | X  |    |     | X   |        |         |        | X     |     | X   |
| .1293                   | 177.55     | X            | X  | X  | X  |    |     |     |        |         |        | X     |     | X   |
| .1284                   | 220.70     | X            |    | X  | X  | X  |     |     |        |         |        | X     |     | X   |
| .1283                   | 227.29     | X            |    | X  | X  |    | X   |     |        |         |        | X     |     | X   |
| .1282                   | 233.79     | X            |    | X  | X  |    |     |     |        |         |        | X     |     | X X |
| .1280                   | 240.65     | X            |    | X  | X  |    |     |     | X      |         |        | X     |     | X   |
| .1279                   | 245.10     | X            |    | X  | X  |    |     |     |        |         | X      | X     |     | X   |
| .1279                   | 246.13     | X            |    | X  | X  |    |     |     |        |         | X      | X     | X   | X   |
| <b>7 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1318                   | 60.80      | X            | X  | X  | X  |    |     | X   |        |         |        | X     |     | X   |
| .1309                   | 102.76     | X            |    | X  | X  |    | X   | X   |        |         |        | X     |     | X   |
| .1307                   | 112.93     | X            |    | X  | X  |    |     | X   |        |         |        | X     |     | X X |
| .1306                   | 116.15     | X            |    | X  | X  | X  |     | X   |        |         |        | X     |     | X   |
| .1306                   | 117.71     | X            |    | X  | X  |    |     | X   | X      |         |        | X     |     | X   |
| .1305                   | 124.01     | X            |    | X  | X  |    |     | X   |        |         | X      | X     |     | X   |
| .1304                   | 125.16     | X            |    | X  | X  |    |     | X   |        |         |        | X     | X   | X   |
| <b>8 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1323                   | 33.78      | X            | X  | X  | X  |    | X   | X   |        |         |        | X     |     | X   |
| .1320                   | 51.17      | X            | X  | X  | X  |    |     | X   |        |         |        | X     |     | X X |
| .1319                   | 53.92      | X            | X  | X  | X  |    |     | X   | X      |         |        | X     |     | X   |
| .1318                   | 57.96      | X            | X  | X  | X  | X  |     | X   |        |         |        | X     |     | X   |
| .1318                   | 60.95      | X            | X  | X  | X  |    |     | X   |        |         | X      | X     |     | X   |
| .1317                   | 62.61      | X            | X  | X  | X  |    |     | X   |        |         |        | X     | X   | X   |

**Note.** FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C14.** *continued*

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| 9 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1326                   | 22.66      | X            | X  | X  | X  |    | X   | X   |        |         | X      |       | X   | X   |
| .1325                   | 26.71      | X            | X  | X  | X  |    | X   | X   | X      |         | X      |       | X   |     |
| .1324                   | 30.49      | X            | X  | X  | X  | X  | X   | X   |        |         | X      |       | X   |     |
| .1323                   | 34.24      | X            | X  | X  | X  |    | X   | X   |        | X       | X      |       | X   |     |
| .1323                   | 35.40      | X            | X  | X  | X  |    | X   | X   |        |         | X      | X     | X   |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| 10 Variables            |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1328                   | 15.06      | X            | X  | X  | X  |    | X   | X   | X      |         | X      |       | X   | X   |
| .1327                   | 20.17      | X            | X  | X  | X  | X  | X   | X   |        |         | X      |       | X   | X   |
| .1326                   | 22.88      | X            | X  | X  | X  |    | X   | X   |        | X       | X      |       | X   | X   |
| .1326                   | 23.12      | X            | X  | X  | X  | X  | X   | X   | X      |         | X      |       | X   |     |
| .1326                   | 24.34      | X            | X  | X  | X  |    | X   | X   |        |         | X      | X     | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| 11 Variables            |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1328                   | 12.29      | X            | X  | X  | X  | X  | X   | X   | X      |         | X      |       | X   | X   |
| .1328                   | 14.55      | X            | X  | X  | X  |    | X   | X   | X      |         | X      | X     | X   | X   |
| .1328                   | 16.45      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      |       | X   | X   |
| .1327                   | 20.20      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      |       | X   | X   |
| .1326                   | 21.88      | X            | X  | X  | X  | X  | X   |     |        |         | X      | X     | X   | X   |
| .1326                   | 24.36      | X            | X  | X  | X  |    | X   | X   |        | X       | X      | X     | X   | X   |
| .1325                   | 27.51      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      | X     | X   | X   |
| .1324                   | 32.25      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     | X   |     |
| 12 Variables            |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1329                   | 11.87      | X            | X  | X  | X  | X  | X   | X   | X      |         | X      | X     | X   | X   |
| .1328                   | 13.59      | X            | X  | X  | X  | X  | X   | X   | X      |         | X      | X     |     | X   |
| .1328                   | 15.78      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      | X     | X   | X   |
| .1327                   | 21.73      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     | X   | X   |
| .1326                   | 23.92      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1322                   | 42.49      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     | X   | X   |
| .1325                   | 76.81      | X            |    | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1306                   | 122.26     | X            | X  | X  | X  | X  | X   |     | X      | X       | X      | X     | X   | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C15. All Subsets Regression of Youth Assets on Seatbelt Use GR9**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| 1 Variable              |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0795                   | 3053.22    |              |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0607                   | 4035.23    | X            |    |    |    |    |     |     |        |         |        |       |     |     |
| .0552                   | 4324.38    |              |    |    | X  |    |     |     |        |         |        |       |     |     |
| .0426                   | 4980.57    |              | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0345                   | 5401.85    |              |    |    |    |    |     |     |        |         | X      |       |     |     |
| .0195                   | 6187.11    |              |    |    |    |    |     |     |        |         |        |       | X   |     |
| .0184                   | 6241.45    |              |    |    |    |    |     |     |        |         |        | X     |     |     |
| .0075                   | 6810.23    |              |    |    |    |    |     |     |        | X       |        |       |     |     |
| 2 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1046                   | 1745.43    |              |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .1041                   | 1771.57    | X            |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0967                   | 2156.18    |              |    | X  |    |    |     |     |        |         | X      |       |     |     |
| .0899                   | 2513.27    |              |    | X  |    |    |     |     |        |         |        |       | X   |     |
| .0883                   | 2592.85    |              |    | X  |    |    |     |     |        |         |        |       |     | X   |
| .0833                   | 2854.88    |              | X  | X  |    |    |     |     |        |         |        |       |     |     |
| .0820                   | 2922.22    |              |    | X  |    |    |     |     |        |         | X      |       |     |     |
| .0815                   | 2949.41    |              |    | X  |    |    |     |     | X      |         |        |       |     |     |
| 3 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1244                   | 711.35     | X            |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .1201                   | 933.01     |              |    | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1131                   | 1302.76    |              |    | X  | X  |    |     |     |        |         |        |       | X   |     |
| .1091                   | 1509.43    |              |    | X  | X  |    |     |     |        |         |        |       |     | X   |
| .1069                   | 1622.70    |              |    | X  | X  |    |     |     |        |         | X      |       |     |     |
| .1062                   | 1659.71    |              | X  | X  | X  |    |     |     |        |         |        |       |     |     |
| .1059                   | 1675.35    |              |    | X  | X  |    |     |     |        | X       |        |       |     |     |
| .1050                   | 1721.96    |              |    | X  | X  |    |     | X   |        |         |        |       |     |     |
| 4 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1321                   | 308.25     | X            |    | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1290                   | 472.47     | X            |    | X  | X  |    |     |     |        |         |        |       | X   |     |
| .1279                   | 526.60     | X            |    | X  | X  |    |     |     |        |         |        |       |     | X   |
| .1252                   | 667.48     | X            |    | X  | X  |    |     |     |        |         | X      |       |     |     |
| .1247                   | 697.63     | X            |    | X  | X  |    |     | X   |        |         |        |       |     |     |
| .1246                   | 698.89     | X            |    | X  | X  | X  |     |     |        |         |        |       |     |     |
| .1245                   | 705.85     | X            |    | X  | X  |    |     |     |        |         |        |       |     | X   |
| .1245                   | 707.98     | X            | X  | X  | X  |    |     |     |        |         |        |       |     |     |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C15. continued**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| 5 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1356                   | 126.55     | X            |    | X  | X  |    |     |     |        |         |        | X     |     | X   |
| .1338                   | 222.82     | X            |    | X  | X  |    |     |     |        |         |        | X     | X   |     |
| .1324                   | 295.69     | X            |    | X  | X  | X  |     |     |        |         |        | X     |     |     |
| .1322                   | 304.96     | X            |    | X  | X  |    |     |     |        | X       | X      |       |     |     |
| .1322                   | 305.92     | X            |    | X  | X  |    |     |     |        |         |        | X     |     | X   |
| .1322                   | 307.00     | X            |    | X  | X  |    |     | X   |        |         |        | X     |     |     |
| .1321                   | 307.71     | X            |    | X  | X  |    |     | X   |        |         |        | X     |     |     |
| .1321                   | 307.99     | X            | X  | X  | X  |    |     |     |        |         |        | X     |     |     |
| 6 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1372                   | 43.20      | X            |    | X  | X  |    |     |     |        |         |        | X     | X   | X   |
| .1361                   | 102.08     | X            |    | X  | X  | X  |     |     |        |         |        | X     |     | X   |
| .1358                   | 120.07     | X            |    | X  | X  |    |     | X   |        |         |        | X     |     | X   |
| .1357                   | 124.25     | X            |    | X  | X  |    |     |     |        | X       | X      |       |     | X   |
| .1356                   | 127.88     | X            |    | X  | X  |    |     |     |        |         |        | X     |     | X   |
| .1356                   | 128.45     | X            | X  | X  | X  |    |     |     |        |         |        | X     |     | X   |
| .1356                   | 128.54     | X            |    | X  | X  |    |     |     | X      |         |        | X     |     | X   |
| .1356                   | 128.54     | X            |    | X  | X  |    |     |     |        | X       |        | X     |     | X   |
| 7 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1377                   | 17.89      | X            |    | X  | X  | X  |     |     |        |         |        | X     | X   | X   |
| .1374                   | 36.95      | X            |    | X  | X  |    | X   |     |        |         |        | X     | X   | X   |
| .1373                   | 41.11      | X            |    | X  | X  |    |     |     | X      |         |        | X     | X   | X   |
| .1373                   | 43.36      | X            |    | X  | X  |    |     |     |        | X       |        | X     | X   | X   |
| .1372                   | 44.09      | X            |    | X  | X  |    |     |     |        |         |        | X     | X   | X   |
| .1372                   | 45.04      | X            | X  | X  | X  |    |     |     |        |         |        | X     | X   | X   |
| .1372                   | 45.20      | X            |    | X  | X  |    |     | X   |        |         |        | X     | X   | X   |
| 8 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1378                   | 14.07      | X            |    | X  | X  | X  | X   |     |        |         |        | X     | X   | X   |
| .1378                   | 16.40      | X            |    | X  | X  | X  |     |     | X      |         |        | X     | X   | X   |
| .1378                   | 17.54      | X            |    | X  | X  | X  |     |     |        | X       |        | X     | X   | X   |
| .1378                   | 18.14      | X            |    | X  | X  | X  |     |     |        |         |        | X     | X   | X   |
| .1377                   | 18.68      | X            |    | X  | X  | X  | X   | X   |        |         |        | X     | X   | X   |
| .1377                   | 19.33      | X            | X  | X  | X  | X  |     |     |        |         |        | X     | X   | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C15.** *continued*

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>9 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1379                   | 12.69      | X            |    | X  | X  | X  | X   |     | X      |         | X      | X     | X   | X   |
| .1379                   | 13.68      | X            |    | X  | X  | X  | X   |     |        | X       | X      | X     | X   | X   |
| .1378                   | 14.19      | X            |    | X  | X  | X  | X   |     |        |         | X      | X     | X   | X   |
| .1378                   | 14.51      | X            |    | X  | X  | X  | X   | X   |        |         | X      | X     | X   | X   |
| .1378                   | 14.88      | X            |    | X  | X  | X  |     |     |        | X       | X      | X     | X   | X   |
| .1378                   | 15.41      | X            | X  | X  | X  | X  | X   |     |        | X       | X      | X     | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>10 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1379                   | 11.15      | X            |    | X  | X  | X  | X   |     | X      | X       | X      | X     | X   | X   |
| .1379                   | 12.82      | X            |    | X  | X  | X  | X   |     | X      |         | X      | X     | X   | X   |
| .1379                   | 13.17      | X            |    | X  | X  | X  | X   | X   | X      |         | X      | X     | X   | X   |
| .1379                   | 13.91      | X            |    | X  | X  | X  | X   |     |        | X       | X      | X     | X   | X   |
| .1379                   | 13.94      | X            | X  | X  | X  | X  | X   |     | X      |         | X      | X     | X   | X   |
| .1378                   | 15.89      | X            | X  | X  | X  | X  | X   | X   |        |         | X      | X     | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>11 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1379                   | 11.43      | X            |    | X  | X  | X  | X   |     | X      | X       | X      | X     | X   | X   |
| .1379                   | 11.45      | X            |    | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1379                   | 12.28      | X            | X  | X  | X  | X  | X   |     | X      | X       | X      | X     | X   | X   |
| .1379                   | 13.40      | X            |    | X  | X  | X  | X   | X   | X      |         | X      | X     | X   | X   |
| .1379                   | 14.06      | X            | X  | X  | X  | X  | X   |     | X      |         | X      | X     | X   | X   |
| .1379                   | 14.45      | X            | X  | X  | X  | X  | X   | X   | X      |         | X      | X     | X   | X   |
| .1379                   | 15.28      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     | X   | X   |
| .1378                   | 16.11      | X            | X  | X  | X  | X  | X   | X   |        |         | X      | X     | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>12 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1379                   | 11.83      | X            |    | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1379                   | 12.55      | X            | X  | X  | X  | X  | X   |     | X      | X       | X      | X     | X   | X   |
| .1379                   | 12.63      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1379                   | 14.68      | X            | X  | X  | X  | X  | X   | X   | X      |         | X      | X     | X   | X   |
| .1379                   | 15.62      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     | X   | X   |
| .1378                   | 17.31      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     | X   | X   |
| .1374                   | 38.38      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      | X     | X   | X   |
| .1362                   | 99.91      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C16. All Subsets Regression of Youth Assets on Seatbelt Use GR10**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| 1 Variable              |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0622                   | 2433.42    |              |    |    | X  |    |     |     |        |         |        |       |     |     |
| .0522                   | 2910.67    |              |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0342                   | 3774.24    | X            |    |    |    |    |     |     |        |         |        |       |     |     |
| .0283                   | 4058.45    |              | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0219                   | 4362.24    |              |    |    |    |    |     |     |        |         | X      |       |     |     |
| .0187                   | 4515.51    |              |    |    |    |    |     |     | X      |         |        |       |     |     |
| .0087                   | 4994.02    |              |    |    |    |    |     |     |        |         |        | X     |     |     |
| .0072                   | 5065.67    |              |    |    |    |    |     |     |        |         |        |       | X   |     |
| 2 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0899                   | 1102.58    |              |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .0834                   | 1418.84    | X            |    |    | X  |    |     |     |        |         |        |       |     |     |
| .0785                   | 1652.92    |              |    | X  |    |    |     |     |        |         | X      |       |     |     |
| .0753                   | 1806.07    |              |    | X  |    |    |     |     | X      |         |        |       |     |     |
| .0746                   | 1839.94    | X            |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0688                   | 2117.82    |              |    | X  |    |    |     |     |        |         |        | X     |     |     |
| .0681                   | 2147.31    |              |    | X  |    |    |     |     |        | X       |        |       |     |     |
| .0642                   | 2338.54    |              |    | X  |    |    |     |     |        |         |        |       | X   |     |
| 3 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1006                   | 593.23     |              |    | X  | X  |    |     |     |        |         | X      |       |     |     |
| .1005                   | 595.94     |              |    | X  | X  |    |     |     | X      |         |        |       |     |     |
| .1000                   | 622.95     | X            |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .0944                   | 889.61     |              |    | X  | X  |    |     |     |        |         |        | X     |     |     |
| .0935                   | 933.13     |              |    | X  | X  |    |     |     |        | X       |        |       |     |     |
| .0909                   | 1058.03    | X            |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .0909                   | 1058.38    |              |    | X  | X  |    |     |     |        |         |        |       | X   |     |
| .0907                   | 1066.51    |              |    | X  | X  | X  |     |     |        |         |        |       |     |     |
| 4 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1084                   | 222.71     | X            |    | X  | X  |    |     |     | X      |         |        |       |     |     |
| .1068                   | 294.90     |              |    | X  | X  |    |     |     | X      |         | X      |       |     |     |
| .1057                   | 349.57     | X            |    | X  | X  |    |     |     |        |         | X      |       |     |     |
| .1022                   | 515.84     |              |    | X  | X  |    |     |     |        | X       | X      |       |     |     |
| .1015                   | 548.72     |              |    | X  | X  |    |     |     |        |         | X      | X     |     |     |
| .1014                   | 556.19     |              |    | X  | X  |    |     |     |        |         | X      |       | X   |     |
| .1013                   | 562.39     |              |    | X  | X  | X  |     |     |        |         | X      |       |     |     |
| .1010                   | 574.86     | X            |    | X  | X  | X  |     |     |        |         | X      |       |     |     |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C16. continued**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>5 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1115                   | 74.10      | X            |    | X  | X  |    |     |     | X      |         |        | X     |     |     |
| .1077                   | 256.71     |              |    | X  | X  | X  |     |     | X      |         |        | X     |     |     |
| .1075                   | 262.89     |              |    | X  | X  |    |     |     | X      |         |        | X     |     | X   |
| .1075                   | 266.85     |              |    | X  | X  |    |     |     | X      | X       |        | X     |     |     |
| .1072                   | 279.19     |              | X  | X  | X  |    |     |     | X      |         |        | X     |     |     |
| .1070                   | 288.21     |              |    | X  | X  |    |     | X   | X      |         |        | X     |     |     |
| .1070                   | 288.37     |              |    | X  | X  |    |     |     | X      |         | X      | X     |     |     |
| .1069                   | 291.46     |              |    | X  | X  |    | X   |     | X      |         |        | X     |     |     |
| <b>6 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1121                   | 44.80      | X            |    | X  | X  |    |     |     | X      |         |        | X     |     | X   |
| .1120                   | 51.02      | X            |    | X  | X  |    |     |     | X      | X       |        | X     |     |     |
| .1119                   | 55.86      | X            |    | X  | X  | X  |     |     | X      |         |        | X     |     |     |
| .1115                   | 72.76      | X            |    | X  | X  |    |     | X   | X      |         |        | X     |     |     |
| .1115                   | 72.89      | X            |    | X  | X  |    |     |     | X      |         |        | X     |     | X   |
| .1115                   | 73.75      | X            |    | X  | X  |    | X   |     | X      |         |        | X     |     |     |
| .1115                   | 74.79      | X            |    | X  | X  |    |     |     | X      |         |        | X     |     |     |
| .1115                   | 74.99      | X            | X  | X  | X  |    |     |     | X      |         |        | X     |     |     |
| <b>7 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1126                   | 20.82      | X            |    | X  | X  |    |     |     | X      | X       |        | X     |     | X   |
| .1124                   | 30.92      | X            |    | X  | X  | X  |     |     | X      |         |        | X     |     | X   |
| .1121                   | 44.03      | X            |    | X  | X  |    |     |     | X      |         | X      | X     | X   | X   |
| .1121                   | 45.68      | X            |    | X  | X  |    |     | X   | X      |         |        | X     |     | X   |
| .1121                   | 45.88      | X            |    | X  | X  |    | X   |     | X      |         |        | X     |     | X   |
| .1121                   | 46.38      | X            | X  | X  | X  |    |     |     | X      |         |        | X     |     | X   |
| .1121                   | 46.39      | X            |    | X  | X  |    |     |     | X      |         | X      | X     | X   | X   |
| <b>8 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1130                   | 5.90       | X            |    | X  | X  | X  |     |     | X      | X       |        | X     |     | X   |
| .1126                   | 20.87      | X            |    | X  | X  |    |     |     | X      | X       |        | X     |     | X   |
| .1126                   | 21.30      | X            |    | X  | X  |    |     | X   | X      | X       |        | X     |     | X   |
| .1126                   | 21.93      | X            |    | X  | X  |    | X   |     | X      | X       |        | X     |     | X   |
| .1126                   | 22.49      | X            | X  | X  | X  |    |     |     | X      | X       |        | X     |     | X   |
| .1126                   | 22.51      | X            |    | X  | X  |    |     |     | X      | X       | X      |       | X   | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C16. continued**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>9 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1130                   | 5.88       | X            |    | X  | X  | X  |     |     | X      | X       | X      | X     | X   | X   |
| .1129                   | 7.43       | X            |    | X  | X  | X  | X   |     | X      | X       | X      | X     |     | X   |
| .1129                   | 7.61       | X            |    | X  | X  | X  |     | X   | X      | X       | X      | X     |     | X   |
| .1129                   | 7.73       | X            |    | X  | X  | X  |     |     | X      | X       | X      |       | X   | X   |
| .1129                   | 7.88       | X            | X  | X  | X  | X  |     |     | X      | X       | X      |       | X   |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>10 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1130                   | 7.39       | X            |    | X  | X  | X  | X   |     | X      | X       | X      | X     | X   | X   |
| .1130                   | 7.61       | X            |    | X  | X  | X  |     | X   | X      | X       | X      | X     | X   | X   |
| .1130                   | 7.69       | X            |    | X  | X  | X  |     |     | X      | X       | X      | X     | X   | X   |
| .1130                   | 7.86       | X            | X  | X  | X  | X  |     |     | X      | X       | X      | X     | X   | X   |
| .1129                   | 9.71       | X            | X  | X  | X  | X  |     |     | X      | X       | X      |       | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>11 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1130                   | 9.14       | X            |    | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1130                   | 9.24       | X            |    | X  | X  | X  | X   |     | X      | X       | X      | X     | X   | X   |
| .1129                   | 9.38       | X            | X  | X  | X  | X  | X   |     | X      | X       | X      | X     | X   | X   |
| .1129                   | 9.67       | X            | X  | X  | X  | X  |     |     | X      | X       | X      | X     | X   | X   |
| .1129                   | 11.44      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      |       | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>12 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1129                   | 11.01      | X            |    | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1129                   | 11.14      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1129                   | 11.23      | X            | X  | X  | X  | X  | X   |     | X      | X       | X      | X     | X   | X   |
| .1129                   | 11.42      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     | X   | X   |
| .1129                   | 13.04      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       | X   | X   |
| .1126                   | 26.22      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      | X     | X   | X   |
| .1124                   | 35.80      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     |     | X   |
| .1124                   | 37.16      | X            | X  | X  | X  | X  | X   | X   | X      |         | X      | X     | X   | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C17. All Subsets Regression of Youth Assets on Seatbelt Use GR11**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>1 Variable</b>       |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0450                   | 2867.15    |              |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0428                   | 2985.17    |              |    |    |    | X  |     |     |        |         |        |       |     |     |
| .0340                   | 3442.06    | X            |    |    |    |    |     |     |        |         |        |       |     |     |
| .0317                   | 3562.65    |              | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0201                   | 4164.87    |              |    |    |    |    |     |     |        |         |        | X     |     |     |
| .0179                   | 4282.60    |              |    |    |    |    |     |     |        |         |        |       |     | X   |
| .0143                   | 4466.31    |              |    |    |    |    |     |     |        | X       |        |       |     |     |
| .0129                   | 4540.22    |              |    |    |    |    |     |     |        |         |        |       | X   |     |
| <b>2 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0686                   | 1642.26    |              |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .0615                   | 2009.03    | X            |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0569                   | 2251.17    |              |    | X  |    |    |     |     |        |         |        | X     |     |     |
| .0563                   | 2283.32    |              |    | X  |    |    |     |     |        |         |        |       |     | X   |
| .0536                   | 2420.68    |              | X  |    |    |    |     |     |        |         |        |       | X   |     |
| .0530                   | 2454.87    |              |    | X  |    |    |     |     |        | X       |        |       |     |     |
| .0513                   | 2540.13    |              | X  | X  |    |    |     |     |        |         |        |       |     |     |
| .0468                   | 2774.13    |              |    | X  |    |    | X   |     |        |         |        |       |     |     |
| <b>3 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0813                   | 979.88     | X            |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .0784                   | 1132.38    |              |    | X  | X  |    |     |     |        |         |        | X     |     |     |
| .0763                   | 1237.81    |              |    | X  | X  |    |     |     |        |         |        |       | X   |     |
| .0756                   | 1276.27    |              |    | X  | X  |    |     |     |        | X       |        |       |     |     |
| .0750                   | 1310.24    |              |    | X  | X  |    |     |     |        |         |        |       |     | X   |
| .0723                   | 1447.21    |              | X  | X  | X  |    |     |     |        |         |        |       |     |     |
| .0699                   | 1574.83    |              |    | X  | X  |    |     |     |        |         | X      |       |     |     |
| .0698                   | 1580.40    |              |    | X  | X  |    | X   |     |        |         |        |       |     |     |
| <b>4 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0867                   | 697.80     | X            |    | X  | X  |    |     |     |        |         |        |       |     | X   |
| .0867                   | 699.40     | X            |    | X  | X  |    |     |     |        |         |        |       |     | X   |
| .0864                   | 715.18     | X            |    | X  | X  |    |     |     |        |         |        | X     |     |     |
| .0863                   | 719.87     | X            |    | X  | X  |    |     |     | X      |         |        |       |     |     |
| .0826                   | 913.15     | X            | X  | X  | X  |    |     |     |        |         |        |       |     |     |
| .0824                   | 925.58     | X            |    | X  | X  |    |     |     | X      |         |        |       |     |     |
| .0820                   | 945.53     | X            |    | X  | X  |    | X   |     |        |         |        |       |     |     |
| .0819                   | 950.89     | X            |    | X  | X  | X  |     |     |        |         |        |       |     |     |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C17. continued**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>5 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0922                   | 413.09     | X            |    | X  | X  |    |     |     |        |         |        |       | X   | X   |
| .0888                   | 588.48     | X            |    | X  | X  |    |     |     |        | X       |        |       | X   |     |
| .0888                   | 591.49     | X            |    | X  | X  |    |     |     |        |         |        | X     | X   |     |
| .0887                   | 593.90     | X            |    | X  | X  |    |     |     | X      |         |        |       |     | X   |
| .0881                   | 629.03     | X            |    | X  | X  |    |     |     | X      |         |        |       | X   |     |
| .0878                   | 644.31     | X            | X  | X  | X  |    |     |     |        |         |        |       | X   |     |
| .0874                   | 663.19     | X            |    | X  | X  |    |     | X   |        |         |        |       | X   |     |
| .0872                   | 672.35     | X            |    | X  | X  | X  |     |     |        |         |        |       | X   |     |
| <b>6 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0947                   | 286.89     | X            |    | X  | X  |    |     |     | X      |         |        |       | X   | X   |
| .0944                   | 302.44     | X            |    | X  | X  |    |     |     |        | X       |        |       | X   | X   |
| .0941                   | 315.92     | X            |    | X  | X  |    |     |     | X      | X       |        |       |     | X   |
| .0940                   | 320.67     | X            |    | X  | X  |    |     |     |        |         |        | X     | X   | X   |
| .0928                   | 381.83     | X            | X  | X  | X  |    |     |     |        |         |        |       | X   | X   |
| .0926                   | 395.30     | X            |    | X  | X  |    |     | X   |        |         |        |       | X   | X   |
| .0925                   | 397.82     | X            |    | X  | X  | X  |     |     |        |         |        |       | X   | X   |
| .0923                   | 408.52     | X            |    | X  | X  |    |     |     |        | X       |        |       | X   | X   |
| <b>7 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0971                   | 160.89     | X            |    | X  | X  |    |     |     | X      | X       |        |       | X   | X   |
| .0969                   | 170.92     | X            |    | X  | X  |    |     |     | X      | X       |        |       | X   | X   |
| .0966                   | 185.62     | X            |    | X  | X  |    |     |     | X      |         |        |       | X   | X   |
| .0954                   | 249.41     | X            | X  | X  | X  |    |     |     | X      |         |        |       | X   | X   |
| .0953                   | 253.26     | X            |    | X  | X  | X  |     |     | X      |         |        |       | X   | X   |
| .0951                   | 265.19     | X            |    | X  | X  |    |     | X   | X      |         |        |       | X   | X   |
| .0947                   | 284.51     | X            |    | X  | X  |    |     |     | X      |         |        | X     | X   | X   |
| .0947                   | 286.76     | X            |    | X  | X  |    |     | X   |        |         |        |       | X   | X   |
| <b>8 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0984                   | 93.30      | X            |    | X  | X  |    |     |     | X      | X       |        |       | X   | X   |
| .0976                   | 134.25     | X            | X  | X  | X  |    |     |     | X      | X       |        |       | X   | X   |
| .0975                   | 139.16     | X            |    | X  | X  | X  |     |     | X      | X       |        |       | X   | X   |
| .0973                   | 150.54     | X            |    | X  | X  |    |     | X   | X      | X       |        |       | X   | X   |
| .0969                   | 170.47     | X            |    | X  | X  |    |     |     | X      | X       |        |       | X   | X   |
| .0969                   | 172.19     | X            |    | X  | X  |    |     |     | X      | X       | X      |       | X   | X   |

**Note.** FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C17. continued**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| 9 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0991                   | 60.21      | X            | X  | X  | X  |    |     | X   | X      |         | X      | X     | X   |     |
| .0990                   | 61.93      | X            |    | X  | X  | X  |     | X   | X      |         | X      | X     | X   |     |
| .0989                   | 69.16      | X            |    | X  | X  |    | X   | X   | X      |         | X      | X     | X   |     |
| .0985                   | 89.88      | X            |    | X  | X  |    |     | X   | X      | X       | X      | X     | X   |     |
| .0984                   | 92.86      | X            |    | X  | X  |    |     | X   | X      |         | X      | X     | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| 10 Variables            |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0996                   | 35.39      | X            | X  | X  | X  | X  |     | X   | X      |         | X      | X     | X   |     |
| .0995                   | 41.33      | X            |    | X  | X  | X  | X   | X   | X      |         | X      | X     | X   |     |
| .0994                   | 41.94      | X            | X  | X  | X  |    | X   | X   | X      |         | X      | X     | X   |     |
| .0992                   | 56.47      | X            | X  | X  | X  |    |     | X   | X      | X       | X      | X     | X   |     |
| .0991                   | 59.62      | X            | X  | X  | X  |    |     | X   | X      |         | X      | X     | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| 11 Variables            |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0999                   | 19.48      | X            | X  | X  | X  | X  | X   | X   | X      |         | X      | X     | X   |     |
| .0997                   | 31.89      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     | X   |     |
| .0996                   | 33.67      | X            | X  | X  | X  | X  |     | X   | X      |         | X      | X     | X   | X   |
| .0995                   | 37.81      | X            |    | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   |     |
| .0995                   | 37.91      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      | X     | X   |     |
| .0995                   | 38.28      | X            |    | X  | X  | X  | X   | X   | X      |         | X      | X     | X   | X   |
| .0995                   | 40.22      | X            | X  | X  | X  |    | X   | X   | X      |         | X      | X     | X   | X   |
| .0992                   | 56.06      | X            | X  | X  | X  |    |     | X   | X      | X       | X      | X     | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| 12 Variables            |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1000                   | 15.70      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   |     |
| .1000                   | 16.54      | X            | X  | X  | X  | X  | X   | X   | X      |         | X      | X     | X   | X   |
| .0997                   | 30.37      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     | X   | X   |
| .0996                   | 34.99      | X            |    | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .0996                   | 36.39      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      | X     | X   | X   |
| .0988                   | 76.95      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       | X   | X   |
| .0985                   | 95.18      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .0982                   | 108.11     | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     | X   | X   |

**Note.** FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C18. All Subsets Regression of Youth Assets on Seatbelt Use GR12**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| 1 Variable              |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0675                   | 1862.73    |              |    |    |    | X  |     |     |        |         |        |       |     |     |
| .0424                   | 3074.91    |              |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0278                   | 3781.37    |              | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0230                   | 4013.30    |              |    |    |    |    |     |     |        |         |        |       | X   |     |
| .0208                   | 4121.35    | X            |    |    |    |    |     |     |        |         |        |       |     |     |
| .0109                   | 4599.61    |              |    |    |    |    |     |     |        |         |        | X     |     |     |
| .0048                   | 4894.73    |              |    |    |    |    |     |     |        | X       |        |       |     |     |
| .0039                   | 4937.08    |              |    |    |    |    |     |     |        |         |        | X     |     |     |
| 2 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0890                   | 826.39     |              |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .0816                   | 1185.06    |              | X  |    | X  |    |     |     |        |         |        |       |     |     |
| .0802                   | 1251.15    | X            |    |    | X  |    |     |     |        |         |        |       |     |     |
| .0775                   | 1380.10    |              |    |    | X  |    |     |     |        |         |        |       | X   |     |
| .0740                   | 1552.38    |              |    |    | X  |    |     |     |        |         |        | X     |     |     |
| .0697                   | 1756.11    |              |    |    | X  |    |     |     |        |         |        |       | X   |     |
| .0692                   | 1781.95    |              |    |    | X  |    |     |     |        | X       |        |       |     |     |
| .0691                   | 1788.49    |              |    |    | X  | X  |     |     |        |         |        |       |     |     |
| 3 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0953                   | 520.14     |              |    | X  | X  |    |     |     |        |         |        |       | X   |     |
| .0952                   | 526.98     | X            |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .0924                   | 661.88     |              | X  | X  |    |    |     |     |        |         |        | X     |     |     |
| .0912                   | 720.29     |              | X  | X  | X  |    |     |     |        |         |        |       |     |     |
| .0900                   | 780.00     |              |    | X  | X  |    |     |     | X      |         |        |       |     |     |
| .0899                   | 780.18     |              |    | X  | X  |    |     |     |        |         |        | X     |     |     |
| .0895                   | 803.79     |              |    | X  | X  |    | X   |     |        |         |        |       |     |     |
| .0894                   | 805.86     |              |    | X  | X  | X  |     |     |        |         |        |       |     |     |
| 4 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1009                   | 249.98     | X            |    | X  | X  |    |     |     |        |         |        |       | X   |     |
| .0985                   | 367.22     |              |    | X  | X  |    |     |     |        |         |        | X     |     | X   |
| .0966                   | 457.43     |              | X  | X  | X  |    |     |     |        |         |        |       |     | X   |
| .0962                   | 478.10     |              |    | X  | X  |    | X   |     |        |         |        |       |     | X   |
| .0962                   | 480.65     |              |    | X  | X  |    |     |     | X      |         |        |       |     | X   |
| .0962                   | 481.31     |              |    | X  | X  |    |     |     |        |         |        |       |     | X   |
| .0960                   | 486.72     |              |    | X  | X  |    |     |     |        |         |        |       |     | X   |
| .0955                   | 512.77     |              |    | X  | X  |    |     |     |        |         |        |       |     | X   |

**Note.** FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C18. continued**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>5 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1021                   | 193.75     | X            |    | X  | X  |    | X   |     |        |         |        |       |     | X   |
| .1021                   | 194.10     | X            |    | X  | X  |    |     |     |        |         | X      |       |     | X   |
| .1021                   | 196.95     | X            |    | X  | X  |    |     | X   |        |         |        |       |     | X   |
| .1014                   | 226.88     | X            | X  | X  | X  |    |     |     |        |         |        |       |     | X   |
| .1012                   | 237.85     | X            |    | X  | X  |    |     |     | X      |         |        |       |     | X   |
| .1012                   | 240.00     | X            |    | X  | X  |    |     |     |        |         |        |       | X   | X   |
| .1012                   | 240.65     | X            |    | X  | X  |    |     |     |        |         | X      |       | X   | X   |
| .1010                   | 247.78     | X            |    | X  | X  |    |     |     |        | X       |        |       |     | X   |
| <b>6 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1033                   | 138.47     | X            |    | X  | X  |    | X   |     |        |         | X      |       |     | X   |
| .1032                   | 144.51     | X            |    | X  | X  |    | X   | X   |        |         |        |       |     | X   |
| .1028                   | 163.28     | X            | X  | X  | X  |    | X   |     |        |         |        |       |     | X   |
| .1024                   | 183.54     | X            |    | X  | X  |    | X   |     | X      |         |        |       |     | X   |
| .1023                   | 185.31     | X            |    | X  | X  |    | X   |     |        |         |        | X     |     | X   |
| .1023                   | 186.63     | X            |    | X  | X  |    | X   |     |        |         |        |       | X   | X   |
| .1022                   | 190.56     | X            |    | X  | X  | X  | X   |     |        |         |        |       |     | X   |
| .1022                   | 191.25     | X            |    | X  | X  |    | X   |     |        | X       |        |       |     | X   |
| <b>7 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1045                   | 82.23      | X            |    | X  | X  |    | X   | X   |        |         | X      |       |     | X   |
| .1038                   | 112.44     | X            | X  | X  | X  |    | X   |     |        |         | X      |       |     | X   |
| .1036                   | 122.64     | X            |    | X  | X  |    | X   |     |        | X       | X      |       |     | X   |
| .1035                   | 131.15     | X            |    | X  | X  |    | X   |     |        | X       |        |       | X   | X   |
| .1034                   | 134.94     | X            |    | X  | X  | X  | X   |     |        | X       |        |       | X   | X   |
| .1033                   | 138.48     | X            |    | X  | X  |    | X   |     | X      |         | X      |       |     | X   |
| .1033                   | 140.44     | X            |    | X  | X  |    | X   |     |        |         | X      | X     |     | X   |
| <b>8 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1052                   | 49.90      | X            | X  | X  | X  |    | X   | X   |        |         | X      |       |     | X   |
| .1049                   | 63.03      | X            |    | X  | X  |    | X   | X   |        | X       | X      |       |     | X   |
| .1047                   | 70.36      | X            |    | X  | X  | X  | X   | X   |        |         | X      |       |     | X   |
| .1046                   | 76.60      | X            |    | X  | X  |    | X   | X   |        |         | X      |       | X   | X   |
| .1045                   | 82.04      | X            |    | X  | X  |    | X   | X   | X      |         | X      |       |     | X   |
| .1045                   | 84.22      | X            |    | X  | X  |    | X   | X   |        |         | X      | X     |     | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C18. continued**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| 9 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1056                   | 31.10      | X            | X  | X  | X  |    | X   | X   |        | X       | X      |       | X   |     |
| .1053                   | 41.76      | X            | X  | X  | X  | X  | X   | X   |        |         | X      |       | X   |     |
| .1053                   | 43.66      | X            | X  | X  | X  |    | X   | X   |        |         | X      |       | X   | X   |
| .1052                   | 50.07      | X            | X  | X  | X  |    | X   | X   | X      |         | X      |       | X   |     |
| .1051                   | 51.89      | X            | X  | X  | X  |    | X   | X   |        |         | X      | X     | X   |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| 10 Variables            |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1058                   | 23.02      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      |       | X   |     |
| .1057                   | 24.45      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      |       | X   |     |
| .1057                   | 26.02      | X            | X  | X  | X  |    | X   | X   |        | X       | X      |       | X   | X   |
| .1056                   | 32.61      | X            | X  | X  | X  |    | X   | X   |        | X       | X      | X     | X   |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| 11 Variables            |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1059                   | 16.86      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       | X   |     |
| .1059                   | 17.15      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      |       | X   | X   |
| .1059                   | 19.38      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      |       | X   | X   |
| .1058                   | 24.35      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     | X   |     |
| .1057                   | 26.38      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      | X     | X   |     |
| .1057                   | 27.58      | X            | X  | X  | X  |    | X   | X   |        | X       | X      | X     | X   |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| 12 Variables            |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1060                   | 11.02      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       | X   | X   |
| .1059                   | 18.54      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     | X   | X   |
| .1059                   | 18.84      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1058                   | 21.29      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      | X     | X   | X   |
| .1055                   | 36.74      | X            | X  | X  | X  | X  | X   | X   | X      |         | X      | X     | X   | X   |
| .1054                   | 40.96      | X            |    | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1049                   | 67.96      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1048                   | 70.92      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     | X   | X   |

**Note.** FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C19. All Subsets Regression of Youth Assets on Academic Achieve GR7**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>1 Variable</b>       |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0648                   | 3676.15    |              | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0601                   | 3891.40    |              |    |    |    | X  |     |     |        |         |        |       |     |     |
| .0567                   | 4048.07    |              |    |    | X  |    |     |     |        |         |        |       |     |     |
| .0531                   | 4212.75    | X            |    |    |    |    |     |     |        |         |        |       |     |     |
| .0362                   | 4988.23    |              |    |    |    |    |     |     |        |         |        | X     |     |     |
| .0262                   | 5449.89    |              |    |    |    |    |     |     | X      |         |        |       |     |     |
| .0196                   | 5751.41    |              |    |    |    |    |     |     |        |         |        |       | X   |     |
| .0168                   | 5881.25    |              |    |    |    |    |     |     |        |         |        |       |     | X   |
| <b>2 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0968                   | 2211.61    |              | X  |    | X  |    |     |     |        |         |        |       |     |     |
| .0850                   | 2751.87    |              | X  |    |    |    |     |     |        |         |        | X     |     |     |
| .0841                   | 2794.26    | X            | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0820                   | 2887.74    |              | X  |    |    |    |     |     | X      |         |        |       |     |     |
| .0767                   | 3132.31    |              |    |    | X  |    |     | X   |        |         |        |       |     |     |
| .0755                   | 3188.27    | X            | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0752                   | 3200.24    |              | X  |    |    |    |     |     |        |         |        | X     |     |     |
| .0751                   | 3205.37    | X            |    |    |    |    |     |     |        |         |        |       |     | X   |
| <b>3 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1143                   | 1408.68    |              | X  |    | X  |    |     |     |        |         |        | X     |     |     |
| .1122                   | 1505.33    | X            | X  |    | X  |    |     |     |        |         |        |       |     |     |
| .1094                   | 1633.92    |              | X  |    | X  |    |     | X   |        |         |        |       |     |     |
| .1041                   | 1874.56    | X            |    | X  |    |    |     |     |        |         |        |       | X   |     |
| .1034                   | 1908.94    |              | X  |    | X  |    |     |     | X      |         |        |       |     |     |
| .1027                   | 1940.44    |              | X  | X  | X  |    |     |     |        |         |        |       |     |     |
| .1024                   | 1956.70    | X            |    | X  |    |    |     |     |        |         |        |       |     | X   |
| .1013                   | 2004.57    |              |    |    | X  |    |     | X   |        |         |        | X     |     |     |
| <b>4 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1256                   | 890.18     |              | X  |    | X  |    |     | X   |        |         |        | X     |     |     |
| .1231                   | 1004.95    | X            | X  |    | X  |    |     |     |        |         |        | X     |     |     |
| .1200                   | 1150.11    |              | X  |    | X  |    |     |     |        |         |        | X     |     | X   |
| .1200                   | 1150.55    | X            |    |    | X  |    |     | X   |        |         |        | X     |     |     |
| .1193                   | 1178.58    |              | X  | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1167                   | 1298.49    |              | X  |    | X  |    |     |     | X      |         |        | X     |     |     |
| .1166                   | 1303.00    | X            |    | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1158                   | 1340.67    | X            |    | X  |    |    |     |     |        |         | X      | X     |     |     |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C19.** *continued*

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>5 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1339                   | 509.66     | X            |    | X  | X  |    |     | X   |        |         |        | X     |     |     |
| .1335                   | 528.72     | X            | X  |    |    | X  |     | X   |        |         |        | X     |     |     |
| .1315                   | 620.60     |              | X  | X  | X  |    |     | X   |        |         |        | X     |     |     |
| .1299                   | 694.61     |              | X  |    | X  |    |     | X   |        |         |        | X     |     | X   |
| .1277                   | 795.12     |              | X  |    | X  |    |     | X   | X      |         |        | X     |     |     |
| .1269                   | 833.21     |              | X  |    | X  | X  |     | X   |        |         |        | X     |     |     |
| .1367                   | 841.96     |              | X  |    | X  |    |     | X   |        |         |        | X     |     | X   |
| .1265                   | 849.62     |              | X  |    | X  |    |     | X   |        |         |        | X     | X   |     |
| <b>6 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1380                   | 324.61     | X            | X  | X  | X  |    |     | X   |        |         |        | X     |     |     |
| .1373                   | 358.60     | X            | X  |    | X  |    |     | X   |        |         |        | X     |     | X   |
| .1350                   | 464.27     | X            | X  |    | X  |    |     | X   | X      |         |        | X     |     |     |
| .1345                   | 485.65     | X            | X  |    | X  |    |     | X   |        |         |        | X     |     | X   |
| .1342                   | 500.06     | X            | X  |    | X  | X  |     | X   |        |         |        | X     |     |     |
| .1339                   | 512.25     | X            | X  |    | X  |    |     | X   |        |         |        | X     | X   |     |
| .1338                   | 519.36     | X            | X  |    | X  |    | X   | X   |        |         |        | X     |     |     |
| .1337                   | 532.24     | X            | X  |    | X  |    |     | X   |        | X       | X      |       |     |     |
| <b>7 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1416                   | 161.67     | X            | X  | X  | X  |    |     | X   |        |         |        | X     |     | X   |
| .1395                   | 255.70     | X            | X  | X  | X  |    |     | X   | X      |         |        | X     |     |     |
| .1389                   | 285.05     | X            | X  | X  | X  |    |     | X   |        |         |        | X     |     | X   |
| .1387                   | 292.00     | X            | X  | X  | X  | X  |     | X   |        |         |        | X     |     |     |
| .1384                   | 306.04     | X            | X  | X  | X  |    |     | X   |        |         |        | X     | X   |     |
| .1382                   | 315.42     | X            | X  | X  | X  |    | X   | X   |        |         |        | X     |     |     |
| .1382                   | 317.77     | X            | X  | X  | X  |    |     | X   |        | X       | X      |       |     |     |
| <b>8 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1430                   | 96.94      | X            | X  | X  | X  |    |     | X   | X      |         |        | X     |     | X   |
| .1422                   | 133.03     | X            | X  | X  | X  |    |     | X   |        |         |        | X     |     | X   |
| .1422                   | 134.04     | X            | X  | X  | X  | X  |     | X   |        |         |        | X     |     | X   |
| .1420                   | 143.52     | X            | X  | X  | X  |    |     | X   |        |         |        | X     | X   | X   |
| .1417                   | 155.27     | X            | X  | X  | X  |    | X   | X   |        |         |        | X     |     | X   |
| .1417                   | 156.62     | X            | X  | X  | X  |    |     | X   |        | X       | X      |       |     | X   |

**Note.** FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C19. continued**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>9 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1436                   | 69.02      | X            | X  | X  | X  |    |     | X   | X      |         | X      |       | X   | X   |
| .1436                   | 70.92      | X            | X  | X  | X  | X  |     | X   | X      |         | X      |       | X   |     |
| .1434                   | 78.28      | X            | X  | X  | X  |    |     | X   | X      | X       | X      |       | X   |     |
| .1432                   | 89.62      | X            | X  | X  | X  |    | X   | X   | X      |         | X      |       | X   |     |
| .1431                   | 92.13      | X            | X  | X  | X  |    |     | X   | X      |         | X      | X     | X   |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>10 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1442                   | 43.36      | X            | X  | X  | X  | X  |     | X   | X      |         | X      |       | X   | X   |
| .1441                   | 48.20      | X            | X  | X  | X  |    |     | X   | X      | X       | X      |       | X   | X   |
| .1440                   | 52.83      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      |       | X   |     |
| .1438                   | 62.70      | X            | X  | X  | X  |    | X   | X   | X      |         | X      |       | X   | X   |
| .1438                   | 63.54      | X            | X  | X  | X  |    |     | X   | X      |         | X      | X     | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>11 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1447                   | 23.16      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      |       | X   | X   |
| .1444                   | 37.68      | X            | X  | X  | X  | X  |     | X   | X      |         | X      | X     | X   | X   |
| .1444                   | 38.11      | X            | X  | X  | X  | X  | X   | X   | X      |         | X      |       | X   | X   |
| .1443                   | 42.30      | X            | X  | X  | X  |    |     | X   | X      | X       | X      | X     | X   | X   |
| .1442                   | 43.13      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      |       | X   | X   |
| .1442                   | 47.47      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     | X   | X   |
| .1441                   | 47.79      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       | X   |     |
| .1439                   | 57.27      | X            | X  | X  | X  | X  |     | X   | X      |         | X      | X     | X   | X   |
| <b>12 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1448                   | 17.05      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     | X   | X   |
| .1448                   | 19.05      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       | X   | X   |
| .1445                   | 32.47      | X            | X  | X  | X  | X  | X   | X   | X      |         | X      | X     | X   | X   |
| .1444                   | 37.29      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      | X     | X   | X   |
| .1443                   | 42.47      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1436                   | 74.76      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     | X   | X   |
| .1419                   | 150.90     | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1415                   | 172.26     | X            |    | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |

**Note.** FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C20. All Subsets Regression of Youth Assets on Academic Achieve GR8**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| 1 Variable              |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0995                   | 4350.91    |              |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0933                   | 4671.00    |              | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0905                   | 4816.38    |              |    |    | X  |    |     |     |        |         |        |       |     |     |
| .0549                   | 6663.75    | X            |    |    |    |    |     |     |        |         |        |       |     |     |
| .0322                   | 7841.59    |              |    |    |    |    |     |     |        |         | X      |       |     |     |
| .0202                   | 8465.40    |              |    |    |    |    |     |     |        |         |        |       | X   |     |
| .0201                   | 8467.90    |              |    |    |    |    |     |     |        |         |        | X     |     |     |
| .0193                   | 8511.73    |              |    |    |    |    |     |     | X      |         |        |       |     |     |
| 2 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1412                   | 2187.47    |              |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .1234                   | 3108.08    |              | X  | X  |    |    |     |     |        |         |        |       |     |     |
| .1150                   | 3546.29    | X            |    | X  |    |    |     |     |        |         |        |       |     |     |
| .1132                   | 3639.12    |              |    | X  |    |    |     |     |        |         | X      |       |     |     |
| .1124                   | 3683.65    |              |    | X  |    |    |     |     |        |         |        |       | X   |     |
| .1091                   | 3852.89    |              |    | X  |    |    |     |     | X      |         |        |       |     |     |
| .1084                   | 3889.79    |              |    | X  |    |    |     |     |        |         |        |       | X   |     |
| .1069                   | 3967.96    |              |    | X  |    |    |     |     | X      |         |        |       |     |     |
| 3 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1567                   | 1381.28    |              | X  | X  | X  |    |     |     |        |         |        |       |     |     |
| .1527                   | 1593.13    | X            |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .1519                   | 1632.17    |              |    | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1495                   | 1758.52    |              |    | X  | X  |    |     | X   |        |         |        |       |     |     |
| .1480                   | 1835.06    |              |    | X  | X  |    |     |     |        |         |        |       |     | X   |
| .1479                   | 1840.12    |              |    | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1461                   | 1931.70    |              |    | X  | X  |    |     |     |        | X       |        |       |     |     |
| .1458                   | 1951.06    |              |    | X  | X  | X  |     |     |        |         |        |       |     |     |
| 4 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1651                   | 946.06     |              | X  | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1640                   | 1005.28    |              | X  | X  | X  |    |     | X   |        |         |        |       |     |     |
| .1636                   | 1026.26    | X            | X  | X  | X  |    |     |     |        |         |        |       |     |     |
| .1619                   | 1115.19    |              | X  | X  | X  |    |     |     |        |         |        |       | X   |     |
| .1617                   | 1126.23    |              | X  | X  | X  |    |     |     |        |         |        |       |     | X   |
| .1607                   | 1175.69    |              | X  | X  | X  |    |     |     | X      |         |        |       |     |     |
| .1593                   | 1248.62    |              | X  | X  | X  | X  |     |     |        |         |        |       |     |     |
| .1581                   | 1311.81    |              | X  | X  | X  |    |     |     |        |         |        |       |     | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C20.** *continued*

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>5 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1720                   | 590.31     |              | X  | X  | X  |    |     | X   |        |         |        | X     |     |     |
| .1699                   | 701.64     |              | X  | X  | X  |    |     |     |        |         |        | X     |     | X   |
| .1684                   | 776.71     | X            | X  | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1675                   | 825.26     |              | X  | X  | X  | X  |     |     |        |         |        | X     |     |     |
| .1675                   | 826.08     |              | X  | X  | X  |    |     | X   |        |         |        |       |     | X   |
| .1670                   | 851.77     |              | X  | X  | X  |    |     |     | X      |         |        | X     |     |     |
| .1666                   | 872.97     |              | X  | X  | X  |    |     |     |        |         |        | X     |     | X   |
| .1665                   | 875.38     |              | X  | X  | X  |    |     |     |        |         | X      | X     |     |     |
| <b>6 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1754                   | 418.00     |              | X  | X  | X  |    |     | X   |        |         |        | X     |     | X   |
| .1750                   | 437.88     | X            | X  | X  | X  |    |     | X   |        |         |        | X     |     |     |
| .1736                   | 508.35     | X            | X  | X  |    |    |     | X   | X      |         |        | X     |     |     |
| .1733                   | 524.62     | X            | X  | X  |    |    |     | X   |        |         |        | X     |     | X   |
| .1733                   | 524.92     | X            | X  | X  |    |    |     | X   |        |         |        | X     | X   |     |
| .1732                   | 528.94     | X            | X  | X  |    |    | X   | X   |        |         |        | X     |     |     |
| .1731                   | 536.92     |              | X  | X  | X  | X  |     | X   |        |         |        | X     |     |     |
| .1721                   | 587.05     | X            | X  | X  |    |    |     | X   |        | X       | X      |       |     |     |
| <b>7 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1783                   | 264.98     | X            | X  | X  | X  |    |     | X   |        |         |        | X     |     | X   |
| .1770                   | 333.08     |              | X  | X  | X  |    | X   | X   |        |         |        | X     |     | X   |
| .1768                   | 342.89     | X            | X  | X  |    |    |     | X   | X      |         |        | X     |     | X   |
| .1765                   | 357.92     | X            | X  | X  |    |    |     | X   |        |         |        | X     | X   | X   |
| .1763                   | 368.09     | X            | X  | X  |    |    |     | X   |        |         |        | X     |     | X   |
| .1762                   | 373.68     |              | X  | X  | X  | X  |     | X   |        |         |        | X     |     | X   |
| .1754                   | 415.10     | X            | X  | X  |    |    |     | X   |        | X       | X      |       |     | X   |
| <b>8 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1800                   | 180.41     | X            | X  | X  | X  |    | X   | X   |        |         |        | X     |     | X   |
| .1795                   | 203.91     | X            | X  | X  | X  |    |     | X   | X      |         |        | X     |     | X   |
| .1793                   | 216.64     | X            | X  | X  | X  |    |     | X   |        |         |        | X     |     | X   |
| .1792                   | 219.13     | X            | X  | X  | X  |    |     | X   |        |         |        | X     | X   | X   |
| .1791                   | 226.77     | X            | X  | X  | X  | X  |     | X   |        |         |        | X     |     | X   |
| .1783                   | 266.33     | X            | X  | X  | X  |    |     | X   |        | X       | X      |       |     | X   |

**Note.** FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C20. continued**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>9 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1812                   | 120.43     | X            | X  | X  | X  |    | X   | X   | X      |         |        | X     |     | X   |
| .1810                   | 126.94     | X            | X  | X  | X  |    | X   | X   |        |         |        | X     | X   | X   |
| .1810                   | 130.44     | X            | X  | X  | X  |    | X   | X   |        |         |        | X     | X   | X   |
| .1808                   | 139.34     | X            | X  | X  | X  | X  | X   | X   |        |         |        | X     |     | X   |
| .1800                   | 181.46     | X            | X  | X  | X  |    | X   | X   |        | X       | X      |       |     | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>10 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1821                   | 69.70      | X            | X  | X  | X  |    | X   | X   | X      |         |        | X     |     | X   |
| .1819                   | 81.25      | X            | X  | X  | X  | X  | X   | X   | X      |         |        | X     |     | X   |
| .1817                   | 90.38      | X            | X  | X  | X  | X  | X   | X   |        |         |        | X     |     | X   |
| .1816                   | 96.84      | X            | X  | X  | X  |    | X   | X   | X      |         |        | X     | X   | X   |
| .1811                   | 122.18     | X            | X  | X  | X  |    | X   | X   | X      | X       | X      |       |     | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>11 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1828                   | 34.78      | X            | X  | X  | X  | X  | X   | X   | X      |         |        | X     |     | X   |
| .1827                   | 43.06      | X            | X  | X  | X  | X  | X   | X   |        |         |        | X     | X   | X   |
| .1826                   | 46.45      | X            | X  | X  | X  |    | X   | X   | X      |         |        | X     | X   | X   |
| .1824                   | 58.41      | X            | X  | X  | X  | X  | X   | X   | X      |         |        | X     | X   | X   |
| .1821                   | 71.24      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      |       |     | X   |
| .1820                   | 80.21      | X            | X  | X  | X  |    | X   | X   |        | X       | X      | X     | X   | X   |
| .1819                   | 82.81      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       |     | X   |
| .1817                   | 92.01      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      |       | X   | X   |
| <b>12 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1833                   | 12.22      | X            | X  | X  | X  | X  | X   | X   | X      |         |        | X     | X   | X   |
| .1828                   | 36.11      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       |     | X   |
| .1827                   | 45.04      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     | X   | X   |
| .1826                   | 47.51      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      | X     | X   | X   |
| .1824                   | 59.50      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1815                   | 106.81     | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     | X   | X   |
| .1808                   | 139.11     | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1808                   | 141.42     | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |

**Note.** FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C21. All Subsets Regression of Youth Assets on Academic Achieve GR9**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>1 Variable</b>       |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1170                   | 4431.72    |              |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0936                   | 5744.11    |              |    |    |    | X  |     |     |        |         |        |       |     |     |
| .0857                   | 6188.42    |              | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0608                   | 7584.70    | X            |    |    |    |    |     |     |        |         |        |       |     |     |
| .0269                   | 9491.00    |              |    |    |    |    |     |     |        |         | X      |       |     |     |
| .0224                   | 9741.87    |              |    |    |    |    |     |     |        |         |        |       | X   |     |
| .0106                   | 10405.15   |              |    |    |    |    |     |     |        |         |        | X     |     |     |
| .0096                   | 10461.01   |              |    |    |    |    |     | X   |        |         |        |       |     |     |
| <b>2 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1625                   | 1876.71    |              |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .1351                   | 3417.72    | X            |    | X  |    |    |     |     |        |         |        |       |     |     |
| .1330                   | 3535.28    |              | X  | X  |    |    |     |     |        |         |        |       |     |     |
| .1264                   | 3904.39    |              |    | X  |    |    |     |     |        |         | X      |       |     |     |
| .1259                   | 3932.98    |              |    | X  |    |    |     |     |        |         |        |       | X   |     |
| .1248                   | 3993.10    |              |    | X  |    |    |     |     | X      |         |        |       |     |     |
| .1207                   | 4224.42    |              |    | X  |    |    |     |     |        |         |        | X     |     |     |
| .1206                   | 4229.16    |              |    | X  |    |    |     |     |        |         |        |       |     | X   |
| <b>3 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1753                   | 1162.29    | X            |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .1724                   | 1326.59    |              | X  | X  | X  |    |     |     |        |         |        |       |     |     |
| .1704                   | 1439.26    |              |    | X  | X  |    |     |     |        |         | X      |       |     |     |
| .1685                   | 1546.10    |              |    | X  | X  |    |     | X   |        |         |        |       |     |     |
| .1659                   | 1687.62    |              |    | X  | X  |    |     |     |        |         |        |       | X   |     |
| .1649                   | 1745.29    |              |    | X  | X  |    | X   |     |        |         |        |       |     |     |
| .1648                   | 1750.03    |              |    | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1640                   | 1797.91    |              |    | X  | X  |    |     |     | X      |         |        |       |     |     |
| <b>4 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1810                   | 840.60     | X            | X  | X  | X  |    |     |     |        |         |        |       |     |     |
| .1797                   | 917.87     | X            |    | X  | X  |    |     | X   |        |         |        |       |     |     |
| .1788                   | 966.35     | X            |    | X  | X  |    | X   |     |        |         |        |       |     |     |
| .1787                   | 973.14     | X            |    | X  | X  |    |     |     |        |         | X      |       |     |     |
| .1780                   | 1012.10    | X            |    | X  | X  |    |     |     |        |         |        |       | X   |     |
| .1761                   | 1119.67    | X            |    | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1760                   | 1124.71    | X            |    | X  | X  |    |     |     |        |         |        |       |     | X   |
| .1758                   | 1137.11    | X            |    | X  | X  |    |     | X   |        |         |        |       |     |     |

**Note.** FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C21. continued**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>5 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1850                   | 620.71     | X            | X  | X  | X  |    |     | X   |        |         |        |       |     |     |
| .1849                   | 622.67     | X            | X  | X  | X  |    |     | X   |        |         |        |       |     |     |
| .1841                   | 671.41     | X            | X  | X  | X  |    |     |     |        |         |        |       | X   |     |
| .1831                   | 726.61     | X            | X  | X  | X  |    |     |     |        |         |        |       |     | X   |
| .1818                   | 798.56     | X            | X  | X  | X  |    |     |     |        |         |        |       | X   |     |
| .1817                   | 805.22     | X            | X  | X  | X  |    |     |     |        |         |        |       |     | X   |
| .1814                   | 821.86     | X            | X  | X  | X  |    |     |     |        |         |        |       |     |     |
| .1813                   | 827.34     | X            | X  | X  | X  | X  |     |     |        |         |        |       |     |     |
| <b>6 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1896                   | 360.92     | X            | X  | X  | X  |    |     | X   | X      |         |        |       |     |     |
| .1880                   | 452.41     | X            | X  | X  | X  |    |     |     | X      |         |        |       | X   |     |
| .1864                   | 544.73     | X            | X  | X  | X  |    |     |     | X      |         |        |       |     | X   |
| .1858                   | 576.13     | X            | X  | X  | X  |    |     |     | X      |         |        |       | X   |     |
| .1855                   | 594.53     | X            | X  | X  | X  |    |     |     | X      |         |        |       |     | X   |
| .1853                   | 601.89     | X            | X  | X  | X  |    |     |     | X      | X       |        |       |     |     |
| .1851                   | 614.12     | X            | X  | X  | X  |    |     |     | X      |         | X      |       |     |     |
| .1850                   | 621.89     | X            | X  | X  | X  | X  |     | X   |        |         |        |       |     |     |
| <b>7 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1928                   | 185.36     | X            | X  | X  | X  |    |     | X   | X      |         |        |       | X   |     |
| .1915                   | 258.74     | X            | X  | X  | X  |    |     | X   | X      |         |        |       |     | X   |
| .1905                   | 315.54     | X            | X  | X  | X  |    |     | X   | X      |         |        |       | X   |     |
| .1902                   | 328.98     | X            | X  | X  | X  |    |     | X   | X      |         |        |       |     | X   |
| .1900                   | 339.34     | X            | X  | X  | X  |    |     | X   | X      | X       |        |       |     |     |
| .1897                   | 355.88     | X            | X  | X  | X  |    |     | X   | X      |         |        |       | X   |     |
| .1897                   | 358.11     | X            | X  | X  | X  | X  | X   | X   |        |         |        |       |     |     |
| <b>8 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1946                   | 82.98      | X            | X  | X  | X  |    |     | X   | X      |         |        |       | X   | X   |
| .1934                   | 153.68     | X            | X  | X  | X  |    |     | X   | X      |         |        |       | X   | X   |
| .1933                   | 158.31     | X            | X  | X  | X  |    |     | X   | X      |         |        |       | X   |     |
| .1929                   | 180.68     | X            | X  | X  | X  |    |     | X   | X      |         |        |       | X   | X   |
| .1929                   | 181.30     | X            | X  | X  | X  |    |     | X   | X      | X       |        |       | X   |     |
| .1928                   | 182.25     | X            | X  | X  | X  | X  | X   | X   |        |         |        |       | X   |     |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C21. continued**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| 9 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1952                   | 48.40      | X            | X  | X  | X  |    | X   | X   |        | X       | X      |       | X   |     |
| .1950                   | 64.54      | X            | X  | X  | X  |    | X   | X   |        |         | X      |       | X   | X   |
| .1947                   | 78.77      | X            | X  | X  | X  |    | X   | X   |        |         | X      | X     | X   |     |
| .1947                   | 79.53      | X            | X  | X  | X  |    | X   | X   | X      |         | X      |       | X   |     |
| .1946                   | 82.13      | X            | X  | X  | X  | X  | X   | X   |        |         | X      |       | X   |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| 10 Variables            |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1956                   | 28.20      | X            | X  | X  | X  |    | X   | X   |        | X       | X      |       | X   | X   |
| .1954                   | 38.12      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      |       | X   |     |
| .1954                   | 41.60      | X            | X  | X  | X  |    | X   | X   |        | X       | X      | X     | X   |     |
| .1953                   | 46.73      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      |       | X   |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| 11 Variables            |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1958                   | 17.56      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      |       | X   | X   |
| .1958                   | 20.53      | X            | X  | X  | X  |    | X   | X   |        | X       | X      | X     | X   | X   |
| .1957                   | 27.15      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      |       | X   | X   |
| .1955                   | 34.90      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      | X     | X   | X   |
| .1955                   | 36.76      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       | X   |     |
| .1954                   | 40.06      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     | X   |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| 12 Variables            |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1959                   | 13.70      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      | X     | X   | X   |
| .1959                   | 16.79      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       | X   | X   |
| .1958                   | 19.61      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     | X   | X   |
| .1956                   | 33.61      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1951                   | 58.29      | X            | X  | X  | X  | X  | X   | X   | X      |         | X      | X     | X   | X   |
| .1943                   | 106.32     | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1933                   | 162.96     | X            | X  | X  | X  | X  | X   | X   | X      | X       |        | X     | X   | X   |
| .1926                   | 202.37     | X            | X  | X  | X  | X  | X   |     | X      | X       | X      | X     | X   | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C22. All Subsets Regression of Youth Assets on Academic Achieve GR10**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| 1 Variable              |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1339                   | 6021.25    |              |    |    | X  |    |     |     |        |         |        |       |     |     |
| .1153                   | 7063.55    |              |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0962                   | 8138.17    |              | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0717                   | 9511.74    | X            |    |    |    |    |     |     |        |         |        |       |     |     |
| .0276                   | 11990.67   |              |    |    |    |    |     |     |        |         |        | X     |     |     |
| .0186                   | 12493.25   |              |    |    |    |    |     |     |        |         | X      |       |     |     |
| .0178                   | 12539.10   |              |    |    |    |    |     | X   |        |         |        |       |     |     |
| .0154                   | 12673.84   |              |    |    |    |    |     |     |        |         |        |       | X   |     |
| 2 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1959                   | 2540.42    |              |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .1861                   | 3088.50    |              | X  |    | X  |    |     |     |        |         |        |       |     |     |
| .1779                   | 3550.28    | X            |    |    | X  |    |     |     |        |         |        |       |     |     |
| .1477                   | 5244.97    |              |    |    | X  |    |     | X   |        |         |        |       |     |     |
| .1455                   | 5371.16    |              |    |    | X  |    |     |     |        |         |        |       | X   |     |
| .1451                   | 5388.56    |              |    |    | X  |    |     |     |        |         |        | X     |     |     |
| .1390                   | 5732.82    |              |    |    | X  | X  |     |     |        |         |        |       |     |     |
| .1378                   | 5803.16    |              |    |    | X  |    |     |     | X      |         |        |       |     |     |
| 3 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .2159                   | 1414.81    | X            |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .2100                   | 1748.84    |              | X  | X  | X  |    |     |     |        |         |        |       |     |     |
| .2089                   | 1811.10    |              |    | X  | X  |    |     | X   |        |         |        |       |     |     |
| .2034                   | 2119.78    |              |    | X  | X  |    |     |     |        |         |        |       | X   |     |
| .2007                   | 2277.34    |              |    | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1997                   | 2324.37    |              |    | X  | X  | X  |     |     |        |         |        |       |     |     |
| .1978                   | 2429.80    |              |    | X  | X  |    |     |     |        | X       |        |       |     |     |
| .1968                   | 2486.91    |              |    | X  | X  |    |     |     |        |         |        |       | X   |     |
| 4 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .2262                   | 837.79     | X            |    | X  | X  |    |     | X   |        |         |        |       |     |     |
| .2237                   | 978.78     | X            | X  | X  | X  |    |     |     |        |         |        |       |     |     |
| .2228                   | 1028.81    | X            |    | X  | X  |    |     |     |        |         |        | X     |     |     |
| .2179                   | 1303.04    | X            |    | X  | X  | X  |     |     |        |         |        |       |     |     |
| .2167                   | 1372.72    | X            |    | X  | X  |    |     |     | X      |         |        |       |     |     |
| .2166                   | 1380.30    | X            |    | X  | X  |    |     |     |        |         | X      |       |     |     |
| .2165                   | 1382.47    | X            |    | X  | X  |    |     | X   |        |         |        |       |     |     |
| .2165                   | 1382.71    | X            |    | X  | X  |    |     |     |        |         |        |       |     | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C22. continued**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| 5 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .2329                   | 463.01     | X            | X  | X  | X  |    |     | X   |        |         |        |       |     |     |
| .2311                   | 565.38     | X            |    | X  | X  |    |     | X   |        |         |        |       |     | X   |
| .2272                   | 783.39     | X            |    | X  | X  |    | X   | X   |        |         |        |       |     |     |
| .2270                   | 796.69     | X            |    | X  | X  | X  |     | X   |        |         |        |       |     |     |
| .2267                   | 809.22     | X            |    | X  | X  |    |     | X   | X      |         |        |       |     |     |
| .2267                   | 809.99     | X            |    | X  | X  |    |     | X   |        |         |        | X     |     |     |
| .2266                   | 819.55     | X            |    | X  | X  |    |     | X   |        |         |        |       |     | X   |
| .2263                   | 833.61     | X            |    | X  | X  |    |     | X   |        |         |        |       | X   |     |
| 6 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .2371                   | 229.45     | X            | X  | X  | X  |    |     | X   |        |         |        |       |     | X   |
| .2345                   | 372.84     | X            | X  | X  | X  |    | X   | X   |        |         |        |       |     |     |
| .2334                   | 437.09     | X            | X  | X  | X  |    |     | X   | X      |         |        |       |     |     |
| .2333                   | 441.29     | X            | X  | X  | X  |    |     | X   |        |         |        | X     |     |     |
| .2333                   | 443.03     | X            | X  | X  | X  | X  |     | X   |        |         |        |       |     |     |
| .2332                   | 447.42     | X            | X  | X  | X  |    |     | X   |        |         |        |       |     | X   |
| .2330                   | 457.36     | X            | X  | X  | X  |    |     | X   |        |         |        | X     |     |     |
| .2329                   | 462.81     |              |    |    |    |    |     |     | X      |         |        |       |     |     |
| 7 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .2392                   | 109.22     | X            | X  | X  | X  |    | X   | X   |        |         |        |       |     | X   |
| .2375                   | 206.58     | X            | X  | X  | X  |    |     | X   | X      |         |        |       |     | X   |
| .2375                   | 209.55     | X            | X  | X  | X  |    |     | X   |        |         |        | X     |     | X   |
| .2373                   | 217.63     | X            | X  | X  | X  | X  |     | X   |        |         |        |       |     | X   |
| .2372                   | 221.29     | X            | X  | X  | X  |    |     | X   |        |         |        | X     |     | X   |
| .2372                   | 222.86     | X            | X  | X  | X  |    |     | X   |        |         |        | X     |     | X   |
| .2371                   | 228.89     | X            | X  | X  | X  |    |     | X   |        | X       |        |       | X   |     |
| 8 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .2397                   | 85.90      | X            | X  | X  | X  |    | X   | X   |        |         | X      |       |     | X   |
| .2396                   | 91.13      | X            | X  | X  | X  |    | X   | X   | X      |         |        |       |     | X   |
| .2395                   | 93.23      | X            | X  | X  | X  | X  | X   | X   |        |         |        |       |     | X   |
| .2395                   | 98.52      | X            | X  | X  | X  |    | X   | X   |        |         |        |       |     | X X |
| .2394                   | 100.16     | X            | X  | X  | X  |    | X   | X   |        |         |        | X     |     | X   |
| .2393                   | 108.78     | X            | X  | X  | X  |    | X   | X   |        | X       |        |       |     | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C22. continued**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>9 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .2402                   | 59.97      | X            | X  | X  | X  |    | X   | X   |        |         |        | X     | X   | X   |
| .2400                   | 68.53      | X            | X  | X  | X  | X  | X   | X   |        |         |        | X     |     | X   |
| .2400                   | 70.32      | X            | X  | X  | X  |    | X   | X   | X      |         |        | X     | X   |     |
| .2399                   | 73.79      | X            | X  | X  | X  |    | X   | X   |        |         |        | X     |     | X   |
| .2399                   | 76.27      | X            | X  | X  | X  |    | X   | X   | X      |         |        | X     |     | X   |
| .2397                   | 87.40      | X            | X  | X  | X  |    | X   | X   |        |         | X      | X     |     | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>10 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .2405                   | 39.85      | X            | X  | X  | X  |    | X   | X   | X      |         |        | X     | X   | X   |
| .2405                   | 43.50      | X            | X  | X  | X  | X  | X   | X   |        |         |        | X     | X   | X   |
| .2404                   | 48.11      | X            | X  | X  | X  |    | X   | X   |        |         |        | X     | X   | X   |
| .2403                   | 52.79      | X            | X  | X  | X  | X  | X   | X   | X      |         |        | X     | X   |     |
| .2402                   | 60.48      | X            | X  | X  | X  |    | X   | X   |        |         | X      | X     | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>11 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .2409                   | 21.52      | X            | X  | X  | X  | X  | X   | X   | X      |         |        | X     | X   | X   |
| .2407                   | 28.88      | X            | X  | X  | X  |    | X   | X   | X      |         |        | X     | X   | X   |
| .2407                   | 32.19      | X            | X  | X  | X  | X  | X   | X   |        |         |        | X     | X   | X   |
| .2405                   | 41.75      | X            | X  | X  | X  |    | X   | X   | X      |         |        | X     | X   | X   |
| .2405                   | 43.66      | X            | X  | X  | X  | X  | X   | X   |        |         |        | X     | X   | X   |
| .2404                   | 48.82      | X            | X  | X  | X  |    | X   | X   |        |         |        | X     | X   | X   |
| .2402                   | 62.09      | X            | X  | X  | X  |    | X   | X   | X      |         |        | X     | X   | X   |
| .2401                   | 65.01      | X            | X  | X  | X  | X  | X   | X   | X      |         |        | X     | X   |     |
| <b>12 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .2411                   | 11.13      | X            | X  | X  | X  | X  | X   | X   | X      |         |        | X     | X   | X   |
| .2409                   | 23.34      | X            | X  | X  | X  | X  | X   | X   | X      |         |        | X     | X   | X   |
| .2407                   | 30.81      | X            | X  | X  | X  |    | X   | X   | X      |         |        | X     | X   | X   |
| .2407                   | 32.58      | X            | X  | X  | X  | X  | X   | X   |        |         |        | X     | X   | X   |
| .2405                   | 44.93      | X            | X  | X  | X  | X  | X   | X   | X      |         |        | X     | X   | X   |
| .2404                   | 48.50      | X            | X  | X  | X  | X  | X   | X   | X      |         |        | X     | X   | X   |
| .2387                   | 142.36     | X            | X  | X  | X  | X  |     | X   | X      | X       |        | X     | X   | X   |
| .2367                   | 257.14     | X            | X  | X  | X  | X  | X   | X   | X      | X       |        | X     | X   | X   |

**Note.** FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C23. All Subsets Regression of Youth Assets on Academic Achieve GR11**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| 1 Variable              |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1079                   | 5590.12    |              |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0810                   | 7178.58    |              |    |    |    | X  |     |     |        |         |        |       |     |     |
| .0730                   | 7648.16    |              | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0594                   | 8450.67    | X            |    |    |    |    |     |     |        |         |        |       |     |     |
| .0441                   | 9352.33    |              |    |    |    |    |     |     |        |         |        | X     |     |     |
| .0428                   | 9428.37    |              |    |    |    |    |     |     |        |         |        |       |     | X   |
| .0195                   | 10800.58   |              |    |    |    |    |     |     |        | X       |        |       |     |     |
| .0154                   | 11041.40   |              |    |    |    |    |     |     |        |         |        | X     |     |     |
| 2 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1479                   | 3232.84    |              |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .1349                   | 3996.68    |              |    | X  |    |    |     |     |        |         |        |       |     | X   |
| .1330                   | 4112.78    |              | X  |    |    |    |     |     |        |         |        | X     |     |     |
| .1321                   | 4164.96    | X            |    | X  |    |    |     |     |        |         |        |       |     |     |
| .1213                   | 4798.24    |              | X  | X  |    |    |     |     |        |         |        |       |     |     |
| .1163                   | 5094.40    |              |    | X  |    |    |     |     |        |         |        |       |     | X   |
| .1163                   | 5097.29    |              |    | X  |    |    |     |     |        | X       |        |       |     |     |
| .1161                   | 5107.52    |              | X  |    |    |    | X   |     |        |         |        |       |     |     |
| 3 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1691                   | 1983.89    |              |    | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1662                   | 2156.89    | X            |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .1650                   | 2224.27    |              |    | X  | X  | X  |     |     |        |         |        |       |     | X   |
| .1565                   | 2726.07    |              | X  | X  | X  |    |     |     |        |         |        |       |     |     |
| .1553                   | 2799.25    |              |    | X  | X  |    |     |     |        |         |        |       |     | X   |
| .1551                   | 2811.77    |              |    | X  | X  |    |     |     |        | X       |        |       |     |     |
| .1545                   | 2846.16    |              |    | X  | X  |    |     |     | X      |         |        |       |     |     |
| .1520                   | 2994.19    |              | X  | X  |    |    |     |     |        |         | X      |       |     |     |
| 4 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1845                   | 1078.21    |              |    | X  | X  |    |     |     |        |         |        | X     |     | X   |
| .1814                   | 1261.91    | X            |    | X  | X  |    |     |     |        |         |        |       |     | X   |
| .1791                   | 1397.50    | X            |    | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1749                   | 1640.74    |              | X  | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1738                   | 1706.22    |              |    | X  | X  |    |     | X   |        |         |        | X     |     |     |
| .1712                   | 1861.14    |              |    | X  | X  |    |     |     | X      |         |        | X     |     |     |
| .1705                   | 1902.09    |              |    | X  | X  | X  |     |     |        |         |        | X     |     |     |
| .1700                   | 1933.78    |              | X  | X  |    |    | X   |     |        |         |        | X     |     |     |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C23. continued**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>5 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1933                   | 556.64     | X            |    | X  | X  |    |     |     |        |         |        | X     |     | X   |
| .1885                   | 841.53     |              | X  | X  | X  |    |     |     |        |         |        | X     |     | X   |
| .1869                   | 937.14     |              |    | X  | X  |    |     | X   |        |         |        | X     |     | X   |
| .1867                   | 946.11     |              |    | X  | X  |    |     |     |        | X       |        | X     |     | X   |
| .1863                   | 974.68     |              |    | X  | X  |    | X   |     |        |         | X      |       |     | X   |
| .1855                   | 1016.98    |              |    | X  | X  |    |     |     |        | X       | X      |       |     | X   |
| .1854                   | 1027.35    |              |    | X  | X  |    |     |     |        |         | X      | X     |     | X   |
| .1853                   | 1029.23    |              |    | X  | X  | X  |     |     |        |         | X      |       |     | X   |
| <b>6 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1958                   | 412.83     | X            |    | X  | X  |    | X   |     |        |         |        | X     |     | X   |
| .1953                   | 439.72     | X            | X  | X  | X  |    |     |     |        |         |        | X     |     | X   |
| .1952                   | 450.36     | X            |    | X  | X  |    |     |     | X      |         |        | X     |     | X   |
| .1952                   | 450.96     | X            |    | X  | X  |    |     | X   |        |         |        | X     |     | X   |
| .1941                   | 513.91     | X            |    | X  | X  |    |     |     |        |         |        | X     | X   | X   |
| .1940                   | 518.72     | X            |    | X  | X  |    |     |     |        | X       | X      |       |     | X   |
| .1939                   | 525.20     | X            |    | X  | X  | X  |     |     |        |         | X      |       |     | X   |
| .1935                   | 547.89     | X            |    | X  | X  |    |     |     |        |         | X      |       | X   | X   |
| <b>7 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1983                   | 263.54     | X            | X  | X  | X  |    | X   |     |        |         |        | X     |     | X   |
| .1978                   | 296.98     | X            |    | X  | X  |    | X   | X   |        |         |        | X     |     | X   |
| .1977                   | 300.80     | X            |    | X  | X  |    | X   |     | X      |         |        | X     |     | X   |
| .1966                   | 367.71     | X            |    | X  | X  |    | X   |     |        |         |        | X     | X   | X   |
| .1965                   | 370.60     | X            |    | X  | X  | X  | X   |     |        |         |        | X     |     | X   |
| .1965                   | 372.09     | X            |    | X  | X  |    | X   |     |        | X       | X      |       |     | X   |
| .1959                   | 408.94     | X            |    | X  | X  |    | X   |     |        |         | X      |       | X   | X   |
| <b>8 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .2002                   | 154.67     | X            | X  | X  | X  |    | X   |     | X      |         |        | X     |     | X   |
| .2002                   | 158.35     | X            | X  | X  | X  |    | X   | X   |        |         |        | X     |     | X   |
| .1990                   | 223.76     | X            | X  | X  | X  |    | X   |     |        |         |        | X     | X   | X   |
| .1990                   | 224.31     | X            | X  | X  | X  |    | X   |     |        | X       | X      |       |     | X   |
| .1988                   | 235.98     | X            | X  | X  | X  | X  | X   |     |        |         | X      |       |     | X   |
| .1984                   | 259.78     | X            | X  | X  | X  |    | X   |     |        |         | X      |       | X   | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C23. continued**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>9 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .2019                   | 55.24      | X            | X  | X  | X  |    | X   | X   | X      |         | X      |       | X   |     |
| .2007                   | 129.24     | X            | X  | X  | X  | X  | X   |     | X      |         | X      |       | X   |     |
| .2004                   | 142.72     | X            | X  | X  | X  |    | X   |     | X      | X       | X      |       | X   |     |
| .2004                   | 145.66     | X            | X  | X  | X  |    | X   |     | X      |         | X      | X     | X   |     |
| .2003                   | 150.89     | X            | X  | X  | X  |    | X   |     | X      |         | X      |       | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>10 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .2022                   | 38.73      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      |       | X   |     |
| .2021                   | 43.04      | X            | X  | X  | X  | X  | X   | X   | X      |         | X      |       | X   |     |
| .2021                   | 47.97      | X            | X  | X  | X  |    | X   | X   | X      |         | X      | X     | X   |     |
| .2020                   | 50.09      | X            | X  | X  | X  |    | X   | X   | X      |         | X      |       | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>11 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .2024                   | 26.16      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       | X   |     |
| .2023                   | 31.96      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      | X     | X   |     |
| .2023                   | 33.09      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      | X     | X   |     |
| .2023                   | 35.80      | X            | X  | X  | X  | X  | X   | X   | X      |         | X      | X     | X   |     |
| .2023                   | 36.67      | X            | X  | X  | X  | X  | X   | X   | X      |         | X      |       | X   | X   |
| .2022                   | 43.27      | X            | X  | X  | X  |    | X   | X   | X      |         | X      | X     | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>12 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .2026                   | 19.24      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       | X   | X   |
| .2026                   | 19.43      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   |     |
| .2025                   | 26.77      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      | X     | X   | X   |
| .2024                   | 29.92      | X            | X  | X  | X  | X  | X   | X   | X      |         | X      | X     | X   | X   |
| .2018                   | 65.31      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     | X   | X   |
| .2012                   | 102.79     | X            | X  | X  | X  | X  | X   |     | X      | X       | X      | X     | X   | X   |
| .2006                   | 135.85     | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1994                   | 204.93     | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     | X   | X   |

**Note.** FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C24. All Subsets Regression of Youth Assets on Academic Achieve GR12**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |   | vol | rel |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|---|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed |   |     |     |
| <b>1 Variable</b>       |            |              |    |    |    |    |     |     |        |         |        |       |   |     |     |
| .0763                   | 4246.10    |              |    | X  |    |    |     |     |        |         |        |       |   |     |     |
| .0682                   | 4663.09    |              |    |    |    | X  |     |     |        |         |        |       |   |     |     |
| .0608                   | 5046.61    | X            |    |    |    |    |     |     |        |         |        |       |   |     |     |
| .0539                   | 5400.72    |              | X  |    |    |    |     |     |        |         |        |       |   |     |     |
| .0263                   | 6822.31    |              |    |    |    |    |     |     |        |         |        |       |   | X   |     |
| .0263                   | 6824.29    |              |    |    |    |    |     |     |        |         |        |       | X |     |     |
| .0145                   | 7429.54    |              |    |    |    |    |     |     |        | X       |        |       |   |     |     |
| .0099                   | 7670.48    |              |    |    |    |    |     |     |        |         |        | X     |   |     |     |
| <b>2 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |   |     |     |
| .1156                   | 2218.41    |              |    | X  | X  |    |     |     |        |         |        |       |   |     |     |
| .1142                   | 2293.43    | X            |    |    | X  |    |     |     |        |         |        |       |   |     |     |
| .1084                   | 2588.39    | X            |    | X  |    |    |     |     |        |         |        |       |   |     |     |
| .0899                   | 3544.27    |              |    | X  |    |    |     |     |        |         |        |       | X |     |     |
| .0889                   | 3593.58    |              |    | X  |    |    |     |     |        |         |        |       |   | X   |     |
| .0855                   | 3769.89    |              |    | X  |    |    |     |     |        | X       |        |       |   |     |     |
| .0851                   | 3793.38    |              | X  | X  |    |    |     |     |        |         |        |       |   |     |     |
| .0807                   | 4017.08    |              | X  |    |    |    |     |     |        |         |        |       | X |     |     |
| <b>3 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |   |     |     |
| .1433                   | 792.94     | X            |    | X  | X  |    |     |     |        |         |        |       |   |     |     |
| .1269                   | 1638.74    |              |    | X  | X  |    |     |     |        |         |        |       | X |     |     |
| .1221                   | 1882.84    |              |    | X  | X  |    |     |     |        |         |        |       |   | X   |     |
| .1219                   | 1895.14    |              | X  | X  | X  |    |     |     |        |         |        |       |   |     |     |
| .1218                   | 1901.36    |              |    | X  | X  |    |     |     |        | X       |        |       |   |     |     |
| .1192                   | 2034.10    |              |    | X  | X  |    |     |     |        |         |        |       |   | X   |     |
| .1165                   | 2173.11    |              |    | X  | X  |    |     | X   |        |         |        |       |   |     |     |
| .1162                   | 2189.00    |              |    | X  | X  |    | X   |     |        |         |        |       |   |     |     |
| <b>4 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |   |     |     |
| .1486                   | 522.13     | X            |    | X  | X  |    |     |     |        |         |        |       |   |     | X   |
| .1464                   | 634.18     | X            |    | X  | X  |    |     |     |        |         |        |       | X |     |     |
| .1459                   | 659.30     | X            |    | X  | X  |    |     |     |        | X       |        |       |   |     |     |
| .1455                   | 678.36     | X            | X  | X  | X  |    |     |     |        |         |        |       |   |     |     |
| .1446                   | 727.52     | X            |    | X  | X  |    | X   |     |        |         |        |       |   |     |     |
| .1441                   | 752.82     | X            |    | X  | X  |    |     |     |        |         |        |       |   | X   |     |
| .1438                   | 769.18     | X            |    | X  | X  |    |     |     |        | X       |        |       |   |     |     |
| .1435                   | 783.83     | X            |    | X  | X  |    |     | X   |        |         |        |       |   |     |     |

**Note.** FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C24.** *continued*

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>5 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1516                   | 368.42     | X            |    | X  | X  |    |     |     |        |         | X      |       | X   |     |
| .1510                   | 396.61     | X            |    | X  | X  |    |     |     | X      |         |        |       | X   |     |
| .1504                   | 429.92     | X            |    | X  | X  |    | X   |     |        |         |        |       | X   |     |
| .1500                   | 447.94     | X            | X  | X  | X  |    |     |     |        |         |        |       | X   |     |
| .1493                   | 486.32     | X            |    | X  | X  |    |     |     |        |         | X      |       | X   |     |
| .1489                   | 503.64     | X            |    | X  | X  |    |     |     | X      |         |        |       | X   |     |
| .1489                   | 507.73     | X            |    | X  | X  |    |     |     |        |         |        |       | X   | X   |
| .1486                   | 518.61     | X            |    | X  | X  | X  |     |     |        |         |        |       | X   |     |
| <b>6 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1533                   | 278.24     | X            |    | X  | X  |    | X   |     |        |         | X      |       | X   |     |
| .1528                   | 305.08     | X            |    | X  | X  |    |     |     | X      |         | X      |       | X   |     |
| .1528                   | 305.14     | X            | X  | X  | X  |    |     |     |        |         | X      |       | X   |     |
| .1528                   | 305.73     | X            |    | X  | X  |    |     |     |        | X       | X      |       | X   |     |
| .1519                   | 353.59     | X            |    | X  | X  |    |     |     |        |         | X      |       | X   | X   |
| .1516                   | 365.67     | X            |    | X  | X  | X  |     |     |        |         | X      |       | X   |     |
| .1516                   | 369.00     | X            |    | X  | X  |    |     |     |        |         | X      |       | X   | X   |
| .1515                   | 370.26     | X            |    | X  | X  |    |     | X   |        |         | X      |       | X   |     |
| <b>7 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1552                   | 182.60     | X            |    | X  | X  |    |     |     | X      | X       | X      |       | X   |     |
| .1549                   | 199.67     | X            | X  | X  | X  |    | X   |     |        |         | X      |       | X   |     |
| .1546                   | 214.28     | X            |    | X  | X  |    | X   |     |        | X       | X      |       | X   |     |
| .1545                   | 219.76     | X            |    | X  | X  |    | X   |     | X      |         | X      |       | X   |     |
| .1536                   | 267.41     | X            |    | X  | X  |    | X   |     |        |         | X      |       | X   | X   |
| .1533                   | 278.28     | X            |    | X  | X  | X  | X   |     |        |         | X      |       | X   |     |
| .1533                   | 279.08     | X            |    | X  | X  |    | X   |     |        |         | X      |       | X   | X   |
| .1533                   | 280.23     | X            |    | X  | X  |    | X   | X   |        |         | X      |       | X   |     |
| <b>8 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1569                   | 97.73      | X            |    | X  | X  |    | X   |     | X      | X       | X      |       | X   |     |
| .1561                   | 137.34     | X            | X  | X  | X  |    | X   |     |        | X       | X      |       | X   |     |
| .1560                   | 144.30     | X            | X  | X  | X  |    | X   |     | X      |         | X      |       | X   |     |
| .1551                   | 187.58     | X            | X  | X  | X  |    | X   |     |        |         | X      |       | X   | X   |
| .1550                   | 196.09     | X            | X  | X  | X  | X  | X   |     |        |         | X      |       | X   |     |
| .1549                   | 200.97     | X            | X  | X  | X  |    | X   |     |        |         | X      |       | X   | X   |
| .1549                   | 201.18     | X            | X  | X  | X  |    | X   | X   |        |         | X      |       | X   |     |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C24.** *continued*

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| 9 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1583                   | 26.02      | X            | X  | X  | X  |    | X   |     | X      | X       | X      |       |     | X   |
| .1563                   | 127.76     | X            | X  | X  | X  |    | X   |     |        | X       | X      |       |     | X X |
| .1562                   | 133.33     | X            | X  | X  | X  | X  | X   |     |        | X       | X      |       |     | X   |
| .1562                   | 134.37     | X            | X  | X  | X  |    | X   |     |        | X       | X      | X     | X   | X   |
| .1561                   | 138.18     | X            | X  | X  | X  |    | X   | X   |        | X       | X      |       |     | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| 10 Variables            |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1585                   | 16.56      | X            | X  | X  | X  |    | X   |     | X      | X       | X      |       |     | X X |
| .1584                   | 20.36      | X            | X  | X  | X  | X  | X   |     | X      | X       | X      |       |     | X   |
| .1583                   | 26.20      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      |       |     | X   |
| .1583                   | 26.42      | X            | X  | X  | X  |    | X   |     | X      | X       | X      | X     | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| 11 Variables            |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1586                   | 11.79      | X            | X  | X  | X  | X  | X   |     | X      | X       | X      |       |     | X X |
| .1585                   | 16.79      | X            | X  | X  | X  |    | X   |     | X      | X       | X      | X     | X   | X X |
| .1585                   | 17.08      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      |       |     | X X |
| .1584                   | 20.37      | X            | X  | X  | X  | X  | X   |     | X      | X       | X      | X     | X   | X   |
| .1584                   | 21.53      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       |     | X   |
| .1583                   | 26.56      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      | X     | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| 12 Variables            |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1586                   | 11.65      | X            | X  | X  | X  | X  | X   |     | X      | X       | X      | X     | X   | X   |
| .1586                   | 13.15      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       |     | X X |
| .1585                   | 17.28      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      | X     | X   | X X |
| .1584                   | 21.54      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1571                   | 90.93      | X            |    | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1568                   | 103.91     | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     | X   | X   |
| .1564                   | 123.87     | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     | X   | X   |
| .1564                   | 127.15     | X            | X  | X  | X  | X  | X   | X   | X      |         | X      | X     | X   | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C25. All Subsets Regression of Youth Assets on Bicycle Helmet Use GR7**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| 1 Variable              |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0799                   | 2316.41    |              |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0650                   | 2913.53    | X            |    |    |    |    |     |     |        |         |        |       |     |     |
| .0495                   | 3531.14    |              |    |    | X  |    |     |     |        |         |        |       |     |     |
| .0400                   | 3912.32    |              | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0232                   | 4585.76    |              |    |    |    |    |     |     |        |         | X      |       |     |     |
| .0171                   | 4827.77    |              |    |    |    |    |     |     |        | X       |        |       |     |     |
| .0114                   | 5057.12    |              |    |    |    |    |     |     |        |         |        | X     |     |     |
| .0110                   | 5075.62    |              |    |    |    |    |     |     |        |         |        |       | X   |     |
| 2 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1077                   | 1203.66    | X            |    | X  |    |    |     |     |        |         |        |       |     |     |
| .1002                   | 1502.88    |              |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .0906                   | 1886.93    |              |    | X  |    |    |     |     |        |         | X      |       |     |     |
| .0899                   | 1914.56    |              | X  |    |    |    |     |     |        | X       |        |       |     |     |
| .0858                   | 2079.88    |              |    | X  |    |    |     |     |        |         |        |       | X   |     |
| .0853                   | 2101.63    |              |    | X  |    |    |     |     |        |         |        | X     |     |     |
| .0811                   | 2270.16    |              | X  | X  |    |    |     |     |        |         |        |       |     |     |
| .0807                   | 2282.93    |              |    | X  |    |    |     |     |        |         |        |       |     | X   |
| 3 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1237                   | 563.49     | X            |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .1134                   | 975.09     | X            |    | X  |    |    |     |     | X      |         |        |       |     |     |
| .1122                   | 1025.11    | X            |    | X  |    |    |     |     |        |         |        | X     |     |     |
| .1115                   | 1052.34    | X            |    | X  |    |    |     |     |        |         | X      |       |     |     |
| .1093                   | 1140.80    | X            |    | X  |    |    |     |     |        |         |        | X     |     |     |
| .1089                   | 1155.49    | X            |    | X  |    |    |     |     |        |         |        |       |     | X   |
| .1079                   | 1195.34    | X            |    | X  |    |    |     |     |        | X       |        |       |     |     |
| .1077                   | 1204.23    | X            | X  | X  |    |    |     |     |        |         |        |       |     |     |
| 4 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1285                   | 371.72     | X            |    | X  | X  |    |     |     | X      |         |        |       |     |     |
| .1269                   | 436.96     | X            |    | X  | X  |    |     |     |        |         | X      |       |     |     |
| .1262                   | 465.90     | X            |    | X  | X  |    |     |     |        |         |        |       | X   |     |
| .1259                   | 474.64     | X            |    | X  | X  |    |     |     |        |         |        |       |     | X   |
| .1246                   | 527.07     | X            |    | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1242                   | 545.67     | X            | X  | X  | X  |    |     |     |        |         |        |       |     |     |
| .1240                   | 553.75     | X            |    | X  | X  |    |     |     |        | X       |        |       |     |     |
| .1237                   | 563.09     | X            |    | X  | X  |    | X   |     |        |         |        |       |     |     |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C25. continued**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>5 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1310                   | 275.13     | X            |    | X  | X  |    |     |     | X      |         |        |       | X   |     |
| .1308                   | 281.43     | X            |    | X  | X  |    |     |     | X      |         |        |       | X   |     |
| .1303                   | 300.84     | X            |    | X  | X  |    |     |     | X      |         | X      |       |     |     |
| .1298                   | 323.12     | X            |    | X  | X  |    |     |     | X      | X       |        |       |     |     |
| .1292                   | 344.87     | X            | X  | X  | X  |    |     |     | X      |         |        |       |     |     |
| .1286                   | 367.85     | X            |    | X  | X  |    |     |     | X      |         |        | X     |     |     |
| .1286                   | 369.45     | X            |    | X  | X  |    |     | X   | X      |         |        |       |     |     |
| .1285                   | 371.94     | X            |    | X  | X  |    | X   |     | X      |         |        |       |     |     |
| <b>6 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1336                   | 170.67     | X            |    | X  | X  |    |     |     | X      |         |        |       | X   | X   |
| .1329                   | 199.14     | X            |    | X  | X  |    |     |     | X      |         | X      |       | X   |     |
| .1321                   | 230.83     | X            |    | X  | X  |    |     |     | X      | X       |        |       | X   |     |
| .1317                   | 246.00     | X            | X  | X  | X  |    |     |     | X      |         |        |       | X   |     |
| .1312                   | 268.00     | X            |    | X  | X  |    |     | X   | X      |         |        |       | X   |     |
| .1311                   | 270.22     | X            |    | X  | X  |    |     |     | X      |         |        | X     | X   |     |
| .1310                   | 274.63     | X            |    | X  | X  |    | X   |     | X      |         |        |       | X   |     |
| .1310                   | 275.28     | X            |    | X  | X  | X  |     |     | X      |         |        |       | X   |     |
| <b>7 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1354                   | 98.47      | X            |    | X  | X  |    |     |     | X      |         | X      |       | X   | X   |
| .1346                   | 132.59     | X            |    | X  | X  |    |     |     | X      | X       |        |       | X   | X   |
| .1343                   | 143.18     | X            | X  | X  | X  |    |     |     | X      |         |        |       | X   | X   |
| .1338                   | 165.21     | X            |    | X  | X  |    |     | X   | X      |         |        |       | X   | X   |
| .1337                   | 166.49     | X            |    | X  | X  |    |     |     | X      |         |        | X     | X   | X   |
| .1336                   | 170.60     | X            |    | X  | X  | X  |     |     | X      |         |        |       | X   | X   |
| .1336                   | 171.23     | X            |    | X  | X  |    | X   |     | X      |         |        |       | X   | X   |
| <b>8 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1368                   | 44.57      | X            |    | X  | X  |    |     |     | X      | X       | X      |       | X   | X   |
| .1363                   | 65.62      | X            | X  | X  | X  |    |     |     | X      |         | X      |       | X   | X   |
| .1356                   | 91.17      | X            |    | X  | X  |    |     | X   | X      |         | X      |       | X   | X   |
| .1354                   | 98.67      | X            |    | X  | X  | X  |     |     | X      |         | X      |       | X   | X   |
| .1354                   | 98.86      | X            |    | X  | X  |    | X   |     | X      |         | X      |       | X   | X   |
| .1354                   | 100.47     | X            |    | X  | X  |    |     |     | X      |         | X      | X     | X   | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C25. continued**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>9 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1376                   | 14.46      | X            | X  | X  | X  |    |     |     | X      | X       | X      |       | X   | X   |
| .1370                   | 36.96      | X            |    | X  | X  |    |     | X   | X      | X       | X      |       | X   | X   |
| .1368                   | 44.00      | X            |    | X  | X  |    | X   |     | X      | X       | X      |       | X   | X   |
| .1368                   | 44.65      | X            |    | X  | X  | X  |     |     | X      | X       | X      |       | X   | X   |
| .1368                   | 46.54      | X            |    | X  | X  |    |     |     | X      | X       | X      | X     | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>10 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1377                   | 9.55       | X            | X  | X  | X  |    |     | X   | X      | X       | X      |       | X   | X   |
| .1376                   | 14.83      | X            | X  | X  | X  |    | X   |     | X      | X       | X      |       | X   | X   |
| .1376                   | 15.06      | X            | X  | X  | X  | X  |     |     | X      | X       | X      |       | X   | X   |
| .1375                   | 16.41      | X            | X  | X  | X  |    |     |     | X      | X       | X      | X     | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>11 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1377                   | 10.06      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      |       | X   | X   |
| .1377                   | 10.63      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      |       | X   | X   |
| .1377                   | 11.35      | X            | X  | X  | X  |    |     | X   | X      | X       | X      | X     | X   | X   |
| .1376                   | 17.01      | X            | X  | X  | X  | X  |     |     | X      | X       | X      | X     | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>12 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1377                   | 11.19      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       | X   | X   |
| .1377                   | 11.87      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      | X     | X   | X   |
| .1377                   | 12.44      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     | X   | X   |
| .1376                   | 17.44      | X            | X  | X  | X  | X  | X   |     | X      | X       | X      | X     | X   | X   |
| .1370                   | 39.30      | X            |    | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1364                   | 65.43      | X            | X  | X  | X  | X  | X   | X   | X      |         | X      | X     | X   | X   |
| .1356                   | 97.81      | X            | X  | X  | X  | X  | X   | X   | X      | X       |        | X     | X   | X   |
| .1355                   | 102.05     | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |

**Note.** FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C26. All Subsets Regression of Youth Assets on Bicycle Helmet Use GR8**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>1 Variable</b>       |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0717                   | 2376.79    |              |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0538                   | 3081.22    |              |    |    |    | X  |     |     |        |         |        |       |     |     |
| .0504                   | 3215.34    |              | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0484                   | 3292.71    | X            |    |    |    |    |     |     |        |         |        |       |     |     |
| .0341                   | 3856.74    |              |    |    |    |    |     |     |        |         |        | X     |     |     |
| .0200                   | 4415.22    |              |    |    |    |    |     |     |        | X       |        |       |     |     |
| .0175                   | 4511.95    |              |    |    |    |    |     |     |        |         |        |       | X   |     |
| .0153                   | 4600.31    |              |    |    |    |    |     |     |        |         |        |       | X   |     |
| <b>2 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0940                   | 1497.29    |              |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .0910                   | 1615.21    |              |    | X  |    |    |     |     |        |         |        | X     |     |     |
| .0893                   | 1684.54    | X            |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0831                   | 1926.16    |              |    | X  |    |    |     |     |        |         |        |       |     | X   |
| .0812                   | 2001.99    |              |    | X  |    |    |     |     |        | X       |        |       |     |     |
| .0800                   | 2048.62    |              | X  | X  |    |    |     |     |        |         |        |       |     |     |
| .0796                   | 2065.89    |              |    | X  |    |    |     |     |        |         |        |       |     | X   |
| .0794                   | 2073.31    |              |    | X  |    | X  |     |     |        |         |        |       |     |     |
| <b>3 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1108                   | 837.14     |              |    | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1082                   | 939.05     | X            |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .1011                   | 1218.33    |              |    | X  | X  |    |     |     |        |         |        |       | X   |     |
| .1011                   | 1219.61    |              |    | X  | X  |    |     |     |        | X       |        |       |     |     |
| .1004                   | 1247.71    |              |    | X  | X  |    |     |     |        |         |        |       | X   |     |
| .1003                   | 1248.59    |              |    | X  | X  | X  |     |     |        |         |        |       |     |     |
| .0986                   | 1315.41    |              | X  | X  | X  |    |     |     |        |         |        |       |     |     |
| .0973                   | 1369.67    |              |    | X  | X  |    |     | X   |        |         |        |       |     |     |
| <b>4 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1175                   | 573.11     |              |    | X  | X  |    |     |     |        |         |        | X     |     | X   |
| .1175                   | 573.87     | X            |    | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1161                   | 628.72     |              |    | X  | X  | X  |     |     |        |         |        | X     |     |     |
| .1139                   | 713.59     |              | X  | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1136                   | 725.34     |              |    | X  | X  |    |     |     | X      |         |        | X     |     |     |
| .1134                   | 733.03     |              |    | X  | X  |    |     | X   |        |         |        | X     |     |     |
| .1116                   | 804.28     |              |    | X  | X  |    |     |     |        |         |        | X     | X   |     |
| .1114                   | 814.51     |              |    | X  | X  |    |     |     |        |         |        | X     |     | X   |

**Note.** FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C26. continued**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>5 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1241                   | 315.43     | X            |    | X  | X  |    |     |     |        |         | X      |       | X   |     |
| .1219                   | 401.03     |              |    | X  | X  | X  |     |     |        |         | X      |       | X   |     |
| .1202                   | 469.02     |              |    | X  | X  |    |     |     | X      |         | X      |       | X   |     |
| .1198                   | 483.80     |              | X  | X  | X  |    |     |     |        |         | X      |       | X   |     |
| .1192                   | 505.84     |              |    | X  | X  |    |     | X   |        |         | X      |       | X   |     |
| .1182                   | 546.47     |              |    | X  | X  |    |     |     |        |         | X      | X     | X   |     |
| .1179                   | 560.11     |              |    | X  | X  |    |     |     |        |         | X      |       | X   | X   |
| .1177                   | 565.93     |              | X  | X  |    | X  |     |     |        |         | X      |       | X   |     |
| <b>6 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1278                   | 168.39     | X            |    | X  | X  | X  |     |     |        |         | X      |       | X   |     |
| .1262                   | 232.54     | X            |    | X  | X  |    |     |     | X      |         | X      |       | X   |     |
| .1256                   | 257.05     | X            |    | X  | X  |    |     | X   |        |         | X      |       | X   |     |
| .1251                   | 273.74     | X            | X  | X  | X  |    |     |     |        |         | X      |       | X   |     |
| .1244                   | 302.89     | X            |    | X  | X  |    |     |     |        |         | X      |       | X   | X   |
| .1244                   | 303.36     | X            |    | X  | X  |    |     |     |        |         | X      | X     | X   |     |
| .1243                   | 308.47     | X            |    | X  | X  |    | X   |     |        |         | X      |       | X   |     |
| .1240                   | 317.43     | X            |    | X  | X  |    |     |     |        | X       | X      |       | X   |     |
| <b>7 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1298                   | 92.95      | X            |    | X  | X  | X  |     |     | X      |         | X      |       | X   |     |
| .1286                   | 137.95     | X            |    | X  | X  | X  |     | X   |        |         | X      |       | X   |     |
| .1285                   | 142.98     | X            | X  | X  | X  | X  |     |     |        |         | X      |       | X   |     |
| .1281                   | 156.63     | X            |    | X  | X  | X  | X   |     |        |         | X      |       | X   |     |
| .1281                   | 159.80     | X            |    | X  | X  | X  |     |     |        |         | X      |       | X   | X   |
| .1281                   | 159.97     | X            |    | X  | X  | X  |     |     |        |         | X      | X     | X   |     |
| .1278                   | 170.24     | X            |    | X  | X  | X  |     |     |        | X       | X      |       | X   |     |
| <b>8 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1306                   | 60.91      | X            |    | X  | X  | X  |     | X   | X      |         | X      |       | X   |     |
| .1304                   | 68.81      | X            | X  | X  | X  | X  |     | X   |        |         | X      |       | X   |     |
| .1301                   | 81.87      | X            |    | X  | X  | X  | X   | X   |        |         | X      |       | X   |     |
| .1300                   | 86.10      | X            |    | X  | X  | X  |     | X   |        |         | X      |       | X   | X   |
| .1298                   | 90.43      | X            |    | X  | X  | X  |     | X   | X      | X       | X      |       | X   |     |
| .1297                   | 94.71      | X            |    | X  | X  | X  |     | X   |        |         | X      | X     | X   |     |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C26.** *continued*

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     | vol | rel |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |     |     |
| <b>9 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
| .1312                   | 37.22      | X            | X  | X  | X  | X  |     | X   | X      |         |        | X     |     |     | X   |     |
| .1309                   | 48.26      | X            |    | X  | X  | X  | X   | X   | X      |         |        | X     |     |     | X   |     |
| .1308                   | 53.70      | X            |    | X  | X  | X  |     | X   | X      |         |        | X     |     |     | X   | X   |
| .1307                   | 58.43      | X            |    | X  | X  | X  |     | X   | X      | X       | X      |       |     |     | X   |     |
| .1306                   | 62.73      | X            |    | X  | X  | X  |     | X   | X      |         |        | X     | X   |     | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
| <b>10 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
| .1316                   | 22.08      | X            | X  | X  | X  | X  | X   | X   | X      |         |        | X     |     |     | X   |     |
| .1314                   | 29.94      | X            | X  | X  | X  | X  |     | X   | X      |         |        | X     |     |     | X   | X   |
| .1313                   | 34.42      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      |       |     |     | X   |     |
| .1312                   | 39.08      | X            | X  | X  | X  | X  |     | X   | X      |         |        | X     | X   |     | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
| <b>11 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
| .1319                   | 14.03      | X            | X  | X  | X  | X  | X   | X   | X      |         |        | X     |     |     | X   | X   |
| .1317                   | 19.57      | X            | X  | X  | X  | X  | X   | X   | X      | X       |        | X     | X   |     | X   |     |
| .1316                   | 23.76      | X            | X  | X  | X  | X  | X   | X   | X      | X       |        | X     | X   |     | X   | X   |
| .1315                   | 26.95      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      |       |     |     | X   | X   |
| .1314                   | 31.84      | X            | X  | X  | X  | X  |     | X   | X      |         |        | X     | X   |     | X   | X   |
| .1313                   | 36.18      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     | X   |     | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
| <b>12 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |     |     |
| .1319                   | 11.36      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     |     |     | X   | X   |
| .1318                   | 15.79      | X            | X  | X  | X  | X  | X   | X   | X      | X       |        | X     | X   |     | X   | X   |
| .1317                   | 21.13      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   |     | X   | X   |
| .1315                   | 28.78      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     | X   |     | X   | X   |
| .1312                   | 39.61      | X            |    | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   |     | X   | X   |
| .1311                   | 46.56      | X            | X  | X  | X  | X  | X   |     | X      | X       | X      | X     | X   |     | X   | X   |
| .1302                   | 80.31      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     | X   |     | X   | X   |
| .1294                   | 112.63     | X            | X  | X  | X  |    | X   | X   | X      | X       | X      | X     | X   |     | X   | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C27. All Subsets Regression of Youth Assets on Bicycle Helmet Use GR9**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| 1 Variable              |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0798                   | 2842.36    |              |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0794                   | 2856.79    |              |    |    |    | X  |     |     |        |         |        |       |     |     |
| .0480                   | 4135.59    | X            |    |    |    |    |     |     |        |         |        |       |     |     |
| .0473                   | 4164.19    |              | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0264                   | 5011.20    |              |    |    |    |    |     |     |        |         |        | X     |     |     |
| .0236                   | 5127.03    |              |    |    |    |    |     |     |        |         |        |       |     | X   |
| .0063                   | 5830.50    |              |    |    |    |    |     |     |        |         |        |       |     | X   |
| .0050                   | 5882.23    |              |    |    |    |    |     |     |        |         |        |       | X   |     |
| 2 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1209                   | 1172.96    |              |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .0966                   | 2158.70    | X            |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0923                   | 2334.31    |              |    | X  |    |    |     |     |        |         |        | X     |     |     |
| .0915                   | 2368.21    |              |    | X  |    |    |     |     |        |         |        |       |     | X   |
| .0854                   | 2615.48    |              | X  | X  |    |    |     |     |        |         |        |       |     |     |
| .0838                   | 2681.00    |              |    | X  |    |    |     |     |        |         |        |       |     | X   |
| .0824                   | 2735.78    |              |    | X  |    |    |     |     | X      |         |        |       |     |     |
| .0813                   | 2783.89    |              |    | X  |    |    |     |     |        |         |        |       | X   |     |
| 3 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1331                   | 677.64     | X            |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .1322                   | 715.27     |              |    | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1255                   | 985.62     |              |    | X  | X  |    |     |     |        |         |        |       |     | X   |
| .1231                   | 1083.28    |              | X  | X  | X  |    |     |     |        |         |        |       |     |     |
| .1227                   | 1101.14    |              |    | X  | X  |    |     | X   |        |         |        |       |     |     |
| .1220                   | 1129.19    |              |    | X  | X  |    |     |     |        |         |        |       |     | X   |
| .1218                   | 1137.49    |              |    | X  | X  |    |     |     | X      |         |        |       |     |     |
| .1216                   | 1144.65    |              |    | X  | X  |    |     |     |        |         |        |       | X   |     |
| 4 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1391                   | 434.49     | X            |    | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1371                   | 515.17     | X            |    | X  | X  |    |     |     |        |         |        |       |     | X   |
| .1344                   | 624.37     | X            |    | X  | X  | X  |     |     |        |         |        |       |     |     |
| .1343                   | 631.22     | X            |    | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1342                   | 635.97     | X            |    | X  | X  |    |     | X   |        |         |        |       |     |     |
| .1338                   | 650.52     | X            |    | X  | X  |    |     |     |        |         |        |       |     | X   |
| .1337                   | 653.10     | X            | X  | X  | X  |    |     |     |        |         |        |       |     |     |
| .1334                   | 666.94     | X            |    | X  | X  |    |     |     | X      |         |        |       |     |     |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C27. continued**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>5 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1431                   | 273.01     | X            |    | X  | X  |    |     |     |        |         | X      |       | X   |     |
| .1417                   | 330.97     | X            |    | X  | X  |    |     |     |        | X       | X      |       |     |     |
| .1406                   | 377.10     | X            |    | X  | X  |    | X   |     |        |         | X      |       |     |     |
| .1401                   | 395.76     | X            |    | X  | X  |    |     | X   |        |         | X      |       |     |     |
| .1397                   | 410.86     | X            |    | X  | X  |    |     |     |        |         | X      |       | X   |     |
| .1396                   | 414.89     | X            | X  | X  | X  |    |     |     |        |         | X      |       |     |     |
| .1393                   | 426.39     | X            |    | X  | X  |    |     |     |        |         | X      | X     |     |     |
| .1392                   | 433.45     | X            |    | X  | X  | X  |     |     |        |         | X      |       |     |     |
| <b>6 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1460                   | 158.39     | X            |    | X  | X  |    |     |     |        | X       | X      |       | X   |     |
| .1451                   | 194.62     | X            |    | X  | X  |    | X   |     |        |         | X      |       | X   |     |
| .1438                   | 247.90     | X            |    | X  | X  |    |     | X   |        |         | X      |       | X   |     |
| .1435                   | 260.37     | X            |    | X  | X  |    |     |     |        |         | X      |       | X   | X   |
| .1434                   | 262.62     | X            | X  | X  | X  |    |     |     |        |         | X      |       | X   |     |
| .1433                   | 266.07     | X            |    | X  | X  |    |     |     |        |         | X      | X     | X   |     |
| .1433                   | 267.28     | X            |    | X  | X  | X  |     |     |        |         | X      |       | X   |     |
| .1431                   | 273.89     | X            |    | X  | X  |    |     | X   |        |         | X      |       | X   |     |
| <b>7 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1479                   | 80.94      | X            |    | X  | X  |    | X   |     |        | X       | X      |       | X   |     |
| .1465                   | 136.12     | X            |    | X  | X  |    |     | X   |        |         | X      | X     |     | X   |
| .1464                   | 143.21     | X            |    | X  | X  |    |     |     |        |         | X      | X     |     | X   |
| .1462                   | 150.33     | X            | X  | X  | X  |    |     |     |        |         | X      | X     |     | X   |
| .1461                   | 152.73     | X            |    | X  | X  |    |     |     | X      | X       | X      |       |     | X   |
| .1461                   | 153.91     | X            |    | X  | X  | X  |     |     |        | X       | X      |       | X   |     |
| .1460                   | 155.94     | X            |    | X  | X  |    |     |     |        | X       | X      | X     | X   |     |
| <b>8 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1486                   | 53.81      | X            |    | X  | X  |    | X   | X   |        | X       | X      |       | X   |     |
| .1483                   | 64.45      | X            |    | X  | X  |    | X   |     |        | X       | X      |       | X   | X   |
| .1481                   | 71.63      | X            | X  | X  | X  |    | X   |     |        | X       | X      |       |     | X   |
| .1481                   | 75.12      | X            |    | X  | X  |    | X   |     | X      | X       | X      |       |     | X   |
| .1480                   | 77.48      | X            |    | X  | X  |    | X   |     |        | X       | X      | X     | X   |     |
| .1480                   | 78.69      | X            |    | X  | X  | X  | X   |     |        | X       | X      |       |     | X   |

**Note.** FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C27. continued**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>9 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1490                   | 39.51      | X            |    | X  | X  |    | X   | X   |        | X       | X      |       | X   | X   |
| .1488                   | 45.65      | X            | X  | X  | X  |    | X   | X   |        | X       | X      |       | X   |     |
| .1488                   | 47.62      | X            |    | X  | X  |    | X   | X   | X      | X       | X      |       | X   |     |
| .1487                   | 48.78      | X            |    | X  | X  | X  | X   | X   |        | X       | X      |       | X   |     |
| .1487                   | 50.61      | X            |    | X  | X  |    | X   | X   |        | X       | X      | X     | X   |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>10 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1492                   | 31.26      | X            | X  | X  | X  |    | X   | X   |        | X       | X      |       | X   | X   |
| .1492                   | 32.70      | X            |    | X  | X  |    | X   | X   | X      | X       | X      |       | X   | X   |
| .1491                   | 34.03      | X            |    | X  | X  | X  | X   | X   |        | X       | X      |       | X   | X   |
| .1491                   | 36.85      | X            |    | X  | X  |    | X   | X   |        | X       | X      | X     | X   | X   |
| .1490                   | 39.80      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      |       | X   |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>11 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1494                   | 24.80      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      |       | X   | X   |
| .1494                   | 24.82      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      |       | X   | X   |
| .1493                   | 26.91      | X            |    | X  | X  |    | X   | X   | X      | X       | X      | X     | X   | X   |
| .1493                   | 27.04      | X            |    | X  | X  | X  | X   | X   | X      | X       | X      |       | X   | X   |
| .1493                   | 28.83      | X            | X  | X  | X  |    | X   | X   |        | X       | X      | X     | X   | X   |
| .1492                   | 31.54      | X            |    | X  | X  | X  | X   | X   |        | X       | X      | X     | X   | X   |
| .1492                   | 33.71      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       | X   |     |
| .1492                   | 33.78      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      | X     | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>12 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1496                   | 18.20      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       | X   | X   |
| .1495                   | 19.37      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      | X     | X   | X   |
| .1495                   | 21.46      | X            |    | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1495                   | 22.58      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     | X   | X   |
| .1493                   | 27.91      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1490                   | 39.83      | X            | X  | X  | X  | X  |     |     | X      | X       | X      | X     | X   | X   |
| .1476                   | 96.15      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     | X   | X   |
| .1469                   | 125.95     | X            | X  | X  | X  | X  | X   | X   | X      |         | X      | X     | X   | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C28. All Subsets Regression of Youth Assets on Bicycle Helmet UseGR10**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| 1 Variable              |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0727                   | 2098.16    |              |    |    | X  |    |     |     |        |         |        |       |     |     |
| .0553                   | 2712.29    |              |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0445                   | 3092.62    | X            |    |    |    |    |     |     |        |         |        |       |     |     |
| .0280                   | 3674.78    |              |    |    |    |    |     |     |        |         | X      |       |     |     |
| .0268                   | 3715.04    |              | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0148                   | 4141.22    |              |    |    |    |    |     |     | X      |         |        |       |     |     |
| .0125                   | 4221.75    |              |    |    |    |    |     |     |        |         |        | X     |     |     |
| .0058                   | 4456.22    |              |    |    |    |    |     |     |        |         |        | X     |     |     |
| 2 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0994                   | 1160.17    | X            |    |    | X  |    |     |     |        |         |        |       |     |     |
| .0991                   | 1170.76    |              |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .0920                   | 1419.30    |              |    |    | X  |    |     |     |        |         | X      |       |     |     |
| .0833                   | 1726.64    |              |    |    |    | X  |     |     | X      |         |        |       |     |     |
| .0821                   | 1768.89    |              | X  |    | X  |    |     |     |        |         |        |       |     |     |
| .0779                   | 1916.07    |              |    |    |    | X  |     |     |        |         |        |       | X   |     |
| .0769                   | 1954.23    |              |    |    |    | X  |     |     |        |         |        |       | X   |     |
| .0760                   | 1982.56    |              |    |    |    | X  | X   |     |        |         |        |       |     |     |
| 3 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1144                   | 633.14     | X            |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .1067                   | 902.17     | X            |    |    | X  |    |     |     |        |         |        | X     |     |     |
| .1052                   | 956.28     | X            |    |    | X  |    |     |     |        | X       |        |       |     |     |
| .1034                   | 1021.35    | X            |    |    | X  |    |     |     |        |         |        |       | X   |     |
| .1011                   | 1100.62    | X            | X  |    | X  |    |     |     |        |         |        |       |     |     |
| .1009                   | 1106.48    | X            |    |    |    | X  |     |     |        |         |        |       |     | X   |
| .1006                   | 1117.77    | X            |    |    |    | X  | X   |     |        |         |        |       |     |     |
| .1003                   | 1130.33    | X            |    |    |    | X  |     |     |        |         |        |       | X   |     |
| 4 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1207                   | 411.08     | X            |    | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1200                   | 434.43     | X            |    | X  | X  |    |     |     |        | X       |        |       |     |     |
| .1173                   | 532.82     | X            |    | X  | X  |    |     |     |        |         |        |       | X   |     |
| .1167                   | 553.10     | X            |    | X  | X  |    |     |     |        |         |        |       |     | X   |
| .1154                   | 599.45     | X            |    | X  | X  | X  |     |     |        |         |        |       |     |     |
| .1152                   | 604.23     | X            |    | X  | X  |    |     |     | X      |         |        |       |     |     |
| .1151                   | 609.09     | X            |    | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1147                   | 623.11     | X            |    | X  | X  |    |     |     |        |         | X      |       |     |     |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C28. continued**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>5 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1243                   | 287.05     | X            |    | X  | X  |    |     |     | X      |         | X      |       |     |     |
| .1236                   | 311.98     | X            |    | X  | X  |    |     |     |        |         | X      |       | X   |     |
| .1228                   | 337.00     | X            |    | X  | X  |    |     |     |        |         | X      |       |     | X   |
| .1220                   | 365.30     | X            |    | X  | X  | X  |     |     |        |         | X      |       |     |     |
| .1216                   | 380.58     | X            |    | X  | X  |    |     | X   |        |         | X      |       |     |     |
| .1210                   | 400.16     | X            | X  | X  | X  |    |     |     |        |         | X      |       |     |     |
| .1207                   | 412.54     | X            |    | X  | X  |    |     |     |        | X       | X      |       |     |     |
| .1207                   | 412.54     | X            |    | X  | X  |    | X   |     |        |         | X      |       |     |     |
| <b>6 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1269                   | 194.83     | X            |    | X  | X  |    |     |     | X      |         | X      |       | X   |     |
| .1265                   | 209.67     | X            |    | X  | X  |    |     |     | X      |         | X      |       |     | X   |
| .1257                   | 238.05     | X            |    | X  | X  | X  |     |     | X      |         | X      |       |     |     |
| .1250                   | 262.66     | X            |    | X  | X  |    |     | X   | X      |         | X      |       |     |     |
| .1246                   | 276.04     | X            | X  | X  | X  |    |     |     | X      |         | X      |       |     |     |
| .1245                   | 280.41     | X            |    | X  | X  |    |     |     | X      |         | X      |       | X   |     |
| .1243                   | 286.67     | X            |    | X  | X  |    |     |     | X      | X       | X      |       |     |     |
| .1243                   | 287.64     | X            |    | X  | X  |    | X   |     | X      |         | X      |       |     |     |
| <b>7 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1296                   | 99.59      | X            |    | X  | X  |    |     |     | X      |         | X      |       | X   | X   |
| .1281                   | 153.12     | X            |    | X  | X  | X  |     |     | X      |         | X      |       | X   |     |
| .1274                   | 178.40     | X            | X  | X  | X  |    |     |     | X      |         | X      |       | X   |     |
| .1273                   | 181.02     | X            |    | X  | X  |    |     | X   | X      |         | X      |       | X   |     |
| .1271                   | 187.59     | X            |    | X  | X  |    |     |     | X      |         | X      | X     | X   |     |
| .1269                   | 195.16     | X            |    | X  | X  |    |     |     | X      | X       | X      |       |     | X   |
| .1269                   | 169.82     | X            |    | X  | X  |    | X   |     | X      |         | X      |       | X   |     |
| <b>8 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1310                   | 54.00      | X            |    | X  | X  | X  |     |     | X      |         | X      |       | X   | X   |
| .1302                   | 81.33      | X            |    | X  | X  |    |     | X   | X      |         | X      |       | X   | X   |
| .1301                   | 83.71      | X            | X  | X  | X  |    |     |     | X      |         | X      |       | X   | X   |
| .1299                   | 91.84      | X            |    | X  | X  |    |     |     | X      |         | X      | X     | X   | X   |
| .1296                   | 100.74     | X            |    | X  | X  |    |     |     | X      | X       | X      |       | X   | X   |
| .1296                   | 101.27     | X            |    | X  | X  |    | X   |     | X      |         | X      |       | X   | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C28. continued**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| 9 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1317                   | 30.02      | X            | X  | X  | X  | X  |     |     | X      |         | X      |       | X   | X   |
| .1313                   | 42.80      | X            |    | X  | X  | X  |     | X   | X      |         | X      |       | X   | X   |
| .1312                   | 45.29      | X            |    | X  | X  | X  |     |     | X      |         | X      | X     | X   | X   |
| .1310                   | 55.24      | X            |    | X  | X  | X  |     |     | X      | X       | X      |       | X   | X   |
| .1309                   | 55.95      | X            |    | X  | X  | X  | X   |     | X      |         | X      |       | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| 10 Variables            |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1321                   | 17.15      | X            | X  | X  | X  | X  |     | X   | X      |         | X      |       | X   | X   |
| .1319                   | 22.14      | X            | X  | X  | X  | X  |     |     | X      |         | X      | X     | X   | X   |
| .1317                   | 31.33      | X            | X  | X  | X  | X  |     |     | X      | X       | X      |       | X   | X   |
| .1317                   | 31.60      | X            | X  | X  | X  | X  | X   |     | X      |         | X      |       | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| 11 Variables            |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1323                   | 9.52       | X            | X  | X  | X  | X  |     | X   | X      |         | X      | X     | X   | X   |
| .1320                   | 18.68      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      |       | X   | X   |
| .1320                   | 18.89      | X            | X  | X  | X  | X  | X   | X   | X      |         | X      |       | X   | X   |
| .1319                   | 23.71      | X            | X  | X  | X  | X  |     |     | X      | X       | X      | X     | X   | X   |
| .1319                   | 23.73      | X            | X  | X  | X  | X  | X   |     | X      |         | X      | X     | X   | X   |
| .1316                   | 32.93      | X            | X  | X  | X  | X  | X   |     | X      | X       | X      |       | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| 12 Variables            |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1323                   | 11.25      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     | X   | X   |
| .1323                   | 11.26      | X            | X  | X  | X  | X  | X   | X   | X      |         | X      | X     | X   | X   |
| .1320                   | 20.42      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       | X   | X   |
| .1319                   | 25.32      | X            | X  | X  | X  | X  | X   |     | X      | X       | X      | X     | X   | X   |
| .1315                   | 37.99      | X            |    | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1309                   | 59.44      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      | X     | X   | X   |
| .1295                   | 109.87     | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1293                   | 115.59     | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C29. All Subsets Regression of Youth Assets on Bicycle Helmet UseGR11**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| 1 Variable              |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0656                   | 2082.11    |              |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0652                   | 2096.46    |              |    |    |    | X  |     |     |        |         |        |       |     |     |
| .0404                   | 2950.61    |              | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0321                   | 3236.29    | X            |    |    |    |    |     |     |        |         |        |       |     |     |
| .0244                   | 3499.61    |              |    |    |    |    |     |     |        |         |        | X     |     |     |
| .0201                   | 3647.43    |              |    |    |    |    |     |     |        |         |        |       | X   |     |
| .0085                   | 4047.77    |              |    |    |    |    |     |     |        | X       |        |       |     |     |
| .0076                   | 4080.55    |              |    |    |    |    |     |     |        |         |        | X     |     |     |
| 2 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1027                   | 808.18     |              |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .0792                   | 1614.93    |              |    | X  |    |    |     |     |        |         | X      |       |     |     |
| .0784                   | 1643.81    |              | X  |    |    |    |     |     |        |         |        |       | X   |     |
| .0782                   | 1649.23    | X            | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0712                   | 1892.54    |              | X  | X  |    |    |     |     |        |         |        |       |     |     |
| .0697                   | 1943.16    |              | X  |    |    |    |     |     |        |         |        |       | X   |     |
| .0693                   | 1957.05    |              | X  |    |    |    |     |     |        | X       |        |       |     |     |
| .0662                   | 2063.60    |              | X  |    |    |    |     |     |        |         |        |       |     | X   |
| 3 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1138                   | 428.21     |              |    | X  | X  |    |     |     |        |         |        | X     |     |     |
| .1127                   | 466.14     | X            |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .1089                   | 595.15     |              | X  | X  |    |    |     |     |        |         |        |       | X   |     |
| .1067                   | 670.85     |              | X  | X  |    |    |     |     |        |         |        |       | X   |     |
| .1062                   | 689.51     |              | X  | X  |    |    |     |     | X      |         |        |       |     |     |
| .1054                   | 717.02     | X            | X  | X  |    |    |     |     |        |         |        |       |     |     |
| .1029                   | 801.32     |              | X  | X  |    |    |     |     |        | X       |        |       |     |     |
| .1028                   | 804.43     |              | X  | X  |    |    |     | X   |        |         |        |       |     |     |
| 4 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1191                   | 246.78     |              | X  | X  |    |    |     |     |        |         | X      |       | X   |     |
| .1189                   | 252.12     | X            |    | X  | X  |    |     |     |        |         | X      |       |     |     |
| .1177                   | 293.18     | X            |    | X  | X  |    |     |     |        |         |        |       | X   |     |
| .1153                   | 375.45     |              | X  | X  | X  |    |     |     |        |         | X      |       |     |     |
| .1148                   | 392.55     |              | X  | X  |    |    |     |     | X      |         | X      |       |     |     |
| .1143                   | 412.36     |              | X  | X  |    |    |     |     |        |         | X      | X     |     |     |
| .1139                   | 424.68     |              | X  | X  |    |    |     | X   |        |         | X      |       |     |     |
| .1139                   | 425.11     |              | X  | X  |    |    |     |     |        |         | X      |       |     | X   |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C29. continued**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>5 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1236                   | 92.88      | X            |    | X  | X  |    |     |     |        |         | X      |       | X   |     |
| .1203                   | 206.58     |              |    | X  | X  |    |     |     | X      |         | X      |       | X   |     |
| .1202                   | 207.89     |              | X  | X  | X  |    |     |     |        |         | X      |       | X   |     |
| .1197                   | 226.17     |              |    | X  | X  |    |     |     |        |         | X      | X     | X   |     |
| .1193                   | 238.99     |              |    | X  | X  |    |     |     |        |         | X      |       | X   | X   |
| .1192                   | 244.71     |              |    | X  | X  |    | X   |     |        |         | X      |       | X   |     |
| .1191                   | 247.88     |              |    | X  | X  |    |     |     |        | X       | X      |       | X   |     |
| .1191                   | 248.13     |              | X  | X  |    |    | X   |     |        |         | X      |       | X   |     |
| <b>6 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1245                   | 62.64      | X            |    | X  | X  |    |     |     | X      |         | X      |       | X   |     |
| .1241                   | 76.52      | X            |    | X  | X  |    |     |     |        |         | X      | X     | X   |     |
| .1239                   | 80.91      | X            |    | X  | X  |    |     |     |        |         | X      |       | X   | X   |
| .1239                   | 81.65      | X            | X  | X  | X  |    |     |     |        |         | X      |       | X   |     |
| .1238                   | 84.73      | X            |    | X  | X  |    | X   |     |        |         | X      |       | X   |     |
| .1237                   | 89.96      | X            |    | X  | X  |    |     |     |        | X       | X      |       | X   |     |
| .1236                   | 91.38      | X            |    | X  | X  | X  |     |     |        |         | X      |       | X   |     |
| .1235                   | 94.87      | X            |    | X  | X  |    |     | X   |        |         | X      |       | X   |     |
| <b>7 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1249                   | 50.06      | X            |    | X  | X  |    |     |     | X      |         | X      |       | X   | X   |
| .1249                   | 50.24      | X            |    | X  | X  |    |     |     | X      | X       | X      |       | X   |     |
| .1248                   | 51.18      | X            | X  | X  | X  |    |     |     | X      |         | X      |       | X   |     |
| .1248                   | 54.03      | X            |    | X  | X  |    | X   |     | X      |         | X      |       | X   |     |
| .1247                   | 57.28      | X            |    | X  | X  |    |     |     | X      |         | X      | X     | X   |     |
| .1246                   | 60.83      | X            |    | X  | X  | X  |     |     | X      |         | X      |       | X   |     |
| .1244                   | 64.63      | X            |    | X  | X  |    |     | X   | X      |         | X      |       | X   |     |
| <b>8 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1253                   | 37.67      | X            | X  | X  | X  |    |     |     | X      | X       | X      |       | X   |     |
| .1253                   | 37.78      | X            |    | X  | X  |    |     |     | X      | X       | X      |       | X   | X   |
| .1252                   | 39.38      | X            | X  | X  | X  |    |     |     | X      |         | X      |       | X   | X   |
| .1251                   | 42.44      | X            |    | X  | X  |    | X   |     | X      |         | X      |       | X   | X   |
| .1250                   | 45.49      | X            |    | X  | X  |    |     |     | X      |         | X      | X     | X   | X   |
| .1249                   | 49.05      | X            |    | X  | X  | X  |     |     | X      |         | X      |       | X   | X   |
| .1248                   | 52.05      | X            |    | X  | X  |    |     | X   | X      |         | X      |       | X   | X   |

**Note.** FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C29. continued**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>9 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1256                   | 26.03      | X            | X  | X  | X  |    |     |     | X      | X       | X      |       | X   | X   |
| .1256                   | 27.18      | X            | X  | X  | X  |    | X   |     | X      | X       | X      |       | X   |     |
| .1255                   | 30.57      | X            |    | X  | X  |    | X   |     | X      | X       | X      |       | X   | X   |
| .1254                   | 33.02      | X            |    | X  | X  |    |     |     | X      | X       | X      | X     | X   | X   |
| .1253                   | 36.70      | X            |    | X  | X  | X  |     |     | X      | X       | X      |       | X   | X   |
| .1252                   | 39.75      | X            |    | X  | X  |    |     | X   | X      | X       | X      |       | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>10 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1259                   | 16.65      | X            | X  | X  | X  |    | X   |     | X      | X       | X      |       | X   | X   |
| .1258                   | 21.92      | X            | X  | X  | X  |    |     |     | X      | X       | X      | X     | X   | X   |
| .1258                   | 22.28      | X            | X  | X  | X  |    | X   |     | X      | X       | X      | X     | X   |     |
| .1257                   | 23.82      | X            | X  | X  | X  | X  |     |     | X      | X       | X      |       | X   | X   |
| .1256                   | 27.93      | X            | X  | X  | X  |    |     | X   | X      | X       | X      |       | X   | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| <b>11 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1261                   | 12.46      | X            | X  | X  | X  |    | X   |     | X      | X       | X      | X     | X   | X   |
| .1260                   | 15.48      | X            | X  | X  | X  | X  | X   |     | X      | X       | X      |       | X   | X   |
| .1259                   | 18.61      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      |       | X   | X   |
| .1259                   | 19.38      | X            | X  | X  | X  | X  |     |     | X      | X       | X      | X     | X   | X   |
| .1259                   | 20.04      | X            | X  | X  | X  | X  | X   |     | X      | X       | X      | X     | X   | X   |
| .1258                   | 23.79      | X            | X  | X  | X  |    |     | X   | X      | X       | X      | X     | X   | X   |
| .1257                   | 24.20      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      | X     | X   |     |
| .1257                   | 25.82      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      |       | X   | X   |
| <b>12 Variables</b>     |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1262                   | 11.00      | X            | X  | X  | X  | X  | X   |     | X      | X       | X      | X     | X   | X   |
| .1261                   | 14.39      | X            | X  | X  | X  |    | X   | X   | X      | X       | X      | X     | X   | X   |
| .1260                   | 17.48      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      |       | X   | X   |
| .1258                   | 21.37      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     | X   | X   |
| .1258                   | 22.04      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     |     | X   |
| .1257                   | 26.28      | X            | X  | X  | X  | X  | X   | X   | X      |         | X      | X     | X   | X   |
| .1257                   | 27.17      | X            |    | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1252                   | 42.37      | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     | X   | X   |

**Note.** FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C30. All Subsets Regression of Youth Assets on Bicycle Helmet UseGR12**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>1 Variable</b>       |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0773                   | 1590.02    |              |    |    | X  |    |     |     |        |         |        |       |     |     |
| .0365                   | 2781.91    |              |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0255                   | 3103.18    |              |    |    |    |    |     |     |        |         |        |       | X   |     |
| .0238                   | 3152.63    |              | X  |    |    |    |     |     |        |         |        |       |     |     |
| .0211                   | 3229.15    |              |    |    |    |    |     | X   |        |         |        |       |     |     |
| .0181                   | 3318.03    | X            |    |    |    |    |     |     |        |         |        |       |     |     |
| .0178                   | 3327.51    |              |    |    |    |    |     |     |        |         | X      |       |     |     |
| .0114                   | 3513.28    |              |    |    |    |    |     |     | X      |         |        |       |     |     |
| <b>2 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .0959                   | 1049.85    |              |    |    | X  |    |     | X   |        |         |        |       |     |     |
| .0925                   | 1148.29    |              |    | X  | X  |    |     |     |        |         |        |       |     |     |
| .0889                   | 1254.44    |              |    |    | X  |    |     |     |        |         |        | X     |     |     |
| .0879                   | 1282.45    | X            |    | X  |    |    |     |     |        |         |        |       |     |     |
| .0871                   | 1306.57    |              |    |    | X  |    |     |     |        |         |        |       | X   |     |
| .0865                   | 1323.59    |              | X  |    | X  |    |     |     |        |         |        |       |     |     |
| .0850                   | 1365.81    |              |    |    |    | X  | X   |     |        |         |        |       |     |     |
| .0826                   | 1436.37    |              |    |    | X  |    |     |     |        | X       |        |       |     |     |
| <b>3 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1090                   | 668.72     |              |    | X  | X  |    |     | X   |        |         |        |       |     |     |
| .1056                   | 765.61     |              |    |    | X  |    |     | X   |        |         |        |       | X   |     |
| .1048                   | 791.23     | X            |    |    | X  |    |     | X   |        |         |        |       |     |     |
| .1023                   | 862.07     |              | X  |    | X  |    |     | X   |        |         |        |       |     |     |
| .1023                   | 864.39     |              |    |    | X  |    |     | X   |        |         |        |       | X   |     |
| .1002                   | 923.80     |              |    |    |    | X  |     |     | X      | X       |        |       |     |     |
| .0999                   | 933.95     |              |    |    |    | X  | X   |     | X      |         |        |       |     |     |
| .0980                   | 988.80     |              |    |    | X  |    |     | X   | X      |         |        |       |     |     |
| <b>4 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1162                   | 459.34     |              |    | X  | X  |    |     | X   |        |         |        | X     |     |     |
| .1143                   | 512.69     |              |    | X  | X  |    |     | X   |        |         |        |       | X   |     |
| .1137                   | 531.51     | X            |    | X  | X  |    |     | X   |        |         |        |       |     |     |
| .1128                   | 559.23     |              |    | X  | X  |    |     | X   | X      |         |        |       |     |     |
| .1116                   | 593.60     |              |    | X  | X  | X  |     | X   |        |         |        |       |     |     |
| .1097                   | 646.90     |              |    | X  | X  | X  |     | X   | X      |         |        |       |     |     |
| .1095                   | 653.86     |              | X  | X  | X  |    |     |     | X      |         |        |       |     |     |
| .1093                   | 660.87     |              |    | X  | X  |    |     |     | X      |         | X      |       |     |     |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C30. continued**

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| <b>5 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1222                   | 285.46     |              |    | X  | X  |    |     | X   |        |         |        | X     |     | X   |
| .1189                   | 381.82     |              |    | X  | X  | X  |     | X   |        |         |        | X     |     |     |
| .1180                   | 406.36     | X            |    | X  | X  |    |     | X   |        |         |        | X     |     |     |
| .1180                   | 407.98     |              |    | X  | X  |    |     | X   |        | X       |        | X     |     |     |
| .1178                   | 412.07     |              |    | X  | X  |    |     | X   | X      |         |        | X     |     |     |
| .1169                   | 438.48     |              |    | X  | X  |    | X   | X   |        |         |        | X     |     |     |
| .1169                   | 440.07     |              |    | X  | X  |    |     | X   |        |         | X      |       | X   |     |
| .1164                   | 453.05     |              | X  | X  | X  |    |     | X   |        |         |        | X     |     |     |
| <b>6 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1243                   | 224.73     |              |    | X  | X  | X  |     | X   |        |         | X      |       | X   |     |
| .1238                   | 238.20     |              |    | X  | X  |    |     | X   |        | X       | X      |       | X   |     |
| .1237                   | 240.38     |              |    | X  | X  |    |     | X   | X      |         | X      |       | X   |     |
| .1237                   | 242.88     | X            |    | X  | X  |    |     | X   |        |         | X      |       | X   |     |
| .1228                   | 268.93     |              |    | X  | X  |    |     | X   |        |         | X      | X     | X   |     |
| .1225                   | 275.50     |              |    | X  | X  |    | X   | X   |        |         | X      |       | X   |     |
| .1225                   | 276.52     |              |    | X  | X  |    |     | X   |        |         | X      |       | X   | X   |
| .1222                   | 286.14     |              | X  | X  | X  |    |     | X   |        |         | X      |       | X   |     |
| <b>7 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1269                   | 150.24     |              |    | X  | X  |    |     | X   | X      | X       | X      |       | X   |     |
| .1261                   | 173.72     |              |    | X  | X  | X  |     | X   |        | X       | X      |       | X   |     |
| .1257                   | 185.55     |              |    | X  | X  | X  |     | X   | X      |         | X      |       | X   |     |
| .1256                   | 187.01     | X            |    | X  | X  | X  |     | X   |        |         | X      |       | X   |     |
| .1249                   | 208.13     |              |    | X  | X  | X  |     | X   |        |         | X      | X     | X   |     |
| .1246                   | 215.19     |              |    | X  | X  | X  |     | X   |        |         | X      |       | X   | X   |
| .1245                   | 220.20     |              |    | X  | X  | X  | X   | X   |        |         | X      |       | X   |     |
| .1243                   | 226.44     |              | X  | X  | X  | X  |     | X   |        |         | X      |       | X   |     |
| <b>8 Variables</b>      |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1289                   | 93.11      |              |    | X  | X  | X  |     | X   | X      | X       | X      |       | X   |     |
| .1276                   | 129.59     | X            |    | X  | X  | X  |     | X   |        | X       | X      |       | X   |     |
| .1264                   | 166.42     |              |    | X  | X  | X  |     | X   |        | X       | X      | X     | X   |     |
| .1263                   | 166.58     |              |    | X  | X  | X  |     | X   |        | X       | X      |       | X   | X   |
| .1263                   | 169.10     |              |    | X  | X  | X  | X   | X   |        | X       | X      |       | X   |     |
| .1261                   | 175.18     |              | X  | X  | X  | X  |     | X   |        | X       | X      |       | X   |     |

**Note.** FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.

**Table C30.** *continued*

| Adjusted R <sup>2</sup> | Mallows CP | Youth Assets |    |    |    |    |     |     |        |         |        |       |     |     |
|-------------------------|------------|--------------|----|----|----|----|-----|-----|--------|---------|--------|-------|-----|-----|
|                         |            | FC           | SB | TC | PI | SC | OAS | ECA | PPmorn | PPafter | PPmeal | PPbed | vol | rel |
| 9 Variables             |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1301                   | 59.12      | X            |    | X  | X  | X  |     | X   | X      | X       | X      | X     |     | X   |
| .1300                   | 59.89      |              |    | X  | X  | X  |     | X   | X      | X       | X      | X     | X   | X   |
| .1291                   | 87.14      |              |    | X  | X  | X  |     | X   | X      | X       | X      | X     |     | X X |
| .1291                   | 88.73      |              |    | X  | X  | X  | X   | X   | X      | X       | X      | X     |     | X   |
| .1288                   | 94.78      |              | X  | X  | X  | X  |     | X   | X      | X       | X      | X     |     | X   |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| 10 Variables            |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1314                   | 22.45      | X            |    | X  | X  | X  |     | X   | X      | X       | X      | X     | X   | X   |
| .1303                   | 52.65      | X            |    | X  | X  | X  |     | X   | X      | X       | X      | X     | X   | X X |
| .1303                   | 53.73      |              |    | X  | X  | X  |     | X   | X      | X       | X      | X     | X X | X X |
| .1302                   | 56.19      | X            |    | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   |     |
| .1300                   | 60.95      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     | X   |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
|                         |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| 11 Variables            |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1316                   | 15.75      | X            |    | X  | X  | X  |     | X   | X      | X       | X      | X     | X   | X   |
| .1315                   | 18.99      | X            |    | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X X |
| .1313                   | 24.31      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     | X   | X X |
| .1305                   | 47.53      |              |    | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X X |
| .1305                   | 48.73      | X            |    | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X X |
| .1303                   | 54.50      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     | X   | X X |
| .1303                   | 55.25      |              |    | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X X |
| .1302                   | 56.62      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X X |
| 12 Variables            |            |              |    |    |    |    |     |     |        |         |        |       |     |     |
| .1318                   | 11.24      | X            |    | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X   |
| .1316                   | 17.63      | X            | X  | X  | X  | X  |     | X   | X      | X       | X      | X     | X   | X X |
| .1315                   | 20.74      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X X |
| .1305                   | 49.26      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X X |
| .1305                   | 50.46      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X X |
| .1301                   | 60.01      | X            | X  | X  | X  | X  | X   | X   | X      | X       | X      | X     | X   | X X |
| .1290                   | 94.40      | X            | X  | X  | X  | X  | X   | X   | X      |         | X      | X     | X   | X X |
| .1285                   | 108.60     | X            | X  | X  | X  | X  | X   | X   |        | X       | X      | X     | X   | X X |

Note. FC = family connectedness; SB = school belonging; TC = teacher connectedness; PI = peer influences; PC= perceived competence; OAS = other adult support; ECA = extra curricular activities; PPmorn = parental presence in the morning; PPafter = parental presence after school; PPmeal = parental presence at meals; PPbed = parental presence at bedtime; vol = volunteerism; rel = religiosity.