STRATEGIC DATA PROJECT

THE SDP COLLEGE-GOING DIAGNOSTIC **STRATEGIC PERFORMANCE INDICATORS**

COLLEGE CHOICE

VOLUME 2 • FALL 2012

Do High School Graduates Enroll in Colleges That Maximize Their Chances of Success?

STRATEGIC PERFORMANCE INDICATORS

Strategic Performance Indicators (SPIs) are measures that reveal policy and management levers that have the potential to improve student outcomes. SPIs are derived from the Strategic Data Project (SDP) Diagnostics, rigorous descriptive analyses that SDP performs on a common set of issues using existing data from partnering education agencies. SDP's goal is that education agencies will adopt these SPIs, creating benchmarking information to understand their success in working toward key outcomes over time. This memo describes the rationale for the SPI on postsecondary persistence and academic fit, and presents results for Albuquerque Public Schools (NM), Boston Public Schools (MA), Fort Worth Independent School District (TX), Fulton County Schools (GA), Gwinnett County Public Schools (GA), and The School District of Philadelphia (PA). There are two other SPIs related to college going and three related to human capital.

All SPI memos are available at **www.gse.harvard.edu/sdp**

SUMMARY OF FINDINGS

Sizeable shares of highly qualified high school graduates do not continue on to postsecondary education directly after high school. Among highly qualified students who do matriculate to college, some attend less selective institutions. In comparing students with similarly strong academic credentials, those who attend two-year or less selective four-year institutions are less likely to persist to the second year of college, compared to those who enroll in selective four-year institutions. Collectively, these findings suggest that high school students choosing colleges that align with high school credentials may be important for improving college enrollment and success.

INTRODUCTION

Average earnings in the United States vary significantly by level of schooling completed. As illustrated in **Figure 1**, bachelor's degree holders earn nearly twice as much as high school graduates and are far more likely to be employed.[1] Despite these patterns and the fact that postsecondary enrollment in the United States has risen over time (by almost 35% since 1970), postsecondary completion rates have stagnated. This contrasts sharply with the trends for many other industrialized nations, where college completion rates have been rising steadily.[2]

In this memo, we examine college-going patterns for high school graduates from six school districts across the United States, using a set of Strategic Performance Indicators (SPIs) developed by the Strategic Data Project (SDP) at the Center for Education Policy Research at Harvard University.[3] We begin by investigating patterns of students' persistence to the second year of college, taking account of their academic background and socioeconomic status. By illustrating variation in rates of college continuation by type of postsecondary institution, we motivate the need to focus on the types of institutions into which students matriculate after high school. Therefore, we then turn our attention to college enrollment—or lack thereof—among high school graduates with strong academic credentials. At the end of the memo, we pose questions for school district leaders to consider and suggest action steps to increase the numbers of students who enroll and persist in college.

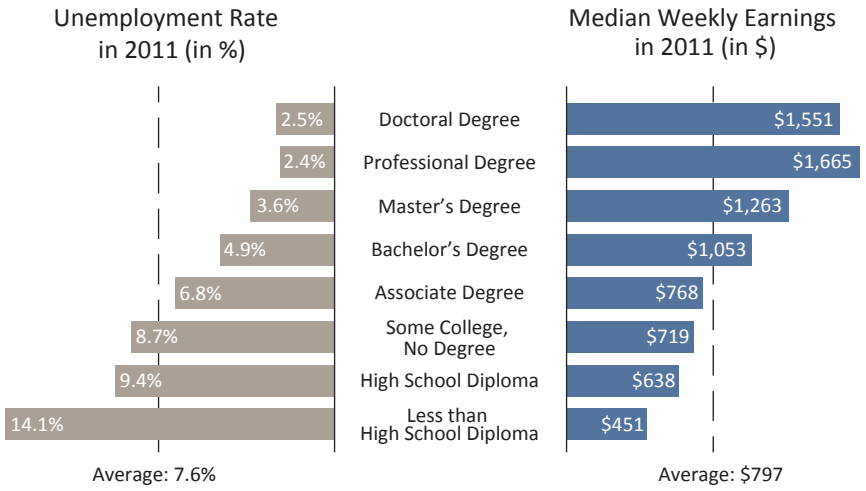
FINDINGS

Motivated by the incongruous patterns of rising postsecondary enrollment and stagnating postsecondary completion, we begin by examining rates of persistence to the second year of college among students who entered two-year colleges and among those who entered four-year colleges in the fall after high school graduation.[4] **Figure 2** shows these data for six SDP partner districts. Among high school graduates who enroll in college the fall following graduation, students who enroll in four-year colleges persist to the second year at rates between 13 and 21 percentage points higher than those who first attend two-year colleges.[5]

At first glance, such gaps may not seem unexpected. For example, if four-year-college goers tend to be better qualified academically and/or from more socioeconomically advantaged backgrounds, we might expect them to have higher college persistence rates. Accordingly, in **Figure 3**, we compare overall gaps in college persistence by college type (dark blue bars) with those for students who have similar prior achievement and socioeconomic status (gray bars). This allows us to draw comparisons between groups of students who are similar with respect to these background characteristics but who differ in terms of the type of college first attended.

When similar groups of students are compared, the persistence gaps between two-year- and four-year-college goers shrink but nonetheless persist at between 8 and 16 percentage points. On one hand, this affirms that academic preparedness and family income are important predictors of college persistence. On the other, the sizeable gaps that remain suggest that other factors, such as the fit between students' preparation and the academic rigor provided by their chosen colleges, also may play a vital role.

FIGURE 1: RELATIONSHIP BETWEEN EDUCATION, UNEMPLOYMENT, AND EARNINGS



Source: U.S. Census Bureau. (2012). *Current Population Survey—Education Pays*. Retrieved from http://www.bls.gov/emp/ep_chart_001.htm

FIGURE 2: RATES OF PERSISTENCE TO THE SECOND YEAR OF COLLEGE AMONG HIGH SCHOOL GRADUATES WHO SEAMLESSLY TRANSITIONED TO COLLEGE, BY ENROLLMENT IN A TWO-YEAR VERSUS A FOUR-YEAR INSTITUTION

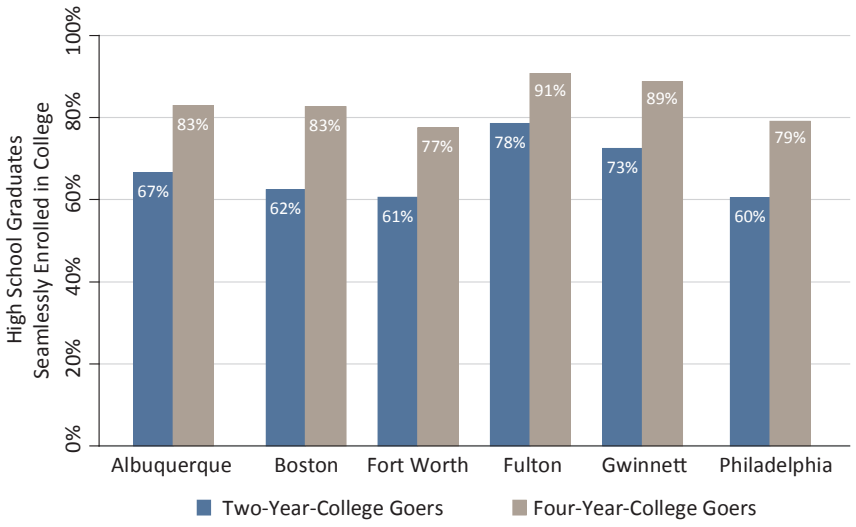
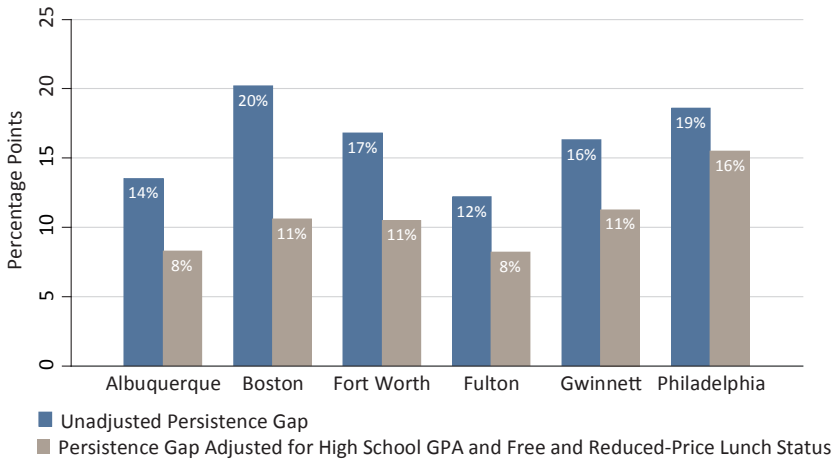


FIGURE 3: DIFFERENCES BETWEEN TWO-YEAR- AND FOUR-YEAR-COLLEGE GOERS IN RATES OF PERSISTENCE TO THE SECOND YEAR OF COLLEGE, BEFORE AND AFTER ACCOUNTING FOR PRIOR ACADEMIC PERFORMANCE AND STUDENT SOCIOECONOMIC BACKGROUND



THE STRATEGIC PERFORMANCE INDICATORS

How do college enrollment patterns vary among highly qualified high school graduates?

Given the above findings, it is important to know whether high school graduates are enrolling in colleges and universities that will maximize their chances of completion. To choose the right college, students and families must weigh many factors, including degree programs, cost, the learning environment, social fit, support systems, and proximity to home. Admittedly, many of the factors relevant to the college decision-making process are difficult to measure.

To explore how well a college fits a particular student academically, we employ a strategy forwarded by the Chicago Consortium of School Research,[6] focusing specifically on the congruence between a student's academic qualifications in high school and the selectivity of the college first attended. This choice is motivated both by the importance of academic fit and by the availability of the necessary data elements.

To more fully understand patterns of postsecondary choice, we restrict our attention to students whom we define as highly qualified for postsecondary education. These are students who earn:

- a cumulative GPA of 3.0 or higher and a math/verbal SAT score of 1300 or higher,
- a cumulative GPA of 3.3 or higher and a math/verbal SAT score of 1200 or higher, or
- a cumulative GPA of 3.7 or higher and a math/verbal SAT score of 1100 or higher.[7,8]

Among these students, we examine the extent to which they choose to attend postsecondary institutions less selective than those for which their academic credentials indicate they are likely qualified. We determine the selectivitiy of a college based upon the Barron's College Admissions Selector Ratings and indicate a student as eligible for a more selective postsecondary institution if he or she fails to enroll in any college, enrolls in a two-year college, or enrolls in an unranked or less selective four-year college, according to the Barron's ratings.[9]

As shown in **Figure 4**, patterns of postsecondary selectivity among highly qualitified graduates vary considerably across the six SDP partner districts. In all of the districts, the most striking result is the share of highly qualified graduates not enrolling in any college in the fall after high school graduation. In some of the districts, however, there are also substantial shares of highly qualified students who enroll in unranked or less selective institutions. Cross-district variation in the enrollment patterns of those who do enroll in college may relate to variation in the quality of the locally available postsecondary options.

IMPLICATIONS FROM FINDINGS

These findings are cause for concern. First, across the districts examined here, the percentages of students with strong academic credentials who do not enroll in any college are surprisingly high. Second, other SDP analyses (not reported here) have shown that among highly qualified students who *do* enroll in college, those who enroll in less selective or two-year institutions persist at lower rates than their better-matched peers, and that these patterns are most prevalent among students from lower-income backgrounds (i.e., those who qualify for free- or reduced-price school meals). Sample sizes are too small to report these analyses at the district level, however.

In sum, the findings contained in this memo suggest that SDP partner districts share the challenge of guiding students to enroll in college and supporting them in identifying postsecondary institutions that maximize their chances of achieving success. Among students who enter four-year colleges, not all persist

to their second year, and those entering two-year colleges are even less likely to persist. Although academic preparedness and family income appear to be important predictors of college persistence, students with similar backgrounds often persist at different rates, suggesting that there are also other factors involved. It is likely that colleges themselves play an important role in influencing the likelihood that students will progress to degree completion.

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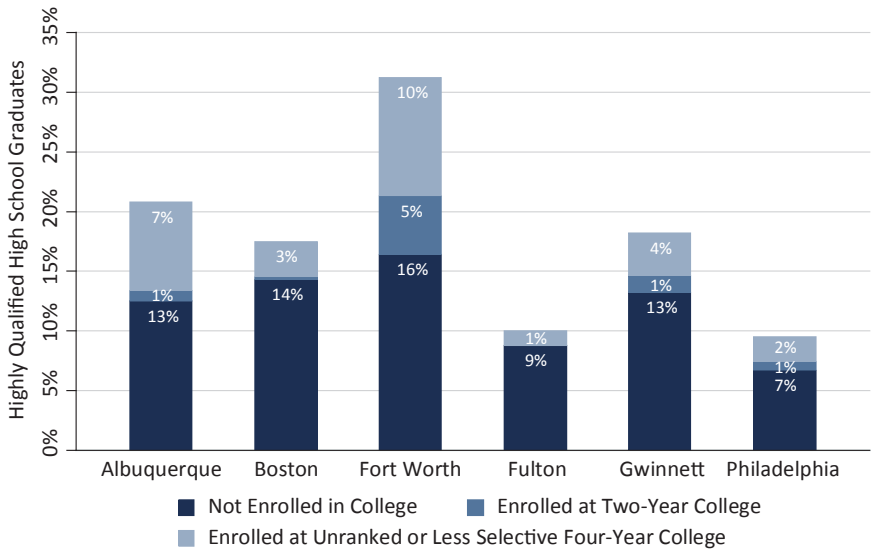
FIGURE 4: PATTERNS IN POSTSECONDARY SELECTIVITY AMONG HIGHLY QUALIFIED HIGH SCHOOL GRADUATES



ENDNOTES

1 U.S. Census and U.S. Bureau of Labor Statistics, Current Population Survey.

2 The Bill & Melinda Gates Foundation. (n.d.). *Postsecondary Success Fact Sheet.* Retrieved from http://www.gatesfoundation.org/united-states/Documents/postsecondary-strategy-fact-sheet.pdf

3 The analyses herein draw on data from the 1998–99 school year through the 2009–10 school year. The specific dates vary by district based on data quality and availability.

4 To conduct these analyses, we linked student-level high school records to college attendance information available from the National Student Clearinghouse, a national nonprofit that provides enrollment and degree verification to more than 3,300 colleges and universities (representing more than 96% of students enrolled in college nationwide).

5 We limited our analyses to districts for which cumulative high school GPAs and college entrance exam scores are available because research indicates that these academic measures are important predictors of college persistence.

6 Roderick, M., Nagaoka, J., Coca, V., & Moeller, E. (2008). *High school to the future: Potholes on the road to college.* Chicago, IL: Consortium for Chicago School Research at the University of Chicago.

7 These criteria closely align with the decision rules established by Bowen and colleagues in their examination of college enrollment patterns among high school graduates who were highly likely to have been accepted at public flagship universities if they applied. For further information, see Bowen, W., Chingos, M., and McPherson, M. (2009). *Crossing the finish line: Completing college at American's public universities.* Princeton, NJ: Princeton University Press.

8 Equivalent ACT scores are used when students have ACT instead of SAT scores. Combined math/verbal SAT scores of 1100, 1200, and 1300 correspond roughly to ACT composite scores of 24, 26, and 29, respectively. See http://www.act.org/solutions/college-career-readiness/compare-act-sat/.

9 Barron's has developed college selectivity ratings based upon the degree of admissions competitiveness at four-year colleges and universities. Factors used in determining these rankings include median SAT and ACT scores, high school class rankings, and grade point average among incoming college freshmen. The selectivity rankings Barron's assigns are "Most Competitive," "Highly Competitive," "Very Competitive," "Competitive," "Less Competitive," "Non-Competitive," and "Special."

10 Jenkins, L., Wisdom, M., & Glover, S. (2012). *Increasing college-going rates in Fulton County Schools: A summer intervention based on the strategic use of data.* Cambridge, MA: Harvard Education Press, Cases in Education.

11 Smith, J., Pender, M., Howell, J., & Hurwitz, M. (2012). *Getting into college: Postsecondary academic undermatch.* New York, NY: The College Board Advocacy & Policy Center.

Ask Yourself, Take Action

Why do these college enrollment patterns exist? The SPI analyses on their own are not designed to determine the causes for these findings. Rather, they prompt a series of questions that will help education leaders uncover causes and be positioned to make informed changes in management and policy. Asking and answering these questions should lead to a better understanding of differences in outcomes, equipping leaders to explore the underlying trends and causes of these differences. Ultimately, this should lead to improved strategies and solutions.

Ask Yourself: How are we using data to improve the college choice process within our district? How could we use data more effectively? What is preventing us from doing so?

Take Action: View data as a source of insights for improvement and long-term impact.

- Build and maintain a longitudinal student data system for tracking your students' college readiness. Include data from the National Student Clearinghouse to understand patterns of college matriculation and persistence among your graduates.
- Cultivate the analytic capacity within your agency to examine college-going outcomes for your students and pay particular attention to outcomes among your highest-performing students.
- Conduct these SPI analyses annually to take stock and to investigate whether changes in policy, strategy, or management practice are having the desired impact.
- Share these results broadly with teachers, counselors, and school leaders as a means of encouraging focus on college-going outcomes.
- Use the results of these analyses as a springboard for follow-up questions and analyses to more fully illuminate key challenges or needs specific to the agency.

Ask Yourself: Do students and their families have a clear understanding of the steps required to apply to college, enroll, and persist through degree completion?

Take Action: Build a system of support for guiding students and their families through the college application and financial aid process.

- Making sense of college information, application forms, and financial aid materials can be challenging, especially for first-generation college goers and their families. Devise, implement, and evaluate strategies for addressing sources of confusion and information gaps.
- Evaluate the extent to which your college counselors are knowledgeable about college application and financial aid processes and the extent to which their balance of work responsibilities allows them to support students in this domain.
- Ensure that all students (particularly first-generation college goers) and their families receive clear, detailed information on college choices and admissions and financial aid procedures—and that they get the help needed to navigate the long and complicated application process.

Ask Yourself: What are our students' postsecondary aspirations? What are the major barriers that prevent them from fulfilling these aspirations?

Take Action: Educate students and their families about the importance of earning a postsecondary degree and the path to achieving this goal.

- Cultivate a culture of college going. Work with students throughout high school to build understanding of the long-term benefits of earning a college degree and to help students devise sensible goals for postsecondary education.
- Gather information about students' college aspirations, knowledge of their options, and barriers that are impeding them from college entry and success.

Ask Yourself: How do we currently support high school students during the college application and transition process? What other kinds of support and assistance do they need?

Take Action: Track and support students' progress through the college application process.

- Gather information on students' success in meeting major milestones in the college application and enrollment process, and use this information to inform the supports that you offer.
- Use this information to implement programming and supports to keep students on track for college and to eliminate barriers along the college-going pipeline. This process in Fulton County, GA, for example, led to the implementation and evaluation of a summer college-counseling intervention that improved on-time college matriculation among low-income college-intending students.[10]
- Identify high schools in your district or state that serve as models for exemplary college-going outcomes and identify practices that can be replicated.
- Investigate outside resources and partnerships to support improved college-going outcomes among your students. Work with colleges to increase their outreach efforts in your high schools. Collaborate with local community-based organizations, nonprofits, and businesses on programs and practices that strengthen students' paths toward and through college.

Ask Yourself: How might financial, personal, and structural factors affect college selection and college-going outcomes for highly qualified students?

Take Action: Support students in making well-informed college choices.

- Understand that students' enrollment and persistence in college can be influenced by many factors, including academic preparedness, match between student and school, and the financial burden associated with continued enrollment.
- Provide support to students in selecting a college that fits well to their academic needs, financial circumstances, and future goals. For example, encourage students' use of high-quality online tools such as the Big Future (https://bigfuture.collegeboard.org/college-search) from the College Board and College Navigator (http://nces.ed.gov/collegenavigator/) from the US Department of Education for informing college choice. Encourage students to utilize these sites' net-price calculators to understand the difference between the "sticker" price and net price of particular colleges.
- Encourage students to apply to more than one well-matched college. Many highly qualified students, especially those from low-income backgrounds, attend less selective schools simply because they do not apply to colleges for which they are well suited.[11] Applying to more colleges may increase students' likelihood of getting accepted and enrolling in a college that provides a good academic fit.
- Track high school graduates through their college careers to identify those institutions where your graduates are likely to flourish.
- Learn from the experiences of highly qualified students who make sound college choices and persist to completion. Identify supports and other factors that made a difference in their success.

The Strategic Data Project

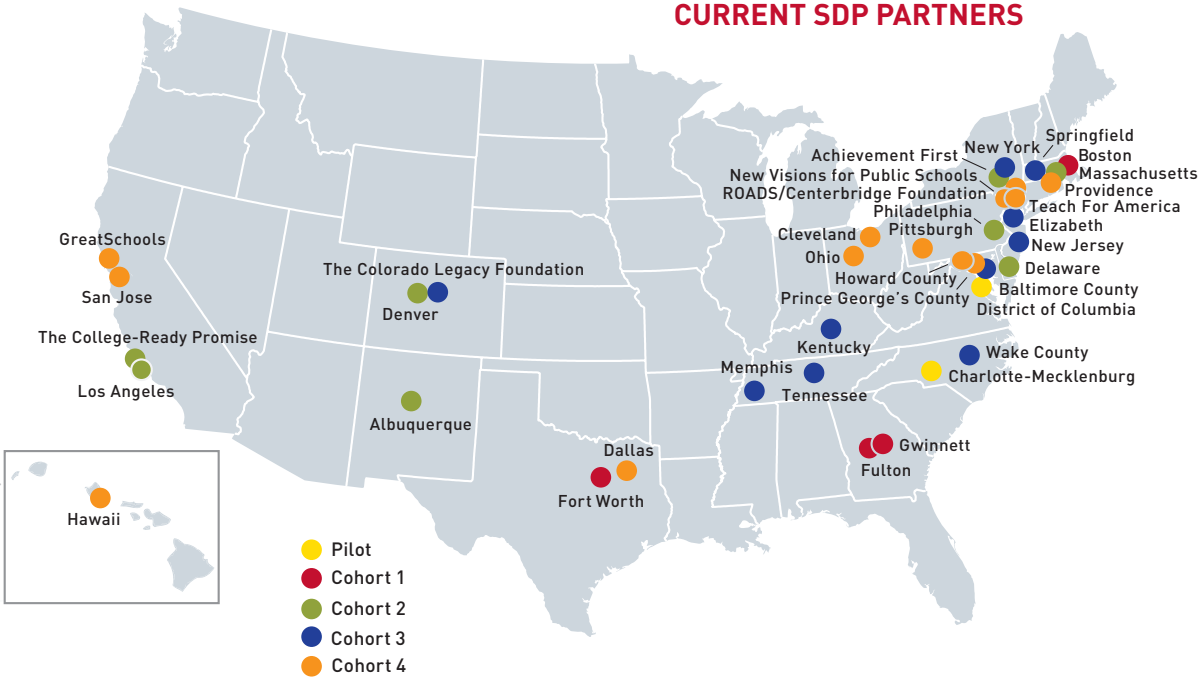
OVERVIEW

The Strategic Data Project (SDP), housed at the Center for Education Policy Research at Harvard University, partners with school districts, school networks, nonprofit organizations, and state agencies across the United States. **Our mission is to transform the use of data in education to improve student achievement.** This mission guides our three core strategies.

CORE STRATEGIES

1. Placing and supporting top-notch data strategists as SDP Fellows for two years with our partners
2. Conducting rigorous diagnostic analyses of teacher effectiveness and college-going success using existing agency data
3. Disseminating our tools, methods, and lessons learned to education agencies broadly

CURRENT SDP PARTNERS



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