



# RESEARCH BRIEF

Research Services

Vol. 1708  
February 2018

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## STUDENT DROPOUT: RISK FACTORS, IMPACT OF PREVENTION PROGRAMS, AND EFFECTIVE STRATEGIES

### At a Glance

This report reviews the characteristics of students who are most likely to drop out of school. Most studies have found that dropping out is related to risk factors in four different domains: individual, academic, family-related, and school-related. Local M-DCPS District data were used to examine certain demographic and academic factors as they relate to student dropout status. The findings corroborate those in the literature, where high dropout rates were found for non-Hispanic Black students, students eligible for free/reduced price lunch, and students with disabilities. Additionally, students who were retained or were chronically absent were also found to be at a higher risk of dropout than their counterparts.

Studies in other districts/states conducted on the impact of prevention programs on dropout rates suggest that some programs have a small positive effect on students' dropout rates. Overall, findings indicate that quality of program implementation is often more important than the specific type of program in which students participate. Furthermore, some studies have found that students benefit equally from participation in dropout prevention programs regardless of their gender and ethnicity. Strategies that have been widely accepted as effective components of dropout prevention programs are also summarized in this report.

Although the number of high school dropouts in the U.S. has decreased in recent years, educators have continued their efforts to identify the students who are most likely to drop out of school. Educators have also continued to implement strategies that reduce the dropout rate even further (Alliance for Excellent Education, 2015; Freeman & Simonsen, 2015; Lynch, 2015). According to the National Center for Education Statistics (2016), the overall high school status dropout rate decreased from 7.4% in 2010 to 5.9% in 2015. (The status dropout rate represents the percentage of 16-to-24-year-olds who are not enrolled in school and have not earned a high school diploma or General Equivalency Diploma.)

Studies have found that young adults who do not complete high school are more likely to be unemployed, and when employed to make less money on average than their peers who complete high school. They tend to draw larger government subsidies in the form of welfare payments, housing assistance, and food stamps, and are more likely to be involved in criminal activities and to serve time in jail (Freeman & Simonsen, 2015; Lynch, 2015; Dynarski et al., 2008). For example, Breslow (2012) cited figures from the U.S. Census Bureau, U.S. Bureau of Labor Statistics, U.S. Department of Education, and Northeastern University indicating that dropouts earned an annual income of \$10,386 less than high school graduates; had an unemployment rate that was four percent higher than the national average; had a poverty rate that was 17% higher than those with at least a bachelor's degree; and had an incarceration rate that was 63 times higher than that of college graduates.

### **Risk Factors Associated with Dropping Out of School**

Researchers have attempted to identify the characteristics most commonly associated with student dropout. Many studies have concluded that dropping out of school is not a sudden act, but a gradual process of withdrawal or disengagement. Dropout factors build and compound over time (America's Promise Alliance, 2015; Chappell et al., 2015; Freeman & Simonsen, 2015; Hanover Research, 2011; Sherman, 2011; Dynarski et al., 2008; Hammond et al., 2007; Bridgeland et al., 2006; Shannon & Bylsma, 2005; National Dropout Prevention Center/Network, n.d.).

Most studies indicate that dropping out of school is related to factors in four different domains: individual, academic, family-related, and school-related.

A longitudinal analysis was conducted on the local M-DCPS data to establish dropout rates. This type of analysis tracks a single class over its high school career and retrospectively determines the proportion that dropped out and the proportion that graduated. The rates are reported as a percentage of the cohort group. As the cohort group advances through high school, withdrawals are dropped from the cohort group and transfers-in are added.

The analysis was conducted on the two most recent cohort groups of students who started 9th grade in the 2012-2013 and 2013-2014 academic years and who were normally scheduled to graduate in the 2015-2016 and 2016-2017 academic years, respectively. The 4-year dropout rate for the 2015-2016 cohort group was 5.0% and the 4-year graduation rate was 80.4% (Table 1). Four-year dropout and graduation rates for the 2016-2017 cohort group increased slightly to 5.7% and 80.7%, respectively. The 4-year nongraduate rate decreased from the 2015-2016 to the 2016-2017 academic year. Nongraduates include students completing or earning a certificate of completion, special diploma, a performance-based exit option, or entering adult education.

Table 1  
Longitudinal Dropout and Graduation Rates

2015-2016			2016-2017		
<b>Graduates</b>	21427	80.4%	<b>Graduates</b>	21867	80.7%
<b>Dropouts</b>	1321	5.0%	<b>Dropouts</b>	1557	5.7%
<b>Nongraduates</b>	3888	14.6%	<b>Nongraduates</b>	3682	13.6%
Cohort	26636	100.0%	Cohort	27106	100.0%

**Individual Factors**

- **Ethnicity.** Hispanic and Black students have been found to have higher dropout rates on average than White students (Johnston, 2010; Kennelly & Monrad, 2007; Shannon & Bylsma, 2005). The National Center for Education Statistics (2016) reported that in 2015, the status dropout rate was highest for Hispanic students (9.2%), followed by Black students (6.5%) and White students (4.6%).
  - In M-DCPS, the majority of students are Hispanic (69.2% in 2015-2016 and 70.2% in 2016-2017), followed by non-Hispanic Black students (21.8% in 2015-2016 and 21% in 2016-2017), and non-Hispanic White students (7.3% in 2015-2016 and 7.1% in 2016-2017). The highest 4-year dropout rate for the 2015-2016 and 2016-2017 cohort groups in the District was found for non-Hispanic Black students, followed by Hispanic students, and non-Hispanic White (Table 2).

Table 2  
Longitudinal Dropout and Graduation Rates by Race/Ethnicity

2015-2016			2016-2017					
<b>Non-Hispanic Black</b>			<b>Hispanic</b>			<b>Non-Hispanic White</b>		
<b>Graduates</b>	4447	73.8%	<b>Graduates</b>	14622	81.4%	<b>Graduates</b>	1978	88.5%
<b>Dropouts</b>	354	5.9%	<b>Dropouts</b>	871	4.8%	<b>Dropouts</b>	89	4.0%
<b>Nongraduates</b>	1226	20.3%	<b>Nongraduates</b>	2467	13.7%	<b>Nongraduates</b>	168	7.5%
Cohort	6027	100.0%	Cohort	17960	100.0%	Cohort	2235	100.0%

- **Family income level.** Students from families with low income levels tend to have higher dropout rates than students from families with high income levels (Lynch, 2015; Sherman, 2011; Johnston, 2010; Dynarski et al., 2008; Hammond et al., 2007; Kennelly & Monrad, 2007; Shannon & Bylsma, 2005). The National Center for Education Statistics (2016) reported that the 2015 status dropout rate varied significantly by income level (9.9% for students in the bottom income quartile versus 2.4% for those in the highest quartile).

- In M-DCPS, the students' eligibility to receive free or reduced-price lunch (FRL) serves as an indicator of family income levels. The majority (71.9% in 2015-2016 and 70.7% in 2016-2017) of students in M-DCPS are eligible to receive FRL. Students in the District who were eligible to receive FRL in 9<sup>th</sup> grade had a somewhat higher 4-year dropout rate than students not eligible to receive FRL for the 2015-2016 and 2016-2017 cohort groups (Table 3).

Table 3  
Longitudinal Dropout and Graduation Rates by Free/Reduced Lunch Status

2015-2016			
<b>FRL</b>	<b>Graduates</b>	14760	78.1%
	<b>Dropouts</b>	980	5.2%
	<b>Nongraduates</b>	3169	16.8%
	<b>Cohort</b>	18909	100.0%
<b>Non FRL</b>	<b>Graduates</b>	6667	86.3%
	<b>Dropouts</b>	341	4.4%
	<b>Nongraduates</b>	719	9.3%
	<b>Cohort</b>	7727	100.0

  

2016-2017			
<b>FRL</b>	<b>Graduates</b>	15326	78.8%
	<b>Dropouts</b>	1140	5.9%
	<b>Nongraduates</b>	2985	15.3%
	<b>Cohort</b>	19451	100.0%
<b>Non FRL</b>	<b>Graduates</b>	6541	85.4%
	<b>Dropouts</b>	417	5.4%
	<b>Nongraduates</b>	697	9.1%
	<b>Cohort</b>	7655	100.0%

- **Disability status.** Researchers have found that students with disabilities are more likely to drop out of school (Freeman & Simonsen, 2015; Lynch, 2015; Hammond et al., 2007). According to the National Transition Study, as many as 36% of students with learning or physical disabilities dropped out of school (Johnston, 2010). (The National Transition Study was conducted by the Institute of Education Science's National Center for Special Education Research and followed a nationally representative sample of 13-to-16-year-old students who received special education services from 2000 to 2010.)
  - In the 2015-2016 and 2016-2017 academic years, 9.8% of M-DCPS students had disabilities. These students had a higher 4-year dropout rate for the 2015-2016 and 2016-2017 cohort groups than students without disabilities (Table 4).

Table 4  
Longitudinal Dropout and Graduation Rates by Disability Status

**2015-2016**

Students with Disabilities			Students without Disabilities		
Graduates	1712	68.7%	Graduates	19715	81.7%
Dropouts	195	7.8%	Dropouts	1126	4.7%
Nongraduates	585	23.5%	Nongraduates	3303	13.7%
Cohort	2492	100.0%	Cohort	24144	100.0%

**2016-2017**

Students with Disabilities			Students without Disabilities		
Graduates	1760	70.3%	Graduates	20107	81.7%
Dropouts	212	8.5%	Dropouts	1345	5.5%
Nongraduates	530	21.2%	Nongraduates	3152	12.8%
Cohort	2502	100.0%	Cohort	24604	100.0%

- **Behavioral Problems.** Studies also indicate that dropout rates are higher for students with behavioral problems. Disruptive, antisocial, aggressive, and high-risk behaviors have been found to be strong predictors of dropout (Freeman & Simonsen, 2015; Hanover Research, 2011; Sherman, 2011; Johnston, 2010; Dynarski et al., 2008; Hammond et al., 2007; National Dropout Prevention Center/Network, n.d.).

**Academic Factors**

- **Academic Failure.** Poor academic performance, as evidenced by failing course grades and low standardized test scores, is one of the main reasons students drop out of school (Hanover Research, 2011; Sherman, 2011; Johnston, 2010; Dynarski et al., 2008; Hammond et al., 2007; Kennelly & Monrad, 2007). Freeman and Simonsen (2015) stated that low or failing grades, especially when considered across time, may be the most accurate single predictor of dropout. Bridgeland and colleagues (2006) interviewed students who dropped out of school in 25 different locations across the U.S. They reported that 30% of respondents said they had not been able to keep up with school work.
- **Grade Retention.** Researchers have concluded that failure to be promoted to the next grade level is a key predictor of dropout (Lynch, 2015; Johnston, 2010; Hammond et al., 2007; Kennelly & Monrad, 2007). Bridgeland and colleagues' (2006) interviews with U.S. students who dropped out of school found that 32% of respondents reported that they had been required to repeat a grade before dropping out.
- **Absenteeism.** Studies have found that excessive absenteeism is a key predictor of student dropout (America's Promise Alliance, 2015; Sherman, 2011; Johnston, 2010; Hamond et al., 2007; Kennelly & Monrad, 2007; Bridgeland et al., 2006). Hale and Canter (1998) noted, "Attendance problems can be an early signal that the student is disengaging from the schooling process; daily school attendance reflects both student motivation and parental support."

A study conducted by the Utah Education Policy Center (2012) analyzed five years of attendance data from over 587,000 K-12 Utah students. The researchers found that a student who had been chronically absent (defined as missing school 10% or more of the time) in any year, starting in the eighth grade, was 7.4 times more likely to drop out of school than a student who had not been chronically absent. Results indicated that for each year a student was chronically absent, his/her odds of dropping out approximately doubled.

- Dropouts in the District were compared to graduates for grade retention and chronic absenteeism. Nongraduates were excluded from this analysis. Odds ratios (OR) and confidence intervals (CI) were calculated for this comparison. Odds ratios tell us how much the odds of dropping out increase when a chronically absent or retained student is compared to students who did not fall in these categories. The confidence interval is a range of values that we are confident each odds ratio lies within, based on the number of students in the data and the margin of error. Odds ratios were adjusted for student sex, race/ethnicity (non-Hispanic Black, non-Hispanic White, Hispanic, and other), eligibility for FRL, and disability status using logistic regression. Grade retention was defined as repeating any grade during the high school years. Chronic absenteeism was defined as missing 10% or more of any given school year starting in the 8<sup>th</sup> grade.
- Table 5 presents the percentage of dropout students for those who were retained in a grade in high school and those who were chronically absent for both 2015-2016 and 2016-2017 cohorts. Students who were retained in at least one grade in high school were found to be 16.5 times more likely to drop out in the 2015-2016 cohort and 16.9 times more likely to drop out in the 2016-2017 cohort as compared to students who were not retained, taking demographics and disability status into account. In addition, students who were chronically absent 10% or more in any school year starting in the 8<sup>th</sup> grade were also found to have high odds of dropping out. For the 2015-2016 cohort, chronically absent students were 8.6 times more likely to drop out and 6.6 times more likely to drop out in the 2016-2017 cohort than students not identified as chronically absent.

Table 5  
Longitudinal Dropout and Graduation Rates by Disability Status  
**2015-2016**

	<b>Dropouts %</b>	<b>AOR*</b>	<b>95%CI</b>
Retained Grades 9-12	47.3	16.5	13.8-19.8
Chronically Absent	8.0	8.6	7.1-10.5

\*Odds ratios were adjusted for sex, race/ethnicity, FRL, and SWD.

**2016-2017**

	<b>Dropouts %</b>	<b>AOR*</b>	<b>95%CI</b>
Retained Grades 9-12	48.2	16.9	13.9-20.5
Chronically Absent	7.3	6.6	5.5-8.0

\*Odds ratios were adjusted for sex, race/ethnicity, FRL, and SWD.

## **Family-Related Factors**

- **Negative family influences.** Researchers have identified certain family characteristics that increase students' risk for dropout, including:
  - Parents' devaluation of education;
  - Parents' low educational expectations for their children;
  - Lack of parental guidance or advice for school success;
  - Students' exposure to abuse or neglect;
  - Frequently absent parents;
  - Incarceration of a parent;
  - Death of a parent;
  - Foster care placement;
  - Homelessness; and
  - A sibling who previously dropped out of school (America's Promise Alliance, 2015; Hanover Research, 2011; Hammond et al., 2007; Kennelly & Monrad, 2007; Shannon & Bylsma, 2005; National Dropout Prevention Center/Network, n.d.).
  
- **Family Responsibilities.** Family responsibilities may prevent students from completing school. For example, some students drop out because they need to work to support their family, some must assume the role of caregiver because a parent becomes ill, and others leave school because of an unplanned pregnancy (America's Promise Alliance, 2015; Doll et al., 2013; Hanover Research, 2011; Sherman, 2011; Johnston, 2010; Dynarski et al., 2008; Hammond et al., 2007). Bridgeland and colleagues' (2006) interviews with U.S. students who dropped out of school indicated that 32% of respondents said they dropped out of school to get a job and make money; 26% said they dropped out of school to become a parent; and 22% said they had to care for a family member. Results from the American Community Survey (an ongoing national survey conducted by the U.S. Census Bureau that collects data from 16-to-18-year-old dropouts) indicated that working youth accounted for approximately 30% of early high school leavers (Scott et al., 2015). America's Promise Alliance (2015) noted that school policies are often not flexible enough to accommodate students' family responsibilities.
  
- **Mobility.** Studies have found that students with high rates of school mobility are more likely to drop out of school (Lynch, 2015; Hanover Research, 2011; Sherman, 2011; Johnston, 2010; Dynarski et al., 2008; Hammond et al., 2007; Kennelly & Monrad, 2007). America's Promise Alliance (2015) surveyed nearly 3,000 young people from all 50 states between the ages of 18 and 25. Students who had stopped attending school reported significantly higher levels of residential and school instability, with almost 50% changing homes and 50% changing schools during high school. In comparison, 30% of students who remained continuously enrolled in high school until graduation said they had changed homes and 26% said they had changed schools.

## **School-Related Factors**

- **Disengagement from school.** Researchers have concluded that students who are disengaged in the classroom are more likely to drop out of school. Students who leave school early often cite a lack of motivation, boredom, and disaffection as reasons for doing so (America's Promise Alliance, 2015; Freeman & Simonsen, 2015; Doll et al., 2013; Hanover Research, 2011; Hammond et al., 2007; Kennelly & Monrad, 2007; National Dropout Prevention Center/Network, n.d.). Bridgeland and colleagues' (2006) interviews with U.S. students who dropped out of school found that 69% said they were not motivated or inspired to work hard; 47% said their classes were not interesting.
- **Alienation.** Studies have found that dropouts are more likely than non-dropouts to report that they feel alienated and socially isolated. These students usually say they feel no connection to their teachers, other students, or the school community (Lynch, 2015; Sherman, 2011; Johnston, 2010; Murad, n.d.).
- **School policies and practices that contribute to the dropout problem.** Examples include:
  - Lack of relevant curriculum;
  - Shortage or lack of opportunities for active learning;
  - Disregard for students' individual learning styles;
  - Low expectations for student achievement;
  - Lack of adequate counseling;
  - Ineffective or unfair disciplinary policies;
  - Lack of positive and trusting relationships between students and school staff;
  - Unresponsive school policies that force students to choose between school and family responsibilities (America's Promise Alliance, 2015; Shannon & Bylsma, 2005; National Dropout Prevention Center/Network, n.d.).

### **Impact of Prevention Programs on Dropout Rates**

Freeman and Simonsen (2015) conducted a review of the literature on dropout prevention programs and concluded that "the current body of empirical research provides little guidance to schools or policy makers with respect to either matching dropout interventions with particular risk factors or subgroups or integrating dropout interventions into a multitiered framework that may address student needs more effectively and efficiently."

Similarly, Shannon and Bylsma (2005) stated, "Although many promising activities exist, there are no 'best' programs and practices that apply in every situation." The authors quoted Dynarski's conclusion from the 2004 book, *Dropouts in America: Confronting the Graduation Rate Crisis*, stating that "we do not yet have a menu of program options for helping students at risk of dropping out. The evaluation findings are useful as guides . . . but they fall short of providing a scientific basis for implementing programs in new schools or districts based on the models."



There are only a limited number of rigorous studies examining dropout prevention programs' impact on students' dropout rates. As can be seen from the summaries of studies that follow, some programs have been found to have a small positive impact on dropout rates. A few of the studies have concluded that implementation of certain strategies is associated with larger reductions in dropout rates, such as starting interventions at the middle school level, implementing full-day programs, addressing behavioral problems, focusing on career development, and engaging families.

- Wilson and colleagues (2011) conducted two meta-analyses: one of 152 studies of general dropout prevention programs and the other of 15 studies on dropout prevention programs for teen parents. Findings indicated:
  - Overall, both general dropout prevention programs and programs specializing in teen parents were effective in reducing school dropout.
  - The average dropout rate for students who participated in general dropout prevention programs was 13%, compared to 21% for students in control groups.
  - The graduation rate for teen parents who participated in dropout prevention programs was 39%, compared to 26% for teens who did not participate in prevention programs.
  - Most types of general dropout prevention programs were equally effective. Similarly, most types of programs designed for teen parents were equally effective.
  - Students' gender, ethnicity, and grade level did not have a significant impact on prevention programs' effectiveness.
  - Higher levels of implementation quality were associated with larger effects. Programs that experienced implementation problems tended to exhibit significantly smaller reductions in dropout rates.
- Chappell and colleagues (2015) conducted a meta-analysis to estimate the mean effect size of dropout prevention programs on dropout and graduation rates. Their sample included 30 programs for the dropout rate analysis and 16 programs for the graduation rate analysis. The overall weighted mean effect for dropout rates was estimated at 0.15, considered by the authors as "promising." The overall weighted mean effect for graduation rates was estimated at 0.36, considered by the authors as "excellent." Four dropout prevention strategies produced larger effect sizes than the overall effect of 0.15:
  - Behavioral interventions – programs that identify and address behaviors that lead to dropping out of school.
  - Career development/job training – practices that support career and job training as an essential component of school and demonstrate the relevance of education.

- Family engagement – policies that engage and inform parents and families of the performance and behavior of their children.
- Literacy development – interventions designed to strengthen students’ reading and writing skills.
- An older study conducted by researchers at Mathematica Policy Research, Inc. evaluated 16 dropout prevention programs that were supported by grants from the U.S. Department of Education from 1991 to 1995 (Dynarski et al., 1998). The researchers randomly assigned students to treatment or control groups to study dropout prevention programs in middle schools and high schools. Key findings included:
  - Middle school programs had a significant positive effect in reducing dropout rates when they were implemented with high intensity (full-day programs with smaller class sizes and accelerated curricula designed to help students catch up with their age peers). Low intensity middle school programs (programs in which students participated for only a small part of the school day or after school) did not have an impact on students’ dropout rates.
  - At the high school level, alternative schools (small schools that gave students more access to counseling, more personalized attention, and provided more links to social services than comprehensive high schools) did not significantly reduce dropout rates or increase the rate of high school completion.
  - Programs that focused on preparing students to obtain GED certificates had a positive effect on GED completion rates.
- Freeman and Simonsen (2015) reported that the U.S. Department of Education’s What Works Clearinghouse (WWC) identified seven *school-level* intervention programs designed to help students stay in school or complete school. The WWC found that four of the seven programs (Career Academies, Talent Development High Schools, Accelerated Middle Schools, and High School Redirection) had some evidence of positive effects on staying in school, but no strong evidence of positive effects on completing school.

The WWC identified five programs for *individual students or small groups of students* that had positive or potentially positive effectiveness ratings for helping students complete school; however, four of the five programs were recovery programs that provided students with General Equivalency Diplomas (GEDs), and only one program was focused on preventing students from leaving high school. The WWC reported that there was evidence that Talent Search helped students complete school and New Chance increased students’ chances of completing a GED (Freeman & Simonsen, 2015).

## Research-Based Strategies for Dropout Prevention Programs

Following is a summary of strategies that researchers have identified as effective components of dropout prevention programs.

- **Use data to identify students most at risk of dropping out of school.** Researchers agree that the first step when developing a dropout prevention program is the creation of an early warning system that uses student-level data to identify students most at risk of dropping out of school. Data collected should include students' course grades, standardized test scores, grade retention/promotion history, attendance rates, and disciplinary infractions. Data can then be analyzed to design services and supports that specifically target high-risk students (The Community Guide, 2016; America's Promise Alliance, 2015; Chappell et al., 2015; Hanover Research, 2013; Johnston, 2010; Dynarski et al., 2008; Kennelly & Monrad, 2007; Bridgeland et al., 2006; National Dropout Prevention Center for Students with Disabilities, n.d.).
- **Intervene early.** Studies have found that it is possible to identify students who will be at risk of dropping out of school in the later grades as early as elementary school. Research findings support the early identification of academic and behavioral problems that may develop into school adjustment problems at a later date. Experts have concluded that schools that intervene early often eliminate or reduce the need for high intensity interventions in middle or senior high school (Freeman & Simonsen, 2015; Hanover Research, 2013; Sherman, 2011; Kennelly & Monrad, 2007; National Dropout Center/Network, n.d.).
- **Design multi-component interventions.** Researchers recommend that multiple dropout prevention strategies be used to increase program effectiveness (The Community Guide, 2016; Freeman & Simonsen, 2015; Hammond et al., 2007; National Dropout Prevention Center/Network, n.d.). Research conducted by the U.S. Department of Education's Institute of Education Sciences concluded that no single intervention strategy is likely to produce strong outcomes by itself, but several of these strategies may interact with one another to magnify their effect on students (Dynarski et al., 2008).
- **Implement a combination of targeted and school-wide dropout prevention initiatives.** School-wide initiatives (such as personalizing the teaching and learning environment, making instruction relevant, and encouraging student engagement) should be provided to all students, while intensive interventions should be provided to a subset of students who have been identified as being at high risk of dropping out (The Community Guide, 2016; Hanover Research, 2013; Dynarski et al., 2008; Kennelly & Monrad, 2007; National Dropout Prevention Center for Students with Disabilities, n.d.).
- **Focus on the transition from middle school to high school.** Some researchers have suggested that educators prioritize dropout prevention resources to provide at-risk students with extra support as they transition from middle school to high school. Studies

have found that critical transition points, such as the move from middle school to high school, are especially difficult for struggling students (Freeman & Simonsen, 2015; Dynarski et al., 2008; Kennelly & Monrad, 2007; National Education Association, n.d.).

- **Increase student engagement.** Experts recommend that educators implement strategies designed to increase student engagement both in and out of the classroom.
  - The National Dropout Prevention Center/Network (n.d.) emphasized the need for active learning that engages and involves students in classroom instruction. The Center noted that there is evidence that active learning increases student engagement by demonstrating how school work is relevant to their own lives. Examples of active learning strategies include cooperative learning, experiential learning, and project-based learning.
  - Many experts encourage the use of educational technology both inside and outside of the classroom. They maintain that educational technology increases student engagement by providing students with opportunities to engage in authentic learning experiences, adapting to students' unique learning styles, and providing an alternative method of learning for those who struggle to learn using traditional methods (Hanover Research, 2011; National Dropout Prevention Center/Network, n.d.).
  - Dynarski and colleagues (2008) stressed the importance of encouraging students to participate in extracurricular activities. Sports, clubs, after-school field trips, service groups, and activities conducted in partnership with postsecondary institutions increase student engagement because they accommodate students' varying interests and increase their feeling of belonging to the school community.
- **Provide students with enhanced academic support.** Since academic failure and frustration have been found to increase the risk of dropout, researchers recommend that schools implement targeted interventions that provide at-risk students with opportunities for academic assistance and recovery. Academic enhancement may be conducted after school, before school, on Saturdays, during the summer, and/or during advisory periods, lunch periods, or study periods built into the daily schedule. Enhancement can take the form of individual or small group support in targeted subject areas such as reading, writing, or mathematics; tutoring; credit recovery; teaching of test-taking and study skills; and homework support (The Community Guide, 2016; Hanover Research, 2013; Johnston, 2010; Dynarski et al., 2008; Kennelly & Monrad, 2007; National Dropout Prevention Center/Network, n.d.).
- **Strengthen students' behavioral and social skills.** Common features of effective dropout prevention initiatives include behavioral and social skills training for students at risk of dropping out. Experts suggest that training cover topics such as strengthening problem-solving and decision-making skills and teaching students how to control their

anger and appropriately express their emotions (The Community Guide, 2016; Hanover Research, 2013; Johnston, 2010; Dynarski et al., 2008; Murad, n.d.).

- **Reorganize schools and schedules to create a more personalized learning environment.** In order to create a more personalized learning environment, some schools have restructured in the following ways:
  - Establish small learning communities, such as the school-within-a-school model that provides semi-autonomous or specialized educational programs that are housed within the boundaries of a traditional school;
  - Offer students the opportunity to attend magnet schools that focus on a specific educational or career theme;
  - Adopt team teaching, which provides students with access to more than one teacher who can offer individualized attention or new perspectives;
  - Reduce class sizes, allowing teachers to interact with students on an individual level more frequently; and
  - Extend classroom time (through changes to the school schedule, such as block scheduling, extended class periods, or advisory and study periods), providing more time for student-teacher and student-student interactions (America's Promise Alliance, 2015; Hanover Research, 2011; Sherman, 2011; Johnston, 2010; Dynarski et al., 2008; Kennelly & Monrad, 2007; Bridgeland et al., 2006).
  
- **Create a positive school climate.** Studies indicate that schools with lower dropout rates create positive school climates that facilitate student engagement and provide all students with equal access to a rigorous and relevant curriculum. Schools with positive school climates have been found to address the following areas:
  - Schools provide students with learning environments that are physically and emotionally safe; bullying and intimidation are not tolerated. A comprehensive violence prevention program, including conflict resolution, is in place.
  - All students feel genuinely welcomed and supported.
  - Educators have high expectations for all students and show respect for them as individuals.
  - Positive and trusting relationships are fostered between students and the school's teachers and staff.
  - Discipline policies are perceived as fair (America's Promise Alliance, 2015; Chappell et al., 2015; Freeman & Simonsen, 2015; Hanover Research, 2013; Kennelly & Monrad, 2007; Bridgeland et al., 2006; Hale & Canter, 1998; National Dropout Prevention Center/Network, n.d.).
  
- **Assign adult advocates to students who are at high risk of dropping out.** Adult advocates act as case managers who interact with at-risk students on a daily basis. They offer guidance on academic and social needs, model positive behavior and decision-making skills, communicate with the student's family, and advocate for the student.

Research indicates that students who have ongoing relationships with adult advocates are more engaged in school and feel more connected to the school community, which leads to lower dropout rates (America's Promise Alliance, 2015; Hanover Research, 2013; Johnston, 2010; Dynarski et al., 2008; Kennelly & Monrad, 2007; Bridgeland et al., 2006).

- **Implement a Career and Technical Education program.** Some studies indicate that implementation of a Career and Technical Education (CTE) program is associated with reduced dropout rates. CTE integrates academic and career-based skills, increasing the likelihood that students will connect schoolwork to future careers. CTE can take many forms, including career academies, school-registered apprenticeships, internships, and career-oriented high schools (Hanover Research, 2013; Dynarski et al., 2008; National Dropout Prevention Center/Network, n.d.; National Education Association, n.d.).

Young (2013) conducted a meta-analysis of 45 studies to determine the effect of work-related programs on high school dropout rates. Key findings included:

- Students who participated in work-related programs exhibited significantly lower dropout rates and higher graduation rates than those in comparison groups, although effect sizes were not large.
  - All types of work-related programs were equally effective. There was no significant difference in effect size based on the type of program in which students participated (for example, internship, job placement, career exploration, vocational training).
  - Student demographic characteristics were not associated with significantly different outcomes. In other words, work-related programs were equally effective, regardless of students' gender and ethnicity.
- **Engage families.** Many experts agree that one of the keys to keeping students enrolled in school is to increase parents' engagement in their children's education. School staff should be aware of the barriers that interfere with parents' involvement, such as daily responsibilities that affect the amount of time and attention parents can devote to their children's school; parents' levels of literacy; and parents' language preferences. Studies have found that parent engagement increases when schools improve the communication between parents and school staff, develop trusting and respectful relationships with families, and demonstrate ways in which parents can support their children's academic achievement (Chappell et al., 2015; Hanover Research, 2013; Bridgeland et al., 2006; National Dropout Prevention Center/Network, n.d.).
  - **Collaborate with community agencies.** Researchers have concluded that dropout rates decrease when dropout prevention is a community-wide effort. Community services can provide a bridge between students' home and school needs by providing mental health services, social services, drug and alcohol treatment programs, job training, and sports

and recreation programs. Scholars have also emphasized the importance of establishing partnerships with local colleges and universities, local businesses, and faith-based organizations (America's Promise Alliance, 2015; Hanover Research, 2013; Johnston, 2010; Dynarski et al. 2008; Kennelly & Monrad, 2007; National Dropout Prevention Center for Students with Disabilities, n.d.). The National Dropout Prevention Center/Network (n.d.) stated, "School-community collaboration occurs when groups or agencies come together to establish an educative community. The educative community is composed of a multitude of educating entities such as school, home, places of worship, the media, museums, libraries, community agencies, and businesses. Everyone in the community is accountable for the quality of education."

### **Summary**

This report reviewed the student risk factors associated with dropping out of school. Most studies have found that dropping out is related to factors in four different domains:

- Individual factors, such as ethnicity, family income level, and disability status. Local data corroborate these findings where non-Hispanic Black students, students eligible for FRL, and students with disabilities all had higher dropout rates than those for the District cohort groups as a whole.
- Academic factors, such as failing grades, grade retention, and excessive absenteeism. Local data also corroborate the reports in the literature where retained and chronically absent students were found to have a high likelihood of dropping out, with a slight decrease found for chronically absent students from the 2015-2016 cohort to the 2016-2017 cohort.
- Family-related factors, such as parents' low educational expectations for their children, lack of parental guidance for school success, exposure to abuse or neglect, and frequently absent parents.
- School-related factors, such as disengagement from school, feelings of social isolation, and school policies that contribute to the dropout problem, such as lack of opportunities for active learning, unfair disciplinary policies, and lack of positive and trusting relationships between students and school staff.

There are a limited number of rigorous studies examining dropout prevention programs' impact on students' dropout rates. These studies suggest that some dropout prevention programs may have a small positive effect on students' dropout rates. A few of the studies have concluded that implementation of certain strategies is associated with larger reductions in dropout rates, such as starting interventions at the elementary or middle school level, implementing full-day programs, addressing behavioral problems, focusing on career development, and engaging families. However, research provides little guidance to schools or policymakers on how to match dropout interventions with particular student risk factors. Overall, findings indicate that the quality of program implementation is often more important than the specific type of program in which students participate. Furthermore, some studies have found that students benefit equally from participation in dropout prevention programs regardless of their gender and ethnicity.

This report also summarized strategies that have been widely accepted as effective components of dropout prevention programs, such as designing multi-component interventions, increasing

student engagement inside and outside of the classroom, providing students with enhanced academic support, strengthening students' behavioral and social skills, creating a positive school climate, and collaborating with families and community agencies.



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