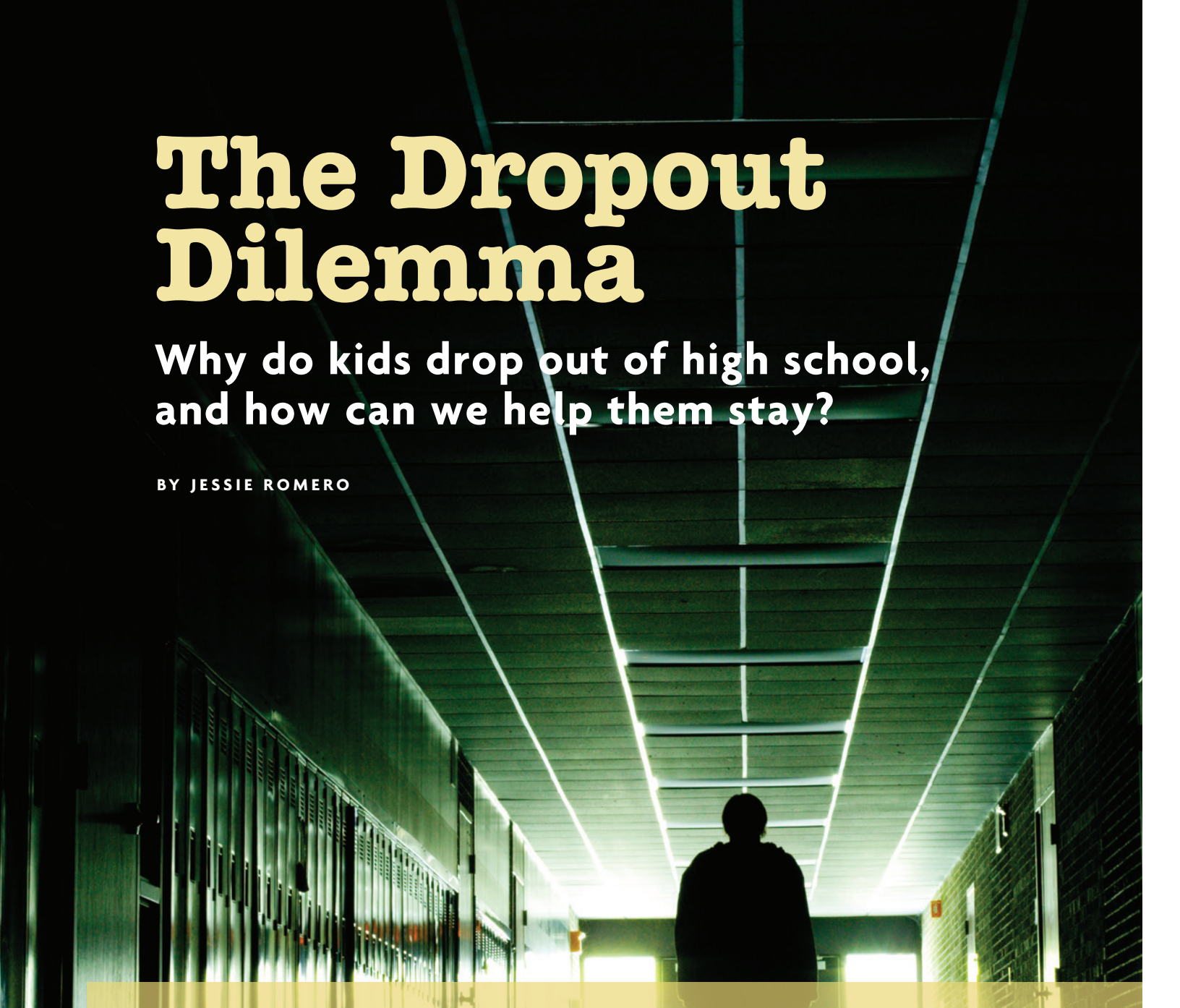


# The Dropout Dilemma

Why do kids drop out of high school, and how can we help them stay?

BY JESSIE ROMERO



**O**rangeburg Consolidated School District 5 serves about 7,000 students in rural South Carolina. More than one-quarter of its high school students fail to graduate within four years. Predominantly African-American, Orangeburg is not a wealthy area; median household income in the county is about \$33,000, compared with \$53,000 nationally, and the unemployment rate is 10.4 percent, nearly double the national average. Nearly 85 percent of the district's students qualify for free or reduced-price lunches, and many of their parents did not graduate from high school.

“Poverty is our biggest challenge,” says Cynthia Wilson, the district superintendent. “We have students growing up in homes where no one is working, and it becomes a cycle we absolutely need to break by graduating more students.”

Every September, teachers and volunteers visit the homes of students who haven’t returned to school to find out why and to help them return; lots of kids in Orangeburg drop out because they don’t have transportation, or they get pregnant, or they need to get a job. The district has started offering night classes for students who have children or have to work, and students also have the option of completing their coursework online — on laptops they’ve borrowed from the school, if necessary. Wilson and her staff are taking other steps to improve the district’s academics, but they’ve learned that sometimes helping a kid to graduate takes place outside the traditional confines of school.

### Is There a Dropout Crisis?

High school graduation rates in the United States rose rapidly throughout much of the 20th century. During the “high school movement,” about 1910 to 1940, the share of the population with a diploma rose from just 9 percent to 51 percent. But around 1970, the averaged freshman graduation rate (AFGR), which measures the share of students who graduate within four years, began to decline, falling from 79 percent during the 1969-1970 school year to 71 percent by the 1995-1996 school year, where it remained until the early 2000s. This stagnation in graduation rates led to widespread concern about a “dropout crisis.”

But the AFGR has improved over the past decade, reaching 81 percent during the 2011-2012 school year, the most recent year for which the Department of Education has published data. Another measure of high school graduation, the adjusted cohort graduation rate (ACGR), was 80 percent. (The Department of Education required states to report the ACGR beginning in 2010 to create more uniformity in state statistics and to better account for transfer students. Historical comparisons for this measure are not available.)

The improvement in the overall graduation rate obscures significant disparities by race and income. The ACGR for white students is 86 percent, compared with just 69 percent for black students and 73 percent for Hispanic students. Minority students also are disproportionately likely to attend a “dropout factory,” which researchers have defined as schools where fewer than 60 percent of freshmen make it to senior year: 23 percent of black students attend such a school, while only 5 percent of white students do. The dropout rate for students from families in the lowest income quintile is four times higher than for those in the highest income quintile.

There is also significant regional variation; states with low graduation rates tend to be in the South and the West. In the Fifth District, Maryland and Virginia have the highest graduation rates, with ACGRs of about 85 percent. Behind them are North Carolina, with an 83 percent graduation rate; West Virginia, with 81 percent; and South Carolina, with 78

percent. Washington, D.C., has the lowest graduation rate in the nation: Just 62 percent of D.C. high school students earn a diploma within four years.

Despite the improvement in the national graduation rate, “crisis” is still the term many people use to describe the dropout situation. “People are severely disadvantaged in our society if they don’t have a high school diploma,” says Russell Rumberger, a professor of education at the University of California, Santa Barbara. “One out of every five kids isn’t graduating. You could argue that any number of kids dropping out of school is still a crisis.”

### Why Graduating Matters

Several decades ago, the disadvantage wasn’t as severe. “If this were the 1968 economy, we wouldn’t worry nearly so much,” says Richard Murnane, an economist and professor of education at Harvard University. “There were a lot of jobs in manufacturing then. They were hard work and you got dirty, but with the right union, they paid a good wage.”

But as changes in the economy have increased the demand for workers with more education, differences in outcomes have become stark. The wage gap between workers with and without a high school diploma has increased substantially since 1970; over a lifetime, terminal high school graduates (that is, those who don’t go on to earn college degrees) earn as much as \$322,000 more than dropouts, according to a 2006 study by Henry Levin and Peter Muennig of Columbia University, Clive Belfield of Queens College (part of the City University of New York), and Cecilia Rouse of Princeton University. Dropouts also are less likely to be employed. The peak unemployment rate for people without a high school diploma following the Great Recession was 15.8 percent, compared with 11 percent for those with only a high school diploma. (Unemployment for college graduates peaked at just 5 percent.) Today, the rate for dropouts is still about 2 percentage points higher.

The differences between graduates and dropouts spill far beyond the labor market. Not surprisingly, high school dropouts are much more likely to live in poverty, and they also have much worse health outcomes. High school dropouts are more likely to suffer from cancer, lung disease, diabetes, and cardiovascular disease, and on average their life expectancy is nine years shorter than high school graduates.

High school dropouts also have a much higher probability of ending up in prison or jail. Nearly 80 percent of all prisoners are high school dropouts or recipients of the General Educational Development (GED) credential. (More than half of inmates with a GED earned it while incarcerated.) About 41 percent of all inmates have no high school credential at all.

The high costs to the individual of dropping out translate into high costs for society as a whole. Research by Lance Lochner of the University of Western Ontario and Enrico Moretti of the University of California, Berkeley found that a 1 percent increase in the high school graduation rate for males could save \$1.4 billion in criminal justice costs, or \$2,100

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**— Richard Murnane, Harvard University**

per additional male high school graduate. Other research estimates savings as high as \$26,600 per additional graduate.

High school dropouts also generate significantly less tax revenue than high school graduates, while at the same time they are more likely to receive taxpayer-funded benefits such as cash welfare, food stamps, and Medicaid. While the costs vary by race and gender, Levin and his co-authors found that across all demographic categories the public health costs of a high school dropout are more than twice the cost of a graduate. In total, the researchers estimated that each additional high school graduate could result in public savings of more than \$200,000, although they noted that their calculations do not include the costs of educational interventions to increase the number of graduates.

Raising the high school graduation rate could have economic benefits beyond saving the public money. In many models of economic growth, the human capital of the workforce is a key variable. That’s because a better-educated workforce generates new ideas and can make more productive use of new technologies; more education thus equals more growth. Although this connection has been difficult to prove empirically, many researchers have concluded that the rapid growth in educational achievement in the United States during the 20th century, particularly the dramatic increase in high school education in the first half of the century, was a major contributor to the country’s economic advances.

### **Is Dropping Out Irrational?**

Economic models generally assume that people are rational, carefully weighing the costs and benefits of an action before making a decision. So given the large returns to education and the poor outcomes for workers without a high school diploma, why would anyone drop out?

Part of the answer might simply be that teenagers aren’t rational. A growing body of neurological research has found that adolescents have less mature brains than adults, which contributes to more sensation-seeking and risky behavior. But while teenagers might be more impulsive than adults, they don’t generally wake up one morning and suddenly decide to quit school; instead, there are a multitude of factors that over time could lead a student to decide the costs of staying in school outweigh the benefits.

One factor could be that teenagers place less value on the future benefits of an education. Research has found that “time preference,” or the value a person places on rewards today versus rewards tomorrow, varies with age. Teenagers

are more likely to prefer gratification today.

Students also might not expect the benefits of staying in school to be very large. Many low-achieving students wind up being held back a grade; for these students, staying enrolled in school doesn’t actually translate into greater educational attainment. In a study of students in Massachusetts, Murnane found that only 35 percent of students who were held back in ninth grade graduated within six years; the students who dropped out might have perceived that staying in school was unlikely to result in a diploma. The same calculation likely applies to students who live in states where exit exams are required for graduation, as is now the case in about half the country. Students who don’t expect to pass the exam have little incentive to remain in school. Multiple studies suggest that exit exams reduce high school graduation rates, particularly for low-income and minority students.

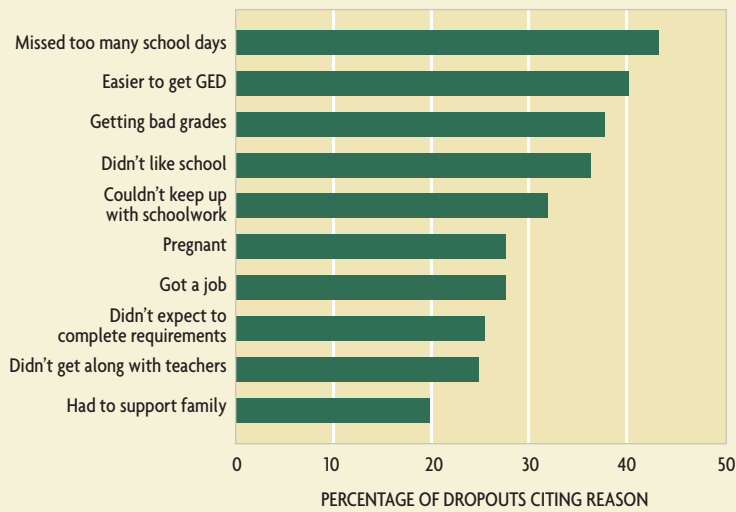
In April, South Carolina eliminated its exit exam requirement for future students and is allowing students who failed the exam in the past to apply retroactively for a diploma. That’s a benefit for those students, but it poses challenges for educators. “If someone without a high school diploma has the opportunity to make \$10,000 more by getting a diploma, you want them to have that opportunity,” Wilson says. “But we have to find our ways to keep our students motivated to do more than just get by. We can’t say anymore, ‘You really have to learn this because you have to pass that test!’” In addition, exit exams were introduced to ensure that high school graduates had achieved a certain threshold of knowledge. Eliminating them poses the risk that graduates won’t be adequately prepared for the workforce or for postsecondary education.

The increasing focus on college attendance at many high schools might also encourage kids to drop out. Students who aren’t academically prepared for college or who don’t want to attend may see little value in finishing high school if they perceive a diploma solely as a stepping stone to college. The focus on college prep might also contribute to the fact that many dropouts report feeling bored and disengaged from school.

For some students, the opportunity cost of attending school — the value of the other ways they could use their time — may be quite high. In a survey of high school students conducted by the Department of Education, 28 percent of female students said they dropped out because they were pregnant, 28 percent of all students quit school because they got a job, and 20 percent needed to support their family. (See chart.)

Getting bad grades or getting pregnant might be the most direct cause of a student’s decision to drop out, but research suggests the reasons run deeper. Zvi Eckstein of the Interdisciplinary Center Herzliya (Israel) and Kenneth Wolpin of the University of Pennsylvania and Rice University estimated a model of high school attendance based on data from a national longitudinal survey and concluded that students who drop out of high school are different even before starting high school. In particular, dropouts are less prepared

## Most Common Reasons for Dropping Out



NOTE: Percentages do not sum to 100 because students could list more than one response. The percent of students citing pregnancy refers to female students only.  
 SOURCE: Dalton, Glennie, Ingels, and Wirt (2009); Department of Education's Educational Longitudinal Study of 2002

The result is kids arriving at school without the academic or social skills they need to make progress toward graduation. About one-third of the students in the Department of Education survey said they dropped out because they couldn't keep up with the schoolwork, and nearly half of the students in a survey commissioned by the Bill and Melinda Gates Foundation said they were unprepared when they entered high school. That lack of preparation begins early. "Low-income kids start kindergarten way behind. That's a huge handicap that needs to be addressed," says Murnane.

## Changing the Calculation

What can educators do to tip the cost-benefit calculation in favor of staying in school? Evidence on what actually works is thin, in part because it's difficult to make school reforms that lend themselves to rigorous impact evaluations. But there are some strategies that appear to be effective.

Sometimes, all a student needs is to attend a better high school. Several studies have shown that black students' graduation rates increased as a result of court-ordered desegregation in the 1960s, 1970s, and 1980s, which sent black students to higher-quality schools. Conversely, graduation rates decreased with the end of court-mandated desegregation in Northern school districts. A study of the Charlotte-Mecklenburg, N.C., schools found that graduation rates increased by 9 percentage points for low-income and minority students who won a lottery to attend a higher-performing high school.

Of course, it's not mathematically possible for every student to move to a better high school. One approach to reforming existing schools is the "Talent Development" model, which groups incoming ninth graders into small "learning communities" taught by the same four or five teachers. The students take extra English and math classes and participate in a seminar focused on study skills and personal habits. After freshman year, the students study in career academies that are intended to combine academics with the students' interests. An impact evaluation of the first two schools to implement the program, both in Philadelphia, found that on-time graduation increased by 8 percentage points.

As the inclusion of career academies in the Talent Development model suggests, more career and technical education could help make school more relevant for some students and teach them about post-high school options other than college. "Career and technical education can provide a new way of teaching core academic skills using a pedagogy that is much more project-oriented and hands-on and is of interest to kids who don't pay attention to traditional college preparatory approaches," says Murnane.

Orangeburg recently opened up its career certificate programs to students attending "alternative school," a separate school for kids with disciplinary problems. Previously,

and less motivated for school and have lower expectations about the eventual rewards of graduation.

Eckstein and Wolpin's conclusions are supported by a large body of research on the GED. Introduced in 1942 for returning World War II veterans, by 2008 the GED accounted for 12 percent of all the high school credentials issued in the United States. Although GED earners have demonstrated the same knowledge as high school graduates, they don't do much better than dropouts in the labor market and they're about as likely to end up in poverty or in prison. Research by James Heckman of the University of Chicago and other economists suggests this is because they lack the noncognitive skills, such as perseverance and motivation, that would have enabled them to graduate from high school. These are the same skills that contribute to success in the workplace.

The finding that students who drop out of high school have different initial traits than those who graduate raises an important question: Why are these students different? The answer may have its roots very early in life.

A large body of research has found that the early mastery of basic emotional, social, and other noncognitive skills lays the foundation for learning more complex cognitive skills later in life. Once kids fall behind, it's very hard to catch up; cognitive and behavioral tests as early as age 5 can predict the likelihood that a child will graduate from high school. Research also shows that poor and minority children (groups that tend to overlap) are much more likely to fall behind. In part, their parents might not have the time or money to invest in early childhood education. And the community as a whole might not offer the same resources as higher-income communities, such as parks and playgrounds, after-school programs, and positive role models.

students were required to earn re-admittance to their home schools before they could apply for the programs. “For a large number of our dropouts, alternative school was their last stop,” says Wilson. “But working toward a certificate is a great motivator” to stay in school.

Research also suggests that students are more engaged and have higher achievement when they attend small schools, generally defined as fewer than 400 students. The average high school in the United States has about 850 students; in many states the average is more than 1,000 students. Beginning in 2002, New York City closed about 20 large low-performing schools and replaced them with more than 200 small schools. A study of 105 of these schools found that the four-year graduation rate increased from 59 percent to 68 percent; the effect on graduation rates was especially strong for disadvantaged students.

Many states also are experimenting with charter schools. At least 42 states and Washington, D.C., now allow charter schools, and the number of students enrolled in them increased 80 percent between 2009 and 2013, although they still serve only about 4 percent of the country’s schoolchildren. Overall, according to research directed by Margaret Raymond at Stanford University, students in charter schools show more improvement in reading than students in traditional public schools and do at least as well in math. While Raymond’s research doesn’t study the effect on graduation rates specifically, to the extent that students drop out because they are not academically prepared, charter schools might help. Of course, not all charter schools are high quality. “There are some terrific ones, for sure,” says Murnane. “But there are many that are not so good.”

But even the most effective programs have relatively modest results. More than half of the students who participated in a Talent Development program in Philadelphia still failed to graduate, and the graduation rate after New York City’s reform was still well below the national average. The lesson to take away from high school reforms may be that high school reform isn’t enough.

### A Lifetime Approach

Given the importance of early educational experiences, sending children to preschool might be one of the best ways to increase the likelihood they eventually graduate from high school. Multiple studies of high-quality early education programs, such as the Perry Preschool study in Ypsilanti, Mich.,

and the Abecedarian project in North Carolina, have shown that they have substantial long-term effects for low-income children — not only higher academic achievement and graduation rates, but also higher earnings as adults, reduced criminality, and lower rates of teen pregnancy. (See “Babies, Brains, and Abilities,” *Region Focus*, Fourth Quarter 2011.) Early childhood education isn’t a cure-all, however. “It’s not a substitute for high school reform,” says Murnane. “But it would sure make high school reform easier.”

One risk is that the academic gains from preschool are erased if a child subsequently attends a low-quality elementary school. That points to the need for interventions at every level of schooling. And as Rumberger notes, “There are some populations where we need to increase the graduation rate by 20 or 30 percentage points. We have evidence of successful interventions in preschool, in elementary school, in middle school, and in high school. If we really want to tackle this problem, we have to compound these interventions.”

Tackling the problem may also mean addressing the challenges children face outside of school. While students drop out of school for many reasons, poverty is the common denominator for many of them; not only are poor children more likely to be academically unprepared, but they’re also more likely to get sick, to lack parental support, or to have children themselves. “Those are incredible burdens to overcome,” says Rumberger. “To the extent we don’t improve economic conditions among certain populations in our country, we’re unlikely to improve the graduation rate sufficiently.”

Not everyone agrees that better economic conditions are a prerequisite for increasing academic achievement. There is considerable debate, for example, about the efficacy of the Harlem Children’s Zone in New York, which combines charter schools with community services in an effort to address the panoply of problems facing poor children and their families. Students who attend the Zone’s charter schools show significant academic improvement, but it’s unclear if that’s a result of the schools alone or if the other services are an essential component. Still, there is evidence that assistance for low-income families, such as food stamps or the Earned Income Tax Credit, has positive long-term effects on their children. “We have to do a better job of supporting low-income families,” says Murnane. “It’s a necessary condition for giving kids in these families a better shot at a good life.” **EF**

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