

DROPOUT RISK FACTORS AND EXEMPLARY PROGRAMS

A TECHNICAL REPORT

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Executive Summary

Purpose

Communities In Schools (CIS) is the nation's fifth-largest youth-serving organization and the leading dropout prevention organization, delivering resources to nearly one million students in 3,250 schools across the country. To further their network-wide commitment to evidence-based practice, CIS collaborated with the National Dropout Prevention Center/Network at Clemson University (NDPC/N) to conduct a comprehensive study of the dropout crisis in the United States. Specifically, the intent of the study was to:

- 1) Identify the risk factors or conditions that significantly increase the likelihood of students dropping out of school; and
- 2) Identify exemplary, evidence-based programs that address the identified risk factors and conditions.

Risk Factor Literature Search

The identification of significant risk factors was accomplished in several steps (see Chart A-1 in Appendix A). The first step included a thorough review of the literature to determine the risk factors and conditions that increase the likelihood of students dropping out of school. Twenty-five years of ERIC literature from 1980 up to December 31, 2005, were reviewed to obtain an historic view of the issue. Materials from the National Dropout Prevention Center/Network Library were included in the review. Other electronic databases such as *PsychInfo* and *Medline* were also explored for pertinent materials. An Internet search was conducted for ephemeral and unpublished items. Search terms included risk factors, risk indicators, at-risk youth, dropout indicators, and dropout identification. Bibliographies and reference lists from some key documents on dropout were also scanned for relevant items.

The first search resulted in around 3,400 potential citations for review, which was eventually narrowed, based on relevance, research base, and source, to approximately 75 articles that were judged worthy of further analysis. To best assess available research up to December 2005 on risk factors, NDPC/N staff decided to review only the major articles in this group that specifically focused on high school graduation or school dropout as the primary goal of analysis. Forty-four of the citations met this criterion.

Overall Findings and Trends

The following overall trends emerged from the literature:

- Dropping out of school is related to a variety of factors that can be classified in four areas or domains: individual, family, school, and community factors. (Please note: given the limited scope of this initial research, CIS made the decision to focus on two domains, individual and family factors).
- There is no single risk factor that can be used to accurately predict who is at risk of dropping out.

- The accuracy of dropout predictions increases when combinations of multiple risk factors are considered.
- Dropouts are not a homogeneous group. Many subgroups of students can be identified based on when risk factors emerge, the combinations of risk factors experienced, and how the factors influence them.
- Students who drop out often cite factors across multiple domains and there are complex interactions among risk factors.
- Dropping out of school is often the result of a long process of disengagement that may begin before a child enters school.
- Dropping out is often described as a process, not an event, with factors building and compounding over time.

Identifying Specific Risk Factors

The 44 studies used to examine major trends in dropout research were further analyzed to identify significant risk factors. This analysis was limited to only those studies that:

- Directly analyzed the data source
- Examined school dropout and/or high school graduation as the dependent variable for analysis
- Collected longitudinal data over a period of at least two years
- Examined a variety of types of predictors in several domains (individual, family, school, and/or community), including student demographic data
- Used multivariate statistical techniques or models to simultaneously control for independent relationships between student demographic and other individual factors, factors in at least one other domain, and the dependent variable
- Included a sample of 30 or more students classified as dropouts

Based on the above criteria, 21 studies that included analyses from 12 different data sources were identified for review. The full report provides a list of the 21 studies by data source and timeframe for data collection. As illustrated in the chart, studies were published between 1974 and 2002, with data collection carried out in varying time periods, from the mid-1960s until the mid-1990s. Although a few studies included national samples of students (High School and Beyond, NELS and NLTS), most were based in specific communities or school districts. The studies not only span different time periods but also diverse communities (rural, suburban, and urban) as well as demographically diverse groups of students (SES, race/ethnicity, and gender).

Within these studies, there were many differences in factors examined, measures, populations sampled, sample sizes, timeframes for data collection, and statistical methods for data analysis. To introduce some measure of control for this variation, factors were pared down to only those

found to be significantly ($p \leq .10$) related to school dropout in multivariate analysis and significant in at least *two* data sources.

The resulting 25 significant risk factors across eight factor categories appear on the following page. Approximately 60 percent of the factors were individual factors and the remaining 40 percent were family factors. Complete descriptions of the factors may be found in the full report.

Significant Risk Factors for School Dropout

Individual Domain

Individual Background Characteristics

- Has a learning disability or emotional disturbance

Early Adult Responsibilities

- High number of work hours
- Parenthood

Social Attitudes, Values, & Behavior

- High-risk peer group
- High-risk social behavior
- Highly socially active outside of school

School Performance

- Low achievement
- Retention/over-age for grade

School Engagement

- Poor attendance
- Low educational expectations
- Lack of effort
- Low commitment to school
- No extracurricular participation

School Behavior

- Misbehavior
- Early aggression

Family Domain

Family Background Characteristics

- Low socioeconomic status
- High family mobility
- Low education level of parents
- Large number of siblings
- Not living with both natural parents
- Family disruption

Family Engagement/Commitment to Education

- Low educational expectations
- Sibling has dropped out
- Low contact with school
- Lack of conversations about school

Identifying Risk Factors by School Level

Another goal of the study was to examine the identified risk factors by school level. This information will help CIS Affiliates and Sites to better target their efforts and make a direct connection between the services they provide or broker and dropout prevention.

To accomplish this goal, NDPC/N developed matrices by school level for individual and family risk factors relying on data available from the selected studies. Two groups of matrices were developed. The first set of matrices (Tables C-8 and C-9 in Appendix C) contained information by level from one data source and to be included the factor had to be:

- (1) Measured at a specified grade or school level for the analysis
- (2) Found at that level to be significantly ($p \leq .10$) related to school dropout through multivariate analysis

As seen in the table on the following page, all risk factors were identified in at least one school level by a single data source. All but one of the risk factors were identified at either the middle or high school levels. Eighteen of the 25 risk factors were identified in at least two data sources at either the middle or high school level. Fewer factors were identified at the elementary level.

Four factors were found in at least two data sources to significantly impact dropout at all three school levels. Three of these four factors are individual ones and include *low achievement*, *retention/over-age for grade*, and *poor attendance*. The fourth factor found to be significant across all school levels was the family factor of *low socioeconomic status (SES)*. Family SES level has been tied in numerous studies to other educational outcomes at all stages of a student's school career and its appearance at all levels in predicting dropout is consistent with this pattern.

On a cautionary note, only tentative conclusions can be drawn about factors by school level. Research needed to meet the criteria for this report, analysis of risk factors across several domains using multivariate statistics, is sparse. The fact that a specific factor is not mentioned in the chart at a specific level does not necessarily mean that it is not significant at that level. It may indicate that quality data was just not available for that factor. Given this lack of consistent quality information on risk factors by school level, there is a higher level of confidence in conclusions about impact at a particular level when the factor is found to be significant at that level in two studies rather than in a single study.

Significant Risk Factors by School Level*

Risk Category and Risk Factor	Elementary School	Middle School	High School
Individual Background Characteristics			
• Has a learning disability or emotional disturbance		✓	✓
Early Adult Responsibilities			
• High number of work hours		✓	✓*
• Parenthood			✓*
Social Attitudes, Values, & Behavior			
• High-risk peer group		✓*	✓
• High-risk social behavior		✓*	✓
• Highly socially active outside of school			✓
School Performance			
• Low achievement	✓*	✓*	✓*
• Retention/over-age for grade	✓*	✓*	✓*
School Engagement			
• Poor attendance	✓*	✓*	✓*
• Low educational expectations		✓*	✓*
• Lack of effort		✓	✓
• Low commitment to school		✓	✓*
• No extracurricular participation		✓	✓*
School Behavior			
• Misbehavior	✓	✓	✓*
• Early aggression	✓	✓	
Family Background Characteristics			
• Low socioeconomic status	✓*	✓*	✓*
• High family mobility		✓*	
• Low education level of parents	✓	✓	✓*
• Large number of siblings	✓		✓
• Not living with both natural parents	✓	✓	✓*
• Family disruption	✓		
Family Engagement/Commitment to Education			
• Low educational expectations		✓*	
• Sibling has dropped out		✓	✓
• Low contact with school		✓*	
• Lack of conversations about school		✓*	✓

Key: ✓ indicates that the risk factor was found to be significantly related to dropout at this school level in one study. ✓ indicates that the risk factor was found to be significantly related to dropout at this school level in two or more studies.

Exemplary Programs to Address Identified Risk Factors

Once risk factors are identified, practitioners face the decision of which program or programs to implement to address these factors. The success of prevention efforts depends greatly on the types of programs used, making it crucial to select programs that have been proven effective for identified risk factors. Many programs, however, are being used around the country with little or no knowledge about their development or actual program effects. Thus, a key goal of this study was to identify quality evidence-based programs already proven to address particular risk factors. This work is only a beginning. CIS plans to continue this effort over time to provide local affiliates with as many options as possible.

The full report provides a detailed description of the methodology used to identify exemplary programs. The process proved to be a considerable challenge given that many sources have identified “effective” or “model” programs or “best practices,” often using ill-defined criteria. In addition, rigorous data on the effectiveness of dropout prevention programs is particularly lacking.

Given the scope of this study, NDPC/N began the search for exemplary programs with an existing matrix of evidence-based programs compiled by Sharon F. Mihalic (2005) at the Center for the Study and Prevention of Violence, Institute of Behavioral Science, University of Colorado at Boulder. Later in the search, additional sources were reviewed to ensure adequate coverage of the identified risk factors. To control for inconsistencies in rating criteria across sources it was decided to include only those programs that:

- Were ranked in the top tier or level by at least *two* sources;
- Were currently in operation;
- Had no major revisions since the ranking of the program;
- Had consistent, positive evaluation outcomes; and
- Targeted K-12 school populations (not children under five or college-age students).

Fifty programs (see the following page) were identified based on these criteria. The full report provides a description of each program including the:

- 1) Program name and web site, if applicable;
- 2) Program overview;
- 3) Primary program strategies;
- 4) Primary program components;
- 5) Targeted risk factors/groups;
- 6) Relevant impacted risk factors;
- 7) Research evidence; and
- 8) Program contact information.

Lessons From Research on Program Implementation

A number of lessons can be gleaned from the research on risk factors and evidence-based programs for practitioners implementing either existing programs or developing new ones. First, multiple risk factors across several domains should be addressed wherever possible to increase

the likelihood that the program will produce positive results. Second, multiple strategies should be used to help assure program impact. Effective programs often used some combination of personal assets and skill building, academic support, family outreach, and environmental/organizational change (Catalano et al., 1999; Gottfredson, 1998; Lehr et al., 2004). Third, when adopting an existing exemplary program, research points to the need for these programs to be fully implemented *and* to be implemented as they were designed (Midwest Regional Center for Drug-Free Schools and Communities [MRC], 1994A; National Institute on Drug Abuse [NIDA], 2004). Fourth, program planners who develop their own strategies need to use evidence-based strategies proven to impact the risk factors they are addressing and develop strategies based on best practice. Finally, whether adopting an existing program or developing a new one, practitioners need to use evidence-based strategies to evaluate programs to assure effectiveness.

Exemplary Programs

Across Ages
Adolescent Sexuality & Pregnancy Prevention Program
Adolescent Transitions Program
Advancement Via Individual Determination (AVID)
Athletes Training and Learning to Avoid Steroids (ATLAS)
Big Brothers Big Sisters
Brief Strategic Family Therapy
Career Academy
CASASTART
Check & Connect
Children of Divorce Intervention Program
Coca-Cola Valued Youth Program
Cognitive Behavioral Therapy for Child Sexual Abuse
Coping Power
Families & Schools Together (FAST)
Family Matters
Fast Track
Functional Family Therapy
Good Behavior Game
Guiding Good Choices (formerly Preparing for the Drug-Free Years)
Helping the Noncompliant Child
Keepin' it REAL
LifeSkills Training
Linking Interests of Families & Teachers
Los Angeles' Better Educated Student for Tomorrow (LA's BEST)
Midwestern Prevention Project (Project STAR)
Multidimensional Family Therapy
Multidimensional Treatment Foster Care
Multisystemic Therapy
Nurse-Family Partnership
Parenting Wisely
Preventive Treatment Program
Project Graduation Really Achieves Dreams (Project GRAD)
Project Toward No Drug Abuse
Project Towards No Tobacco Use
Prolonged Exposure Therapy for PTSD
Promoting Alternative Thinking Strategies (PATHS)
Quantum Opportunities
Responding in Peaceful and Positive Ways
Safe Dates
Schools & Families Educating Children (SAFE Children)
Skills, Opportunities, and Recognition (SOAR)
School Transitional Environment Program (STEP)
Strengthening Families Program
Strengthening Families Program for Parents and Youth 10-14
Success for All
Teen Outreach Program
The Incredible Years
Too Good for Violence
Trauma-Focused Cognitive Behavioral Therapy