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SOCIAL SUPPORT TRAJECTORIES AND SCHOOL OUTCOMES AMONG
URBAN, ELEMENTARY AGED YOUTH

by

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ABSTRACT OF THE DISSERTATION

Social Support Trajectories and School Outcomes Among

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The purpose of this study was to investigate the nature of social support trajectories among urban children during a one-year period and to determine whether these trajectories are associated with school-related adjustment. Conceptualizing support in this way provides important information about the developmental course of disadvantaged children that may not be obtained by analyses examining average changes in support over time. Participants included 402 students attending six elementary schools in an urban, low-economic school district. Students provided ratings of perceived social support from their family, teacher and peers during the fall and spring semesters of 2nd grade. Teacher ratings of academic competence, grades, and attendance records were collected during the fall and spring of 2nd grade and the spring of 3rd grade. Results indicated that although the majority of participants experienced consistent levels of ongoing perceived support, a substantial portion experienced categorically defined changes in support (i.e., support growth or decay). Membership in these trajectories was not related to gender, ethnicity, or socioeconomic status. Planned comparisons indicated that there were no significant

differences in school outcomes for any of the family support trajectories. However, when teacher, peer, and cumulative support trajectories were examined, several significant differences emerged. Children who perceived highly supportive relationships at the beginning of the year, followed by decay, demonstrated academic advantages when compared to children who perceived consistently low support. Further, early deficits in supportive relationships were associated with academic disadvantages that persisted, despite support growth. Results also indicated that children who perceived relative support constancy had better school outcomes compared to those who perceived relative growth or decay in support. Together, these findings suggest that children's history of support is associated with a level of academic competence and achievement that endures, at least for a short time, even when supportive resources change. This has important theoretical and practice implications for young children in urban contexts.

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Table of Contents

Abstract	ii
Acknowledgements	iv
List of Tables	vi
Introduction	1
Methods	21
Results	27
Discussion	46
Tables	63
Appendices	78
Bibliography	91
Curriculum Vita	96

List of Tables

Table 1:	Descriptive Statistics for Main Study Variables and Reliability Coefficients for Competence and Perceived support Scales	63
Table 2:	Correlation Matrix for Main Study Variables	64
Table 3:	Repeated Measures Analysis of Variance of Main Study Variables by Time and Gender	65
Table 4:	Repeated Measures Analysis of Variance of Main Study Variables by Time and Ethnicity	66
Table 5:	Repeated Measures Analysis of Variance of Main Study Variables by Time and Lunch Status	67
Table 6:	Summary of Frequency Distributions of Categorically Defined Social Support Trajectories	68
Table 7:	Summary of Frequency Distributions of Social Support Trajectories by Gender, Ethnicity, and Lunch Status	69
Table 8:	Descriptive Statistics for Categorically Defined Social Support Trajectories	70
Table 9:	Summary of Hierarchical Regression Analyses Examining Higher and Lower Support Trajectories as Predictors of School Outcomes	71
Table 10:	Summary of Hierarchical Regression Analyses Examining Consistently Lower and Decay Support Trajectories as Predictors of School Outcomes	72
Table 11:	Summary of Hierarchical Regression Analyses Examining Growth and Consistently Higher Support Trajectories as Predictors of School	73

Outcomes

Table 12:	Summary of Hierarchical Regression Analyses Examining Consistently Lower and Support Growth Trajectories as Predictors of School Outcomes	74
Table 13:	Summary of Hierarchical Regression Analyses Examining Support Decay and Consistently Higher Support Trajectories as Predictors of School Outcomes	75
Table 14:	Summary of Descriptive Statistics for Magnitude of Change Total Social Support Trajectories	76
Table 15:	Summary of Hierarchical Regression Analyses Examining Total Social Support Trajectories (i.e., decay, consistency and growth) as predictors of School Outcomes	77

Introduction

Longitudinal investigations offer insight into the factors that are associated with positive developmental outcomes among at-risk youth. According to Hirsch, DuBois, and Brownell (e.g., Hirsch, DuBois, & Brownell, 1993), longitudinal studies that consider distinct and potentially contrasting trajectories of change provide important information about the developmental course of different subgroups. Such information may not be obtained by analyses that consider average changes over time. A trajectory approach may be useful for gaining a deeper understanding of the importance of social support in the academic lives of urban at-risk children. Though no studies have investigated social support trajectories in this way, there is growing evidence that highly supported urban youth exhibit higher levels of social, emotional, and behavioral adjustment concurrently and over time (e.g., Demaray, Malecki, Davidson, Hodgson, & Rebus, 2005). Hence, the purpose of the proposed study is to investigate the nature of social support trajectories among urban children and their relationship to academic development over time.

Urban Communities

Social support is believed to play an important role in children's development of academic competence and their adjustment at school (e.g., Demaray & Malecki, 2002; Demaray et al., 2005; Dubow & Tisak, 1989; Dubow, Tisak, Causey, Hryshko, & Reid, 1991). However, its role may be most profound for children growing up in urban, minority, low-income communities, where the rates of risks and stressors are disproportionately high (Dubow & Tisak, 1989; Gonzales, Cauce, Friedman, & Mason, 1996; Wight, Botticello, & Aneshensel, 2006). These youth are forced to navigate highly

challenging conditions during a critical period of their development (Brookins, Petersen, & Brooks, 1997).

In particular, urban youth experience higher than average risk for academic failure (Brookins et al., 1997; Wang, Haertel, & Walberg, 1997). The effects of poverty, crime, delinquency, and violence are evident at all levels within these communities and have direct implications for children's academic development (Felner et al., 1995).

Disadvantaged urban families are often characterized by high levels of parent-child conflict and dysfunctional family interaction patterns, resulting in large part from the stresses associated with poverty and single parent homes (Felner et al., 1995; McLoyd, 1990). These youth are less likely to experience organized high quality preschool and daycare and more likely to come to school lacking in socialization skills (Evans, 2004; Wandersman & Nation, 1998). Consequently, teachers often need to expend a great deal of energy in discipline, which can lead to the development of authoritarian teacher-student relationships and uninspired pedagogy (Baker, 1999; Kozol, 2005). Furthermore, the challenges unique to urban environments often compete with children's ability to focus on school-related priorities and develop school-related competencies (Brookins et al., 1997).

Studies have shown that the presence of multiple environmental risk factors places children at increased risk for negative social, emotional, and academic outcomes (DuBois, Felner, Brand, Adan, & Evans, 1992; Sameroff, Bartko, Baldwin, Baldwin, & Seifer, 1998). Interestingly, data suggest that it is not any particular variable, but rather the number of risk factors that is associated with children's adjustment (Bry, McKeon, & Pandina, 1982; Rutter, 1987). For example, in a longitudinal study of children with

diverse backgrounds, Sameroff and colleagues found that the development of intellectual competence was strongly related to the accumulation of risk factors in a child's environment (Sameroff et al., 1998). Children with high levels of environmental risk factors scored 30 points lower on IQ tests than a matched group of children with no environmental risk factors. Given this framework, the accumulation of social support may reduce the negative effects associated with increasing levels of environmental risk, allowing children to experience a meaningful measure of academic and occupational success. Consistent with this view, two investigations found a negative relationship between cumulative social support deficits and children's academic, social, and emotional adjustment at school (Furrer & Skinner, 2003; Klein & Elias, manuscript in preparation).

Social Support Among Urban Youth

Broadly defined, social support refers to the range of significant interpersonal interactions that facilitate positive development and protect against negative outcomes (Barrera, 1986; Cobb, 1976; Cohen & Wills, 1985; Tardy, 1985). It has been described as an interpersonal process that allows children to feel cared for, accepted, and valued (Dubow & Tisak, 1989). Using an ecological framework, children's primary sources of support come from parents, teachers, and peers (Bronfenbrenner, 1979). Although the exact mechanisms remain under investigation, most theorists agree that supportive relationships are associated with children's development of school-related attitudes, beliefs, values, and competencies (Baumeister & Leary, 1998; Connell & Wellborn, 1991; Ryan & Deci, 2000; Sandler, Miller, Short, & Wolchik, 1989). In turn, these

personal and motivational resources are related to children's academic achievement and school-based adjustment.

Various methods exist for assessing children's social support, including behavioral observation, parent report, teacher report, and self-report. Among them, perceived support (i.e., self-report) is the only measure that provides information about children's worldview and their appraisal of supportive resources (Cauce, Reid, Landesman, & Gonzales, 1990; Dalton, Elias, & Wandersman, 2001). While the availability of supportive resources is important, it is the perception of ongoing social support that ultimately determines children's behavior. At a pragmatic level, day-to-day decisions about schoolwork depend on the integration of these appraisals with children's personal resources.

Cross-sectional Studies

Growing evidence suggests that highly supported urban children exhibit greater levels of adjustment. In general, cross sectional studies have shown that highly supported urban children exhibit more satisfaction, competence, and achievement at school than their less supported counterparts (Demaray & Malecki, 2002; Dubow & Tisak, 1989). Though distinct sources of support have been found to be differentially related to adjustment, the nature of these relationships are not consistent across studies (Demaray & Malecki, 2002; Dubow, Edwards, & Ippolito, 1997; Klein & Elias, manuscript in preparation). Perceived family support has been linked most consistently with emotional and behavioral adjustment, and to a lesser degree, academic achievement (Demaray & Malecki, 2002; Dubow et al., 1997). Perceived teacher support, rated by both students and teachers, has been linked to school satisfaction, behavioral adjustment, and to a lesser

degree, academic achievement (Baker, 1999; Demaray & Malecki, 2002; Dubow & Tisak, 1989; Esposito, 1999). In contrast, the relationship between perceived peer support and school related outcomes among urban children has been contradictory. Some studies identify a positive relationship between peer support and various emotional, behavioral, and academic indicators, while others document a negative relationship (Dubow et al., 1997; Dubow & Tisak, 1989). One possible explanation for these discrepant findings is the presence of a third unmeasured variable, such as peer group values, that defines the context in which peer support is provided and may ultimately moderate its relationship with school-related outcomes (Cauce & Srebnik, 1989; Gonzales et al., 1996; Steinberg, Dornbusch, & Brown, 1992).

Further, several studies have shown that the relationship between social support and children's adjustment may be important particularly for children experiencing heightened conditions of stress and disadvantage (DuBois, Felner, Meares, & Krier, 1994; Dubow et al., 1997; Dubow & Tisak, 1989; Malecki & Demaray, 2005). Under these circumstances, children with high levels of perceived family or teacher support tend to have less psychological distress and drug use, better grades, and fewer school absences and suspensions compared to their less supported counterparts (DuBois et al., 1992; Dubow & Tisak, 1989; Malecki & Demaray, 2005). Similarly, among children experiencing low levels of family support, those with supportive teacher relationships tend to exhibit better emotional and behavioral adjustment compared to those without supportive teacher relationships (Brand & Felner, 1996; DuBois et al., 1992; Hughes, Cavell, & Jackson, 1999). Together these findings have important implications for the significance of supportive family and teacher relationships among youth living in low-

income, urban communities where chronic stress levels, socioeconomic disadvantage, and family instability are most severe.

Longitudinal Studies

Longitudinal research suggests that highly supported urban children tend to have greater levels of school-related adjustment in the future (e.g., Demaray et al., 2005; Dubow et al., 1991). Some studies have examined social support at one point in time while others have examined the role of changes in social support over time.

Unfortunately, there has been wide variability across and within distinct sources of support and few studies have been conducted with urban, low-income elementary aged youth.

Social support at one point in time. Among existing studies, initial levels of perceived family support have been found to predict subsequent teacher-rated competencies (i.e., frustration tolerance, task orientation, and assertiveness), self-reported clinical adjustment (i.e., levels of anxiety, atypicality, locus of control, social stress, and somatization), and expectations for the future (Demaray et al., 2005; Dubow et al., 1991; Seidman, Lambert, Allen, & Aber, 2003). Yet, these same studies failed to find significant effects for grades, school dissatisfaction, and preparedness for class (Demaray et al., 2005; Dubow et al., 1991; Seidman et al., 2003). Nevertheless, these findings suggest that perceptions of family support are related to elements of urban children's adjustment over time.

There is also evidence that a relationship exists between early levels of teacher and peer support and children's adjustment during the first few years of elementary school. In an investigation of urban, minority children, Esposito (1999) found that the

teacher-rated quality of teacher-student relationships in kindergarten was related to ratings of school adjustment, academic competence, and academic achievement over a three-year period, although some relationships were more salient than others and there were differences over time. Another investigation of urban children found that sociometric ratings of peer acceptance in kindergarten were associated with academic performance, classroom work habits, and social behavior during 1st and 2nd grade (O'Neil, Welsh, Parke, Wang, & Strand, 1997). Yet, in a study of elementary aged youth living in urban and suburban communities, Dubow et al. (1991) failed to find a significant relationship between initial levels of perceived peer or teacher support and children's adjustment two years later. Despite inconsistencies, overall findings suggest that early supportive relationships at school may be related to future school success.

Changes in social support over time. Longitudinal investigations have also considered average changes in social support over time. Considering these changes may be important given the evidence that some children experience substantial changes in perceived support over periods as short as six-months (Demaray et al., 2005; DuBois et al., 2002; Levitt et al., 2005). These changes may be important for understanding future adjustment (Dubow et al., 1991).

In a two-year longitudinal study of social support and school related adjustment in urban and suburban elementary-aged youth, Dubow et al. (1991) found that considering changes in social support over time yielded somewhat different results compared to considering social support at one given point in time. Two sets of analyses were conducted. In one set, the authors examined the relationship between initial levels of perceived social support and subsequent levels of emotional, behavioral, and academic

adjustment. In the second set, they investigated whether changes over time in perceived social support from parents, teachers, and peers were related to changes over time in emotional, behavioral, and academic adjustment.

The results from the analyses examining initial levels of social support differed from those examining the changes in support over time. In the first set of analyses, Dubow et al. (1991) found that initial levels of total support were associated with student grade point average two years later, but not problem behavior or competence ratings. In contrast, the second set of analyses found that positive changes in total perceived social support predicted improvements in multiple adjustment indices, including teacher-rated problem behavior, competence, and grade point average. When looking at distinct sources of support, some differences were noted with regard to peer support, though family and teacher support findings were similar. In the first set of analyses, initial levels of peer support were not significantly related to any measures of future adjustment. In contrast, the second set of analyses revealed a significant relationship between increases in peer support and changes in multiple adjustment indices, including improvements in teacher-rated competence, parent and teacher ratings of problem behavior, and grade point average. Together, the findings from these two analyses suggest that children experience changes in perceived social support over time, and that such changes may be related to children's adjustment over time.

The importance of considering changes in social support is further supported by DuBois et al.'s (2002) two-year longitudinal study of 5th through 8th grade African American and Caucasian students living in an urban community. Using latent growth curve modeling, the authors investigated the relationship between initial levels and

changes in social support and subsequent measures of emotional and behavioral adjustment. Perceived parent, teacher, and peer support were assessed separately. Overall, they found that both initial levels of social support and rates of growth of social support were predictors of future emotional and behavioral problems. Interestingly, the relative balance in adult (i.e., parent and teacher) versus peer sources of support was related to children's adjustment. Specifically, children who experienced growth in peer relative to adult sources of support exhibited more externalizing behaviors. These findings are consistent with the notion that the relationship between peer support and adjustment may depend on other contextual factors.

Together, longitudinal research suggests that social support may be related to children's school outcomes over time. Although much of this work has examined social support at only one point in time, there is growing evidence that changes over time may be important for understanding subsequent levels of adjustment. At the same time however, these analyses are limited (Hirsch et al., 1993). In the following section, these limitations will be discussed and an alternative approach that considers trajectories of change will be suggested.

Trajectories of Social Support

Dubow et al.'s (1991) investigation of changes in social support focused on changes in the sample mean over time. In doing so, the authors obtained information about the average or modal trajectory of social support. While this approach offers improvements over examinations of social support at one point in time, it potentially masks underlying contrasting subgroup trajectories of change. For example, in a study of urban, Hispanic middle school students, Demaray et al. (2005) found that 30% of their

participants experienced substantial changes in social support: 14% reported increases of more than one standard deviation while 15% reported decreases of more than one standard deviation. However, these changes were not evident when they examined the average or modal trajectory of change. This likely was due to a balancing of respondents who experienced support growth with those who experienced support decline.

According to Hirsch, DuBois, and Brownell (1993), trajectory approaches potentially uncover distinctive information for identifying and understanding at-risk groups and informing the development of interventions and policy. Contrasting subgroup trajectories may be differentially related to adjustment and more common among particular groups. Under these conditions, the theoretical and practical implications for subgroups vary considerably.

Only one study has conceptualized the construct of social support in this way. Using data from the National Longitudinal Study of Adolescent Health, Cornwell (2003) investigated the relationship between parent and peer social support trajectories and depression among a nationally representative group of 7th through 12th grade students. He identified three trajectories of support (i.e., support growth, decay, and staticity) and posited that they are differentially related to depression because each trajectory results from different underlying social processes. As their names imply, growth refers to increases in support, decay refers to decreases in support, and staticity refers to no change. Within the latter group, Cornwell further differentiated among high, average, and low levels of on-going (i.e., static) support.

After controlling for initial levels of support, depression, gender, age, and ethnicity, Cornwell (2003) found that support change (i.e., growth and decay) had a

stronger relationship to depression compared to consistent levels of ongoing support. He also found that support decay had a stronger relationship to depression ratings than support growth, suggesting that the loss of social support is more poignant than gaining new or more supportive resources. The direction of these findings was similar for support from parents and friends, although parent support trajectories accounted for more of the variance in depression ratings than peer support. Although Cornwell's (2003) sample consisted of ethnically and socio-economically diverse adolescents, he did not investigate subgroup differences. By using trajectory analyses, Cornwell (2003) identified differential relationships for unique support trajectories which may not have emerged from analyses focused on modal trajectories of change.

Cornwell's (2003) study provides a useful framework for defining potential social support trajectories. Although no other studies have examined support in this way, some hypotheses about the differential effects of social support trajectories can be drawn from the few existing longitudinal studies of changes in social support among at-risk youth (e.g., Demaray et al., 2005; DuBois et al., 2002; Dubow et al., 1991). Empirical work in related areas (e.g., peer victimization) also provides insight into these processes (e.g., DeRosier, Kupersmidt, & Patterson, 1994; Juvonen, Nishina, & Graham, 2000).

Support Growth

Cornwell (2003) defined support growth as an increase in perceived social support over time. He proposed two social processes that bring about such changes: the forging of new relationships, including making a new friend or developing a new connection with a family member or teacher, and the strengthening of existing relationships, leading them to become more supportive over time. For urban, elementary

aged youth, increases in supportive resources at home may signal reductions in overall family risk, more favorable family interactions, or changes in perceived family roles (Dubow et al., 1991). Increases in peer and teacher support may reflect a growing capacity for meaningful relationships, increased importance of peer relationships, or the emergence of school policies and practices that foster safe and caring classroom communities. Motivational, attachment, and social learning theorists would presume that support growth leads to new opportunities for positive modeling, internalization of positive school related beliefs and attitudes, and reinforcement of social, emotional, and behavioral competencies needed for school success.

Growth in perceived social support has been associated with improvements in children's social, emotional, behavioral, and academic adjustment (DuBois et al., 2002; Dubow et al., 1991). Two studies investigating the relationship between cumulative support and school outcomes found that children who perceive more sources of social support as high tend to be more engaged, motivated, and academically successful (Furrer & Skinner, 2003; Klein & Elias, manuscript in preparation). Although both studies were cross sectional, their findings suggest that the accumulation of highly supportive relationships over time may be associated with improvements in adjustment. While these findings are not entirely consistent with studies that have found detrimental effects for peer support, this incongruity most likely is due to differences in the populations under investigation, including developmental level, neighborhood risk, minority status, ethnicity, and socioeconomic status, all of which affect the context in which peer support is provided (Cauce & Srebnik, 1989; Maton, Teti, Corns, Vieira-Baker, & Lavine, 1996).

Support for the positive relationship between support growth and adjustment also can be derived from Juvonen et al.'s (2000) longitudinal investigation of the cumulative effects of peer victimization among diverse, urban middle school students. This study examined the relationship between stability of perceived peer harassment and changes in psychological and school adjustment over a one-year period. Four trajectories of peer harassment were identified: stable victims, stable non-victims, old victims (i.e., victim to non-victim), and new victims (i.e., non-victim to victim). Juvonen et al. (2000) found that old victims were no different from stable non-victims on any psychological adjustment measures, suggesting that youth exposed to peer harassment earlier in the year were able to “recover” once victimization subsided. These findings indicate that children with early social support deficits (e.g., peer harassment) may be able to experience a meaningful measure of success over time.

Support Decay

Cornwell (2003) defined support decay as a decline in perceived social support over time that may reflect increasing negative social interactions, including rejection, neglect, and abuse. In general, children exposed to more negative interactions with their parents, teachers, and peers are less adjusted than their peers. In a study of kindergarten through 12th grade urban students, Kendall-Tackett and Eckenrode (1996) found that children neglected by their parents, according to state records, repeated more grades, had more disciplinary referrals, were suspended more often, and had lower grades than their non-maltreated counterparts. Similarly, children at high risk of verbal abuse from their teachers, as determined by peer nominations, have been found to be more delinquent and less academically competent than their non-maltreated counterparts (Brendgen, Wanner,

& Vitaro, 2006). Children with the highest ratios of observed negative to positive teacher interactions have been shown to be the least satisfied with school (Baker, 1999), while children who are rejected by their peers, as indicated by sociometric ratings, perform worse academically, miss more school, have poorer classroom work habits, exhibit less prosocial behavior, and experience more internalizing and externalizing problems compared to their non-rejected counterparts (DeRosier et al., 1994; O'Neil et al., 1997).

Urban elementary aged youth may be more likely to experience support decay given their higher than average exposure to ongoing risks and stressors (Felner et al., 1995; McLoyd, 1990). For these youth, decreases in supportive resources at home may signal an increase in family risk (e.g., single-parent home), less favorable family interactions (e.g., conflict), or traumatic events (e.g., loss of a parent). Decay in teacher support may reflect declines in school resources, deterioration of the school community, or changes in teaching practices. While declines in peer support may be a consequence of increased exposure to community violence (e.g., peer victimization), it also may reflect the unstable housing conditions of urban communities, which result in families experiencing frequent relocations.

Overall, decreases in social support have been associated with declines in social, emotional, behavioral, and academic adjustment (DuBois et al., 2002; Dubow et al., 1991). These relationships have been demonstrated across family and peer sources of support. However, the source of support may not be as important as the loss itself. For example, in a study of 4th through 6th grade predominantly minority, urban youth, Levitt et al. (2005) found that as youth moved toward less supportive profiles of perceived social support, they experienced increases in loneliness and declines in self-concept.

According to Cornwell's (2003) investigation of social support trajectories, support decay was a stronger predictor of adolescent's emotional well-being than support growth. The potency of this relationship is further supported by several studies of negative family interactions among at-risk youth (DuBois, Eitel, & Felner, 1994; Seidman et al., 2003). In a study of perceived positive and negative family processes, assessed by support and daily hassles respectively, Seidman et al. (2003) found that the number of family daily hassles prior to the transition to middle school was the strongest predictor of subsequent school-related adjustment, including self-esteem, perceived class preparedness, and grade point average. In a study of at-risk children, DuBois et al. (1994) found that perceived parental rejection was a stronger predictor of grades and absences two years later than perceived family support.

Evidence also suggests that children who experience declines in social support may be as maladjusted as those who experience chronically low levels of support. Two studies examining sociometric ratings of peer relationships found that the psychological adjustment of elementary and middle school children with acute exposure to negative peer interactions (i.e., peer rejection and victimization) was no different than the psychological adjustment of children with chronic exposure to negative peer interactions, though there were some differences in perceived self-worth and loneliness (DeRosier et al., 1994; Juvonen et al., 2000). Taken together, these findings suggest that children who perceive declines in support over time are more likely to experience poor developmental outcomes and may be as maladjusted as those experiencing persistently low levels of support.

Support Constancy

Cornwell (2003) defined support constancy as a lack of change in perceived social support. It may reflect contentment with the current situation, reluctance to change, or the inability to alter one's circumstances. Support constancy can be high, average, or low; each trajectory likely has different implications for children's adjustment.

Cornwell's (2003) investigation of social support trajectories indicated that changes in social support were stronger predictors of emotional adjustment than consistent levels of ongoing support. When compared to chronically average levels of social support, support growth and decay were associated with greater changes in depression ratings than chronically high and low support trajectories. However, definitive conclusions about the impact of consistently high or low support cannot be drawn from these findings because all trajectories were not compared.

Intuitively, one would assume that consistently high levels of perceived social support would be associated with the best outcomes among urban, elementary aged youth. Under these conditions, youth are more likely to feel safe and cared for, experience opportunities for positive modeling, internalize positive school related beliefs and attitudes, and receive reinforcement for prosocial and academic competencies. Empirical work in related areas suggests that chronically high levels of support are associated with the greatest levels of adjustment. For example, in a study of parental involvement among African American urban youth, Barnard (2004) found that the more years a parent was rated as involved in his or her child's elementary school education, the more likely that child was to graduate from high school. Similarly, in a longitudinal study of diverse elementary aged children, those who were stably accepted by their peers experienced the best social, behavioral, and academic outcomes (O'Neil et al., 1997).

Conversely, one would expect youth who experience chronically low levels of perceived social support to have the worst social, emotional, behavioral, and academic outcomes. These youth are less likely to feel loved and cared for and have fewer opportunities for positive modeling and reinforcement. Consistent with this notion, studies suggest that children who are chronically rejected or victimized experience the lowest levels of adjustment at school (DeRosier et al., 1994; O'Neil et al., 1997). Yet, these youth may not be more impaired than children who experience support decay (DeRosier et al., 1994; Juvonen et al., 2000).

The Current Study

Despite the challenging circumstances common to urban settings, many children grow up to experience educational and occupational success (Wang et al., 1997). The existing literature suggests that supportive relationships may be an important resource for at-risk youth. However, little is known about potentially distinct trajectories of social support and their association with adjustment over time. The purpose of the current study was to examine trajectories of social support and their relationship to school outcomes among urban, minority, low-income elementary aged children. This sample represents a largely understudied at-risk population during a critical period of academic development (Bloom, 1964; Lloyd, 1978). Gaining a deeper understanding of early elementary school experiences among these youth is of pivotal importance for prevention and policy.

More specifically, this study investigated the nature of distinct social support trajectories and their relationship to academic adjustment over time. Based on previous literature, three objectives were identified and several predictions set forth. The first objective was to examine the nature of trajectories of social support from family,

teachers, and peers during a one-year school period. It was predicted that trajectories reflecting support growth (i.e., low to high support), decay (i.e., high to low support), and constancy (i.e., no significant change) would emerge for family and peer support, although the majority of students would experience no change. Because no prior studies have examined trajectories of teacher support, no a priori hypotheses were advanced. Exploratory analyses examined potential gender, ethnicity, and socioeconomic differences among these trajectories. Although no predictions were made, group differences have been documented in prior studies with regard to the availability and receipt of social support at one given point in time (e.g., Cauce, Felner, & Primavera, 1982; Demaray & Malecki, 2002; Malecki & Demaray, 2005; Munsch & Wampler, 1993).

The second objective was to investigate the relationship between distinct social support trajectories and school outcomes. Five sets of comparisons were conducted for each source of support. First, school related outcomes among children reporting high levels of social support at the end of second grade (i.e., support growth and high levels of ongoing support) were compared to school related outcomes among children reporting low levels of social support at the end of second grade (i.e., support decay and low levels of ongoing support). It was predicted that children experiencing high levels of family and teacher support at the end of the year would demonstrate significantly better school outcomes than their less supported counterparts. Given the contradictory findings for peer support, no a priori hypotheses were suggested.

The second set of comparisons examined school related outcomes among children who perceived support growth over the school year to those who perceived ongoing

levels of high support. It was expected that the latter group would benefit more academically from the cumulative effects of high levels of ongoing support from family and teachers. No predictions are made for peer support.

Third, school related outcomes among children who perceived support decay over the school year were compared to those who perceived consistently low support. It was predicted that for each source of support, these groups would not differ significantly from one another.

Two other sets of support comparisons were made. In the fourth set, analyses were conducted to compare children experiencing support growth to those experiencing consistently low support. In the fifth set, children experiencing decay were compared to those reporting consistently high support. Because no prior studies have provided strong data for informing a priori hypotheses about the relationship between these particular trajectories and school outcomes, these final two sets of comparisons were considered exploratory.

The final objective of the proposed study was to examine cumulative social support trajectories. Two sets of analyses were conducted. The first utilized a categorical trajectory approach, where support trajectories were identified based on movement or stability between high or low levels of perceived total support. The differential effects of these cumulative trajectories were examined using the same a priori comparisons in the second objective described earlier. The second set of analyses used a magnitude of change approach, where support trajectories of growth, decay, and constancy were defined based on the relative change or stability of perceived total support. The differential effects of change and stability were examined. It was hypothesized that

change would have a greater impact than stability, though support decay would be most salient.

Methods

Participants and Setting

Data for the current study were collected as part of a longitudinal, action-research project focused on preventing youth violence by building social decision making skills and positive character in accordance with district mandates. The curriculum was delivered in part via a revised version of the Hallmark Corporation's video series, called "Talking with TJ", which is designed to prevent youth violence among elementary school children (Dilworth, Mokrue, & Elias, 2002). The program emphasizes group planning, appreciation of individual and group differences, and teamwork.

Data were collected during the fall and spring semesters of the 1999-2000 school year and the spring semester of the 2000-2001 school year. In the fall and spring of 1999, data were collected from second grade students attending 6 elementary schools in an urban school district in central New Jersey ($n = 461$). During the spring of 2000, the same students were assessed as third graders ($n = 420$).

The district has been designated by the state as a "special needs" area, consisting of predominantly minority, low-income families with children who are at statistically higher than average risk for problem behaviors and school disaffection, failure and dropout. Demographic data provided by the teachers indicated that 83.3% of the sample was Black and 16.7% was Hispanic. Fifty percent of the sample was female and 50% was male. The average age was 7.59 years ($SD = .55$). Seventy-two percent of participants received free or reduced cost lunch, indicating a high level of overall economic risk.

Seven participants were excluded from analyses because they were not Black or Hispanic. All participants missing more than seven study variables ($n = 59$) were

considered to have incomplete data and also were excluded from the analyses. Three two-way contingency table analyses were conducted to evaluate whether excluded participants differed from included ones in terms of gender (Pearson $\chi^2 (1, N = 461) = 2.19, p = .14$), ethnicity (Pearson $\chi^2 (1, N = 461) = .64, p = .42$), and socioeconomic status (Pearson $\chi^2 (1, N = 461) = .61, p = .44$). Because no significant relationships emerged, it was concluded that the sample of participants with complete data was representative of the total sample ($N = 402$).

Measures

The measures used in the current study included the Scale of Children's Social Support (SOCSS; Dubow & Ullman, 1989), the Social Skills Rating System (SSRS-T; Gresham & Elliott, 1990), and student report cards. Demographic information, including the child's age, gender, ethnicity, grade, and lunch status (i.e., eligibility for free or subsidized lunch) were collected from the teachers and school district. Children's lunch status was used as a proxy for socioeconomic status.

Social Support

The Social Support Appraisals scale (APP; Dubow & Ullman, 1989) of the Survey of Children's Social Support (SOCSS; Dubow & Ullman, 1989) was used to assess children's subjective appraisal of family, peer, and teacher support in the fall and spring of the 1999-2000 school year. Children responded to items using a Likert-type response scale ranging from *never* (1), to *sometimes* (3), to *always* (5). To reduce the likelihood of socially desirable responses, questions were worded using a "structure alternative" format (e.g., "Some kids feel left out by their friends, but other kids don't. Do you feel left out by your friends?").

The original APP contains 31 items representing Family, Peer and Teacher support factors. Dubow and Ullman (1989) evaluated its reliability and validity using a sample of third and fourth grade students from urban and suburban lower middle class school settings. Validity evidence includes moderate to high correlations with the corresponding subscales of Harter's (1985) social support scale for children, significant correlations between the peer support subscale and peer nominations of social preference, and moderate correlations with measures of self-esteem (Dubow & Ullman, 1989). Results did not differ by location or ethnicity, suggesting that these measures are appropriate for the current sample.

Due to time constraints, the current study used the shortened form of the APP, comprised of the 3 items with the highest factor loadings for Family, Teacher, and Peer Support factors (Dubow et al., 1997) (Appendix A). Coefficient alphas for the abbreviated family and peer support scales were .75 and .57 respectively; no data have been reported for the teacher support scale (Dubow et al., 1997). For the current sample, preliminary analyses suggested that the internal reliability of the peer support scale could be improved by deleting an item from the subscale (i.e., Do you feel very close to your friends?). Further, a two-way within-subjects analysis of variance revealed significant gender differences for this item, $F(1, 323) = 11.73, p < .05$, indicating that girls reported significantly more support at both time points compared to boys. Because significant gender differences were not exhibited for other peer support items, the statistically recommended change to drop the item was made. Coefficient alphas for the perceived social support scales used in this study ranged from .52 to .67, and are presented in Table 1. Because frequency distributions indicated that these scales were highly negatively

skewed, a square root transformation was conducted to normalize their distribution for data analyses. The results obtained using the transformed variables were virtually identical to those using the original variables, hence, the original variables were used in future analyses.

School Outcomes

The Academic Competence scale of the Social Skills Rating Scale—Teacher Form, (SSRS-TGresham & Elliott, 1990), was used to obtain teacher ratings of each student's academic status in the fall and spring of the 1999-2000 school year and the spring of 2000-2001 school year (Appendix B). The scale assessed teacher's perceptions of students' overall academic performance, reading and math skills, academic motivation, parental support, intellectual functioning, and overall classroom behavior. Teachers rated items on a 5-point scale based on percentage clusters, ranging from the *lowest 10%* (1), to the *middle 40%* (3) to the *highest 10%* (5). Overall competence scores were obtained by averaging ratings across nine items. For the Academic Competence scale, Gresham and Elliott (1990) found the coefficient alpha to be .95 and the test-retest reliability (4 weeks) to be .93. Evidence for the scale's validity includes moderate correlations with the Social Behavior Assessment (Stephens, 1978), the Harter Teacher Rating Scale (Harter, 1978), and the Child Behavior Checklist (Achenach & Edelbrock, 1983).

Due to time constraints at the final assessment point, a shortened form of the Academic Competence Scale was administered. Because the shortened scale was highly correlated with the original one ($r = .98$), the modified version was used for all time points. An additional item was dropped from the scale due to its shared variance with

social support items (i.e., “This child’s parental encouragement to succeed”). Coefficient alphas are reported in Table 1.

While standardized test scores have become more prominent indicators of academic performance at policy levels (e.g., high-stakes testing), student grades continue to signify the passage of academic subject areas and are used to make decisions regarding the promotion of individual students. Hence, students’ report card grades for reading and math were averaged to obtain an overall indicator of academic performance at each assessment point. Teachers evaluated each student on a 13-point letter grade scale, which was converted into a numerical scale for statistical purposes (i.e., A+ [4.5], A [4.0], A- [3.67], B+ [3.5], B [3.0], B- [2.67], C+ [2.5], C [2.0], C- [1.67], D+ [1.5], D [1.0], D- [.67], and F [0]).

Students’ attendance was used as a non-academic indicator of school outcomes at each assessment point. Because the frequency distribution indicated that student attendance was highly skewed (skewness = 2.25), a square root transformation was conducted to normalize its distribution and used in future data analyses.

Procedures

Data for this study were collected as part of a longitudinal social-emotional skills curriculum development program initiated by the school district. Assessments were conducted in October 1999 (Time 1), June 2000 (Time 2), and June 2001 (Time 3). Prior to assessment, the superintendent informed parents about the program’s purpose, their child’s involvement, and the nature of data collection. Passive consent was obtained from the parents of study participants, consistent with University Institutional Review Board procedures focused on maximizing participation of groups typically excluded from

research programs. Those who did not wish to allow their children to participate signed a form indicating their withdrawal (less than 5%).

Trained undergraduate research assistants administered the student surveys to small groups in the participants' classrooms. Research assistants read standardized instructions before beginning the questionnaires. They read each item aloud to the students as the surveys were completed, allowing enough time for students to indicate their responses. Teachers completed the SSRS-T and recorded demographic information for each student in their class. Teachers filled the ratings out on their own time and were compensated at the prevailing hourly rate.

Student surveys were administered in October 1999 and June 2000. Teacher surveys were administered at all three assessment points.

Results

Preliminary Analyses

Before statistical analyses were run to test the main study hypotheses, preliminary procedures were performed to examine the means and standard deviations of the entire sample, relationships among study variables, and potential demographic differences across ratings of perceived support and school outcomes. The means and standard deviations for all study variables are reported in Table 1. Descriptive analyses indicated that, on average, children perceived high levels of family and teacher support and moderate levels of peer support. Examination of academic competence indicated that, on average, teachers rated students' academic and learning behaviors within the middle 40 percent (i.e., "3" along a range from lowest [1] to highest [5]). The average student grade for math and English combined at each time point was in the "C+" to "B-" range. Finally, examination of absences indicated that, on average, students missed less than one day of school per month.

Pearson's product moment correlation analyses were performed to examine the interrelationships among main study variables and are reported in Table 2¹. All social support subscales were positively and significantly correlated at each time point, with the exception of parent and peer support at Time 1. However, the degree of correlation among support subscales was low ($.14 < r < .34$). In addition, support subscales at Time 1 were significantly and positively correlated with their respective subscales at Time 2, although the degree of correlation across time points was low ($.33 < r < .39$). Academic competence and grades were positively and significantly correlated at each time point,

¹ In the correlation matrix presented in Table 2, Time 1 and Time 2 Total Support variables represent the average level of support across all support items. Consequently, the reported correlations between Total Support and each subscale include the effects of overlapping support items.

demonstrating a high degree of correlation ($.69 < r < .79$). Absences were negatively and significantly correlated with academic competence and grades at each time point, with the exception of academic competence at Time 2; however, the degree of correlation was low. Academic outcomes were significantly and positively correlated with their respective scales at each point, although correlations were generally stronger between successive time points. The degree of correlation across time points was strong for academic competence and grades and moderate for absences. Finally, several significant and positive relationships emerged among social support and school outcome variables within and across time points, although the degree of correlation was low ($.10 < r < .27$).

Three sets of two-way within-subjects analyses of variance were conducted to examine the effect of demographic variables (i.e., gender, ethnicity, and lunch status) and time on ratings of perceived support². Significant gender differences emerged for perceived total ($F[1, 338] = 7.50, p < .01$) and family support ($F[1, 338] = 14.35, p < .05$), indicating that girls reported significantly more support at both time points than boys (Table 3). Analyses also revealed a significant gender x time interaction effect for teacher support ($F[1, 338] = 4.12, p < .05$), indicating that perceived teacher support among girls declined over time, while perceived teacher support among boys increased. There were no significant effects for ethnicity (Table 4) or lunch status (Table 5).

Three sets of two-way within-subjects analyses of variance also were conducted to examine the effect of demographic variables (i.e., gender, ethnicity and lunch status) and time on school outcomes. A significant time effect emerged for grades across all three sets of analyses. Paired-samples *t* tests indicated that all students experienced a

² Due to the unbalanced design, analyses of variance were computed using Type I Sums of Squares. However, results using Type III Sums of Squares produced virtually identical results.

significant decline in grades from Time 1 to Time 3 ($t [255] = 5.86, p < .01$) and Time 2 to Time 3 ($t [262] = 6.00, p < .01$). Significant gender effects emerged for academic competence ($F[1, 261] = 13.94, p < .01$) and grades ($F[1, 253] = 5.13, p < .05$), indicating that girls were perceived by teachers as more academically competent and earned higher grades compared to boys (Table 3). Significant ethnicity effects emerged for grades ($F[1, 253] = 5.67, p < .05$), indicating that Hispanic students had higher levels of academic performance at each time point compared to Black students (Table 4). Analyses also revealed a significant ethnicity x time interaction effect for academic competence ($F[2, 522] = 6.98, p < .01$), indicating that Hispanic students experienced growth in teacher ratings of academic competence over time, while Black students experienced a slight decline. Finally, there were significant main effects for lunch status and academic competence ($F[1, 261] = 8.49, p < .01$) and grades ($F[1, 253] = 5.74, p < .05$), revealing that children who did not receive free or subsidized lunch were perceived by teachers as more academically competent and earned higher grades compared to those who did (Table 5).

Main Analyses

Identification and Examination of Support Trajectories

The first objective of this study was to examine the nature of social support trajectories from family, teachers, and peers during a one-year school period. Trajectories were defined using a categorical index of change to reflect support growth (i.e., lower to higher support), decay (i.e., higher to lower support) and constancy (i.e., consistently higher or lower levels of support). Students were grouped into one of four trajectories based on their ratings of perceived support (i.e., higher or lower) from each source at

Time 1 and Time 2. To define “higher” and “lower” support, the mean, median, and mode for each source of support were examined (See Table 1). Across both time points, mean ratings of support ranged from 3.63 to 4.51, median ratings ranged from 4.00 to 5.00, and the mode was 5.00. Given this highly negatively skewed distribution, ratings of 4.00 or below were considered relatively low levels of support. Hence, higher support was defined as ratings equal to 5.00 (i.e., relationships that were rated as “always” supportive) and lower support³ was defined as ratings below 5.00 (i.e., relationships that were rated as supportive “most of the time,” “sometimes,” “hardly ever” or “never”).

Using the above definitions for “higher” and “lower” support, four trajectories were formed: growth, decay, consistently high, and consistently low. Participants reporting lower levels of perceived support at Time 1 (i.e., less than 5.00) and higher levels of perceived support at Time 2 (i.e., 5.00) were assigned to the growth trajectory. Participants reporting higher levels of support at Time 1 (i.e., 5.00) and lower levels of support at Time 2 (i.e., less than 5.00) were assigned to the decay trajectory. The consistently higher support trajectory was comprised of participants reporting higher support at Time 1 and 2 (i.e., 5.00), while the consistently lower support trajectory consisted of those experiencing lower support at Time 1 and 2 (i.e., less than 5.00).

Frequency distributions for each trajectory across all support sources are reported in Table 6. As predicted, most students experienced consistently higher or lower support, with the percentage of participants in these two groups ranging from 62.6% to 72%, depending on source of support. Within the constancy group, 22.6% to 53.8% experienced consistently higher support, while 18.2% to 42.6% experienced consistently

³ In the context of this sample, “lower” support was not necessarily low, but rather indicated the absence of high support.

lower support. Nonetheless, a substantial portion of participants experienced growth or decay. Specifically, across all sources of support, 15.3% to 22.3% experienced growth, while 12.6% to 15.9% experienced decay⁴.

Exploratory analyses using three sets of two-way contingency table analyses were conducted to examine gender, ethnicity, and socioeconomic differences among the trajectories for each source of support. The results are reported in Table 7. No significant relationships emerged, suggesting that the distribution of family, teacher, and peer support trajectories is unrelated to gender, ethnicity and lunch status⁵.

Family, Teacher, and Peer Support Trajectories and School Outcomes

The second objective of this study was to investigate the relationship between distinct support trajectories and school outcomes. Five sets of comparisons were conducted for each source of support. First, school outcomes among children reporting higher support at the end of second grade (i.e., support growth and consistently higher support) were compared to children reporting lower support at the end of second grade (i.e., support decay and consistently lower support). Based on the literature, it was

⁴ Additional analyses were conducted using alternative definitions of “higher” and “lower” support to determine whether such changes would affect the nature of these support trajectories. Higher support was defined as ratings equal to 4.00 or 5.00 (i.e., relationships that were rated as supportive “always” and “most of the time”) and lower support was defined as ratings lower than 4.00 (i.e., relationships that were rated as supportive “sometimes,” “hardly ever” or “never”). Using these modified definitions for “higher” and “lower” support, four trajectories were formed for growth, decay, consistently higher, and consistently lower support. Frequency distributions for the modified trajectories across all sources of support are reported in Appendix C. Consistent with reported analyses, most participants experienced consistently higher or lower levels of support. However, within the support constancy group, the percentage of participants reporting consistently higher support was larger than in the reported analyses, with distributions ranging from 46.5% to 82.9%. In addition, the percentage of participants reporting consistently lower support was smaller, with distributions ranging from 3.3% to 21.4%. Further, a smaller portion of participants experienced support growth or decay across all sources of support.

⁵ Three sets of two-way contingency table analyses were conducted to examine gender, ethnicity, and socioeconomic differences among the modified support trajectories. These results are reported in Appendix D. Results revealed gender differences among the trajectories that were not significant in the reported analyses. Specifically, boys were more likely to report consistently lower total support (Pearson χ^2 [1, $N = 340$] = 22.08, $p < .01$), family support (Pearson χ^2 [1, $N = 340$] = 15.24, $p < .01$) and teacher support (Pearson χ^2 [1, $N = 340$] = 12.09, $p < .01$) when compared to girls. Consistent with reported analyses, there were no significant differences among the trajectories related to ethnicity or socioeconomic status.

hypothesized that children experiencing higher family and teacher support would have better ratings of academic competence and grades and fewer school absences compared to those experiencing lower family and teacher support. Second, school outcomes among children reporting consistently lower support were compared to children reporting support decay. It was predicted that these groups would not differ significantly in terms of their academic competence ratings, grades, or school absences. Third, children experiencing consistently higher support were compared to children experiencing support growth. It was expected that the children with consistently higher support from their family and teachers would exhibit better academic competence ratings and grades and fewer school absences than those experiencing support growth. Finally, two sets of exploratory analyses were conducted. The first sought to compare children experiencing support growth to children experiencing consistently lower support and the second sought to compare children experiencing support decay to those reporting consistently higher support. Means and standard deviations of school outcomes at Time 2 and Time 3 for each support trajectory are reported in Table 8.

For each planned comparison, two approaches were employed. In the first approach, six sets of hierarchical regression analyses were conducted to predict each school outcome at Time 2 and Time 3 (i.e., academic competence, grades, and school absences) for each source of support (i.e., family, teacher, peer). Step one of these analyses sought to control for the relationship between demographic characteristics (i.e., gender, ethnicity, and lunch status) and each school outcome. In the second step of the analyses, a dummy variable representing the two trajectories being compared was added

to the model to determine whether these trajectories accounted for any additional variance in school outcomes.

For each planned comparison in the second approach, two sets of hierarchical regression analyses were conducted to predict a composite score of school outcomes at Time 2 and 3 for each source of support⁶. The composite was computed by first converting academic competence ratings, grades, and school absences to standard scores (i.e., a z-score), and then averaging these scores together at each time point. In step one of the regression analyses, demographic characteristics (i.e., gender, ethnicity, and lunch status) were entered to control for their relationship with the composite school outcome. In the second step of the analyses, a dummy variable representing the two trajectories being compared was added to the model to determine whether these trajectories accounted for any additional variance in the composite.

Higher versus lower support at the end of second grade. To examine predictions about children who reported higher versus lower support at the end of second grade, hierarchical regression analyses were conducted to evaluate whether these trajectory groupings accounted for a significant amount of variance in academic outcomes, over and above demographic variables (Table 9). Contrary to predictions, the results indicated that family support trajectories did not significantly predict Time 2 academic competence ($\Delta R^2 = .01^7$; $F[1, 319] = 3.20, p > .05$), grades ($\Delta R^2 = .00$; $F[1, 276] = .81, p > .05$), or school absences ($\Delta R^2 = .01$; $F[1, 248] = .38, p > .05$). However, family support

⁶ MANCOVA analyses examining the pattern of mean differences on school outcomes for each planned comparison are reported in Appendix E. Due to the lack of independence among 2 of the 3 school outcome variables (i.e., academic competence and grades), these results were not included in the main analyses. Further, these analyses revealed no additional information about the relationship between support trajectories and school outcomes.

⁷ ΔR^2 = Change (Delta) in R Squared

trajectories accounted for a significant portion of Time 3 academic competence variance ($\Delta R^2 = .02$; $F[1, 251] = 4.34$, $p < .05$), indicating that children with higher family support at the end of second grade had significantly better ratings of academic competence at the end of third grade compared to children with low family support at the end of second grade ($B = .30$, $SE [B] = .14$, $\beta = .12$, $t = 2.08$, $p < .05$). Family support trajectories were not significant predictors of Time 3 grades ($\Delta R^2 = .01$; $F[1, 276] = 2.84$, $p > .05$) or absences ($\Delta R^2 = .00$; $F[1, 249] = .22$, $p > .05$). Results also indicated that family support trajectories were not significant predictors of school outcome composite scores at Time 2 ($\Delta R^2 = .01$; $F[1, 331] = 2.61$, $p > .05$) or Time 3 ($\Delta R^2 = .01$; $F[1, 287] = 3.73$, $p > .05$).

Hierarchical regression analyses of teacher support trajectories indicated that, contrary to predictions, these trajectories were not significant predictors of Time 2 academic competence ($\Delta R^2 = .00$; $F[1, 318] = .52$, $p > .05$), grades ($\Delta R^2 = .00$; $F[1, 276] = .52$, $p > .05$), or absences ($\Delta R^2 = .00$; $F[1, 247] = .00$, $p > .05$), nor were they significant for Time 3 academic competence ($\Delta R^2 = .00$; $F[1, 250] = .65$, $p > .05$), grades ($\Delta R^2 = .00$; $F[1, 241] = .12$, $p > .05$), or absences ($\Delta R^2 = .00$; $F[1, 248] = .65$, $p > .05$). Analyses conducted to predict composite school outcomes scores also indicated that teacher support trajectories did not account for a significant portion of the school outcome composite variance at Time 2 ($\Delta R^2 = .00$; $F[1, 330] = .44$, $p > .05$) or Time 3 ($\Delta R^2 = .00$; $F[1, 286] = 1.31$, $p > .05$).

Finally, results indicated that peer support trajectories were not significant predictors of Time 2 academic competence ($\Delta R^2 = .01$; $F[1, 316] = 1.90$, $p > .05$), grades ($\Delta R^2 = .01$; $F[1, 276] = 2.13$, $p > .05$), or school absences ($\Delta R^2 = .00$; $F[1, 247] = 1.04$, $p > .05$), nor were they significant predictors of Time 3 academic competence ($\Delta R^2 = .01$;

$F[1, 248] = 1.68, p > .05$), grades ($\Delta R^2 = .01; F[1, 240] = 1.63, p > .05$), or school absences ($\Delta R^2 = .00, F[1, 247] = .85, p > .05$). Analyses conducted to predict composite school outcomes also indicated that peer support trajectories did not account for a significant portion of the school composite variance at Time 2 ($\Delta R^2 = .01, F[1, 328] = .28, p > .05$) or Time 3 ($\Delta R^2 = .01, F[1, 284] = 3.67, p > .05$).

Consistently lower support versus support decay. To examine predictions about children who reported consistently lower support versus those who reported support decay, hierarchical regression analyses were conducted to evaluate whether these trajectory groupings accounted for a significant amount of the variance in academic outcomes, over and above demographic variables (Table 10). Consistent with predictions, family support trajectories were not significantly related to Time 2 academic competence ($\Delta R^2 = .02, F[1, 95] = 2.37, p > .05$), grades ($\Delta R^2 = .02, F[1, 81] = 1.54, p > .05$), or school absences ($\Delta R^2 = .03, F[1, 75] = 2.13, p > .05$), nor were they were related to Time 3 academic competence ($\Delta R^2 = .02, F[1, 72] = 1.75, p > .05$) grades ($\Delta R^2 = .04 F[1, 71] = 3.55, p > .05$), or school absences ($\Delta R^2 = .02, F[1, 72] = .14, p > .05$). Further, family support trajectories did not account for a significant portion of the school composite variance at Time 2 ($\Delta R^2 = .02, F[1, 98] = 1.32, p > .05$) or Time 3 ($\Delta R^2 = .02, F[1, 84] = 2.01, p > .05$).

Also consistent with expectations, teacher support trajectories were not significantly related to Time 2 academic competence ($\Delta R^2 = .00, F[1, 169] = .50, p > .05$), or school absences ($\Delta R^2 = .00, F[1, 135] = .53, p > .05$), nor were they significantly related to Time 3 academic competence ($\Delta R^2 = .01, F[1, 132] = 1.19, p > .05$), grades ($\Delta R^2 = .03, F[1, 124] = .25, p > .05$), or school absences ($\Delta R^2 = .00, F[1, 129] = .01, p >$

.05). However, contrary to expectations, teacher support trajectories accounted for a significant amount of variance in grades at Time 2 ($\Delta R^2 = .03$, $F[1, 147] = 4.90$, $p < .05$), indicating that children with consistently low teacher support had lower grades at the end of second grade than those experiencing decay in teacher support ($B = .37$, $SE [B] = .17$, $\beta = .17$, $t = 2.21$, $p < .05$). Analyses conducted to predict composite school outcomes were not significant at Time 2 ($\Delta R^2 = .00$, $F[1, 178] = .21$, $p > .05$) or Time 3 ($\Delta R^2 = .01$, $F(1, 152) = .97$, $p > .05$).

Finally, results indicated that peer support trajectories were not significant predictors of Time 2 academic competence ($\Delta R^2 = .00$; $F[1, 162] = .18$, $p > .05$), grades ($\Delta R^2 = .00$; $F[1, 145] = .59$, $p > .05$), or school absences ($\Delta R^2 = .01$; $F[1, 131] = .88$, $p > .05$), nor were they significant predictors of Time 3 academic competence ($\Delta R^2 = .00$; $F[1, 130] = .33$, $p > .05$), grades ($\Delta R^2 = .00$; $F[1, 123] = .07$, $p > .05$), or school absences ($\Delta R^2 = .00$, $F[1, 126] = .17$, $p > .05$). Further, analyses conducted to predict composite school outcomes were not significant for outcomes at Time 2 ($\Delta R^2 = .01$, $F[1, 172] = 1.30$, $p > .05$) or Time 3 ($\Delta R^2 = .00$, $F[1, 152] = .03$, $p > .05$).

Consistently higher support versus support growth. In the third set of comparisons, children who reported consistently higher support were compared to those who experienced support growth (Table 11). Contrary to predictions, hierarchical regression analyses indicated that, after controlling for demographic variables, family support trajectories did not account for a significant amount of the variance in Time 2 academic competence ($\Delta R^2 = .00$, $F[1, 119] = .82$, $p > .05$), grades ($\Delta R^2 = .01$, $F[1, 190] = 1.81$, $p > .05$), or absences ($\Delta R^2 = .01$, $F[1, 168] = 1.04$, $p > .05$), nor did they account for a significant amount of the variance in Time 3 academic competence ($\Delta R^2 = .00$, $F[1, 174]$

= .95, $p > .05$), grades ($\Delta R^2 = .00$, $F[1, 166] = .32$, $p > .05$), or absences ($\Delta R^2 = .02$, $F[1, 172] = 3.83$, $p > .05$). Further, there were no significant relationships between family trajectories and composite school outcomes at Time 2 ($\Delta R^2 = .02$, $F[1, 228] = 3.73$, $p > .05$) or Time 3 ($\Delta R^2 = .01$, $F[1, 198] = 1.07$, $p > .05$).

In contrast, expected significant relationships emerged when hierarchical regression analyses were conducted to examine whether teacher support trajectories predicted Time 2 academic competence ($\Delta R^2 = .03$, $F[1, 144] = 9.62$, $p < .01$) and grades ($\Delta R^2 = .12$, $F[1, 123] = 17.82$, $p < .01$). These results indicated that children with consistently higher teacher support had better academic competence ratings ($B = .56$, $SE [B] = .18$, $\beta = .24$, $t = 3.10$, $p < .01$) and grades ($B = .68$, $SE [B] = .14$, $\beta = .16$, $t = 4.22$, $p < .01$) at the end of second grade compared to children experiencing support growth. There were no significant effects for Time 2 absences ($\Delta R^2 = .01$, $F[1, 107] = 1.30$, $p > .05$), nor were there significant effects for Time 3 academic competence ($\Delta R^2 = .02$, $F[1, 113] = 3.05$, $p > .05$), grades ($\Delta R^2 = .02$, $F[1, 112] = 2.83$, $p > .05$), or absences ($\Delta R^2 = .02$, $F[1, 114] = 2.00$, $p > .05$). Analyses conducted to predict composite school outcomes were significant for Time 2 ($\Delta R^2 = .08$, $F[1, 147] = 12.51$, $p < .01$), but not Time 3 ($\Delta R^2 = .01$, $F[1, 129] = 1.09$, $p > .05$), indicating that children with consistently high teacher support had better overall school outcomes at the end of second grade compared to children experiencing support growth ($B = .43$, $SE [B] = .12$, $\beta = .28$, $t = 3.54$, $p < .01$).

Significant effects also emerged when hierarchical regression analyses were conducted to examine whether peer support trajectories predicted Time 2 academic competence ($\Delta R^2 = .05$, $F[1, 149] = 8.15$, $p < .01$) and grades ($\Delta R^2 = .08$, $F[1, 124] = 12.79$, $p < .01$), but not absences ($\Delta R^2 = .01$, $F[1, 111] = .58$, $p > .05$). These findings

indicated that children with consistently higher peer support had better academic competence ratings ($B = .51$, $SE [B] = .18$, $\beta = .22$, $t = 2.86$, $p < .01$) and grades ($B = .54$, $SE [B] = .15$, $\beta = .29$, $t = 3.58$, $p < .01$) at the end of second grade compared to children experiencing support growth. Although no significant effects emerged for Time 3 academic competence ($\Delta R^2 = .01$, $F[1, 113] = 1.31$, $p > .05$) and grades ($\Delta R^2 = .01$, $F[1, 112] = .60$, $p > .05$), peer support trajectories accounted for a significant amount of the variance in Time 3 absences ($\Delta R^2 = .04$, $F[1, 116] = 4.57$, $p < .05$). Interestingly, these results indicated that children with consistently higher peer support had more school absences at the end of third grade compared to children experiencing support growth ($B = .19$, $SE [B] = .09$, $\beta = .19$, $t = 2.14$, $p < .05$). Finally, hierarchical regression analyses indicated that peer support trajectories were significantly related to composite school outcomes at Time 2 ($\Delta R^2 = .04$, $F[1, 151] = 5.97$, $p < .05$) and Time 3 ($\Delta R^2 = .04$, $F[1, 127] = 5.14$, $p < .05$); hence, children with consistently higher peer support had better overall school outcomes at the end of second ($B = .29$, $SE [B] = .12$, $\beta = .19$, $t = 2.44$, $p < .05$) and third grade ($B = .24$, $SE [B] = .11$, $\beta = .19$, $t = 2.27$, $p < .05$) compared to children experiencing support growth.

Support growth versus consistently lower support. Exploratory analyses were conducted to examine whether children who reported consistently lower support differed from those experiencing support growth (Table 12). Hierarchical regression analyses indicated that, after controlling for demographic variables, none of the trajectories (i.e., parents, teacher, and peers) accounted for a significant amount of the variance in school outcomes (i.e., academic competence, grades, and absences) at Time 2 or Time 3 (Table

12). Further, there were no significant relationships between support trajectories and composite school outcomes.

Support decay versus consistently higher support. Exploratory analyses also were conducted to compare children experiencing support decay to those reporting consistently higher support (Table 13). Results indicated that there were no significant relationships between any of the support trajectories and school outcomes.

Cumulative Support Trajectories and School Outcomes

To accomplish the final objective of this study, two approaches were used to investigate the relationship between cumulative social support trajectories and school outcomes. The first utilized a categorical trajectory approach, where trajectories were identified based on movement or stability between high and low total perceived social support as defined in objective two. The differential effects of these trajectories were examined using the same planned comparisons as described in objective 2. The second set of analyses examined the differential effects of support trajectories using a magnitude of change approach, where trajectories of growth, decay, and constancy were defined based on relative change or stability of total perceived social support, as described below.

Categorical change approach. To examine the differential effects of total support trajectories, participants were assigned to one of four trajectories (i.e., growth, decay, consistently higher and consistently lower) based on their ratings of total support at the beginning and end of second grade (i.e., higher or lower support). Total support was obtained by averaging ratings across all family, teacher, and peer support items⁸. For each of the five planned comparisons (see objective 2), hierarchical regression analyses were

⁸ For example, if a child's perceived family support rating was 4.67 (average of 3 items), perceived teacher support rating was 4.33 (average of 3 items), and perceived peer support rating was 4.0 (average of 2 items), then his total perceived support rating would be 4.38

conducted to predict school outcomes at Time 2 and Time 3 (i.e., academic competence, grades, and school absences), as well as school outcome composite scores. Step one of these analyses controlled for demographic characteristics (i.e., gender, ethnicity, and lunch status), while step two examined the effects of adding a dummy variable representing the two trajectories under comparison.

The first set of analyses compared the school outcomes of children who reported higher total support at the end of second grade to those who reported lower total support (Table 9). Contrary to expectations, the results indicated that after controlling for demographic variables, total support trajectories did not significantly predict Time 2 academic competence ($\Delta R^2 = .01$; $F[1, 319] = 2.43, p > .05$), grades ($\Delta R^2 = .01$; $F[1, 276] = 1.62, p > .05$), or school absences ($\Delta R^2 = .01$; $F[1, 248] = 3.16, p > .05$). In addition, these trajectories did not account for a significant amount of the variance in Time 3 academic competence ($\Delta R^2 = .01$; $F[1, 251] = 3.77, p > .05$), grades ($\Delta R^2 = .00$; $F[1, 242] = .41, p > .05$) or absences ($\Delta R^2 = .01$; $F[1, 249] = 3.29, p > .05$). Finally, there were no significant relationships with composite school outcomes at Time 2 ($\Delta R^2 = .00$; $F[1, 331] = .56, p > .05$) or Time 3 ($\Delta R^2 = .01$; $F[1, 287] = 3.41, p > .05$).

In the second set of analyses, children who reported consistently lower total support were compared to those who reported total support decay (Table 10). Consistent with predictions, total support trajectories were not significantly related to Time 2 academic competence ($\Delta R^2 = .02, F[1, 179] = 3.34, p > .05$) or school absences ($\Delta R^2 = .00, F[1, 148] = .25, p > .05$), nor were they related to Time 3 academic competence ($\Delta R^2 = .00, F[1, 141] = .04, p > .05$), grades ($\Delta R^2 = .02, F[1, 135] = 2.92, p > .05$), or school absences ($\Delta R^2 = .02, F[1, 139] = 2.32, p > .05$). However, hierarchical regression

analyses revealed that, after controlling for demographic variables, total support trajectories ratings accounted for a significant amount of variance in Time 2 grades ($\Delta R^2 = .03$, $F[1, 161] = 4.98$, $p < .05$), indicating that children who reported consistently lower total support had worse grades at the end of second grade than those who reported support decay ($B = .38$, $SE [B] = .17$, $\beta = .17$, $t = 2.23$, $p < .05$). No significant effects were found for composite school outcomes at Time 2 ($\Delta R^2 = .02$, $F[1, 189] = 3.11$, $p > .05$) or Time 3 ($\Delta R^2 = .00$, $F[1, 165] = .28$, $p > .05$).

Next, children who reported consistently higher support were compared to those experiencing support growth (Table 11). Consistent with expectations, hierarchical regression analyses indicated that, after controlling for demographic variables, total support trajectories accounted for a significant amount of the variance in Time 2 academic competence ($\Delta R^2 = .09$, $F[1, 135] = 14.21$, $p < .01$), Time 2 grades ($\Delta R^2 = .16$, $F[1, 110] = 21.58$, $p < .01$), and Time 3 academic competence ($\Delta R^2 = .03$, $F[1, 105] = 3.95$, $p < .05$). These results indicated that children with consistently higher support had better academic competence ratings ($B = .52$, $SE [B] = .20$, $\beta = .16$, $t = 2.67$, $p < .01$) and grades ($B = .76$, $SE [B] = .16$, $\beta = .40$, $t = 4.65$, $p < .01$) at the end of second grade, as well as better academic competence ratings ($B = .38$, $SE [B] = .19$, $\beta = .18$, $t = 1.99$, $p < .05$) at the end of third grade, compared to those who experienced support growth. There were no significant relationships between total support trajectories and Time 2 absences ($\Delta R^2 = .00$, $F[1, 95] = .24$, $p > .05$), Time 3 grades ($\Delta R^2 = .03$, $F[1, 102] = 3.29$, $p > .05$), or Time 3 absences ($\Delta R^2 = .00$, $F[1, 105] = .02$, $p > .05$). However, significant relationships emerged between total support trajectories and composite school outcomes at Time 2 ($\Delta R^2 = .11$, $F[1, 137] = 18.77$, $p < .01$; $B = .53$, $SE [B] = .12$, $\beta = .34$, $t = 4.33$,

$p < .01$) and Time 3 ($\Delta R^2 = .03$, $F[1, 117] = 4.14$, $p < .05$; $B = .22$, $SE [B] = .11$, $\beta = .18$, $t = 2.03$, $p < .05$).

Exploratory analyses were conducted to examine whether children who reported consistently lower support differed from those experiencing support growth (Table 12). Hierarchical regression analyses indicated that, after controlling for demographic variables, total support trajectories did not account for a significant amount of the variance in Time 2 academic competence ($\Delta R^2 = .00$, $F[1, 193] = .11$, $p > .05$), grades ($\Delta R^2 = .01$, $F[1, 165] = .94$, $p > .05$), or absences ($\Delta R^2 = .00$, $F[1, 151] = .44$, $p > .05$), nor did they account for a significant amount of the variance in Time 3 academic competence ($\Delta R^2 = .00$, $F[1, 146] = .08$, $p > .05$) or grades ($\Delta R^2 = .00$, $F[1, 153] = .00$, $p > .05$). However, there were significant effects for Time 3 absences ($\Delta R^2 = .03$, $F[1, 154] = 4.25$, $p < .05$), indicating that children who experienced total support growth had more school absences at the end of third grade than those who were consistently lower ($B = .18$, $SE [B] = .09$, $\beta = .16$, $t = 2.06$, $p < .05$). No significant relationships emerged for composite school outcomes at Time 2 ($\Delta R^2 = .01$, $F[1, 202] = 1.65$, $p > .05$) or Time 3 ($\Delta R^2 = .00$, $F[1, 172] = .33$, $p > .05$).

Finally, exploratory analyses compared children who reported support decay to those who reported consistently higher support (Table 13). Results indicated that, after controlling for demographic variables, these cumulative support trajectories did not account for a significant amount of the variance in Time 2 academic competence ($\Delta R^2 = .01$, $F[1, 121] = 1.49$, $p > .05$), grades ($\Delta R^2 = .02$, $F[1, 106] = 1.87$, $p > .05$), or absences ($\Delta R^2 = .04$, $F[1, 92] = 3.52$, $p > .05$), nor did they account for a significant amount of the variance in Time 3 grades ($\Delta R^2 = .00$, $F[1, 84] = .03$, $p > .05$) or absences ($\Delta R^2 = .00$,

$F[1, 906] = .00, p > .05$). However, there was a significant effect for Time 3 academic competence ($\Delta R^2 = .03, F[1, 100] = 3.97, p < .05$), indicating that children who reported consistently higher total support had better academic competence ratings at the end of second grade than those who reported support decay ($B = .39, SE [B] = .20, \beta = .18, t = 1.99, p < .05$). No significant relationships emerged for composite school outcomes at Time 2 ($\Delta R^2 = .01, F[1, 124] = 1.20, p > .05$) or Time 3 ($\Delta R^2 = .02, F[1, 110] = 2.49, p > .05$).

Magnitude of change approach. To examine relative change and stability in total perceived social support, new trajectories (i.e., growth, decay, and constancy) were formed based on each participant's magnitude of change in total perceived support from the beginning to the end of second grade. Growth was defined as change in support that was more than half of a standard deviation ($SD = .81$) greater than the mean change in total support ($M = .05$). Support decay was defined as change that was more than half of a standard deviation below the mean change in total support. Support constancy included all change that was within half of a standard deviation above and below the mean change in total support. Based on these definitions, 30.3% of participants experienced support growth, 29.7% experienced support decay, and 40% experienced no change in total support.

Hierarchical regression analyses were conducted to examine the relationship between distinct total support trajectories (i.e., growth, decay, and constancy) and school outcomes (i.e., academic competence, grades and school absences at Time 2 and Time 3). Step one controlled for the relationship between demographic characteristics (i.e., gender, ethnicity, and SES) and school outcomes. In the second step of the analyses, dummy

variables were entered to represent the presence or absence of support growth and decay. Support constancy was omitted from the analyses because it served as the reference group for the other dummy variables. Separate regressions were run for each school outcome variable at Time 2 and Time 3. Means and standard deviations of school outcome variables for each total support trajectory are reported in Table 14. Hierarchical regression analyses are reported in Table 15.

Analyses conducted to predict academic competence indicated that total support trajectories (i.e., growth, decay, and constancy) accounted for a significant amount of variance in these ratings at Time 2 ($\Delta R^2 = .05$, $F[2, 318] = 8.97$, $p < .01$), but not at Time 3 ($\Delta R^2 = .01$, $F[2, 250] = 1.90$, $p > .05$). Growth ($B = -.60$, $t = -4.16$, $p < .01$) and decay ($B = -.37$, $t = -2.50$, $p < .05$) emerged as significant predictors of Time 2 academic competence, over and above the effects of demographic variables. Specifically, children who reported growth in total support had significantly lower academic competence ratings at the end of second grade compared to those who reported support constancy. Children who reported support decay also had significantly lower academic competence ratings at the end of second grade compared to the children who reported support constancy. Contrary to expectations, the effect of support growth was greater than the effect of support decay.

Hierarchical regression analyses conducted to predict grades indicated that total support trajectories (i.e., growth, decay, and constancy) accounted for a significant amount of the variance in grades at Time 2 ($\Delta R^2 = .04$, $F[2, 275] = 5.78$, $p < .01$), but not at Time 3 ($\Delta R^2 = .01$, $F[2, 241] = 1.26$, $p > .05$). Growth ($B = -.46$, $t = -3.40$, $p < .01$), but not decay ($B = -.17$, $t = -1.27$, $p > .05$), emerged as a significant predictor of Time 2

grades, over and above the effects of demographic variables, indicating that children who reported growth in total support had significantly lower grades at the end of second grade compared to those who reported support constancy.

Finally, hierarchical regression analyses conducted to predict school absences indicated that total support trajectories (i.e., growth, decay, and constancy) did not account for a significant amount of the variance in absences at Time 2 ($\Delta R^2 = .02$, $F[2, 247] = 2.29$, $p > .05$) or Time 3 ($\Delta R^2 = .01$, $F[2, 248] = 1.49$, $p > .05$).

Discussion

The purpose of the current study was to investigate the nature of distinct social support trajectories among urban, minority, elementary-aged youth and to determine whether these trajectories were differentially related to school outcomes. Categorically defined trajectories reflecting support growth, decay, and constancy emerged, although the majority of participants perceived support constancy. Membership in these trajectories was not related to gender, ethnicity, or lunch status. Planned comparisons indicated that there were no significant differences in school outcomes among any of the family support trajectories. However, when teacher, peer, and cumulative trajectories were examined, several significant differences emerged. Children who perceived higher support early on (i.e., teacher, peer, or cumulative support), followed by a decay in support, demonstrated better academic outcomes than those who experienced consistently lower levels of support. In addition, children who experienced consistently higher support exhibited better academic outcomes than those who experienced growth, after starting the year with lower support. No clinically meaningful differences in school outcomes emerged when children who perceived consistently lower support were compared to those who perceived support growth (i.e., such differences in school outcomes are unlikely to capture the attention of parents, teachers, or clinicians). Nor were there clinically meaningful differences when children who reported support decay were compared to those who reported consistently higher support. Finally, magnitude of change analyses indicated that children who perceived cumulative support constancy had better school outcomes than those who perceived relative growth or decay in support.

Explanation of Current Results

Social Support Trajectories

Participants in the current study rated family, teacher, and, to a lesser degree, peer relationships as supportive “most of the time” or “always.” Although this highly negatively skewed distribution may reflect children’s true perceptions, it is possible that these scores reflect a response bias. Because family and teachers, in particular, are a significant presence in the lives of young children, participants may have been reluctant to indicate that they did not feel highly supported. This bias was less evident on the peer support subscale, perhaps because peers may not yet be considered a significant resource in the lives of second graders, at least not consciously or explicitly. It also is possible that these children do not yet have a basis for comparing the support they receive from others (i.e., they may not know or understand what they are “missing”).

Given the rate at which “always” supportive relationships were reported, anything less than “always” was considered “lower” support at that point in time. However, it is important to note that, in the context of this particular sample, although some children may have had truly low support, they were a minority. Hence, lower support was not necessarily low, but rather it indicated the absence of high support. Even accepting the inflated ratings of students about their support, those with lower support would not be characterized as feeling substantially unsupported.

That being said, the results from the current study suggest that although the majority of these urban elementary-aged children experienced consistent levels of ongoing perceived social support, a substantial portion experienced categorically defined changes in support over a one-year period. This is consistent with the findings reported

by Demaray et al. (2005) in their investigation of urban Hispanic adolescents. Closer examination of the current study's results revealed that 23% to 54% of the children experienced consistently higher support and 18% to 43% experienced consistently lower support, depending on the particular source of support. The relatively equal distribution of students across the two constancy trajectories was not surprising, given the evidence suggesting that urban families and schools often are characterized by deficits in supportive resources (Baker, 1999; Felner et al., 1995; McLoyd, 1990). It also was not surprising that there was an absence of significant relationships among support trajectories and demographic characteristics. Although prior studies have documented gender, ethnic, and socioeconomic differences in the perception and utilization of social support, no consistent patterns have been identified across studies (Cauce et al., 1982; Malecki & Demaray, 2005; Munsch & Wampler, 1993). Furthermore, although the current sample represented an understudied population, it was not necessarily ethnically or socioeconomically diverse: all participants were minority, low-income youth.

Family, Teacher, and Peer Support Trajectories and School Outcomes

In the first set of planned comparisons, children who perceived higher support at the end of second grade were compared to those who perceived lower support. In effect, these analyses examined support at one point in time (i.e., end of second grade) and its relationship to school outcomes. Because growing evidence points to better emotional and behavioral adjustment, and, to a lesser degree, academic achievement among highly supported urban children (i.e., family and teacher support), it was expected that the children who perceived higher support at the end of second grade would exhibit superior school outcomes. However, only one significant relationship emerged: children with

higher family support at the end of second grade had significantly better academic competence ratings at the end of third grade (i.e., overall academic performance, reading abilities, motivation to succeed, and classroom behavior). Moreover, this finding was relatively meager, accounting for only 2% of the variance in academic competence. That being said, this finding suggests that the perception of supportive family relationships at the end of second grade is associated with the emergence of school-related competencies by the end of third grade. Due to the absence of significant effects for grades, it may be concluded that these competencies were primarily behavioral and motivational in nature.

Although the absence of significant effects for teacher support was surprising, this may be explained by several factors. First, prior studies have shown that the strongest relationships between teacher support and school outcomes occur among children experiencing low family support (Brand & Felner, 1996; DuBois et al., 2002; Hughes et al., 1999). Thus, family risk may have moderated the strength of this relationship. Second, most prior studies have documented relationships between teacher support and school-related indices that are primarily socio-emotional, as opposed to academic (e.g., Demaray & Malecki, 2002; DuBois et al., 1994). This is potentially important because it suggests that without the activation of socio-emotional pathways, teacher support may not be a sufficient resource. Third, when the support variable was dichotomized (i.e., higher versus lower), predictor variance and statistical power was reduced. It also is possible that the relationship between support at one point in time and school outcomes is not linear; for example, relationships may only emerge at the very low end of support. Finally, inconsistencies with prior research may be due to the use of an abbreviated

teacher support scale: questions retained in the current analyses may not have assessed aspects of teacher support associated with school outcomes in other studies.

In the second set of analyses, children who perceived consistently lower support were compared to those who perceived support decay. Because prior studies have shown that children who experience acute negative peer relationships (e.g., victimization) are as maladjusted as those who experience chronic negative peer relationships (DeRosier et al., 1994; Juvonen et al., 2000), it was expected that children who reported support decay would have no academic advantage over those who reported consistently lower support. Contrary to expectations, significant effects emerged for teacher support trajectories, indicating that children who experienced decay in teacher support had significantly higher grades at the end of second grade compared to those who experienced consistently lower support. However, these effects only accounted for 3% of the variance in grades, and closer examination indicated that mean differences (i.e., a “B-” range versus a “B” range) were not clinically meaningful (i.e., such differences in grades are unlikely to capture the attention of parents, teachers, or clinicians). Furthermore, the disappearance of significant effects by third grade suggests that these advantages were not sustained long-term.

The third set of analyses compared children who perceived consistently higher support to those who perceived support growth. Given evidence that youth who have stable and highly supportive resources experience the best social, emotional, and behavioral outcomes (Barnard, 2004; O'Neil et al., 1997), it was expected that the consistently higher support group would exhibit significantly better school outcomes. However, contrary to predictions, the consistently higher family support group did not

have superior school outcomes. This may suggest that family support is necessary, but not sufficient for school success. In contrast, and as predicted, advantages in school outcomes emerged for children who perceived consistently higher teacher and peer support: each had significantly better academic competence ratings, grades, and composite school outcomes at the end of second grade, compared to those who perceived growth in teacher and peer support, respectively. Differences also emerged for peer support trajectories on composite school outcomes at the end of third grade. Teacher trajectories accounted for 3% of the variance in academic competence, 12% of the variance in grades and 8% of the variance in composite school outcomes. Peer trajectories accounted for 5% of the variance in academic competence, 8% of the variance in grades, and 4% in the variance of school composite scores at the end of second and third grade. These findings suggest that children's cumulative and historical experiences at school (i.e., with teachers and peers) are important: children do not function completely as a product of their current environment. The disappearance of significant differences in grades and academic competence ratings at the end of third grade suggests that the consistently higher support group no longer maintained its advantage. Significant effects also emerged for absences at the end of third grade. Although it is possible that children with more school absences (e.g., chronic illness) attract the support of concerned social partners, group differences in the current study were not clinically meaningful (i.e., both trajectories had less than one average monthly absence).

Two other sets of support comparisons were made. The first compared children who perceived consistently lower support with those who perceived support growth. The

second compared children who perceived support decay with those who perceived consistently higher support. No significant findings emerged for either set of analyses. This may suggest that children's support histories persisted, at least through the end of third grade, and that they possibly are more powerful than what happened during the course of the school year. Alternatively, these analyses may indicate that support trajectories are not significantly related to school outcomes, although this is inconsistent with the findings reported above. It also is possible that movement or stability in perceived support is only significant for a small subset of youth (e.g., children who reported that their relationships are "never" supportive), something that the current analyses would not be able to detect.

Cumulative Support Trajectories and School Outcomes

The final objective of the current study was to examine relationships between cumulative social support trajectories and school outcomes using two approaches: a categorical trajectory approach and a magnitude of change approach. In the first method, trajectories were defined based on movement or stability between higher and (relatively) lower perceived support. In the second, trajectories were defined based on relative change or stability (i.e., more or less than half of a standard deviation above or below the mean change) in support.

Categorical trajectory approach. The planned comparisons using cumulative support trajectories produced similar results to the comparisons using teacher and peer trajectories. First, the school outcomes of children who perceived higher total support at the end of second grade were no different than those who perceived lower total support. This was somewhat surprising given the findings from prior studies; however, it may be a

function of the limitations discussed above (e.g., abbreviated scales, dichotomized variables). It also may suggest that young children's perceptions of the overall supportiveness of their current environments (i.e., supportive relationships) are not good predictors of their school-related adjustment. Importantly, this implies that conceptualizing support as a static construct overlooks potentially important, underlying processes.

When children who perceived consistently lower total support were compared to those who perceived total support decay, significant differences emerged: children with consistently lower total support had significantly worse grades at the end of second grade. However, these effects only accounted for 3% of the variance in grades and were not clinically meaningful (i.e., such differences are unlikely to attract the attention of parents, teachers, or clinicians). Further, the disappearance of significant effects by third grade suggests that these advantages were not sustained long-term, or, after the decay, these children settled into a pattern resembling that of the consistently lower support group.

Analyses comparing children who perceived consistently higher total support to those who perceived growth in total support indicated that the former group had significantly better grades at the end of second grade, higher academic competence ratings at the end of second and third grade, and higher composite school outcomes at the end of second and third grade. These findings suggest that cumulative, stable, and highly supportive experiences during second grade are associated with advantages in academic outcomes at the end of the year, many of which are sustained through the following year. This provides further support to the notion that children do not function completely as a product of their current environment.

Exploratory analyses revealed that children who perceived total support growth had significantly more average monthly absences at the end of third grade compared to those who perceived consistently low total support. However, these effects only accounted for 3% of the variance and were not clinically meaningful (i.e., both groups had less than one average monthly absence). Additional exploratory analyses revealed that children who perceived consistently higher total support had significantly better academic competence ratings at the end of third grade compared to those who experienced support decay. However, these effects also only accounted for 3% of the variance. Thus, changes in perceived levels of overall support ratings during the second grade school year did not appear to be associated with advantages or disadvantages in school outcomes when compared to those who stayed the same. However, this did not last, as differences in academic competence, albeit quite small, began to emerge by the end of third grade.

Magnitude of change approach. The final set of analyses examined relative change and stability in total perceived support and whether these trajectories were differentially related to children's academic outcomes. As expected, a considerable portion of the participants experienced relative changes in support. However, the percentage of children who perceived changes in the current investigation was twice as large as the percentage of children who perceived changes in Demaray et al.'s (2005) study. One possible explanation is that support is less stable among younger children.

Overall, the magnitude of change trajectories accounted for a significant amount of the variance in academic competence ratings (i.e., 5%) and grades (i.e., 4%) at the end of second grade. Contrary to expectations, however, the results indicated that children

who perceived support constancy during second grade had significantly higher academic competence ratings and grades at the end of second grade compared to those who perceived relative growth. Further, children who perceived support constancy also had significantly higher grades at the end of second grade compared to those who perceived relative decay. It is important to note that closer examination of the distribution of participants within the constancy trajectory revealed that almost 50% of this group perceived consistently high support (i.e., support that was more than half of a standard deviation greater than the mean support score at both time points), 19% perceived consistently low support, and 32% perceived consistently average levels of support.

Analyses also revealed that the difference in school outcomes between those who experienced support constancy and relative growth was larger than the difference in school outcomes between those who experienced support constancy and relative decay. These results were surprising, given Cornwell's (2003) findings that support decay had the strongest relationship with adolescent depression ratings. Similar to the categorical analyses, these results suggest that for young children in urban contexts, at least, support histories may be more important than changes that occur during the school year.

Implications

Social support has been conceptualized, primarily, as a static construct whose role has been established through snapshots at one point in time. However, the findings from the current study suggest that support is part of a larger, dynamic process. As social learning theorists have long emphasized, it is through ongoing interactions with environmental resources (e.g., supportive or unsupportive relationships) that children develop expectancies about themselves and the world around them (Bandura, 1986).

These experiences form reinforcement histories, which directly, and indirectly, influence how children interpret the significance of environmental antecedents and consequences of behavior. Regular, positive, supportive interactions are likely to be associated with a sense of self worth, a sense of stability and predictability in life circumstances, and the ability to avoid negative experiences (Cohen & Wills, 1985). Without supportive environmental conditions, children may be less likely to develop the school-related attitudes, behaviors, and beliefs that are critical for academic, and ultimately occupational, success. This is particularly important for urban youth, who experience higher than average risk for a host of negative developmental outcomes.

The relationships that emerged between school-based support trajectories and school outcomes suggest that teachers and peers are particularly important resources for urban youth. However, these resources are best understood when they are conceptualized as contextual factors that interact with children in ongoing ways. Children who perceived highly supportive relationships with teachers and peers at the beginning of the year, followed by a decline in perceived support, demonstrated academic advantages when compared to children who perceived consistently low support. These findings are consistent with an inoculation model, whereby children's reinforcement histories potentially protect them, at least temporarily, from exhibiting declines in school outcomes. Further, early deficits in supportive relationships with teachers and peers were associated with disadvantages in school outcomes that persisted, despite increases in support during the year. Together, these patterns suggest that children's history of support from teachers and peers is associated with a level of academic competence and achievement that endures, for a short time, even when current environmental conditions

change. This is likely due to the development of a generalized set of expectancies about oneself and others that is only altered when changes in interactions with contextual factors are sustained consistently.

The current findings suggest that characteristics of children's primary developmental contexts are key factors in this complex puzzle and have important implications for the development of interventions. While strong partnerships among school administrators, teachers, parents, and community members will increase the likelihood that children will benefit from multiple supportive resources, schools are in a unique position to take a proactive stance in preparing students to develop supportive, lasting relationships. Recent work in the area of social-emotional learning (SEL) provides theoretical, research, and intervention guidance with regard to the creation of safe and supportive school and classroom environments and offers curriculum-based instruction focused on the skills students need for developing and maintaining supportive relationships (cf. www.casel.org for more information).

The current findings also suggest that a special emphasis should be placed on the development of supportive peer relationships. However, other factors deserve consideration, as prior research has demonstrated negative relationships between peer support and academic outcomes, at least among disadvantaged adolescents (Cauce et al., 1982; Dubow et al., 1997; Gonzales et al., 1996). Efforts might first focus on identifying and establishing a positive school culture so that peer support is aligned with academic achievement. This includes creating a climate and sets of opportunities for engagement that compete with other, potentially less compatible, peer group values. Interventions must begin early, but it is equally critical that efforts are sustained throughout elementary

school. Risk factors increase as children approach the transition to middle school (Jason, Danner, & Kurasaki, 1993), and, as the current findings indicate, the advantages of early supportive relationships cannot be sustained indefinitely.

Although family support trajectories were not associated with any advantages (or disadvantages) in school outcomes in the present study, previous research has indicated that supportive family resources are positively associated with emotional, behavioral, and to a lesser degree, academic, indicators (Demaray & Malecki, 2002; Dubow et al., 1997). Thus, supportive family environments may be necessary for academic success among urban youth, but they may not be sufficient. It is possible that families in urban communities underestimate the impact of their involvement in school-related matters due to their diminished faith in the education system's ability to contribute to their child's future. Furthermore, these families may not have the luxury of prioritizing school-related matters. Undoubtedly, the development of school-family-community partnerships is needed to address the chronic stressors and strains that deplete family resources and compete with school-related priorities. Efforts also are needed to restore urban families' faith in the education system by addressing and challenging current beliefs, in culturally sensitive and supportive ways, and by establishing a record of success in these communities.

Due to the correlational nature of the current study, no definitive conclusions can be drawn regarding directions of causality between support and school outcomes. It is possible that children who demonstrate higher academic competence and/or achievement elicit greater levels of support from their social partners. For example, in an investigation of at-risk adolescents, DuBois et al (1992) documented reciprocal effects for school

performance (i.e., GPA) on subsequent levels of peer support two years later. Hence, the effects of support may not be unidirectional, but rather may be best conceptualized as transactional.

Social support appears to be only part of a complex set of interconnected processes that likely are related to each other via transactional, direct, and indirect mechanisms. Because these processes do not occur in isolation, support should be considered a necessary, although not always sufficient, condition for school success among urban youth. As we continue to unpack the pieces of this puzzle, we move closer toward developing effective interventions will have lasting positive effects on urban children's developmental trajectories.

Suggestions for Future Research

Despite the vast literature investigating the nature of supportive resources among children and adolescents, few investigators, if any, have conceptualized social support as a dynamic process associated with children's adjustment at school. Yet, the current findings suggest that uncovering these underlying processes is an important step for understanding how support relates to emotional, behavioral, and academic outcomes. Systematic efforts are needed to understand the prevalence and nature of these trajectories, especially among young urban learners. Several research initiatives will illuminate theoretical and practice issues for this population.

First, sensitive, comprehensive, valid, and reliable social support measures must be developed and evaluated for these youth. Rather than assessing support globally, subscales should assess the frequency and importance of supportive behaviors provided by various social partners (e.g., Malecki & Demaray, 2002). Support from extended

family members (e.g., grandparents), who are often central to the family structure and development of competency among urban youth, should also be considered. Further, measures must be able to differentiate among high levels of support. While subjective appraisals of support provide important information about children's experiences, the inclusion of other indicators of support (e.g., parent and teacher-rated assessments) is desirable. This is particularly relevant for younger populations, where perceptions of support may not be accurate or stable. In the current study, for example, support correlations across time were low, suggesting that children's perceptions were variable.

The current findings must be replicated and extended. Special emphasis must be placed on the identification of unique support trajectories. In the current study, the frequency distribution of perceived support ratings guided the formation of categorical trajectories. However, this approach has its limitations. For example, there were some children in the consistently lower group (e.g., a rating of "4" at Time 1 and a rating of "2" at Time 2) who experienced less stable support compared to those in the decay group (e.g., movement from a "5" to a "4"). The utilization of advanced statistical methods (e.g., latent growth modeling) allows for the empirical identification of support trajectories. Nonetheless, it also will be important to determine critical levels of movement and stability in support using more idiographic approaches. In addition, more focused investigations aimed at identifying the support trajectory profiles of youth who are most at-risk youth (e.g., those experiencing school-failure) may reveal important information about the environmental circumstances of these children, including how interventions can be most effective. Since these children typically make up only a small

portion of the larger population, they often are overlooked by traditional linear analyses; however, they are no less important from a public health perspective.

Another compelling initiative is whether there are critical periods for social support trajectories and the academic achievement of disadvantaged students. For example, will consistently low levels of support in certain elementary school grade levels lead children to not only fall behind or remain behind academically, but also to lack the motivation and efficacy beliefs necessary to help them catch up as the work gets more challenging? Similar questions pertain to the nature of support trajectories during critical developmental transitions (e.g., middle school)

Research initiatives aimed at investigating mechanisms that moderate and mediate social support trajectories are also needed. The significance of support trajectories will be understood best when relevant ecological conditions and mechanisms of change are considered. This includes contextual factors (e.g., neighborhood risk, peer group values, family achievement orientation), as well as children's social (e.g., prosocial skills), emotional (emotion regulation), and personal (e.g., self-efficacy) resources. Although individual sources of support were examined independently in the current study, future work also is needed to examine potential compensatory and synergistic effects across multiple sources of support.

A final research consideration involves the use of experimental designs that can directly investigate the effects of social support on children's development of school-related competencies. Although controlled research designs in school settings require important ethical considerations (e.g., withholding interventions), conclusions regarding causality cannot be drawn without such investigations. Through the use of action-based

research studies, interventions can be piloted, evaluated, modified, and, ultimately, brought to scale.

Table 1

Descriptive Statistics for Main Study Variables and Reliability Coefficients for Competence and Perceived Support Scales

	<i>N</i>	Mean	Median	Mode	SD	Minimum	Maximum	α
Time 1 variables								
Total support	379	4.06	4.13	5.00	.76	1.00	5.00	.61
Family support	379	4.42	5.00	5.00	.95	1.00	5.00	.63
Teacher support	378	3.99	4.33	5.00	1.12	1.00	5.00	.52
Peer support	378	3.63	4.00	5.00	1.32	1.00	5.00	.56
Academic competence	384	3.29	3.00	3.00	1.09	1.00	5.00	.91
Grades	331	2.83	3.00	3.00	.91	0.00	4.50	
Absences	324	.79	.77	.45	.46	0.00	2.10	
Time 2 variables								
Total support	361	4.10	4.25	5.00	.75	1.00	5.00	.66
Family support	361	4.51	5.00	5.00	.82	1.00	5.00	.60
Teacher support	361	3.96	4.33	5.00	1.16	1.00	5.00	.65
Peer support	359	3.68	4.00	5.00	1.37	1.00	5.00	.67
Academic competence	366	3.29	3.25	5.00	1.16	1.00	5.00	.91
Grades	340	2.82	3.00	4.00	1.01	0.00	4.50	
Absences	304	.77	.77	0.00	.50	0.00	2.53	
Time 3 variables								
Academic competence	307	3.28	3.25	5.00	1.13	1.00	5.00	.90
Grades	293	2.50	2.50	3.00	1.08	0.00	4.50	
Absences	298	.82	.82	0.00	.50	0.00	2.12	

Table 2

Correlation Matrix for Main Study Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. T1TOT	1.00																
2. T1FS	.64**	1.00															
3. T1TS	.76**	.33**	1.00														
4. T1PS	.63**	.07	.23**	1.00													
5. T1AC	.22**	.16**	.20**	.11*	1.00												
6. T1GR	.13*	.05	.13*	.07	.70**	1.00											
7. T1AB	-.03	.01	-.05	-.02	-.23**	-.25**	1.00										
8. T2TOT	.42**	.32**	.33**	.24**	.12*	.10	-.17**	1.00									
9. T2FS	.28**	.38**	.19**	.05	.14*	.06	-.07	.65**	1.00								
10. T2TS	.30**	.17**	.34**	.09	.07	.13*	-.15*	.76**	.27**	1.00							
11. T2PS	.29**	.13*	.12*	.36**	.04	.01	-.11	.63**	.19**	.15**	1.00						
12. T2AC	.26**	.20**	.21**	.13*	.84**	.68**	-.24**	.15**	.15**	.09	.08	1.00					
13. T2GR	.22**	.11*	.19**	.15**	.71**	.73**	-.25**	.14*	.09	.11*	.08	.75**	1.00				
14. T2AB	.04	.07	-.02	.06	-.10	-.08	.46**	-.09	-.03	-.09	-.06	-.10	-.14*	1.00			
15. T3AC	.16**	.08	.13*	.10	.67**	.59**	-.24**	.19**	.15*	.12*	.13*	.71**	.68**	-.10	1.00		
16. T3GR	.13*	.06	.10	.09	.55**	.61**	-.22**	.14*	.12	.09	.08	.59**	.63**	-.12	.78**	1.00	
17. T3AB	.09	.13*	-.07	.13*	-.15**	-.23**	.48**	.04	.02	.04	.04	-.18**	-.23**	.48**	-.20**	-.24**	1.00

Variable names: T1TOT = Time 1 Total Support; T1FS = Time 1 Family Support; T1TS = Time 1 Teacher Support; T1PS = Time 1 Peer Support; T1AC = Time 1 Academic Competence; T1GR = Time 1 Grades; T1AB = Time 1 Absences; T2TOT = Time 2 Total Support; T2FS = Time 2 Family Support; T2TS = Time 2 Teacher Support; T2PS = Time 2 Peer Support; T2AC = Time 2 Academic Competence; T2GR = Time 2 Grades; T2AB = Time 2 Absences; T3AC = Time 3 Academic Competence; T3GR = Time 3 Grades; T3AB = Time 3 Absences; *p<.05, **p<.01

Table 3

Repeated Measures Analysis of Variance of Main Study Variables by Time and Gender

	Gender	Time 1		Time 2		Time 3		F-value (Time, Gender, Time x Gender)
		N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	
Total Support	Male	184	3.96 (.81)	176	4.04 (.77)			$F(1,338) = 1.21$
	Female	195	4.15 (.69)	185	4.16 (.73)			$F(1,338) = 7.50^{**}$ $F(1,338) = 2.54$
Family Support	Male	184	4.27 (1.11)	176	4.41 (.91)			$F(1,338) = 1.24$
	Female	195	4.56 (.74)	185	4.60 (.71)			$F(1,338) = 14.35^*$ $F(1,338) = 2.77$
Teacher Support	Male	184	3.79 (1.24)	176	3.91 (1.20)			$F(1,337) = .002$
	Female	194	4.18 (.95)	185	4.01 (1.13)			$F(1,337) = 7.42^{**}$ $F(1,337) = 4.12^*$
Peer Support	Male	183	3.74 (1.32)	174	3.67 (1.37)			$F(1,335) = 1.43$
	Female	195	3.53 (1.32)	185	3.70 (1.37)			$F(1,335) = .19$ $F(1,335) = .22$
Academic Comp	Male	188	3.08 (1.08)	182	3.04 (1.18)	145	3.02 (1.07)	$F(2,522) = .47$
	Female	196	3.49 (1.05)	184	3.53 (1.08)	162	3.51 (1.13)	$F(1,261) = 13.94^{**}$ $F(2,522) = .03$
Grades	Male	154	2.79 (.91)	159	2.70 (1.06)	146	2.36 (1.14)	$F(2,506) = 26.69^{**}$
	Female	177	2.85 (.91)	181	2.92 (.94)	147	2.63 (1.01)	$F(1,253) = 5.13^*$ $F(2,506) = 1.26$
Absences	Male	150	.87 (.79)	146	.85 (.95)	148	.96 (.87)	$F(2,472) = 1.91$
	Female	174	.82 (.84)	158	.84 (.83)	150	.89 (.89)	$F(1,236) = .77$ $F(2,472) = 2.18$

* $p < .05$, ** $p < .01$

Table 4

Repeated Measures Analysis of Variance of Main Study Variables by Time and Ethnicity

	Ethnicity	Time 1		Time 2		Time 3		F-value (Time, Ethnicity, Time x Ethnicity)
		N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	
Total Support	Black	317	4.05 (.77)	300	4.07 (.76)			$F(1,338) = 1.20$
	Hispanic	62	4.10 (.71)	61	4.25 (.66)			$F(1,338) = 2.16$ $F(1,338) = .46$
Family Support	Black	317	4.39 (.99)	300	4.47 (.84)			$F(1,338) = 1.23$
	Hispanic	62	4.56 (.72)	61	4.70 (.69)			$F(1,338) = 2.77$ $F(1,338) = .57$
Teacher Support	Black	316	3.98 (1.12)	300	3.91 (1.20)			$F(1,337) = .00$
	Hispanic	62	4.02 (1.10)	61	4.23 (.94)			$F(1,337) = 1.89$ $F(1,337) = .96$
Peer Support	Black	316	3.64 (1.31)	299	3.70 (1.37)			$F(1,335) = 1.43$
	Hispanic	62	3.59 (1.39)	60	3.63 (1.40)			$F(1,335) = .01$ $F(1,335) = .10$
Academic Comp	Black	320	3.28 (1.11)	306	3.23 (1.15)	256	3.18 (1.10)	$F(2,522) = .49$
	Hispanic	64	3.36 (.99)	60	3.56 (1.15)	51	3.78 (1.13)	$F(1,261) = 4.87^*$ $F(2,522) = 6.98^{**}$
Grades	Black	276	2.79 (.91)	284	2.75 (1.01)	243	2.45 (1.07)	$F(2,506) = 26.62^{**}$
	Hispanic	55	3.00 (.91)	56	3.14 (.92)	50	2.75 (1.11)	$F(1,253) = 5.67^*$ $F(2,506) = .58$
Absences	Black	271	.81 (.77)	249	.86 (.90)	246	.93 (.89)	$F(2,472) = 1.90$
	Hispanic	53	.97 (1.03)	55	.79 (.87)	52	.84 (.79)	$F(1,236) = .23$ $F(2,472) = 1.53$

* $p < .05$, ** $p < .01$

Table 5

Repeated Measures Analysis of Variance of Main Study Variables by Time and Lunch Status

	SES	Time 1		Time 2		Time 3		F-value (Time, SES, Time x SES)
		N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	
Total Support	Free/Red	271	4.02 (.74)	258	4.08 (.73)			$F(1,338) = 1.21$
	Null	108	4.17 (.78)	103	4.15 (.80)			$F(1,338) = 1.84$ $F(1,338) = 1.29$
Family Support	Free/Red	271	4.37 (.96)	258	4.52 (.78)			$F(1,338) = 1.24$
	Null	108	4.53 (.93)	103	4.48 (.93)			$F(1,338) = .28$ $F(1,338) = 1.89$
Teacher Support	Free/Red	270	3.99 (1.10)	258	3.96 (1.17)			$F(1,337) = .00$
	Null	108	3.40 (1.16)	103	3.98 (1.17)			$F(1,337) = .05$ $F(1,337) = .40$
Peer Support	Free/Red	270	3.56 (1.33)	257	3.60 (1.41)			$F(1,335) = 1.43$
	Null	108	3.83 (1.29)	102	3.90 (1.24)			$F(1,335) = 3.29$ $F(1,335) = .04$
Academic Comp	Free/Red	272	3.24 (1.06)	262	3.23 (1.15)	226	3.19 (1.14)	$F(2,522) = .48$
	Null	112	3.41 (1.15)	104	3.43 (1.17)	81	3.54 (1.05)	$F(1,261) = 8.49^{**}$ $F(2,522) = .21$
Grades	Free/Red	236	2.76 (.90)	243	2.74 (1.01)	212	2.43 (1.06)	$F(2,506) = 26.62^{**}$
	Null	95	2.99 (.92)	97	3.01 (.99)	81	2.69 (1.12)	$F(1,253) = 5.74^*$ $F(2,506) = .56$
Absences	Free/Red	232	.88 (.87)	212	.88 (.92)	215	.95 (.87)	$F(2,472) = 1.89$
	Null	92	.75 (.64)	92	.77 (.82)	83	.83 (.88)	$F(1,236) = 2.97$ $F(2,471) = .27$

Free/Red = Receive free or reduced lunch; Null = Do not receive free or reduced lunch;

* $p < .05$, ** $p < .01$

Table 6

Summary of Frequency Distributions of Categorically Defined Social Support Trajectories

	Total Support	Family Support	Teacher Support	Peer Support
Consistently Lower	145 (42.6%)	62 (18.2%)	132 (38.9%)	129 (38.3%)
Decay	53 (15.6%)	43 (12.6%)	54 (15.9%)	51 (15.1%)
Growth	65 (19.1%)	52 (15.3%)	69 (20.4%)	75 (22.3%)
Consistently Higher	77 (22.6%)	183 (53.8%)	84 (24.8%)	82 (24.3%)

Trajectories defined based on movement between Time1 and Time2 ratings of perceived social support: Consistently Lower = 1-1, 1-2, 1-3, 1-4, 2-1, 2-2, 2-3, 2-4, 3-1, 3-2, 3-3, 3-4, 4-1, 4-2, 4-3, 4-4; Decay: 5-1, 5-2, 5-3, 5-4; Growth = 1-5, 2-5, 3-5, 4-5; Consistently Higher = 5-5; *p<.05, **p<.01

Table 7

Summary of Frequency Distributions of Social Support Trajectories by Gender, Ethnicity, and Lunch Status

		Males		Females		χ^2	Black		Hispanic		χ^2	Null		Free/Red		χ^2
		Count	%	Count	%		Count	%	Count	%		Count	%	Count	%	
Total Support	LL	80	48.5%	65	37.1%	4.55	121	43.1%	24	40.7%	.55	33	34.0%	112	46.1%	7.40
	HL	24	14.5%	29	16.6%		45	16.0%	8	13.6%		19	19.6%	34	14.0%	
	LH	28	17.0%	37	21.1%		53	18.9%	12	20.3%		16	16.5%	49	20.2%	
	HH	33	20.0%	44	25.1%		62	22.1%	15	25.4%		29	29.9%	48	19.8%	
Family Support	LL	39	23.6%	23	13.1%	7.39	54	19.2%	8	13.6%	5.11	15	15.5%	47	19.3%	5.47
	HL	19	11.5%	24	13.7%		39	13.9%	4	6.8%		13	13.4%	30	12.3%	
	LH	27	16.4%	25	14.3%		39	13.9%	13	22.0%		9	9.3%	43	17.7%	
	HH	80	48.5%	103	58.9%		149	53.0%	34	57.6%		60	61.9%	123	50.6%	
Teach Support	LL	67	40.6%	65	37.4%	2.10	112	40.0%	20	33.9%	1.06	33	34.0%	99	40.9%	2.10
	HL	23	13.9%	31	17.8%		45	16.1%	9	15.3%		19	19.6%	35	14.5%	
	LH	37	22.4%	32	18.4%		56	20.0%	13	22.0%		21	21.6%	48	19.8%	
	HH	38	23.0%	46	26.4%		67	23.9%	17	28.8%		24	24.7%	60	24.8%	
Peer Support	LL	58	35.8%	71	40.6%	1.64	105	37.6%	24	41.4%	2.12	33	34.4%	96	39.8%	1.97
	HL	28	17.3%	23	13.1%		44	15.8%	7	12.1%		15	15.6%	36	14.9%	
	LH	35	21.6%	40	22.9%		65	23.3%	10	17.2%		20	20.8%	55	22.8%	
	HH	41	25.3%	41	23.4%		65	23.3%	17	29.3%		28	29.2%	54	22.4%	

Trajectories defined based on movement between Time1 and Time2 ratings of perceived social support: Consistently Lower (LL) = 1-1, 1-2, 1-3, 1-4, 2-1, 2-2, 2-3, 2-4, 3-1, 3-2, 3-3, 3-4, 4-1, 4-2, 4-3, 4-4; Decay (HL) = 5-1, 5-2, 5-3, 5-4; Growth (LH) = 1-5, 2-5, 3-5, 4-5; Consistently Higher (HH) = 5-5;

Null = Do not receive free or reduced lunch; Free/Red = Receive free or reduced lunch;

*p<.05, **p<.01

Table 8

Descriptive Statistics for Categorically Defined Social Support Trajectories

Trajectories		Total Support			Family Support			Teacher Support			Peer Support		
		N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
Time 2 Outcomes													
Acad Comp	Consistently Lower	133	3.09	1.20	60	2.93	1.23	121	3.21	1.20	118	3.23	1.14
	Decay	51	3.54	1.13	40	3.36	1.21	53	3.47	1.08	49	3.27	1.12
	Growth	65	3.13	1.07	50	3.23	1.21	67	3.06	1.13	74	3.15	1.08
	Consistently Higher	75	3.79	1.00	174	3.49	1.07	82	3.65	1.07	80	3.70	1.21
Grades	Consistently Lower	121	2.67	1.02	52	2.63	0.84	104	2.68	1.01	105	2.75	1.05
	Decay	45	3.12	0.86	34	2.91	0.99	48	3.16	0.90	45	2.87	0.97
	Growth	49	2.53	1.10	42	2.71	1.07	55	2.54	1.07	61	2.66	0.94
	Consistently Higher	66	3.33	0.66	153	2.99	0.99	73	3.22	0.73	68	3.25	0.83
Absences	Consistently Lower	113	0.78	0.50	48	0.72	0.53	97	0.77	0.50	97	0.75	0.45
	Decay	40	0.81	0.40	32	0.87	0.38	43	0.68	0.42	39	0.84	0.51
	Growth	43	0.71	0.51	36	0.65	0.48	51	0.79	0.48	56	0.75	0.56
	Consistently Higher	57	0.65	0.49	137	0.75	0.49	61	0.70	0.51	60	0.67	0.46
Time 3 Outcomes													
Acad Comp	Consistently Lower	102	3.13	1.12	45	2.90	1.01	91	3.30	1.14	94	3.32	1.12
	Decay	44	3.30	1.10	32	3.24	1.15	46	3.24	1.15	41	3.33	1.10
	Growth	49	3.30	1.07	39	3.39	1.18	51	3.21	1.10	60	3.32	1.10
	Consistently Higher	61	3.76	1.00	140	3.49	1.07	67	3.58	1.00	58	3.63	1.05
Grades	Consistently Lower	109	2.28	1.06	46	2.07	1.05	101	2.40	1.01	100	2.40	1.11
	Decay	38	2.61	1.08	33	2.47	1.08	36	2.36	1.19	34	2.24	1.08
	Growth	53	2.47	1.07	41	2.42	1.08	56	2.45	1.11	62	2.47	1.01
	Consistently Higher	58	2.75	0.88	138	2.63	0.99	64	2.67	0.94	60	2.71	0.91
Absences	Consistently Lower	107	0.73	0.53	44	0.79	0.46	99	0.79	0.50	98	0.76	0.48
	Decay	37	0.86	0.46	33	0.80	0.49	35	0.78	0.42	33	0.82	0.47
	Growth	52	0.88	0.49	40	0.68	0.52	55	0.90	0.57	62	0.75	0.53
	Consistently Higher	58	0.84	0.41	137	0.85	0.49	64	0.76	0.42	59	0.91	0.47

Table 9

Summary of Hierarchical Regression Analyses Examining Higher and Lower Support Trajectories as Predictors of School Outcomes

		Academic Competence			Grades			Absences		
		R^2	ΔR^2	F test	R^2	ΔR^2	F test	R^2	ΔR^2	F test
Time 2 Outcomes										
Total	1	.08		F(3,320) = 9.74**	.06		F(3, 277) = 6.09**	.01		F(3, 249) = .58
	2	.09	.01	F(1,319) = 2.43	.07	.01	F(1, 276) = 1.62	.02	.01	F(1, 248) = 3.16
Family	1	.08		F(3, 320) = 9.74**	.06		F(3, 277) = 6.09**	.01		F(3, 249) = .58
	2	.09	.01	F(1, 319) = 3.20	.07	.00	F(1, 276) = .81	.01	.00	F(1, 248) = .38
Teacher	1	.09		F(3, 319) = 9.83**	.06		F(3, 276) = 6.07**	.01		F(3, 248) = .52
	2	.09	.00	F(1, 318) = .52	.06	.00	F(1, 276) = .52	.01	.00	F(1, 247) = .00
Peer	1	.08		F(3, 317) = 9.50**	.06		F(3, 275) = 5.86**	.01		F(3, 248) = .59
	2	.08	.01	F(1, 316) = 1.90	.07	.01	F(1, 276) = 2.13	.01	.00	F(1, 247) = 1.04
Time 3 Outcomes										
Total	1	.12		F(3, 252) = 11.25**	.05		F(3, 243) = 4.52**	.01		F(3, 250) = .88
	2	.13	.01	F(1, 251) = 3.77	.05	.00	F(1, 242) = .41	.02	.01	F(1, 249) = 3.29
Family	1	.12		F(3, 252) = 11.25**	.05		F(3, 277) = 4.52**	.01		F(3, 220) = .88
	2	.13	.02	F(1, 251) = 4.34*	.06	.01	F(1, 276) = 2.84	.01	.00	F(1, 249) = .22
Teacher	1	.12		F(3, 251) = 11.19**	.05		F(3, 242) = 4.52**	.01		F(3, 249) = .88
	2	.12	.00	F(3, 250) = .65	.05	.00	F(1, 241) = .12	.01	.00	F(1, 248) = .65
Peer	1	.12		F(3, 249) = 10.86**	.05		F(3, 241) = 4.60**	.01		F(3, 248) = .87
	2	.12	.01	F(3, 248) = 1.68	.06	.01	F(1, 240) = 1.63	.01	.00	F(1, 247) = .85

Step 1: Gender, ethnicity and lunch status; Step 2: Support Trajectory;

* $p < .05$, ** $p < .01$

Table 10

Summary of Hierarchical Regression Analyses Examining Consistently Lower and Decay Support Trajectories as Predictors of School Outcomes

		Academic Competence			Grades			Absences		
		R^2	ΔR^2	F test	R^2	ΔR^2	F test	R^2	ΔR^2	F test
Time 2 Outcomes										
Total	1	.09		F(3, 180) = 5.96**	.07		F(3, 162) = 4.08**	.01		F(3, 140) = .39
	2	.11	.02	F(1, 179) = 3.34	.10	.03	F(1, 161) = 4.98*	.01	.00	F(1, 148) = .25
Family	1	.08		F(3, 96) = 2.82*	.08		F(2, 82) = 2.30	.03		F(3, 76) = .81
	2	.10	.02	F(1, 95) = 2.37	.10	.02	F(1, 81) = 1.54	.06	.03	F(1, 75) = 2.13
Teacher	1	.13		F(3, 170) = 8.46**	.10		F(3, 148) = 5.28**	.02		F(3, 136) = .73
	2	.13	.00	F(1, 169) = .50	.13	.03	F(1, 147) = 4.90*	.02	.00	F(1, 135) = .53
Peer	1	.07		F(3, 163) = 3.95**	.04		F(3, 146) = 1.93	.02		F(3, 132) = .65
	2	.07	.00	F(1, 162) = .18	.04	.00	F(3, 145) = .59	.02	.01	F(1, 131) = .88
Time 3 Outcomes										
Total	1	.09		F(3, 142) = 4.87**	.04		F(3, 136) = 1.77	.02		F(3, 140) = 1.04
	2	.09	.00	F(1, 141) = .04	.06	.02	F(1, 135) = 2.92	.04	.02	F(1, 139) = 2.32
Family	1	.05		F(3, 73) = 1.32	.08		F(3, 72) = 1.98	.02		F(3, 73) = .45
	2	.07	.02	F(1, 72) = 1.75	.12	.04	F(3, 71) = 3.55	.02	.00	F(1, 72) = .14
Teacher	1	.15		F(3, 133) = 7.53**	.10		F(3, 125) = 3.72*	.01		F(3, 130) = .39
	2	.15	.01	F(1, 132) = 1.19	.13	.03	F(1, 124) = .25	.01	.00	F(1, 129) = .01
Peer	1	.08		F(3, 131) = 3.95*	.05		F(3, 124) = 1.99	.03		F(3, 127) = 1.23
	2	.09	.00	F(1, 130) = .33	.05	.00	F(1, 123) = .07	.03	.00	F(1, 126) = .17

Step 1: Gender, ethnicity and lunch status; Step 2: Support Trajectory;

* $p < .05$, ** $p < .01$

Table 11

Summary of Hierarchical Regression Analyses Examining Growth and Consistently Higher Support Trajectories as Predictors of School Outcomes

		Academic Competence			Grades			Absences		
		R^2	ΔR^2	F test	R^2	ΔR^2	F test	R^2	ΔR^2	F test
Time 2 Outcomes										
Total	1	.07		F(3, 136) = 3.42*	.05		F(3, 111) = 2.03	.04		F(3, 96) = 1.19
	2	.16	.09	F(1, 135) = 14.21**	.21	.16	F(1, 110) = 21.58**	.04	.00	F(1, 95) = .24
Family	1	.09		F(3, 220) = 7.63**	.06		F(3, 191) = 4.11**	.02		F(3, 169) = .95
	2	.10	.00	F(1, 219) = .82	.07	.01	F(1, 190) = 1.81	.02	.01	F(1, 168) = 1.04
Teacher	1	.06		F(3, 145) = 2.87*	.03		F(3, 124) = 1.44	.02		F(3, 108) = .84
	2	.12	.03	F(1, 144) = 9.62**	.16	.12	F(1, 123) = 17.82**	.03	.01	F(1, 107) = 1.30
Peer	1	.11		F(3, 150) = 5.84**	.10		F(3, 125) = 4.53**	.03		F(3, 112) = .97
	2	.15	.05	F(1, 149) = 8.15**	.18	.08	F(1, 124) = 12.79**	.03	.01	F(1, 111) = .58
Time 3 Outcomes										
Total	1	.13		F(3, 106) = 5.10**	.07		F(3, 103) = 2.76*	.08		F(3, 106) = 2.86*
	2	.16	.03	F(1, 105) = 3.95*	.10	.03	F(1, 102) = 3.29	.08	.00	F(1, 105) = .02
Family	1	.15		F(3, 175) = 10.14**	.05		F(3, 167) = 2.81*	.02		F(3, 173) = .94
	2	.15	.00	F(1, 174) = .95	.05	.00	F(1, 166) = .32	.04	.02	F(1, 172) = 3.83
Teacher	1	.09		F(3, 114) = 3.96*	.04		F(3, 113) = 1.45	.02		F(3, 115) = .77
	2	.12	.02	F(1, 113) = 3.05	.06	.02	F(1, 112) = 2.83	.04	.02	F(1, 114) = 2.00
Peer	1	.18		F(3, 114) = 8.26**	.09		F(3, 113) = 3.51*	.06		F(3, 117) = 2.63
	2	.19	.01	F(1, 113) = 1.31	.09	.01	F(1, 112) = .60	.10	.04	F(1, 116) = 4.57*

Step 1: Gender, ethnicity and lunch status; Step 2: Support Trajectory;

* $p < .05$, ** $p < .01$

Table 12

Summary of Hierarchical Regression Analyses Examining Consistently Lower and Support Growth Trajectories as Predictors of School Outcomes

		Academic Competence			Grades			Absences		
		R^2	ΔR^2	F test	R^2	ΔR^2	F test	R^2	ΔR^2	F test
Time 2 Outcomes										
Total	1	.10		F(3, 194) = 6.68**	.03		F(3, 166) = 1.71	.02		F(3, 152) = .94
	2	.10	.00	F(1, 193) = .11	.04	.01	F(1, 165) = .94	.02	.00	F(1, 151) = .44
Family	1	.06		F(3, 106) = 2.34	.04		F(3, 90) = 1.38	.05		F(3, 80) = 1.34
	2	.07	.01	F(1, 105) = .96	.05	.00	F(1, 89) = .17	.06	.01	F(1, 79) = .71
Teacher	1	.11		F(3, 184) = 7.25**	.05		F(3, 155) = 2.76*	.01		F(3, 144) = .54
	2	.11	.00	F(1, 183) = .78	.06	.01	F(1, 154) = 1.00	.01	.00	F(1, 143) = .09
Peer	1	.12		F(3, 188) = 8.15**	.05		F(3, 162) = 2.88*	.03		F(3, 149) = 1.58
	2	.12	.00	F(1, 187) = .13	.05	.00	F(1, 161) = .24	.03	.00	F(1, 148) = .00
Time 3 Outcomes										
Total	1	.09		F(3, 147) = 4.79**	.02		F(3, 154) = 1.16	.03		F(3, 155) = 1.61
	2	.09	.00	F(1, 146) = .08	.02	.00	F(1, 153) = .00	.06	.03	F(1, 154) = 4.25*
Family	1	.11		F(3, 80) = 3.28*	.05		F(3, 81) = 1.56	.05		F(3, 80) = 1.33
	2	.14	.03	F(1, 79) = 2.47	.09	.04	F(1, 80) = 3.08	.05	.01	F(1, 79) = .54
Teacher	1	.11		F(3, 138) = 5.80**	.02		F(3, 145) = 1.07	.01		F(3, 144) = .54
	2	.12	.00	F(1, 137) = .51	.03	.00	F(1, 144) = .95	.01	.00	F(1, 143) = .099
Peer	1	.15		F(3, 150) = .15**	.08		F(3, 154) = 4.15**	.02		F(3, 150) = .84
	2	.16	.00	F(1, 149) = .35	.08	.00	F(1, 153) = .52	.03	.01	F(1, 149) = 1.68

Step 1: Gender, ethnicity and lunch status; Step 2: Support Trajectory;

* $p < .05$, ** $p < .01$;

Table 13

Summary of Hierarchical Regression Analyses Examining Support Decay and Consistently Higher Support Trajectories as Predictors of School Outcomes

		Academic Competence			Grades			Absences		
		R^2	ΔR^2	F test	R^2	ΔR^2	F test	R^2	ΔR^2	F test
Time 2 Outcomes										
Total	1	.05		F(3, 122) = 2.13	.11		F(3, 107) = 4.17**	.03		F(3, 93) = .95
	2	.06	.01	F(3, 121) = 1.49	.12	.02	F(1, 106) = 1.87	.07	.04	F(1, 92) = 3.52
Family	1	.08		F(3, 210) = 6.20**	.08		F(3, 183) = 5.26**	.02		F(3, 165) = .84
	2	.08	.00	F(1, 209) = .22	.08	.00	F(1, 182) = .01	.02	.01	F(1, 164) = 1.32
Teacher	1	.05		F(3, 131) = 2.12	.09		F(3, 117) = 3.92*	.03		F(3, 100) = 1.01
	2	.06	.01	F(1, 130) = 1.23	.10	.00	F(2, 116) = .53	.03	.00	F(1, 99) = .04
Peer	1	.06		F(3, 125) = 2.72*	.08		F(3, 109) = 3.32*	.02		F(3, 95) = .78
	2	.08	.02	F(1, 124) = 3.07	.11	.03	F(3, 108) = 3.53	.06	.04	F(1, 94) = 3.45
Time 3 Outcomes										
Total	1	.15		F(3, 101) = 5.83**	.10		F(3, 85) = 3.06*	.06		F(3, 91) = 1.87
	2	.18	.03	F(1, 100) = 3.97*	.10	.00	F(1, 84) = .03	.06	.00	F(1, 90) = .00
Family	1	.11		F(3, 168) = 6.71**	.05		F(3, 158) = 2.52	.01		F(3, 166) = .37
	2	.11	.00	F(1, 167) = .78	.05	.00	F(1, 157) = .00	.01	.00	F(1, 165) = .22
Teacher	1	.13		F(3, 109) = 5.17**	.12		F(3, 93) = 4.15**	.04		F(3, 95) = 1.43
	2	.15	.03	F(1, 108) = 3.37	.12	.00	F(1, 92) = .00	.04	.00	F(1, 94) = .01
Peer	1	.06		F(3, 95) = 2.00	.04		F(3, 83) = 1.10	.01		F(3, 88) = .14
	2	.07	.01	F(1, 94) = 1.09	.05	.01	F(1, 82) = 1.03	.01	.01	F(1, 87) = .84

Step 1: Gender, ethnicity and lunch status; Step 2: Support Trajectory;

* $p < .05$, ** $p < .01$;

Table 14

Summary of Descriptive Statistics for Magnitude of Change Total Social Support Trajectories

	Academic Competence			Grades			Absences		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
Time 2 Outcomes									
Decay	94	3.28	1.17	85	2.90	1.02	77	0.95	1.05
Constancy	128	3.65	1.11	113	3.07	0.85	103	0.68	0.61
Growth	102	2.98	1.09	83	2.57	1.04	73	0.78	0.84
Time 3 Outcomes									
Decay	79	3.25	1.10	68	2.51	1.08	73	0.89	0.74
Constancy	98	3.53	1.13	97	2.69	1.09	98	0.78	0.78
Growth	79	3.21	1.04	82	2.41	0.97	83	1.01	1.01

Table 15

Summary of Hierarchical Regression Analyses Examining Total Social Support Trajectories (i.e., decay, consistency and growth) as Predictors of School Outcomes

	Academic Competence			Grades			Absences		
	R^2	ΔR^2	F test	R^2	ΔR^2	F test	R^2	ΔR^2	F test
Time 2 Outcomes									
1	.08		F(3, 320) = 9.74**	.13	.01	F(2, 250) = 1.9	.01		F(3, 249) = .54
2	.12	.05	F(2, 318) = 8.97**	.10	.04	F(2, 275) = 5.78**	.03	.02	F(2, 247) = 2.29
Time 3 Outcomes									
1	.12		F(3, 252) = 11.25**	.05		F(3, 243) = 4.52**	.01		F(3, 250) = .54
2	.13	.01	F(2, 250) = 1.9	.06	.01	F(2, 241) = 1.26	.02	.01	F(2, 248) = 1.49

Step 1: Gender, ethnicity and lunch status; Step 2: Decay and Growth Support Dummy Variables (Constancy = Reference Variable);

* $p < .05$, ** $p < .01$;

Appendix A. Student Assessments. (SOCSS; Dubow, Edwards & Ippolito, 1997).

Social Support Appraisals Scale (APP)

Name: _____ Grade: _____

School: _____ Teacher: _____

Now, circle always, most of the time, sometimes, hardly ever, or never for each question. Make sure that you listen carefully as I read each question.

1. Some kids feel left out by their friends, but others kids don't. Do you feel left out by your friends?

Always	Most of the time	Sometimes	Hardly ever	Never
(1)	(2)	(3)	(4)	(5)

2. Some kids get picked on and teased by their friends, but other kids don't. Do you get picked on and teased by your friends?

Always	Most of the time	Sometimes	Hardly ever	Never
(1)	(2)	(3)	(4)	(5)

3. Some kids feel very close to their friends, but other kids don't. Do you feel very close to your friends?

Always	Most of the time	Sometimes	Hardly ever	Never
(1)	(2)	(3)	(4)	(5)

4. Some kids think their teachers care about them, but other kids don't. Do you think your teachers care about you?

Always	Most of the time	Sometimes	Hardly ever	Never
(1)	(2)	(3)	(4)	(5)

5. Some kids' teachers are tough on them, but other kids' teachers are not. Are your teachers tough on you?

Always	Most of the time	Sometimes	Hardly ever	Never
(1)	(2)	(3)	(4)	(5)

6. Some kids have teachers who make them feel important, but other kids don't. Do your teachers make you feel important?

Always	Most of the time	Sometimes	Hardly ever	Never
(1)	(2)	(3)	(4)	(5)

7. Some kids can count on their family for help or advice when they have problems, but other kids cannot. Can you count on your family for help or advice when you have problems?

Always	Most of the time	Sometimes	Hardly ever	Never
(1)	(2)	(3)	(4)	(5)

8. Some kids feel like their family is there when they need them, but other kids don't feel this way. Do you feel like your family is there when you need them?

Always	Most of the time	Sometimes	Hardly ever	Never
(1)	(2)	(3)	(4)	(5)

9. Some kids think their families really care about them, but other kids don't. Do you think your family cares about you?

Always	Most of the time	Sometimes	Hardly ever	Never
(1)	(2)	(3)	(4)	(5)

Appendix B. Social Skills Rating Scale (SSRS; Gresham & Elliot, 1990)

To Teachers:

This questionnaire is designed to measure **how often** a student exhibits certain social skills in your classroom. Ratings of problem behaviors and academic competence are also requested. First, complete the information about the student and yourself.

Student's name: _____ Date: _____			
First	Middle Initial	Last	
School: _____		City: _____	State: _____
Grade: _____	Birth Date: _____	Sex: <input type="checkbox"/> Female	<input type="checkbox"/> Male
Ethnic Group:			
<input type="checkbox"/> Asian	<input type="checkbox"/> Black	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Native American
<input type="checkbox"/> Other (specify) _____			

<p><u>Household Composition and Country of Origin (C.O.O.)</u>—First, check off the family members in the student's household. Second, fill in the country of origin for these family members.</p>	
<input type="checkbox"/> Mother: C.O.O. _____	<input type="checkbox"/> Father: C.O.O. _____
<input type="checkbox"/> Sibings: # of sisters _____ # of brothers _____	C.O.O. _____
<input type="checkbox"/> Grandmother: C.O.O. _____	<input type="checkbox"/> Grandfather: C.O.O. _____
<input type="checkbox"/> Other (specify): C.O.O. _____	

Is the student disabled?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
If yes, the student is classified as:	<input type="checkbox"/> Learning Disabled	<input type="checkbox"/> Mentally Disabled
	<input type="checkbox"/> Behavior disordered	<input type="checkbox"/> Other disability
Please specify: _____		

Teacher's Name: _____	Sex: <input type="checkbox"/> Female	<input type="checkbox"/> Male
What is your assignment?	<input type="checkbox"/> Regular classroom	<input type="checkbox"/> Resource classroom
	<input type="checkbox"/> Self-contained classroom	<input type="checkbox"/> Other (specify) _____

Social Skills Rating Scale

Read each item on pages 2 and 3 (items 1-48) and think about this student's behavior during the past month or two. Decide how often the student does the behavior described.

If the student never does the behavior, circle the 0.

If the student sometimes does the behavior, circle the 1.

If the student very often does the behavior, circle the 2.

Here are two examples:	How Often?		
	Never	Sometimes	Very often
Shows empathy for peers.	0	1	2
Asks questions of you when unsure of what to do In school work.	0	1	2

This student **very often** shows empathy for classmates. Also, this student **sometimes** asks questions when unsure of schoolwork.

Please do not skip any items. In some cases you may not have observed the student perform a particular behavior. Make an estimate of the degree to which you think the student would probably perform that behavior.

	How Often?		
	Never	Sometimes	Very often
1. Controls temper in conflict situations with peers.	0	1	2
2. Introduces herself/himself to new people without being told.	0	1	2
3. Appropriately questions rules that may be unfair.	0	1	2
4. Compromises in conflict situations by changing own ideas to reach agreement.	0	1	2
5. Responds appropriately to peer pressure.	0	1	2
6. Says nice things about himself or herself when appropriate.	0	1	2
7. Invites others to join in activities.	0	1	2
8. Uses free time in an acceptable way.	0	1	2
9. Finishes class assignments within time limits.	0	1	2
10. Makes friends easily.	0	1	2
11. Responds appropriately to peer pressure.	0	1	2
12. Controls temper in conflict situations with adults.	0	1	2

	How Often?		
	Never	Sometimes	Very often
13. Receives criticism well.	0	1	2
14. Initiates conversations with peers.	0	1	2
15. Uses time appropriately while waiting for help.	0	1	2
16. Produces correct schoolwork.	0	1	2
17. Appropriately tells you when he or she thinks you have treated him or her unfairly.	0	1	2
18. Accepts peers ideas for group activities.	0	1	2
19. Gives compliments to peers.	0	1	2
20. Follows your directions.	0	1	2
21. Puts work materials or school property away.	0	1	2
22. Cooperates with peer without prompting.	0	1	2
23. Volunteers to help peers with classroom tasks.	0	1	2
24. Joins ongoing activity or group without being told to do so.	0	1	2
25. Responds appropriately when pushed or hit by other children.	0	1	2
26. Ignores peer distractions when doing class work.	0	1	2
27. Keeps desk clean and neat without being reminded.	0	1	2
28. Attends to your instructions.	0	1	2
29. Easily makes transition from one classroom activity to another.	0	1	2
30. Gets along with people who are different.	0	1	2
31. Fights with others.	0	1	2
32. Has low self-esteem.	0	1	2
33. Threatens or bullies others.	0	1	2
34. Appears lonely.	0	1	2
35. Is easily distracted.	0	1	2
36. Interrupts conversations of others.	0	1	2
37. Disturbs ongoing activities.	0	1	2
38. Shows anxiety about being with a group of children.	0	1	2
39. Is easily embarrassed.	0	1	2
40. Doesn't listen to what others say.	0	1	2

	How Often?		
	Never	Sometimes	Very often
41. Argues with others.	0	1	2
42. Talks back to adults when corrected.	0	1	2
43. Gets angry easily.	0	1	2
44. Has temper tantrums.	0	1	2
45. Likes to be alone.	0	1	2
46. Acts sad or depressed.	0	1	2
47. Acts impulsively.	0	1	2
48. Fidgets or moves excessively.	0	1	2

The next items require your judgment of this student's academic or learning behaviors as observed in your classroom. Compare the student with other children who are in the same classroom.

Rate all items using a scale of 1 to 5. Circle the number that best represents your judgment. The number 1 indicates the lowest or least favorable performance, placing the student in the lowest 10% of the class. Number 5 indicates the highest or most favorable performance, placing the student in the highest 10% compared with other students in the classroom.

	Lowest 10%	Next lowest 20%	Middle 40%	Next Highest 20%	Highest 10%
49. Compared to other children in my Classroom, the overall academic Performance of this child is:	1	2	3	4	5
50. In reading , how does this child Compare with other students?	1	2	3	4	5
51. In mathematics , how does this Child compare with other students?	1	2	3	4	5
52. In terms of grade-level expectations This child's skills in reading are:	1	2	3	4	5
53. In terms of grade-level expectations, This child's skills in mathematics are:	1	2	3	4	5
54. This child's overall motivation to Succeed academically is:	1	2	3	4	5
55. This child's parental encouragement To succeed is:	1	2	3	4	5
56. Compared with other children in my Classroom, this child's intellectual Functioning is :	1	2	3	4	5
57. Compared with other children in my Classroom this child's overall classroom Behavior is:	1	2	3	4	5

Appendix C. Frequency distributions of modified social support trajectories.

	Total Support	Family Support	Teacher Support	Peer Support
Consistently Lower	19 (6.1%)	11 (.3.%)	37 (11.2%)	68 (21.4%)
Decay	35 (11.3%)	26 (7.8%)	44 (13.4%)	55 (17.3%)
Growth	10 (3.2%)	20 (6.0%)	29 (8.8%)	47 (14.8%)
Consistently Higher	246 (79.4%)	276 (82.9%)	219 (66.6%)	148 (46.5%)

Trajectories defined based on movement between Time 1 and Time 2 ratings of perceived social support:
 Consistently Lower = 1-1, 1-2, 1-3, 2-1, 2-2, 2-3, 3-1, 3-2, 3-3; Decay: 5-1, 5-2, 5-3, 4-1, 4-2, 4-3; Growth = 1-5, 1-4, 2-5, 2-4, 3-5, 3-4; Consistently Higher = 5-5, 5-4, 4-4, 4-5;
 *p<.05, **p<.01

Appendix D. Frequency distributions of modified social support trajectories by gender, ethnicity and SES.

		Gender		χ^2	Ethnicity		χ^2	SES		χ^2
		Males	Females		Black	Hispanic		Free/ Reduced	Null	
Total Support	LL	15 (9.1%)	4 (2.3%)	22.08**	17 (6.0%)	2 (3.4%)	3.01	10 (4.1%)	9 (9.3%)	7.74
	HL	15 (9.1%)	20 (11.4%)		32 (11.4%)	3 (5.1%)		27 (11.1%)	8 (8.2%)	
	LH	30 (18.2%)	10 (5.7%)		32 (11.4%)	8 (13.6%)		34 (14.0%)	6 (6.2%)	
	HH	105 (63.6%)	141 (80.6%)		200 (71.2%)	46 (78.0%)		172 (70.8%)	74 (76.3%)	
Family Support	LL	9 (5.5%)	2 (1.1%)	15.24**	9 (3.2%)	2 (3.4%)	4.22	7 (2.9%)	4 (4.1%)	2.13
	HL	15 (9.1%)	11 (6.3%)		24 (8.5%)	2 (3.4%)		17 (7.0%)	9 (9.3%)	
	LH	20 (12.2%)	7 (13.9%)		25 (8.9%)	2 (3.4%)		22 (9.1%)	5 (5.2%)	
	HH	121 (73.3%)	155 (88.6%)		223 (79.4%)	53 (89.8%)		197 (81.1%)	79 (81.4%)	
Teach Support	LL	27 (16.4%)	10 (5.7%)	12.09**	33 (11.8%)	4 (6.8%)	6.18	24 (9.9%)	13 (13.4%)	2.05
	HL	18 (10.9%)	26 (14.9%)		41 (14.6%)	3 (5.1%)		31 (12.8%)	13 (13.4%)	
	LH	22 (13.3%)	17 (9.8%)		30 (10.7%)	9 (15.3%)		31 (12.8%)	8 (8.2%)	
	HH	98 (59.4%)	121 (69.5%)		176 (62.9%)	43 (72.9%)		156 (64.5%)	63 (64.9%)	
Peer Support	LL	30 (18.5%)	38 (21.7%)	.55	55 (19.7%)	13 (22.4%)	.82	55 (22.8%)	13 (13.5%)	5.34
	HL	27 (16.7%)	28 (16.0%)		45 (16.1%)	10 (17.2%)		35 (14.5%)	20 (20.8%)	
	LH	32 (19.8%)	34 (19.9%)		57 (20.4%)	9 (5.5%)		49 (20.3%)	17 (17.7%)	
	HH	73 (45.1%)	75 (42.9%)		122 (43.7%)	26 (44.8%)		102 (42.3%)	46 (47.9%)	

LL = Consistently lower; HL = Support Decay; LH = Support Growth; HH = Consistently Higher

*p<.05, **p<.01

Appendix E. Summaries of multivariate analyses of covariance for planned trajectory comparisons.

Table E1. Summary of multivariate analyses of higher and lower support trajectories and school outcomes, controlling for gender, ethnicity and SES.

		Time 2		Time 3	
		Wilks' λ	F-value	Wilks' λ	F-value
Total Support		$F(3, 234) = 2.47$		$F(3, 204) = 1.55$	
	Academic Competence				
	Grades				
	Absences				
Family Support		$F(3, 234) = .41$		$F(3, 204) = 1.92$	
	Academic Competence				
	Grades				
	Absences				
Teacher Support		$F(3, 233) = .18$		$F(3, 203) = .05$	
	Academic Competence				
	Grades				
	Absences				
Peer Support		$F(3, 233) = .69$		$F(3, 202) = .64$	
	Academic Competence				
	Grades				
	Absences				

* $p < .05$, ** $p < .01$

Table E2. Summary of multivariate analyses of consistently lower and decay support trajectories and school outcomes, controlling for gender, ethnicity and SES.

	Time 2		Time 3	
	Wilks' λ	<i>F</i> -value	Wilks' λ	<i>F</i> -value
Total Support	$F(3, 136) = 1.88$		$F(3, 109) = 3.23^*$	
Academic Competence				$F(1, 111) = .77$
Grades				$F(1, 111) = 3.56$
Absences				$F(1, 111) = 4.07^*$
Family Support	$F(3, 70) = 2.16$		$F(3, 57) = 1.16$	
Academic Competence				
Grades				
Absences				
Teacher Support	$F(3, 124) = 1.61$		$F(3, 102) = .62$	
Academic Competence				
Grades				
Absences				
Peer Support	$F(3, 119) = .12$		$F(3, 100) = 1.15$	
Academic Competence				
Grades				
Absences				

* $p < .05$, ** $p < .01$

Table E3. Summary of multivariate analyses of growth and consistently higher support trajectories and school outcomes, controlling for gender, ethnicity and SES.

	Time 2		Time 3	
	Wilks' λ	F-value	Wilks' λ	F-value
Total Support	$F(3, 91) = 5.02^{**}$		$F(3, 88) = 1.05$	
Academic Competence		$F(1, 93) = 5.41^*$		
Grades		$F(1, 93) = 14.61^{**}$		
Absences		$F(1, 93) = .36$		
Family Support	$F(3, 157) = .57$		$F(3, 140) = .81$	
Academic Competence				
Grades				
Absences				
Teacher Support	$F(3, 102) = 4.62^{**}$		$F(3, 94) = 1.33$	
Academic Competence		$F(1, 104) = 4.12^*$		
Grades		$F(1, 104) = 11.78^{**}$		
Absences		$F(1, 104) = 1.57$		
Peer Support	$F(3, 107) = 2.86^*$		$F(3, 95) = 1.95$	
Academic Competence		$F(1, 109) = 6.52^*$		
Grades		$F(1, 109) = 8.00^{**}$		
Absences		$F(1, 109) = .77$		

* $p < .05$, ** $p < .01$

Table E4. Summary of multivariate analyses of consistently lower and growth support growth trajectories and school outcomes, controlling for gender, ethnicity and SES.

	Time 2		Time 3	
	Wilks' λ	F-value	Wilks' λ	F-value
Total Support	$F(3, 140) = 1.39$		$F(3, 125) = .97$	
Academic Competence				
Grades				
Absences				
Family Support	$F(3, 74) = .47$		$F(3, 63) = 1.01$	
Academic Competence				
Grades				
Absences				
Teacher Support	$F(3, 130) = .57$		$F(3, 117) = .23$	
Academic Competence				
Grades				
Absences				
Peer Support	$F(3, 137) = .28$		$F(3, 127) = .45$	
Academic Competence				
Grades				
Absences				

* $p < .05$, ** $p < .01$

Table E5. Summary of multivariate analyses of decay and consistently higher support trajectories and school outcomes, controlling for gender, ethnicity and SES.

	Time 2		Time 3	
	Wilks' λ	F-value	Wilks' λ	F-value
Total Support	$F(3, 87) = 1.46$		$F(3, 72) = 1.27$	
Academic Competence				
Grades				
Absences				
Family Support	$F(3, 153) = .70$		$F(3, 134) = .32$	
Academic Competence				
Grades				
Absences				
Teacher Support	$F(3, 96) = .04$		$F(3, 79) = .17$	
Academic Competence				
Grades				
Absences				
Peer Support	$F(3, 89) = 1.78$		$F(3, 68) = 1.55$	
Academic Competence				
Grades				
Absences				

* $p < .05$, ** $p < .01$

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