



OnRamps to College: Examining the Impact of OnRamps Participation on College Enrollment

Matt S. Giani, PhD, Julie Schell, EdD, Emily Wade, MEd, & Harrison Keller, PhD
July 2018

What We Studied

The University of Texas at Austin’s OnRamps dual-enrollment initiative aims to increase the number and diversity of students who are fully prepared to follow a path to college and career success. Supported by the Texas Legislature, OnRamps provides high school students access to eleven UT Austin courses, developed and delivered by UT Austin faculty, that can be applied to the Texas Core Curriculum. OnRamps student enrollment exceeded 10,000 students for the first time during the 2017- 18 academic year, with more than 25,000 students projected to enroll during 2018-19.

The purpose of this study was two-fold: to descriptively examine the college enrollment of OnRamps students and to estimate the impact of OnRamps on college enrollment using a comparison group of non- OnRamps students. The results show that the vast majority of OnRamps students go on to postsecondary education and they are more likely to do so compared to their peers when controlling for a wide range of demographic and academic characteristics and the schools students attended.

Several design features distinguish OnRamps from other forms of dual- credit and make it representative of THECB’s strategy of promoting local creativity in pursuing 60x30TX goals. Each instance of OnRamps has two separate courses – a high school and a college course, both developed by UT Austin faculty. These courses are intentionally aligned with the expectations of faculty and departments at a leading research university. The high school course is taught in-person by a high school teacher, who receives nearly 80 hours of professional development each year on innovative pedagogical approaches and integrating technology in the classroom. The college course is taught via distance by a University faculty member and appointed academic course staff. OnRamps students access the same learning management system (Canvas) that is used by undergraduates at UT Austin, in order to engage with scientific software, watch videos, complete assignments, and network with other students, among other things.

In addition, OnRamps has taken an innovative approach to simultaneously broadening access to college- aligned curricula while maintaining academic rigor. In contrast to dual-credit courses in Texas, OnRamps does not require students to demonstrate TSI eligibility provisions prior to enrolling in an OnRamps course. Rather, OnRamps uses academic measures of college readiness based on UT faculty standards. Based on state legislation, because OnRamps students are non-degree seeking, non-admitted students, UT Austin may exempt them from demonstrating TSI eligibility for OnRamps coursework. If students do not meet rigorous standards set by UT Austin but do meet TSI standards, they may use their TSI to waive UT Austin’s determination of readiness. This approach supports the goal of increasing both the number and diversity of students participating in college-aligned courses in high school. OnRamps students must demonstrate their readiness for the rigor of college-level coursework through the mid-term grade they receive at the end of the first semester. This grade is used to determine whether OnRamps students are “credit eligible.” Only credit eligible students have the opportunity to earn college credit at the end of the year. The students who are not credit eligible remain in the high school course to attempt high school credit only.

Perhaps most crucially, OnRamps students have their high school and college work evaluated separately by their high school teacher and instructors of record at UT Austin, and students receive separate grades for their high school and UT Austin courses. Providing students with separate high school and college grades and separate university feedback on assignments designed by UT Austin faculty and course staff allows them to more deeply understand the expectations of an institution like UT Austin and whether those expectations differ from those of their high school. Much like AP scores, OnRamps students are given the option of “claiming” the UT Austin credit as part of their academic record, which they may or may not do for any number of reasons. This approach mitigates the risk of students stretching themselves in a challenging dual- credit course only to receive an unsatisfactory grade in the course that becomes a part of their college transcript.

Although OnRamps has grown from a few hundred students in 2013-14 to more than 10,000 in 2017-18, only recently has the size of the cohorts of OnRamps high school graduates and the availability of state data allowed us to investigate the extent to which OnRamps is fulfilling its mission in supporting students on their path to college enrollment. The purpose of this study was to address the gap in our understanding of the relationship between OnRamps participation and college-going.

How We Analyzed the Data

This study addressed the following research questions:

- 1) What are the college-going rates of OnRamps students, and how do their college-going rates compare to non-OnRamps students?
- 2) What are the top colleges of enrollment for OnRamps students?
- 3) To what extent does OnRamps reduce equity gaps in college-going?
- 4) To what extent does participating in OnRamps influence the likelihood that students will apply to, be accepted by, and enroll in a four-year college?

This study examined three cohorts: students who graduated high school in 2015, 2016, and 2017. Each cohort is comprised of roughly 300,000 students. Among these cohorts, 813 graduates in 2015, 1,899 graduates in 2016, and 3,854 students in 2017 participated in OnRamps and were able to be identified in the ERC data. Students in each cohort who did not participate in OnRamps were used as the control group.

The primary independent variable of interest is a dichotomous indicator of whether a student participated in OnRamps. By “participated” we mean the student enrolled in any OnRamps course during any year prior to graduating from high school. In some specifications we also explored whether a student’s eligibility for college credit mediated the impact of OnRamps by using a three-level categorical variable of 1) non-OnRamps; 2) OnRamps, credit ineligible; and 3) OnRamps, credit eligible. Data on OnRamps participation was collected by OnRamps, provided as a supplemental data file to TEA (which matched OnRamps enrollment records to the student ID#s used by TEA), and added to the ERC data repository. This allowed the research team to merge OnRamps enrollment data with the rest of the data contained in the ERC.

This study explored the following outcome variables related to students’ college-going behavior: 1) whether students applied to a public university; 2) whether students were admitted to a public university; 3) whether students enrolled in college; 4) the type of college students enrolled in (2-year, public 4-year, private 4-year); 5) the specific institution students enrolled in. Data on college application and admission was drawn from THECB’s u_cbm00b data from the ApplyTexas application, which records applications and admissions decisions for all public universities in Texas. College enrollment data was drawn from THECB’s cbm001 files as well National Student Clearinghouse (NSC) data, which was available for the 2015 and 2016 cohorts.

The statistical models described below control for students’ demographic and academic characteristics, as well as the high schools they graduated from. Demographic characteristics include race/ethnicity, gender, economic status, gifted status, and English Language Learner (ELL) status. Academic characteristics include scores on End-of-Course standardized assessments, the high school graduation plan/diploma students completed, and counts of the number of

credits they earned in different subjects (e.g. math, science, ELA, etc.). The course credit variables also control for the number of advanced and dual-credit courses students completed.

The first two research questions related to students’ college enrollment rates were addressed by calculating the percentage of students in different categories who experienced the outcome in question. The second question was addressed using fixed-effects linear probability models. In each model, the outcome variable is dichotomous (e.g. did or did not apply to college), and the estimates represent the percentage point increase in the likelihood of the outcome occurring given a one unit increase in the covariate. Because the OnRamps independent variable is dichotomous, the estimate represents the difference in the probability of the outcome occurring between OnRamps and non-OnRamps students. The models control for the full range of covariates described in the section above as well as the high schools students graduated from.

What We Discovered

Despite serving primarily students from underrepresented backgrounds, OnRamps students experience postsecondary enrollment rates considerably better than state averages. As shown in Figure 1, more than 70% of students who participated in OnRamps enrolled in college in the year immediately following high school graduation, and more than 80% of OnRamps students who were eligible for the opportunity to earn college credit (i.e., met eligibility criteria through TSI or mid-year grade) enrolled in college. Put differently, the percentage of OnRamps credit eligible students not attending postsecondary was less than half the rate of non-OnRamps students who were not attending postsecondary (17.9% vs. 43.6%). OnRamps participants were also nearly twice as likely to attend a four-year college compared to non-OnRamps students (52.3% vs. 29.9%), and roughly two-thirds of OnRamps credit eligible students attended a four-year college (66.9%).

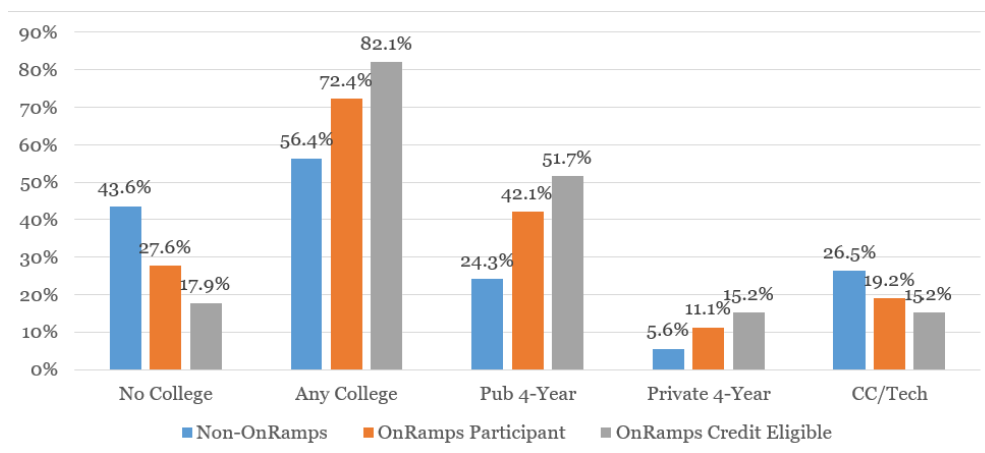


Figure 1: College Enrollment Among 2016 High School Graduates, by OnRamps Status

We also investigated the colleges in which OnRamps students are most likely to enroll, which is found in Table 1. Only institutions with 25 or more enrollees are shown in this figure (25 or fewer OnRamps students enrolled in an additional 50 colleges across Texas). As shown in this table, UT Austin enrolled the largest share of OnRamps students. However, this analysis revealed a number of other critical findings.

First, although UT Austin was the most popular institution, the vast majority of OnRamps students who attended colleges enrolled in institutions apart from UT Austin. Second, although enrollment in out-of-state institutions was the fifth highest when all three cohorts (2015-17) were combined, more OnRamps students enrolled out-of-state than in any other postsecondary institution for the 2015 and 2016 cohorts for which out-of-state enrollment data was available. Finally, 10 of the top 13 institutions by enrollment were four-year institutions, demonstrating that OnRamps students are more likely to pursue baccalaureate programs than sub-baccalaureate programs.

In addition to preparing all of our students for college, OnRamps has the explicit mission of increasing the number *and diversity* of students enrolling in postsecondary education. To examine whether OnRamps is fulfilling this mission, we investigated the extent to which equity gaps in college enrollment vary between OnRamps and non-OnRamps students. Figure 2 shows college enrollment rates by race/ethnicity. Among non-OnRamps students, Hispanic students were 13.3% less likely to attend college compared to White students and 21.7% less likely compared to Asian students. Black students were 6.5% less likely to attend college compared to White students and 14.9% less likely compared to Asians. Although these gaps are not entirely eliminated among OnRamps students they are greatly reduced, particularly for OnRamps students who were eligible for college credit. Among this sub-group, the gap between Hispanic and White students was only 6.6%, or half the magnitude as the gap for non-OnRamps students. The gap between Black and White students was only 2.8% among credit-eligible OnRamps students, and the gap between Black and Asian students was less than one percent. Overall, the racial/ethnic gaps in college-going are far less pronounced among OnRamps students who were eligible for college credit compared to the rest of Texas high school graduates who did not participate in OnRamps.

Equity gaps based on socioeconomic background are also mitigated in OnRamps. For non-OnRamps students, the disparity in college-going was 17.7% between low-income and non-disadvantaged students. This gap is reduced to 13.6% among OnRamps participants and reduced further to 9.5% among OnRamps students who were eligible for college credit.

Although the previous results suggest OnRamps students have higher odds of college-going compared to non-OnRamps students, it may be the case that OnRamps students are higher achieving or better prepared for college on average compared to non-OnRamps students even before they participate in an OnRamps course. To better isolate the impact of OnRamps on college outcomes, we estimated a series of fixed effect regression models that

Table 1: Top Colleges of Enrollment for OnRamps HS Graduate Cohorts, 2015-17

College Name	Frequency	Percent
No college found	2058	34.0
The University of Texas at Austin	369	6.1
Austin Community College	339	5.6
Texas A&M University	315	5.2
Texas State University	286	4.7
Out-of-State (for 2015 & 2016 cohorts)	261	4.3
Texas Tech University	212	3.5
University of North Texas	177	2.9
The University of Texas at San Antonio	167	2.8
The University of Texas at Arlington	106	1.7
Collin County Community College District	83	1.4
Tarrant County Junior College Northwest	73	1.2
The University of Texas at Dallas	69	1.1
St. Edward's University	51	0.8
Blinn College	50	0.8
Texas Woman's University	48	0.8
Tarrant County Junior College Northeast	48	0.8
Texas A&M University-Corpus Christi	47	0.8
San Jacinto College North Campus	46	0.8
Baylor University	44	0.7
Richland College	44	0.7
Stephen F. Austin State University	43	0.7
South Plains College	41	0.7
Tarleton State University	41	0.7
Midwestern State University	34	0.6
Sam Houston State University	34	0.6
Mountain View College	34	0.6
The University of Texas-Rio Grande Valley	30	0.5
Texas Christian University	30	0.5

Notes: The sample includes OnRamps participants who graduated from high school in 2015 and 2016 or who were enrolled in grade 12 in 2017, as data on 2017 high school graduates was not available at the time this analysis was conducted. The out-of-state college enrollment figures were calculated using data from the National Student Clearinghouse, which was available only for the 2015 and 2016 graduate cohorts. Students in the "no college found" category may have still enrolled in college out-of-state

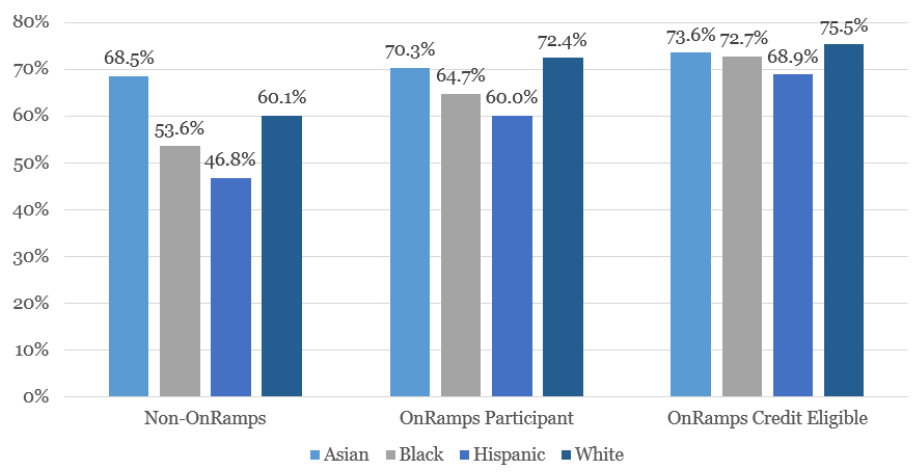


Figure 2: College Enrollment Rates for 2016 HS Graduates, by Race/Ethnicity and OnRamps status

controlled for students’ demographic characteristics, academic achievement and preparedness, and the schools they graduated from. Table 2 summarizes the estimates of OnRamps on various outcomes, with each line representing the estimate of OnRamps on a different outcome. The first outcome is whether students enrolled in any postsecondary institution. The next set of three models estimate whether students applied to, were admitted by, and enrolled in any in-state public four-year institution. The remaining models estimate these same outcomes of application, admission, and enrollment, first for UT Austin and Texas A&M specifically followed by models of these outcomes for either flagship.

The results of these models suggest that OnRamps students are statistically significantly more likely to experience nearly all college-going outcomes investigated in these analyses. The lone exception was enrollment in Texas A&M, in which there was no difference found between OnRamps and non-OnRamps students. Overall, OnRamps students are more likely to go to college, to enroll in a public four-year, and to enroll in one of the state’s flagship institutions compared to non-OnRamps students when controlling for a rich set of control variables. Although the non-random assignment of students into OnRamps cautions us from describing this relationship as causal, the fact that the models also controlled for the number of advanced and dual-credit courses students took, potentially indicative of their unobserved postsecondary aspirations or motivation, suggests that the results are robust.

Policy Recommendations/Conclusions

In Texas, participation in dual-credit has increased by roughly 650% since 2000 (Miller et al., 2017) driven by student demand, school and district efforts, and state policy requiring school districts to “implement a program under which students may earn the equivalent of at least 12 semester credit hours of college credit in high school” (Texas Education Code, §28.009). Despite the growth of dual-credit in Texas, two primary concerns remain. The first is that access to college-aligned coursework is still restricted for many students. Indeed, although dual-credit participation has grown considerably since 2000, no more than a quarter of high school graduates in any cohort participated in dual-credit, and the participation rate actually declined from a high of 22% in 2011 to 18% in 2015 (Miller et al., 2017). Declines in dual-credit may be driven by changes made in House Bill 5, which eliminated the mandatory Algebra II End-of-Course exam which many students used to demonstrate college readiness and eligibility to enroll in dual-credit courses. Second, there is considerable variation in how dual-credit instruction is provided, and limited research has examined how this variation relates to the quality of the course. The RAND-AIR report on dual-credit commissioned by THECB (Miller et al., 2017) found that 56% of dual-credit courses were taught by adjunct faculty and 41% were taught by a

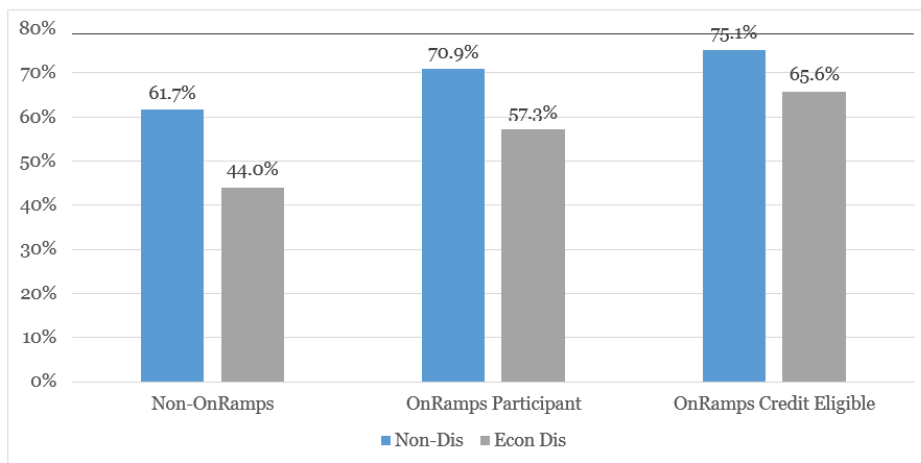


Figure 3: College Enrollment Rates for 2016 HS Graduates, by Economic Disadvantage and OnRamps Status

Table 2
Fixed Effect Regression Models Estimating the Impact of OnRamps on Various College Outcomes

	Outcome	OnRamps Participant	
		B	SE
Any College	Enrolled	0.0263**	(0.0118)
Any In-State Public 4-Year	Applied	0.0485***	(0.0109)
	Admitted	0.0488***	(0.0102)
	Enrolled	0.0268***	(0.0101)
UT	Applied	0.0373***	(0.0060)
	Admitted	0.0152***	(0.0047)
	Enrolled	0.0123***	(0.0036)
A&M	Applied	0.0295***	(0.0065)
	Admitted	0.0196***	(0.0054)
	Enrolled	0.00168	(0.0040)
Either Flagship	Applied	0.0479***	(0.0071)
	Admitted	0.0204***	(0.0059)
	Enrolled	0.0139***	(0.0051)

Notes: * $p < .10$, ** $p < .05$, *** $p < .01$. The sample includes students who graduated high school in 2016. The full models controlled for students’ demographic backgrounds, academic characteristics, and the schools they graduated from.

faculty member concurrently employed as a high school teacher. And unlike Advanced Placement (AP) courses that require students to take a standardized assessment to demonstrate their mastery of the material, it is difficult to determine if the grade a student received in a dual-credit course in one school or college would be the same grade they would have received for the same course at another school or college. THECB Commissioner Paredes summarized these concerns about the quality of dual-credit courses: “If we continue to expand enrollment [in dual-credit]...rigor will be diminished, these will not be legitimate college courses, and colleges will stop accepting credit from these courses” (Mangan, 2016).

OnRamps is an innovative solution to broadening access to early college credit opportunities, increasing the diversity of students participating in these opportunities, and maintaining the rigor of what a college-level course should be. The results of our research show that the OnRamps model is an innovative and effective strategy for preparing high school students for the transition to college. Future research using the ERC data will continue to explore the efficacy of OnRamps in preparing students for college by investigating students’ performance in subsequent college courses as well as their persistence and attainment in college.

OnRamps benefits greatly from support from the Legislature, particularly through the Legislature’s reimbursement of school districts whose students participate in OnRamps. We believe the Legislature’s continual support of OnRamps’ mission to increase the number and diversity of students prepared for college is a wise investment, particularly given THECB’s 60x30TX goals to dramatically increase the proportion of young adults with a postsecondary credential. We also believe it is critical that Texas maintains a policy framework that allows innovations such as OnRamps to grow and thrive. Specifically, given House Bill 5’s implications for TSI eligibility, we believe it is critical to ensure that students with high postsecondary aspirations have access to rigorous curriculum and college credit-bearing opportunities that effectively prepare them for their future.

The University of Texas at Austin ERC is a research center and P-20/Workforce Repository site which provides access to longitudinal, student-level data for scientific inquiry and policymaking purposes. Since its inception in 2008, the Texas ERC’s goal is to bridge the gap between theory and policy by providing a cooperative research environment for study by both scholars and policy makers. As part of its mission, the ERC works with researchers, practitioners, state and federal agencies, and other policymakers to help inform upon critical issues relating to education today.

The views expressed are those of the authors and should not be attributed to The University of Texas at Austin or any of the funders or supporting organizations mentioned herein including the State of Texas. Any errors are attributable to the authors.
