

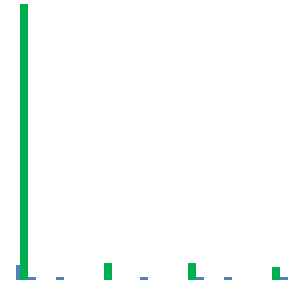
Student Mobility in Graduation

The majority of students in Oregon's four-year adjusted cohort (68%) remain enrolled in a single district for their entire high school experience. However, students who have enrollment gaps or transitions are seen to graduate at a substantially lower rate, with gaps of more than 40 percentage points compared to the students who remain in one district (the "intact" group). As on-time graduation rates for all students improve, the gaps between these groups have shrunk even as the relative size of the groups remains consistent, indicating that districts may be improving their services for these students.

The highest graduation rates (89%) were seen in students who entered their accountable district at the beginning of their freshman year and remained consistently enrolled there throughout their high school experience. The lowest graduation rates (38%) were seen in students who entered their accountable district at the same time, and had enrollment in only that district, but also had at least one gap of 20 or more days, during which they were not served in any Oregon public school. This second group comprises about 5.5% of the cohort.

Students who experience gaps or between-district mobility during high school are also substantially more likely to be completers, rather than graduates. About 1.5% of students in the intact cohort group are completers¹, compared to more than 5% of students with gaps or mobility.

Date of First Enrollment in
Accountable District
Septembers shown in Green



Four-year Cohort Graduation Rates

<i>Intact Cohort²</i>	2013-14	2014-15	2015-16	2016-17
No Significant Gaps	85.67	86.69	87.25	88.91
Significant Gap(s)	33.46	35.47	37.75	38.22

<i>Not Intact Cohort, by First Year in Accountable District</i>	2013-14	2014-15	2015-16	2016-17
Freshman Year	40.67	42.88	45.09	47.00
Sophomore Year	51.81	55.13	58.58	58.90
Junior Year	48.96	53.75	54.58	57.06
Senior Year	38.91	42.13	46.47	47.33

For students who did not start at the beginning of their freshman year, entering their accountable district later in their high school career was associated with a decreased likelihood of graduating. Freshman-year not intact graduation rates are artificially depressed in the table as a result of the exclusion of students who started at the beginning of the year, who have higher graduation rates than students who started in the middle of the year in all years of the cohort.

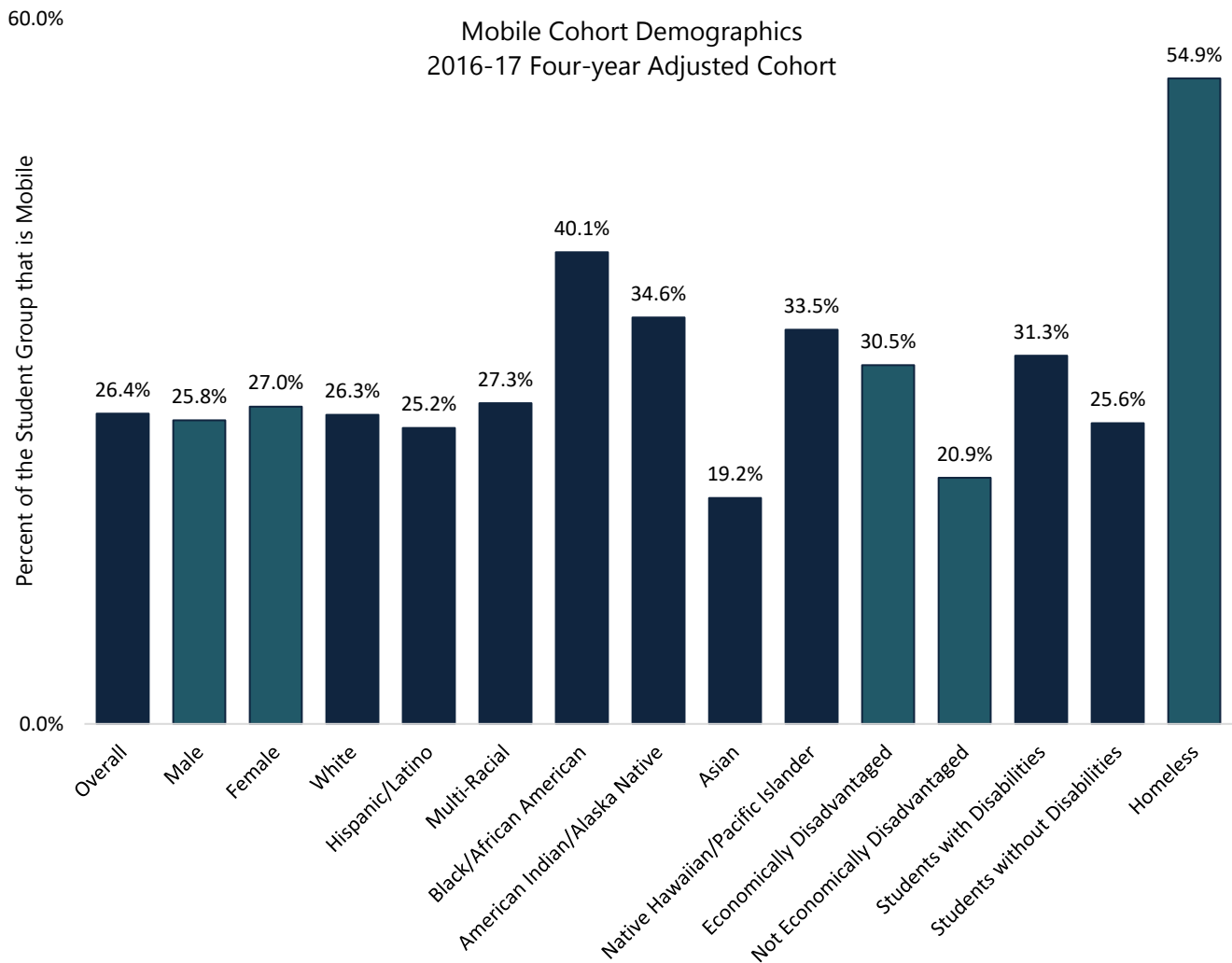
For the 2016-17 rates, students whose enrollment in their accountable district began at the beginning of their sophomore, junior, or senior year had an average graduation rate of 59.8%. Students whose enrollment in their accountable district

¹ Students who earned a GED, Adult High School Diploma, or Extended Diploma

² Defined as students with enrollment in only one district (excluding short enrollments in juvenile detention or long-term care and treatment centers), whose enrollment began on or before the first school day in October of the student's freshman year.

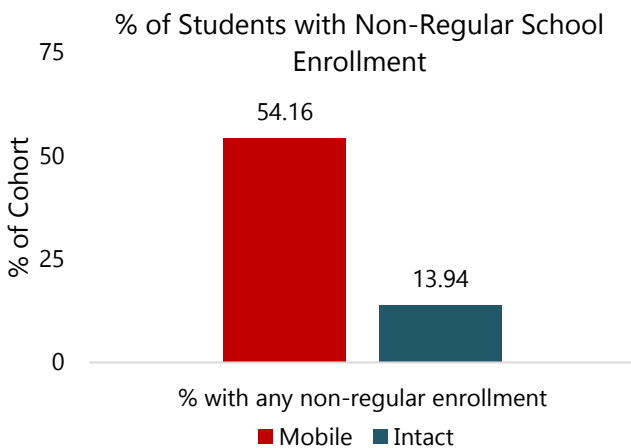
began mid-year (October or later) had an average graduation rate of 42.5% (47.8% in freshman year, falling to 30.1% in the senior year), indicating that mid-year mobility is a greater risk factor than inter-district mobility alone.

The mobile cohort is far from a homogenous group however. It includes students who enter Oregon late in their high school career, students who relocate within the state, and students who cross district boundaries for charter schools, alternative placements, hospitalizations, and incarcerations. It also includes higher proportions of some disadvantaged student groups than the intact cohort. All of these factors may play an important role in explaining the graduation rate disparities, beyond Oregon's system for ensuring continuity and seamless transitions for transferring students.



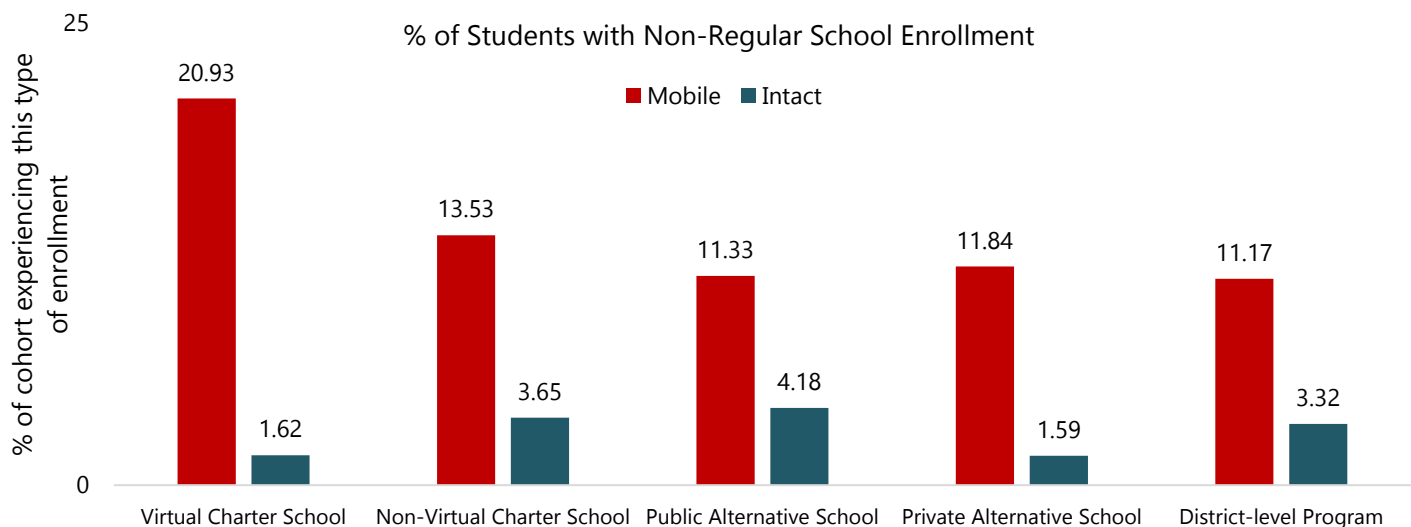
There are substantial disparities between racial/ethnic groups in mobility rates, with the highest (Black students) experiencing mobility at rates more than twice that of the lowest group (Asian students). 31% of economically disadvantaged students experienced mobility within the cohort, compared to only 21% of students who were not economically disadvantaged. Mobility during the cohort was also associated with a significantly lower opportunity to participate in CTE courses, with 68% of intact cohort students becoming CTE participants, compared to only 46% of mobile

students. More than half of homeless students were mobile during the cohort, despite participating in programs specifically designed to help them remain in a single school.



Mobile students were nearly four times as likely as intact cohort students were to have experienced enrollment in a non-regular placement, including virtual schools, charter schools, alternative schools, and district-level programs. There was a substantial association between mobility and enrollment in long-term care and treatment centers (LTCTs), hospitals, juvenile detention centers (JDEPs), and youth corrections education programs (YCEPs). 5% of mobile students had been enrolled³ in LTCTs or hospitals, and 8% in JDEPs or YCEPs (including 2% that had

enrollment in both), compared to less than 1% of non-mobile students. Excluding these students, who typically have graduation rates well below 50%, from the cohort still left a graduation rate gap of more than 30 percentage points between intact and mobile students, however, as they represent a fairly small fraction of the cohort overall.



Mobile students across the board were significantly more likely than intact students were to experience non-regular placements, ranging from 2.7 times as likely to be placed in a public alternative school to nearly 13 times as likely to enroll in a virtual charter school. More study is needed to determine whether these placements are the result of at-risk status or contribute to it.

Limiting the cohort to only students who experienced regular Oregon enrollment, the gap in graduation rates between intact and mobile students remains, but shrinks considerably. Intact students as a whole are 61% more likely (risk ratio of

³ At any point during their four years of high school enrollment.

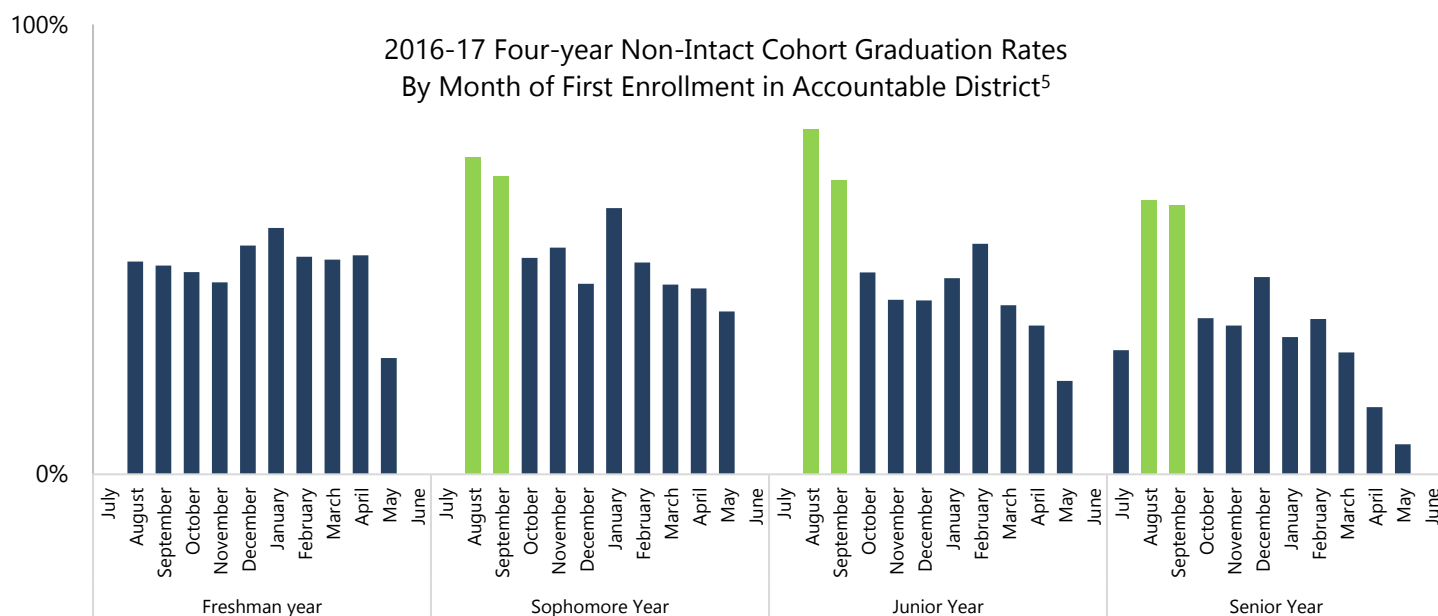
1.61) to graduate from high school than mobile students were, but intact students are only 26% more likely than mobile students to graduate when both groups have only regular enrollment.

Next, we consider the impact of late entry into Oregon schools (one of the factors that can cause a student to be considered mobile). As seen in previous [research](#), the overwhelming majority of students are long-time Oregon residents. Amongst the mobile group, 63% were enrolled in an Oregon high school at the beginning of their freshman year, though not necessarily the one they graduated from.

Four-year Cohort Graduation Rates

Enrollment	Started High School in Oregon	Entered Oregon at the Beginning of a Year ⁴	Entered Oregon Mid-year	Both multiple-district enrollment and mid-year entry are substantial risk factors for not graduating, and remain risk factors even after adjusting for LTCT, JDEP, YCEP, Hospital, charter school, or alternative school placements, all of
One District	85.8%	70.4%	48.8%	
More than One District	50.2%	48.0%	36.3%	

which are themselves risk factors for lowered likelihood of graduation.



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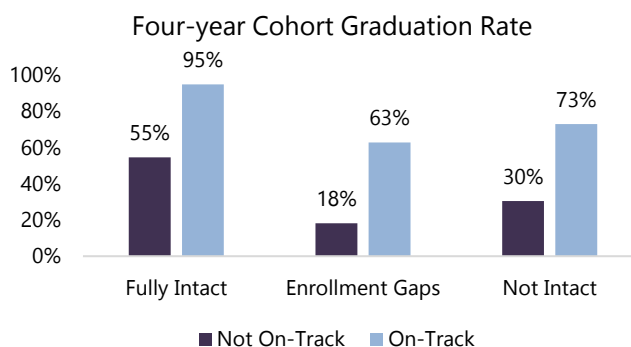
For students who experienced mobility during their high school enrollment, there is a noticeably increased likelihood of graduation if they enter their accountable district at the beginning of the school year, and a smaller spike for those entering in the winter, around the break between semesters for many schools. Students who made mid-year district changes were slightly (but significantly, $p < 0.0001$) more likely to be economically disadvantaged, which is consistent with

⁴ By the first school day in October of sophomore, junior, or senior year.

⁵ Summer months with fewer than 20 entering students omitted.

similar studies on student mobility.⁶ 68% of non-intact cohort students entering their accountable district mid-year were economically disadvantaged, compared with 65% entering at the beginning of sophomore, junior, or senior year.

Additional analysis (see appendix), however, indicates that mobility is a much less important predictor of graduation than [on-track status](#). Among on-track students, graduation rates were generally high even among students who started high school outside of their accountable district. Adjusted for relevant covariates, intact cohort status was associated with a 12% increased likelihood of graduation for off-track students, but only a 3% increased likelihood of graduation for on-track students. Unadjusted, the graduation rate for on-track students with enrollment gaps or inter-district mobility exceeds the rate for off-track students who were not mobile. Gaps in enrollment for students who otherwise remained in the same district were more predictive of decreased likelihood of graduation than non-intact enrollment between districts.

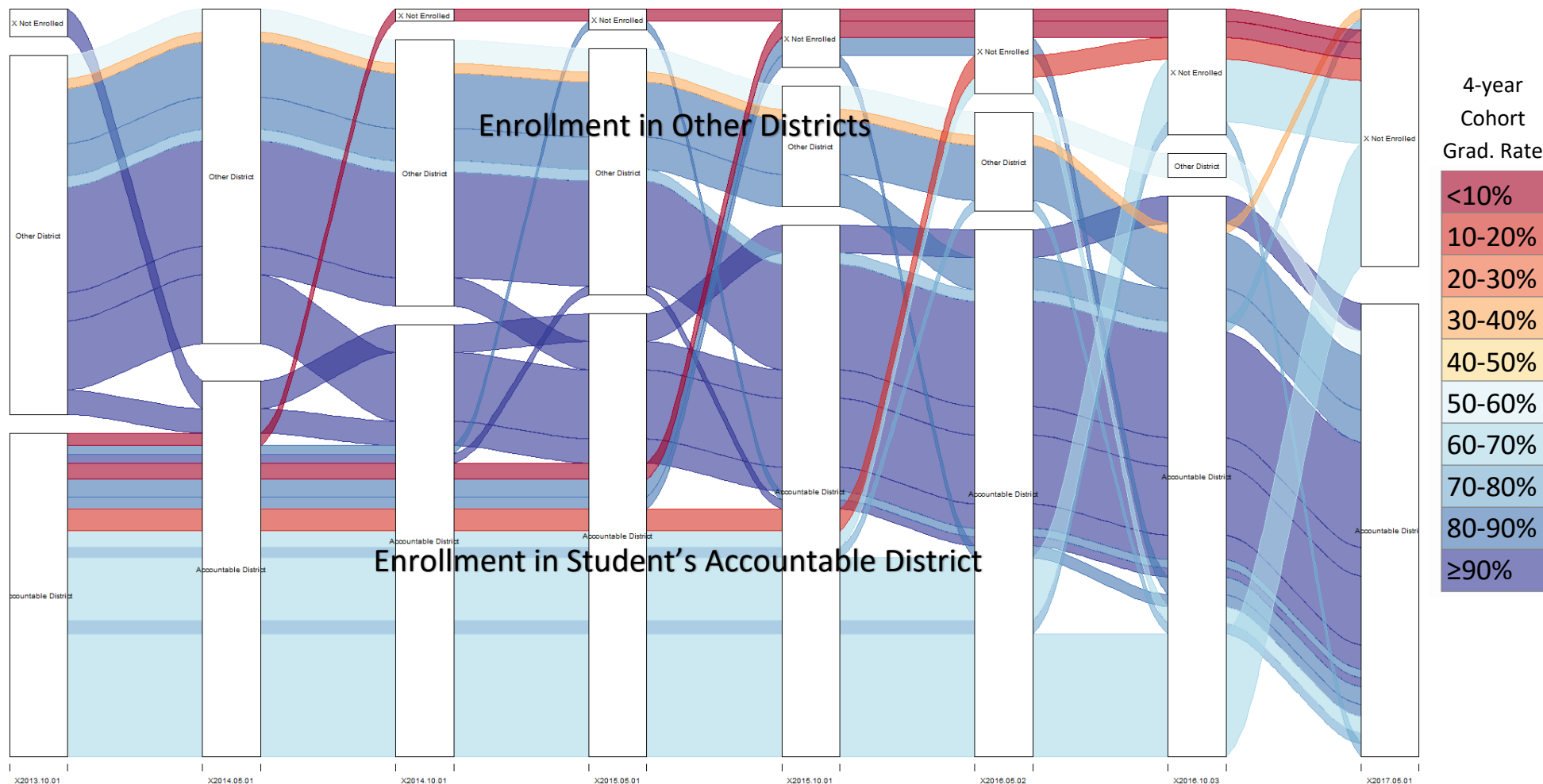


⁶ Schwartz, Amy Ellen and Stiefel, Leanna and Chalico, Luis, The Multiple Dimensions of Student Mobility and Implications for Academic Performance: Evidence from New York City Elementary and Middle School Students (November 18, 2009). Available at SSRN: <https://ssrn.com/abstract=1508603> or <http://dx.doi.org/10.2139/ssrn.1508603>

Appendix:

Graduation Rates for On-Track Students⁷

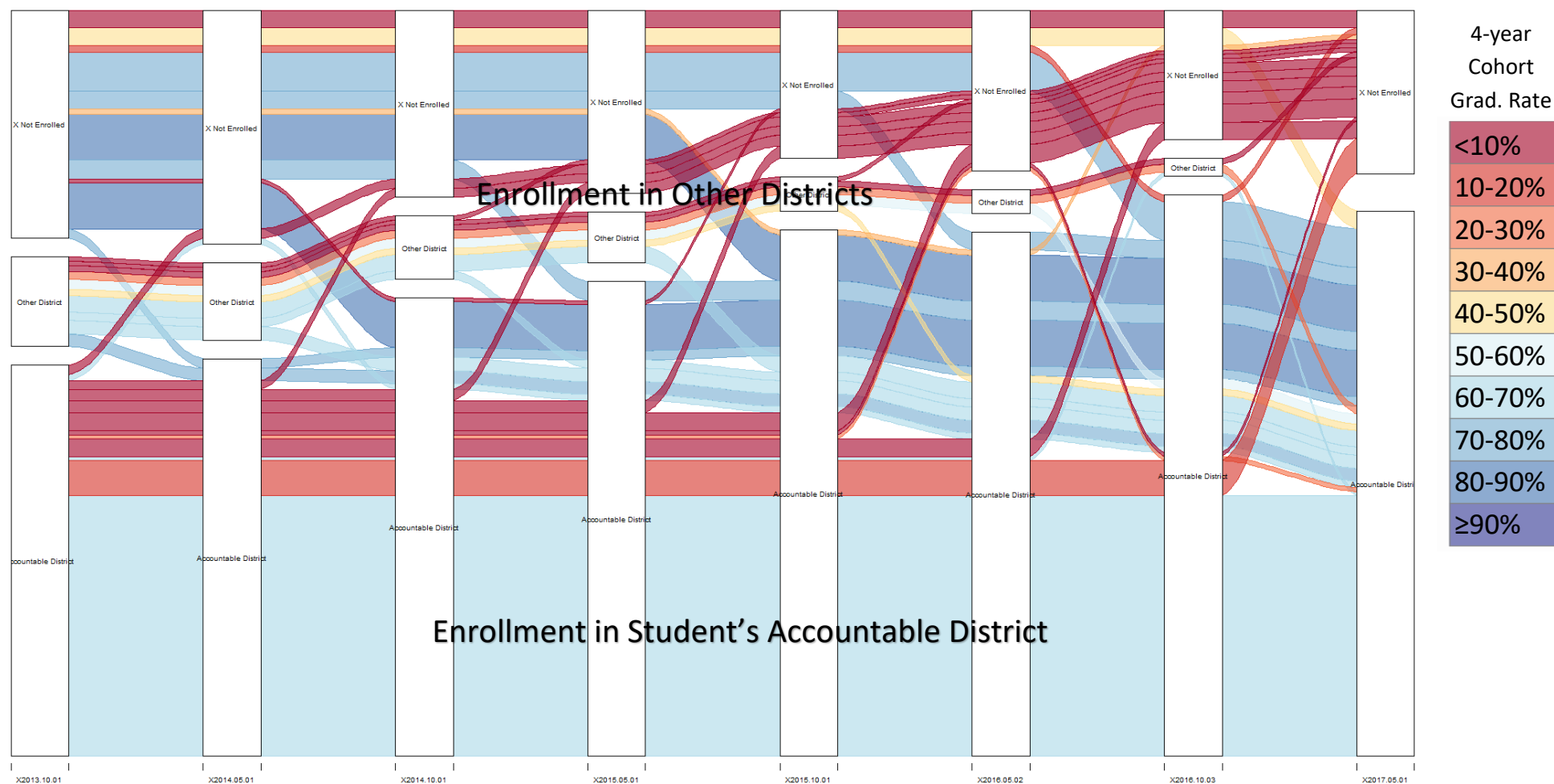
Based on enrollment snapshots in October and May of each year, organized chronologically below from left to right. The width of each ribbon represents the number of students included, and the color represents the graduation rate.



⁷ Excludes ~26,000 students who were both intact and enrolled in their accountable district for the entirety of their four years of high school, with a 97% grad rate.

Graduation Rates for Not On-Track Students⁸

Based on enrollment snapshots in October and May of each year, organized chronologically below from left to right. The width of each ribbon represents the number of students included, and the color represents the graduation rate.



⁸ Includes students with no data for their on-track status, mostly due to not being enrolled on May 1 of their freshman year.