

WHO WILL DROP OUT FROM SCHOOL?  
KEY PREDICTORS FROM THE LITERATURE

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## EXECUTIVE SUMMARY

Based on a review of longitudinal studies, a number of predictors were identified for later school dropout (see table 1).

<u>Before school*</u>	<u>First grade*</u>	<u>Elementary School</u>	<u>Middle &amp; High School</u>
Quality of care giving	Problem behaviors School Performance Grade retention	Problem behaviors School Performance Grade retention Parent involvement Gender SES Stressful life events Mobility	Problem behaviors School Performance Grade retention Parent involvement Gender SES Stressful life events Mobility Absenteeism Disciplinary problems Self-report – how likely to graduate

**Table 1. Summary table.**

\* Many important variables have not been studied at these early ages.

- Dropping out is better conceptualized as an evolving process rather than an event. It is a process that starts prior to the child entering school. Along the way the process manifests itself in a variety of forms. Truancy, disciplinary problems, failing grades in high schools are late manifestations of the process and immediate markers of dropping out behavior, while behavior problems, and low school achievement are midcourse markers that provide additional time for prevention and intervention strategies to work.

### **Three major themes emerged:**

Early predictors matter. Even after controlling for later variables, first grade problem behaviors, school performance and grade retention were significant predictors of school dropout.

Grade retention is a major predictor. Grade retention, a variable largely under the control of schools, was identified in multiple studies at every grade level. Almost all children who had multiple grade retention dropped out.

Multiple risk factors are better predictors than a single risk factor.

### **Recommendations:**

- Prevention of school drop out starts early. A strategy for prevention is needed at every stage of development.
- Based on multiple early risk factors, identification of students at risk for dropping out is possible.

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## INTRODUCTION

The purpose of this report was to identify key predictors of dropping out of school at different ages (e.g. early predictors, middle predictors, late predictors). The literature was searched focusing on summary articles reporting on longitudinal studies. Four key articles were identified:

- Alexander, K.L., D.R. Entwistle, N.S. Kabbani, 2001. “The Dropout Process in Life Course Perspective: Early Risk Factors at Home and School.” *Teachers College Record* 103, 760-822.
- Gleason, P. and M. Dynarski, 2002 “Do We Know Whom to Serve? Issues in Using Risk Factors to Identify Dropouts” *Journal of Education for Students Placed at Risk* 7, 25-41.
- Hess, R.S. and E.P. Copeland, 2001 “Students’ Stress, Coping Strategies, and School Completion.” *School Psychology Quarterly* 16, 389-405.
- Jimerson, S., B. Egeland, L.A. Sroufe, and B. Carlson, 2000 “A Prospective Longitudinal Study of High-School Dropouts, Examining Multiple Predictors Across Development.” *Journal of School Psychology* 38, 525-549.

## BASIC THOUGHTS ABOUT THE DROPPING OUT PROCESS

Jimerson et al., (2000) has provided the best conceptualization of the dropping out phenomena. According to Jimerson, dropping out is better conceptualized as an evolving process rather than an event. It is a process that starts prior to the child entering school (Jimerson, et al. 2000). Along the way the process manifests itself in a variety of forms. Truancy, disciplinary problems, failing grades in high schools are late manifestations of the process and immediate markers of dropping out behavior, while behavior problems, and low school achievement are midcourse markers that provide additional time for prevention and intervention strategies to work.

This conceptualization suggests the need for communities and schools to have strategies to respond to the dropping out process at each stage of development, rather than waiting until late manifestations of the process are evident.

As Gleason and Dynarski (2002) point out, risk factors are often not enough to accurately predict who will drop out. Dropping out results from a complex combination of individual, family and school experiences (Dryfoos, 1990; Franklin, 1992). Multiplicity of risk factors is often more predictive than individual risks.

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## EARLY PREDICTORS OF DROPPING OUT FROM SCHOOL

### **Before school starts:**

There have been very few studies that investigate how early childhood environments impact dropout behavior. Jimerson et al. (2000) found that quality of care giving at ages six to forty-two months was a predictor of dropping out behavior

### **First grade:**

The literature is persuasive in that schools and communities need strategies to address the drop out problem *at every grade*. Research identified three sets of variables that are predictive:

- a) **problem behaviors:** Enminger and Slusarcick (1992) reported elevated dropout rates among children who were rated as highly aggressive by their 1<sup>st</sup>-grade teachers. In the multivariate models estimated by Jimerson et al. (2000), problem behaviors in first grade were also identified as significant predictors of later drop out behavior even when controlling for later predictors and family background.
- b) **grade retention and academic achievement:** Repeating first grade increases the risk of dropout risk by 300%, and first grade academic achievement as measured by test scores and report cards forecast dropout risk with considerable accuracy (Alexander et al., 2001).
- c) **multiple risk factors:** For certain sub-populations, first grade variables contain enough information to identify populations in need of intervention. Alexander et al. (2000) found that lower SES, white, highly stressed first graders from single-parent families had a drop out rate of 80%.

### **Elementary school years (after first grade):**

- a) Jimerson et al. (2000) multivariate model identified **parent involvement** (grade 6), **problem behaviors, child's gender, and SES** were identified as significant predictors.
- b) Alexander et al. (2001) identified **school performance, grade retention, parental attitudes, and pupil's behaviors and attitudes** as significant predictors.
- c) Multiple studies have identified weak **school performance, grade retention, and stressful family change** in the early grades likewise forecast later dropout (e.g. Barrington & Hendricks, 1989; Brooks-Gunn, Guo, & Furstenberg, 1993; Cairns & Cairns, 1994; Ensminger & Slusarcick, 1992; Garnier, Stein, & Jacobs, 1997; Haveman & Wolfe, 1994; Roderick, 1994; Rumsberger, 1995.)
- d) **Grade retention** merits to be singled out as a particularly powerful predictor. "Indeed, among multiple repeaters (36% of all repeaters in the Beginning School Study), dropout approaches a certainty: 80% overall; 94 % for those retained in elementary *and* middle school." (Alexander et al., 2001, p. 775).

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## PREDICTORS OF DROPPING OUT IN MIDDLE SCHOOL YEARS

Not surprisingly, many of the same factors identified in the elementary school years become even more predictive in later years.

- a) Alexander et al. (2001) identify **school performance, grade retention, parental attitudes** and **pupil behavior and attitudes** as predictive factors. Grade retention increased the risk of dropping out nineteen-fold.
- b) Gleason and Dynarski (2002) identified attending multiple schools (**mobility**), **absenteeism**, being **average by two years** (associated with grade retention), and **parents who do not talk to the student about school** as predictive factors, particularly when combined in composite or propensity scores.

## LATER PREDICTORS OF DROPPING OUT

- a) In addition to the core sets of predictors (**school performance, parental attitudes, pupil behavior** and **attitude**), particularly **absenteeism** and being **average for grade** (Gleason and Dynarski, 2002), **disciplinary problems** and **student's self-report that they are unlikely to graduate** are strong predictors of school dropout (Alexander et al., 2001).
- b) Hess & Copeland (2001) report that students who dropped out had a significantly greater number of **stressful life events of a more severe nature** than did students who completed school. Also, students **involvement in social activities unrelated to school** was predictive of leaving school prior to graduation.

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## OVERALL THEMES

### **1) Theme 1: Early predictors matter.**

With a large number of predictors from the early, middle and late stages; Jimerson et al. (2001) identified a set of eight variables that best predicted school drop out. The eight variables were:

- Parent involvement (Grade 6)
- Problem behaviors (Grade 1)
- Peer competence (16 years)
- Problem behaviors (after Grade 1)
- Gender
- Quality of care giving (6 – 42 months)
- Academic achievement (Grade 1)
- Academic achievement (16 years)

It is interesting that a number of early predictors such as quality of care giving prior to school and academic and behavior indicators at grade 1 were not displaced by later attitudes and behaviors in predicting dropout behavior.

### **Theme 2: Grade Retention is a major predictor.**

- a) Grade retention as a risk factor for dropout is well established in the literature (e.g. Grissom & Shepard, 1989; Jimerson, 1999; Rumberger, 1995; Rumberger and Larson, 1998; Temple, Reynolds & Miedel, 1998).
- b) Repeating a grade is associated with a seven-fold increase in dropout risk, and this is with concurrent measures of school performance, children's attitudinal and behavioral school engagement, and parents' psychological supports all controlled for (Alexander et al., 2001).

### **Theme 3: Multiple risk factors are more predictive than any individual factor.**

- a) In almost every analysis, composite scores representing a multiplicity of risk factors predicted better than a single risk factor.

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