

# Graduation Rates

*Real Kids, Real Numbers*

Christopher B. Swanson  
Education Policy Center  
The Urban Institute



***The Urban Institute***  
***Education Policy Center***





# GRADUATION RATES

## REAL KIDS, REAL NUMBERS

Christopher B. Swanson

*This article appears in the December 2004 edition of Principal Leadership magazine*

**D**uring the past year, we have repeatedly heard that the nation's public schools are facing a high school completion crisis. My research at the Urban Institute, for example, reveals an overall graduation rate of 68 percent. Even more troubling, there's only a fifty-fifty chance for a student from a historically disadvantaged minority group to finish, the same odds as flipping a coin (Swanson 2004). But I am not alone in this assessment. Findings from independent studies conducted at a variety of institutions—Johns Hopkins University, Boston College, the Manhattan Institute, and others—all point in a similar direction (Balfanz and Legters 2004; Greene and Foster 2003; Haney et al. 2004). Far too many of our youth, particularly poor and minority students, are failing to complete high school with a diploma.

At the same time, the media has publicized cases where school systems apparently encourage underperforming high school students to leave or use administrative sleight-of-hand and other suspect methods to cover up the dropout problem. While these stories are certainly intriguing and disconcerting, we do not know how widespread such practices are. These controversies over graduation rates and the No Child Left Behind Act (NCLB), however, helped push high school reform to the forefront of the educational issues highlighted by the 2004 presidential campaigns. Will the solutions touted actually be put into practice? Only time will tell.

All too often, when complex issues of social and economic importance collide with policy and politics, heat is generated but little light. In particular, it may be difficult for local educators to parse the rhetoric from the reality and to figure out what this all means for their schools and students. This article attempts to provide

some practical insight into NCLB and its implications for graduation rates and to highlight some issues of particular relevance to school administrators. I also hope that this piece will point to areas where local school leaders may take increasing ownership of the search to find solutions for the high school completion crisis.

### **T**he basics of NCLB and graduation rates

Depending on whom you ask, we have the No Child Left Behind Act (NCLB) either to thank or to blame for the unpleasant discovery of low graduation rates. As we all know by now, NCLB holds public schools accountable for student performance and does so in a way that considerably extends the reach of previous federal legislation into local education systems. It is also a well-known fact that the law requires achievement test scores to be the primary means of measuring student performance. However, the state accountability systems mandated under NCLB must also include at least one additional academic outcome. At the high school level, this "Other Academic Indicator" must be the graduation rate.

No Child Left Behind defines high school graduation rates in a particular way. Namely, only students who receive a regular standards-based diploma on time with their class should be counted as high school graduates. States must use this definition for purposes of NCLB accountability, though it may be inconsistent with common sense understanding of what constitutes a "high school graduate" or with other definitions that have



been used in the past. In fact, states have challenged aspects of this federal definition, including whether students receiving certificates of attendance and GEDs or those who take longer than four years to finish high school should be counted as graduates under NCLB.

It is also worth considering why the law requires accountability over both test scores and graduation rates in the first place. Suppose that an accountability system attached stakes only to test scores. One way for high schools to boost test scores would be to push the lowest performing students out of school. This kind of “gaming” strategy would result in higher achievement scores and would, therefore, help schools to avoid sanctions. But these apparent gains would be artificial, attained only at the high cost of creating more dropouts. Requiring accountability for graduation rates is intended to counteract this type of perverse incentive that could undermine the spirit of the law.

Nowhere in the NCLB legislation does it state that graduation rates should be treated any differently than test scores with respect to accountability. However, the federal regulatory process gives states a tremendous amount of flexibility when implementing provisions related to graduation rates, latitude that does not exist for test scores. To be clear, some degree of state independence is not necessarily a bad thing. Such state autonomy might offer some advantages for implementing a complex law like NCLB and tailoring its provisions to meet local needs. But in this case, weak federal oversight has seriously jeopardized the law’s intended safeguard against “push-out.” Although there are many potential areas for concern here, I discuss two major issues below—the way graduation rates are calculated and the stakes attached to those results.

## **W**here do graduation rates come from?

States have the authority to decide what assessments they will use to measure student achievement for NCLB (subject to federal approval, of course). Similarly, states can choose their own formula for calculating graduation rates under the law. A variety of different approaches have been adopted toward measuring performance in

both of these areas. Yet, while theory and practice offer reasonably well-defined criteria for assessing the quality of standardized tests, no such consensus exists with respect to measuring graduation rates.

In a recent Urban Institute study, I reviewed the set of state plans outlining the accountability systems being implemented under NCLB (Swanson 2003). My particular focus was on the ways that states are calculating graduation rates. If we were to map out these approaches, we would find a veritable patchwork quilt. In fact, several states are even being allowed to use dropout rates in their accountability systems despite the law’s stipulation of graduation, *not* dropout, rates. More troubling is that different formulas for computing a graduation rate can generate much different results.

How large are these disparities? In another recent study I calculated graduation rates for a large number of school districts using four different formulas similar to those states are using under NCLB. The results reveal average disparities of as much as 14 percent between the results produced by the various formulas. I have also found a clear distinction between formulas based primarily on enrollment data and those that incorporate data on dropouts. Comparatively speaking, the latter systematically overestimate the graduation rate. It is worth noting that this is exactly what we would expect to find if large numbers of dropouts were going uncounted, as researchers have long suspected. Since the majority of states use such dropout-dependent graduation rate formulas, we may be viewing the performance of many school systems through a distorted, rose-colored lens.

## **A** double standard for accountability?

The two overarching goals of NCLB are to raise overall performance levels and to close gaps between high- and low-performing groups. Analyses of federal regulations and state implementation by the Urban Institute and the Civil Rights Project at Harvard University have revealed a troubling double standard in NCLB accountability (Swanson 2003; Orfield et al. 2004). While standards are uniform and rigorous for test scores, they are nothing of the kind for graduation rates.



For test scores, all states must adopt the same high performance target. This is the well-known goal of having 100 percent of students reaching proficiency by the 2013–2014 school year. States must also set explicit year-by-year goals for progress, with repeated failure to meet those goals carrying strong consequences for schools. To promote narrowing of achievement gaps, schools cannot make “adequate yearly progress” (AYP) under the law unless they meet their annual performance objective for students as a whole and for each subgroup defined on the basis of race and ethnicity, socioeconomic level, disability status, and English language proficiency. These are certainly high standards, perhaps even too high as some critics of the law have argued. But these lofty ambitions only apply to tested achievement.

Weak federal regulations on graduation accountability have opened a door that permits states to opt for a lower road. In fact, most states have seen that opening and are now taking a path of less resistance. States are allowed to establish their own target levels for graduation rates. In practice, goals range anywhere from 50 to 100 percent of students finishing high school. Further, in most states any amount of improvement in graduation rates can be considered adequate progress—even if annual gains are barely measurable and do not meet a reasonable minimum threshold for performance. So a school might be able to make AYP if its graduation rate creeps up from an abysmal 25.1 percent to a nearly-as-abysmal 25.2 percent. Finally, state accountability systems are not required to consider subgroup graduation rates when making their primary determinations about rewards and sanctions under the No Child Left Behind Act. All told, a mere four states took the high road of requiring both a firm floor for graduation rates and also disaggregating results for subgroups when determining adequate yearly progress.

## **H**ow does this affect schools?

Some critics of NCLB have argued that we should postpone attaching any stakes to graduation rates until we are able to figure out *the best* way to calculate these statistics. To use an old expression, the horse is out of the barn when it comes to NCLB and graduation rates. So the time has passed for this wait-and-see argument

to carry much sway. In any event, there is a legitimate counterargument that we should not let the perfect be the enemy of the good. Holding schools accountable for graduation rates (even if imperfectly) serves an important purpose under the law—safeguarding against raising test scores on the backs of dropouts.

Imperfect graduation rate statistics should be a reason for concern. For the most part, however, relatively little attention has been devoted to developing a better understanding of the practical benefits and limitations associated with various approaches to calculating graduation rates. At this juncture, we understand that a given formula may produce systematically biased results. We also have some sense of the particular factors that may complicate attempts to accurately measure graduation rates. These include things like transfer and migration of students into and out of school systems; retention in grade; and general difficulties associated with documenting students who dropout.

Unfortunately, the impact of transfer, retention, and undercounting dropouts on the accuracy of graduation rates has been difficult to gauge. There are a variety of reasons for this intractability. Many school systems do not attempt to systematically collect data about these processes. Even if an attempt is made, these phenomena are themselves hard to measure accurately. Further, dynamics like transfer and grade retention may impact certain calculation methods or formulas to different degrees. As a result, the question of which graduation rate formula is “best” (i.e., produces the most accurate result) may depend heavily on local conditions.

Allowing every school district or school to decide on its own formula for calculating graduation rates might arguably provide for a good matching between methods and local circumstances. But this would also render meaningless any semblance of the uniformity that is necessary for meaningful accountability over this important outcome. On the other hand, I would also be hesitant to recommend that principals rely entirely on state-generated statistics when trying to understand the process of high school completion. As suggested above, official state figures may be misleading if they use flawed methods. In addition, state estimates may tell only part of the story and fail to illuminate the educational processes that contribute most to low on-time graduation rates. For instance, an excessive grade



retention rate may be the leading culprit in one school while dropout plagues another.

Many schools have at their disposal much more detailed information about students, their performance, and their progress through high school than the state either possesses or takes into account when calculating graduation rates. The examples below illustrate how school-level data may help principals to move beyond state statistics. A more proactive and critical approach will help administrators to more clearly understand the particular challenges facing their schools and even to better recognize progress when and where it is being made.

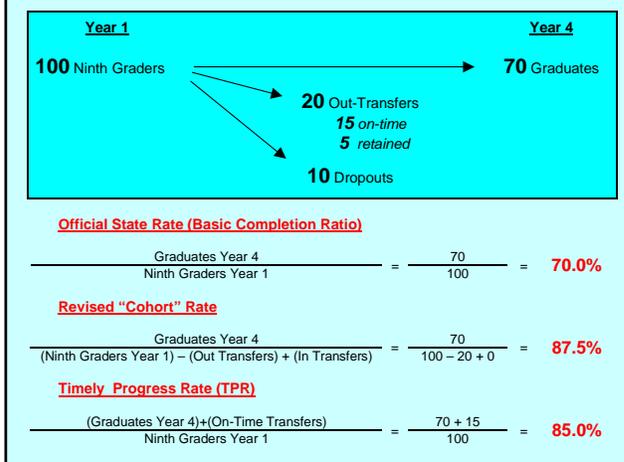
## Doing the math ... An example

To illustrate the value of locally derived knowledge, consider the following hypothetical scenario. Suppose that a state uses a very simple formula to calculate graduation rates: dividing the number of graduates in a particular year by the number of ninth graders four years earlier. (Although this is a very rudimentary statistic, it is similar to indicators actually being used under NCLB. It can also produce an accurate estimate of the true graduation rate in some circumstances, although not under the conditions proposed in this example.) Now, let us suppose that a particular school maintains detailed records about its students that are far more in-depth than the data collected through the centralized state information system. This school-level information might include, among other things, grade retention and promotion histories; reliable counts of dropouts; records of transfers into and out of the school; and documentation indicating whether out-transfers were progressing normally at the time they left.

As the figure shows, this school starts with an entering class of 100 ninth graders and, four years later, 70 students receive diplomas. According to the state's formula, this would produce a graduation rate of 70 percent. A closer examination of the school's own detailed records, however, reveals a much more complicated picture.

Over this four-year period, it seems that there has been a large amount of transfer out of the school, perhaps

Figure 1: High School Completion Patterns for a Hypothetical School



due to a local economic downturn. Twenty students have moved out but none have moved into the school. By contrast, there have been only 10 dropouts. With this information, the school could compute a revised "cohort" graduation rate by removing the students who left the ninth grade cohort from the denominator of the calculation. Those transfer students would no longer be eligible to receive a diploma from (or dropout of) this high school. Making this adjustment, we find the considerably higher graduation rate of 87.5 percent.

At first glance, the state data seemed to point towards a severe dropout problem. Based on the school's more subtle insights, however, we instead discovered dramatic out-migration of students with a relatively modest amount of dropout.

## Thinking further outside the box ... extending the example

NCLB calls for attention to every child. But in our example, one fifth of the ninth graders who attended the hypothetical school (i.e., the 20 out-transfers) did not count towards the school's revised graduation rate in any way. A graduation rate based on the cohort of students who remain in a school does provide an accurate perspective on school performance in many situations. But how meaningful would that statistic be in a school where the student population is highly transitory and only a small fraction of those entering ninth grade actually finished their high school career in



that same school? When the group of students for whom a school is accountable is extremely fluid, we may need to think further outside the box when trying to understand high school completion.

We can expand on the example above by calculating something that we might call a Timely Progress Rate or TPR. This TPR indicator has the advantage of counting all 100 students who attend the school in the *denominator*. Students will appear in the *numerator* if they either (1) graduate on time with their class or (2) remain on schedule for graduation at the time they transfer out of the school. When we calculate this third indicator, we find a rate of 85 percent—slightly lower than the revised cohort rate but still much higher than the state's official figure. A comparison of these three rates together offers a deeper insight than can be afforded by any of the three taken alone. We might interpret the findings of our hypothetical analysis as suggesting that while this school is losing students to transfer, it is doing a reasonable job of bringing students through the high school grades and to graduation.

The lesson to be taken away here is not that one statistic is necessarily right and others are wrong, or even that one rate is “righter” than another. The cohort rate and the timely progress indicator, for instance, are both valid statistics related to the process of high school completion. However, they measure somewhat different things and therefore produce somewhat different results. Instead, we should recognize that examining graduation rates from multiple local perspectives can help schools to better identify the extent of a potential problem, its possible causes and, perhaps more importantly, promising solutions. This type of information may also be a valuable tool in principals' efforts to share their school's experiences with the local community and to advocate to important stakeholders and decision-makers on behalf of their students' interests.

## **C**losing thoughts on moving toward smarter accountability

Educational accountability systems, if they are to function properly, must include all affected parties in a meaningful way and establish clear expectations and responsibilities for each respective agent. Thoughtful,

smarter accountability must be about more than just sticks and carrots. It must be about arming schools with the information they need to provide students with the opportunity to achieve their fullest potential. Accountability must evolve beyond its current punitive spirit to become relentlessly and constructively focused on providing children with the supports and services they need to succeed. Only when educational accountability becomes a true partnership among federal, state, and local stakeholders will it be able to serve its intended purpose, improving the education and lives of our nation's youth

With the advent of NCLB, graduation rate accountability has become the educational law of the land, a small part of it at least. Some uncertainty continues to persist around key issues, like exactly how to calculate graduation rates and how much weight should be placed on graduation versus test scores when attaching stakes to performance. What there can be little doubt of, however, is that finishing high school is critically important for the lives of our students and our communities. We know that youth who fail to earn a high school diploma suffer both economically and socially, and that they will find many opportunities for further advancement closed. Likewise, poorly educated communities experience disproportionately high rates of unemployment, crime, incarceration, and dependency on public aid.

Evidence increasingly points to the existence of a broad-based high school completion crisis in this country. When nearly one-third of all public school students are failing to graduate with a diploma, it becomes difficult to argue that this is still someone else's problem or that it is isolated just in the very lowest-performing schools. It is in our own backyards.

Principals have an important role to play in leading local reform efforts and in turning around struggling schools. But as this article points out, local wisdom and vigilance can also help us keep accountability honest. Principals are in a critical position to assure that the official statistics driving educational accountability, at the very least, accurately reflect the reality of life in America's schools. Ideally, we must also make sure that high stakes accountability leads to meaningful solutions for our most pressing problems, not just more punishment for our most troubled schools.



## References

- Balfanz, R., and N. Legters. 2004. "Locating the Dropout Crisis." Baltimore, MD: Center for Social Organization of Schools, Johns Hopkins University.
- Greene, J. P., and G. Forster. 2003. "Public High School Graduation and College Readiness Rates in the United States." New York: The Manhattan Institute for Policy Research.
- Haney, W., G. Maduas, L. Abrams, A. Wheelock, J. Miao, and I. Gruia. 2004. "The Education Pipeline in the United States, 1970–2000." Boston: Boston College, The National Board on Educational Testing and Public Policy.
- Orfield, G., D. Losen, J. Wald, and C. B. Swanson. 2004. "Losing Our Future: How Minority Youth Are Being Left Behind by the Graduation Rate Crisis." Cambridge, MA: The Civil Rights Project at Harvard University and the Urban Institute. <http://www.urban.org/url.cfm?ID=410936>.
- Swanson, C. B. 2003. "NCLB Implementation Report: State Approaches for Calculating High School Graduation Rates." Washington, D.C.: The Urban Institute. <http://www.urban.org/url.cfm?ID=410848>.
- . 2004a. "The Real Truth about Low Graduation Rates, An Evidence-Based Commentary." Washington, D.C.: The Urban Institute. <http://www.urban.org/url.cfm?ID=411050>.
- . 2004b. "Who Graduates? Who Doesn't? A Statistical Portrait of Public High School Graduation, Class of 2001." Washington, D.C.: The Urban Institute. <http://www.urban.org/url.cfm?ID=410934>.

---

## Additional Research from the Urban Institute's Education Policy Center

- Christopher B. Swanson. 2004. "The New Math Graduation Rates." *Education Week*, July 28, 2004.  
Available on-line: <http://www.urban.org/url.cfm?ID=1000675>
- Christopher B. Swanson. 2004. "Projections of 2003–04 High School Graduates: Supplemental Analyses based on findings from *Who Graduates? Who Doesn't?*" Washington, D.C., The Urban Institute.  
Available on-line: <http://www.urban.org/url.cfm?ID=411019>
- Christopher B. Swanson. 2003. "Ten Questions (and Answers) about Graduates, Dropouts, and NCLB Accountability." Learning Curve: Facts and Perspectives Brief No. 3. Washington, D.C.: The Urban Institute.  
Available on-line: <http://www.urban.org/url.cfm?ID=310873>
- Christopher B. Swanson. 2003. "Keeping Count and Losing Count: Calculating Graduation Rates for All Students under NCLB Accountability." Washington, D.C.: The Urban Institute.  
Available on-line: <http://www.urban.org/url.cfm?ID=410843>

The nonpartisan Urban Institute publishes studies, reports, and books on timely topics worthy of public consideration. The views expressed in this paper are those of the author and are not necessarily those of the Urban Institute or its board of trustees. Please direct correspondence to Christopher B. Swanson, The Urban Institute, Education Policy Center, 2100 M Street NW, Washington DC 20037. For more information contact the Urban Institute Public Affairs Office at 202-261-5709 or visit [www.urban.org](http://www.urban.org).



2100 M Street, NW  
Washington, DC 20037

Visit UI on-line at [www.urban.org](http://www.urban.org)

---

## About the Urban Institute

### **Our Mission—Providing Research of Record**

**The Urban Institute** is a nonprofit, nonpartisan policy research and educational organization established in Washington, D.C., in 1968. Its staff investigates the social, economic, and governance problems confronting the nation and evaluates the public and private means to alleviate them. The Institute disseminates its research findings through publications, its web site, the media, seminars, and forums.

**The Education Policy Center** at the Urban Institute is composed of a multidisciplinary team of researchers who conduct original research and program evaluations on a broad range of topics, including educational accountability, school vouchers, the effectiveness of federal policies, school finance reform, urban high school initiatives, educational technology, and teacher quality. Our goal is to provide objective and nonpartisan information and analysis in order to promote informed policy deliberation and public debate.

**Dr. Christopher B. Swanson** is a research associate in the Urban Institute's Education Policy Center.