School Dropout Predictors

Annotated Bibliography
Samantha Kane Salvador, M.A.

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Research Notes

The Dropout Predictors Annotated Bibliography was created by searching UNC-Charlotte library databases (e.g., ERIC, Education Abstracts, Psychological Abstracts) for journal articles with keywords such as "dropout", "school completion", and "high school graduation". In addition to peer-reviewed journals, a similar search for research reports by foundations and other research organizations (e.g., Annie E. Casey Foundation, Mathematica Policy Research) was conducted utilizing Google Scholar and journal article references. For the most part, only articles in which dropout or graduation from high school was the outcome of interest were included, though some articles were included in which the measured outcomes were strong correlates of dropout (e.g., ability to read by 3rd grade, academic achievement) as well as some general summaries of the research to date. Predictors that were found to be significant in predicting high school dropout or completion were included in the annotated bibliography.

The following information is included for each article that was reviewed:
- Citation
- Description of Sample
- Methodology
- Outcome(s)
- Predictors
- Summary, including the strongest predictors

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Citation	Sample	Method	Outcome	Predictors	Summary (Strongest predictors in bold)
Alexander, K. L., Entwisle, D. R., & Horsey, C. S. (1997). From first grade forward: Early foundations of high school dropout. *Sociology of Education*, 2, 87–107.	First graders in Baltimore Public Schools from 1982 (n=790)	Logistic Regression	Dropouts in 9-12th grade (+2 years beyond)	• Child: demographics, behaviors, attitudes, academic background, achievement • Family: structure, size, SES, attitudes, stress, parenting practices, parent expectations	This study examined 1st grade children's personal resources, family context, and school experiences to identify predictors of high school dropout. **SES**, gender, number of siblings, mother's age, family change, parent expectations, summer care, absences, **engagement**, **grades**, and reading group in 1st grade were all found to relate to high school dropout.
Allensworth, E. (2005). The on-track indicator as a predictor of high school graduation, (June). Retrieved from http://www.aaronjmeyer.com/storage/OnTrackIndicator.pdf	9th graders in each year from 1992 to 1998, in Chicago (n=113,937)	Logistic Regression	Dropout and graduation	• Child: being "on track" (completing 5 course credits and having no more than 1 semester F in a core subject) at the end of 9th grade	Researchers created an **"on-track"** indicator for Chicago Public Schools. Students were considered on track at the end of 9th grade if they completed five course credits and had no more than one semester F in a core subject. Eighty five percent of on track students graduated within 5 years whereas only 28% of off track students graduated within 5 years. No type of course failure (math, English, science) was more predictive of dropout. The on track indicator was an equally good predictor of graduation regardless of student background characteristics.
Annie E. Casey Foundation. (2010). *Early Warning! Why learning to read by the end of third grade matters*. Retrieved from	NA	NA	NA	• Child: Ability to read by 3rd grade	¾ of children who are poor readers in 3rd grade will remain poor readers in high school. Many major factors undermine grade level **reading proficiency** including: low birthweight, lack of early interaction to promote linguistic development, health problems that interfere with learning, lack of participation in high quality preschool, low performing elementary schools, chronic absences, summer learning loss, food

http://onlinelibrary.wiley.com/doi/10.1002/cbdv.200490137/abstract					insecurity, family mobility, family stress. Recommendations: Early care and education birth-3rd grade. Encourage caregivers to play a role in their children's education. Invest in results driven initiatives to transform low performing schools. Employ solutions to address chronic absences and summer learning loss.
Archambault, I., Janosz, M., Fallu, J.-S., & Pagani, L. S. (2009). Student engagement and its relationship with early high school dropout. *Journal of Adolescence*, *32*(3), 651-670.	7th-9th graders in Quebec (n=11,827)	Factor Analysis and Structural Equation Modeling (SEM)	Dropout 2 years after data collection	• Child: behavioral engagement	This study examined the impact of behavioral (attendance, discipline), affective (likes school), and cognitive (willingness to learn) indices of student engagement on high school dropout, controlling for course retention and maternal education. Only **behavioral engagement** significantly impacted drop out prediction.
Battin-Pearson, S., Newcomb, M. D., Abbott, R. D., Hill, K. G., Catalano, R. F., & Hawkins, J. D. (2000). Predictors of early high school dropout: A test of five theories. *Journal of Educational Psychology*, *92*(3), 568-582.	8th graders in Seattle (n=770)	SEM	Dropout by the end of 10th grade	• Child: risky behaviors, bonding to antisocial peers, poverty • Family: Parent expectations, low parental education • School: Composition, peers	This study compared 5 dropout prediction theories: full mediation by academic achievement, and direct effects of general deviance, deviant peers, family socialization, and structural strains. The most predictive model suggests that, beyond **poor academic achievement**, **engaging in deviant behavior**, **bonding to antisocial peers**, and **coming from a family in poverty** all directly increased the likelihood of dropping out of school before the end of 10th grade. However, **low parental expectations** and **low parental education** contributed to dropping out of school early only by negatively affecting a student's academic achievement, which in turn contributed to dropping out early.
Berliner, D. C. (2009).	NA	NA	Achievement	NA	This brief outlines 6 out-of-school factors (OSFs)

Poverty and Potential : Out-of-School Factors and School Success.			gap			that contribute to the achievement gap. These include: (1) **low birth weight** and **poor prenatal care**, (2) **inadequate medical care**, (3) **food insecurity**, (4) **environmental pollutants** (5) **family relations** and **family stress**, and (6) **neighborhood characteristics**. A 7th OSF, **extended learning opportunities** (preschool, afterschool, summer programs), is put forth as a way to mitigate the effects of the previous 6 OSFs.
Bowen, N. K., Bowen, G. L., & Ware, W. B. (2002). Neighborhood Social Disorganization, Families, and the Educational Behavior of Adolescents. *Journal of Adolescent Research*, 17(5), 468-490.	Nationally representative sample of middle and high school students (n=1757)	SEM	School behavior, academic performance, attendance	• Family: parental educational support, supportive parenting • Community: neighborhood social disorganization		This study explored the relationships among neighborhood characteristics, parenting processes, and students' school behavior, academic performance, and attendance. **Neighborhood social disorganization** (lack of neighborhood support, negative peer behavior, crime and violence) had the strongest direct relationship to school outcomes, followed by parents' educational support, and supportive parenting.
Brewster, A. (2004). Teacher Support and the School Engagement of Latino Middle and High School Students at Risk of School Failure. *Child and Adolescent Social Work Journal*, 21(1),	At risk Latino middle and high school students (n=699)	Regression analyses	School Engagement	• Family: parent support • Community: teacher support		Researchers examined the effect of social support from parents and teachers on the school engagement of middle and high school Latino students. They found that teacher support was important for the school engagement of Latino middle and high school students, beyond the support provided by parents. **Teacher support** had the strongest impact on perceived school meaningfulness but it also predicted problem behavior (more than parental support).

47-68.					
Cairns, R. B., Cairns, B. D., & Neckerman, H. J. (1989). Early school dropout: configurations and determinants. *Child Development*, 60(6), 1437-1452.	7th grade students, followed through high school (n=475)	Logistic regression & Cluster analysis	Dropout prior to 11th grade	• Child: aggressive behavior, academic difficulty • Family: SES	Researchers examined aggressive behavior, interpersonal competence, academic competence, popularity, and demographic factors (race, SES) for 7th grade students. Logistic regression and cluster analyses were conducted to predict early dropouts. Regression analyses showed that **aggressive behavior**, **academic difficulty**, and **SES** were the strongest predictors of dropout. Cluster analyses showed that 82% of 7th grade boys who were older than their peers, with high aggression and low academic achievement dropped out by 11th grade. Boys who were low in aggression, popular, and academically competent were very unlikely to drop out. The factors in this study did not predict as well for girls. Cluster analyses showed that 47% of girls who showed high aggression and low academic achievement in 7th grade dropped out by 11th grade.
Catterall, J. (2012). Risk and Resilience in Student Transitions to High School. *American Journal of Education*, 106(2), 302-333.	A representative national sample of at risk 8th graders (n=4000)	Regression analyses	Student Resilience	• Child: achievement, involvement in extracurricular activities • Family: SES, family academic support • Community: school responsiveness	This study analyzed a sample of 8th grade students who report poor academic performance and lack confidence that they will complete high school. Factors related to improved performance and confidence by 10th grade are examined. Researchers found that **SES**, **family academic support**, **student achievement**, **school responsiveness** and student involvement in **extracurricular activities** were related to improvements in grades and confidence in completing high school.
Christenson, S. (2004). School Dropouts Prevention Considerations,	NA	NA	Dropout	NA	This article discusses critical considerations in dropout prevention, interventions, and challenges. Those designing dropout prevention programs will want to attend to five critical

Interventions, and Challenges. *Current Directions in Psychological Science*, *13*(1), 36-40.					considerations: dropout as a process (intervene early), the role of context (student, family, school, community), alterable variables (student, family, and school practices), an orientation toward completion and engagement (individualized, across time and environments), and the importance of empirical evidence (which is lacking on programs). Successful interventions provided **early reading programs**, **tutoring**, **counseling**, **and mentoring**; they emphasized creating caring environments and relationships, used block scheduling, and offered community service opportunities. **Mobility** remains a challenge.
Crowder, K., & South, S. J. (2003). Neighborhood distress and school dropout: the variable significance of community context. *Social Science Research*, *32*(4), 659-698.	14-19 year olds between 1968 and 1993. (n=6762)	Logistic regression	Dropout	• Community: neighborhood socioeconomic distress	Researchers determined the effect of **neighborhood socioeconomic distress** (measured by the Neighborhood Disadvantage Index which measures indicators of neighborhood SES) on the likelihood of school dropout. Neighborhood socioeconomic distress was found to negatively impact high school completion, particularly among black adolescents from single parent households and white adolescents from low income families. Among African Americans, the detrimental impact of neighborhood socioeconomic distress has increased significantly over the past 25 years. Neighborhood socioeconomic distress was stronger for those who recently moved to the neighborhood than those who have been long-term residents.
Dynarski, M., & Gleason, P. (2002). How can we help? What	21 federally funded dropout prevention	Analysis of variance	Dropout, attendance, academic performance	NA	This article summarizes findings from an evaluation of federally funded dropout prevention programs. Of the programs evaluated, students who attended alternative

we have learned from recent federal dropout prevention evaluations. *Journal of Education for Students Students Placed At Risk, 7*(1), 43–69.	programs.				middle schools that provided more intensive services such as **smaller class sizes** and **intensive counseling** were half as likely to dropout as comparison students. However students' attendance and academic performance did not improve. Supplemental middle school programs (such as occasional tutoring or classes to promote leadership) did not impact student outcomes. At the high school level, **GED programs** were more effective than alternative high schools or high school restructuring at preventing dropout. More successful programs were generally more **intensive** and **personalized**.
Englund, M. M., Egeland, B., & Collins, W. A. (2008). Exceptions to High School Dropout Predictions in a Low-Income Sample: Do Adults Make a Difference? *Journal of Social Issues, 64*(1), 77–94.	Low income children were followed from birth to age 23 (n=179)	Logistic Regressions and MANOVAs	Dropout	• Parent involvement* • Good parent-child relationships* * for students who are predicted to graduate	Adult-child relationship factors were examined to ascertain whether they differentiated between individuals who follow expected and unexpected education pathways (expected and unexpected graduates, expected and unexpected dropouts). Researchers first predicted dropout status based on academic achievement and behavior problems at 12 and 16 years. They then examined the relationship variables for expected dropouts and unexpected graduates and expected graduates and unexpected dropouts. No significant differences were found between the expected dropouts and unexpected graduates. Expected graduates have higher **parental involvement** and better **relationships with parents** than unexpected dropouts.
Ensminger, M. E., & Slusarcick, A. L. (1992). Paths to High School Graduation or	1st graders in Chicago (n=1242)	Logistic regression	Dropout	• Child: early academic achievement, aggressive behavior • Family: maternal education, family	This study examines how family background, family educational expectations, parent-child interactions, and child cognitive factors in first grade influence high school graduation. Researchers found that children, especially

Dropout: A Longitudinal Study of a First-Grade Cohort. *Sociology of Education*, 65(2), 95.				poverty	males, who had **poor grades** in first grade were less likely to graduate. In addition, **maternal education**, **family poverty**, and **aggressive behavior** during first grade related to graduation from high school 12 years later.
Gleason, P. & Dynarsky, M. (2002). *Do we know whom to serve? Issues in using risk factors to identify dropouts.* Mathematica Policy Research Inc. Princeton, NJ.	Middle and High school students at four SDDAP sites (n=5480)	Logistic regression and propensity scoring	Dropout 3 years later	NA	Researchers evaluated the predictive efficiency of risk factors commonly used by dropout prevention programs. Results showed that, for middle school students, the best predictors (high absenteeism and overage for grade) only predicted 15% of those who dropped out within the next 3 years. For high school students, absenteeism, overage for grade, having a child, and low grades only predicted 33% of dropouts. Researchers developed a prediction model that incorporated many more factors, however it only performed slightly better (23% for middle school and 42% for high school). One implication of these findings is that **programs need to be able to better identify potential dropouts in order to reduce the dropout rate**.
Guralnick, M. (1997). Effectiveness of early intervention for vulnerable children: a developmental perspective. *American Journal on Mental Retardation,*	NA	NA	Cognitive development	• Child: early intervention	**Early intervention** can prevent or minimize declines in cognitive development for children with disabilities and children living in high risk environments. Early intervention mitigates stressors caused by child and family risk that can impact family interaction patterns. Short term gains in cognitive development for children receiving early intervention have effect sizes of .5-.75 standard deviations. However there is less evidence for long term impacts

102(4) 319-345.					
Hammond, C., Linton, D., Smink, J., & Drew, S. (2007). *Dropout Risk Factors and Exemplary Programs*. Clemson, SC.	NA	NA	Dropout	• Child: learning disability or emotional disturbance, has a child, high number of work hours, high risk peer group, high risk social behavior, highly social outside of school, low achievement, retained, poor attendance, low expectations, lack of effort, low commitment to school, no extracurricular activities, misbehavior, early aggression, • Family: low SES, high mobility, low parental education, large number of siblings, not living with both parents, family disruption, low educational expectations, sibling has dropped out, low contact with school, lack of conversations about school	Communities in Schools (CIS) partnered with the National Dropout Prevention Center (NDPC) to identify dropout risk factors and exemplary, evidence based programs that address these risk factors. Researchers reviewed 44 articles and found the following trends: no single risk factor can identify dropouts; accuracy of prediction increases with more risk factors included; dropouts are not a homogeneous group; there are complex interactions among risk factors; dropping out is a process, not an event, with risk factors building up and compounding over time; and dropping out is the result of a long process of disengagement that may begin before a child even enters school. Twenty five individual and family risk factors were identified from the literature. **Low achievement**, **retention**, **poor attendance**, and **low SES** were found to predict dropout at all three school levels (elementary, middle, high). Fifty programs were identified based on the following criteria: ranked as top tier by at least 2 sources, currently in operation, had no major revisions since the ranking of the program, had consistent, positive evaluation outcomes, targeted K-12 population (no pre-k or post-high school). Several key lessons can be learned from this research review. First, address multiple risk factors and use multiple strategies across domains (child, family, community) to increase the likelihood of program success. Effective programs often used some combination of personal assets and skill building, academic support, family outreach, and environmental/organizational change.

					Second, when adopting an existing exemplary program, these programs need to be fully implemented and implemented as they were designed. Third, agencies that develop their own strategies need to develop them based on best practice. Finally, whether adopting an existing program or developing a new one, practitioners need to evaluate them to assure effectiveness.
Harding, D. (2003). Counterfactual Models of Neighborhood Effects : The Effect of Neighborhood Poverty on Dropping Out and Teenage Pregnancy. *American Journal of Sociology*, 109(3), 676-719.	National sample of adolescents from 1967-1997	Propensity score matching	Dropout and Teen pregnancy	• Community: high poverty neighborhood	This study explored the impact of **living in high poverty neighborhoods** on dropout rates and teen pregnancy rates. Children in high poverty neighborhoods were matched with comparisons in lower poverty neighborhoods based on income, parents' education, welfare receipt, and family structure at age 10. Adolescent outcomes were then compared. The author found that blacks and whites in high poverty neighborhoods were twice as likely to drop out of high school than matched comparisons in low poverty neighborhoods. Odds of teenage pregnancy are tripled in high poverty neighborhoods.
Huang, D., Kim, K., & Cho, J. (2011). Keeping Kids in School: A study examining the long-term impact of afterschool enrichment programs on students' high school dropout	Students in grades 6-9 who participated in LA's BEST program and matched comparison students. (n=11645)	Chi-square analysis and survival analysis	Dropout	• Child: participation in afterschool program	This study examined the dropout rates of students who participated in Los Angeles' Better Educated Students for Tomorrow (BEST) **after school program**. Students who attend BEST received homework help, extracurricular activities, nutrition, and supportive adults. Results showed that students who participated in the BEST program for 3 or more years dropped out at a lower rate than matched comparison students. Survival analyses found that, controlling for other factors, students who participated more frequently in the BEST

rates. *Issues in Education*, 6(1), 4-23.					program were predicted to stay in school longer. The BEST program also appeared to have a stronger effect for lower income students; the lower the student's income, the more effective participation in LA's BEST program will be at keeping them in school.
Janosz, M., Le Blanc, M., Boulerice, B., & Tremblay, R. E. (2000). Predicting different types of school dropouts: A typological approach with two longitudinal samples. *Journal of Educational Psychology*, 92(1), 171-190.	7th-9th grade students from 2 longitudinal samples in Montreal (n=1582)	Cluster analysis and logistic regression	Dropout	• Child: school misbehavior, commitment to education, achievement	The objective of this study was to build a typology of dropouts based on school experience characteristics. Researchers categorized dropouts into 4 types: 1) **Quiet dropouts**: No evidence of school misbehavior, moderate to high commitment to education, low achievement, accounted for approximately 40% of dropouts in the sample. 2) **Disengaged dropouts**: average to low school misbehavior, low commitment to school, average performance, accounted for approximately 10% of dropouts in the sample 3) **Low achiever dropouts**: average to low school misbehavior, low commitment to school, very poor school performance, accounted for approximately 10% of dropouts in the sample 4) **Maladjusted dropouts**: high level of school misbehavior, low commitment to school, poor school performance, accounted for approximately 40% of the sample. Authors highlight possible targeted interventions depending on the type of dropout (i.e., focusing on increasing motivation of potential disengaged dropouts)
Jerald, C. D. (2006). Identifying potential dropouts: Key lessons for building an early	NA	NA	Dropout	• Child: transition to middle and high school, academic performance, educational engagement.	The author outlines essential lessons from longitudinal cohort studies. While there is no single pathway that every dropout follows, there are common patterns, crisis spots, and signposts. They identified 2 categories of educational risk factors: **academic performance** (grades, credits,

warning data system. *Achieve, Inc. American Diploma Project Network & Jobs for the Future Report. Retrieved on July*, 2(1), 2008. Retrieved from http://www.achieve.org/files/IdentifyingPotentialDropouts.pdf					retention) and **educational engagement** (poor behavior, absenteeism). **Transition years**, and being **on track in 9th grade**, had a decisive impact on students that would eventually dropout. The **first 30 days of the transition years** are important predictors. The authors suggest creating an early warning data system that 1) identifies risk factors in that school system 2) use to inform intervention efforts.
Jimerson, S., Egeland, B., Sroufe, L. A., & Carlson, B. (2000). A Prospective Longitudinal Study of High School Dropouts Examining Multiple Predictors Across Development. *Journal of School Psychology*, 38(6), 525-549.	Children followed from birth through age 19 (n=177)	Logistic regression and discriminant function analyses	Dropout	• Child: problem behaviors in school, peer competence • Family: quality of early caregiving, parent involvement	This study explores predictors of high school dropout across development. Authors hypothesized that early development will not only predict dropout antecedents, but dropout itself. Results showed that **early home environment** and **quality of early caregiving** were powerful predictors of dropout. **Problem behaviors in 6th grade** was the best predictor followed by quality of early caregiving, parent involvement, peer competence.
Kennelly, L. (2007). Approaches to Dropout Prevention: Heeding Early Warning Signs	NA	NA	Dropout	NA	Key components of successful dropout interventions include: attendance and behavior monitors, tutoring and counseling, establishment of small learning communities, catch-up courses, ninth grade academies, career college awareness, community engagement, 8th-9th

with Appropriate Interventions. *American Institutes for Research*.					grade transition programs.
Kerka, S. (2006). *Dropout prevention: What Works, Evidence-based strategies for youth practitioners*. Columbus, OH. Retrieved from http://cle.osu.edu/lwc-publications/what-works/downloads/WW-Dropout-Prevention.pdf#page=13	NA	NA	Dropout	NA	<u>Key components of successful dropout prevention programs:</u> • Environment: smaller, more personal, sense of belonging to school community • Relationships: mentors, build relationships between students and teachers. • Academics: individual assistance (i.e., tutoring), make subject matter relevant, individualize learning, career and life skills, early childhood intervention, strong reading and writing programs. • Mental Health/Social skills: provide counseling/access to services, social and problem solving skills training. • Family: recognize importance of families in school success <u>Reducing the dropout rate:</u> • Make it harder for students to dropout of school • Address the underlying causes of dropout: poverty, family stress, stable housing • Address the needs of groups at highest risk of dropout • Strengthen school readiness: bolster family resources and home learning environment early on, high quality preschool. • Strengthen skills and understanding of parents and other relevant adults: expand access to parent education and family support programs, teacher recruitment and

					training. Interventions for students with disabilities: • Persistence, continuity, consistency • Monitoring • Relationships • Affiliation • Problem solving skills
Ladd, G. W., & Dinella, L. M. (2009). Continuity and change in early school engagement: Predictive of children's achievement trajectories from first to eighth grade? *Journal of Educational Psychology*, *101*(1), 190-206.	Kindergarteners followed through 8th grade (n=383).	Path analysis & Growth curve analysis	Academic achievement	• Child: behavioral and emotional engagement in school	This study examined the impacts of behavioral and emotional engagement in school on academic achievement from kindergarten through 8th grade. Higher engagement across the primary grades was predictive of higher academic achievement with **behavioral engagement** being a stronger predictor than emotional engagement.
Lehr, C., Hansen, A., & Sinclair, M. (2003). Moving beyond dropout towards school completion: An integrative review of data-based interventions. *Psychology*	NA	NA	Varies- factors related to dropout	NA	Review of dropout intervention studies. Seventeen studies met criteria for review. Of the interventions evaluated, positive impacts were generally seen in those that incorporated tutoring/mentoring monitoring, individual counseling, social skills training, family support, and a caring school environment. A few studies had mixed or negative findings. These seemed to be interventions in which students at risk of dropout were grouped together (i.e., alternative high school), possibly a deviant peer effect.

Review.					Notably all studies reviewed were middle school/high school interventions. "The most prominent finding is the paucity of published intervention studies given the complexity and importance of this issue for individuals and society as a whole" (pg 350). "As the importance of the ecological context in which students placed at risk of dropout are expected to function is increasingly recognized, it is reasonable to expect more interventions focused on the surrounding environment" (pg 359).
Mahoney, J. L., & Cairns, R. B. (1997). Do extracurricular activities protect against early school dropout? *Developmental psychology*, 33(2), 241-53.	7th graders (n=392)	Cluster analysis & HLM	Early dropout	• Child: participation in extracurricular activities	This study examines the relationship between involvement in extracurricular activities and early high school dropout. The authors hypothesized that involvement in extracurricular activities may be particularly important in keeping at risk children engaged in school. Results indicate that **engagement in school extracurricular activities** is linked to decreasing rates of early school dropout in both boys and girls. The outcome is observed primarily among students who were at highest risk for dropout.
Neild, R. C. (2009). Falling off track during the transition to high school: what we know and what can be done. *The Future of children / Center for the Future of Children, the*	NA	NA	Dropout	• Child: Inadequate middle school preparation • Community: high school organization	In this paper the author examines four theories about why 9th grade is particularly difficult for some students. 1) 9th grade coincides with other life changes such as reduced parental supervision and increased peer influence 2) transition to HS means breaking bonds with middle school teachers and friends 3) students are inadequately prepared for high school 4) the organization of the high school is a source of difficulty. The strongest evidence points to the last 2 theories- **inadequate preparation** and the

David and Lucile Packard Foundation, *19*(1), 53-76. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/21141705					**organization of the high school**.
Nye, C., & Turner, H. (2006). Approaches to parent involvement for improving the academic performance of elementary school age children. *London: Campbell Collaboration.* Retrieved from http://www.ordrupskole.dk/Infoweb/indhold/Skolebestyrelsen/For%C3%A6ldrerollei indl%C3%A6ring/parental_involvement_review.pdf	NA	NA	Academic Achievement	• Family: Parent Involvement	Reviewed studies that utilized randomized control trial (RCT) designs to assess the effect of **parental involvement** intervention programs on students' academic performance. The review included 18 studies and found that globally parent involvement has a significant positive effect on student achievement (medium effect size). The strongest impact was for reading achievement (which was also the most often studied outcome). Parents providing rewards and incentives and parent education and training produced the strongest effects.
Prevatt, F., & Kelly, F. D. (2003). Dropping out of	NA	NA	Dropout	NA	Review of the literature to identify studies of dropout prevention/intervention programs. Sixteen studies were reviewed, 11 of which

school: A review of intervention programs. *Journal of School Psychology*, 41(5), 377-395.					intervened in middle or high school. Interventions were grouped into the following categories: academic, mentoring, psycho-social skills, teacher/parent training, school/classroom structure, vocational/work, and monitoring (most frequently used: academic, mentoring, teacher/parent training, social skills training). Five studies employed a comparison group and were further examined. 1) A K-3 academic curriculum program: 28% dropout rate compared to 46% in comparison group. 2) Bilingual academic instruction for Latino students K-6: 23% dropout rate compared to 43% in comparison group. 3) 9th grade program that included ability grouping, tutoring, buddy system, freshman orientation, study skills and teacher advisor meetings: higher attendance than control group and decrease in dropout rate. 4) Check and connect: monitor who worked with students and families: compared 3 year participants to 2 year participants and found that those who participated a 3rd year (in 9th grade) were less likely to dropout in 9th grade (9% vs 30%). 5) Chicago Child Parent Centers (pre-k): dropout rate of 22% vs 32%. Two additional studies focused on parent and teacher training approached significance with dropout rates of 19% vs 26% and 12% vs 21%.
Rhodes, J. E., Grossman, J. B., & Resch, N. L. (2000). Agents of change: pathways through which	Youth who applied to Big Brothers Big Sisters in 1992 and 1993 (randomly	t-tests	Parent relationships, scholastic competence, grades and attendance, school value,	• Child: Mentoring • Family: parent-child relationships	This study examined the impact of a mentoring program (Big Brothers Big Sisters) on self reported outcome measures. Children were randomly assigned to either the treatment (BBBS) group or waitlist/control group. T-tests showed that the BBBS group showed higher scores on parent relationships, scholastic competence, and

mentoring relationships influence adolescents' academic adjustment. *Child development*, *71*(6), 1662-71.	assigned to tx and control groups) (n=1138)		self worth (self report survey)		attendance than the control group. Further examination found that the effects of **mentoring** were partially mediated through improvements in parent relationships.
Rumberger, R., & Lim, S. A. (2008). Why students drop out of school: A review of 25 years of research. *Policy Brief*, *15*(October), 805-893.	NA	NA	Dropout	• Child: grades, mobility, retention, delinquent behavior, being arrested, being involved in court, having delinquent friends, working more than 20 hours, educational expectations, immigration status, English language proficiency, disability status, depression, preschool • Family: change in family structure, family stress, poor maternal mental health, SES, parental education, positive parenting practices • Community: living in an affluent neighborhood, neighborhood	This paper provides a review of the research literature (389 studies) on the predictors of high school dropout and graduation. Individual predictors of dropout included: **academic achievement** (grades were a more robust predictor than test scores) at all levels (elementary, middle, high school), **student mobility** (stronger impact at the middle and high school levels), **retention** in elementary or middle school. **Absenteeism** was most often found to relate to dropout for high school and middle school students. Findings on participation in extracurricular activities were mixed with about half of studies finding an effect and the most consistent effect being participation in sports, especially among males. Engaging in **delinquent behavior**, **being arrested**, and **being involved in court** were also predictors of dropout. Having **delinquent friends** was also found to predict dropout as early as 7th grade. **Educational expectations** in middle and high school have been found to relate to dropout. Relatively few studies found relationships between student attitudes or self perceptions (i.e., locus of control) and dropout. **Immigration status**, **English language proficiency**, and

				violence	**disability status** also consistently predicted dropout. **Depression** in adolescence was linked to dropout. **Attending preschool** was found to improve graduation rates by 10-22%. Family indicators that impact dropout include **changes in family structure**, **family stress**, **poor maternal mental health**, **residential mobility** (risk of dropout increases with each additional move), **SES**, **parental education**, **positive parenting practices** (effects more often found at the elementary level). Community predictors of dropout include **living in an affluent neighborhood** (higher graduation rate), and **neighborhood violence**.
United Way. (2011). EDUCATION RESEARCH OVERVIEW.	NA	NA	NA	NA	Review of research around 5 areas: school readiness, early grade reading proficiency, middle grade success, high school graduation, and success in college, work, and life. 1) School readiness: provide resources and support to families, improve the quality of early care, provide books to children 2) Early grade reading proficiency: provide support for struggling students, develop effective teachers and principals, help families help their children become strong readers. 3) Middle grade success: strengthen academic effectiveness, enhance professional development, more hands on, engaging and relevant curriculum, provide academic and social support to struggling students, provide quality out of school opportunities to reinforce and enhance learning, develop early warning systems, increase family involvement and

					connections. 4) High school graduation: improve quality, rigor and relevance of high school instruction, create supportive learning environment, early warning system, reengage dropouts, engage families. 5) Success in college, work, and life: improve preparation for college, expand out of school efforts that connect to careers, develop policies and practices to help students plan for, access, and pay for college, provide support to help students succeed in college.
Vartanian, T. (1999). Do neighborhood conditions affect high school dropout and college graduation rates? *Journal of Socio-Economics*, 28, 21-41.	National sample of 14-18 year olds from 1968-1981 (n=3617)	Logistic regression	Dropout, graduation from college	• Family: income, parents' educational attainment • Community: mean income, poverty rate, high % of two parent households, high % of working adults	This study estimated the effects of neighborhood characteristics on the likelihood that a student will drop out of high school or graduate from college. Researchers found that neighborhood quality (based on **income, poverty rate, % two parent households, % working adults**) impacted the likelihood of dropout for black youth and the likelihood of college graduation for white youth. Neighborhood quality had the most impact on the likelihood that the most disadvantaged black youth would drop out of high school. Conversely, neighborhood quality had the most impact on the likelihood that the most advantaged white youth would graduate from college. These results suggest that **one avenue for addressing high dropout rates would be to address conditions for low-income black youth in the poorest neighborhoods**.
Woolley, M. E., & Grogan-kaylor, A. (2006). Protective Family	National representative sample of middle	Hierarchical linear modeling (HLM)	School coherence/ engagement, problem	• Child: repeating a grade • Family: family integration, family	This study focused on the role of family, neighborhood, and school factors on school engagement, problem behavior, and academic performance. Of the family factors, only **home**

Factors in the Context of Neighborhood : Promoting Positive School Outcomes. *Family Relations*, 55(January), 93-104.	and high school students (n= 2099)		behavior, & academic performance	satisfaction, family support, home academic culture • Community: neighborhood safety, peer culture, teacher support, school safety,	**academic culture** was associated with students' grades. Increases in family integration, family support, and home academic culture were all associated with school engagement. Family satisfaction and family integration were associated with lower levels of problem behavior. At the neighborhood level, neighborhood stability, violent crime and perceptions of neighborhood safety were associated with students' grades, neighborhood satisfaction was associated with school engagement, and violent crime, **neighborhood safety**, the number of affluent neighbors, and neighborhood peer culture were associated with problem behaviors. Finally at the school level school safety was associated with school engagement. **Teacher support** and **repeating a grade** were associated with all 3 outcomes measured. These findings are informative for practice: interventions aimed at increasing family supportive interactions and parental involvement in school may impact students' behavior, engagement, and academic performance. Also interventions should target multiple Microsystems (family, neighborhood, school) in order to affect school outcomes.