STRATEGIC DATA PROJECT

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

THE HIGH SCHOOL EFFECT ON COLLEGE GOING

VOLUME 2 • FALL 2012

Do College Enrollment Rates Differ Across High Schools?

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 variation in college-going rates across high schools and presents results for Albuquerque Public Schools (NM), Boston Public Schools (MA), Charlotte-Mecklenburg Schools (NC), 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

Although prior academic achievement is a strong predictor of whether a student graduates from high school and enrolls in college, college-going rates for students with similar prior academic achievement vary dramatically across high schools within a school district. These results suggest that a high school can have a considerable impact on the college enrollment patterns of its students.

INTRODUCTION

In today's knowledge-based economy, earning a college degree is more important than ever. For far too many students, however, the dream of going to college remains unfulfilled. In this memo, we examine the college-going rates of high school graduates from seven school districts across the country, 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.[1]

To examine college enrollment rates for graduates of the SDP partner districts, we linked student-level high school records to college attendance information available from the National Student Clearinghouse (NSC).[2] After studying variation in college-going rates across the high schools within each district, we delve more deeply into the relationship between college enrollment rates and prior academic achievement. Finally, we compare college-going rates across high schools among students with similar levels of prior achievement. At the end of the memo, we pose questions for school district leaders to consider and suggest action steps to increase the share of students who complete high school and continue on to college.

FINDINGS

As shown in **Figure 1**, there can be sizable differences in college-going rates across the high schools within a district. Each circle in the figure represents a high school, and the size of the circle reflects the size of that school's graduating class. The vertical placement of the circle reflects the percent of the school's graduates who matriculate to college the fall after graduation. For every high school within each district, we illustrate the percentage of graduates who enroll in a four-year college as well as the percentage who enroll in any (i.e., either a two- or four-year) postsecondary institution. The red diamonds indicate the overall rate of college going within each district.

Figure 1 shows that there is substantial variation in college-going rates across the high schools within each district. In Philadelphia, for example, there is an 89-percentage-point spread between the high school with the highest rate of four-year college enrollment and the high school with the lowest rate; in some high schools, the vast majority of students enroll in four-year colleges, while in others, relatively few do. In Fort Worth, TX, on the other hand, the spread is much smaller (only 28 percentage points) although no high school in that district has a four-year college enrollment rate above 40%.

What might be driving these patterns? One likely explanation is that schools serve different populations. If some high schools serve students who arrive better prepared academically, for example, we would expect these schools to have higher college-going rates.

THE STRATEGIC PERFORMANCE INDICATORS

How do college enrollment rates vary for similarly achieving students attending different high schools within a district?

We use two SPIs to explore college-going outcomes across high schools. The first indicator examines the extent to which college-going rates for each school relate to prior student achievement. In **Figure 2**, we plot high-school-specific rates of college going by the average achievement of that school's students in the eighth grade.[3] Only one district graph is shown here; the rest appear at the end of the memo.

The strength of the relationship between college-going rates and average prior achievement can be seen by examining the spread of the points around the trend line. Points clustered tightly around the trend line suggest that the prior achievement of a school's incoming students relates strongly to overall rates of college going. If points are scattered more widely, it suggests that high schools themselves are having different levels of success with student bodies of similar average academic achievement. The correlation coefficient (a statistical measure that summarizes the cluster of the school-level results around the trend line) formalizes the strength of this relationship. No correlation (0) means that the prior achievement of students is not related to the percentage

FIGURE 1: COLLEGE ENROLLMENT RATES AMONG HIGH SCHOOL GRADUATES, BY HIGH SCHOOL

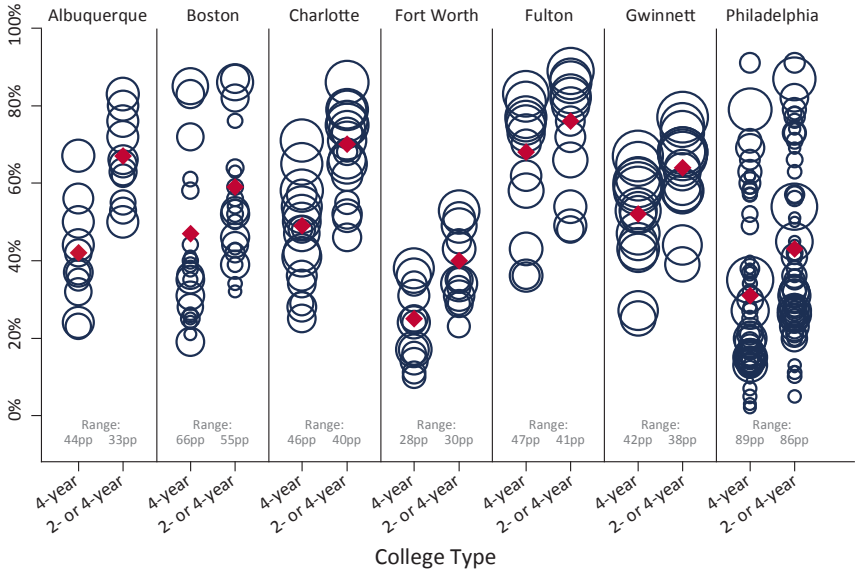
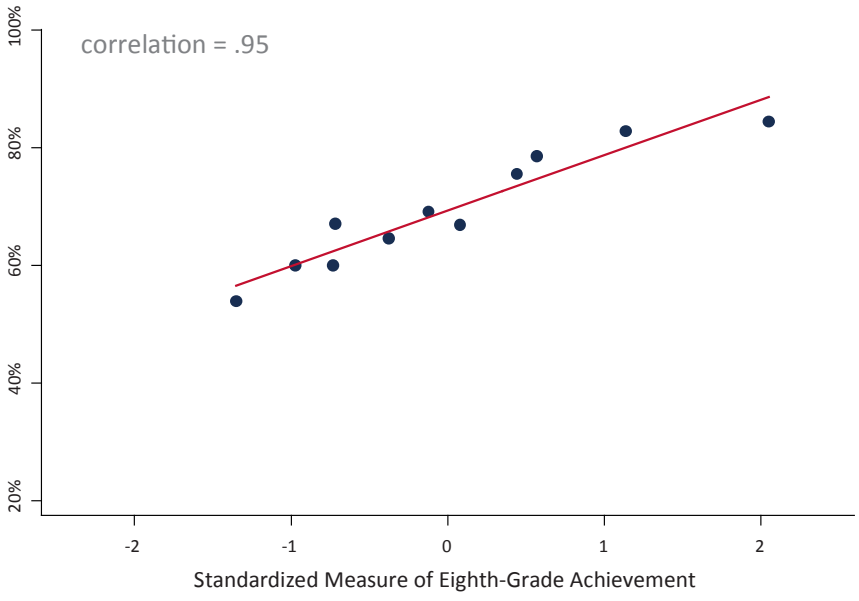


FIGURE 2: COLLEGE ENROLLMENT RATES AMONG HIGH SCHOOL GRADUATES, BY AVERAGE PRIOR ACHIEVEMENT (ALBUQUERQUE)



of a school's graduates going to college, while a perfect correlation (1.0) indicates that average assessment scores across incoming students relates perfectly to the percentage of graduates going to college.

Across districts, the results confirm that high schools serve students with varying levels of academic preparation, on average, and that those with better prepared students tend to have higher college enrollment rates. The strength of this relationship varies, however, with district-level correlations ranging from .57 to .96.

While this indicator illustrates that school-level college-going rates can be predicted by students' average academic achievement at the beginning of high school, individual college-going outcomes are not a foregone conclusion at the outset of ninth grade. Some high schools have higher college enrollment rates than predicted based on the prior achievement of their students (these schools are represented by dots above the red line in Figure 2) while others have lower rates than predicted (dots below the red line in Figure 2).

In fact, most high schools serve a variety of students, some with low levels of prior achievement and others with high levels of prior achievement. Thus, looking only at the overall college-going rate for each high school may hide important variation within schools. Accordingly, our second indicator focuses on variation in college-going rates within and across high schools by comparing these rates only among students with similar prior achievement profiles.[4]

In **Figure 3**, each circle now represents the students in a given quartile of prior achievement in a given high school. The size of each circle reflects the relative share of students represented by the circle, and the vertical placement of the circle indicates the percentage of students in that group who matriculate to college. (Note: Readers should place less weight on observations that represent very small numbers of students in certain performance quartiles in certain schools—i.e., the very smallest circles.) The red diamonds represent quartile-specific district averages.

Figure 3 reveals several noteworthy patterns. First, the upward trend in the quartile-specific district averages (red diamonds) provides further evidence that students who enter high school at a higher achievement level generally continue on to college at higher rates than their lower-performing peers. Nevertheless, even within prior achievement quartiles, substantial differences exist across high schools. Further, while each school typically matriculates students from each of the four achievement quartiles, they do so at different rates.

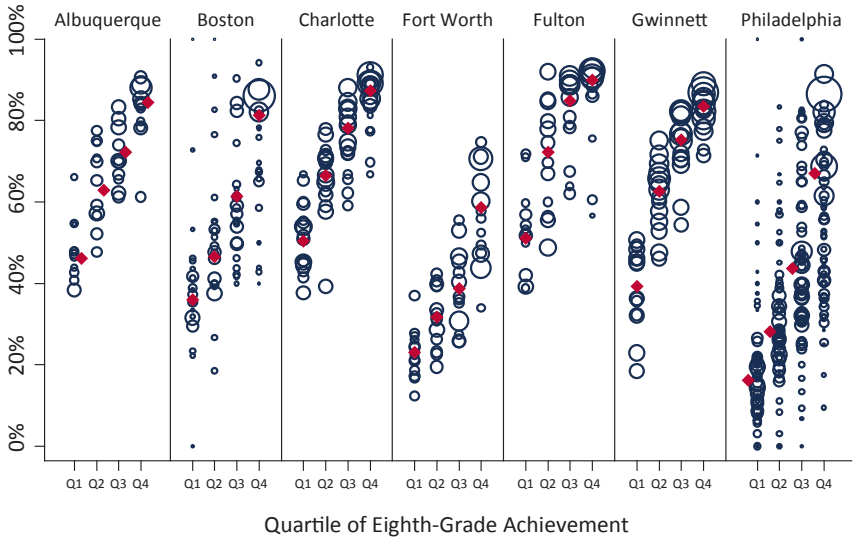
Consider the college-going rates of graduates who were in the top quartile of eighth-grade achievement. In Boston, MA, for example, college enrollment rates for these students range by about 50 percentage points across high schools; in Gwinnett County, GA, on the other hand, the spread is much smaller (approximately 20 percentage points). It is also important to note that in some districts, college-going rates for students with strong achievement histories are quite low in some high schools. This pattern raises the question of whether certain schools—and school districts—are adequately supporting promising students to help them reach their full potential.

Finally, within each district, there is substantial overlap in the distributions of college-going rates across quartiles. This reveals that students entering with substantially lower academic achievement in some schools transition to college at higher rates than do higher-performing students in other schools.

IMPLICATIONS FROM FINDINGS

Patterns shown here reveal that, across all seven SDP partner districts, students' achievement in eighth grade is a strong predictor of whether they ultimately

FIGURE 3: COLLEGE ENROLLMENT RATES AMONG HIGH SCHOOL GRADUATES WITHIN QUARTILE OF EIGHTH-GRADE ACHIEVEMENT, BY HIGH SCHOOL



enroll in college. Students with lower levels of prior achievement are, in general, less likely to matriculate than peers with higher levels of achievement. This is not the end of the story, however. Even when comparing students with similar levels of prior achievement, college-going outcomes can differ dramatically for students who attend different schools, suggesting that high schools can play an important role in supporting the college-going outcomes of their students.

Given the patterns here, agencies should commit themselves to understanding better why such variation exists in rates of college going across high schools, especially when considering students of similar levels of prior academic achievement. In particular, it may prove enlightening for agencies to examine closely those high schools that have success at achieving uniformly high rates of college going, even for students who entered high school with low eighth-grade achievement. Such an examination may help to uncover college-preparation and college-going strategies that have potential for meaningful impacts throughout the district.

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SPOTLIGHT ON TAKING ACTION

A Summer Intervention to Increase College Going in Fulton County, GA

In reviewing SDP analyses such as those presented here, counseling staff in the Fulton County Schools (FCS) in Georgia found that the postsecondary outcomes for their graduates were not as strong as had been assumed previously. Specifically, many high school seniors who said that they intended to go to college directly after high school did not actually enroll in the fall. In response, the Fulton team collaborated with researchers at the Center for Education Policy Research at Harvard University to learn more about this "summer melt" phenomenon and to develop an intervention to address it.

Out of these conversations grew Summer PACE—Personalized Assistance for College Enrollment—a summer college-counseling program launched in the summer of 2011. The district first utilized data from high school exit surveys to identify "college-intending" graduating seniors—students who had applied and been accepted to college and who reported intentions to enroll the following fall. Over the summer, high school counselors proactively reached out to the targeted students to provide guidance and assistance related to summer college-going tasks, such as securing additional financial aid, finding housing, and deciphering and completing college-related paperwork, in addition to providing support and encouragement in general.

To illuminate the impact of this intervention on college-going outcomes, program implementation included a randomized controlled trial evaluation. Results revealed Summer PACE to be highly effective. At an average cost of just over $100 per targeted student, on-time college enrollment for economically disadvantaged students increased by more than 8 percentage points, reducing summer melt among these students by 28%. Based on the positive results, FCS has expanded the program district-wide, targeting college-intending, low-income high school graduates who the data show are at greater risk of faltering in the seamless transition to college.[5]

Endnotes

1 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. Students who attended more than one high school are classified according to the last high school they attended.

2 The National Student Clearinghouse is 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).

3 For each district, eighth-grade achievement reflects performance on the state's standardized math assessment. Performance is represented in standard deviation units, with average eighth-grade achievement centered at 0.

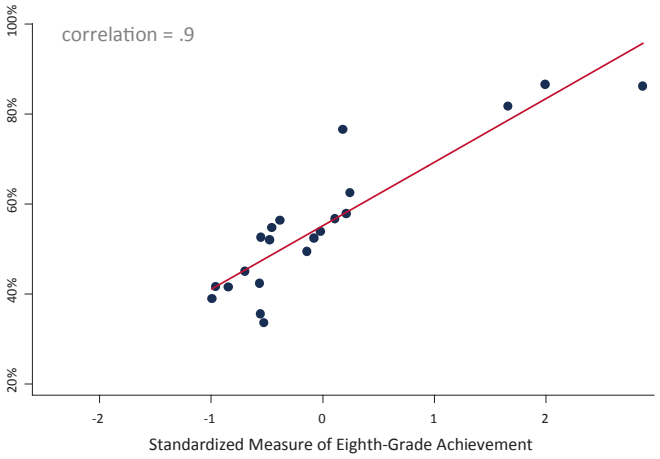
4 To make these comparisons, we first sort all students with test score information into quartiles (i.e., four equal-sized groups) across the district, based on their eighth-grade achievement on the state's standardized math assessment. Quartile 1 (Q1) students are the lowest performing while quartile 4 (Q4) students are the highest. We then examine college-going rates by high school among the graduates within each quartile of prior achievement.

5 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.

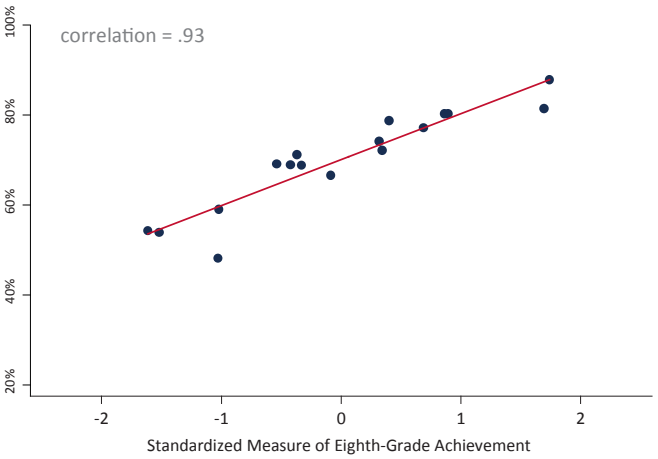
APPENDIX

FIGURE A1. COLLEGE ENROLLMENT RATES AMONG HIGH SCHOOL GRADUATES, BY AVERAGE PRIOR ACHIEVEMENT

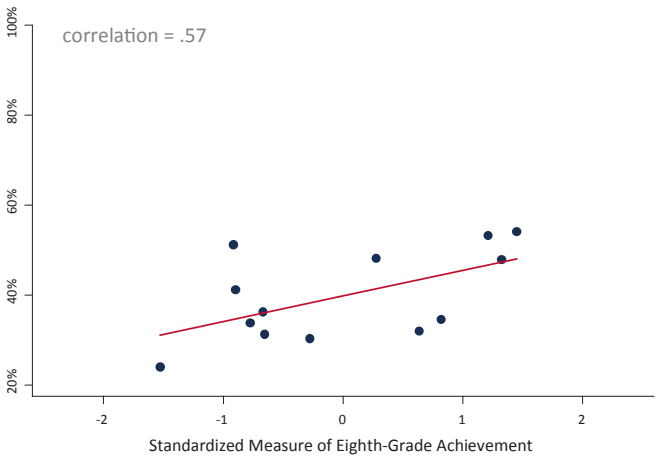
BOSTON



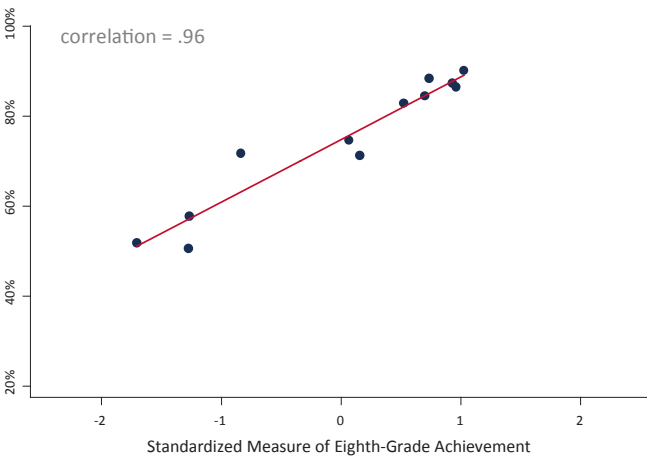
CHARLOTTE-MECKLENBURG



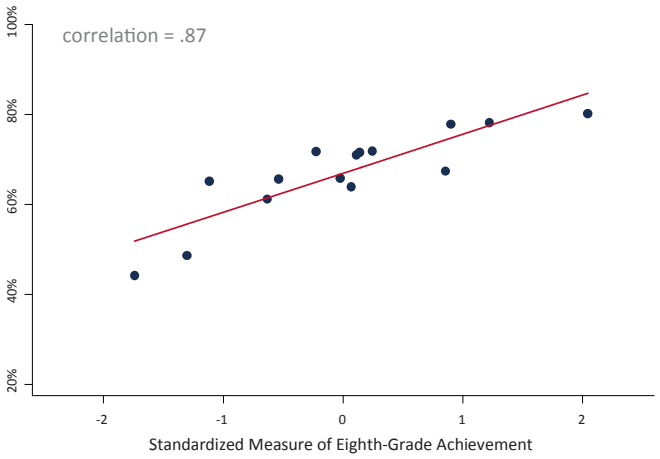
FORT WORTH



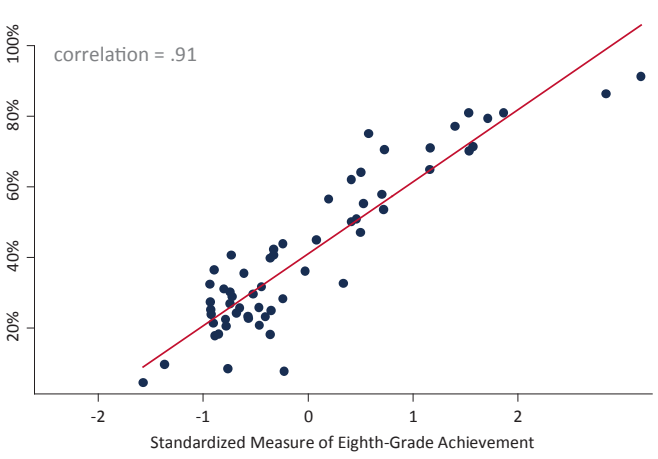
FULTON



GWINNETT



PHILADELPHIA



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 college going within our agency? How can 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 student achievement over time. Include data from the National Student Clearinghouse to examine the college-going outcomes of the students in your system.
- Cultivate the analytic capacity within your agency to examine college-going outcomes for your high schools as well as for students grouped by salient characteristics, such as prior academic achievement.
- Conduct these SPI analyses annually to take stock and to investigate whether changes in policy, strategy, management, or 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: What are our students' postsecondary aspirations? What are the major barriers that prevent them from fulfilling these aspirations?

Take Action: Understand students' postsecondary intentions and tackle barriers to achieving them.

- Gather information about students' college aspirations, knowledge of their options, and barriers that are impeding them from college entry and success.
- Use this information to implement programming and supports to keep students on track for college and eliminate barriers that may impede their progress.

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 college-intending students from low-income backgrounds (see spotlight on page 5).

Ask Yourself: What might explain differences in college-going rates across high schools among students with similar incoming achievement? What are we doing (and what more should we be doing) to ensure that all students are academically prepared for success in high school and college?

Take Action: Develop, evaluate, and improve strategies and interventions for boosting college-going rates.

- Comprehensively assess your agency's current strategies for promoting college enrollment. Gather evidence regarding the implementation and effectiveness of these strategies.
- Evaluate the extent to which current strategies align with your students' needs.
- Investigate other agencies' strategies for promoting students' successful transition to postsecondary education. Identify potential strategies that might be effective given the context of your agency and student population.
- Investigate outside resources and partnerships for supporting students' progress towards, and enrollment in, college. 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 boost students' college enrollment and success.

Ask Yourself: How can high schools help lower-performing students overcome the limitations of their past achievement and "beat the odds" by enrolling in college?

Take Action: Invest in strategies for keeping students on track for college enrollment.

- Choose an indicator of college readiness that aligns with local college admissions requirements and map backwards to a set of elementary and middle school benchmarks that align with this indicator. As an example, investigate Montgomery County Public Schools' (MD) Seven Keys to College Readiness (www.montgomeryschoolsmd.org/info/keys/).
- Track students' attainment of these benchmarks and communicate information about students' progress towards the benchmarks to students, their families, teachers, and counselors.
- Help students make explicit connections between their academic work, the attainment of these benchmarks, and the attainment of their long-term educational goals.
- Study and learn from schools inside and outside of the agency that have successful systems and processes for getting less prepared students ready for and into college.

Ask Yourself: What can individual schools do to foster a college-going culture?

Take Action: Influence students' postsecondary intentions by creating a strong college-going culture.

- Explore effective ways to foster a culture and set of expectations around college-going, particularly in high schools with low postsecondary matriculation rates.
- Study and learn from schools inside and outside of the agency that have strong college-going cultures.

The Strategic Data Project

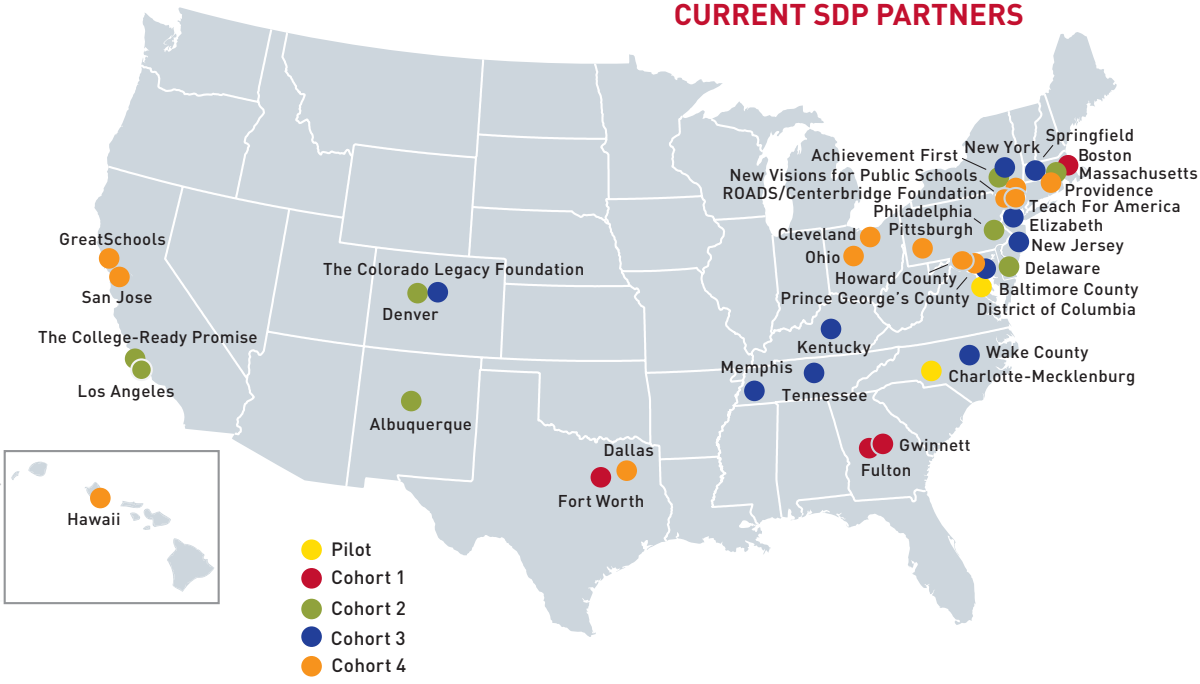
OVERVIEW

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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