

Students' Progression from Ninth Grade to College, by Prior Academic Achievement: Colorado Integration Project Districts

Introduction

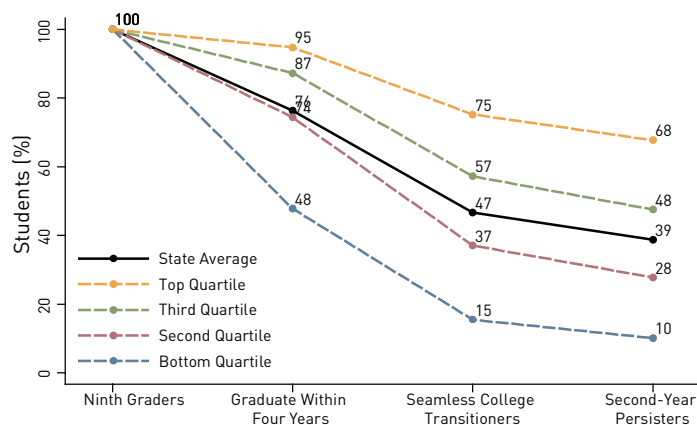
In recent years, Colorado policymakers have launched numerous initiatives aimed at improving the state's college enrollment, persistence, and completion rates. In 2012, the Colorado Commission on Higher Education articulated specific performance goals for addressing critical areas of need in the state's postsecondary education system.¹ These goals included increasing college persistence rates, reducing time to graduation, and ultimately raising Colorado students' college-completion rates. To help inform these efforts, the Strategic Data Project (SDP) partnered with the Colorado Department of Education (CDE) and the Colorado Education Initiative (CEI)² to investigate statewide trends in students' high school graduation and their enrollment and persistence in college. This brief summarizes several of the key findings from this research collaboration.

Evidence

The figure below depicts Colorado students' progression along a six-year college-going pathway, from ninth grade to the second year of postsecondary study. The solid black line reflects the average trend for all Colorado students. The various dashed lines represent the average trajectories of students whose performance on the eighth-grade math Colorado Student Assessment Program (CSAP)³ exam falls into different quartiles; by design, each quartile contains the same number of students.⁴

In looking across the entire college-going pathway, we observe three findings of potential importance to Colorado policymakers and practitioners in both the K-12 and higher education sectors. First, students' progressions from high school through college vary substantially depending on their prior performance. This finding is highlighted by the fact that incoming ninth graders who scored in the top quartile on their eighth-grade math CSAP⁵ are 58 percentage points more likely than their bottom quartile peers to successfully navigate the six-year pathway from high school entry to persistence into the second year of

Figure 1. Colorado Student Progression From Ninth Grade Through College: By Students' Eighth-Grade CSAP Math Quartile



Note. Sample includes 202,252 students from four cohorts of first-time ninth graders with eighth-grade CSAP math scores. These cohorts entered high school between 2003-04 and 2006-07 and graduated between 2006-07 and 2009-10. Postsecondary enrollment outcomes are from NSC matched records, with final full year of data from 2011-12. All other data are from state administrative records.

college. Second, the biggest obstacle to progressing along the college-going pathway is the high school to college transition. As the solid black state average trend line depicts, for every 100 ninth-grade students across the state, 76 graduate high school on time and 47 transition seamlessly to postsecondary settings. This means that 62% of those who graduate on time transition seamlessly to college while 38% of these on-time graduates do not. The high school to postsecondary transition appears to be an obstacle even for students who entered high school in the highest-achieving quartile. Among students who scored in the top quartile on the eighth-grade math CSAP and graduated from high school on time, 79% (75/95) transitioned seamlessly to college; 21% did not. A third and final point of note is that Colorado students who do choose to enroll in college generally persist. Statewide, 83% of students who seamlessly enrolled in college persisted into their second year of study. This finding underscores the earlier observation that the high school to postsecondary transition appears to be the biggest obstacle along this six-year college-going pathway.

Implications

The findings from this research collaboration underscore the importance of Colorado's current initiatives to strengthen students' progression from high school to college, and they raise important questions for further consideration. For example, these findings might prompt district-level administrators to ask questions such as: Which colleges do students from our school system apply to and enroll in, and how do these decisions affect their postsecondary success? How can our school system help students make good/better higher education choices? Where do the students who do not enroll in college after high school go, what do they do, and do they enroll in postsecondary education later in life? In addition, given the relationship between students' eighth grade CSAP performance and their high school graduation, high school and district administrators should strategize about how to get students who are behind in eighth grade back on track for postsecondary success.

Further, these findings might prompt state policymakers to consider how they can promote sharing of best practices for preparing students to enroll and persist in college across schools and districts. Other findings from this research collaboration revealed considerable variation across Colorado high schools in both high school graduation and postsecondary enrollment for students with similar levels of prior achievement.⁶ Would identifying and pairing "peer schools" (i.e., high schools that enroll students with similar eighth-grade CSAP performance but have different college enrollment and persistence outcomes) help promote constructive cross-school sharing of effective practices? How might education agencies across the state engage college-ready students who do not attend college immediately after high school to encourage them to enroll in postsecondary education?

As the figure above reveals, there's more work to be done to fulfill the state's aspirations regarding postsecondary education. Several recent initiatives have the potential to address some of the concerns described here. For example, the Colorado Achievement Plan for Kids (CAP4K), also known as the Preschool to Postsecondary Alignment Act, aims to improve the assessments that schools and districts use to monitor students' growth from preschool through postsecondary settings.⁷ Further, a task force convened by the former governor released Colorado's Strategic Plan for Higher Education, which calls for,

among other things, ensuring that higher education in the state is affordable.⁸ Extensions of the types of analyses that composed SDP's College-Going Diagnostic can help state policymakers and practitioners across all levels of Colorado's education system (from prekindergarten through postsecondary) examine the efficacy of these and future initiatives.

Endnotes

- ¹ Colorado Department of Higher Education (2013).
- ² Formerly called the Colorado Legacy Foundation.
- ³ The Colorado State Assessment Program (CSAP) was the state standardized assessment in use from 1997 to 2011. In 2011 CSAP was replaced with the Transitional Colorado Assessment Program (TCAP), and in 2014, the state began rolling out the Colorado Measures of Academic Success (CMAS.)
- ⁴ Quartiles are four equal groups into which students are divided based on the distribution of their performance on Colorado's eighth-grade math CSAP exam.
- ⁵ SDP constructed similar college-going pathways based on students' performance on the eighth-grade CSAP reading and eighth-grade CSAP writing assessments. These results of these pathways look virtually identical regardless of the particular subject assessed. This is not surprising, given that students' particular quartile of performance does not tend to vary substantially from one subject to the next.
- ⁶ Results not shown. See Figure 1 in Strategic Data Project, (2014).
- ⁷ See Colorado Department of Education (2012) for more information on CAP4K.
- ⁸ See Colorado Department of Higher Education (2010) for details on the "Degree Dividend" initiative to improve college-access, retention, and completion rates.

References

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