

DENVER SEGMENTATION ANALYSIS

Research Notes Memo || July 7, 2016

The story of Denver Public School's (DPS) segmentation analysis, how they used it to create multiple pathways to graduation, and the outcomes achieved.

Sources: [A Call To Action](#); [Segmentation Webinar Draft](#); [PSR+Board+Presentation](#)

What DPS learned

The Segmentation Analysis

Segmentation analysis allows school data to be split into groups in order to better identify and address off-track student needs, and build strategies and models to address them. It is as simple as collecting data on age and credits earned, eliminating the burden of longitudinal data collection and analysis. Gaps in service and outcomes are more easily identified and targeted as a result.

Denver Public Schools found in the 2006-2007 school year that just over 7,500 (about 42%) high school students were in-school and off-track to graduation. Within this group, two-thirds were a few years behind in credits yet over the age of 17. They also found 2,400 students that were out-of-school and off-track.

Initial segmentation separated the population into the flow (those dropping out each year at a given rate) and the pool (those who were part of the flow and remain off-track), with the important caveat that reducing the flow will not automatically or simultaneously reduce the pool.

Age and credit segmentation resulted in the creation of four groups, allowing for easier comparison to the typical age to credit ratio:

- On-track
- Young and off-track
- Old and off-track
- Old and significantly off-track

This data was used in addition to interviews with local and national experts in order to assess current offerings, identify gaps in service, and design new strategies to improve outcomes.

What DPS did

With the new information, DPS expanded their pathways offerings from 6-10 programs to 19 at the high school level.

DPS Pathways Portfolio:

- **Multiple Pathway Centers.** Targets young and far students with opportunities for accelerated credit earning and wraparound supports.
- **Engagement Centers.** Targets old and close students with a set quick experience to get them on their way. Lots of bridge to secondary work.
- **Intensive Pathway Schools.** Focus on students with intense or multiple barriers, such as parenting, behavior, or mental health. Each is designed around a need.
- **Intensive Pathway Charters.** Charter schools on alternative education designated campuses.

Key Design Considerations included:

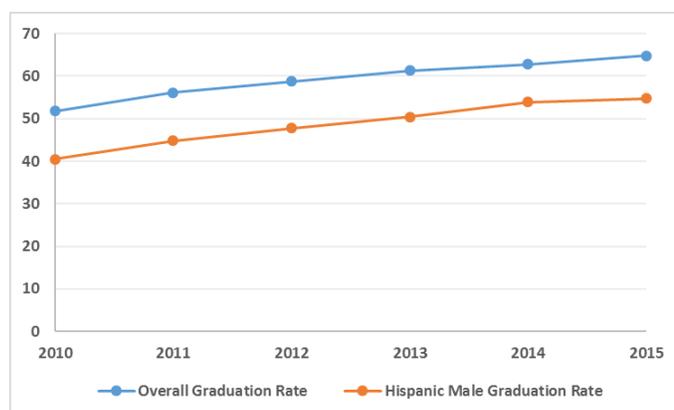
- Thoroughly assess demand (as with the segmentation analysis above)
- Manage an optimal portfolio
 - A creative variety of options is needed, rather than a large quantity or one option such as alternative schools.
 - Engage outside groups and organizations as needed to provide programs and services.
 - Evaluate regularly and reallocate resources by performance and need.
- Create a culture shift: A Pathways School is an opportunity and a choice for students and families, not where they are sent.
- Increase responsiveness
 - Prevention (decrease the flow, target the young students early on)
 - Recuperation (help the young, in school, and/or minimally off track students get back on track)
 - Recovery (help the older, out of school, and/or significantly off track students get back on track)
- Implement a 100 percent graduation policy
 - Create incentives for both students and schools/alternative programs
- Learn from others

Outcomes Achieved

Denver's percentage of 9-12th grade students who were off track to graduate has fallen from 41% in 2009 to 33%.

They have seen five consecutive years of improved graduation rates, including for Hispanic male students. This sub-population was identified in the segmentation analysis as a need to address due to many late entries to high school.

Exhibit 1 Denver Public School's graduation rates for the Classes of 2010-2015



Source: Colorado Department of Education