

Appendix C

Additional Risk Factor Charts and Information

Table C-1. Significant Individual Factors From Selected Longitudinal Datasets

Risk Factor	6 th Grade Cohort 1960's	Cal Study 1963-1967	HS & B 1980-1982	NELS:88 1988-1990	Seattle Project 1985-1993	SDDAP 1991-1995	Baltimore Schools 1982-1996	Chicago Schools 1966-1993	NLTS 1985-1986 to 1990-1991	Three Comm Study 1983-1988	Canadian Study 1974 & 1985	At-risk Sample 1970's to 1990's
I. Biological/Physiological Traits												
Female students				Goldschmidt & Wang (1999); Rumberger (1995)								
White students				Teachman et al. (1996)								
White & Hispanic students			Ekstrom et al. (1986)									
Black students				Goldschmidt & Wang (1999) before 10 th grade only								
White males										Cairns et al. (1989)		
II. Skills & Abilities												
<i>Disability</i>												
part. learning disabled & seriously emotionally disturbed									Wagner et al. (1993)			

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Student has learning problem				Kaufman et al. (1992)								
Student has emotional problem				Kaufman et al. (1992)								
Student was in special ed				Kaufman et al. (1992)								
Low IQ score	Lloyd (1978)											
II. Non-School Related												
Adult Responsibilities												
<i># hours worked pr week</i>												
Work more than 20 hrs per week				Goldschmidt & Wang (1999)								
Working 15+ hours per week			Barro & Kolstad (1987)									
Number of hours worked			Wehlage & Rutter (1986)									

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Employment obligations—had to work; hard to combine school and work				Jordan et al. (1994)								
<i>Marriage and parenthood</i>												
Marriage and child-bearing			Barro & Kolstad (1987)									
Parenthood						Gleason & Dynarski (2002)				Cairns et al. (1989)		
Family obligations—became parent; had to care for family member; had to support family				Jordan et al. (1994)								
Attitudes, Values & Behaviors												
<i>Bonding to high risk/antisocial peers</i>		Elliott & Voss (1974)			Battin-Pearson et al. (2000)							

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Peer social group also more likely to drop out		Elliott & Voss (1974) males								Cairns et al. (1989)		
<i>High-risk/deviant behavior</i>												
General deviance: Past year self-reports of drug use, violent and nonviolent behaviors					Battin-Pearson et al. (2000)							
Adolescent marijuana use 40+ times in lifetime								Ensminger et al. (1996)				
Serious trouble with the law			Wehlage & Rutter (1986)									
Student smokes				Kaufman et al. (1992)								

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<i>Lots of time spent w/friends outside of school</i>											Janosz et al. (1997)	
Seeing friends 4-5 times per week outside of school in 12 th grade									Wagner et al. (1993)			
Low student religiosity			Barro & Kolstad (1987)									
Low SES orientation (gang, fear of failure)											Janosz et al. (1997)	
Withdrawn/ depressed											Janosz et al. (1997)	
Experiences												
Lot of available allowance money											Janosz et al. (1997)	

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III. School-Related												
School Performance												
<i>Low grades and/or test scores</i>												
Low math achievement				Ingels et al. (2002)								
Low math achievement scores			Ekstrom et al. (1986)									
Low math grades				Kaufman et al. (1992)				Ensminger et al. (1996)				
Low English grades				Kaufman et al. (1992)								
Low grades			Wehlage & Rutter (1986); Ekstrom et al. (1986)			Gleason & Dynarski (2002)					Janosz et al. (1997)	
Low grades—males								Ensminger & Slusarcick (1992)				

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Low test scores			Wehlage & Rutter (1986)									Jimerson et al. (2000)
Low grades and test scores				Rumberger (1995)	Battin-Pearson et al. (2000)		Alexander et al. (2001)					
Low academic competence										Cairns et al. (1989)		
Failed class									Wagner et al. (1993)			
Low grades or scores/reading	Lloyd (1978)											
Low grades or scores/ language skills	Lloyd (1978)											
Lack of academic success		Elliott & Voss (1974)										
Student was failing at school			Ekstrom et al. (1986)	Jordan et al. (1994)								

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Student couldn't keep up with schoolwork				Jordan et al. (1994)								
<i>Retention/non-promotion/overage for grade level</i>				Goldschmidt & Wang (1999); Kaufman et al. (1992); Rumberger (1995)			Alexander et al. (2001)		Wagner et al. (1993)	Cairns et al. (1989)	Janosz et al. (1997)	
Age/retention	Lloyd (1978) – age for boys, retention for girls											
Overage by 2+ years						Gleason & Dynarski (2002)						

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Education Stability												
<i>Changing schools</i>												
# times changed schools				Kaufman et al. (1992); Rumberger (1995); Teachman et al. (1996)								
Attended 5+ schools						Gleason & Dynarski (2002)						
Academic Engagement												
<i>Low/inconsistent attendance</i>												
Cuts class once a week+				Kaufman et al. (1992)								
Truancy—# days missed when not sick			Wehlage & Rutter (1986)									
Tardy/late to school			Wehlage & Rutter (1986)	Kaufman et al. (1992) -- 5 + days in last month								

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Absent five + days in last month				Kaufman et al. (1992); Rumberger (1995)								
Total number of absences	Lloyd (1978)						Alexander et al. (1997)		Wagner et al. (1993)			
20+ days absent						Gleason & Dynarski (2002)						
<i>Low education expectations</i>												
Student expects not to get high school diploma/ unsure of graduation				Kaufman et al. (1992)		Gleason & Dynarski (2002)						
Student has low expectations			Wehlage & Rutter (1986)	Rumberger (1995)				Ensminger & Slusarcick (1992)				

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<i>Low commitment to school</i>												
One composite variable: Low student ed expectations, low self - assessment of school success, low engagement attitudes— didn't like school, etc.							Alexander et al. (2001)					
One composite variable: Low commitment to schooling: Attitude toward school, self-report of competence, importance of success and educational aspirations.											Janosz et al. (1997)	

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One composite variable: School normlessness (self-rep of amt of homework, cutting classes, acting out, give teachers problems, didn't like school)		Elliott & Voss (1974)										
<i>Lack of effort</i>												
Low amount of time spent on homework				Kaufman et al. (1992)								
Does little homework						Gleason & Dynarski (2002)						
Teacher said student rarely completes homework				Kaufman et al. (1992)								
Came unprepared for class				Kaufman et al. (1992)								
Teacher thought was underachiever				Kaufman et al. (1992)								

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Student thought teacher unsatisfied with their performance								Ensminger & Slusarcick (1992)				
Didn't take vocational courses/work experiences (SD)									Wagner et al. (1993)			
Social Engagement												
<i>No extracurricular participation</i>												
Did not participate in extracurricular activities (e.g. sports, clubs, chorus, newspaper, etc.)				Ingels et al. (2002) 8 th grade								
School social isolation; participated in few/no clubs, school activities or spent little time; had no teacher to go to for advice		Elliott & Voss (1974) 9-12 grades										

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Didn't belong to school or community group (SD)									Wagner et al. (1993) 9-12 gr			
No outside activities				Rumberger (1995)								
Student seen by peers as not at all a good student				Kaufman et al. (1992)								
Poor peer relations at school												Jimerson et al. (2000)
Behavioral Engagement												
<i>Misbehavior/disciplinary problems at school</i>												
Misbehavior				Goldschmidt & Wang (1999); Rumberger (1995)		Gleason & Dynarski (2002)						
Sent to office one or more times in last month				Kaufman et al. (1992)								

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Discipline problems: cutting class; disciplinary problems; suspensions			Wehlage & Rutter (1986)									
Behavior problems/anti-social behavior: cutting class; disciplinary problems; suspensions; trouble with police			Barro & Kolstad (1987); Ekstrom et al. (1986)									
Engagement behaviors—disciplinary problems, cutting class/skipping school							Alexander et al. (2001)					
Teacher thought student was disruptive				Kaufman et al. (1992)								
Problem behaviors at school												Jimerson et al. (2000)

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Expelled/suspended too often				Jordan et al. (1994)								
<i>High aggression</i>										Cairns et al. (1989)		
Early aggression (males)								Ensminger & Slusarcick (1992)				
Psychological Engagement												
<i>Didn't like school</i>			Ekstrom et al. (1986)									
Alienated from school—didn't like school; couldn't get along with teachers; didn't belong at school				Jordan et al. (1994)								
Felt they were viewed negatively by peers				Rumberger (1995)								

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Child's locus of control							Alexander et al. (1997)					
Spends no time each week reading for fun						Gleason & Dynarski (2002)						

NOTE: Factors appearing in *bold italics* in the table are factor groupings for the indented factors listed below the grouping name.

Table C-2. Significant Family Factors from Selected Longitudinal Datasets

Risk Factor	6 th Grade Cohort 1960's	Cal Study 1963-1967	HS & B 1980-1982	NELS:88 1988-1990	Seattle Project 1985-1993	SDDAP 1991-1995	Baltimore Schools 1982-1996	Chicago Schools 1966-1993	NLTS 1985-1986 to 1990-1991	Three Comm. Study 1983-1988	Canadian Study 1974 & 1985	At-risk Sample 1970's to 1990's
I. Background Characteristics												
<i>Low family socioeconomic status (SES)</i>	Lloyd (1978)	Elliott & Voss (1974)	Ekstrom et al. (1986); Wehlage & Rutter (1986)	Goldschmidt & Wang (1999); Ingels et al. (2002); Jordan et al. (1994); Rumberger (1995); Teachman et al. (1996)	Battin-Pearson et al. (2000)	Gleason & Dynarski (2002)	Alexander et al. (1997); Alexander et al. (2001)	Ensminger & Slusarcick (1992)		Cairns et al. (1989)		
Low family income			Barro & Kolstad (1987)						Wagner et al. (1993)			
Father's low level occupation	Lloyd (1978) – for males											
Parents' low level occupations			Barro & Kolstad (1987)									
Mother's low education—SES proxy	Lloyd (1978) – for females											

Table C-2. Significant Family Factors from Selected Longitudinal Datasets

Risk Factor	6 th Grade Cohort 1960's	Cal Study 1963-1967	HS & B 1980-1982	NELS:88 1988-1990	Seattle Project 1985-1993	SDDAP 1991-1995	Baltimore Schools 1982-1996	Chicago Schools 1966-1993	NLTS 1985-1986 to 1990-1991	Three Comm. Study 1983-1988	Canadian Study 1974 & 1985	At-risk Sample 1970's to 1990's
<i>Parents low level of education (over and above SES)</i>			Barro & Kolstad (1987)	Goldschmidt & Wang (1999); Teachman et al. (1996)							Janosz et al. (1997)	
Mother's low level of education in addition to SES								Ensminger et al. (1996); Ensminger & Slusarcick (1992) – for males				
Mother worked during elementary school			Barro & Kolstad (1987)									
<i># siblings</i>	Lloyd (1978)		Barro & Kolstad (1987)									
Family size—those in families with 2-3 people more likely to drop out than those w/ 4-5				Kaufman et al. (1992)								
<i>Not living with both natural parents</i>			Barro & Kolstad (1987); Ekstrom et al. (1986)									

Table C-2. Significant Family Factors from Selected Longitudinal Datasets

Risk Factor	6 th Grade Cohort 1960's	Cal Study 1963-1967	HS & B 1980-1982	NELS:88 1988-1990	Seattle Project 1985-1993	SDDAP 1991-1995	Baltimore Schools 1982-1996	Chicago Schools 1966-1993	NLTS 1985-1986 to 1990-1991	Three Comm. Study 1983-1988	Canadian Study 1974 & 1985	At-risk Sample 1970's to 1990's
Living with a stepparent				Rumberger (1995); Teachman et al. (1996)								
Living with a divorced mother				Teachman et al. (1996)								
Parents separated, divorced, deceased or remarried	Lloyd (1978)											
Single-parent family				Goldschmidt & Wang (1999); Kaufman et al. (1992)								
II. Level of Household Stress												
<i>Family disruption</i>												
Family disruption (divorce, frequent moving, # siblings, mother working)											Janosz et al. (1997)	
# Family changes (divorce, death, remarriage, family moving)							Alexander et al. (1997); Alexander et al. (2001)					

Table C-2. Significant Family Factors from Selected Longitudinal Datasets

Risk Factor	6 th Grade Cohort 1960's	Cal Study 1963-1967	HS & B 1980-1982	NELS:88 1988-1990	Seattle Project 1985-1993	SDDAP 1991-1995	Baltimore Schools 1982-1996	Chicago Schools 1966-1993	NLTS 1985-1986 to 1990-1991	Three Comm. Study 1983-1988	Canadian Study 1974 & 1985	At-risk Sample 1970's to 1990's
<i>High family mobility</i>												
Family moved between 1 st grade and adolescence								Ensminger et al. (1996) — females				
See school moves in individual factors												
III. Family Dynamics												
Quality of early caregiving												Jimerson et al. (2000)
Summer care out of home w/other adult (e.g. summer camp)							Alexander et al. (1997)					
No curfew on week nights								Ensminger et al. (1996) Ensminger & Slusarcick (1992) – females				
Low family acceptance											Janosz et al. (1997)	
High degree of regulation											Janosz et al. (1997)	

Table C-2. Significant Family Factors from Selected Longitudinal Datasets

Risk Factor	6 th Grade Cohort 1960's	Cal Study 1963-1967	HS & B 1980-1982	NELS:88 1988-1990	Seattle Project 1985-1993	SDDAP 1991-1995	Baltimore Schools 1982-1996	Chicago Schools 1966-1993	NLTS 1985-1986 to 1990-1991	Three Comm. Study 1983-1988	Canadian Study 1974 & 1985	At-risk Sample 1970's to 1990's
IV. Family Support for Education												
Attitudes, Values, and Beliefs About Education												
<i>Parents had low ed expectations</i>												
Mothers had low expectations—females								Ensminger & Slusarcick (1992)				
Parents had low expectations for ed attainment for child				Kaufman et al. (1992); Rumberger (1995)								
<i>Had one or more older siblings that dropped out</i>				Kaufman et al. (1992); Teachman et al. (1996)		Gleason & Dynarski (2002)						
Exposure to dropout in the home (parent ed, siblings dropping out, parent expectations for ed)		Elliott & Voss (1974)										
Behavior Related to Education												

Table C-2. Significant Family Factors from Selected Longitudinal Datasets

Risk Factor	6 th Grade Cohort 1960's	Cal Study 1963-1967	HS & B 1980-1982	NELS:88 1988-1990	Seattle Project 1985-1993	SDDAP 1991-1995	Baltimore Schools 1982-1996	Chicago Schools 1966-1993	NLTS 1985-1986 to 1990-1991	Three Comm. Study 1983-1988	Canadian Study 1974 & 1985	At-risk Sample 1970's to 1990's
Parent not involved in PTA or school activities				Kaufman et al. (1992)								
<i>No/low contact between parent and school</i>												
Few school/ teacher contacts about performance or behavior				Rumberger (1995)								
No/few parent-teacher conferences or school contacts (teacher reports)												Jimerson et al. (2000)
<i>Parents don't talk to child about school</i>						Gleason & Dynarski (2002)						
Few parent-child discussions about school experiences, courses, sch planning				Kaufman et al. (1992); Teachman et al. (1996)								
Lack of home study aids			Ekstrom et al. (1986) — Whites									

Table C-2. Significant Family Factors from Selected Longitudinal Datasets

Risk Factor	6th Grade Cohort 1960's	Cal Study 1963-1967	HS & B 1980-1982	NELS:88 1988-1990	Seattle Project 1985-1993	SDDAP 1991-1995	Baltimore Schools 1982-1996	Chicago Schools 1966-1993	NLTS 1985-1986 to 1990-1991	Three Comm. Study 1983-1988	Canadian Study 1974 & 1985	At-risk Sample 1970's to 1990's
Parent rarely checks homework				Goldschmidt & Wang (1999)								

NOTE: Factors appearing in *bold italics* in the table are factor groupings for the indented factors listed below the grouping name.

Table C-3. Significant School Factors from Selected Longitudinal Datasets

Risk Factor	6 th Grade Cohort 1960's	Cal Study 1963-1967	High School & Beyond 1980-1982	NELS:88 1988-1990	Seattle Project 1985-1993	SDDAP 1991-1995	Baltimore Schools 1982-1996	Chicago Schools 1 st grade class 1966-1993	NLTS 1985-1986 to 1990-1991	Three Comm. Study 1983-1988	Canadian Study 1974 & 1985	At-risk Sample 1970's to 1990's
School Environment												
% high-risk incoming class in high school impacts school avg. dropout				Goldschmidt & Wang (1999)								
% student body misbehaving				Goldschmidt & Wang (1999)								
Moderate to high level of school problems (attendance, violence/safety, abuse of teachers)				Kaufman et al. (1992)								
High % see discipline as unfair				Rumberger (1995)								
Students who give low ratings of teacher support (interest, praise, listening)				Rumberger (1995)								

Table C-4. General Observations on Factors Across Studies and Data Sources

Risk Factor	6th Grade Cohort 1960's	Cal Study 1963-1967	HS & B 1980-1982	NELS:88 1988-1990	Seattle Project 1985-1993	SDDAP 1991-1995	Baltimore Schools 1982-1996	Chicago Schools 1966-1993	NLTS 1985-1986 to 1990-1991	Three Comm Study 1983-1988	Canadian Study 1974 & 1985	At-risk Sample 1970's to 1990's
Dropout as cumulative/developmental process				Jordan et al. (1994)			Alexander et al. (1997)					Jimerson et al. (2000)
Higher # of factors =more risk of dropout				Ingels et al. (2002)								
Multiple risk factors better predictor			Wehlage & Rutter (1986)			Gleason & Dynarski (2002)				Cairns et al. (1989)		
Regression predictor explains most variance						Gleason & Dynarski (2002)						

Table C-5. Initial Individual Risk Categories and Factors*

Category	Risk Factor
I. Individual Background Characteristics	<ul style="list-style-type: none"> ▪ Has a disability (particularly learning disabilities & seriously emotionally disturbed)
II. Non-School-Related Factors	
Early Adult Responsibilities	<ul style="list-style-type: none"> ▪ Hours worked per week ▪ Marriage and parenthood
Social Attitudes, Values & Behaviors	<ul style="list-style-type: none"> ▪ High-risk/antisocial friends (deviant behavior, likely to drop out) ▪ High-risk/deviant behavior (violent, drug use, trouble w/law)
Experiences	<i>No factors were cited in more than one data source.</i>
III. School-Related Factors	
School Performance	<ul style="list-style-type: none"> ▪ Low test scores and grades ▪ Retention/overage for grade
Education Stability	<ul style="list-style-type: none"> ▪ Changing schools
Academic Engagement	<ul style="list-style-type: none"> ▪ Poor attendance ▪ Low educational aspirations/expectations ▪ Low effort/lack of commitment to schooling in attitudes and behavior
Social Engagement	<i>No factors were cited in more than one data source.</i>
Behavioral Engagement	<ul style="list-style-type: none"> ▪ Misbehavior/disciplinary problems at school ▪ Early/high aggression, particularly for males
Psychological Engagement	<ul style="list-style-type: none"> ▪ Student didn't like school

Table C-6. Initial Family Risk Categories and Factors*

Category	Risk Factor
I. Background Characteristics	<ul style="list-style-type: none"> ▪ Low family SES ▪ Low level of education of parents ▪ Larger number of siblings ▪ Not living with both natural parents
II. Level of Household Stress	<i>No factors were cited in more than one data source.</i>
III. Family Dynamics	<i>No factors were cited in more than one data source.</i>
IV. Family Support for Education	
Attitudes, Values and Beliefs about Education	<ul style="list-style-type: none"> ▪ Parents have low expectations for educational attainment of children ▪ One or more older siblings dropped out
Behavior Related to Education	<ul style="list-style-type: none"> ▪ No/low contact between parent and school ▪ Parents don't talk to child about school

*Reported in two or more selected studies (those using multivariate statistics/modeling from longitudinal data sources) as key predictor of dropping out of school.

Table C-7. Initial School Environment Risk Categories and Factors

Category	Risk Factor
School Environment	<i>No factors were cited in more than one data source.</i>

Table C-8. Significant Individual Risk Factors in At Least One Data Source*

Category	Elementary School	Middle School	High School
Individual Background Characteristics			
<ul style="list-style-type: none"> ▪ Has a learning disability or emotional disturbance 		<ul style="list-style-type: none"> ▪ VII: 8th grade students taking special education (Kaufman et al., 1992); 8th grade students with learning problems (Kaufman et al., 1992); 8th grade students with emotional problems (Kaufman et al., 1992) 	<ul style="list-style-type: none"> ▪ IX: 9-12th grades having a disability (particularly learning disabilities & seriously emotionally disturbed) (Wagner et al., 1993)
Early Adult Responsibilities			
<ul style="list-style-type: none"> ▪ High number of work hours 	N/A	<ul style="list-style-type: none"> ▪ VII: 8th grade working 20+ hours (Goldschmidt & Wang, 1999) 	<ul style="list-style-type: none"> ▪ VII: 10-12th grade working 20+ hours (Goldschmidt & Wang, 1999) ▪ VIII: 10th grade working 15+ hours per week (Barro & Kolstad, 1987); number of hours worked (Wehlage & Rutter, 1986)
<ul style="list-style-type: none"> ▪ Parenthood 	N/A		<ul style="list-style-type: none"> ▪ VI: 11th-12th grades having a child (Gleason & Dynarski, 2002) ▪ VIII: 10th grade marriage/parenthood (Barro & Kolstad, 1987)
Social Attitudes, Values & Behaviors			
<ul style="list-style-type: none"> ▪ High-risk peer group 		<ul style="list-style-type: none"> ▪ IV: 8th grade bonding to antisocial peers (bonding to close friends and items about their drug use, drinking, trouble they've been in) (Battin-Pearson, 2000) 	<ul style="list-style-type: none"> ▪ X: high school close friends likely to drop out (Elliott & Voss, 1974); close friends likely to be in trouble (Elliott & Voss, 1974)

Category	Elementary School	Middle School	High School
		<ul style="list-style-type: none"> V: 7th grade membership in peer group with dropouts (Cairns et al., 1989) 	
<ul style="list-style-type: none"> High-risk social behavior 		<ul style="list-style-type: none"> II: 7-8th grades marijuana use (Ensminger et al., 1996) IV: 8th grade general deviance (self-reports of drug use, violent and nonviolent offense rates) (Battin-Pearson, 2000) VII: 8th grade students who smoke cigarettes (Kaufman et al., 1992) 	<ul style="list-style-type: none"> VIII: 10th grade serious trouble with the law (Wehlage & Rutter, 1986)
<ul style="list-style-type: none"> Highly socially active outside of school 			<ul style="list-style-type: none"> IX: 12th grade students seeing friends 4-5 times per week outside of school (Wagner et al., 1993)
School Performance			
<ul style="list-style-type: none"> Low achievement 	<ul style="list-style-type: none"> I: 3rd grade GPA for males (Lloyd, 1978); 3rd grade CAT reading score for males (Lloyd, 1978); 3rd grade reading grade for females (Lloyd, 1978); 3rd grade math CAT score for females (Lloyd, 1978) II: 1st grade poor grades for males (Ensminger & Slusarik, 1992) III: 1st grade poor performance (Alexander et al, 2001) XI: 1st grade poor achievement scores (Jimerson et al., 2000) 	<ul style="list-style-type: none"> I: 6th grade achievement (language skills and reading) (Lloyd, 1978) II: 7-8th grades math grades (Ensminger et al., 1996) IV: 8th grade poor academic performance (CAT total score—reading, language and math, GPA, self-report of grades) (Battin-Pearson, 2000) V: 7th grade academic competence (teacher ratings) (Cairns et al., 1989) VII: 8th grade low math achievement (Goldschmidt & Wang, 1999; Ingels et al., 2002); 8th grade poor English 	<ul style="list-style-type: none"> VI: 11-12th grades low grades (Gleason & Dynarski, 2002) VIII: 10th grade poor grades (Ekstrom et al., 1986; Wehlage & Rutter, 1986); 10th grade low math achievement test scores (Ekstrom et al., 1986); 10th grade low test scores (Wehlage & Rutter, 1986); 10th grade student left because failing (Ekstrom et al., 1986) IX: 9-12th grades ever failed a class (Wagner et al., 1993) X: high school lack of academic success (Elliott & Voss, 1974) XI: age 16 low achievement

Category	Elementary School	Middle School	High School
		<p>grades (Kaufman et al., 1992); 8th grade poor math grades (Kaufman et al., 1992); 8th grade low reading achievement (Goldschmidt & Wang, 1999); 8th grade—was failing in school (Jordan et al., 1994); 8th grade low grades (Rumberger, 1995)</p>	<p>scores (Jimerson et al., 2000)</p>
<ul style="list-style-type: none"> ▪ Retention/overage for grade 	<ul style="list-style-type: none"> ▪ I: 3rd grades for females – retention in (Lloyd, 1978); 3rd grade age for males (Lloyd, 1978) ▪ III: 1st grade retention (Alexander et al., 2001); 2-5th grades retention (Alexander et al., 2001) ▪ VII: K-6 retention (Kaufman et al., 1992) 	<ul style="list-style-type: none"> ▪ I: 6th grade nonpromotion (Lloyd, 1978) ▪ III: 6-8th grades retention (Alexander et al., 2001) ▪ V: 7th grade overage (Cairns et al., 1989) ▪ VI: 8-9th grades overage by 2+ years (Gleason & Dynarski, 2002) ▪ VII: 8th grade retention (Goldschmidt & Wang, 1999; Rumberger, 1995); 6-8 retention (Kaufman et al., 1992) 	<ul style="list-style-type: none"> ▪ VI: 11-12th grades overage by 2+ years (Gleason & Dynarski, 2002) ▪ VII: 10-12th grades retention (Goldschmidt & Wang, 1999) ▪ IX: 9-12th grades overage for grade (Wagner et al., 1993)
School Engagement			

Category	Elementary School	Middle School	High School
<ul style="list-style-type: none"> ▪ Poor attendance 	<ul style="list-style-type: none"> ▪ I: 3rd grade absences (Lloyd, 1978) ▪ III: 1st grade absences (Alexander et al., 1997) 	<ul style="list-style-type: none"> ▪ I: 6th grade absences (Lloyd, 1978) ▪ VI: 8-9th grade absent 20+ days during school year (Gleason & Dynarski, 2002) ▪ VII: 8th grade absent 5+ days in past month (Kaufman et al., 1992; Rumberger, 1995); 8th grade tardy 5+ days in past month (Kaufman et al., 1992); 8th grade cuts class at least once per week (Kaufman et al., 1992) 	<ul style="list-style-type: none"> ▪ VI: 11-12th grade absent 20+ days during school year (Gleason & Dynarski, 2002) ▪ VIII: 10th grade truancy/cutting class and tardies (Wehlage & Rutter, 1986) ▪ IX: 9-12th grades absenteeism (Wagner et al., 1993)
<ul style="list-style-type: none"> ▪ Low educational expectations 		<ul style="list-style-type: none"> ▪ II: 7-8th grades—low education aspirations for males (Ensminger & Slusarik, 1992) ▪ VII: 8th grade low completion expectations (Kaufman et al., 1992; Rumberger, 1995) 	<ul style="list-style-type: none"> ▪ VI: 11-12th grades unsure of high school graduation (Gleason & Dynarski, 2002) ▪ VIII: 10th grade low expectations (Wehlage & Rutter, 1986)
<ul style="list-style-type: none"> ▪ Lack of effort 		<ul style="list-style-type: none"> ▪ VII: 8th grade low completion of homework (Kaufman et al., 1986); 8th grade unprepared for class (Kaufman et al., 1986); 8th grade teacher views as underachiever (Kaufman et al., 1986) 	<ul style="list-style-type: none"> ▪ VI: 11-12th grades does little homework (Gleason & Dynarski, 2002)
<ul style="list-style-type: none"> ▪ Low commitment to school 		<ul style="list-style-type: none"> ▪ VII: 8th grade—alienated from school (Jordan et al., 1994) 	<ul style="list-style-type: none"> ▪ VIII: 10th grade student didn't like school (Ekstrom et al., 1986) ▪ X: high school school normlessness (low homework, act out, skipping, didn't like school) (Elliott & Voss, 1974) ▪ III: 9th grade low school engagement (low ed

Category	Elementary School	Middle School	High School
			expectations and self-assessment of school success, don't like school) (Alexander et al., 2001)
<ul style="list-style-type: none"> ▪ No extracurricular participation 		<ul style="list-style-type: none"> ▪ VII: 8th grade—did not participate in extracurricular activities (Ingels et al., 2002) 	<ul style="list-style-type: none"> ▪ IX: 9-12th grades—did not belong to school or community group (Wagner et al., 1993) ▪ X: 9-12th grades—school social isolation—did not participate in extracurricular activities (Elliott & Voss, 1974)
School Behavior			
<ul style="list-style-type: none"> ▪ Misbehavior 	<ul style="list-style-type: none"> ▪ XI: 1st grade problem behaviors (Jimerson et al., 2000) 	<ul style="list-style-type: none"> ▪ VII: 8th grade misbehavior (Goldschmidt & Wang, 1999; Rumberger, 1995); 8th grade sent to office 1+ times in past month (Kaufman et al., 1992); 8th grade teacher thought student was disruptive (Kaufman et al., 1992); expelled/suspended too often (Jordan et al., 1994) 	<ul style="list-style-type: none"> ▪ III: 9th grade problem behaviors at school (Alexander et al., 2001) ▪ VI: 11-12th grades disciplinary problems at school (Gleason & Dynarski, 2002) ▪ VII: 10-12th grades misbehavior (Goldschmidt & Wang, 1999) ▪ VIII: 10th grade antisocial behavior/discipline problems (Barro & Kolstad, 1987; Ekstrom et al., 1986; Wehlage & Rutter, 1986) ▪ XI: age 16 problem behaviors (Jimerson et al., 2000)
<ul style="list-style-type: none"> ▪ Early aggression 	<ul style="list-style-type: none"> ▪ II: 1st grade aggressive behavior for males (Ensminger & Slusarik, 1992) 	<ul style="list-style-type: none"> ▪ V: 7th grade aggressive behavior (Cairns et al., 1989) 	

*Data Sources

- I. Sixth grade cohort (Lloyd, 1978)
- II. Chicago schools (Ensminger et al., 1996; Ensminger & Slusarcick, 1992)
- III. Baltimore schools (Alexander et al., 2001; Alexander et al., 1997)
- IV. Seattle Social Development Group data (Battin-Pearson et al., 2000)
- V. Three community study (Cairns et al., 1989)
- VI. School Dropout Demonstration Assistance Programs (SDDAP) (Gleason & Dynarski, 2002)
- VII. National Education Longitudinal Study (NELS) (Goldschmidt & Wang, 1999; Ingels et al., 2002; Jordan et al., 1994; Kaufman et al., 1992; Rumberger, 1995; Teachman et al., 1996)
- VIII. High School and Beyond (Barro & Kolstad, 1987; Ekstrom et al., 1986; Wehlage et al., 1986)
- IX. National Longitudinal Transition Study of Special Education Students (NLTS) (Wagner et al., 1993)
- X. California study (Elliott & Voss, 1974)
- XI. At-risk sample (Jimerson et al., 2000)

Table C-9. Significant Family Risk Factors by School Level in At Least One Data Source*

Category	Elementary School	Middle School	High School
Family Background Characteristics			
<ul style="list-style-type: none"> ▪ Low socioeconomic status (SES) 	<ul style="list-style-type: none"> ▪ I: 3rd grade—father’s occupation for males; mother’s education for females (Lloyd, 1978) ▪ II: 1st grade for males: nonpoor aggressive males more likely to drop out (Ensminger & Slusarik, 1992) ▪ III: 1st grade SES (Alexander et al., 2001; Alexander et al., 1997) 	<ul style="list-style-type: none"> ▪ I: 6th grade—SES measures (Lloyd, 1978) ▪ IV: 8th grade low SES—eligibility for free lunch program (Battin-Pearson, 2000) ▪ V: 7th grade SES—from employment rating scale score (Cairns et al., 1989) ▪ VI: 6th grade—receipt of public assistance (Gleason & Dynarski, 2002) ▪ VII: 8th grade low SES (Goldschmidt & Wang, 1999; Ingels et al., 2002; Jordan et al., 1994; Rumberger, 1995; Teachman et al., 1996) 	<ul style="list-style-type: none"> ▪ VI.: 9th grade—receipt of public assistance (Gleason & Dynarski, 2002) ▪ VII: 10-12th grades low SES (Goldschmidt & Wang, 1999) ▪ VIII: 10th grade low SES (Barro & Kolstad, 1987; Ekstrom et al., 1986; Wehlage & Rutter, 1986) ▪ IX: high school low SES (Wagner et al., 1993) ▪ X: high school low SES (Elliott & Voss, 1974)
<ul style="list-style-type: none"> ▪ High family mobility 		<ul style="list-style-type: none"> ▪ VI: 8-9th grades attended five or more schools during lifetime (Gleason & Dynarski, 2002) ▪ VII: 8th grade changed schools at least once since 1st grade (risk increases w/each move) (Kaufman et al., 1992; Rumberger, 1995; Teachman et al., 1996) 	
<ul style="list-style-type: none"> ▪ Low education level of parents 	<ul style="list-style-type: none"> ▪ II: 1st grade—males only—parents had low level of education (Ensminger & Slusarcick, 1992); 1st grade – parents had low level of education (Ensminger et al., 1996) 	<ul style="list-style-type: none"> ▪ VII: 8th grade—parents had low level of education (Goldschmidt & Wang, 1999; Teachman et al., 1996) 	<ul style="list-style-type: none"> ▪ VII: 10-12th grades—parents had low level of education (Goldschmidt & Wang, 1999) ▪ VIII: 10th grade—parents had low level of education (Barro & Kolstad, 1987)

Category	Elementary School	Middle School	High School
<ul style="list-style-type: none"> ▪ Large number of siblings 	<ul style="list-style-type: none"> ▪ I: 3rd grade—larger number of siblings (Lloyd, 1978) 		<ul style="list-style-type: none"> ▪ VIII: 10th grade—larger number of siblings (large families) (Barro & Kolstad, 1987)
<ul style="list-style-type: none"> ▪ Not living with both natural parents 	<ul style="list-style-type: none"> ▪ I: 3rd grade—natural parents were separated, divorced, deceased, or remarried (Lloyd, 1978) 	<ul style="list-style-type: none"> ▪ VII: 8th grade—single-parent household (Goldschmidt & Wang, 1999; Kaufman et al., 1992); 8th grade – step-family household (Rumberger, 1995; Teachman et al., 1996); 8th grade—living w/divorced mother (Teachman et al., 1996) 	<ul style="list-style-type: none"> ▪ VII: 10-12th grades—single-parent household (Goldschmidt & Wang, 1999) ▪ VIII: 10th grade—living w/only one or none of parents (Barro & Kolstad, 1987); 10th grade—lack of both natural parents in home (Ekstrom et al., 1986)
<ul style="list-style-type: none"> ▪ Family disruption 	<ul style="list-style-type: none"> ▪ III: 1st grade—high number of family changes (Alexander et al., 2001; Alexander et al., 1997) 		
Family Engagement/Commitment to Education			
<ul style="list-style-type: none"> ▪ Low educational expectations 		<ul style="list-style-type: none"> ▪ II: 7-8th grades—females—mother had low expectations (Ensminger & Slusarcick, 1992) ▪ VII: 8th grade – parent had low expectations for ed attainment (Kaufman et al., 1992; Rumberger, 1995) 	
<ul style="list-style-type: none"> ▪ Sibling(s) have dropped out 		<ul style="list-style-type: none"> ▪ VII: 8th grade—had a sibling that dropped out (Kaufman et al., 1992; Teachman et al., 1996) 	<ul style="list-style-type: none"> ▪ VI: 11-12th grades—had a sibling that dropped out (Gleason & Dynarski, 2002)
<ul style="list-style-type: none"> ▪ Low contact with school 		<ul style="list-style-type: none"> ▪ VII: 8th grade—Few school/teacher contacts about performance or behavior (Rumberger, 1995) ▪ XI: 6th grade – low parent contacts w/school or teacher, based on teacher reports (Jimerson et al., 2000) 	

Category	Elementary School	Middle School	High School
<ul style="list-style-type: none"> ▪ Lack of conversations about school 		<ul style="list-style-type: none"> ▪ VI: 8-9th grades—parents don't talk to child about things studied in school (Gleason & Dynarski, 2002) ▪ VII: 8th grade—few parent-child discussions about school experiences/activities, topics studied, courses, school planning (Rumberger, 1995; Teachman et al., 1996) 	<ul style="list-style-type: none"> ▪ VI: 11-12th grades—parents don't talk to child about things studied in school (Gleason & Dynarski, 2002)

*Data Sources

- I. Sixth grade cohort (Lloyd, 1978)
- II. Chicago schools (Ensminger et al., 1996; Ensminger & Slusarcick, 1992)
- III. Baltimore schools (Alexander et al., 2001; Alexander et al., 1997)
- IV. Seattle Social Development Group data (Battin-Pearson et al., 2000)
- V. Three community study (Cairns et al., 1989)
- VI. School Dropout Demonstration Assistance Programs (SDDAP) (Gleason & Dynarski, 2002)
- VII. National Education Longitudinal Study (NELS) (Goldschmidt & Wang, 1999; Ingels et al., 2002; Jordan et al., 1994; Kaufman et al., 1992; Rumberger, 1995; Teachman et al., 1996)
- VIII. High School and Beyond (Barro & Kolstad, 1987; Ekstrom et al., 1986; Wehlage et al., 1986)
- IX. National Longitudinal Transition Study of Special Education Students (NLTS) (Wagner et al., 1993)
- X. California study (Elliott & Voss, 1974)
- XI. At-risk sample (Jimerson et al., 2000)

Table C-10. Significant Individual Risk Factors by School Level in At Least Two Data Sources*

Category	Elementary School	Middle School	High School
Individual Background Characteristics			
<ul style="list-style-type: none"> ▪ Has a learning disability or emotional disturbance 			
Early Adult Responsibilities			
<ul style="list-style-type: none"> ▪ High number of work hours 			<ul style="list-style-type: none"> ▪ Working 20 or more hours per week (High School & Beyond; NELS)
<ul style="list-style-type: none"> ▪ Parenthood 			<ul style="list-style-type: none"> ▪ Parenthood (High School & Beyond; SDDAP)
Social Attitudes, Values & Behavior			
<ul style="list-style-type: none"> ▪ High-risk peer group 		<ul style="list-style-type: none"> ▪ Bonding to high-risk peers (Seattle Social Development Group data; Three community study) 	
<ul style="list-style-type: none"> ▪ High-risk social behavior 		<ul style="list-style-type: none"> ▪ Substance use (Chicago schools; Seattle Social Development Group data) 	
<ul style="list-style-type: none"> ▪ Highly socially active outside of school 			
School Performance			
<ul style="list-style-type: none"> ▪ Low grades and test scores 	<ul style="list-style-type: none"> ▪ Low overall academic performance (At-risk sample; Baltimore schools; Chicago schools—males only) 	<ul style="list-style-type: none"> ▪ Low achievement in language skills and English (NELS; Sixth grade cohort) ▪ Low achievement in reading (NELS; Sixth grade cohort) ▪ Low achievement in math (Chicago schools; NELS) ▪ Low overall academic performance (NELS; Seattle Social Development Group) 	<ul style="list-style-type: none"> ▪ Low overall academic performance (At-risk sample; California study; High School & Beyond; NLTS; SDDAP)

Category	Elementary School	Middle School	High School
		data)	
<ul style="list-style-type: none"> Retention/overage for grade 	<ul style="list-style-type: none"> Retention (Baltimore schools; NELS; Sixth grade cohort—females only) 	<ul style="list-style-type: none"> Retention (Baltimore schools; NELS; Sixth grade cohort) Overage by 2+ years (SDDAP; Three Community Study) 	<ul style="list-style-type: none"> Overage for grade (NLTS) Overage by 2+ years (SDDAP)
School Engagement			
<ul style="list-style-type: none"> Poor attendance 	<ul style="list-style-type: none"> High number of absences (Alexander et al., 1997; Lloyd, 1978) 	<ul style="list-style-type: none"> High number of absences (Sixth grade cohort; NELS; SDDAP) 	<ul style="list-style-type: none"> High absenteeism (NLTS; SDDAP)
<ul style="list-style-type: none"> Low educational expectations 		<ul style="list-style-type: none"> Low educational aspirations for males (Chicago schools) Low completion expectations (NELS) 	<ul style="list-style-type: none"> Low educational aspirations (High School & Beyond; SDDAP)
<ul style="list-style-type: none"> Lack of effort 			
<ul style="list-style-type: none"> Low commitment to school 			<ul style="list-style-type: none"> Didn't like school (High School & Beyond; NELS) Overall low engagement and commitment in attitudes and behavior (Baltimore Schools; California Study)
<ul style="list-style-type: none"> No extracurricular participation 			<ul style="list-style-type: none"> Did not participate in extracurricular activities (California Study; NLTS)
School Behavior			
<ul style="list-style-type: none"> Misbehavior 			<ul style="list-style-type: none"> Discipline problems at school (High School & Beyond; NELS; SDDAP) Misbehavior/problem behaviors at school (At-risk sample; Baltimore schools)

Category	Elementary School	Middle School	High School
▪ Early aggression			

*Data Sources:

At-risk sample (Jimerson et al., 2000)

Baltimore schools (Alexander et al., 2001; Alexander et al., 1997)

California study (Elliott & Voss, 1974)

Chicago schools (Ensminger et al., 1996; Ensminger & Slusarcick, 1992)

High School and Beyond (Barro & Kolstad, 1987; Ekstrom et al., 1986; Wehlage et al., 1986)

National Education Longitudinal Study (NELS) (Goldschmidt & Wang, 1999; Ingels et al., 2002; Jordan et al., 1994; Kaufman et al., 1992; Rumberger, 1995; Teachman et al., 1996)

National Longitudinal Transition Study of Special Education Students (NLTS) (Wagner et al., 1993)

School Dropout Demonstration Assistance Programs (SDDAP) (Gleason & Dynarski, 2002)

Seattle Social Development Group data (Battin-Pearson et al., 2000)

Sixth grade cohort (Lloyd, 1978)

Three community study (Cairns et al., 1989)

Table C-11. Significant Family Risk Factors by School Level in At Least Two Data Sources*

Category	Elementary School	Middle School	High School
Family Background Characteristics			
<ul style="list-style-type: none"> ▪ Low socioeconomic status 	<ul style="list-style-type: none"> ▪ Low family SES (Baltimore Schools; Sixth grade cohort) 	<ul style="list-style-type: none"> ▪ Low family SES (NELS; Seattle Social Development Group data; Sixth grade cohort; Three community study) 	<ul style="list-style-type: none"> ▪ Low family SES (High School & Beyond; NELS)
<ul style="list-style-type: none"> ▪ High family mobility 		<ul style="list-style-type: none"> ▪ Changed schools (NELS; SDDAP) 	
<ul style="list-style-type: none"> ▪ Low education level of parents 			<ul style="list-style-type: none"> ▪ Low level of education of parents (High School & Beyond; NELS)
<ul style="list-style-type: none"> ▪ Large number of siblings 			
<ul style="list-style-type: none"> ▪ Not living with both natural parents 			<ul style="list-style-type: none"> ▪ Lack of both natural parents in home (High School & Beyond) ▪ Living in single-parent household (NELS)
<ul style="list-style-type: none"> ▪ Family disruption 			
Family Engagement/Commitment to Education			
<ul style="list-style-type: none"> ▪ Low educational expectations 		<ul style="list-style-type: none"> ▪ Low education expectations of one or more parents (Chicago schools; NELS) 	
<ul style="list-style-type: none"> ▪ Sibling(s) have dropped out 			
<ul style="list-style-type: none"> ▪ Low contact with school 		<ul style="list-style-type: none"> ▪ Low parent-school contacts (At-risk sample; NELS) 	
<ul style="list-style-type: none"> ▪ Lack of conversations about school 		<ul style="list-style-type: none"> ▪ Parents don't talk to child about school (NELS; SDDAP) 	

*Data Sources:

At-risk sample (Jimerson et al., 2000)

Baltimore schools (Alexander et al., 2001; Alexander et al., 1997)

California study (Elliott & Voss, 1974)

Chicago schools (Ensminger et al., 1996; Ensminger & Slusarcick, 1992)
High School and Beyond (Barro & Kolstad, 1987; Ekstrom et al., 1986; Wehlage et al., 1986)
National Education Longitudinal Study (NELS) (Goldschmidt & Wang, 1999; Ingels et al., 2002; Jordan et al., 1994; Kaufman et al., 1992; Rumberger, 1995; Teachman et al., 1996)
National Longitudinal Transition Study of Special Education Students (NLTS) (Wagner et al., 1993)
School Dropout Demonstration Assistance Programs (SDDAP) (Gleason & Dynarski, 2002)
Seattle Social Development Group data (Battin-Pearson et al., 2000)
Sixth grade cohort (Lloyd, 1978)
Three community study (Cairns et al., 1989)