

Interpreting Promoting Power, Dropout Rates, Graduation Rates and the term “Dropout Factory” in Your Community

Frequently Asked Questions

What is Promoting Power?

Promoting Power compares the number of seniors (12th-graders) in a high school to the number of freshmen (9th-graders) three years earlier. In a high school with Grades 10-12, it compares 10th-graders to 12th-graders two years later. These enrollment numbers are taken from the U.S. Department of Education’s Common Core of Data and reported by school districts every fall.

Promoting Power essentially tells us the extent to which students in a high school succeed in making it from 9th to 12th grade.

Why is Promoting Power a good indicator of a high school’s graduation and dropout rates?

This is a good indicator of graduation and dropout rates because the majority of students who drop out of high school do not do so because of family problems or because they don’t see the value of a high school diploma (Balfanz 2007). In most cases, students drop out because they are struggling to succeed in school (Allensworth and Eaton 2007). They have poor attendance and academic preparation, which leads to course failure and eventual grade retention or non-promotion to the next grade. Thus, a high school with many more freshmen than seniors is typically a high school in which large numbers of students are not succeeding and ultimately drop out. Success in the ninth grade has been shown to be the most critical variable in determining whether a student will graduate or not (Allensworth and Easton 2005).

We established the validity of Promoting Power to indicate a high school where graduation is not the norm by comparing it to the best available measures of graduation rates. When comparing Promoting Power to the U.S. Department of Education’s Average Freshmen Graduation Rate (the estimate developed to enable comparison of graduation rates across states and approximate a cohort – or group of students educated together -- graduation rate), we found that at the state level Promoting Power was either within 5 points of Average Freshmen Graduation Rate or was higher than the Average Freshmen Graduation Rate.

This is likely because Promoting Power does not account for students who make it to 12th grade or are given 12th-grade enrollment status but do not ultimately graduate. In addition, we have compared the Average Freshmen Graduation Rate for school districts to their schools’ collective Promoting Power data. At the district level, the freshmen graduation rate accounts for students who transfer from a school with low Promoting Power to

another school in the district and graduate. Again we found that districts in which most high schools have low Promoting Power also have low Average Freshmen Graduation Rates

We also benchmarked Promoting Power against studies that have followed individual students over time and accounted for transfers in and transfers out (Gill et al 2003, Allensworth 2005, Neild and Balfanz 2006), as well as recently released graduation rate data in Massachusetts and Indiana, two states that have begun following individual students over time and accounting for transfers in and out. With one exception, we found that this benchmarking supported our basic conclusion that high schools in which there are consistently 60% or fewer freshmen than seniors are schools in which graduation is not the norm. Because there *are* exceptions we were careful to add that local factors may mitigate this finding and then listed the most common ones (see “More Information” on “Methods, Data, and Terms” under “What’s New” at www.csos.jhu.edu).

What does it mean that a high school in my community has been identified as having weak Promoting Power and “fitting the profile” of a Dropout Factory?

It means that for the classes of 2004, 2005, and 2006 the high school had an average Promoting Power of 60% or less. For every 100 students in the 9th grade there was, on average, 60 or fewer students in the 12th grade three years later. Only about 1 in 10 high schools in the United States has Promoting Power this low. High schools with Promoting Power below 60% have a high likelihood of having low graduation rates and high dropout rates (Balfanz & Legters 2004). As we have said, some of the students who do not make it to the 12th grade will transfer and graduate, but the weight of the evidence is that most will not.

We have benchmarked Promoting Power at the state, district, and schools levels (see below for details) and concluded that even when several of the potential biases that can impact Promoting Power are in play and a school is close to our 60% threshold, at best it may have a graduation rate in the mid-70’s and a high attrition rate, which means it has more transfers out than transfers in. Given the weight of research on transfers (see below), it is not plausible that all these transfer-out students are graduating. Thus as an upper boundary, schools that continually have 60% or fewer freshman than seniors will see at least nearly one-third of their students who start in the 9th grade not graduate. In many schools, it will be a much higher percentage. In these schools, graduating is not the norm and in 21st century America that is cause for concern.

Weak Promoting Power is thus the equivalent of a “check engine” warning light on your car. It says that the school needs a thorough check-up to see if additional supports, resources, and/or reforms are needed to insure that all students who enter the high school graduate with diplomas prepared for adult success. Most high schools with low graduation rates and high dropout rates are over-challenged and under-resourced so it is important to find ways that the community can help the school succeed (for some ideas

see “What Your Community Can Do to End its Dropout Crisis” (Balfanz 2007) at www.csos.jhu.edu or www.gradgap.org.

What is a Dropout Factory and why do you use this term?

A Dropout Factory is a school in which year in and year out a significant number of under-prepared and disengaged students enter the ninth grade, struggle to succeed, become further disengaged, stop attending on a regular basis, fail two or more courses, do not earn promotion to the 10th grade, try again the next year, do no better, likely transfer to another regular school or alternative school, fail to succeed again, and having become over-aged and under-credited and worn down through years of struggle, drop out of school. The process is repetitive, mechanical, and continuous -- hence, factory like.

Where misunderstanding has occurred is in the belief that we are saying or inferring that teachers, administrators, or students in a school with weak Promoting Power, low graduation rates, and high dropout rates intend this result or cause it to occur. Nothing could be further from the truth. The teachers, administrators, and students in these schools are often going to heroic lengths to succeed despite long odds.

The fault lies not with the schools or their teachers or students but with the intended and unintended consequences of decisions made at the city, state, and federal levels to create a sub-set of under-resourced, over-challenged, and non-supported schools that primarily educate low-income and minority students.

The term Dropout Factory is thus used to describe a harsh and deeply problematic situation that needs to be acknowledged and addressed.

Does the school’s Promoting Power rate equal its graduation rate or dropout rate?

No. This has been a source of misunderstanding. There are many ways to calculate graduation rates and dropout rates, depending on the data and methods used. Two estimates using different data and different methods can lead to very different results. Few states have the capacity to track students over time to establish a true graduation and dropout rate. This would involve not only being able to account for transfers in and transfers out, which a growing number of states can do, but also being able to determine to what extent students who transfer from a school ultimately graduate. This is important because recent evidence shows that most students fall off the path to graduation in the ninth grade (Allensworth and Easton 2005, 2007) and that once they fall off, recovery is difficult (Neild and Farley 2004, Neild and Balfanz 2006). Thus, if a school is not successful in enabling its ninth-graders to succeed in high school, it is as much a source of the students’ ultimate failure to graduate as the school the student transfers into in an attempt to find a school where he or she can succeed.

Is it possible that a high school in my community “fits the profile of a dropout factory” but is not one, and may in fact even have a high graduation and low dropout rate?

Yes, it can happen. But it is rare. We have identified four ways. They point out that Promoting Power information needs to be checked against local factors.

First, the school or district or state could have supplied inaccurate enrollment numbers to the U.S. Department of Education or the U.S. Department of Education could have recorded them wrong. This has occurred in two cases, so far.

Second, two schools could share the same unique school identifier number that all schools are assigned. This happened in one case, where a school was broken apart into several new smaller schools and one of the new smaller schools was assigned the same unique school identifier as the old school. As a result, all of the enrollment records for the new school were linked in the federal data base to the enrollment records of the old school.

Third, a new school could have been built during the time period of our analysis. This is particularly problematic if there was only one high school in town and a second one is built leading to large numbers of students being re-assigned from one school to another during or after ninth grade. This has occurred in two cases.

Fourth, there could be an established program in which a significant part of the student population of a high school spends the ninth grade or ninth and tenth grade in the school and then attends a specialized high school for the last two year, graduating from those specialized schools. To date, this occurred in two cases and in both cases involved high schools serving as feeders to a technical high school.

Is it possible that a school in my community has low graduation rates and high dropout rates but was not identified in your study as having weak Promoting Power and “fitting the profile of a dropout factory?”

Yes, it could occur in two ways. First, if a high school does not link grade status to credits earned. In this case, students’ grade levels may be based on the number of years in high school, meaning that they could be classified as 12th-graders and counted in 12th-grade enrollments but be many credits shy of graduating. In these schools there will be larger differences between 12th-grade enrollments and diplomas awarded. It is not possible to check this with enrollment data at the federal level, as diplomas awarded are recorded only at the school district level. It can, however, be checked locally.

Second, if a high school did not have complete enrollment data from 2001 to 2006 it was not included in our study. This study excluded any school that opened after 2001.

Why do we need to be concerned about graduation and dropout rates?

The nation is facing what has been called a “Silent Epidemic” (Bridgeland et al 2006, Bridgeland 2007, see <http://www.silentepidemic.org/> for more info). In an era when an equal opportunity to succeed in America increasingly requires either a college degree or post-secondary training far too many students are failing to earn high school diplomas. Haney and colleagues estimated the national graduation rate to be 75% by examining the number of diplomas awarded for the class of 2001 compared to eighth-grade enrollment four academic years earlier (Haney et al 2004). Warren also used the same NCES data, examining the number of incoming ninth-graders and number of diplomas awarded four years later, accounting for migration, retention, and student mortality. He found that the national graduation rate for the class of 2002 was 72%, down from 78% for the class of 1975 (Warren 2005). The National Center for Education Statistics (NCES) also publishes a ratio of high school graduates to the number of 17-year-olds nationwide. Their numbers are also extremely similar to Warren’s (NCES 2005, Warren and Halpern-Manners 2007)

The graduation rate crisis is “silent” because it is not equally experienced. In many communities, nearly all student graduate from high school. In more than one-third of the nation’s high schools Promoting Power is 90% or more, but in others high school graduation is not the norm. These high schools predominately educate low-income and minority students. As a result, estimates of the graduation rates for African American, Latino, Native American and low-income students range from 50 to 65% (Swanson 2004).

Why don’t you use state and district graduation rate and dropout data?

Each state measures graduation and dropout rates in a different way, so it is not possible using either existing federal or state graduation or dropout rates to compare a high school in Chicago to one in Boston or in a rural county.

Why is it important to have a school-level measure or indicator of graduation and dropout rates?

A school level measure is essential because students do not graduate or drop out of states or school districts. They graduate and drop out of high schools. To solve the graduation rate crisis we need to know which high schools are having a difficult time graduating their students so that additional resources and supports can be targeted to where they are needed.

Isn't Promoting Power a misleading indicator of a high school's graduation and dropout rates because it does not take into account that students may be in the ninth-grade for two or more years?

This can introduce some bias but not enough to fundamentally alter the proposition that a high school in which there are routinely 60 or fewer seniors for every 100 freshmen who started is a high school with a high probability of low graduation and high dropout rates.

Promoting Power compares all students in the ninth grade in one year, to all students in the 12th grade three years later. It is comparing the number of students in the ninth grade who are on-time and off-time to the number of 12th-graders who are on-time and off-time. Both the enrollment numbers will have students who are in the grade for the first time and repeating the grade. Moreover, because we are using three-year averages, students who repeat the ninth grade and go on to 12th grade will be in the analysis; they will be captured in the next year's 12th grade enrollment numbers. Likewise, the 12th-grade enrollment numbers will include some students who are repeating the 12th grade or repeated grades 10 or 11.

All available evidence indicates that a high school with large numbers of students repeating the ninth-grade will have low graduation rates and high dropout rates because:

- **Grade retention in the ninth grade is a strong predictor of eventual dropout.**

Educational research has pointed to the ninth grade as a critical year in students' academic development. Ninth-grade students struggle to fit in with the climate established by older peers in a less familiar environment. This is also a year where a lack of preparation may come to a head in the face of new, higher expectations from teachers and administrators (Roderick and Camburn 1999, Balfanz and Legters 2004, Neild and Balfanz 2006). Because of these difficulties associated with ninth grade, the national retention rates of ninth-grade students are higher than any other grade. This creates what Abrams and Haney refer to as the "ninth-grade bulge" or the increase in number of ninth-grade students as a result of attrition between the ninth and tenth grades. This "bulge" has tripled from 4% to 13% from 1970-2000, with the largest gains in this "bulge" occurring between 1990 and 2000 (Abrams and Haney 2004).

Although retention in ninth grade can be done with the welfare of the student in mind, half a decade of recent research indicates that retaining students typically provides no academic benefit to the student (Jimerson 2001, Neild and Farley 2004, Abrams and Haney 2004, Allensworth and Easton 2005). Allensworth and Easton's research on Chicago high schools found that the four-year graduation rate for students who had earned enough credits to advance to the tenth grade on time was 82%, nearly *four times* the four-year graduation rate of students who were "off-track" after the ninth grade (22%). Allensworth and Easton also demonstrated that GPA, number of course failures and number of absences during the student's freshmen year were all highly predictive of graduation, as poor student performances in any of these three factors often led to grade retention (Allensworth and Easton 2005). Neild found that the most common grade level

of dropout for the classes of 2000-2005 in Philadelphia public high schools is ninth grade. However, students often remained enrolled in school for three or more years before officially dropping out, indicating the prevalence of grade retention (Neild and Farley 2004, Neild and Balfanz 2006). Balfanz and Legters found that Philadelphia students retained in the ninth grade did not do better on their second go-round than on their first. The typical repeating student only passed half of his or her classes and again failed to be promoted (Balfanz and Legters 2004).

Isn't it a problem that Promoting Power does not take into account transfers in and transfers out of a school?

Here two types of mobility need to be considered.

First, the impact of mobility between school districts needs to be considered. Promoting Power will only be biased when considerably more students are moving out of a school district than into it or the other way around, more students are moving in than out. However, this difference needs to be substantial for promoting power to become misleading. This is rare. Using county and city level Census data, we found that less than 2% of high schools nationwide are located in counties or cities where the net migration of 10-19-year-olds into or out of the county or city was greater than 10% (Balfanz and Legters 2004). A one-time difference of this magnitude is possible if a major employer leaves town, but in most cases using a three-year average should mitigate its impact because the following class of students should reflect the lower overall population of the school district (i.e. ninth-graders will be leaving at the same rate as older students).

Second, the impact of mobility between schools in a school district needs to be considered. Mobility between high schools in a district can be considerable. Some of it is driven by residential moves but in most cases this should balance out, with schools losing and receiving more or less equal numbers of students because families are moving around within school districts.

The exception is the opening of a new school. This is one clear case where Promoting Power can be misleading. If significant numbers of students move from one school to a new school after they have enrolled as ninth-graders, the school they have departed will have misleading promoting power as a larger ninth-grade class will be compared to the smaller 12th-grade class composed of the remaining students.

In most cases, however, schools that experience significantly more out-transfers than in-transfers are schools in which large numbers of students are not succeeding and/or are looking for a school that better meets their needs. In this case, the school can be viewed as contributing to the graduation rate crisis and may be in need of additional resources, supports, and reforms because large numbers of its students are not succeeding, and:

- **Students that transfer between schools have an elevated risk of eventual dropout**

Scholars have argued that moving between schools represents a less severe form of student disengagement from school activities, as students who move between schools have more difficulties establishing relationships with teachers and students at their new school (Rumberger 2004). At least one study has indicated that the majority of high school dropouts change schools at least once before withdrawing, while the majority of high school graduates did not change schools (Rumberger and Larson 1998).

Allensworth and Easton also found that moving at least once in the three years before high school was strongly related with an increased number of absences for Chicago students. Absence was the single strongest predictor of course failure, which in turn was the single strongest predictor of eventually dropping out. The strength of the association between mobility and absence increased as the number of moves the student recently experienced increased (Allensworth and Easton 2005). Astone and McLanahan found that mobility between schools accounted for up to 30% of the dropout risk created by students living with stepparents as opposed to their original family (Astone and McLanahan 1994). All in all, mobility has substantial negative effects on the chances of high school graduation.

Why are state and district-reported *Dropout Rates* for the school in my community so different from its Promoting Power rates?

Dropout rates can be reported in several ways. Most commonly an annual dropout rate is reported which compares the number of students who dropped out in a single year, to the total enrollment of the school. This usually produces a number in the single digits (e.g. 2%, 5% etc.). A 5% annual dropout rate, however, can equal a 20% cohort dropout rate, if every year 5% of the class is dropping out.

Moreover, there is the question of transfers. In many cases students do not drop out from the first school they attend. They fall off the path to graduation in their initial school by, for example, failing to earn on-time promotion to the 10th grade. They then transfer to a second school, often for a short time, and then drop out. So if we were able to track the eventual outcomes of all students who start in the ninth grade in a given school we could find a 5% annual dropout rate but a 40% cohort dropout rate. This is the dropout rate we really need to know-what percent of students who start at a school in the 9th grade eventually drop out. Currently, few states have the capacity or data systems to report this.

Why are state and district-reported *Graduation Rates* for the school in my community so different from its Promoting Power rate?

There is widespread agreement on the best way to measure graduation rates. Begin with a cohort of first-time ninth-graders, follow them over time, account for transfers in and transfers out and see how many of them eventually graduate. Unfortunately, only a few states have the data systems to accomplish this. As a result, most states estimate their

graduation rate and the most common way of estimating graduation rates is based on often dubious data on dropouts.

It's not difficult to see where problems might crop up. It's easy enough to determine a graduate, because most districts keep good records on who earned a diploma. But for all sorts of reasons, it's a tougher job to identify dropouts. Who gets counted as a dropout varies from school to school and from district to district. Particularly where dropping out is common, there is not much time or resources to follow up on students to find out what really happened. Furthermore, there may be a perverse incentive for some schools to assume that students transferred to another school rather than to follow up to find out the real truth.

As a result, in most states there is a third category of students, non-drop withdrawals -- students who leave a school and do not register as having transferred but are not officially counted as dropouts. The most common category is called "location unknown" or "whereabouts unknown". These are students who just stop showing up at school and can not be located by the school. Students in this category can in some locales be up to half of the students who stop coming to school. In some states, students are not counted as dropouts if they announce that they "intend to get a GED" or that they will be "home schooled". Both are possible but rarely verified. Thus in many states, official dropouts, only make up a sub-set, often a relatively small sub-set, of the number of students who do not earn a diploma. As a result, when graduation rates are estimated by subtracting official dropouts from graduates as is currently done in the near majority of states, official graduation rates which are based on using dropout counts to estimate graduation rates can be 10 to 15% higher than actual graduation rates (Pinkus 2006, see www.all4ed.org for more info). This was clearly seen in both Indiana and Massachusetts, which have recently switched to the much more accurate method of following cohorts of students at the individual level over time.

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