

Dear colleagues,
As advocates and allies for individuals living in rural Oregon, we are pleased to share a new study, Supporting Rural Students in Oregon: A Study of College Enrollment, Persistence, Transfer, and Completion Outcomes.

This report updates and expands upon a Regional Educational Laboratory (REL) Northwest study completed in 2015. It describes statistical differences in how rural and non-rural students engage with college, focusing specifically on analysis of the quantitative data available from the Oregon Department of Education, the National Student Clearinghouse, and the Integrated Postsecondary Education Data System.

The analysis is an important chapter in the story of rural students, but it is only one in a much larger book: it begins to shine a light on the postsecondary possibilities for rural students when they are given access to equitable resources. As such, we hope that advocates, practitioners, policymakers, and higher education institutions can use the findings to increase commitment to equity for rural student postsecondary achievement. Securing credentials beyond high school is known to positively impact individual livelihood, the economic vitality of a community, civic engagement, and multi-generational poverty. As the state expands the focus on equitable access for all in service of its ambitious 40-40-20 goal, rural students must be a focus of our collective attention.

We thank Education Northwest for taking on this project and appreciate the thoughtful research and analysis presented here. Their continued partnership and commitment to understanding the educational landscape in our region is invaluable.

We invite you to join us in learning more about the opportunities for rural students, and the systems and structures needed to support them in reaching their greatest potential.

Here's to working together to create a more vital and livable Oregon.
Sincerely,

Anne C. Kubisch
President
The Ford Family Foundation
December 2020

## Executive summary

Research suggests that rural students have lower college outcomes, on average, compared to their nonrural peers, and that family income, community poverty levels, and access to advanced coursework in high school may be contributing factors. This study examines rural and nonrural Oregon public high school graduates' college enrollment, persistence, transfer, and completion in all types of higher education - which include two- and four-year public and private colleges and universities in the United States - using K-12 student-level data from the Oregon Department of Education (ODE), student-level college enrollment and completion data from the National Student Clearinghouse (NSC), and aggregated college and university data from the Integrated Postsecondary Education Data System (IPEDS). These findings expand upon an earlier Regional Educational Laboratory (REL) Northwest study which found that rural students in Oregon were less likely than their nonrural peers to enroll and persist in higher education (Pierson \& Hanson, 2015).

This study combines multiple definitions of rurality to create a marker for rural schools. For this report, we started with the National Center for Education Statistics rural classifications (National Center for Education Statistics, n.d.) and then added a distance-based rural definition (U.S. Department of Agriculture, 2019). Lastly, we manually recoded some schools as rural based on discussions with Ford Family Foundation staff members about which communities they consider rural in their grantmaking.

Based on this study's definition, over two-thirds of Oregon public high schools are rural, and they enroll approximately 42 percent of all Oregon public high school students. These rural schools serve a diverse population - more than 30 percent of rural Oregon high school graduates in 2018/19 identified as a student of color, and nearly 75 percent were ever eligible for free or reduced-price lunch (FRPL). Comparatively, about 40 percent of nonrural students identified as a student of color, and 60 percent were ever eligible for FRPL. Some rural high schools are located far from any college options; we found that Eastern Oregon students must travel the farthest distance to reach a college or university.

## Key findings

The study finds that rural students had lower rates of enrollment, persistence, and completion than their nonrural peers, and this pattern held across most student groups. Gaps in college outcomes between rural and nonrural students have remained stable or increased over time, and they can be largely explained by the observable or measurable characteristics in this study (such as student eligibility for FRPL or whether the student ever had an individualized education program [IEP]). Additionally, the study finds that, for rural students, distance from their high school to college does not influence enrollment, persistence, or completion; however, the type of institution where rural and nonrural students enroll influences gaps in persistence and completion. Finally, the study finds that students who participated in college coursework in high school were more likely to enroll in college, persist from their first to second year of college, transfer from a two-year community college to a four-year college or university, and complete any college degree.

College enrollment rates varied widely among rural and nonrural student groups, and rural students tended to enroll in college at lower rates than their nonrural peers

- College enrollment rates for historically disadvantaged students were low in both rural and nonrural areas
- Rural student groups-including most historically disad vantaged groups-enrolled in college at lower rates than their nonrural counterparts
- Rural male students have an overall low college enrollment rate of 35 percent, and the gap between female and male students was greater in rural areas than nonrural areas
- In 2018/19, rural high school graduates who were classified as English learners, were ever eligible for FRPL, or ever had an IEP all enrolled in college at lower rates than their nonrural peers

Rural students tended to persist in college at lower rates than their nonrural counterparts

- Similar to college enrollment, rural student groups - including most historically disadvantaged groups - persisted in college at lower rates than their nonrural counterparts
- Both male and female rural students had lower persistence rates than their nonrural peers, and the rural-nonrural gap was larger for females than for males
- Rural students who were ever classified as English learners, ever eligible for FRPL, or ever had an IEP all had lower persistence rates than their nonrural counterparts

Two-year to four-year transfer rates were lower than 25 percent for both rural and nonrural students

- Gaps in transfer rates from two-year to four-year college were small between rural and nonrural students within the same racial/ethnic groups, but gaps between groups were large
- Across all student groups, transfer rates tended to be similar for rural and nonrural students


## Rural students tended to complete college at lower rates than their nonrural counterparts

- Historically disadvantaged student groups from both rural and nonrural communities tended to have low completion rates
- Similar to college enrollment and persistence, college completion rates were lower for most rural student groups compared to their nonrural counterparts
- Rural male students had an overall low college completion rate, which was similar to college enrollment patterns
- Rural students who were ever English learners, ever eligible for FRPL, or ever had an IEP all had lower completion rates than their nonrural counterparts

Gaps in college enrollment rates between rural and nonrural high school graduates have increased over time, while gaps in persistence, transfer, and completion rates have remained similar

- Gaps in college enrollment rates between rural and nonrural high school graduates have persisted since at least 2005 and have increased over time
- Gaps in first-year to second-year college persistence rates between rural and nonrural high school graduates have remained the same over time
- The gap in transfer rates between rural and nonrural high school graduates was small and has remained the same over time
- While college completion rates have increased over time for all students, gaps in college completion between rural and nonrural high school graduates have remained similar

Rural students had lower college outcomes compared to nonrural students, and this gap was largely driven by differences in student, high school, and college characteristics

- Much of the gap in college enrollment rates between rural and nonrural students could be attributed to differences in student characteristics, such as eligibility for FRPL and their standardized test scores, but part of the gap was unexplained
- The gap in college persistence rates between rural and nonrural students could be explained almost entirely by differences in student, high school, and college characteristics; it was driven by differences in eligibility for FRPL and college selectivity
- The small gap in transfer rates between rural and nonrural students could be explained entirely by differences in characteristics
- The gap in college completion rates between rural and nonrural students could be explained almost entirely by differences in student, school, and college characteristics


## Distance from high school to college did not seem to influence rural student enrollment, persistence, or completion

- On average, nonrural students traveled farther to attend college than rural studentsdue to attending out-of-state schools - but rural students traveled farther to attend Oregon schools
- Distance was related to the likelihood of college enrollment, persistence, and completion for nonrural students but had no relationship for rural students
- Distance from high school to college had a small relationship with transfer rates for both rural and nonrural students

Persistence and completion gaps were influenced by the different types of institutions in which rural and nonrural students chose to enroll

- Among rural and nonrural high school graduates, the most common type of college to enroll in was an Oregon public two-year college, followed by an Oregon public university
- Rural male students had lower enrollment rates in Oregon public universities compared to rural female students, but they had higher enrollment rates in Oregon public two-year colleges
- Gaps in persistence rates were largest between rural and nonrural students who attended out-of-state colleges/universities and for-profit colleges/universities
- Rural students' persistence rates were highest at four-year public and private institutions and lowest at two-year public institutions
- Similar to persistence rates, rural student completion rates were highest at four-year public and private institutions and lowest at two-year public institutions


## Students who took college coursework ${ }^{1}$ in high school were more likely to enroll in, persist,

 and complete college than students who did not- 65 percent of rural students who took college coursework during high school enrolled in college, compared to 36 percent of rural students who did not take college coursework during high school
- Taking college coursework in high school was associated with an increased likelihood of college enrollment for both rural and nonrural students, and rural students seemed to benefit more than nonrural students by taking college coursework in high school.
- A smaller proportion of rural schools seemed to provide access to these college coursework opportunities compared to nonrural high schools: 83 percent of rural high schools had at least one student who took college coursework during high school, compared to 96 percent of nonrural high schools


## Implications

These findings point to several takeaways. The following have been highlighted by the authors of the report:

- Oregon education stakeholders should continue to focus on improving college access and success for rural high school graduates
- Oregon education stakeholders should help rural students broaden their college aspirations while simultaneously supporting community college completion efforts
- Oregon education stakeholders should continue to invest in college preparatory opportunities - such as college coursework, college advising, and promoting a collegegoing culture-for students attending rural high schools

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## Why study rural college success?

The state of Oregon has set a goal that 80 percent of all Oregonians will earn a postsecondary degree or credential by 2025. ${ }^{2}$ A key lever to achieving that goal is increasing college access and completion for rural Oregonians. This study investigates rural Oregonians' college outcomes and underlying conditions so that education stakeholders across the state can develop a better understanding of rural students' college outcomes, improve their college success, and support their journeys through college and career. This study includes all types of higher education -two-year and four-year public and private colleges and universities in the United States - in its definition of college.

## Research suggests that rural students have lower college outcomes, on average, compared to their nonrural peers, and that family income, community poverty levels, and access to advanced coursework in high school may be contributing factors

Oregon's rural communities have unique strengths and histories (The Ford Family Foundation and Oregon State University Extension Service, 2020). Many rural areas of the state are home to the nine federally recognized tribes of Oregon. Rural Oregon also has burgeoning industries and large swaths of public lands that provide recreational areas and protect our natural resources.

Rural areas also tend to differ from nonrural areas along key characteristics related to educational outcomes. Nationally, rural youth are significantly less likely to be in college or employed than urban youth (Provasnik et al., 2007, based on national data from the American Community Survey [ACS]). In Oregon, 23 percent of rural individuals 25 and older completed a bachelor's degree or higher, compared to 37 percent of individuals of the same age in urban areas (The Ford Family Foundation and Oregon State University Extension Service, 2020, based on data from ACS).

## Family income and poverty are tied to educational outcomes for both rural and nonrural students

As with all students, rural students' educational outcomes are tied to family income (Byun, Meece, \& Irvin, 2012; Meece et al., 2013). Considerable attention has been paid to the postsecondary success of low-income students in general (Bailey \& Dynarski, 2011; Bound, Lovenheim, \& Turner, 2009;Holzer \& Dunlop, 2013; Reardon, 2011). However, fewer studies have investigated college outcomes and experiences specific to low-income rural students (Irvin, Byun, Meece, Farmer, \& Hutchins, 2012).

## Rural areas have higher poverty rates, which may influence rural students' lower college outcomes

Rural poverty may be one contributing factor to the difference between rural and nonrural students' college outcomes. In 2018, 13 percent of individuals in the United States lived in poverty, but the poverty rate was slightly higher in rural areas (16 percent) compared to urban areas (13 percent; Farrigan, 2018). Oregon followed a similar pattern: In 2018, the poverty rate

[^1]was 15 percent in the state's rural areas and 12 percent in urban areas (Farrigan, 2018). Beyond having higher poverty rates, rural areas also experience more persistent poverty. Eighty-five percent of U.S. counties that are persistently poor (i.e., have poverty rates that have remained above 20 percent for the past 30 years) are rural (Farrigan, 2018).

## Rural students tend to have less access to certain types of advanced coursework in high school

Less access to advanced coursework may also be a contributing factor in rural students' lower college outcomes. College preparatory coursework, such as Advanced Placement (AP) and International Baccalaureate (IB), is positively related to degree completion and other college outcomes (Adelman, 1999, 2006; Adelman, Daniel, \& Berkovits, 2003). This is particularly true for rural students (Byun et al., 2012). However, nonrural students are much more likely than rural students to have taken one of these courses (Klopfenstein \& Lively, 2012; Player, 2015; Waits, Setzer, \& Lewis, 2005). In contrast to AP and IB, dual-credit participation rates in rural schools tend to be similar to those in urban and suburban schools (Klopfenstein \& Lively, 2012; Provasnik et al., 2007; Waits et al., 2005), including in Oregon (Hodara \& Pierson, 2018).

## What this study examines

This study examines rural and nonrural public high school graduates' college enrollment, persistence, transfer, and completion in all types of higher education. This study expands upon an earlier Regional Educational Laboratory (REL) Northwest study which found that rural students in Oregon were less likely than their nonrural peers to enroll and persist in higher education (Pierson \& Hanson, 2015). This study is guided by the following research questions:

1. What are the college enrollment, persistence, transfer, and completion rates for Oregon rural and nonrural students?
a. What are these rates for Oregon rural and nonrural students by race/ethnicity, gender, family income, English learner status, and special education status?
b. How have gaps in outcomes between rural and nonrural students changed over time?
2. What explains gaps in college outcomes between rural and nonrural students?
3. What is the relationship between college outcomes and distance to the nearest college, college type, and taking college coursework in high school?

In the next section, we present details on the Oregon context, including a description of rurality and college options, followed by a brief discussion of the data and methods used in this report.

Next, we present the findings. Overall, this study found that rural students enrolled in college, persisted from their first to second year of college, and completed a college degree at lower rates than nonrural students. Transfer rates from a two-year public college to a four-year college or university were similar between rural and nonrural students. The findings section provides detailed information to understand how gaps in outcomes between rural and nonrural students vary by race/ethnicity, gender, family income, English learner status, and special education status; how they have changed over time; what explains these gaps; and how distance to the
nearest college, college type, and taking college coursework in high school relate to college outcomes.

The report concludes with implications for policy and practice.
The Oregon context: Rurality, student demographic characteristics, and college options
This section explores how rurality was defined for this study and discusses college options in the state.

## Oregon has extensive rural areas

Oregon has rural communities in all 36 counties (The Ford Family Foundation and Oregon State University Extension Service, 2020). East of the Cascade Mountains, the state is mostly rural with towns and small cities; Bend is the largest city, with a population of about 100,000 as of 2019. Western Oregon includes the Oregon coast, which is comprised of towns and rural areas, and the Oregon Coast Range, which consists of rural communities. Western Oregon also includes the Interstate 5 corridor, which houses the Portland metropolitan area (about 650,000 people in the city proper); the cities of Salem (about 174,000), Eugene (about 173,000), and Medford $(83,000)^{3}$; numerous smaller cities; and more rural areas, all connected by a northsouth highway.

## This study combines multiple definitions of rurality

In Oregon, as with the rest of the country, there are various ways to define rurality. Some definition schemes incorporate population and distance to a population center; others incorporate commuter flows. For this report, we started with the National Center for Education Statistics rural classifications and marked those schools classified as "town distant," "town remote," "rural distant," and "rural remote" as rural (National Center for Education Statistics, n.d). We next added a distance-based rural definition from the Urban Influence Codes and classified anything not defined as a large or small metro area as rural (U.S. Department of Agriculture, 2019). Then, we manually recoded some schools as rural based on discussions with Ford Family Foundation staff members about which communities they consider rural in their grantmaking. These manual edits included the communities of Florence, Willamina, Rainier, and others (see table E1 for a full list).

## Over two-thirds of Oregon high schools are considered rural

Based on this study's definition of rurality, Oregon has 105 nonrural high schools and 221 rural high schools (figure 1) across five defined regions. About one-third of high schools in the state are nonrural, while just over two-thirds are rural. Every high school in eastern Oregon is considered rural. In central Oregon, three high schools in Bend are considered nonrural. In the Valley North Coast region, most schools are rural except those around Salem, Albany, and Eugene. In southern Oregon, all schools are rural except those in or near Medford. Lastly, most

[^2]high schools in the Portland metro region are nonrural, but the region has some rural communities (namely, Banks, Forest Grove, Sandy, Estacada, and Molalla).

Figure 1. Oregon regions, high schools, colleges, and universities


Source: Authors'analysis of Oregon Department of Education and Integrated Postsecondary Education Data System data.

More than 30 percent of rural Oregon high school graduates in 2018/19 identified as a student of color, compared to about 40 percent of nonrural students
There is important variation by race/ethnicity among rural students and nonrural students. The majority of rural high school graduates in 2018/19 identified as white ( 10,595 ; 68.7 percent), followed by Latinx ( 3,$489 ; 22.6$ percent). In the same year, 676 students ( 4.4 percent) identified as multiracial, and 341 students ( 2.2 percent) identified as American Indian/Alaska Native. A much smaller share of students identified as Asian ( $158 ; 1.0$ percent), Black ( $115 ; 0.7$ percent), or Native Hawaiian/Pacific Islander (42, or 0.3 percent; table 1). Comparatively, a smaller share of nonrural high school graduates identified as white (13,233; 59.2 percent) or American Indian/Alaska Native (142; 0.6 percent), and larger shares identified as Asian (1,642;7.4 percent), Black, (760; 3.4 percent), Native Hawaiian/Pacific Islander (219; 1.0 percent), or multiracial ( 1,309 , or 5.9 percent; see table 1 ).

Nearly three-quarters of rural students were ever eligible for free or reduced-price lunch, compared to 60 percent of nonrural students
Compared to their nonrural counterparts, rural students were more likely to have been eligible for free or reduced-price lunch ( 74.3 percent versus 59.8 percent), more likely to have had an
individualized education program (22.8 percent versus 19.9 percent), and less likely to have been classified as an English learner ( 15 percent versus 20.6 percent; table 1).

Table 1. Student characteristics for rural and nonrural high school graduates in 2018/19

|  | Total: all students | Student characteristic as a percent of total | Total: rural students | Student characteristic as a percent of total rural | Total: nonrural students | Student characteristic as a percent of total nonrural |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Race/Ethnicity |  |  |  |  |  |  |
| American Indian/Alaska Native | 484 | 1.3\% | 341 | 2.2\% | 143 | 0.6\% |
| Asian | 1,800 | 4.8\% | 158 | 1.0\% | 1,642 | 7.4\% |
| Native Hawaiian/Pacific Islander | 261 | 0.7\% | 42 | 0.3\% | 219 | 1.0\% |
| Black | 875 | 2.3\% | 115 | 0.7\% | 760 | 3.4\% |
| Latinx | 8,521 | 22.6\% | 3,489 | 22.6\% | 5,032 | 22.5\% |
| White | 23,818 | 63.1\% | 10,595 | 68.7\% | 13,223 | 59.2\% |
| Multiracial | 1,985 | 5.3\% | 676 | 4.4\% | 1,309 | 5.9\% |
| Gender |  |  |  |  |  |  |
| Female | 18,879 | 50.0\% | 7,729 | 50.1\% | 11,150 | 49.9\% |
| Male | 18,864 | 50.0\% | 7,687 | 49.9\% | 11,177 | 50.1\% |
| English learner |  |  |  |  |  |  |
| Student ever classified as an English learner | 6,923 | 18.3\% | 2,319 | 15.0\% | 4,604 | 20.6\% |
| FRPL |  |  |  |  |  |  |
| Student ever eligible for FRPL | 24,812 | 65.7\% | 11,451 | 74.3\% | 13,361 | 59.8\% |
| IEP |  |  |  |  |  |  |
| Student ever had an IEP | 7,962 | 21.1\% | 3,521 | 22.8\% | 4,441 | 19.9\% |
| FRPL = Free or reduced-price lunch, IEP = Individualized education program Source: Authors' analysis of Oregon Department of Education data. |  |  |  |  |  |  |

## Some high schools are located far from any college options

Prospective college students have numerous college options in Oregon, including public and private and two-year and four-year institutions. Oregon has one private, not-for-profit and 17 public two-year community colleges as well as eight public and 21 private, not-for-profit fouryear colleges and universities. ${ }^{4}$ Oregon students also have options in neighboring states, including certain California and Washington institutions that offer in-state tuition rates for eligible Oregon students.

## Eastern Oregon students must travel the farthest distance to reach a college or university

 The median distance in miles from a student's high school to the nearest college or university varies by region (figure 2). Eastern Oregon has the longest distances, followed by southern Oregon, central Oregon, Valley North Coast, and the Portland metro region. At half of the high schools in eastern Oregon, students must travel at least 50 miles to reach the nearest community college and at least 65 miles to reach the nearest public four-year college or university. By contrast, students at the median high school in the metro region only need to travel seven miles[^3]to the nearest community college and 10 miles to the nearest four-year institution. These distances are direct paths measured between two points (i.e., "as the crow flies"). Actual driving distances may be greater.

Figure 2. Median distance in miles from high school to nearest college or university, by Oregon region ("as the crow flies")


Note: Distances are measured in miles as a direct path between Oregon public high schools and Oregon public community colleges and universities. Data were not available on road distances.
Source: Authors'analysis of Oregon Department of Education and Integrated Postsecondary Education Data System data.

## Data and methods

This study uses K-12 student-level data from the Oregon Department of Education (ODE), ${ }^{5}$ student-level college enrollment and completion data from the National Student Clearinghouse (NSC), and aggregated college and university data from the Integrated Postsecondary
Education Data System (IPEDS). Our full sample includes 521,616 grade 12 students who graduated from an Oregon public high school between 2004/05 and 2018/19.

In this study, we examine enrollment, persistence, and completion in all types of higher education institutions. We categorized higher education institutions into the following groups:

- Oregon public four-year college
- Oregon public two-year college (i.e., community college)
- Oregon private, not-for-profit (NFP) four-year college
- Out-of-state public two-year or four-year college

[^4]- Out-of-state public two-year college that offers Oregon residents in-state tuition ${ }^{6}$
- Out-of-state private, not-for-profit (NFP) two-year or four-year college
- Other: For-profit college; Oregon private, not-for-profit (NFP) two-year college


## Methods for research question 1: What are the college enrollment, persistence, transfer, and completion rates for Oregon rural and nonrural students?

To address this research question, we calculated average college enrollment, persistence, transfer, and completion rates for rural and nonrural high school graduates from 2004/05 to 2018/19. All outcomes are from NSC, which represents 99 percent of students in public and private postsecondary institutions nationwide. ${ }^{7}$ These variables are defined as follows:

- Immediate fall college enrollment (fall enrollment): Student has their first college enrollment record in NSC in the fall term immediately following their high school graduation.
- 16-month college enrollment (16-month enrollment): Student has their first college enrollment record in NSC within 16 months of their high school graduation.
- First-year to second-year fall college persistence (persistence): Student has a college enrollment record in NSC in the fall term immediately following the first academic year that the student had a record in NSC.
- Two-year to four-year college transfer (transfer): Student has a college enrollment record at a four-year college or university within three years of their first enrollment at a two-year public college.
- Six-year degree completion (completion): Student completed a college credential within six years of their initial enrollment record in NSC following high school graduation. In our sample, students who completed a college credential within six years pursued different options: less than 1 percent completed less than a two-year degree, 24 percent completed a two-year degree, 73 percent completed a four-year degree, and 3 percent were missing data for degree type.

In addition, we examined these college outcomes by gender, race/ethnicity, whether the student ever had an individualized education program (IEP), whether the student was ever classified as an English learner, and whether the student was ever eligible for free or reduced-price lunch (FRPL). The student-level characteristics used in this study come from ODE data.

## Methods for research question 2: What explains gaps in college outcomes between rural and nonrural students?

Next, we examined potential reasons for the differences in rural and nonrural students' college outcomes. We used a statistical technique - decomposition analysis - to categorize the differences into two groups: (a) college outcome differences that can be explained by rural and

[^5]nonrural students' population differences (student, high school, and college characteristics) and (b) college outcome differences that cannot be explained by these population differences.

The student-and school-level characteristics used in this analysis come from ODE data. They are defined as:

- Student:
- Gender
- Race/ethnicity
- Student ever had an IEP
- Student ever classified as an English learner
- Student ever eligible for FRPL
- Standardized math and reading assessment scores
- Participation in college coursework while in high school (based on NSC data)
- High school:
- Percentage of high school students ever eligible for FRPL
- Average high school attendance rate
- Average high school standardized math assessment scores
- Percentage of students identifying as students of color
- Percentage of high school students that were ever classified as an English learner
- Percentage of high school students that ever had an IEP

The college-level characteristics used in this analysis come from IPEDS. They are:

- Rurality
- Selectivity quartiles (based on the share of first-year undergraduate applicants that the college admits)
- Sector (public or private, two-year or four-year, in-state or out-of-state)
- Listed tuition and required fees
- Full-time and part-time undergraduate enrollment


## Methods for research question 3: What is the relationship between college outcomes and distance to the nearest college, college type, and taking college coursework in high school?

Lastly, we conducted descriptive and logistic regression analyses to understand the association between specific factors (distance to the nearest college, college types, and participation in college coursework while in high school) and college outcomes for rural and nonrural students. Regression analyses accounted for individual student-, school-, and college-level characteristics (listed above).

The descriptive results described within the report typically refer to the most recent years of available data. When indicated, longitudinal results showing multiple years of rates are available in the appendix. For decomposition and regression analysis, we combine d the last five years of available data (see table A1 for additional information about the sample for each outcome).

## Key findings

This study finds that rural students had lower rates of enrollment, persistence, and completion than their nonrural peers, and this pattern held across most student groups. Gaps in college outcomes between rural and nonrural students have remained stable or increased over time, and they can be largely explained by the observable or measurable characteristics in this study (see student, school, and college characteristics in data and methods section). Additionally, this study finds that, for rural students, distance from their high school to college does not influence enrollment, persistence, or completion; however, the type of institution where rural and nonrural students enroll influences gaps in persistence and completion. Finally, the study finds that students who participated in college coursework in high school were more likely to enroll in, persist, and complete college.

## Rural Oregon students had lower rates of college enrollment, persistence, and completion than nonrural students, but both groups had similar transfer rates

Compared to their nonrural peers, rural students enrolled in college, persisted from their first to second year of college, and completed a college degree at lower rates. Transfer rates from a twoyear public college to a four-year college or university were similar between rural and nonrural students. These results are in line with findings from a previous study of college enrollment and persistence for Oregon's rural and nonrural students (Pierson \& Hanson, 2015). In the same study, Pierson and Hanson also found that rural students enrolled in college and persisted from their first to second year at lower rates than their nonrural peers. This study finds little change in differences between rural and nonrural enrollment and persistence rates.

In the graduating class of 2018/19, only 42 percent of rural students enrolled immediately in college, compared to 56 percent of nonrural students
Forty-two percent of rural students who graduated high school in 2018/19 enrolled in college in fall 2019, compared to 56 percent of nonrural students - a 14 percentage-point gap (figure 3). When we examined college enrollment within 16 months of high school graduationaccounting for the possibility that a student took a gap year between high school and collegeenrollment rates increased for both rural and nonrural students, but the rural-nonrural enrollment gap remained the same (14 percentage points).

Persistence and completion rates were lower for rural students than nonrural students, but transfer rates were similar at around 22 percent
Rural students who entered college in fall 2018 also persisted to their second year at lower rates than nonrural students ( 65 percent and 73 percent, respectively). However, rural students who entered a two-year public college in 2015/16 transferred to a four-year institution at similar rates to nonrural students ( 21 percent and 23 percent, respectively). The low overall transfer rates indicate that barriers to transfer may not be correlated with coming from a rural high school; instead, these barriers may exist for both rural and nonrural students. Lastly, 44 percent of rural students who entered college in 2013/14 completed a college degree within six years, compared to 53 percent of nonrural students (figure 3).

Figure 3. College enrollment, persistence, transfer, and completion rates for Oregon's rural and nonrural public high school graduates



#### Abstract

Note: Sample includes 15,416 rural and 22,328 nonrural Oregon public high school students who graduated high school in 2018/19 (outcome = fall enrollment); sample includes 15,186 rural and 22,075 nonrural Oregon public high school students who graduated high school in 2017/18 (outcome $=16$-month enrollment); sample includes 9,321 rural and 16,397 nonrural Oregon public high school students who enrolled in college for the first time after high school in 2018/19 (outcome = persistence); sample includes 5,163 rural and 7,520 nonrural Oregon public high school students who enrolled in a two-year college for the first time after high school in 2015/16 (outcome = transfer); sample includes 8,382 rural and 14,549 nonrural Oregon public high school students who enrolled in college for the first time after high schoolin 2013/14 (outcome= completion). Source: Authors'analysis of Oregon Department of Education and National Student Clearinghouse data.


College enrollment rates varied widely among rural and nonrural student groups, and
rural students tended to enroll in college at lower rates than their nonrural peers rural students tended to enroll in college at lower rates than their nonrural peers
Immediate fall college enrollment rates of high school graduates in 2018/19 varied widely between student groups, ranging from 71 percent for nonrural Asian students to 28 percent for rural students who ever had an IEP. Within most student groups, rural students tend to enroll in college at lower rates than nonrural students, though the size of the gap varies.

## College enrollment rates for historically disadvantaged students were low in both rural and nonrural areas

Patterns of historical disadvantage surfaced in both rural and nonrural enrollment rates. Asian and white nonrural high school graduates in 2018/19 had the highest college enrollment rates: 71 percent and 61 percent, respectively. American Indian/Alaska Native rural students and Native Hawaiian/Pacific Islander nonrural students had the lowest rates, at 36 and 32 percent, respectively (figure 4). Black nonrural students enrolled at a rate of 51 percent, compared to 40 percent of Black rural students. Among Latinx students, enrollment rates were 37 percent for rural students and 40 percent for nonrural students.

Figure 4. Fall 2019 college enrollment rates for rural and nonrural high school graduates, by race/ethnicity


Note: Sample includes 37,744 Oregon public high school students who graduated high school in 2018/19. Source: Authors'analysis of Oregon Department of Education and National Student Clearinghouse data.

Rural student groups-including most historically disadvantaged groups-enrolled in college at lower rates than their nonrural counterparts
Among students who graduated high school in 2018/19, 42 percent of rural students and 56 percent of nonrural students enrolled in college in fall 2019. These rates varied substantially within and between racial and ethnic groups. Across almost all racial and ethnic groups, nonrural students enrolled at higher rates than rural students. (The exception was Native Hawaiian/Pacific Islander students, which included only 42 high school graduates in rural areas in 2018/19.) Within racial and ethnic groups, the rural-nonrural enrollment gap was largest for students who identified as multiracial (18 percentage points) or white (17 percentage points) and smallest for those identifying as Latinx (3 percentage points; see Figure 4).

Rural male students had an overall low college enrollment rate of 35 percent, and the gap between female and male students was greater in rural areas than nonrural areas
Rural male students enrolled in college at lower rates (35 percent) than their nonrural male peers ( 51 percent). Rural female students also had lower enrollment rates ( 50 percent) compared to nonrural female students (61 percent; figure 5). Regardless of rurality, male students tended to enroll in college at lower rates than female students. However, the male-female enrollment gap was larger for rural students ( 15 percentage points) than nonrural students (10 percentage points; figure 5).

In 2018/19, rural high school graduates who were classified as English learners, were ever eligible for FRPL, or ever had an IEP all enrolled in college at lower rates than their nonrural peers
Enrollment rates were lower for rural and nonrural students who were ever classified as English learners, ever eligible for FRPL, or who ever had an IEP, compared to the average enrollment rates for all rural and nonrural students. Further, enrollment rates by English learner, FRPL, and IEP status were lower for rural students compared to their nonrural counterparts (Figure 5). Out of all student groups examined in this study, rural students who ever had an IEP had the lowest enrollment rate, at 28 percent.

Figure 5. Fall 2019 college enrollment rates for rural and nonrural high school graduates, by student characteristics


Note: Sample includes 37,744 Oregon public high school students who graduated high school in 2018/19. Source: Authors' analysis of Oregon Department of Education and National Student Clearinghouse data.

Rural students tended to persist in college at lower rates than their nonrural counterparts Among high school graduates who enrolled in college in 2018/19, persistence to the next year of college ranged from 84 percent for nonrural Asian students to 52 percent for both rural American Indian/Alaska Native and nonrural Native Hawaiian/Pacific Islander students.

Rural student groups-including most historically disadvantaged groups-persisted in college at lower rates than their nonrural counterparts
For both rural and nonrural students, persistence rates were highest for students who identified as Asian or white and lowest for those identifying as American Indian/Alaska Native. Gaps were largest between rural and nonrural students who identified as Black or as Native Hawaiian/Pacific Islander, although both of these racial/ethnic groups have small student populations in rural areas. Rural Black studentshad a persistence rate that was 13 percentage points lower than their nonrural peers, while rural Native Hawaiian/Pacific Islander students had a gap of 15 percentage points compared to their nonrural peers (figure 6). The ruralnonrural persistence gap was also large for students who identified as multiracial (10 percentage points) or white ( 9 percentage points) and smallest for students who identified as Latinx (1 percentage point).

Figure 6. First-year to second-fall college persistence rates for rural and nonrural high school graduates, by race/ethnicity


Note: Sample includes 25,718 Oregon public high school students who enrolled in college for the first time after high school in 2018/19.

Source: Authors' analysis of Oregon Department of Education and National Student Clearinghouse data.
Both male and female rural students had lower persistence rates than their nonrural peers, and the rural-nonrural gap was larger for females than for males
Rural male students persisted to the second year in college at a lower rate ( 63 percent) compared to rural female students ( 67 percent), nonrural male students (70 percent), and nonrural female students ( 76 percent; figure 7). Additionally, the gap in persistence between rural and nonrural students was slightly larger for female students ( 9 percentage points) than male students (7 percentage points).

Rural students who were ever classified as English learners, ever eligible for FRPL, or ever had an IEP all had lower persistence rates than their nonrural counterparts
Persistence rates were lower for rural and nonrural students who were ever classified as English learners, ever eligible for FRPL, or ever had an IEP, compared to the average persistence rates for all rural and nonrural students. Additionally, when comparing within groups, rural students with English learner, FRPL, and IEP status had lower persistence rates than their nonrural counterparts (figure 7).

Figure 7. First-year to second-fall college persistence rates for rural and nonrural high school graduates, by student characteristics


Note: Sample includes 25,718 Oregon public high school students who enrolled in college for the first time after high school in 2018/19.
Source: Authors'analysis of Oregon Department of Education and National Student Clearinghouse data.
Two-year to four-year transfer rates were lower than 25 percent for both rural and nonrural students
Rural students who entered a two-year public college in 2015/16 transferred to a four-year institution within three years of college enrollment at similar rates to nonrural students (21 percent and 23 percent, respectively).

Gaps in transfer rates from two-year to four-year college were small between rural and nonrural students within the same racial/ethnic groups, but gaps between groups were large Transfer rates varied more between racial and ethnic groups than within them. Within racial and ethnic groups, the rural-nonrural transfer gap ranged between 1 and 4 percentage points. Differences between racial and ethnic groups were much larger: For example, transfer rates were 17 percentage points higher for rural Asian students compared to rural Latinx students, and they were 15 percentage points higher for nonrural Asian students compared to nonrural Latinx students (figure 8).

Figure 8. Community college to four-year college/university transfer rates for rural and nonrural students, by race/ethnicity


Note: Sample includes 12,683 Oregon public high school students who started in a two-year college for the first time after high school in 2015/16. Native Hawaiian/Pacific Islander rural and nonrural students and Black rural students suppressed due to cell sizes less than 10 students.
Source: Authors' analysis of Oregon Department of Education and National Student Clearinghouse data.
Across all student groups, transfer rates tended to be similar for rural and nonrural students
Rural and nonrural female students were equally likely to transfer, but they were more likely to transfer than their rural and nonrural male counterparts. Transfer rates were lower for students who were ever classified as English learners, ever eligible for FRPL, or ever had an IEP,
compared to the average transfer rates for all rural and nonrural students. This indicates that transfer rates follow a pattern of lower outcomes for these historically disadvantaged groups. Between rural and nonrural students, transfer rates were very similar for students ever classified as English learners and ever eligible for FRPL. Among students who ever had an IEP, rural students had a lower transfer rate than nonrural students by 3 percentage points (figure 9).

Figure 9. Community college to four-year college/university transfer rates for rural and nonrural students, by student characteristics


Note: Sample includes 12,683 Oregon public high school students who started in a two-year college for the first time after high school in 2015/16.
Source: Authors' analysis of Oregon Department of Education and National Student Clearinghouse data.
Rural students tended to complete college at lower rates than their nonrural counterparts
Within most student groups, rural students had lower completion rates than nonrural students, and rates varied widely. Among high school graduates who enrolled in college in 2013/14, college completion rates ranged from 68 percent for nonrural Asian students to 28 percent for rural Black students (figure 10).

## Historically disadvantaged student groups from both rural and nonrural communities tended to have low completion rates

Students who identified as Asian experienced the highest completion rates among both rural ( 62 percent) and nonrural ( 68 percent) students. Comparatively, historically marginalized student populations continued to experience much lower completion rates. For example, 34 percent of rural and 33 percent of nonrural students who identified as American Indian/Alaska Native completed a degree, while 28 percent of rural and 35 percent of nonrural students who identified as Black completed a degree.

## Similar to college enrollment and persistence, college completion rates were lower for most rural student groups compared to their nonrural counterparts

There were completion gaps between rural and urban students within the same racial/ethnic group, as well as gaps across groups. Within racial and ethnic categories, the largest differences in rural-nonrural completion rates appeared among students whoidentified as white (10 percentage points), Black (7 percentage points), and Asian (6 percentage points; figure 10).

Figure 10. Six-year completion rates for rural and nonrural students, by race/ethnicity


Note: Sample includes 22,931 Oregon public high school students who enrolled in college for the first time after high school in 2013/14.
Source: Authors' analysis of Oregon Department of Education and National Student Clearinghouse data.
Rural male students had an overall low college completion rate, which was similar to college enrollment patterns
Rural male and female students completed college at lower rates than their nonrural peers. The completion rate for rural male students was low (38 percent) compared to nonrural male students ( 47 percent) and both rural and nonrural female students ( 48 and 58 percent, respectively; figure 11). Additionally, the male-female completion gap was similar (approximately 10 percentage points) for both rural ( 38 compared to 48 percent) and nonrural students ( 47 compared to 58 percent).

Rural students who were ever English learners, ever eligible for FRPL, or ever had an IEP all had lower completion rates than their nonrural counterparts
Students who were ever classified as an English learner, ever eligible for FRPL, or ever had an IEP all experienced lower-than-average completion rates. For all groups, completion rates were lower for rural students compared to nonrural students (figure 11).

Figure 11. Six-year completion rates for rural and nonrural students, by student characteristics


Note: Sample includes 22,931 Oregon public high school students who enrolled in college for the first time after high school in 2013/14.
Source: Authors' analysis of Oregon Department of Education and National Student Clearinghouse data.
Gaps in college enrollment rates between rural and nonrural high school graduates have increased over time, while gaps in persistence, transfer, and completion rates have remained similar
Examining data from 2004/05 to 2018/19, we found that gaps between college enrollment rates for rural and nonrural high school graduates have increased, while gaps between rural and nonrural students' persistence, transfer, and completion rates have remained similar. This indicates that barriers to enrollment for rural students may have increased over this period. Meanwhile, barriers to persistence, transfer, and completion do not seem to have changed with respect to rurality.

Gaps in college enrollment rates between rural and nonrural high school graduates have persisted since at least 2005 and have increased over time
Between 2004/05 and 2014/15, enrollment rates for rural and nonrural students decreased from 46 and 57 percent, respectively, to 38 and 50 percent. Over this period, rural students on average had an enrollment rate that was 10 percentage points lower than nonrural students. In 2015/16, enrollment rates increased for both rural and nonrural students but have since declined. From 2015/16 to 2018/19, rural students had, on average, an enrollment rate that was 13 percentage
points lower than their nonrural peers. During this time compared to the earlier period (2004/05 to 2014/15), the gap between rural and nonrural students widened by 3 percentage points (figure 12; table A2).

Figure 12. Fall enrollment rates for rural and nonrural students, 2004/05 through 2018/19


Note: Year of high school graduation is the spring of the academic year (e.g., 2005 is spring of academic year 2004/05). Sample includes 521,616 Oregon public high school students who graduated high school in between 2004/05 and 2018/19. See table A2 for more detail.
Source: Authors'analysis of Oregon Department of Education and National Student Clearinghouse data.

## Gaps in first-year to second-year persistence rates between rural and nonrural high school graduates have remained the same over time

Over the past 10 years, there has been little change in first-year to second-year persistence rates for rural and nonrural students. Among those entering college for the first time in 2009/10, 67 percent of rural students and 75 percent of nonrural students persisted to their second year. In 2018/19, 65 percent of rural and 73 percent of nonrural students persisted (figure 13; table A4).

Figure 13. First-year to second-fall college persistence rates for rural and nonrural students, 2009/10 through 2018/19


Note: Year of college enrollment is the spring of the academic year (e.g., 2010 is spring of academic year 2009/10). College entry year includes all students who enrolled in college that year, regardless of when they completed high school. For all years shown, students could have had at least four years between high school and college entry. In the most recent years shown, more time between high school and college would have been possible. In our sample, 97 percent of students who ever enrolled in college did so within four years of graduating high school. Sample includes 252,673 Oregon public high school students who first enrolled in college between 2009/10 and 2018/19. See table A4 for more detail.
Source: Authors' analysis of Oregon Department of Education and National Student Clearinghouse data.

## The gap in transfer rates between rural and nonrural high school graduates was small and has remained the same over time

Unlike enrollment and persistence rates, the difference in transfer rates between rural and nonrural students was much smaller and has changed little over the past seven years. Among students who entered a community college for the first time in 2009/10, 19 percent of rural and 22 percent of nonrural students transferred to a four-year college or university within three years. In 2015/16, 21 percent of rural students and 23 percent of nonrural students transferred within three years (figure 14; table A5).

Figure 14. Community college to four-year college/university transfer rates for rural and nonrural students, 2009/10 through 2015/16


Note: Year of community college enrollment is the spring of the academic year (e.g., 2010 is spring of academic year 2009/10). Community college enrollment year includes all students who enrolled in a community college for the first time that year, regardless of when they completed high school. For all years shown, students could have had at least four years between high school and community college enrollment. In the most recent years shown, more time between high school and college would have been possible. In our sample, 95 percent of students who enrolled in a community college did so within four years of graduating high school. Sample includes 94,422 Oregon public high school students who started in a two-year college for the first time after high school between 2009/10 and 2015/16. See table A5 for more detail.
Source: Authors'analysis of Oregon Department of Education and National Student Clearinghouse data.
While college completion rates have increased over time for all students, gaps in college completion between rural and nonrural high school graduates have remained similar Among students who entered college in 2009/10,39 percent of rural students and 49 percent of nonrural students completed a degree within six years. These rates have steadily increased over the past five years. Forty-four percent of rural students and 53 percent of nonrural students who entered college in 2013/14 completed a degree within six years (figure 15; table A6).

Figure 15. Six-year completion rates for rural and nonrural students, 2009/10 through 2015/16


Note: Year of college enrollment is the spring of the academic year (e.g. 2010 is spring of academic year 2009/10). College entry year includes all students who enrolled in college that year, regardless of when they completed high school. For all years shown, students could have had at least four years between high school and college entry. In the most recent years shown, more time between high school and college would have been possible. In our sample, 97 percent of students who ever enrolled in college did so within four years of graduating high school. Sample includes 125,608 Oregon public high school students who first enrolled in college between 2009/10 and 2018/19. See table A6 for more detail.
Source: Authors'analysis of Oregon Department of Education and National Student Clearinghouse data.
Rural students had lower college outcomes compared to nonrural students, and this gap was largely driven by differences in student, high school, and college characteristics
We used a decomposition analysis to examine how gaps in college outcomes might change if rural and nonrural students had the same measurable student, high school, and college characteristics (see the data and methods section for the list of characteristics). Ultimately, we found that rural-nonrural gaps in enrollment, persistence, transfer, and completion could largely be attributed to differences in these characteristics.

## Much of the gap in college enrollment rates between rural and nonrural students could be attributed to differences in student and high school characteristics, but part of the gap was unexplained

We found that the rural-nonrural college enrollment gap would shrink by 8 percentage points if rural students had the same student and high school characteristics as nonrural students (table C1). This means that much of the enrollment gap can be attributed to systemic differences between rural and nonrural schools, such as rural areas having higher poverty rates (measured by FRPL eligibility). However, 40 percent of the gap was not explained by the observable determinants of college enrollment included in our analysis. In other words, rural students may have lower college enrollment rates compared to nonrural students due to other factors we cannot measure, such as parent and community education levels, income variation among
students eligible for FRPL, and perceived or real connections between higher education and labor market opportunities.

The gap in college persistence rates between rural and nonrural students could be explained almost entirely by differences in student, high school, and college characteristics
Averaged over the last five years, the persistence gap between rural and nonrural students was 8 percentage points: 66 percent of rural students persisted to their second year of college compared to 74 percent of nonrural students. We found that differences in student characteristics explained 19 percent of the gap, differences in high school characteristics explained 15 percent of the gap, differences in time from high school graduation to college enrollment explained 7 percent of the gap, and differences in college characteristics explained 48 percent of the gap. If rural and nonrural students had similar characteristics, the average persistence gap would shrink to a single percentage point (table C1). Additionally, through regression analysis that controlled for student, high school, and college characteristics, we found that rural students were no less likely to persist than their observationally similar nonrural peers (table B3). This reinforces the findings that the persistence gap can be explained almost entirely by measurable differences between rural and nonrural students and high schools, as well as differences in colleges, such as full- or part-time enrollment and college selectivity.

## The small gap in transfer rates between rural and nonrural students could be explained

 entirely by differences in characteristicsAveraged over the last five years, the rural-nonrural transfer gap was just under 2 percentage points. We found that the gap can be explained fully by student, high school, and college characteristics as well as college entry year. Notably, the results suggest that the rural-nonrural transfer gap would increase if rural students attended the same community colleges as nonrural students; that is, rural students would have lower transfer rates if they attended the same community colleges as their nonrural peers (table C1). Further, in regression analysis where we controlled for student, high school, and college characteristics, rural students were equally as likely to transfer as observationally similar nonrural students (table B4), again reinforcing the results found to explain the rural-nonrural gap.

The gap in college completion rates between rural and nonrural students could be explained almost entirely by differences in student, school, and college characteristics
The rural-nonrural completion gap was about 10 percentage points (averaged over the last five years). We found that 90 percent of this gap could be explained by differences in the student, high school, and college characteristics of rural and nonrural students. More specifically, 45 percent of the gap could be explained by differences in college characteristics alone (table C1). This suggests that if rural students attended colleges with the same characteristics as those their nonrural peers attended, the observed completion gap between rural and nonrural students would shrink to about 6 percentage points.

In regression analysis that controlled for the same student, high school, and college characteristics, we found no statistical difference in rural and nonrural completion rates. This again indicates that completion gaps were driven more by measurable differences between rural and nonrural settings - such as higher poverty rates in rural schools and patterns of enrolling in different types of colleges - than by rurality (table B5).

## Distance from high school to college did not seem to influence rural student enrollment, persistence, or completion

Another way to consider the impact of rurality on college outcomes is by examining whether the distance from a student'shigh school to the nearest college or university influenced any differences in outcomes. As previously described in figure 2, these distances offer another measure of rurality (and are strongly correlated with the school-level rural indicator). Compared to their nonrural peers, rural students on average were unsurprisingly farther from their nearest two-year and four-year institutions. We found that distance from a student's high school to the nearest college did not influence rural student college enrollment and that distance from a student's high school to the college they ultimately enrolled in did not influence rural student persistence or completion, but it did have a small relationship for transfer (tables D1 to D5).

On average, nonrural students traveled farther to attend college than rural students - due to attending out-of-state schools-but rural students traveled farther for Oregon schools When we examined college choices within Oregon, rural students traveled farther from their high school than their nonrural peers. Figure 16 presents important variation in the distances that rural and nonrural students traveled from high school to college. On average, rural students traveled 2.7 times as far to attend a two-year Oregon public institution ( 62 miles versus 23 miles), 1.5 times as far to attend a four-year Oregon public institution ( 151 miles versus 100 miles), and 2.6 times as far to attend a four-year Oregon private institution ( 124 miles versus 48 miles).

Averaged across all students who entered college in 2019/20, nonrural students traveled farther than rural students ( 408 miles versus 302 miles). However, this difference is driven by nonrural students traveling farther to attend out-of-state schools and attending out-of-state private institutions at much higher rates than rural students (figure 16).

Figure 16. Average distance traveled from high school to college for Oregon's rural and nonrural students, by college sector


Note: Sample includes 23,543 Oregon public high school students who enrolled in college for the first time after high school in 2019/20. NFP = not-for-profit. Distances are measured in miles as a direct path from a student's high school to their first college (following high school graduation).
Source: Authors' analysis of Oregon Department of Education, Integ rated Postsecondary Education Data System, and National Student Clearinghouse data.

Distance was related to the likelihood of college enrollment, persistence, and completion for nonrural students but had no relationship for rural students
For nonrural students, there was a small, negative relationship between distance to the nearest college or university from a student's high school and the likelihood of college enrollment. However, there was no relationship for rural students. For nonrural students, a 10-mile increase in distance was associated with a 3 percentage-point decrease in the likelihood of enrollment (table D1).

For nonrural students attending college within about 400 miles of their high school, a 100-mile increase in the distance from high school to college was associated with a decrease of less than 1 percentage point in completion rates, indicating that these distances may deter completion. This relationship became slightly positive for students who traveled at least 422 miles from high school to college. This indicates that for those who travel above a certain distance to attend college, distance may become a "signal" of motivation to complete their degree (table D5).

## Distance from high school to college had a small relationship with transfer rates for both rural and nonrural students

Regression analysis depicted a very small relationship between the distance a student traveled from high school to college and the likelihood that the student transferred. A 100-mile increase in distance was associated with a 1 percentage-point increase in likelihood of transfer, which may reflect the "signaling" influence mentioned above (that traveling farther can be a signal of motivation to engage in college). The relationship became slightly negative for rural students who traveled at least 306 miles to college and for nonrural students who traveled at least 189 miles to college. This could indicate that there are additional barriers to transfer for students who travel farther than a certain distance (table D4).

## Persistence and completion gaps were influenced by the different types of institutions in which rural and nonrural students chose to enroll

Rural and nonrural students tend ed to enroll in different types of colleges, which was related to persistence and completion gaps between the two groups.

Among rural and nonrural high school graduates, the most common type of college to enroll in was an Oregon public two-year college, followed by an Oregon public university Most Oregon public high school graduates who pursued higher education in 2019/20 enrolled in an Oregon public college or university: 79 percent of rural students and 74 percent of nonrural students who enrolled chose a two-year or four-year Oregon public institution. Rural students enrolled in Oregon two-year public colleges at a higher rate than nonrural students ( 57 percent versus 45 percent) and enrolled in Oregon four-year universities at a lower rate than nonrural students ( 22 percent versus 29 percent; figure 17).

A similar share of rural and nonrural students enrolled in four-year Oregon private and out-ofstate public institutions. However, nonrural students were twice as likely as rural students to enroll in out-of-state private institutions ( 10 percent versus 5 percent).

Figure 17. Enrollment choices for Oregon's rural and nonrural public high school graduates, by college sector


NFP = not-for-profit.
Note: Sample includes 23,543 Oregon public high school students who enrolled in college for the first time after high school in 2019/20.
Source: Authors' analysis of Oregon Department of Education, Integrated Postsecondary Education Data System, and National Student Clearinghouse data.

Rural male students had lower enrollment rates in Oregon public universities compared to rural female students, but they had higher enrollment rates in Oregon public two-year colleges
Male and female students had different college enrollment patterns. Rural male high school graduates enrolled in Oregon public universities at a rate 2 percentage points lower than rural female students (21 compared to 23 percent, respectively; figure 18). Nonrural male students enrolled in Oregon public universities at comparable rates to nonrural female students (29 percent for both male and female students). Both rural and nonrural male students had higher rates of enrollment at Oregon two-year public colleges compared to their female counterparts. For example, 60 percent of rural male students who enrolled in college attended an Oregon twoyear public college, compared to 55 percent of rural female students. Compared to rural female students, rural male students had slightly lower enrollment rates for private colleges and universities (both Oregon and out-of-state) and slightly higher rates at public out-of-state universities.

Figure 18. Enrollment choices for Oregon's rural and nonrural public high school graduates, by college sector and gender


NFP = not-for-profit.
Note: Sample includes 23,543 Oregon public high school students who enrolled in college for the first time after high school in 2019/20.
Source: Authors' analysis of Oregon Department of Education, Integrated Postsecondary Education Data System, and National Student Clearinghouse data.

Gaps in persistence rates were largest between rural and nonrural students who attended out-of-state colleges/universities and for-profit colleges/universities
We found that 48 percent of the overall rural-nonrural persistence gap could be explained by differences in the characteristics of colleges where rural and nonrural students enroll. This suggests that if rural students attended the same colleges and universities as their nonrural peers, the rural-nonrural persistence gap would shrink from 8 to 4 percentage points (table C 1 ). Considering the importance of college type, we focus our attention in this section on which college characteristics are related to college persistence and whether those relationships vary for rural and nonrural students.

Within all reported college sectors, persistence rates were lower for rural students than nonrural students. The largest within-sector gaps were among students who attended out-of-state public colleges/universities; out-of-state private, not-for-profit colleges/universities; and for-profit institutions or two-year private colleges. On average, persistence rates for rural students who
attended an out-of-state public or private institution were lower by 10 and 11 percentage points, respectively, than the average persistence rates for nonrural students attending the same types of institutions (figure 19).

Figure 19. First-year to second-fall college persistence rates for rural and nonrural high school graduates, by college sector


NFP = not-for-profit.
Note: Sample includes 25,718 Oregon public high school students who enrolled in college for the first time after high school in 2018/19.
Source: Authors' analysis of Oregon Department of Education, Integrated Postsecondary Education Data System, and National Student Clearinghouse data.

Rural students' persistence rates were highest at four-year public and private institutions and lowest at two-year public institutions
Whereas just over half ( 55 percent) of rural students persisted to their second year at a two-year public college, 85 and 90 percent of rural students who attended a four-year public or private institution persisted to their second year (figure 19).

These comparisons are limited, however, as students from different background s attend different types of colleges and universities. We might expect persistence rates to be higher at four-year schools compared to two-year schools, since, on average, four-year institutions educate students who are more academically advantaged or come from higher-income families. When we accounted for observable differences in student, high school, and college characteristics, the estimated gaps in persistence rates by rurality shrank substantially. This indicates that persistence differences by rural and nonrural location are driven by differences in students, high schools, and colleges (table B3).

The likelihood of college persistence often increased with college selectivity, and in some cases, the effect was greater for rural students. Rural students who attended a low-selectivity school were 9 percentage points more likely to persist than observationally similar rural students who attended open-access institutions. Similarly, rural students who attended the most selective institutions were 9 percentage points more likely to persist than rural students who attended open-access institutions, whereas nonrural students who attended the most selective institutions were only 4 percentage points more likely to persist than nonrural students who attended open-access institutions (table B3).

## Similar to persistence rates, rural student completion rates were highest at four-year public and private institutions and lowest at two-year public institutions

Within college sectors, rural students' completion rates at out-of-state public and private institutions were 12 to 14 percentage points lower than those of nonrural students. At Oregon four-year public institutions, completion rates were 9 percentage points lower for rural students than for their nonrural peers (figure 20).

Rural and nonrural students experienced the highest completion rates at Oregon four-year public and private institutions, as well as at out-of-state private institutions. Completion rates were considerably lower among students who attended Oregon two-year public colleges; private, for-profit institutions; and two-year private, not-for-profit schools. The difference in completion rates between Oregon two-year and four-year public institutions is particularly stark: 63 and 72 percent of rural and nonrural students, respectively, who attended an Oregon four-year public institution completed a degree within six years, compared to 30 percent of rural and nonrural students who attended an Oregon two-year public college.

Similar to persistence rates, we might expect higher completion rates at four-year schools compared to two-year schools because two-year colleges educate a larger proportion of students who come from lower-income families. When we account for observable differences in student, high school, and college characteristics, many of the completion gaps (displayed in figure 20) diminish. For example, students who attended Oregon two-year public colleges were 8 percentage points less likely to complete a degree compared to observationally similar students who attended Oregon four-year public institutions (table C1).

Figure 20. Six-year completion rates for rural and nonrural students, by college sector


NFP = not-for-profit.
Note: Sample includes 22,931 Oregon public high school students who enrolled in college for the first time after high school in 2013/14.
Source: Authors' analysis of Oregon Department of Education, Integrated Postsecondary Education Data System, and National Student Clearinghouse data.

Like our earlier findings for persistence and transfer, nonrural students appeared to benefit in terms of completion from attending a rural institution, whereas rural students did not. Nonrural students who attended a rural college or university were 4 percentage points more likely to complete a degree than observationally similar nonrural students who attended a nonrural college or university. There was no significant relationship for rural students (table B5).

In addition to college type and rurality, college selectivity and the share of the student population who enrolled full-time and part-time were also related to college completion rates. For both rural and nonrural students, attending a more selective college or university (compared to an open-access institution) was positively related to completion. Further, an increase in the student population that attended full-time was positively related to completion, whereas an increase in the student population that attended part-time was negatively related to completion (table B5).

## Students who took college coursework in high school were more likely to enroll in, persist, and complete college than students who did not

All students - rural and nonrural-who took college coursework during high school experienced higher college enrollment, persistence, transfer, and completion rates than students who did not take these courses. For example, 65 percent of rural students who took college coursework during high school enrolled in college, compared to 36 percent of rural students
who did not take college coursework during high school. Rural students seemed to benefit more from college coursework than their nonrural counterparts: the gains associated with taking college coursework during high school were often greater for rural students than nonrural students (figure 21).

After accounting for student, high school, and college characteristics, students who took college coursework in high school continued to enroll in college at much higher rates than observationally similar students who did not. The relationship was larger for rural students ( 14 percentage points) than nonrural students (10 percentage points; table B1). Similarly, students who took college coursework during high school were 5 percentage points more likely to persist (table B3) and 9 percentage points more likely to transfer (table B4), compared to observationally similar students who did not. Rural and nonrural students who took college coursework during high school were 10 and 9 percentage points more likely to complete a degree within six years, respectively, than observationally similar students who did not ( table B5).

Figure 21. Enrollment, persistence, transfer, and completion rates, by participation in college coursework during high school


Note: Sample includes 15,416 rural and 22,328 nonrural Oregon public high school students who graduated high school in 2018/19 (outcome = fall enrollment); sample includes 9,321 rural and 16,397 nonrural Oregon public high school students who enrolled in college for the first time after high schoolin 2018/19 (outcome = persistence); sample includes 5,163 rural and 7,520 nonrural Oregon public high school students who enrolled in a two-year college for the first time after high school in 2015/16 (outcome = transfer); sample includes 8,382 rural and 14,549 nonrural Oregon public high school students who enrolled in college for the first time after high school in 2013/14 (outcome= completion).
Source: Authors'analysis of Oregon Department of Education and National Student Clearinghouse data.

## A larger share of nonrural high schools offered college coursework

Most Oregon high schools offered opportunities for students to take college coursework, but the availability of college coursework washigher at nonrural schools compared to rural schools. In 2018/19, 83 percent of rural high schools had at least one student who took college coursework compared to 96 percent of nonrural high schools (table E1). However, among schools that offered college coursework, rural schools served a larger share of students than nonrural schools (24 and 17 percent of students took college coursework at the median rural and nonrural high school, respectively).

## Implications

This report uses quantitative data to explore rural and nonrural public high school graduates' college outcomes. The authors do not empirically test what causes the outcomes of interest but do uncover several important patterns that can point to takeaways for Oregon stakeholders. The authors of the report have selected three implications to highlight.

## Oregon education stakeholders should continue to focus on improving college access and success for rural high school graduates

Large gaps separate rural and nonrural Oregonians in terms of college access and success, and these gaps have existed for more than a decade. On average, nearly all rural student groups have lower college outcomes than their nonrural peers. Differences in college enrollment are even more stark: rural students enroll in college at lower rates than their nonrural peers across nearly every racial/ethnic group (figure 22).

To address these gaps, college access for rural students must continue to be a priority in Oregon. Education stakeholders should acknowledge the structural barriers facing many rural students - such as higher poverty rates and fewer resources among rural communities and schools-and invest in the necessary supports to help rural students realize their college aspirations.

Figure 22. College enrollment rates among 2018/19 high school graduates, ordered from highest to lowest


Note: Sample includes 37,744 Oregon public high school students who graduated high school in 2018/19. Source: Authors'analysis of Oregon Department of Education and National Student Clearinghouse data.

Oregon education stakeholders should help rural students broaden their college aspirations while simultaneously supporting community college completion efforts
The distance from a rural student's high school to their college did not appear to influence persistence or completion outcomes, and rural students did not seem to benefit from attending rural colleges/universities. Rural student outcomes were, however, positively related to college selectivity.

Together, these findings suggest that rural students should continue to explore financial aid opportunities and college admission at more selective institutions. This recommendation aligns with efforts by Oregon Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP) to educate rural students about private colleges in Oregon (Loewus, 2017). The recommendation also reflects research suggesting that students are more successful when they
attend a college that is a better match academically, culturally, and or socially (Kelly, Howell, \& Sattin-Bajaj, 2016).

In addition to expanding college aspirations for rural students, Oregon stakeholders should continue to support efforts to improve community college completion rates. Rural students are more likely to attend Oregon community colleges than any other type of college, yet they experience lower completion rates at these institutions than their rural peers who attend fouryear colleges and universities. These findings do not mean that community colleges have a negative effect on rural students - in fact, rigorous research has shown that community colleges improve educational outcomes for students who otherwise would not have pursued postsecondary education (Leigh \& Gill, 2003; Rouse, 1995). Instead, the findings suggest that community college students could benefit from increased supports.

Community colleges continue to be a key point of access to higher education for rural students in Oregon, likely due to their affordability and convenience. Thus, it is imperative to invest in local community colleges to ensure they can support students and their aspirations, whether they want to earn a degree or transfer to a four-year institution.

## Oregon education stakeholders should continue to invest in college-preparatory opportunities for students attending rural high schools

Findings from this report show that observed gaps in college enrollment, persistence, and completion would likely shrink if rural students attended the same high schools as their nonrural peers. However, at present, rural students have different opportunities than their nonrural peers. The state should continue to invest resources so that the college-preparatory opportunities offered at rural schools mimic those at nonrural schools. Research in Oregon suggests that this could be accomplished through greater investments in accelerated learning and promoting a college-going culture (Pierson \& Hodara, 2016; 2018; Riggs, Pierson, \& Hodara, 2020) and by expanding career and technical education program offerings (Arneson, Hodara, \& Klein, 2020).

## Accelerated learning and college-going culture

This report showed that participation in college coursework during high school was positively related to college enrollment, persistence, transfer, and completion. Further, the relationship between taking college coursework in high school and enrolling in college was stronger for rural students than their nonrural peers. This finding aligns with other research in Oregon that found that participating in accelerated learning during high school (e.g., dual credit, direct enrollment, Advanced Placement, and International Baccalaureate) is related to positive student outcomes (Hodara \& Pierson, 2018).

Eighty percent of all high schools in Oregon offer some form of accelerated learning (table E1), but the college-going culture may look different in rural schools compared to nonrural schools. For instance, colleges and universities may be less likely to recruit in rural areas due to the associated travel costs and a smaller pool of prospective students at each school. Research has
also demonstrated that colleges tend to recruit in higher-income schools (Jaquette \& Salazar, 2018). Further, rural communities have lower degree-attainment rates compared to nonrural communities; this suggests that rural students may have less exposure to college graduates and by proxy the idea of going to college - than students living in a nonrural area with a higher rate of degree attainment (The Ford Family Foundation and Oregon State University Extension Service, 2020).

The state's Regional Promise program has effectively expanded access to accelerated learning opportunities in high school and promoted a college-going culturefor low-income and rural students (Pierson \& Hodara, 2016; 2018; Riggs, Pierson, \& Hodara, 2020). For example, in 2018/19, 35 percent of students attending a rural high school with Regional Promise participated in accelerated learning, compared to 28 percent of students attending rural high schools without Regional Promise (Riggs, Pierson, \& Hodara, 2020).

The state should continue to invest in expanding access to accelerated learning opportunities and promoting a college-going culture in rural high schools as one strategy to support rural students' college access and success.

## Career and technical education

Research in Oregon has connected participation in career and technical education (CTE) to improved college and labor market outcomes. In recent years, the provision of CTE programs has expanded across Oregon schools, but this growth can largely be attributed to increases at nonrural schools. In 2017/18, the average number of CTE programs offered at rural schools (1.9) was less than half the average at urban schools (4.6). The state should invest in increasing both the provision and breadth of CTE program offerings in rural high schools (Arneson, Hodara, \& Klein, 2020).

## Epilogue

Where do we go from here?
Like any good story, the first chapter should grab you and take you in. It should make you curious about what comes next and motivate you to keep going.

The data analysis included in this study, like all good work, raises as many questions as it provides answers. What would the voices of our rural students add to this story with their experiences? Where would rural college and career access practitioners put their top priorities for supporting the pathways beyond high school? How can economic opportunity be blended with continued learning for rural individuals? Clearly, the opportunities for future research are rich and vast.

We've only just started exploring. Your thoughts, ideas and conversation are welcome as we write these next chapters together.

Looking ahead,

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The Ford Family Foundation

December 2020

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## Appendix A. Trends in enrollment, persistence, transfer, and completion

Table A1. Samples by outcome and analysis type

| Outcome | Descriptive sample | Decomposition and regression sample |
| :---: | :---: | :---: |
| Fall enrollment | Students who graduated high school in 2018/19 | Students who graduated high school between 2014/15 and 2018/19 |
| 16-month enrollment | Students who graduated high school in 2017/18 | Students who graduated high school between 2013/14 and 2017/18 |
| Persistence | High school graduates who enrolled in college for the first time in 2018/19; excludes any college enrollment during high school | High school graduates who en rolled in college for the first time between 2014/15 and 2018/19; excludes any college enrollment during high school |
| Transfer | High school graduates who started in a two-year college for the first time in 2015/16; excludes any college enrollment during high school; excludes any students who started in a four-year college or university and later enrolled in a two-year college | High school graduates who started in a two-year college for the first time between 2011/12 and 2015/16; excludes any college enrollment during high school; excludes any students who started in a four-year college or university and later enrolled in a two-year college |
| Completion | High school graduates who enrolled in college for the first time in 2013/14; excludes any college enrollment during high school | High school graduates who enrolled in college for the first time between 2009/10 and 2013/14; excludes any college enrollment during high school |

Source: Authors.
Table A2. Fall enrollment rates for rural and nonrural students, 2004/05 to 2018/19

| Spring of <br> academic <br> year | All <br> students | Rural <br> students | Nonrural <br> students | Fall enrollment <br> (all students) | Fall <br> enrollment <br> (rural <br> students) | Fall enrollment <br> (nonrural <br> students) | Difference in <br> fall enrollment <br> rates <br> (rural - <br> nonrural) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2005 | 31,750 | 13,241 | 18,509 | $53 \%$ | $46 \%$ | $57 \%$ | $-11 \%$ |
| 2006 | 32,721 | 13,854 | 18,867 | $51 \%$ | $46 \%$ | $55 \%$ | $-9 \%$ |
| 2007 | 33,168 | 13,850 | 19,318 | $52 \%$ | $47 \%$ | $56 \%$ | $-9 \%$ |
| 2008 | 34,796 | 14,562 | 20,234 | $52 \%$ | $47 \%$ | $57 \%$ | $-10 \%$ |
| 2009 | 35,226 | 14,622 | 20,604 | $52 \%$ | $45 \%$ | $57 \%$ | $-11 \%$ |
| 2010 | 34,608 | 14,410 | 20,198 | $53 \%$ | $48 \%$ | $57 \%$ | $-9 \%$ |
| 2011 | 34,377 | 14,269 | 20,108 | $51 \%$ | $45 \%$ | $56 \%$ | $-11 \%$ |
| 2012 | 34,104 | 13,887 | 20,217 | $50 \%$ | $44 \%$ | $54 \%$ | $-10 \%$ |
| 2013 | 33,827 | 13,584 | 20,243 | $49 \%$ | $42 \%$ | $54 \%$ | $-12 \%$ |
| 2014 | 33,990 | 13,560 | 20,430 | $49 \%$ | $41 \%$ | $54 \%$ | $-12 \%$ |
| 2015 | 34,296 | 13,471 | 20,825 | $45 \%$ | $38 \%$ | $50 \%$ | $-11 \%$ |
| 2016 | 37,144 | 15,483 | 21,661 | $53 \%$ | $46 \%$ | $59 \%$ | $-12 \%$ |
| 2017 | 36,604 | 14,989 | 21,615 | $54 \%$ | $46 \%$ | $59 \%$ | $-14 \%$ |
| 2018 | 37,261 | 15,186 | 22,075 | $51 \%$ | $43 \%$ | $57 \%$ | $-14 \%$ |
| 2019 | 37,744 | 15,416 | 22,328 | $50 \%$ | $42 \%$ | $56 \%$ | $-13 \%$ |

[^6]Table A3. 16-month enrollment rates for rural and nonrural students, 2004/05 to 2018/19

| Spring of <br> academic <br> year | All <br> students | Rural <br> students | Nonrural <br> students | 16-month <br> enrollment(all <br> students) | 16-month <br> enrollment <br> (rural <br> students) | 16-month <br> enrollment <br> (nonrural <br> students) | Difference in <br> 16-month <br> enrollment <br> rates <br> (rural - <br> nonrural) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2005 | 31,750 | 13,241 | 18,509 | $62 \%$ | $55 \%$ | $67 \%$ | $-12 \%$ |
| 2006 | 32,721 | 13,854 | 18,867 | $61 \%$ | $55 \%$ | $65 \%$ | $-10 \%$ |
| 2007 | 33,168 | 13,850 | 19,318 | $62 \%$ | $56 \%$ | $66 \%$ | $-10 \%$ |
| 2008 | 34,796 | 14,562 | 20,234 | $63 \%$ | $57 \%$ | $68 \%$ | $-11 \%$ |
| 2009 | 35,226 | 14,622 | 20,604 | $63 \%$ | $56 \%$ | $68 \%$ | $-12 \%$ |
| 2010 | 34,608 | 14,410 | 20,198 | $64 \%$ | $59 \%$ | $68 \%$ | $-9 \%$ |
| 2011 | 34,377 | 14,269 | 20,108 | $64 \%$ | $57 \%$ | $69 \%$ | $-12 \%$ |
| 2012 | 34,104 | 13,887 | 20,217 | $63 \%$ | $57 \%$ | $67 \%$ | $-10 \%$ |
| 2013 | 33,827 | 13,584 | 20,243 | $61 \%$ | $54 \%$ | $66 \%$ | $-13 \%$ |
| 2014 | 33,990 | 13,560 | 20,430 | $59 \%$ | $51 \%$ | $64 \%$ | $-13 \%$ |
| 2015 | 34,296 | 13,471 | 20,825 | $61 \%$ | $53 \%$ | $65 \%$ | $-12 \%$ |
| 2016 | 37,144 | 15,483 | 21,661 | $62 \%$ | $55 \%$ | $67 \%$ | $-12 \%$ |
| 2017 | 36,604 | 14,989 | 21,615 | $62 \%$ | $54 \%$ | $67 \%$ | $-13 \%$ |
| 2018 | 37,261 | 15,186 | 22,075 | $60 \%$ | $52 \%$ | $66 \%$ | $-14 \%$ |

Source: Authors'analysis of Oregon Department of Education data.
Table A4. First-year to second-fall college persistence rates for rural and nonrural students, 2009/10 through 2018/19

| Spring of college entry year | All students | Rural students | Nonrural students | Persistence (all students) | Persistence (rural students) | Persistence (nonrural students) | Difference in persistence rates (rural nonrural) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2010 | 25,707 | 9,763 | 15,944 | 72\% | 67\% | 75\% | -8\% |
| 2011 | 25,847 | 10,122 | 15,725 | 72\% | 67\% | 75\% | -8\% |
| 2012 | 26,053 | 9,972 | 16,081 | 71\% | 64\% | 74\% | -10\% |
| 2013 | 25,070 | 9,531 | 15,539 | 71\% | 66\% | 74\% | -8\% |
| 2014 | 24,125 | 8,896 | 15,229 | 70\% | 64\% | 74\% | -10\% |
| 2015 | 23,731 | 8,537 | 15,194 | 70\% | 65\% | 72\% | -7\% |
| 2016 | 24,134 | 8,686 | 15,448 | 72\% | 68\% | 75\% | -7\% |
| 2017 | 26,864 | 10,117 | 16,747 | 72\% | 67\% | 75\% | -8\% |
| 2018 | 25,424 | 9,365 | 16,059 | 71\% | 66\% | 74\% | -8\% |
| 2019 | 25,718 | 9,321 | 16,397 | 70\% | 65\% | 73\% | -8\% |

[^7]Table A5. Community college to four-year college/university transfer rates for rural and nonrural students, 2009/10 through 2015/16

| Spring <br> of <br> college <br> entry <br> year | All <br> students | Rural <br> students | Nonrural <br> students | Transfer (all <br> students) | Transfer <br> (rural <br> students) | Transfer <br> (nonrural <br> students) | Difference in <br> transfer rates <br> (rural- <br> nonrural) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2010 | 13,995 | 5,991 | 8,004 | $21 \%$ | $19 \%$ | $22 \%$ | $-3 \%$ |
| 2011 | 13,900 | 6,099 | 7,801 | $20 \%$ | $19 \%$ | $21 \%$ | $-2 \%$ |
| 2012 | 14,302 | 6,245 | 8,057 | $19 \%$ | $18 \%$ | $20 \%$ | $-2 \%$ |
| 2013 | 13,538 | 5,827 | 7,711 | $20 \%$ | $20 \%$ | $20 \%$ | $0 \%$ |
| 2014 | 13,011 | 5,521 | 7,490 | $21 \%$ | $19 \%$ | $22 \%$ | $-3 \%$ |
| 2015 | 12,993 | 5,357 | 7,636 | $21 \%$ | $20 \%$ | $22 \%$ | $-1 \%$ |
| 2016 | 12,683 | 5,163 | 7,520 | $22 \%$ | $21 \%$ | $23 \%$ | $-1 \%$ |

Source: Authors' analysis of Oregon Department of Education and National Student Clearing house data.
Table A6. Six-year completion rates for rural and nonrural students, 2019/10 through 2013/14

| Spring of <br> college <br> entry <br> year | All <br> students | Rural <br> students | Nonrural <br> students | 6-year <br> completion (all <br> students) | 6-year <br> completion <br> (rural <br> students) | 6-year <br> completion <br> (nonrural <br> students) | Difference in <br> 6-year <br> completion <br> rates (rural - <br> nonrural) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2010 | 25,707 | 9,763 | 15,944 | $45 \%$ | $39 \%$ | $49 \%$ | $-10 \%$ |
| 2011 | 25,847 | 10,122 | 15,725 | $45 \%$ | $40 \%$ | $49 \%$ | $-9 \%$ |
| 2012 | 26,053 | 9,972 | 16,081 | $45 \%$ | $39 \%$ | $49 \%$ | $-10 \%$ |
| 2013 | 25,070 | 9,531 | 15,539 | $47 \%$ | $42 \%$ | $50 \%$ | $-8 \%$ |
| 2014 | 22,931 | 8,382 | 14,549 | $49 \%$ | $44 \%$ | $53 \%$ | $-9 \%$ |

Source: Authors' analysis of Oregon Department of Education and National Student Clearing house data.

Table A7. Fall college enrollment rates for rural and nonrural students, by Oregon public colleges and universities

| Oregon public college or university | All students | Rural <br> students | Nonrural <br> students | Percentage <br> point <br> difference <br> (rural - <br> nonrual) |
| :--- | :---: | :---: | :---: | :---: |
| Blue Mountain Community College | $2 \%$ | $4 \%$ | $0 \%$ | +4 |
| Central Oregon Community College | $4 \%$ | $6 \%$ | $3 \%$ | +3 |
| Chemeketa Community College | $10 \%$ | $13 \%$ | $8 \%$ | +5 |
| Clackamas Community College | $6 \%$ | $4 \%$ | $7 \%$ | -3 |
| Clatsop Community College | $1 \%$ | $1 \%$ | $0 \%$ | +1 |
| Columbia Gorge Community College | $1 \%$ | $1 \%$ |  | +1 |
| Eastern Oregon University | $1 \%$ | $3 \%$ | $0 \%$ | +2 |
| Klamath Community College | $1 \%$ | $3 \%$ | $0 \%$ | +3 |
| Lane Community College | $6 \%$ | $5 \%$ | $6 \%$ | -1 |
| Linn-Benton Community College | $5 \%$ | $7 \%$ | $5 \%$ | +2 |
| Mt Hood Community College | $6 \%$ | $3 \%$ | $7 \%$ | -4 |
| Oregon Institute of Technology | $1 \%$ | $2 \%$ | $1 \%$ | +1 |
| Oregon State University | $12 \%$ | $9 \%$ | $14 \%$ | -5 |
| Portland Community College | $17 \%$ | $8 \%$ | $22 \%$ | -13 |
| Portland State University | $6 \%$ | $3 \%$ | $7 \%$ | -5 |
| Rogue Community College | $4 \%$ | $5 \%$ | $3 \%$ | +2 |
| Southern Oregon University | $2 \%$ | $2 \%$ | $2 \%$ | 0 |
| Southwestern Oregon Community | $2 \%$ | $4 \%$ | $0 \%$ | +4 |
| College | $0 \%$ | $1 \%$ | $0 \%$ | +1 |
| Tillamook Bay Community College | $0 \%$ | $2 \%$ | $0 \%$ | +2 |
| Treasure Valley Community College | $1 \%$ | $2 \%$ | $5 \%$ | $0 \%$ |
| Umpqua Community College | $9 \%$ | $5 \%$ | $11 \%$ | +4 |
| University of Oregon | $4 \%$ | $3 \%$ | +6 |  |
| Western Oregon University | $3 \%$ | +1 |  |  |

Note: Sample includes 96,558 Oregon public high school students who enrolled in an Oregon public college or university for the first time after high school between 2015/16 and 2019/20. Oregon Health \& Science University is excluded due to its focus on graduate education. Cells with fewer than 10 students suppressed for privacy. Source: Authors' analysis of Oregon Department of Education, Integrated Postsecondary Education Data System, and National Student Clearinghouse data.

Table A8. Six-year college/university completion rates for rural and nonrural students, by Oregon public colleges and universities

| Oregon public college or university | All students | Rural <br> students | Percentage <br> Nonrural <br> students | point <br> difference <br> (rural - <br> nonrural) |
| :--- | :---: | :---: | :---: | :---: |
| Blue Mountain Community College | $33 \%$ | $33 \%$ | -- | 0 |
| Central Oregon Community College | $32 \%$ | $30 \%$ | $34 \%$ | -4 |
| Chemeketa Community College | $30 \%$ | $30 \%$ | $31 \%$ | -1 |
| Clackamas Community College | $33 \%$ | $34 \%$ | $33 \%$ | +1 |
| Clatsop Community College | $27 \%$ | $28 \%$ | -- | -- |
| Columbia Gorge Community College | $31 \%$ | $31 \%$ | -- | -- |
| Eastern Oregon University | $48 \%$ | $48 \%$ | $49 \%$ | -1 |
| Klamath Community College | $24 \%$ | $24 \%$ | -- | -- |
| Lane Community College | $23 \%$ | $24 \%$ | $22 \%$ | +2 |
| Linn-Benton Community College | $28 \%$ | $27 \%$ | $28 \%$ | -1 |
| Mt. Hood Community College | $32 \%$ | $30 \%$ | $32 \%$ | -2 |
| Oregon Institute of Technology | $63 \%$ | $60 \%$ | $67 \%$ | -7 |
| Oregon State University | $74 \%$ | $69 \%$ | $76 \%$ | -7 |
| Portland Community College | $31 \%$ | $32 \%$ | $31 \%$ | +1 |
| Portland State University | $61 \%$ | $52 \%$ | $63 \%$ | -11 |
| Rogue Community College | $25 \%$ | $27 \%$ | $22 \%$ | +5 |
| Southern Oregon University | $57 \%$ | $59 \%$ | $56 \%$ | +3 |
| Southwestern Oregon Community <br> College | $37 \%$ | $36 \%$ | $52 \%$ | -16 |
| Treasure Valley Community College | $30 \%$ | $30 \%$ | -- | -- |
| Umpqua Community College | $34 \%$ | $35 \%$ | -- | -- |
| University of Oregon | $80 \%$ | $74 \%$ | $82 \%$ | -8 |
| Western Oregon University | $52 \%$ | $51 \%$ | $53 \%$ | -2 |
| All four-year Oregon public <br> universities | $\mathbf{6 9 \%}$ | $\mathbf{6 3 \%}$ | $\mathbf{7 2 \%}$ | -9 |
| All two-year Oregon community <br> colleges | $\mathbf{3 0 \%}$ | $\mathbf{3 0 \%}$ | $\mathbf{3 0 \%}$ | $\mathbf{0}$ |

Note: Sample includes 22,931 Oregon public high school students who enrolled in college for the first time after high school in 2013/14. Oregon Health \& Science University is excluded due to its focus on graduate education. Cells with fewer than 10 students suppressed for privacy.
Source: Authors' analysis of Oregon Department of Education, Integrated Postsecondary Education Data System, and National Student Clearinghouse data.

## Appendix B. Regression results

Table B1. Relationships between student- and high school-level characteristics and college enrollment (immediate fall); 2015-2019 pooled

|  | All students (odds ratios) | All students (average marginal effects) | All students w/ rural interaction (odds ratios) | Rural students (average marginal effects) | Nonrural students (average marginal effects) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Rural | $\begin{aligned} & \hline 0.7863^{* \prime \prime} \\ & (0.0380) \end{aligned}$ | $\begin{aligned} & \hline-0.0499{ }^{\prime \prime \prime} \\ & (0.0101) \end{aligned}$ | $\begin{gathered} \hline 2.1962 \\ (2.2692) \end{gathered}$ |  |  |
| Female | $\begin{aligned} & 1.4807 \\ & (0.0250) \end{aligned}$ | $\begin{aligned} & 0.0813 \\ & (0.0035) \end{aligned}$ | $\begin{aligned} & 1.4264 \\ & (0.0330) \end{aligned}$ | $\begin{aligned} & 0.0927 \\ & (0.0048) \end{aligned}$ | $\begin{aligned} & 0.0731 \cdots \\ & (0.0047) \end{aligned}$ |
| American Indian/Alaska Native | $\begin{gathered} 0.9795 \\ (0.0575) \end{gathered}$ | $\begin{gathered} -0.0043 \\ (0.0121) \end{gathered}$ | $\begin{gathered} 0.9010 \\ (0.0889) \end{gathered}$ | $\begin{gathered} 0.0138 \\ (0.0151) \end{gathered}$ | $\begin{aligned} & -0.0215 \\ & (0.0205) \end{aligned}$ |
| Asian/Native Hawaiian/Pacific Islander | $\begin{aligned} & 1.37533^{* * \prime} \\ & (0.0659) \end{aligned}$ | $\begin{aligned} & 0.0654 \\ & (0.0097) \end{aligned}$ | $\begin{aligned} & 1.3324 \\ & (0.0707) \end{aligned}$ | $\begin{aligned} & 0.0650 \text { "' } \\ & (0.0142) \end{aligned}$ | $\begin{aligned} & 0.0581 \cdots \\ & (0.0105) \end{aligned}$ |
| Black | $\begin{aligned} & 1.6109 \cdots \\ & (0.0644) \end{aligned}$ | $\begin{aligned} & 0.0972 \\ & (0.0079) \end{aligned}$ | $\begin{aligned} & 1.51588^{* *} \\ & (0.0686) \end{aligned}$ | $\begin{aligned} & 0.1105 \\ & (0.0201) \end{aligned}$ | $\begin{aligned} & 0.0834+\cdots \\ & (0.0088) \end{aligned}$ |
| Latinx | $\begin{gathered} 0.9805 \\ (0.0251) \end{gathered}$ | $\begin{gathered} -0.0041 \\ (0.0053) \end{gathered}$ | $\begin{gathered} 0.9283^{*} \\ (0.0315) \end{gathered}$ | $\begin{aligned} & 0.0187 * \\ & (0.0066) \end{aligned}$ | $\begin{gathered} -0.0154^{*} \\ (0.0070) \end{gathered}$ |
| Multiracial | $\begin{aligned} & 1.1169 \cdots \\ & (0.0300) \end{aligned}$ | $\begin{aligned} & 0.0228 \\ & (0.0055) \end{aligned}$ | $\begin{aligned} & 1.1118 * \\ & (0.0402) \end{aligned}$ | $\begin{aligned} & 0.0220 * \\ & (0.0075) \end{aligned}$ | $\begin{aligned} & 0.0217^{* \prime} \\ & (0.0074) \end{aligned}$ |
| Student ever qualified for an IEP | $\begin{aligned} & 0.8144 \cdots \\ & (0.0136) \end{aligned}$ | $\begin{aligned} & -0.0426 \\ & (0.0035) \end{aligned}$ | $\begin{aligned} & 0.8093 \\ & (0.0171) \end{aligned}$ | $\begin{aligned} & -0.0379 \cdots \\ & (0.0055) \end{aligned}$ | $\begin{aligned} & -0.0439 \\ & (0.0044) \end{aligned}$ |
| Student ever classified as an English learner | $\begin{aligned} & 1.14833^{\cdots \prime} \\ & (0.0314) \end{aligned}$ | $\begin{aligned} & 0.02833^{\prime \prime *} \\ & (0.0056) \end{aligned}$ | $\begin{aligned} & 1.1776 \\ & (0.0401) \end{aligned}$ | $\begin{gathered} 0.0120 \\ (0.0079) \end{gathered}$ | $\begin{aligned} & 0.0331+" \\ & (0.0068) \end{aligned}$ |
| Student ever eligible for FRPL | $\begin{aligned} & 0.5687 \\ & (0.0108) \end{aligned}$ | $\begin{aligned} & -0.1198 \\ & (0.0040) \end{aligned}$ | $\begin{aligned} & 0.5727 \\ & (0.0132) \end{aligned}$ | $\begin{aligned} & -0.1235 \\ & (0.0068) \end{aligned}$ | $\begin{aligned} & -0.1175 \\ & (0.0047) \end{aligned}$ |
| Student ever enrolled in college course during high school (NSC) | $\begin{aligned} & 1.7381 \cdots \\ & (0.0791) \end{aligned}$ | $\begin{aligned} & 0.1157 " * \\ & (0.0095) \end{aligned}$ | $\begin{aligned} & 1.5975 \\ & (0.1109) \end{aligned}$ | $\begin{aligned} & 0.1409 \cdots \\ & (0.0123) \end{aligned}$ | $\begin{aligned} & 0.0962 \\ & (0.0141) \end{aligned}$ |
| Standardized math assessment: first quartile (lowest) | $\begin{aligned} & 0.8148 * \\ & (0.0565) \end{aligned}$ | $\begin{aligned} & -0.0437^{* *} \\ & (0.0150) \end{aligned}$ | $\begin{gathered} 0.8147^{*} \\ (0.0657) \end{gathered}$ | $\begin{gathered} -0.0400 \\ (0.0267) \end{gathered}$ | $\begin{gathered} -0.0453^{*} \\ (0.0180) \end{gathered}$ |
| Standardized math assessment: second quartile | $\begin{gathered} 1.1601^{*} \\ (0.0816) \end{gathered}$ | $\begin{gathered} 0.0324 * \\ (0.0153) \end{gathered}$ | $\begin{gathered} 1.1485 \\ (0.0955) \end{gathered}$ | $\begin{gathered} 0.0374 \\ (0.0263) \end{gathered}$ | $\begin{gathered} 0.0308 \\ (0.0186) \end{gathered}$ |


|  | All students (odds ratios) | All students (average marginal effects) | All students w/ rural interaction (odds ratios) | Rural students (average marginal effects) | Nonrural students (average marginal effects) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Standardized math assessment: third quartile | $\begin{aligned} & 1.6080^{\prime \prime \prime} \\ & (0.1164) \end{aligned}$ | $\begin{aligned} & 0.1045^{\prime \prime} \\ & (0.0158) \end{aligned}$ | $\begin{aligned} & 1.6203^{\prime \prime \prime} \\ & (0.1415) \end{aligned}$ | $\begin{aligned} & 0.1050^{\prime \prime \prime} \\ & (0.0262) \end{aligned}$ | $\begin{aligned} & 0.1068 \\ & (0.0196) \end{aligned}$ |
| Standardized math assessment: fourth quartile (highest) | $\begin{aligned} & 2.26188^{* * *} \\ & (0.1602) \end{aligned}$ | $\begin{aligned} & 0.1785 \\ & (0.0155) \end{aligned}$ | $\begin{aligned} & 2.24766^{* * *} \\ & (0.1902) \end{aligned}$ | $\begin{aligned} & 0.18633^{* * *} \\ & (0.0257) \end{aligned}$ | $\begin{aligned} & 0.1760 \text { "** } \\ & (0.0190) \end{aligned}$ |
| Middle school test scores used | $\begin{gathered} 1.0344 \\ (0.0485) \end{gathered}$ | $\begin{aligned} & 0.0070 \\ & (0.0096) \end{aligned}$ | $\begin{aligned} & 1.0395 \\ & (0.0558) \end{aligned}$ | $\begin{aligned} & 0.0003 \\ & (0.0147) \end{aligned}$ | $\begin{aligned} & 0.0079 \\ & (0.0110) \end{aligned}$ |
| Standardized reading assessment: first quartile (lowest) | $\begin{gathered} 0.9365 \\ (0.0845) \end{gathered}$ | $\begin{gathered} -0.0139 \\ (0.0191) \end{gathered}$ | $\begin{gathered} 0.9206 \\ (0.1055) \end{gathered}$ | $\begin{gathered} -0.0039 \\ (0.0275) \end{gathered}$ | $\begin{gathered} -0.0180 \\ (0.0250) \end{gathered}$ |
| Standardized reading assessment: second quartile | $\begin{aligned} & 1.3242^{*} \\ & (0.1165) \end{aligned}$ | $\begin{aligned} & 0.0603 * \\ & (0.0187) \end{aligned}$ | $\begin{gathered} 1.2674 * \\ (0.1405) \end{gathered}$ | $\begin{aligned} & 0.0762 * \\ & (0.0273) \end{aligned}$ | $\begin{gathered} 0.0515 * \\ (0.0242) \end{gathered}$ |
| Standardized reading assessment: third quartile | $\begin{aligned} & 1.6135 \\ & (0.1423) \end{aligned}$ | $\begin{aligned} & 0.1030 \\ & (0.0187) \end{aligned}$ | $\begin{aligned} & 1.5605 \\ & (0.1741) \end{aligned}$ | $\begin{aligned} & 0.11477^{* *} \\ & (0.0274) \end{aligned}$ | $\begin{aligned} & 0.0962+\cdots \\ & (0.0243) \end{aligned}$ |
| Standardized reading assessment: fourth quartile (highest) | $\begin{aligned} & 1.9431+" \\ & (0.1749) \end{aligned}$ | $\begin{aligned} & 0.1429 \cdots \cdots \\ & (0.0191) \end{aligned}$ | $\begin{aligned} & 1.8344 \\ & (0.2075) \end{aligned}$ | $\begin{aligned} & 0.1625 \\ & (0.0284) \end{aligned}$ | $\begin{aligned} & 0.1301+* \\ & (0.0246) \end{aligned}$ |
| Middle school test scores used | $\begin{aligned} & 0.9707 \\ & (0.0455) \end{aligned}$ | $\begin{aligned} & -0.0061 \\ & (0.0096) \end{aligned}$ | $\begin{aligned} & 0.9905 \\ & (0.0492) \end{aligned}$ | $\begin{aligned} & -0.0206 \\ & (0.0172) \end{aligned}$ | $\begin{aligned} & -0.0020 \\ & (0.0102) \end{aligned}$ |
| Percentage of high school students ever eligible for FRPL | $\begin{gathered} 0.9962^{*} \\ (0.0017) \end{gathered}$ | $\begin{gathered} -0.0008^{*} \\ (0.0004) \end{gathered}$ | $\begin{aligned} & 0.9910 \\ & (0.0024) \end{aligned}$ | $\begin{gathered} 0.0006 \\ (0.0005) \end{gathered}$ | $\begin{aligned} & -0.0019 \\ & (0.0005) \end{aligned}$ |
| Mean high school attendance rate | $\begin{aligned} & 1.0225 \\ & (0.0058) \end{aligned}$ | $\begin{aligned} & 0.0046 \\ & (0.0012) \end{aligned}$ | $\begin{aligned} & 1.0321 \\ & (0.0065) \end{aligned}$ | $\begin{gathered} 0.0016 \\ (0.0017) \end{gathered}$ | $\begin{aligned} & 0.0065 \\ & (0.0013) \end{aligned}$ |
| Mean high school standardized math scores | $\begin{aligned} & 1.4134^{*} \\ & (0.1685) \end{aligned}$ | $\begin{aligned} & 0.0712 " * \\ & (0.0245) \end{aligned}$ | $\begin{gathered} 0.9659 \\ (0.1322) \end{gathered}$ | $\begin{aligned} & 0.1227 \\ & (0.0291) \end{aligned}$ | $\begin{aligned} & -0.0071 \\ & (0.0281) \end{aligned}$ |
| Percentage of high school students identifying as students of color | $\begin{aligned} & 1.0081^{*} \\ & (0.0029) \end{aligned}$ | $\begin{aligned} & 0.0017^{* \prime} \\ & (0.0006) \end{aligned}$ | $\begin{aligned} & 1.01233^{* * *} \\ & (0.0037) \end{aligned}$ | $\begin{gathered} 0.0002 \\ (0.0008) \end{gathered}$ | $\begin{aligned} & 0.0025 \\ & (0.0008) \end{aligned}$ |


|  | All students (odds ratios) | All students (average marginal effects) | All students w/ rural interaction (odds ratios) | Rural students (average marginal effects) | Nonrural students (average marginal effects) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Percentage of high school students ever classified as an English learner | $\begin{gathered} 0.9976 \\ (0.0029) \end{gathered}$ | $\begin{aligned} & \hline-0.0005 \\ & (0.0006) \end{aligned}$ | $\begin{gathered} 0.9948 \\ (0.0040) \end{gathered}$ | $\begin{gathered} 0.0006 \\ (0.0008) \end{gathered}$ | $\begin{aligned} & -0.0011 \\ & (0.0008) \end{aligned}$ |
| Percentage of high school students qualified for an IEP | $\begin{gathered} 1.0005 \\ (0.0057) \end{gathered}$ | $\begin{gathered} 0.0001 \\ (0.0012) \end{gathered}$ | $\begin{gathered} 0.9890 \\ (0.0065) \end{gathered}$ | $\begin{gathered} 0.0018 \\ (0.0014) \end{gathered}$ | $\begin{gathered} -0.0023 \\ (0.0013) \end{gathered}$ |
| Rural \# Female |  |  | $\begin{gathered} 1.0945^{* *} \\ (0.0357) \end{gathered}$ |  |  |
| Rural \# American Indian/Alaska Native |  |  | $\begin{gathered} 1.1868 \\ (0.1456) \end{gathered}$ |  |  |
| Rural \# Asian/Native Hawaiian/Pacific Islander |  |  | $\begin{gathered} 1.0265 \\ (0.0885) \end{gathered}$ |  |  |
| Rural \# Black |  |  | $\begin{gathered} 1.1221 \\ (0.1198) \end{gathered}$ |  |  |
| Rural \# Latinx |  |  | $\begin{aligned} & 1.1797 \\ & (0.0548) \end{aligned}$ |  |  |
| Rural \# Multiracial |  |  | $\begin{gathered} 1.0007 \\ (0.0513) \end{gathered}$ |  |  |
| Rural \# Student ever qualified for an IEP |  |  | $\begin{gathered} 1.0280 \\ (0.0347) \end{gathered}$ |  |  |
| Rural \# Student ever classified as an English learner |  |  | $\begin{gathered} 0.9001^{*} \\ (0.0459) \end{gathered}$ |  |  |
| Rural \# Student ever eligible for FRPL |  |  | $\begin{gathered} 0.9769 \\ (0.0383) \end{gathered}$ |  |  |
| Rural \# Student ever enrolled in college course during high school (NSC) |  |  | $\begin{gathered} 1.2046 * \\ (0.1071) \end{gathered}$ |  |  |
| Rural \# Standardized math assessment: first quartile (lowest) |  |  | $\begin{gathered} 1.0059 \\ (0.1542) \end{gathered}$ |  |  |


|  | All students (odds ratios) | All students (average marginal effects) | All students w/ rural interaction (odds ratios) | Rural students (average marginal effects) | Nonrural students (average marginal effects) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Rural \# Standardized math assessment: second quartile |  |  | $\begin{gathered} 1.0399 \\ (0.1577) \end{gathered}$ |  |  |
| Rural \# Standardized math assessment: third quartile |  |  | $\begin{gathered} 1.0037 \\ (0.1536) \end{gathered}$ |  |  |
| Rural \# Standardized math assessment: fourth quartile (highest) |  |  | $\begin{gathered} 1.0402 \\ (0.1551) \end{gathered}$ |  |  |
| Rural \# Middle school test scores used |  |  | $\begin{gathered} 0.9632 \\ (0.0859) \end{gathered}$ |  |  |
| Rural \# Standardized reading assessment: first quartile (lowest) |  |  | $\begin{gathered} 1.0651 \\ (0.1908) \end{gathered}$ |  |  |
| Rural \# Standardized reading assessment: second quartile |  |  | $\begin{gathered} 1.1388 \\ (0.2006) \end{gathered}$ |  |  |
| Rural \# Standardized reading assessment: third quartile |  |  | $\begin{gathered} 1.1043 \\ (0.1952) \end{gathered}$ |  |  |
| Rural \# Standardized reading assessment: fourth quartile (highest) |  |  | $\begin{gathered} 1.1673 \\ (0.2116) \end{gathered}$ |  |  |
| Rural \# Middle school test scores used |  |  | $\begin{gathered} 0.9130 \\ (0.0892) \end{gathered}$ |  |  |
| Rural \# Percentage of high school students ever eligible for FRPL |  |  | $\begin{aligned} & 1.0121 \cdots \\ & (0.0034) \end{aligned}$ |  |  |
| Rural \# Mean high school attendance rate |  |  | $\begin{gathered} 0.9764^{*} \\ (0.0101) \end{gathered}$ |  |  |
| Rural \# Mean high school standardized math scores |  |  | $\begin{aligned} & 1.8770 \times \\ & (0.3699) \end{aligned}$ |  |  |


|  | All students (odds ratios) | All students (average marginal effects) | All students w/ rural interaction (odds ratios) | Rural students (average marginal effects) | Nonrural students (average marginal effects) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Rural \# Percentage of high school students identifying as students of color |  |  | $\begin{gathered} \hline 0.9886 \\ (0.0052) \end{gathered}$ |  |  |
| Rural \# Percentage of high school students ever classified as an English learner |  |  | $\begin{gathered} 1.0082 \\ (0.0055) \end{gathered}$ |  |  |
| Rural \# Percentage of high school students qualified for an IEP |  |  | $\begin{gathered} 1.0198^{*} \\ (0.0095) \end{gathered}$ |  |  |
| Constant | $\begin{aligned} & 0.0905 \\ & (0.0519) \end{aligned}$ |  | $\begin{aligned} & 0.0299 \cdots \\ & (0.0206) \end{aligned}$ |  |  |
| Observations | 182,732 | 182,732 | 182,732 | 74,375 | 108,357 |

${ }^{*} p<0.05$, ${ }^{* *} p<0.01,{ }^{* * *} p<0.001$
IEP = individualized education program; FRPL = free or reduced-price lunch
Note: All models are logistic regression models and include student's grade 12 year fixed effects. Reference category
for standardized test scores: students who are missing standardized test scores. Robust standard errors, clustered at the high school, in parentheses.
Source: Authors'analysis of Oregon Department of Education, Integrated Postsecondary Education Data System, and National Student Clearinghouse data.

Table B2. Relationships between student- and high school-level characteristics and college enrollment (16 month); 2015-2019 pooled

|  | All students (odds ratios) | All students (average marginal effects) | All students w/ rural interaction (odds ratios) | Rural students (average marginal effects) | Nonrural students (average marginal effects) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Rural | $\begin{aligned} & \hline 0.7970 " \mathrm{~m} \\ & (0.0338) \end{aligned}$ | $\begin{gathered} -0.0443^{* * *} \\ (0.0084) \end{gathered}$ | $\begin{gathered} 1.0420 \\ (0.8858) \end{gathered}$ |  |  |
| Female | $\begin{aligned} & 1.5267 * * \\ & (0.0227) \end{aligned}$ | $\begin{aligned} & 0.0825 \\ & (0.0029) \end{aligned}$ | $\begin{aligned} & 1.4738 \\ & (0.0283) \end{aligned}$ | $\begin{aligned} & 0.0969 \\ & (0.0047) \end{aligned}$ | $\begin{aligned} & 0.0720 * \\ & (0.0036) \end{aligned}$ |
| American Indian/Alaska Native | $\begin{gathered} 0.9908 \\ (0.0537) \end{gathered}$ | $\begin{gathered} -0.0018 \\ (0.0106) \end{gathered}$ | $\begin{gathered} 0.8947 \\ (0.0754) \end{gathered}$ | $\begin{gathered} 0.0169 \\ (0.0140) \end{gathered}$ | $\begin{gathered} -0.0210 \\ (0.0161) \end{gathered}$ |
| Asian/Native Hawaiian/Pacific Islander | $\begin{aligned} & 1.4702+\cdots \\ & (0.0815) \end{aligned}$ | $\begin{aligned} & 0.0726 \\ & (0.0100) \end{aligned}$ | $\begin{aligned} & 1.40388^{* * *} \\ & (0.0912) \end{aligned}$ | $\begin{aligned} & 0.0808{ }^{* \prime *} \\ & (0.0127) \end{aligned}$ | $\begin{aligned} & 0.0607 \cdots \\ & (0.0112) \end{aligned}$ |
| Black | $\begin{aligned} & 1.7475 \\ & (0.0675) \end{aligned}$ | $\begin{aligned} & 0.10322^{+\cdots *} \\ & (0.0068) \end{aligned}$ | $\begin{aligned} & 1.7146 \\ & (0.0713) \end{aligned}$ | $\begin{aligned} & 0.0910 \\ & (0.0184) \end{aligned}$ | $\begin{aligned} & 0.0936 \cdots \\ & (0.0069) \end{aligned}$ |


|  | All students (odds ratios) | All students (average marginal effects) | All students w/ rural interaction (odds ratios) | Rural students (average marginal effects) | Nonrural students (average marginal effects) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Latinx | $\begin{gathered} 0.9924 \\ (0.0258) \end{gathered}$ | $\begin{aligned} & \hline-0.0015 \\ & (0.0051) \end{aligned}$ | $\begin{gathered} 0.9452 \\ (0.0325) \end{gathered}$ | $\begin{aligned} & \hline 0.0182^{\prime \prime} \\ & (0.0064) \end{aligned}$ | $\begin{gathered} \hline-0.0106 \\ (0.0065) \end{gathered}$ |
| Multiracial | $\begin{aligned} & 1.1620 \text { "'* } \\ & (0.0363) \end{aligned}$ | $\begin{aligned} & 0.0289+\cdots \\ & (0.0059) \end{aligned}$ | $\begin{aligned} & 1.1552 * * \\ & (0.0476) \end{aligned}$ | $\begin{aligned} & 0.0308{ }^{* *} \\ & (0.0098) \end{aligned}$ | $\begin{aligned} & 0.0265 \\ & (0.0075) \end{aligned}$ |
| Student ever qualified for an IEP | $\begin{aligned} & 0.8041^{\cdots *} \\ & (0.0132) \end{aligned}$ | $\begin{aligned} & -0.04300^{* *} \\ & (0.0032) \end{aligned}$ | $\begin{aligned} & 0.7914^{* \cdots *} \\ & (0.0178) \end{aligned}$ | $\begin{aligned} & -0.0391^{* *} \\ & (0.0048) \end{aligned}$ | $\begin{aligned} & -0.0443^{* * *} \\ & (0.0043) \end{aligned}$ |
| Student ever classified as an English learner | $\begin{aligned} & 1.24299^{* *} \\ & (0.0370) \end{aligned}$ | $\begin{aligned} & 0.0414^{* * *} \\ & (0.0055) \end{aligned}$ | $\begin{aligned} & 1.28033^{* * *} \\ & (0.0487) \end{aligned}$ | $\begin{aligned} & 0.0294 \\ & (0.0074) \end{aligned}$ | $\begin{aligned} & 0.0445 \\ & (0.0066) \end{aligned}$ |
| Student ever eligible for FRPL | $\begin{aligned} & 0.5151^{* *} \\ & (0.0098) \end{aligned}$ | $\begin{gathered} -0.1306+\cdots \\ (0.0036) \end{gathered}$ | $\begin{aligned} & 0.5105+* \\ & (0.0128) \end{aligned}$ | $\begin{aligned} & -0.1364 * * \\ & (0.0057) \end{aligned}$ | $\begin{aligned} & -0.1264 * \\ & (0.0045) \end{aligned}$ |
| Student ever enrolled in college course during high school (NSC) | $\begin{aligned} & 1.8954 \\ & (0.0968) \end{aligned}$ | $\begin{aligned} & 0.1240 \\ & (0.0097) \end{aligned}$ | $\begin{aligned} & 1.67488^{* *} \\ & (0.1367) \end{aligned}$ | $\begin{aligned} & 0.1651+" \\ & (0.0123) \end{aligned}$ | $\begin{aligned} & 0.0939 \cdots \\ & (0.0145) \end{aligned}$ |
| Standardized math assessment: first quartile (lowest) | $\begin{gathered} 0.8995 \\ (0.0702) \end{gathered}$ | $\begin{gathered} -0.0230 \\ (0.0169) \end{gathered}$ | $\begin{gathered} 0.8602 \\ (0.0734) \end{gathered}$ | $\begin{gathered} -0.0134 \\ (0.0329) \end{gathered}$ | $\begin{gathered} -0.0327 \\ (0.0185) \end{gathered}$ |
| Standardized math assessment: second quartile | $\begin{aligned} & 1.2713^{* *} \\ & (0.1005) \end{aligned}$ | $\begin{aligned} & 0.0518 * \\ & (0.0171) \end{aligned}$ | $\begin{gathered} 1.2063^{*} \\ (0.1039) \end{gathered}$ | $\begin{gathered} 0.0655^{*} \\ (0.0331) \end{gathered}$ | $\begin{gathered} 0.0399^{*} \\ (0.0186) \end{gathered}$ |
| Standardized math assessment: third quartile | $\begin{aligned} & 1.7292+\cdots \\ & (0.1383) \end{aligned}$ | $\begin{aligned} & 0.1163 \times * \\ & (0.0173) \end{aligned}$ | $\begin{aligned} & 1.6498{ }^{* * *} \\ & (0.1468) \end{aligned}$ | $\begin{aligned} & 0.1330 \\ & (0.0329) \end{aligned}$ | $\begin{aligned} & 0.1032 * * \\ & (0.0192) \end{aligned}$ |
| Standardized math assessment: fourth quartile (highest) | $\begin{aligned} & 2.5204 \\ & (0.2037) \end{aligned}$ | $\begin{aligned} & 0.18999^{* *} \\ & (0.0174) \end{aligned}$ | $\begin{aligned} & 2.4384 * * \\ & (0.2187) \end{aligned}$ | $\begin{aligned} & 0.20811^{* *} \\ & (0.0331) \end{aligned}$ | $\begin{aligned} & 0.1745 * * \\ & (0.0192) \end{aligned}$ |
| Middle school test scores used | $\begin{gathered} 1.0339 \\ (0.0512) \end{gathered}$ | $\begin{gathered} 0.0064 \\ (0.0095) \end{gathered}$ | $\begin{gathered} 1.0333 \\ (0.0601) \end{gathered}$ | $\begin{gathered} 0.0095 \\ (0.0159) \end{gathered}$ | $\begin{gathered} 0.0060 \\ (0.0107) \end{gathered}$ |
| Standardized reading assessment: first quartile (lowest) | $\begin{gathered} 0.8605 \\ (0.0734) \end{gathered}$ | $\begin{gathered} -0.0318 \\ (0.0180) \end{gathered}$ | $\begin{gathered} 0.9329 \\ (0.0959) \end{gathered}$ | $\begin{gathered} -0.0544 \\ (0.0326) \end{gathered}$ | $\begin{gathered} -0.0146 \\ (0.0215) \end{gathered}$ |
| Standardized reading assessment: second quartile | $\begin{gathered} 1.2042 * \\ (0.1012) \end{gathered}$ | $\begin{gathered} 0.0389^{*} \\ (0.0177) \end{gathered}$ | $\begin{aligned} & 1.3026 " * \\ & (0.1333) \end{aligned}$ | $\begin{gathered} 0.0196 \\ (0.0319) \end{gathered}$ | $\begin{gathered} 0.0540^{*} \\ (0.0214) \end{gathered}$ |


|  | All students (odds ratios) | All students (average marginal effects) | All students w/ rural interaction (odds ratios) | Rural students (average marginal effects) | Nonrural students (average marginal effects) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Standardized reading assessment: third quartile | $\begin{aligned} & 1.47744^{* * *} \\ & (0.1264) \end{aligned}$ | $\begin{aligned} & 0.0806 \\ & (0.0180) \end{aligned}$ | $\begin{aligned} & 1.6000 \\ & (0.1637) \end{aligned}$ | $\begin{gathered} 0.0629 \\ (0.0332) \end{gathered}$ | $\begin{aligned} & 0.0940 \\ & (0.0213) \end{aligned}$ |
| Standardized reading assessment: fourth quartile (highest) | $\begin{aligned} & 1.8744^{* * *} \\ & (0.1606) \end{aligned}$ | $\begin{aligned} & 0.1272+\cdots \\ & (0.0180) \end{aligned}$ | $\begin{aligned} & 1.9721^{* *} \\ & (0.2034) \end{aligned}$ | $\begin{aligned} & 0.1209^{+\prime *} \\ & (0.0331) \end{aligned}$ | $\begin{aligned} & 0.13233^{* * *} \\ & (0.0214) \end{aligned}$ |
| Middle school test scores used | $\begin{gathered} 0.9591 \\ (0.0496) \end{gathered}$ | $\begin{aligned} & -0.0081 \\ & (0.0101) \end{aligned}$ | $\begin{gathered} 0.9804 \\ (0.0538) \end{gathered}$ | $\begin{aligned} & -0.0219 \\ & (0.0199) \end{aligned}$ | $\begin{aligned} & -0.0037 \\ & (0.0102) \end{aligned}$ |
| Percentage of high school students ever eligible for FRPL | $\begin{gathered} 0.9959^{*} \\ (0.0017) \end{gathered}$ | $\begin{gathered} -0.0008 * \\ (0.0003) \end{gathered}$ | $\begin{aligned} & 0.9914^{* *} \\ & (0.0026) \end{aligned}$ | $\begin{gathered} 0.0002 \\ (0.0004) \end{gathered}$ | $\begin{aligned} & -0.0016 \\ & (0.0005) \end{aligned}$ |
| Mean high school attendance rate | $\begin{aligned} & 1.0175 \\ & (0.0046) \end{aligned}$ | $\begin{aligned} & 0.0033^{+\cdots \prime} \\ & (0.0009) \end{aligned}$ | $\begin{aligned} & 1.02233^{* *} \\ & (0.0056) \end{aligned}$ | $\begin{gathered} 0.0021 \\ (0.0013) \end{gathered}$ | $\begin{aligned} & 0.0041^{+\prime \prime} \\ & (0.0010) \end{aligned}$ |
| Mean high school standardized math scores | (0.1911) | (0.0219) | (0.1996) | (0.0253) | (0.0289) |
| Percentage of high school students identifying as students of color | $\begin{aligned} & 1.0095 \\ & (0.0026) \end{aligned}$ | $\begin{aligned} & 0.00188^{* * *} \\ & (0.0005) \end{aligned}$ | $\begin{aligned} & 1.0123 \\ & (0.0032) \end{aligned}$ | $\begin{gathered} 0.0006 \\ (0.0008) \end{gathered}$ | $\begin{aligned} & 0.0023^{* * *} \\ & (0.0006) \end{aligned}$ |
| Percentage of high school students ever classified as an English learner | $\begin{gathered} 0.9980 \\ (0.0027) \end{gathered}$ | $\begin{gathered} -0.0004 \\ (0.0005) \end{gathered}$ | $\begin{gathered} 0.9978 \\ (0.0039) \end{gathered}$ | $\begin{gathered} 0.0003 \\ (0.0007) \end{gathered}$ | $\begin{gathered} -0.0004 \\ (0.0007) \end{gathered}$ |
| Percentage of high school students qualified for an IEP | $\begin{gathered} 1.0022 \\ (0.0046) \end{gathered}$ | $\begin{gathered} 0.0004 \\ (0.0009) \end{gathered}$ | $\begin{gathered} 0.9933 \\ (0.0066) \end{gathered}$ | $\begin{gathered} 0.0019 \\ (0.0010) \end{gathered}$ | $\begin{gathered} -0.0012 \\ (0.0012) \end{gathered}$ |
| Rural \# Female |  |  | $\begin{aligned} & 1.0827 \times 1 \\ & (0.0320) \end{aligned}$ |  |  |
| Rural \# American Indian/Alaska Native |  |  | $\begin{gathered} 1.2140 \\ (0.1318) \end{gathered}$ |  |  |
| Rural \# Asian/Native Hawaiian/Pacific Islander |  |  | $\begin{gathered} 1.0621 \\ (0.0973) \end{gathered}$ |  |  |
| Rural \# Black |  |  | $\begin{gathered} 0.9160 \\ (0.0938) \end{gathered}$ |  |  |


|  | All students (odds ratios) | All students (average marginal effects) | All students w/ rural interaction (odds ratios) | Rural students (average marginal effects) | Nonrural students (average marginal effects) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Rural \# Latinx |  |  | $\begin{aligned} & 1.1564 * \\ & (0.0536) \end{aligned}$ |  |  |
| Rural \# Multiracial |  |  | $\begin{gathered} 1.0065 \\ (0.0638) \end{gathered}$ |  |  |
| Rural \# Student ever qualified for an IEP |  |  | $\begin{gathered} 1.0462 \\ (0.0337) \end{gathered}$ |  |  |
| Rural \# Student ever classified as an English learner |  |  | $\begin{gathered} 0.9022^{*} \\ (0.0473) \end{gathered}$ |  |  |
| Rural \# Student ever eligible for FRPL |  |  | $\begin{gathered} 1.0180 \\ (0.0388) \end{gathered}$ |  |  |
| Rural \# Student ever enrolled in college course during high school (NSC) |  |  | $\begin{aligned} & 1.2981 * * \\ & (0.1292) \end{aligned}$ |  |  |
| Rural \# Standardized math assessment: first quartile (lowest) |  |  | $\begin{gathered} 1.0921 \\ (0.1908) \end{gathered}$ |  |  |
| Rural \# Standardized math assessment: second quartile |  |  | $\begin{gathered} 1.1183 \\ (0.1964) \end{gathered}$ |  |  |
| Rural \# Standardized math assessment: third quartile |  |  | $\begin{gathered} 1.1118 \\ (0.1962) \end{gathered}$ |  |  |
| Rural \# Standardized math assessment: fourth quartile (highest) |  |  | $\begin{gathered} 1.0703 \\ (0.1907) \end{gathered}$ |  |  |
| Rural \# Middle school test scores used |  |  | $\begin{gathered} 1.0139 \\ (0.0984) \end{gathered}$ |  |  |
| Rural \# Standardized reading assessment: first quartile (lowest) |  |  | $\begin{gathered} 0.8326 \\ (0.1519) \end{gathered}$ |  |  |
| Rural \# Standardized reading assessment: second quartile |  |  | $\begin{gathered} 0.8401 \\ (0.1504) \end{gathered}$ |  |  |


|  | All students (odds ratios) | All students (average marginal effects) | All students w/ rural interaction (odds ratios) | Rural students (average marginal effects) | Nonrural students (average marginal effects) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Rural \# Standardized reading assessment: third quartile |  |  | $\begin{gathered} 0.8357 \\ (0.1536) \end{gathered}$ |  |  |
| Rural \# Standardized reading assessment: fourth quartile (highest) |  |  | $\begin{gathered} 0.8908 \\ (0.1636) \end{gathered}$ |  |  |
| Rural \# Middle school test scores used |  |  | $\begin{gathered} 0.9167 \\ (0.1019) \end{gathered}$ |  |  |
| Rural \# Percentage of high school students ever eligible for FRPL |  |  | $\begin{aligned} & 1.0097{ }^{* \prime \prime} \\ & (0.0034) \end{aligned}$ |  |  |
| Rural \# Mean high school attendance rate |  |  | $\begin{gathered} 0.9885 \\ (0.0082) \end{gathered}$ |  |  |
| Rural \# Mean high school standardized math scores |  |  | $\begin{gathered} 1.5395 * \\ (0.3078) \end{gathered}$ |  |  |
| Rural \# Percentage of high school students identifying as students of color |  |  | $\begin{gathered} 0.9907 \\ (0.0049) \end{gathered}$ |  |  |
| Rural \# Percentage of high school students ever classified as an English learner |  |  | $\begin{gathered} 1.0037 \\ (0.0053) \end{gathered}$ |  |  |
| Rural \# Percentage of high school students qualified for an IEP |  |  | $\begin{gathered} 1.0163^{*} \\ (0.0084) \end{gathered}$ |  |  |
| Constant | $\begin{aligned} & 0.1270 * * \\ & (0.0575) \end{aligned}$ |  | $\begin{aligned} & 0.1219 \cdots \\ & (0.0766) \end{aligned}$ |  |  |
| Observations | 179,070 | 179,070 | 179,070 | 72,615 | 106,455 |
| ${ }^{*} p<0.05,{ }^{* *} p<0.01,{ }^{* * *} p<0.001$ <br> IEP = individualized education program; FRPL = free or reduced-price lunch <br> Note: All models are logistic regression models and include student's grade 12 year fixed effects. Reference category for standardized test scores: students who are missing standardized test scores. Robust standard errors, clustered at the high school, in parentheses. |  |  |  |  |  |

Source: Authors' analysis of Oregon Department of Education, Integrated Postsecondary Education Data System, and National Student Clearinghouse data.
Table B3. Relationships between student-, high school-, and college-level characteristics and first-year to second-year-fall persistence;2015-2019 pooled

|  | All students (odds ratios) | All students (average marginal effects) | All students w/ rural interaction (odds ratios) | Rural students (average marginal effects) | Nonrural students (average marginal effects) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Rural | $\begin{gathered} 0.9595 \\ (0.0319) \end{gathered}$ | $\begin{gathered} -0.0072 \\ (0.0058) \end{gathered}$ | $\begin{aligned} & 24.6953^{* \prime} \\ & (26.9856) \end{aligned}$ |  |  |
| Female | $\begin{aligned} & 1.2447^{* * *} \\ & (0.0201) \end{aligned}$ | $\begin{aligned} & 0.0379 \\ & (0.0028) \end{aligned}$ | $\begin{aligned} & 1.2516^{* * *} \\ & (0.0267) \end{aligned}$ | $\begin{aligned} & 0.0416^{* * *} \\ & (0.0049) \end{aligned}$ | $\begin{aligned} & 0.0361+* \\ & (0.0035) \end{aligned}$ |
| American Indian/Alaska Native | $\begin{aligned} & 0.8255 * \\ & (0.0534) \end{aligned}$ | $\begin{aligned} & -0.0340^{* *} \\ & (0.0117) \end{aligned}$ | $\begin{gathered} 0.8366 * \\ (0.0668) \end{gathered}$ | $\begin{gathered} -0.0320 \\ (0.0171) \end{gathered}$ | $\begin{gathered} -0.0294 * \\ (0.0136) \end{gathered}$ |
| Asian/Native Hawaiian/Pacific Islander | $\begin{aligned} & 1.2419 \\ & (0.0485) \end{aligned}$ | $\begin{aligned} & 0.03633^{* * *} \\ & (0.0064) \end{aligned}$ | $\begin{aligned} & 1.19988^{* * *} \\ & (0.0531) \end{aligned}$ | $\begin{aligned} & 0.0388 * * \\ & (0.0146) \end{aligned}$ | $\begin{aligned} & 0.0283 \\ & (0.0067) \end{aligned}$ |
| Black | $\begin{gathered} 1.0480 \\ (0.0434) \end{gathered}$ | $\begin{gathered} 0.0081 \\ (0.0071) \end{gathered}$ | $\begin{gathered} 0.9942 \\ (0.0445) \end{gathered}$ | $\begin{gathered} 0.0191 \\ (0.0230) \end{gathered}$ | $\begin{gathered} -0.0009 \\ (0.0072) \end{gathered}$ |
| Latinx | $\begin{gathered} 0.9536 \\ (0.0244) \end{gathered}$ | $\begin{gathered} -0.0083 \\ (0.0045) \end{gathered}$ | $\begin{aligned} & 0.8877 \\ & (0.0268) \end{aligned}$ | $\begin{gathered} 0.0172 * \\ (0.0074) \end{gathered}$ | $\begin{aligned} & -0.0195 \\ & (0.0050) \end{aligned}$ |
| Multiracial | $\begin{gathered} 0.9961 \\ (0.0357) \end{gathered}$ | $\begin{gathered} -0.0007 \\ (0.0062) \end{gathered}$ | $\begin{gathered} 0.9962 \\ (0.0440) \end{gathered}$ | $\begin{gathered} -0.0047 \\ (0.0120) \end{gathered}$ | $\begin{gathered} -0.0006 \\ (0.0071) \end{gathered}$ |
| Student ever qualified for an IEP | $\begin{gathered} 1.0330 \\ (0.0212) \end{gathered}$ | $\begin{gathered} 0.0056 \\ (0.0035) \end{gathered}$ | $\begin{gathered} 1.0160 \\ (0.0245) \end{gathered}$ | $\begin{gathered} 0.0124 \\ (0.0068) \end{gathered}$ | $\begin{gathered} 0.0025 \\ (0.0039) \end{gathered}$ |
| Student ever classified as an English learner | $\begin{aligned} & 1.3891^{* * *} \\ & (0.0411) \end{aligned}$ | $\begin{aligned} & 0.05477^{* * *} \\ & (0.0047) \end{aligned}$ | $\begin{aligned} & 1.42088^{* * *} \\ & (0.0508) \end{aligned}$ | $\begin{aligned} & 0.04899^{+* *} \\ & (0.0081) \end{aligned}$ | $\begin{aligned} & 0.0541 \\ & (0.0052) \end{aligned}$ |
| Student ever eligible for FRPL | $\begin{aligned} & 0.6882 \\ & (0.0125) \end{aligned}$ | $\begin{aligned} & -0.06477^{* * *} \\ & (0.0031) \end{aligned}$ | $\begin{aligned} & 0.70588^{* * *} \\ & (0.0157) \end{aligned}$ | $\begin{gathered} -0.0785 \\ (0.0060) \end{gathered}$ | $\begin{aligned} & -0.0563^{* *} \\ & (0.0036) \end{aligned}$ |
| Student ever enrolled in college course during high school (NSC) | $\begin{aligned} & 1.3417^{* * *} \\ & (0.0274) \end{aligned}$ | $\begin{aligned} & 0.0504 * * * \\ & (0.0034) \end{aligned}$ | $\begin{aligned} & 1.3687^{* * *} \\ & (0.0367) \end{aligned}$ | $\begin{aligned} & 0.05333^{* * *} \\ & (0.0056) \end{aligned}$ | $\begin{aligned} & 0.0497 \\ & (0.0042) \end{aligned}$ |
| Standardized math assessment: first quartile (lowest) | $\begin{gathered} 0.7914^{*} \\ (0.0798) \end{gathered}$ | $\begin{aligned} & -0.0437 * \\ & (0.0184) \end{aligned}$ | $\begin{gathered} 0.7421^{*} \\ (0.0930) \end{gathered}$ | $\begin{gathered} -0.0282 \\ (0.0351) \end{gathered}$ | $\begin{aligned} & -0.05177^{*} \\ & (0.0210) \end{aligned}$ |
| Standardized math assessment: second quartile | $\begin{gathered} 0.9174 \\ (0.0901) \end{gathered}$ | $\begin{gathered} -0.0158 \\ (0.0178) \end{gathered}$ | $\begin{gathered} 0.8556 \\ (0.1024) \end{gathered}$ | $\begin{gathered} 0.0040 \\ (0.0354) \end{gathered}$ | $\begin{array}{r} -0.0265 \\ (0.0199) \end{array}$ |


|  | All students (odds ratios) | All students (average marginal effects) | All students w/ rural interaction (odds ratios) | Rural students (average marginal effects) | Nonrural students (average marginal effects) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Standardized math assessment: third quartile | $\begin{gathered} 1.1012 \\ (0.1073) \end{gathered}$ | $\begin{gathered} \hline 0.0173 \\ (0.0177) \end{gathered}$ | $\begin{gathered} 1.0353 \\ (0.1228) \end{gathered}$ | $\begin{gathered} 0.0391 \\ (0.0351) \end{gathered}$ | $\begin{gathered} 0.0057 \\ (0.0197) \end{gathered}$ |
| Standardized math assessment: fourth quartile (highest) | $\begin{aligned} & 1.38666^{\prime \prime \prime} \\ & (0.1341) \end{aligned}$ | $\begin{aligned} & 0.0565 * * \\ & (0.0175) \end{aligned}$ | $\begin{gathered} 1.2696 * \\ (0.1483) \end{gathered}$ | $\begin{gathered} 0.0903^{*} \\ (0.0353) \end{gathered}$ | $\begin{gathered} 0.0379 \\ (0.0194) \end{gathered}$ |
| Middle school test scores used | $\begin{gathered} 1.0814 \\ (0.0563) \end{gathered}$ | $\begin{gathered} 0.0134 \\ (0.0088) \end{gathered}$ | $\begin{aligned} & 1.1527^{*} \\ & (0.0649) \end{aligned}$ | $\begin{aligned} & -0.0164 \\ & (0.0212) \end{aligned}$ | $\begin{aligned} & 0.0223^{*} \\ & (0.0087) \end{aligned}$ |
| Standardized reading assessment: first quartile (lowest) | $\begin{gathered} 0.9598 \\ (0.0980) \end{gathered}$ | $\begin{gathered} -0.0076 \\ (0.0187) \end{gathered}$ | $\begin{gathered} 1.0195 \\ (0.1266) \end{gathered}$ | $\begin{gathered} -0.0306 \\ (0.0365) \end{gathered}$ | $\begin{gathered} 0.0033 \\ (0.0216) \end{gathered}$ |
| Standardized reading assessment: second quartile | $\begin{gathered} 0.9598 \\ (0.0980) \end{gathered}$ | $\begin{gathered} -0.0076 \\ (0.0187) \end{gathered}$ | $\begin{gathered} 1.0195 \\ (0.1266) \end{gathered}$ | $\begin{gathered} -0.0306 \\ (0.0365) \end{gathered}$ | $\begin{gathered} 0.0033 \\ (0.0216) \end{gathered}$ |
| Standardized reading assessment: third quartile | $\begin{gathered} 1.2245^{*} \\ (0.1203) \end{gathered}$ | $\begin{gathered} 0.0362^{*} \\ (0.0180) \end{gathered}$ | $\begin{gathered} 1.2836 * \\ (0.1501) \end{gathered}$ | $\begin{gathered} 0.0239 \\ (0.0365) \end{gathered}$ | $\begin{gathered} 0.0419^{*} \\ (0.0203) \end{gathered}$ |
| Standardized reading assessment: fourth quartile (highest) | $\begin{aligned} & 1.3662 * \\ & (0.1347) \end{aligned}$ | $\begin{aligned} & 0.0549 * * \\ & (0.0180) \end{aligned}$ | $\begin{aligned} & 1.4211^{*} \\ & (0.1646) \end{aligned}$ | $\begin{gathered} 0.0476 \\ (0.0370) \end{gathered}$ | $\begin{aligned} & 0.0580^{*} \\ & (0.0201) \end{aligned}$ |
| Middle school test scores used | $\begin{gathered} 0.9477 \\ (0.0574) \end{gathered}$ | $\begin{gathered} -0.0093 \\ (0.0106) \end{gathered}$ | $\begin{gathered} 0.9421 \\ (0.0690) \end{gathered}$ | $\begin{gathered} -0.0065 \\ (0.0191) \end{gathered}$ | $\begin{gathered} -0.0097 \\ (0.0120) \end{gathered}$ |
| Student attends rural college/university | $\begin{aligned} & 0.8933^{*} \\ & (0.0307) \end{aligned}$ | $\begin{aligned} & -0.0197 * \\ & (0.0061) \end{aligned}$ | $\begin{gathered} 1.0053 \\ (0.0596) \end{gathered}$ | $\begin{aligned} & -0.0259^{* *} \\ & (0.0079) \end{aligned}$ | $\begin{gathered} 0.0009 \\ (0.0095) \end{gathered}$ |
| College selectivity: first quartile (lowest) | $\begin{aligned} & 1.2541^{*} \\ & (0.1035) \end{aligned}$ | $\begin{aligned} & 0.0398{ }^{* *} \\ & (0.0143) \end{aligned}$ | $\begin{gathered} 1.0454 \\ (0.1097) \end{gathered}$ | $\begin{aligned} & 0.09144^{\cdots *} \\ & (0.0240) \end{aligned}$ | $\begin{gathered} 0.0073 \\ (0.0174) \end{gathered}$ |
| College selectivity: second quartile | $\begin{gathered} 1.0980 \\ (0.0799) \end{gathered}$ | $\begin{gathered} 0.0168 \\ (0.0130) \end{gathered}$ | $\begin{gathered} 1.0181 \\ (0.0913) \end{gathered}$ | $\begin{gathered} 0.0330 \\ (0.0209) \end{gathered}$ | $\begin{gathered} 0.0030 \\ (0.0149) \end{gathered}$ |
| College selectivity: third quartile | $\begin{aligned} & 1.27488^{* *} \\ & (0.0788) \end{aligned}$ | $\begin{aligned} & 0.0426 \\ & (0.0108) \end{aligned}$ | $\begin{gathered} 1.1217 \\ (0.0879) \end{gathered}$ | $\begin{aligned} & 0.06311^{* * *} \\ & (0.0189) \end{aligned}$ | $\begin{gathered} 0.0188 \\ (0.0129) \end{gathered}$ |
| College selectivity: fourth quartile (highest) | $\begin{aligned} & 1.4534 \times \prime \\ & (0.0930) \end{aligned}$ | $\begin{aligned} & 0.0642 \\ & (0.0109) \end{aligned}$ | $\begin{aligned} & 1.29266^{* *} \\ & (0.1103) \end{aligned}$ | $\begin{aligned} & 0.0847^{* * *} \\ & (0.0175) \end{aligned}$ | $\begin{aligned} & 0.0409 * \\ & (0.0136) \end{aligned}$ |
| Oregon two-year public | $\begin{aligned} & 0.62388^{* *} \\ & (0.0318) \end{aligned}$ | $\begin{aligned} & -0.0790 * * \\ & (0.0085) \end{aligned}$ | $\begin{aligned} & 0.60477^{* *} \\ & (0.0401) \end{aligned}$ | $\begin{aligned} & -0.0866 \times * \\ & (0.0152) \end{aligned}$ | $\begin{aligned} & -0.0782 \cdots \\ & (0.0103) \end{aligned}$ |


|  | All students (odds ratios) | All students (average marginal effects) | All students w/ rural interaction (odds ratios) | Rural students (average marginal effects) | Nonrural students (average marginal effects) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Oregon four-year private NFP | $\begin{aligned} & \hline 0.4621^{\prime \prime \prime} \\ & (0.0407) \end{aligned}$ | $\begin{gathered} \hline-0.13533^{\prime \prime \prime} \\ (0.0165) \end{gathered}$ | $\begin{aligned} & \hline 0.4301 " \prime \\ & (0.0485) \end{aligned}$ | $\begin{aligned} & -0.1226{ }^{\prime \prime \prime} \\ & (0.0299) \end{aligned}$ | $\begin{aligned} & \hline-0.1391 \\ & (0.0203) \end{aligned}$ |
| Public, out-of-state | $\begin{aligned} & 0.8658{ }^{* *} \\ & (0.0428) \end{aligned}$ | $\begin{aligned} & -0.0227^{* *} \\ & (0.0078) \end{aligned}$ | $\begin{gathered} 0.8974 \\ (0.0548) \end{gathered}$ | $\begin{gathered} -0.0395^{*} \\ (0.0159) \end{gathered}$ | $\begin{gathered} -0.0155 \\ (0.0088) \end{gathered}$ |
| Public, out-of-state two-year w/ Oregon tuition | $\begin{gathered} 0.8520 \\ (0.1566) \end{gathered}$ | $\begin{gathered} -0.0253 \\ (0.0299) \end{gathered}$ | $\begin{gathered} 2.1750 \\ (0.9009) \end{gathered}$ | $\begin{gathered} -0.0369 \\ (0.0401) \end{gathered}$ | $\begin{gathered} 0.0887^{*} \\ (0.0374) \end{gathered}$ |
| Private NFP, out-ofstate | $\begin{aligned} & 0.3445 \cdots \\ & (0.0255) \end{aligned}$ | $\begin{aligned} & -0.19344^{\prime \cdots} \\ & (0.0141) \end{aligned}$ | $\begin{aligned} & 0.3273^{* * \prime} \\ & (0.0326) \end{aligned}$ | $\begin{aligned} & -0.19644^{\prime * *} \\ & (0.0217) \end{aligned}$ | $\begin{aligned} & -0.1913 \cdots \\ & (0.0184) \end{aligned}$ |
| Other (All for-profits, two-year private NFP) | $\begin{aligned} & 0.2151^{* *} \\ & (0.0199) \end{aligned}$ | $\begin{aligned} & -0.28933^{* * *} \\ & (0.0180) \end{aligned}$ | $\begin{aligned} & 0.1999{ }^{\prime \prime *} \\ & (0.0221) \end{aligned}$ | $\begin{aligned} & -0.2907 \\ & (0.0312) \end{aligned}$ | $\begin{aligned} & -0.2896 \\ & (0.0210) \end{aligned}$ |
| Percentage of high | $\begin{gathered} 0.9976 * \\ (0.0012) \end{gathered}$ | $\begin{gathered} -0.0004 * \\ (0.0002) \end{gathered}$ | $\begin{array}{r} 0.9955^{*} \\ (0.0019) \end{array}$ | $\begin{gathered} 0.0000 \\ (0.0002) \end{gathered}$ | $\begin{aligned} & -0.0007 \\ & (0.0003) \end{aligned}$ |
|  | $\begin{gathered} 1.0070 \\ (0.0043) \end{gathered}$ | $\begin{gathered} 0.0012 \\ (0.0007) \end{gathered}$ | $\begin{aligned} & 1.0141^{*} \\ & (0.0052) \end{aligned}$ | $\begin{aligned} & -0.0005 \\ & (0.0012) \end{aligned}$ | $\begin{aligned} & 0.0023^{*} \\ & (0.0008) \end{aligned}$ |
| Mean high school attendance rate | $\begin{gathered} 1.1273 \\ (0.0798) \end{gathered}$ | $\begin{gathered} 0.0207 \\ (0.0122) \end{gathered}$ | $\begin{gathered} 0.9697 \\ (0.0881) \end{gathered}$ | $\begin{gathered} 0.0506 * \\ (0.0199) \end{gathered}$ | $\begin{gathered} -0.0049 \\ (0.0146) \end{gathered}$ |
| Mean high school standardized math scores | $\begin{gathered} 1.0012 \\ (0.0017) \end{gathered}$ | $\begin{gathered} 0.0002 \\ (0.0003) \end{gathered}$ | $\begin{gathered} 1.0033 \\ (0.0022) \end{gathered}$ | $\begin{gathered} -0.0002 \\ (0.0006) \end{gathered}$ | $\begin{gathered} 0.0005 \\ (0.0004) \end{gathered}$ |
| Percentage of high school students identifying as students of color | 1.0020 $(0.0018)$ | 0.0003 $(0.0003)$ | 1.0012 (0.0029) | 0.0005 (0.0006) | 0.0002 $(0.0005)$ |
| Percentage of high school students ever classified as an English learner | 0.9953 | -0.0008 | $0.9915^{*}$ | -0.0005 | -0.0014* |
| Percentage of high school students qualified for an IEP | (0.0036) | (0.0006) | (0.0043) | (0.0010) | (0.0007) |
| College listed tuition (in \$1,000s; FY 2019\$) | $\begin{aligned} & 1.0194 \\ & (0.0030) \end{aligned}$ | $\begin{aligned} & 0.0033^{* \cdots} \\ & (0.0005) \end{aligned}$ | $\begin{aligned} & 1.0243^{* * *} \\ & (0.0043) \end{aligned}$ | $\begin{aligned} & 0.0030 * * \\ & (0.0008) \end{aligned}$ | $\begin{aligned} & 0.0039 \cdots \\ & (0.0007) \end{aligned}$ |
| College required fees (in \$100s; FY 2019\$) | $\begin{aligned} & 1.0010+\cdots \\ & (0.0002) \end{aligned}$ | $\begin{aligned} & 0.0002 \\ & (0.0000) \end{aligned}$ | $\begin{aligned} & 1.0012 \\ & (0.0002) \end{aligned}$ | $\begin{aligned} & 0.0002+\cdots \\ & (0.0000) \end{aligned}$ | $\begin{aligned} & 0.0002 \\ & (0.0000) \end{aligned}$ |


|  | All students (odds ratios) | All students (average marginal effects) | All students w/ rural interaction (odds ratios) | Rural students (average marginal effects) | Nonrural students (average marginal effects) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| College fall full-time undergraduate enrollment (in 100s) | $\begin{aligned} & 1.0005^{\prime \prime \prime} \\ & (0.0001) \end{aligned}$ | $\begin{aligned} & 0.0001^{\prime \prime \prime} \\ & (0.0000) \end{aligned}$ | $\begin{gathered} \hline 1.0004 \\ (0.0002) \end{gathered}$ | $\begin{gathered} 0.0001^{1} \\ (0.0000) \end{gathered}$ | $\begin{gathered} 0.0001 \\ (0.0000) \end{gathered}$ |
| College fall part-time undergraduate enrollment (in 100s) | $\begin{aligned} & 1.0005 \\ & (0.0001) \end{aligned}$ | $\begin{aligned} & 0.0001 * * \\ & (0.0000) \end{aligned}$ | $\begin{gathered} 1.0004 \\ (0.0002) \end{gathered}$ | $\begin{gathered} 0.0001^{*} \\ (0.0000) \end{gathered}$ | $\begin{gathered} 0.0001 \\ (0.0000) \end{gathered}$ |
| Distance from student's high school to college (in 10s of miles) | $\begin{gathered} 0.9998 \\ (0.0002) \end{gathered}$ | $\begin{gathered} -0.0000 \\ (0.0000) \end{gathered}$ | $\begin{gathered} 0.9996 \\ (0.0002) \end{gathered}$ | $\begin{gathered} -0.0000 \\ (0.0001) \end{gathered}$ | $\begin{gathered} -0.0001 \\ (0.0000) \end{gathered}$ |
| Rural \# Female |  |  | $\begin{gathered} 0.9901 \\ (0.0326) \end{gathered}$ |  |  |
| Rural \# American Indian/Alaska Native |  |  | $\begin{gathered} 1.0159 \\ (0.1189) \end{gathered}$ |  |  |
| Rural \# Asian/Native Hawaiian/Pacific Islander |  |  | $\begin{gathered} 1.0234 \\ (0.0932) \end{gathered}$ |  |  |
| Rural \# Black |  |  | $\begin{gathered} 1.1112 \\ (0.1439) \end{gathered}$ |  |  |
| Rural \# Latinx |  |  | $\begin{aligned} & 1.23233^{* * *} \\ & (0.0604) \end{aligned}$ |  |  |
| Rural \# Multiracial |  |  | $\begin{gathered} 0.9798 \\ (0.0742) \end{gathered}$ |  |  |
| Rural \# Student ever qualified for an IEP |  |  | $\begin{gathered} 0.9128 \\ (0.0521) \end{gathered}$ |  |  |
| Rural \# Student ever classified as an English learner |  |  | $\begin{gathered} 0.9128 \\ (0.0521) \end{gathered}$ |  |  |
| Rural \# Student ever eligible for FRPL |  |  | $\begin{gathered} 0.9419 \\ (0.0367) \end{gathered}$ |  |  |
| Rural \# Student ever enrolled in college course during high school (NSC) |  |  | $\begin{gathered} 0.9618 \\ (0.0384) \end{gathered}$ |  |  |
| Rural \# Standardized math assessment: first quartile (lowest) |  |  | $\begin{gathered} 1.1767 \\ (0.2490) \end{gathered}$ |  |  |


|  | All students (odds ratios) | All students (average marginal effects) | All students w/ rural interaction (odds ratios) | Rural students (average marginal effects) | Nonrural students (average marginal effects) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Rural \# Standardized math assessment: second quartile |  |  | $\begin{gathered} \hline 1.1917 \\ (0.2495) \end{gathered}$ |  |  |
| Rural \# Standardized math assessment: third quartile |  |  | $\begin{gathered} 1.1720 \\ (0.2434) \end{gathered}$ |  |  |
| Rural \# Standardized math assessment: fourth quartile (highest) |  |  | $\begin{gathered} 1.2505 \\ (0.2594) \end{gathered}$ |  |  |
| Rural \# Middle school test scores used |  |  | $\begin{gathered} 0.7973 \\ (0.0970) \end{gathered}$ |  |  |
| Rural \# Standardized reading assessment: first quartile (lowest) |  |  | $\begin{gathered} 0.8433 \\ (0.1859) \end{gathered}$ |  |  |
| Rural \# Standardized reading assessment: second quartile |  |  | $\begin{gathered} 0.8996 \\ (0.1923) \end{gathered}$ |  |  |
| Rural \# Standardized reading assessment: third quartile |  |  | $\begin{gathered} 0.8792 \\ (0.1904) \end{gathered}$ |  |  |
| Rural \# Standardized reading assessment: fourth quartile (highest) |  |  | $\begin{gathered} 0.8986 \\ (0.1965) \end{gathered}$ |  |  |
| Rural \# Middle school test scores used |  |  | $\begin{gathered} 1.0265 \\ (0.1258) \end{gathered}$ |  |  |
| Rural \# Student attends rural college/university |  |  | $\begin{gathered} 0.8709 \\ (0.0625) \end{gathered}$ |  |  |
| Rural \# College selectivity: first quartile (lowest) |  |  | $\begin{gathered} 1.5448 * \\ (0.2615) \end{gathered}$ |  |  |
| Rural \# College selectivity: second quartile |  |  | $\begin{gathered} 1.1588 \\ (0.1606) \end{gathered}$ |  |  |


|  | All students (odds ratios) | All students (average marginal effects) | All students w/ rural interaction (odds ratios) | Rural students (average marginal effects) | Nonrural students (average marginal effects) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Rural \# College selectivity: third quartile |  |  | $\begin{gathered} 1.2317 \\ (0.1545) \end{gathered}$ |  |  |
| Rural \# College selectivity: fourth quartile (highest) |  |  | $\begin{gathered} 1.2031 \\ (0.1517) \end{gathered}$ |  |  |
| Rural \# Oregon twoyear public |  |  | $\begin{gathered} 1.0430 \\ (0.1104) \end{gathered}$ |  |  |
| Rural \# Oregon fouryear private NFP |  |  | $\begin{gathered} 1.2283 \\ (0.2291) \end{gathered}$ |  |  |
| Rural \# Public, out-of-state |  |  | $\begin{gathered} 0.8957 \\ (0.0960) \end{gathered}$ |  |  |
| Rural \# Public, out-of-state two-year w/ Oregon tuition |  |  | $\begin{gathered} 0.3748^{*} \\ (0.1750) \end{gathered}$ |  |  |
| Rural \# Private NFP, out-of-state |  |  | $\begin{gathered} 1.1375 \\ (0.1661) \end{gathered}$ |  |  |
| Rural \# Other (All forprofits, two-year private NFP) |  |  | $\begin{gathered} 1.1960 \\ (0.2253) \end{gathered}$ |  |  |
| Rural \# Percentage of high school students ever eligible for FRPL |  |  | $\begin{gathered} 1.0047^{*} \\ (0.0023) \end{gathered}$ |  |  |
| Rural \# Mean high school attendance rate |  |  | $\begin{gathered} 0.9834 * \\ (0.0078) \end{gathered}$ |  |  |
| Rural \# Mean high school standardized math scores |  |  | $\begin{gathered} 1.3402^{*} \\ (0.1850) \end{gathered}$ |  |  |
| Rural \# Percentage of high school students identifying as students of color |  |  | $\begin{gathered} 0.9955 \\ (0.0038) \end{gathered}$ |  |  |
| Rural \# Percentage of high school students ever classified as an English learner |  |  | $\begin{gathered} 1.0015 \\ (0.0041) \end{gathered}$ |  |  |



Table B4. Relationships between student-, high school-, and college-level characteristics and community college to four-year transfer; 2012-2016 pooled

|  | All students (odds ratios) | All students (average marginal effects) | All students w/ rural interaction (odds ratios) | Rural students (average marginal effects) | Nonrural students (average marginal effects) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Rural | $\begin{gathered} 1.0121 \\ (0.0430) \end{gathered}$ | $\begin{gathered} 0.0018 \\ (0.0063) \end{gathered}$ | $\begin{aligned} & \hline 0.04799^{\prime * \prime} \\ & (0.0418) \end{aligned}$ |  |  |
| Female | $\begin{aligned} & 1.2094 \\ & (0.0278) \end{aligned}$ | $\begin{aligned} & 0.0282 \\ & (0.0034) \end{aligned}$ | $\begin{aligned} & 1.21033^{* * *} \\ & (0.0383) \end{aligned}$ | $\begin{aligned} & 0.0284 \\ & (0.0047) \end{aligned}$ | $\begin{aligned} & 0.0290 \cdots \\ & (0.0048) \end{aligned}$ |
| American Indian/Alaska Native | $\begin{gathered} 0.9384 \\ (0.0838) \end{gathered}$ | $\begin{gathered} -0.0092 \\ (0.0127) \end{gathered}$ | $\begin{gathered} 0.8192 \\ (0.1051) \end{gathered}$ | $\begin{gathered} 0.0051 \\ (0.0168) \end{gathered}$ | $\begin{gathered} -0.0284 \\ (0.0174) \end{gathered}$ |
| Asian/Native Hawaiian/Pacific Islander | $\begin{aligned} & 1.5028{ }^{\cdots \prime \prime} \\ & (0.1118) \end{aligned}$ | $\begin{aligned} & 0.0657 \\ & (0.0130) \end{aligned}$ | $\begin{aligned} & 1.4705 \\ & (0.1258) \end{aligned}$ | $\begin{aligned} & 0.0635 \\ & (0.0179) \end{aligned}$ | $\begin{aligned} & 0.0631 * \\ & (0.0151) \end{aligned}$ |
| Black | $\begin{aligned} & 1.25288^{* * *} \\ & (0.0780) \end{aligned}$ | $\begin{aligned} & 0.03499^{\prime *} \\ & (0.0101) \end{aligned}$ | $\begin{gathered} 1.19788^{* *} \\ (0.0801) \end{gathered}$ | $\begin{gathered} 0.0433 \\ (0.0292) \end{gathered}$ | $\begin{aligned} & 0.0282^{* *} \\ & (0.0109) \end{aligned}$ |
| Latinx | $\begin{gathered} 1.0002 \\ (0.0417) \end{gathered}$ | $\begin{gathered} 0.0000 \\ (0.0061) \end{gathered}$ | $\begin{gathered} 0.9584 \\ (0.0506) \end{gathered}$ | $\begin{gathered} 0.0128 \\ (0.0091) \end{gathered}$ | $\begin{gathered} -0.0063 \\ (0.0078) \end{gathered}$ |
| Multiracial | $\begin{gathered} 1.0388 \\ (0.0632) \end{gathered}$ | $\begin{gathered} 0.0056 \\ (0.0091) \end{gathered}$ | $\begin{gathered} 1.0433 \\ (0.0680) \end{gathered}$ | $\begin{gathered} 0.0001 \\ (0.0202) \end{gathered}$ | $\begin{gathered} 0.0064 \\ (0.0100) \end{gathered}$ |
| Student ever qualified for an IEP | $\begin{aligned} & 0.82377^{* * *} \\ & (0.0283) \end{aligned}$ | $\begin{aligned} & -0.02788^{* * *} \\ & (0.0048) \end{aligned}$ | $\begin{aligned} & 0.78633^{* * *} \\ & (0.0327) \end{aligned}$ | $\begin{gathered} -0.0171^{*} \\ (0.0082) \end{gathered}$ | $\begin{aligned} & -0.0350^{+* *} \\ & (0.0059) \end{aligned}$ |
| Student ever classified as an English learner | $\begin{aligned} & 1.21644^{* * *} \\ & (0.0521) \end{aligned}$ | $\begin{aligned} & 0.03011^{* *} \\ & (0.0068) \end{aligned}$ | $\begin{aligned} & 1.2172 \\ & (0.0588) \end{aligned}$ | $\begin{gathered} 0.0253 \\ (0.0134) \end{gathered}$ | $\begin{aligned} & 0.0307+{ }^{*+\prime} \\ & (0.0077) \end{aligned}$ |
| Student ever eligible for FRPL | $\begin{aligned} & 0.63911^{* *} \\ & (0.0157) \end{aligned}$ | $\begin{aligned} & -0.0681^{\cdots} \\ & (0.0038) \end{aligned}$ | $\begin{aligned} & 0.6422 " * \\ & (0.0223) \end{aligned}$ | $\begin{aligned} & -0.0687 \ldots \\ & (0.0048) \end{aligned}$ | $\begin{aligned} & -0.0685 \\ & (0.0055) \end{aligned}$ |
| Student ever enrolled in college course during high school (NSC) | $\begin{aligned} & 1.78211^{* *} \\ & (0.0418) \end{aligned}$ | $\begin{aligned} & 0.0912 " * \\ & (0.0041) \end{aligned}$ | $\begin{aligned} & 1.7548 \times \cdots \\ & (0.0560) \end{aligned}$ | $\begin{aligned} & 0.0915 \\ & (0.0058) \end{aligned}$ | $\begin{aligned} & 0.0912 \\ & (0.0057) \end{aligned}$ |
| Standardized math assessment: first quartile (lowest) | $\begin{aligned} & 0.5874 \\ & (0.0703) \end{aligned}$ | $\begin{aligned} & -0.0659 \\ & (0.0166) \end{aligned}$ | $\begin{aligned} & 0.5424 \\ & (0.0911) \end{aligned}$ | $\begin{gathered} -0.0409^{*} \\ (0.0208) \end{gathered}$ | $\begin{aligned} & -0.0806^{*} \\ & (0.0250) \end{aligned}$ |
| Standardized math assessment: second quartile | $\begin{gathered} 0.8014 \\ (0.0928) \end{gathered}$ | $\begin{gathered} -0.0301 \\ (0.0166) \end{gathered}$ | $\begin{gathered} 0.7432 \\ (0.1176) \end{gathered}$ | $\begin{gathered} -0.0071 \\ (0.0220) \end{gathered}$ | $\begin{gathered} -0.0428 \\ (0.0244) \end{gathered}$ |


|  | All students (odds ratios) | All students (average marginal effects) | All students w/ rural interaction (odds ratios) | Rural students (average marginal effects) | Nonrural students (average marginal effects) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Standardized math assessment: third quartile | $\begin{gathered} 1.1340 \\ (0.1307) \end{gathered}$ | $\begin{gathered} 0.0189 \\ (0.0168) \end{gathered}$ | $\begin{gathered} \hline 1.0181 \\ (0.1633) \end{gathered}$ | $\begin{gathered} \hline 0.0480 \\ (0.0215) \end{gathered}$ | $\begin{gathered} \hline 0.0028 \\ (0.0251) \end{gathered}$ |
| Standardized math assessment: fourth quartile (highest) | $\begin{aligned} & 1.6018{ }^{\cdots \prime \prime} \\ & (0.1772) \end{aligned}$ | $\begin{aligned} & 0.0771^{* * *} \\ & (0.0163) \end{aligned}$ | $\begin{gathered} 1.4209^{*} \\ (0.2121) \end{gathered}$ | $\begin{aligned} & 0.1084 \\ & (0.0221) \end{aligned}$ | $\begin{gathered} 0.0596 * \\ (0.0235) \end{gathered}$ |
| Middle school test scores used | $\begin{gathered} 1.2131 \\ (0.1457) \end{gathered}$ | $\begin{aligned} & 0.0300 \\ & (0.0195) \end{aligned}$ | $\begin{gathered} 1.0463 \\ (0.1599) \end{gathered}$ | $\begin{aligned} & 0.0597 \\ & (0.0328) \end{aligned}$ | $\begin{gathered} 0.0069 \\ (0.0237) \end{gathered}$ |
| Standardized reading assessment: first quartile (lowest) | $\begin{aligned} & 0.6490 \cdots \\ & (0.0727) \end{aligned}$ | $\begin{aligned} & -0.0571 \cdots \\ & (0.0162) \end{aligned}$ | $\begin{gathered} 0.7294 * \\ (0.0985) \end{gathered}$ | $\begin{aligned} & -0.0857 * \\ & (0.0293) \end{aligned}$ | $\begin{gathered} -0.0416 \\ (0.0191) \end{gathered}$ |
| Standardized reading assessment: second quartile | $\begin{gathered} 0.8966 \\ (0.0983) \end{gathered}$ | $\begin{gathered} -0.0158 \\ (0.0162) \end{gathered}$ | $\begin{gathered} 0.9968 \\ (0.1352) \end{gathered}$ | $\begin{gathered} -0.0425 \\ (0.0289) \end{gathered}$ | $\begin{gathered} -0.0005 \\ (0.0196) \end{gathered}$ |
| Standardized reading assessment: third quartile | $\begin{gathered} 1.0416 \\ (0.1127) \end{gathered}$ | $\begin{gathered} 0.0061 \\ (0.0161) \end{gathered}$ | $\begin{gathered} 1.1803 \\ (0.1561) \end{gathered}$ | $\begin{gathered} -0.0251 \\ (0.0286) \end{gathered}$ | $\begin{gathered} 0.0249 \\ (0.0191) \end{gathered}$ |
| Standardized reading assessment: fourth quartile (highest) | $\begin{gathered} 1.2963^{*} \\ (0.1408) \end{gathered}$ | $\begin{gathered} 0.0412 * \\ (0.0163) \end{gathered}$ | $\begin{aligned} & 1.4254 \\ & (0.1889) \end{aligned}$ | $\begin{gathered} 0.0143 \\ (0.0294) \end{gathered}$ | $\begin{aligned} & 0.0558{ }^{* *} \\ & (0.0193) \end{aligned}$ |
| Middle school test scores used | $\begin{gathered} 0.8558 \\ (0.1349) \end{gathered}$ | $\begin{gathered} -0.0223 \\ (0.0216) \end{gathered}$ | $\begin{gathered} 1.0545 \\ (0.2189) \end{gathered}$ | $\begin{gathered} -0.0589^{*} \\ (0.0273) \end{gathered}$ | $\begin{gathered} 0.0081 \\ (0.0323) \end{gathered}$ |
| Student attends rural college/university | $\begin{aligned} & 1.18788^{* *} \\ & (0.0697) \end{aligned}$ | $\begin{aligned} & 0.0265^{* *} \\ & (0.0093) \end{aligned}$ | $\begin{aligned} & 1.5003^{* * *} \\ & (0.1847) \end{aligned}$ | $\begin{gathered} 0.0157 \\ (0.0108) \end{gathered}$ | $\begin{aligned} & 0.0671^{*} \\ & (0.0221) \end{aligned}$ |
| College selectivity: first quartile (lowest) | $\begin{gathered} 1.8596 \\ (1.6308) \end{gathered}$ | $\begin{gathered} 0.1055 \\ (0.1665) \end{gathered}$ | $\begin{gathered} 1.7918 \\ (1.6940) \end{gathered}$ | $\begin{gathered} 0.0963 \\ (0.4292) \end{gathered}$ | $\begin{gathered} 0.1000 \\ (0.1800) \end{gathered}$ |
| College selectivity: second quartile | $\begin{gathered} 4.7012 \\ (4.7608) \end{gathered}$ | $\begin{gathered} 0.2984 \\ (0.2194) \end{gathered}$ | $\begin{gathered} 5.8235 \\ (5.8960) \end{gathered}$ |  | $\begin{gathered} 0.3468 \\ (0.2159) \end{gathered}$ |
| College selectivity: third quartile | $\begin{gathered} 1.6624 \\ (2.3766) \end{gathered}$ | $\begin{gathered} 0.0846 \\ (0.2620) \end{gathered}$ | $\begin{gathered} 0.7483 \\ (1.6856) \end{gathered}$ | $\begin{gathered} 0.2170 \\ (0.2808) \end{gathered}$ | $\begin{gathered} -0.0409 \\ (0.2946) \end{gathered}$ |
| College selectivity: fourth quartile (highest) | $\begin{gathered} 0.4861 \\ (0.2081) \end{gathered}$ | $\begin{gathered} -0.0883^{*} \\ (0.0417) \end{gathered}$ | $\begin{gathered} 0.5667 \\ (0.2421) \end{gathered}$ |  | $\begin{gathered} -0.0744 \\ (0.0475) \end{gathered}$ |
| Whether first college was in state (no dual credit) | $\begin{aligned} & 0.6182 . " \\ & (0.0538) \end{aligned}$ | $\begin{gathered} -0.0785 \\ (0.0154) \end{gathered}$ | $\begin{aligned} & 0.6207 * * \\ & (0.0681) \end{aligned}$ | $\begin{aligned} & -0.0681^{* *} \\ & (0.0206) \end{aligned}$ | $\begin{aligned} & -0.0794 \\ & (0.0198) \end{aligned}$ |


|  | All students (odds ratios) | All students (average marginal effects) | All students w/ rural interaction (odds ratios) | Rural students (average marginal effects) | Nonrural students (average marginal effects) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Percentage of high school students ever eligible for FRPL | $\begin{aligned} & 0.99099^{\prime \prime \prime} \\ & (0.0016) \end{aligned}$ | $\begin{gathered} \hline-0.0014^{\prime \prime \prime} \\ (0.0002) \end{gathered}$ | $\begin{aligned} & \hline 0.9899 " ' \\ & (0.0025) \end{aligned}$ | $\begin{aligned} & \hline-0.0008 \\ & (0.0003) \end{aligned}$ | $\begin{aligned} & -0.0015 \\ & (0.0004) \end{aligned}$ |
| Mean high school attendance rate | $\begin{gathered} 1.0022 \\ (0.0048) \end{gathered}$ | $\begin{gathered} 0.0003 \\ (0.0007) \end{gathered}$ | $\begin{gathered} 0.9880 \\ (0.0064) \end{gathered}$ | $\begin{aligned} & 0.0024 \\ & (0.0007) \end{aligned}$ | $\begin{gathered} -0.0018 \\ (0.0010) \end{gathered}$ |
| Mean high school standardized math scores | $\begin{aligned} & 1.3281 * * \\ & (0.0913) \end{aligned}$ | $\begin{aligned} & 0.0422 " * \\ & (0.0102) \end{aligned}$ | $\begin{aligned} & 1.5525 \\ & (0.1306) \end{aligned}$ | $\begin{array}{r} -0.0125 \\ (0.0152) \end{array}$ | $\begin{aligned} & 0.0667 \\ & (0.0128) \end{aligned}$ |
| Percentage of high school students identifying as students of color | $\begin{aligned} & 1.0064 \\ & (0.0018) \end{aligned}$ | $\begin{aligned} & 0.0009 \\ & (0.0003) \end{aligned}$ | $\begin{aligned} & 1.0082 \\ & (0.0022) \end{aligned}$ | $\begin{gathered} -0.0003 \\ (0.0005) \end{gathered}$ | $\begin{aligned} & 0.0012 \\ & (0.0003) \end{aligned}$ |
| Percentage of high school students ever classified as an English learner | $\begin{gathered} 0.9999 \\ (0.0023) \end{gathered}$ | $\begin{gathered} -0.0000 \\ (0.0003) \end{gathered}$ | $\begin{gathered} 1.0019 \\ (0.0039) \end{gathered}$ | $\begin{gathered} 0.0007 \\ (0.0005) \end{gathered}$ | $\begin{gathered} 0.0003 \\ (0.0006) \end{gathered}$ |
| Percentage of high school students qualified for an IEP | $\begin{gathered} 0.9988 \\ (0.0049) \end{gathered}$ | $\begin{gathered} -0.0002 \\ (0.0007) \end{gathered}$ | $\begin{gathered} 0.9871^{*} \\ (0.0062) \end{gathered}$ | $\begin{gathered} 0.0008 \\ (0.0008) \end{gathered}$ | $\begin{gathered} -0.0020^{*} \\ (0.0010) \end{gathered}$ |
| College listed tuition (in \$1,000s; FY 2019\$) | $\begin{gathered} 0.9856 \\ (0.0262) \end{gathered}$ | $\begin{gathered} -0.0022 \\ (0.0039) \end{gathered}$ | $\begin{gathered} 0.9534 \\ (0.0313) \end{gathered}$ | $\begin{gathered} 0.0035 \\ (0.0055) \end{gathered}$ | $\begin{gathered} -0.0072 \\ (0.0050) \end{gathered}$ |
| College required fees (in \$100s; FY 2019\$) | $\begin{gathered} 0.9975 \\ (0.0050) \end{gathered}$ | $\begin{gathered} -0.0004 \\ (0.0007) \end{gathered}$ | $\begin{gathered} 0.9940 \\ (0.0082) \end{gathered}$ | $\begin{gathered} -0.0001 \\ (0.0009) \end{gathered}$ | $\begin{gathered} -0.0009 \\ (0.0013) \end{gathered}$ |
| College fall full-time undergraduate enrollment (in 100s) | $\begin{gathered} 1.0035 \\ (0.0016) \end{gathered}$ | $\begin{gathered} 0.0005^{*} \\ (0.0002) \end{gathered}$ | $\begin{gathered} 1.0032 \\ (0.0022) \end{gathered}$ | $\begin{gathered} 0.0002 \\ (0.0003) \end{gathered}$ | $\begin{gathered} 0.0005 \\ (0.0003) \end{gathered}$ |
| College fall part-time undergraduate enrollment (in 100s) | $\begin{aligned} & 0.9971^{*} \\ & (0.0010) \end{aligned}$ | $\begin{aligned} & -0.0004 \\ & (0.0002) \end{aligned}$ | $\begin{gathered} 0.9971^{*} \\ (0.0014) \end{gathered}$ | $\begin{gathered} -0.0003 \\ (0.0002) \end{gathered}$ | $\begin{gathered} -0.0004^{*} \\ (0.0002) \end{gathered}$ |
| Distance from student's high school to college (in 10 s of miles) | $\begin{gathered} 1.0007 \\ (0.0004) \end{gathered}$ | $\begin{gathered} 0.0001 \\ (0.0001) \end{gathered}$ | $\begin{gathered} 1.0001 \\ (0.0006) \end{gathered}$ | $\begin{gathered} 0.0002 * \\ (0.0001) \end{gathered}$ | $\begin{gathered} 0.0000 \\ (0.0001) \end{gathered}$ |
| Rural \# Female |  |  | $\begin{gathered} 1.0073 \\ (0.0460) \end{gathered}$ |  |  |
| Rural \# American Indian/Alaska Native |  |  | $\begin{gathered} 1.2649 \\ (0.2192) \end{gathered}$ |  |  |


|  | All students (odds ratios) | All students (average marginal effects) | All students w/ rural interaction (odds ratios) | Rural students (average marginal effects) | Nonrural students (average marginal effects) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Rural \# Asian/Native Hawaiian/Pacific Islander |  |  | $\begin{gathered} 1.0211 \\ (0.1381) \end{gathered}$ |  |  |
| Rural \# Black |  |  | $\begin{gathered} 1.1096 \\ (0.2126) \end{gathered}$ |  |  |
| Rural \# Latinx |  |  | $\begin{gathered} 1.1398 \\ (0.0925) \end{gathered}$ |  |  |
| Rural \# Multiracial |  |  | $\begin{gathered} 0.9592 \\ (0.1502) \end{gathered}$ |  |  |
| Rural \# Student ever qualified for an IEP |  |  | $\begin{gathered} 1.1259 \\ (0.0820) \end{gathered}$ |  |  |
| Rural \# Student ever classified as an English learner |  |  | $\begin{gathered} 0.9744 \\ (0.0972) \end{gathered}$ |  |  |
| Rural \# Student ever eligible for FRPL |  |  | $\begin{gathered} 0.9785 \\ (0.0463) \end{gathered}$ |  |  |
| Rural \# Student ever enrolled in college course during high school (NSC) |  |  | $\begin{gathered} 1.0453 \\ (0.0495) \end{gathered}$ |  |  |
| Rural \# Standardized math assessment: first quartile (lowest) |  |  | $\begin{gathered} 1.2702 \\ (0.3038) \end{gathered}$ |  |  |
| Rural \# Standardized math assessment: second quartile |  |  | $\begin{gathered} 1.2690 \\ (0.3021) \end{gathered}$ |  |  |
| Rural \# Standardized math assessment: third quartile |  |  | $\begin{gathered} 1.3920 \\ (0.3272) \end{gathered}$ |  |  |
| Rural \# Standardized math assessment: fourth quartile (highest) |  |  | $\begin{gathered} 1.4337 \\ (0.3277) \end{gathered}$ |  |  |
| Rural \# Middle school test scores used |  |  | $\begin{gathered} 1.3981 \\ (0.3439) \end{gathered}$ |  |  |


|  | All students (odds ratios) | All students (average marginal effects) | All students w/ rural interaction (odds ratios) | Rural students (average marginal effects) | Nonrural students (average marginal effects) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Rural \# Standardized reading assessment: first quartile (lowest) |  |  | $\begin{gathered} 0.7187 \\ (0.1699) \end{gathered}$ |  |  |
| Rural \# Standardized reading assessment: second quartile |  |  | $\begin{gathered} 0.7502 \\ (0.1720) \end{gathered}$ |  |  |
| Rural \# Standardized reading assessment: third quartile |  |  | $\begin{gathered} 1.3920 \\ (0.3272) \end{gathered}$ |  |  |
| Rural \# Standardized reading assessment: fourth quartile (highest) |  |  | $\begin{gathered} 1.4337 \\ (0.3277) \end{gathered}$ |  |  |
| Rural \# Middle school test scores used |  |  | $\begin{gathered} 1.3981 \\ (0.3439) \end{gathered}$ |  |  |
| Rural \# Student attends rural college/university |  |  | $\begin{gathered} 0.7187 \\ (0.1699) \end{gathered}$ |  |  |
| Rural \# College selectivity: first quartile (lowest) |  |  | $\begin{gathered} 0.7502 \\ (0.1720) \end{gathered}$ |  |  |
| Rural \# College selectivity: second quartile |  |  | $\begin{gathered} 0.7176 \\ (0.1614) \end{gathered}$ |  |  |
| Rural \# College selectivity: third quartile |  |  | $\begin{gathered} 0.7668 \\ (0.1754) \end{gathered}$ |  |  |
| Rural \# College selectivity: fourth quartile (highest) |  |  | $\begin{gathered} 0.5966 \\ (0.1926) \end{gathered}$ |  |  |
| Rural \# Whether first college was in state (no dual credit) |  |  | $\begin{gathered} 0.7421^{*} \\ (0.1060) \end{gathered}$ |  |  |
| Rural \# Percentage of high school students ever eligible for FRPL |  |  | $\begin{gathered} 1.0033 \\ (2.5274) \end{gathered}$ |  |  |


|  | All students (odds ratios) | All students (average marginal effects) | All students w/ rural interaction (odds ratios) | Rural students (average marginal effects) | Nonrural students (average marginal effects) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Rural \# Mean high school attendance rate |  |  | $\begin{gathered} 1.0000 \\ \text { (.) } \end{gathered}$ |  |  |
| Rural \# Mean high school standardized math scores |  |  | $\begin{gathered} 4.4039 \\ (11.5168) \end{gathered}$ |  |  |
| Rural \# Percentage of high school students identifying as students of color |  |  | $1.0000$ <br> (.) |  |  |
| Rural \# Percentage of high school students ever classified as an English learner |  |  | $\begin{gathered} 1.0424 \\ (0.1706) \end{gathered}$ |  |  |
| Rural \# Percentage of high school students qualified for an IEP |  |  | $\begin{gathered} 1.0043 \\ (0.0035) \end{gathered}$ |  |  |
| Rural \# College listed tuition (in \$1,000s; FY 2019\$) |  |  | $\begin{aligned} & 1.02899^{* * *} \\ & (0.0085) \end{aligned}$ |  |  |
| Rural \# College required fees (in \$100s; FY 2019\$) |  |  | $\begin{aligned} & 0.5905 \\ & (0.0799) \end{aligned}$ |  |  |
| Rural \# College fall full-time undergraduate enrollment (in 100s) |  |  | $\begin{gathered} 0.9894 * \\ (0.0042) \end{gathered}$ |  |  |
| Rural \# College fall part-time undergraduate enrollment (in 100s) |  |  | $\begin{gathered} 1.0032 \\ (0.0053) \end{gathered}$ |  |  |
| Rural \# Distance from student's high school to college (in 10s of miles) |  |  | $\begin{gathered} 1.0189 * * \\ (0.0086) \end{gathered}$ |  |  |
| Constant | $\begin{gathered} 0.3093^{*} \\ (0.1556) \end{gathered}$ |  | $\begin{gathered} 1.0750 \\ (0.0540) \end{gathered}$ |  |  |
| Observations | 66,413 | 66,413 | 66,413 | 28,058 | 38,355 |

* $p<0.05$, ** $p<0.01$, *** $p<0.001$

IEP = individualized education program; FRPL = free or reduced-price lunch; NFP = not-for-profit; FY= fiscal year Note: All models are logistic regression models and include student's grade 12 year and college entry year fixed effects. College variables are specific to the first college a student attended after high school, in the year of entry. Reference category for standardized test scores: students who are missing standardized test scores. Reference category for college selectivity: open access. Robust standard errors, clustered at the high school, in parentheses. Source: Authors' analysis of Oregon Department of Education, Integrated Postsecondary Education Data System, and National Student Clearinghouse data.

Table B5. Relationships between student-, high school-, and college-level characteristics and college completion; 2010-2014 pooled

|  | All students (odds ratios) | All students (average marginal effects) | All students w/ rural interaction (odds ratios) | Rural students (average marginal effects) | Nonrural students (average marginal effects) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Rural | $\begin{gathered} 0.9545 \\ (0.0295) \end{gathered}$ | $\begin{gathered} -0.0086 \\ (0.0058) \end{gathered}$ | $\begin{gathered} \hline 2.0989 \\ (1.4772) \end{gathered}$ |  |  |
| Female | $\begin{aligned} & 1.5907 \cdots \\ & (0.0239) \end{aligned}$ | $\begin{aligned} & 0.0867 \cdots \\ & (0.0028) \end{aligned}$ | $\begin{aligned} & 1.6294 \\ & (0.0317) \end{aligned}$ | $\begin{aligned} & 0.08233^{\prime \cdots} \\ & (0.0045) \end{aligned}$ | $\begin{aligned} & 0.0894 \\ & (0.0036) \end{aligned}$ |
| American Indian/Alaska Native | $\begin{aligned} & 0.7591 \cdots \\ & (0.0483) \end{aligned}$ | $\begin{aligned} & -0.0508 * * \\ & (0.0116) \end{aligned}$ | $\begin{aligned} & 0.63588^{* * *} \\ & (0.0581) \end{aligned}$ | $\begin{gathered} -0.0275 \\ (0.0144) \end{gathered}$ | $\begin{aligned} & -0.0821^{\ldots *} \\ & (0.0163) \end{aligned}$ |
| Asian/Native Hawaiian/Pacific Islander | $\begin{aligned} & 1.2638 \\ & (0.0513) \end{aligned}$ | $\begin{aligned} & 0.0440 \\ & (0.0077) \end{aligned}$ | $\begin{aligned} & 1.2091^{* * *} \\ & (0.0550) \end{aligned}$ | $\begin{aligned} & 0.0520 \text { "' } \\ & (0.0154) \end{aligned}$ | $\begin{aligned} & 0.0348 \cdots \\ & (0.0084) \end{aligned}$ |
| Black | $\begin{aligned} & 0.80066^{* * *} \\ & (0.0366) \end{aligned}$ | $\begin{aligned} & -0.0411 \cdots \\ & (0.0084) \end{aligned}$ | $\begin{aligned} & 0.7643^{* * *} \\ & (0.0369) \end{aligned}$ | $\begin{gathered} -0.0108 \\ (0.0250) \end{gathered}$ | $\begin{aligned} & -0.0490 \\ & (0.0087) \end{aligned}$ |
| Latinx | $\begin{gathered} 0.9602 \\ (0.0312) \end{gathered}$ | $\begin{gathered} -0.0076 \\ (0.0060) \end{gathered}$ | $\begin{gathered} 0.9249 \\ (0.0382) \end{gathered}$ | $\begin{gathered} 0.0086 \\ (0.0077) \end{gathered}$ | $\begin{gathered} -0.0143 \\ (0.0076) \end{gathered}$ |
| Multiracial | $\begin{aligned} & 0.8192 \\ & (0.0410) \end{aligned}$ | $\begin{aligned} & -0.0369+\cdots \\ & (0.0092) \end{aligned}$ | $\begin{aligned} & 0.7853 \\ & (0.0445) \end{aligned}$ | $\begin{gathered} -0.0204 \\ (0.0192) \end{gathered}$ | $\begin{aligned} & -0.0441^{* *} \\ & (0.0103) \end{aligned}$ |
| Student ever qualified for an IEP | $\begin{aligned} & 0.8254 \\ & (0.0229) \end{aligned}$ | $\begin{aligned} & -0.0355^{* * *} \\ & (0.0051) \end{aligned}$ | $\begin{aligned} & 0.8172 \\ & (0.0292) \end{aligned}$ | $\begin{aligned} & -0.0320 \\ & (0.0082) \end{aligned}$ | $\begin{aligned} & -0.0368 \\ & (0.0065) \end{aligned}$ |
| Student ever classified as an English learner | $\begin{aligned} & 1.4605 \\ & (0.0586) \end{aligned}$ | $\begin{aligned} & 0.0705^{\cdots} \\ & (0.0075) \end{aligned}$ | $\begin{aligned} & 1.4704 \\ & (0.0751) \end{aligned}$ | $\begin{aligned} & 0.06344^{* * \prime} \\ & (0.0114) \end{aligned}$ | $\begin{aligned} & 0.0696 \\ & (0.0091) \end{aligned}$ |
| Student ever eligible for FRPL | $\begin{aligned} & 0.66900^{* *} \\ & (0.0126) \end{aligned}$ | $\begin{aligned} & -0.0762 \\ & (0.0036) \end{aligned}$ | $\begin{aligned} & 0.6969 \cdots \\ & (0.0157) \end{aligned}$ | $\begin{aligned} & -0.0886 \\ & (0.0058) \end{aligned}$ | $\begin{aligned} & -0.0671^{* *} \\ & (0.0042) \end{aligned}$ |
| Student ever enrolled in college course during high school (NSC) | $\begin{aligned} & 1.62566^{* *} \\ & (0.0308) \end{aligned}$ | $\begin{aligned} & 0.0921 \cdots \\ & (0.0036) \end{aligned}$ | $\begin{aligned} & 1.59888^{* *} \\ & (0.0418) \end{aligned}$ | $\begin{aligned} & 0.1022 \\ & (0.0052) \end{aligned}$ | $\begin{aligned} & 0.0864 \\ & (0.0048) \end{aligned}$ |
| Standardized math assessment: first quartile (lowest) | $\begin{aligned} & 0.5719 \cdots \\ & (0.0326) \end{aligned}$ | $\begin{aligned} & -0.1060 \cdots \\ & (0.0110) \end{aligned}$ | $\begin{aligned} & 0.6062 \\ & (0.0401) \end{aligned}$ | $\begin{aligned} & -0.1239 \cdots \\ & (0.0198) \end{aligned}$ | $\begin{aligned} & -0.0943^{* *} \\ & (0.0125) \end{aligned}$ |


|  | All students (odds ratios) | All students (average marginal effects) | All students w/ rural interaction (odds ratios) | Rural students (average marginal effects) | Nonrural students (average marginal effects) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Standardized math assessment: second quartile | $\begin{aligned} & \hline 0.7328{ }^{\prime \prime \prime} \\ & (0.0388) \end{aligned}$ | $\begin{aligned} & \hline-0.0600{ }^{\text {" }} \\ & (0.0103) \end{aligned}$ | $\begin{aligned} & 0.7836 " 1 \\ & (0.0494) \end{aligned}$ | $\begin{gathered} \hline-0.0811^{\prime \prime \prime} \\ (0.0183) \end{gathered}$ | $\begin{aligned} & -0.0465 \\ & (0.0121) \end{aligned}$ |
| Standardized math assessment: third quartile | $\begin{gathered} 0.9675 \\ (0.0524) \end{gathered}$ | $\begin{gathered} -0.0065 \\ (0.0106) \end{gathered}$ | $\begin{gathered} 1.0184 \\ (0.0633) \end{gathered}$ | $\begin{gathered} -0.0222 \\ (0.0195) \end{gathered}$ | $\begin{gathered} 0.0035 \\ (0.0120) \end{gathered}$ |
| Standardized math assessment: fourth quartile (highest) | $\begin{aligned} & 1.30388^{\cdots} \\ & (0.0727) \end{aligned}$ | $\begin{aligned} & 0.05244^{\cdots} \\ & (0.0110) \end{aligned}$ | $\begin{aligned} & 1.3741^{* *} \\ & (0.0903) \end{aligned}$ | $\begin{gathered} 0.0386 \\ (0.0198) \end{gathered}$ | $\begin{aligned} & 0.0611^{\prime \prime \prime} \\ & (0.0127) \end{aligned}$ |
| Middle school test scores used | $\begin{gathered} 0.9787 \\ (0.0842) \end{gathered}$ | $\begin{aligned} & -0.0040 \\ & (0.0159) \end{aligned}$ | $\begin{gathered} 0.9782 \\ (0.1002) \end{gathered}$ | $\begin{aligned} & -0.0070 \\ & (0.0305) \end{aligned}$ | $\begin{aligned} & -0.0040 \\ & (0.0187) \end{aligned}$ |
| Standardized reading assessment: first quartile (lowest) | $\begin{gathered} 0.8633^{*} \\ (0.0506) \end{gathered}$ | $\begin{gathered} -0.0274^{*} \\ (0.0110) \end{gathered}$ | $\begin{aligned} & 0.8012 * \\ & (0.0582) \end{aligned}$ | $\begin{gathered} -0.0068 \\ (0.0181) \end{gathered}$ | $\begin{aligned} & -0.0410^{+*} \\ & (0.0135) \end{aligned}$ |
| Standardized reading assessment: second quartile | $\begin{gathered} 1.0519 \\ (0.0559) \end{gathered}$ | $\begin{gathered} 0.0095 \\ (0.0100) \end{gathered}$ | $\begin{gathered} 0.9602 \\ (0.0601) \end{gathered}$ | $\begin{gathered} 0.03488^{*} \\ (0.0169) \end{gathered}$ | $\begin{gathered} -0.0076 \\ (0.0117) \end{gathered}$ |
| Standardized reading assessment: third quartile | $\begin{aligned} & 1.2170 \cdots \\ & (0.0669) \end{aligned}$ | $\begin{aligned} & 0.0373 \\ & (0.0104) \end{aligned}$ | $\begin{gathered} 1.0931 \\ (0.0704) \end{gathered}$ | $\begin{aligned} & 0.0687 \\ & (0.0173) \end{aligned}$ | $\begin{gathered} 0.0166 \\ (0.0120) \end{gathered}$ |
| Standardized reading assessment: fourth quartile (highest) | $\begin{aligned} & 1.38677^{* *} \\ & (0.0754) \end{aligned}$ | $\begin{aligned} & 0.0623=" \\ & (0.0103) \end{aligned}$ | $\begin{aligned} & 1.2328 * * \\ & (0.0815) \end{aligned}$ | $\begin{aligned} & 0.0973 "+ \\ & (0.0166) \end{aligned}$ | $\begin{aligned} & 0.0390^{* *} \\ & (0.0124) \end{aligned}$ |
| Middle school test scores used | $\begin{aligned} & 0.8560 \\ & (0.0869) \end{aligned}$ | $\begin{aligned} & -0.0287 \\ & (0.0186) \end{aligned}$ | $\begin{aligned} & 0.7824^{*} \\ & (0.0940) \end{aligned}$ | $\begin{aligned} & -0.0072 \\ & (0.0324) \end{aligned}$ | $\begin{aligned} & -0.0444^{*} \\ & (0.0217) \end{aligned}$ |
| Student attends rural college/university | $\begin{aligned} & 1.1111^{*} \\ & (0.0429) \end{aligned}$ | $\begin{aligned} & 0.0196 \text { " } \\ & (0.0072) \end{aligned}$ | $\begin{aligned} & 1.24299^{* * *} \\ & (0.0599) \end{aligned}$ | $\begin{gathered} 0.0075 \\ (0.0101) \end{gathered}$ | $\begin{aligned} & 0.0396 \\ & (0.0088) \end{aligned}$ |
| College selectivity: first quartile (lowest) | $\begin{aligned} & 1.2619 \cdots \\ & (0.0796) \end{aligned}$ | $\begin{aligned} & 0.0451 \cdots \\ & (0.0125) \end{aligned}$ | $\begin{gathered} 1.25788^{* *} \\ (0.0944) \end{gathered}$ | $\begin{gathered} 0.0579^{*} \\ (0.0242) \end{gathered}$ | $\begin{aligned} & 0.0441^{*} \\ & (0.0148) \end{aligned}$ |
| College selectivity: second quartile | $\begin{aligned} & 1.3850 \\ & (0.0857) \end{aligned}$ | $\begin{aligned} & 0.0633 \\ & (0.0124) \end{aligned}$ | $\begin{aligned} & 1.4302 \\ & (0.1079) \end{aligned}$ | $\begin{aligned} & 0.0628^{* *} \\ & (0.0226) \end{aligned}$ | $\begin{aligned} & 0.0688 \\ & (0.0151) \end{aligned}$ |
| College selectivity: third quartile | $\begin{gathered} 1.0882 \\ (0.0490) \end{gathered}$ | $\begin{gathered} 0.0163 \\ (0.0088) \end{gathered}$ | $\begin{gathered} 1.1355^{*} \\ (0.0635) \end{gathered}$ | $\begin{gathered} 0.0067 \\ (0.0146) \end{gathered}$ | $\begin{gathered} 0.0244^{*} \\ (0.0110) \end{gathered}$ |
| College selectivity: fourth quartile (highest) | $\begin{aligned} & 1.3875 \\ & (0.0673) \end{aligned}$ | $\begin{aligned} & 0.0637 \\ & (0.0098) \end{aligned}$ | $\begin{aligned} & 1.4945 \\ & (0.0996) \end{aligned}$ | $\begin{aligned} & 0.0442^{*} \\ & (0.0137) \end{aligned}$ | $\begin{aligned} & 0.0772 \\ & (0.0135) \end{aligned}$ |


|  | All students (odds ratios) | All students (average marginal effects) | All students w/ rural interaction (odds ratios) | Rural students (average marginal effects) | Nonrural students (average marginal effects) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Oregon two-year public | $\begin{aligned} & \hline 0.6550 " \text { "' } \\ & (0.0248) \end{aligned}$ | $\begin{aligned} & -0.0812 " m \\ & (0.0076) \end{aligned}$ | $\begin{aligned} & \hline 0.6595^{\prime \prime \prime} \\ & (0.0340) \end{aligned}$ | $\begin{gathered} \hline-0.0769{ }^{\prime \prime \prime} \\ (0.0119) \end{gathered}$ | $\begin{aligned} & -0.0777 \\ & (0.0101) \end{aligned}$ |
| Oregon four-year private NFP | $\begin{aligned} & 0.49599^{\prime \prime *} \\ & (0.0334) \end{aligned}$ | $\begin{aligned} & -0.1327 * * \\ & (0.0121) \end{aligned}$ | $\begin{aligned} & 0.43922^{+* *} \\ & (0.0343) \end{aligned}$ | $\begin{aligned} & -0.09588^{\cdots \cdots} \\ & (0.0228) \end{aligned}$ | $\begin{aligned} & -0.1516^{* * *} \\ & (0.0137) \end{aligned}$ |
| Public, out-of-state | $\begin{gathered} 0.9910 \\ (0.0367) \end{gathered}$ | $\begin{gathered} -0.0017 \\ (0.0072) \end{gathered}$ | $\begin{gathered} 0.9462 \\ (0.0430) \end{gathered}$ | $\begin{gathered} 0.0101 \\ (0.0125) \end{gathered}$ | $\begin{aligned} & -0.0103 \\ & (0.0085) \end{aligned}$ |
| Public, out-of-state two-year w/ Oregon tuition | $\begin{gathered} 1.1675 \\ (0.2190) \end{gathered}$ | $\begin{gathered} 0.0300 \\ (0.0362) \end{gathered}$ | $\begin{gathered} 0.4420 * \\ (0.1824) \end{gathered}$ | $\begin{gathered} 0.0437 \\ (0.0396) \end{gathered}$ | $\begin{aligned} & -0.1505^{*} \\ & (0.0733) \end{aligned}$ |
| Private NFP, out-ofstate | $\begin{aligned} & 0.5639 " * \\ & (0.0336) \end{aligned}$ | $\begin{aligned} & -0.1092+\cdots \\ & (0.0109) \end{aligned}$ | $\begin{aligned} & 0.48399^{\cdots \prime} \\ & (0.0320) \end{aligned}$ | $\begin{aligned} & -0.06388^{* *} \\ & (0.0203) \end{aligned}$ | $\begin{aligned} & -0.1343^{\cdots \prime} \\ & (0.0117) \end{aligned}$ |
| Other (All for-profits, two-year private NFP) | $\begin{aligned} & 0.5226 \cdots \\ & (0.0373) \end{aligned}$ | $\begin{aligned} & -0.1232+\cdots \\ & (0.0133) \end{aligned}$ | $\begin{aligned} & 0.56888^{* * *} \\ & (0.0565) \end{aligned}$ | $\begin{aligned} & -0.12922^{* * *} \\ & (0.0199) \end{aligned}$ | $\begin{aligned} & -0.1050 \\ & (0.0184) \end{aligned}$ |
| Percentage of high school students ever eligible for FRPL | $\begin{aligned} & 0.9906{ }^{* *} \\ & (0.0035) \end{aligned}$ | $\begin{gathered} -0.0017 \\ (0.0006) \end{gathered}$ | $\begin{gathered} 0.9934 \\ (0.0047) \end{gathered}$ | $\begin{gathered} -0.0021^{*} \\ (0.0009) \end{gathered}$ | $\begin{gathered} -0.0012 \\ (0.0009) \end{gathered}$ |
| Mean high school attendance rate | $\begin{aligned} & 0.9941+" \\ & (0.0012) \end{aligned}$ | $\begin{aligned} & -0.0011^{* * *} \\ & (0.0002) \end{aligned}$ | $\begin{aligned} & 0.99344^{* * *} \\ & (0.0017) \end{aligned}$ | $\begin{gathered} -0.0006 \\ (0.0003) \end{gathered}$ | $\begin{aligned} & -0.0012^{+\cdots} \\ & (0.0003) \end{aligned}$ |
| Mean high school standardized math scores | $\begin{gathered} 1.0090^{*} \\ (0.0040) \end{gathered}$ | $\begin{gathered} 0.0017^{*} \\ (0.0007) \end{gathered}$ | $\begin{gathered} 1.0127^{*} \\ (0.0053) \end{gathered}$ | $\begin{gathered} 0.0011 \\ (0.0010) \end{gathered}$ | $\begin{gathered} 0.0023^{*} \\ (0.0010) \end{gathered}$ |
| Percentage of high school students identifying as students of color | $\begin{gathered} 1.0030 * \\ (0.0014) \end{gathered}$ | $\begin{gathered} 0.0006 * \\ (0.0003) \end{gathered}$ | $\begin{gathered} 1.0031 * \\ (0.0016) \end{gathered}$ | $\begin{gathered} -0.0002 \\ (0.0006) \end{gathered}$ | $\begin{gathered} 0.0006{ }^{*} \\ (0.0003) \end{gathered}$ |
| Percentage of high school students ever classified as an English learner | $\begin{gathered} 1.0034 \\ (0.0019) \end{gathered}$ | $\begin{gathered} 0.0006 \\ (0.0004) \end{gathered}$ | $\begin{gathered} 1.0064 \\ (0.0035) \end{gathered}$ | $\begin{gathered} 0.0009 \\ (0.0006) \end{gathered}$ | $\begin{gathered} 0.0012 \\ (0.0006) \end{gathered}$ |
| Percentage of high school students qualified for an IEP | $\begin{gathered} 0.9943 \\ (0.0033) \end{gathered}$ | $\begin{gathered} -0.0011 \\ (0.0006) \end{gathered}$ | $\begin{gathered} 0.9964 \\ (0.0047) \end{gathered}$ | $\begin{gathered} -0.0018 * \\ (0.0008) \end{gathered}$ | $\begin{gathered} -0.0007 \\ (0.0009) \end{gathered}$ |
| $\begin{aligned} & \text { College listed tuition } \\ & \text { (in \$1,000s; FY } \\ & 2019 \$ \text { ) } \end{aligned}$ | $\begin{aligned} & 1.05566^{\cdots} \\ & (0.0020) \end{aligned}$ | $\begin{aligned} & 0.0101^{* \prime *} \\ & (0.0004) \end{aligned}$ | $\begin{aligned} & 1.0600 \\ & (0.0024) \end{aligned}$ | $\begin{aligned} & 0.0092^{\cdots+\prime} \\ & (0.0007) \end{aligned}$ | $\begin{aligned} & 0.0106 \\ & (0.0004) \end{aligned}$ |
| College required fees (in \$100s; FY 2019\$) | $\begin{aligned} & 1.0057 \\ & (0.0016) \end{aligned}$ | $\begin{aligned} & 0.0011^{* * *} \\ & (0.0003) \end{aligned}$ | $\begin{gathered} 1.0047^{*} \\ (0.0020) \end{gathered}$ | $\begin{aligned} & 0.0016 \\ & (0.0005) \end{aligned}$ | $\begin{gathered} 0.0008 * \\ (0.0004) \end{gathered}$ |


|  | All students (odds ratios) | All students (average marginal effects) | All students w/ rural interaction (odds ratios) | Rural students (average marginal effects) | Nonrural students (average marginal effects) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| College fall full-time undergraduate enrollment (in 100s) | $\begin{aligned} & 1.00244^{\prime \prime \prime} \\ & (0.0002) \end{aligned}$ | $\begin{aligned} & 0.0004^{\text {"1 }} \\ & (0.0000) \end{aligned}$ | $\begin{aligned} & 1.0028^{\prime \prime \prime} \\ & (0.0003) \end{aligned}$ | $\begin{aligned} & 0.0003^{\text {"1 }} \\ & (0.0001) \end{aligned}$ | $\begin{aligned} & 0.0005 \\ & (0.0001) \end{aligned}$ |
| College fall part-time undergraduate enrollment (in 100s) | $\begin{aligned} & 0.9980 \\ & (0.0002) \end{aligned}$ | $\begin{aligned} & -0.0004 \\ & (0.0000) \end{aligned}$ | $\begin{aligned} & 0.9978 \\ & (0.0003) \end{aligned}$ | $\begin{aligned} & -0.0002{ }^{+*} \\ & (0.0001) \end{aligned}$ | $\begin{aligned} & -0.0004 \\ & (0.0001) \\ & \hline \cdots \end{aligned}$ |
| Distance from student's high school to college (in 10s of miles) | $\begin{gathered} 0.9997^{*} \\ (0.0001) \end{gathered}$ | $\begin{aligned} & -0.0001^{*} \\ & (0.0000) \end{aligned}$ | $\begin{gathered} 0.9998 \\ (0.0002) \end{gathered}$ | $\begin{aligned} & -0.0001^{*} \\ & (0.0000) \end{aligned}$ | $\begin{aligned} & -0.0000 \\ & (0.0000) \end{aligned}$ |
| Rural \# Female |  |  | $\begin{gathered} 0.9421^{*} \\ (0.0286) \end{gathered}$ |  |  |
| Rural \# American Indian/Alaska Native |  |  | $\begin{gathered} 1.3598 * \\ (0.1628) \end{gathered}$ |  |  |
| Rural \# Asian/Native Hawaiian/Pacific Islander |  |  | $\begin{gathered} 1.0809 \\ (0.0980) \end{gathered}$ |  |  |
| Rural \# Black |  |  | $\begin{gathered} 1.2363 \\ (0.1738) \end{gathered}$ |  |  |
| Rural \# Latinx |  |  | $\begin{gathered} 1.1311^{*} \\ (0.0652) \end{gathered}$ |  |  |
| Rural \# Multiracial |  |  | $\begin{gathered} 1.1433 \\ (0.1334) \end{gathered}$ |  |  |
| Rural \# Student ever qualified for an IEP |  |  | $\begin{gathered} 1.0340 \\ (0.0584) \end{gathered}$ |  |  |
| Rural \# Student ever classified as an English learner |  |  | $\begin{gathered} 0.9432 \\ (0.0729) \end{gathered}$ |  |  |
| Rural \# Student ever eligible for FRPL |  |  | $\begin{gathered} 0.9102^{*} \\ (0.0337) \end{gathered}$ |  |  |
| Rural \# Student ever enrolled in college course during high school (NSC) |  |  | $\begin{gathered} 1.0482 \\ (0.0385) \end{gathered}$ |  |  |
| Rural \# Standardized math assessment: first quartile (lowest) |  |  | $\begin{gathered} 0.8628 \\ (0.1036) \end{gathered}$ |  |  |

$\left.\begin{array}{lcccc}\hline & \begin{array}{c}\text { All students } \\ \text { (odds ratios) }\end{array} & \begin{array}{c}\text { All students } \\ \text { (average } \\ \text { marginal } \\ \text { effects) }\end{array} & \begin{array}{c}\text { All students w/ } \\ \text { rural interaction } \\ \text { (odds ratios) }\end{array} & \begin{array}{c}\text { Rural students } \\ \text { (average } \\ \text { marginal } \\ \text { effects) }\end{array}\end{array} \begin{array}{c}\text { Nonrural } \\ \text { students } \\ \text { (average } \\ \text { marginal } \\ \text { effects) }\end{array}\right]$
\(\left.$$
\begin{array}{lccc}\hline & \text { All students } \\
\text { (odds ratios) } & \begin{array}{c}\text { All students } \\
\text { (average } \\
\text { marginal } \\
\text { effects) }\end{array} & \begin{array}{c}\text { All students w/ } \\
\text { rural interaction } \\
\text { (odds ratios) }\end{array} & \begin{array}{c}\text { Rural students } \\
\text { (average } \\
\text { marginal } \\
\text { effects) }\end{array}\end{array}
$$ \begin{array}{c}Nonrural <br>
students <br>
(average <br>
marginal <br>

effects)\end{array}\right]\)| Rural \# College |
| :--- |
| selectivity: third |
| quartile |

$\left.\begin{array}{lcccc}\hline & \begin{array}{c}\text { All students } \\ \text { (odds ratios) }\end{array} & \begin{array}{c}\text { All students } \\ \text { (average } \\ \text { marginal } \\ \text { effects) }\end{array} & \begin{array}{c}\text { All students w/ } \\ \text { rural interaction } \\ \text { (odds ratios) }\end{array} & \begin{array}{c}\text { Rural students } \\ \text { (average } \\ \text { marginal } \\ \text { effects) }\end{array}\end{array} \begin{array}{c}\text { Nonrural } \\ \text { students } \\ \text { (average } \\ \text { marginal } \\ \text { effects) }\end{array}\right]$
${ }^{*} p<0.05$, ${ }^{* *} p<0.01,{ }^{* * *} p<0.001$
IEP = individualized education program; FRPL = free or reduced-price lunch; NFP = not-for-profit; FY = fiscal year Note: All models are logistic regression models and include student's grade 12 year and college entry year fixed effects. College variables are specific to the first college a student attended after high school, in the year of entry. Reference category for standardized test scores: students who are missing standardized test scores. Reference category for college selectivity: open access. Robust standard errors, clustered at the high school, in parentheses. Source: Authors' analysis of Oregon Department of Education, Integrated Postsecondary Education Data System, and National Student Clearinghouse data.

## Appendix C. Decomposition results

Table C1. Decomposing differences in outcomes between rural and nonrural students

|  | Fall enrollment (immediate) | 16-month enrollment | College persistence | College transfer | Six-year college completion |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Overall Nonrural students | $\begin{aligned} & 0.561{ }^{* * *} \\ & (0.014) \end{aligned}$ | $\begin{aligned} & 0.661 * * \\ & (0.014) \end{aligned}$ | $\begin{aligned} & 0.738^{* * *} \\ & (0.009) \end{aligned}$ | $\begin{aligned} & 0.213^{* * *} \\ & (0.007) \end{aligned}$ | $\begin{aligned} & 0.498^{* * *} \\ & (0.014) \end{aligned}$ |
| Rural students | $\begin{aligned} & 0.433^{* * *} \\ & (0.008) \end{aligned}$ | $\begin{aligned} & 0.532^{* * *} \\ & (0.008) \end{aligned}$ | $\begin{aligned} & 0.661^{* * *} \\ & (0.006) \end{aligned}$ | $\begin{aligned} & 0.196 * * \\ & (0.004) \end{aligned}$ | $\begin{aligned} & 0.405^{* * *} \\ & (0.007) \end{aligned}$ |
| Difference in group means | $\begin{aligned} & 0.128^{* * *} \\ & (0.016) \end{aligned}$ | $\begin{aligned} & 0.129^{* * *} \\ & (0.016) \end{aligned}$ | $\begin{aligned} & 0.077^{* * *} \\ & (0.011) \end{aligned}$ | $\begin{gathered} 0.016 \\ (0.008) \end{gathered}$ | $\begin{aligned} & 0.092^{* * *} \\ & (0.015) \end{aligned}$ |
| Explained | $\begin{aligned} & 0.075^{* * *} \\ & (0.015) \end{aligned}$ | $\begin{aligned} & 0.080^{* * *} \\ & (0.015) \end{aligned}$ | $\begin{aligned} & 0.068 * * \\ & (0.011) \end{aligned}$ | $\begin{aligned} & 0.016 * \\ & (0.008) \end{aligned}$ | $\begin{aligned} & 0.083^{* * *} \\ & (0.015) \end{aligned}$ |
| Unexplained | $\begin{aligned} & 0.053+* \\ & (0.010) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.050 \\ & (0.009) \\ & \hline \end{aligned}$ | $\begin{gathered} 0.009 \\ (0.006) \\ \hline \end{gathered}$ | $\begin{gathered} 0.001 \\ (0.006) \\ \hline \end{gathered}$ | $\begin{gathered} 0.009 \\ (0.006) \\ \hline \end{gathered}$ |
| Explained: Differe Student attributes | due to change $0.043^{* * *}$ $(0.009)$ | attributes $(X$ $0.041^{* * *}$ $(0.009)$ | $\begin{aligned} & 0.014^{* * *} \\ & (0.004) \end{aligned}$ | $\begin{gathered} -0.002 \\ (0.004) \end{gathered}$ | $\begin{aligned} & 0.015^{*} \\ & (0.005) \end{aligned}$ |
| High school attributes | $\begin{aligned} & 0.034^{* * *} \\ & (0.009) \end{aligned}$ | $\begin{aligned} & 0.040 * * \\ & (0.008) \end{aligned}$ | $\begin{aligned} & 0.011^{* *} \\ & (0.004) \end{aligned}$ | $\begin{aligned} & 0.025 \\ & (0.005) \end{aligned}$ | $\begin{aligned} & 0.024^{* * *} \\ & (0.005) \end{aligned}$ |
| Year attributes | $\begin{aligned} & -0.002+ \\ & (0.001) \end{aligned}$ | $\begin{aligned} & -0.001^{* *} \\ & (0.000) \end{aligned}$ | $\begin{aligned} & 0.005 \\ & (0.001) \end{aligned}$ | $\begin{aligned} & 0.003^{* * *} \\ & (0.001) \end{aligned}$ | $\begin{aligned} & 0.004^{* * *} \\ & (0.001) \end{aligned}$ |
| College attributes |  |  | $\begin{aligned} & 0.037 \\ & (0.005) \end{aligned}$ | $\begin{gathered} -0.009+* \\ (0.002) \end{gathered}$ | $\begin{aligned} & 0.041^{* * *} \\ & (0.007) \end{aligned}$ |


| Unexplained: Difference due to changes in returns to attributes ( $\beta s$ ) and other unobservable characteristics |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Student attributes | $\begin{aligned} & -0.012 \\ & (0.011) \end{aligned}$ | $\begin{aligned} & -0.0288^{*} \\ & (0.011) \end{aligned}$ | $\begin{gathered} 0.002 \\ (0.009) \end{gathered}$ | $\begin{gathered} 0.002 \\ (0.010) \end{gathered}$ | $\begin{gathered} 0.019 \\ (0.010) \end{gathered}$ |
| High school attributes | $\begin{gathered} 0.015 \\ (0.203) \end{gathered}$ | $\begin{aligned} & -0.013 \\ & (0.184) \end{aligned}$ | $\begin{gathered} 0.205 \\ (0.174) \end{gathered}$ | $\begin{gathered} -0.537 \\ (0.118) \end{gathered}$ | $\begin{gathered} 0.005 \\ (0.119) \end{gathered}$ |
| Year attributes | $\begin{aligned} & 0.096 \cdots \\ & (0.006) \end{aligned}$ | $\begin{gathered} -0.048 * * \\ (0.005) \end{gathered}$ | $\begin{gathered} 0.038 \\ (0.021) \end{gathered}$ | $\begin{gathered} 0.008 \\ (0.014) \end{gathered}$ | $\begin{gathered} 0.028^{*} \\ (0.013) \end{gathered}$ |
| College attributes |  |  | $\begin{gathered} -0.003 \\ (0.020) \end{gathered}$ | $\begin{gathered} -0.088 \\ (0.142) \end{gathered}$ | $\begin{gathered} 0.032 \\ (0.019) \end{gathered}$ |
| Constant | $\begin{array}{r} -0.046 \\ (0.205) \\ \hline \end{array}$ | $\begin{array}{r} 0.139 \\ (0.183) \\ \hline \end{array}$ | $\begin{array}{r} -0.233 \\ (0.173) \\ \hline \end{array}$ | $\begin{array}{r} 0.615^{* *} \\ (0.185) \\ \hline \end{array}$ | $\begin{array}{r} -0.075 \\ (0.122) \\ \hline \end{array}$ |
| Observations | 182,732 | 179,070 | 125,693 | 66,413 | 39,409 |

[^8]year and college entry year (when applicable). College attributes include college rurality, tuition and fees, full-time and part-time undergraduate en rollment, distance from student's high school, sector, and selectivity .
Source: Authors' analysis of Oregon Department of Education, Integrated Postsecondary Education Data System, and National Student Clearinghouse data.

## Appendix D. Distance regression results

Table D1. Relationships between student- and high school-level characteristics and college enrollment (immediate fall); 2015-2019 pooled

|  | All students | Rural students | Nonrural students | All students | Rural students | Nonrural students | $\begin{gathered} \text { All } \\ \text { students } \end{gathered}$ | Rural students | Nonrural students | All students | Rural students | Nonrural students |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Distance from high school to nearest two-or four-year institution (in 10s of miles) | $\begin{aligned} & -0.0112^{*} \\ & (0.0045) \end{aligned}$ | $\begin{aligned} & -0.0033 \\ & (0.0040) \end{aligned}$ | $\begin{aligned} & -0.0285 \\ & (0.0114) \end{aligned}$ |  |  |  |  |  |  |  |  |  |
| Distance from high school to nearest two-year institution (in 10s of miles) |  |  |  | $\begin{aligned} & -0.0114^{* *} \\ & (0.0035) \end{aligned}$ | $\begin{array}{r} -0.0055 \\ (0.0033) \end{array}$ | $\begin{gathered} -0.0158 \\ (0.0081) \end{gathered}$ |  |  |  | $\begin{aligned} & -0.0102 * \\ & (0.0034) \end{aligned}$ | $\begin{aligned} & -0.0064^{*} \\ & (0.0030) \end{aligned}$ | $\begin{gathered} -0.0097 \\ (0.0083) \end{gathered}$ |
| Distance from high school to nearest four-year institution (in 10s of miles) |  |  |  |  |  |  | $\begin{aligned} & -0.0042^{*} \\ & (0.0021) \end{aligned}$ | $\begin{gathered} 0.0024 \\ (0.0024) \end{gathered}$ | $\begin{aligned} & -0.0330^{* *} \\ & (0.0123) \end{aligned}$ | $\begin{gathered} -0.0024 \\ (0.0019) \end{gathered}$ | $\begin{gathered} 0.0033 \\ (0.0023) \end{gathered}$ | $\begin{aligned} & -0.0293 * \\ & (0.0127) \end{aligned}$ |
| $N$ | 182,732 | 74,375 | 108,357 | 182,732 | 74,375 | 108,357 | 182,732 | 74,375 | 108,357 | 182,732 | 74,375 | 108,357 |

Note: All models report average marginal effects from logistic regression with robust standard errors, clustered at the high school, in parentheses. The same student, high school, college, grade 12 year, and college entry year variables included in other regression models are included here, but n ot reported. Distance is measured "as the crow flies." Standard errors in parentheses.
Source: Authors' analysis of Oregon Department of Education, Integ rated Postsecondary Education Data System, and National Student Clearinghouse data.

Table D2. Relationships between student- and high school-level characteristics and college enrollment (16-month); 2015-2019 pooled

|  | All students | Rural students | Nonrural students | $\begin{gathered} \hline \text { All } \\ \text { students } \\ \hline \end{gathered}$ | Rural students | Nonrural students | $\begin{gathered} \hline \text { All } \\ \text { students } \\ \hline \end{gathered}$ | Rural students | Nonrural students | $\begin{gathered} \hline \text { All } \\ \text { students } \\ \hline \end{gathered}$ | Rural students | Nonrural students |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Distance from high school to nearest two-or fouryear institution (in 10s of miles) | $\begin{aligned} & -0.0103^{*} \\ & (0.0039) \end{aligned}$ | $\begin{gathered} -0.0044 \\ (0.0038) \end{gathered}$ | $\begin{aligned} & -0.0226^{n} \\ & (0.0113) \end{aligned}$ |  |  |  |  |  |  |  |  |  |
| Distance from high school to nearest two-year institution (in 10s of miles) |  |  |  | $\begin{aligned} & -0.0100^{* *} \\ & (0.0031) \end{aligned}$ | $\begin{gathered} -0.0057 \\ (0.0030) \end{gathered}$ | $\begin{gathered} -0.0118 \\ (0.0079) \end{gathered}$ |  |  |  | $\begin{aligned} & -0.0099^{* * *} \\ & (0.0029) \end{aligned}$ | $\begin{aligned} & -0.0076 * * \\ & (0.0025) \end{aligned}$ | $\begin{gathered} -0.0085 \\ (0.0083) \end{gathered}$ |
| Distance from high school to nearest four-year institution (in 10s of miles) |  |  |  |  |  |  | $\begin{gathered} -0.0021 \\ (0.0018) \end{gathered}$ | $\begin{gathered} 0.0046^{*} \\ (0.0022) \end{gathered}$ | $\begin{gathered} -0.0201 \\ (0.0113) \end{gathered}$ | $\begin{aligned} & -0.0003 \\ & (0.0016) \end{aligned}$ | $\begin{gathered} 0.0056^{*} \\ (0.0022) \end{gathered}$ | $\begin{gathered} -0.0166 \\ (0.0118) \end{gathered}$ |
| $N$ | 179,070 | 72,615 | 106,455 | 179,070 | 72,615 | 106,455 | 179,070 | 72,615 | 106,455 | 179,070 | 72,615 | 106,455 |

Note: All models report average marginal effects from logistic regression with robust standard errors, clustered at the high school, in parentheses. The same student, high school, college, grade 12 year, and college entry year variables included in other regression models are includ ed here, but not reported. Distance is measured "as the crow flies." Standard errors in parentheses.
Source: Authors' analysis of Oregon Department of Education, Integrated Postsecondary Education Data System, and National Student Clearinghouse data

Table D3. Relationships between student-, high school-, and college-level characteristics and first-year to second-year-fall persistence; 2015-2019 pooled

|  | All students | Rural students | Nonrural students | All students | Rural students | Nonrural students |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Distance from high school to first college (in 10s of miles) | $\begin{aligned} & -0.000037 \\ & (0.000029) \end{aligned}$ | $\begin{aligned} & -0.000008 \\ & (0.000057) \end{aligned}$ | $\begin{gathered} -0.000061 \\ (0.000033) \end{gathered}$ | $\begin{aligned} & 0.000314^{* \prime} \\ & (0.000111) \end{aligned}$ | $\begin{gathered} 0.000145 \\ (0.000188) \end{gathered}$ | $\begin{aligned} & 0.000413 \\ & (0.000121) \end{aligned}$ |
| Distance from high school to first college (in 10s of miles) ${ }^{\wedge}$ 2 |  |  |  | $\begin{aligned} & -0.000001 \\ & (0.000000) \\ & \hline \end{aligned}$ | $\begin{array}{r} -0.000000 \\ (0.000000) \\ \hline \end{array}$ | $\begin{aligned} & -0.000001^{* * *} \\ & (0.000000) \\ & \hline \end{aligned}$ |
| $N$ | 125,693 | 45,962 | 79,731 | 125,693 | 45,962 | 79,731 |

${ }^{*} \mathrm{p}<0.05,{ }^{* *} \mathrm{p}<0.01$, *** $\mathrm{p}<0.001$
Note: All models report average marginal effects from logistic regression with robust standard errors, clustered at the high school , in parentheses. The same student, high school, college, grade 12 year, and college entry year variables included in other regression models are included here, but not reported. Distance is measured "as the crow flies." Standard errors in parentheses.
Source: Authors' analysis of Oregon Department of Education, Integrated Postsecondary Education Data System, and National Student Clearinghouse data.
Table D4. Relationships between student-, high school-, and college-level characteristics and community college to four-year transfer; 2012-2016 pooled

|  | All students | Rural students | Nonrural students | All students | Rural students | Nonrural students |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Distance from high school to first college (in 10s of miles) | $\begin{gathered} 0.000107 \\ (0.000059) \end{gathered}$ | $\begin{gathered} 0.000185^{*} \\ (0.000076) \end{gathered}$ | $\begin{gathered} \hline 0.000019 \\ (0.000084) \end{gathered}$ | $\begin{aligned} & 0.000709 \\ & (0.000172) \end{aligned}$ | $\begin{aligned} & 0.000611^{\prime \prime} \\ & (0.000228) \end{aligned}$ | $\begin{aligned} & 0.000754^{\prime \prime} \\ & (0.000265) \end{aligned}$ |
| Distance from high school to first college (in 10s of miles) ^2 |  |  |  | $\begin{aligned} & -0.000002 \\ & (0.000000) \\ & \hline \end{aligned}$ | $\begin{aligned} & -0.000001^{*} \\ & (0.000001) \end{aligned}$ | $\begin{aligned} & -0.000002^{* *} \\ & (0.000001) \end{aligned}$ |
| $N$ | 66,413 | 28,058 | 38,355 | 66,413 | 28,058 | 38,355 |

${ }^{*} p<0.05,{ }^{* *} \mathrm{p}<0.01,{ }^{* * *} \mathrm{p}<0.001$
Note: All models report average marginal effects from logistic regression with robust standard errors, clustered at the high school, in parentheses. The same student, high school, college, grade 12 year, and college entry year variables included in o ther regression models are included here, but not reported. Distance is measured "as the crow flies." Standard errors in parentheses.
Source: Authors'analysis of Oregon Department of Education, Integrated Postsecondary Education Data System, and National Student Clearinghouse data.

Table D5. Relationships between student-, high school-, and college-level characteristics and college completion; 2010-2014 pooled

|  | All students | Rural students | Nonrural students | All students | Rural students | Nonrural students |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Distance from high school to first college (in 10s of miles) | $\begin{aligned} & -0.000062 \\ & (0.000026) \end{aligned}$ | $\begin{aligned} & -0.000094 \\ & (0.000044) \end{aligned}$ | $\begin{gathered} -0.000041 \\ (0.000032) \end{gathered}$ | $\begin{aligned} & -0.000422 \\ & (0.000094) \end{aligned}$ | $\begin{aligned} & -0.000140 \\ & (0.000150) \end{aligned}$ | $\begin{aligned} & -0.000608^{* N} \\ & (0.000130) \end{aligned}$ |
| Distance from high school to first college (in 10s of miles) ^2 |  |  |  | $\begin{aligned} & 0.000001+\cdots \\ & (0.000000) \end{aligned}$ | $\begin{gathered} 0.000000 \\ (0.000000) \end{gathered}$ | $\begin{aligned} & 0.000001^{* * *} \\ & (0.000000) \\ & \hline \end{aligned}$ |
| $N$ | 125,520 | 47,740 | 77,780 | 125,520 | 47,740 | 77,780 |

$p<0.05, \quad \mathrm{p}<0.01, \quad \mathrm{p}<0.001$
Note: All models report average marginal effects from logistic regression with robust standard errors, clustered at the high school, in parentheses. The same student, high school, college, grade 12 year, and college entry year variables included in other regression models are includ ed here, but not reported. Distance is measured "as the crow flies." Standard errors in parentheses.
Source: Authors' analysis of Oregon Department of Education, Integrated Postsecondary Education Data System, and National Student Clearinghouse data.

## Appendix E. Oregon high schools

Table E1. Oregon high schools by rurality and student participation in accelerated learning

| School name | District name | High school rurality | Reclassified as rural per Ford Family Foundation | National Center for Education Statistics Urbancentric locale | Urban Influence Code ${ }^{1}$ | At least one grade 12 student evertook college coursework | Percent of grade 912 students who took dualcredit course ${ }^{3}$ | Percent of grade 9-12 students who took directenrollment course | Percent of grade 912 students who took Advanced Placement (AP) course | Percent of grade 9-12 students who took <br> International Baccalaureate (IB) course |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Academy for Character Education | $\begin{gathered} \hline \text { South Lane SD } \\ 45 \mathrm{~J} 3 \end{gathered}$ | Rural | No | Town: Distant | 2 | No | * | * | 29\% | * |
| Academy of International Studies (at Woodburn) | $\begin{aligned} & \text { Woodburn SD } \\ & 103 \end{aligned}$ | Rural | Yes | Town: Fringe | 2 | No | 23\% | 17\% | * | * |
| Adrian High School | Adrian SD 61 | Rural | No | Rural: Distant | 5 | Yes | 24\% | 6\% | 18\% | * |
| AI Kennedy High School | South Lane SD 45J3 | Rural | No | Town: Distant | 2 | Yes | 18\% | 1\% | 40\% | * |
| Alsea High School | Alsea SD 7J | Rural | No | Rural: Distant | 2 | No | 34\% | 6\% | * | * |
| Amity High School | Amity SD 4J | Rural | No | Rural: Distant | 1 | Yes | 25\% | 2\% | 14\% | * |
| Arlington Community Charter School | Arlington SD 3 | Rural | No | Rural: Remote | 12 | Yes | 14\% | * | 2\% | 38\% |
| Ashland High School | Ashland SD 5 | Rural | Yes | Suburb: Mid-size | 2 | Yes | * | * | * | * |
| Astoria Senior High School | Astoria SD 1 | Rural | No | Town: Remote | 3 | Yes | 18\% | * | 10\% | * |
| Baker Early College | Baker SD 5J | Rural | No | Town: Remote | 11 | Yes | * | * | * | * |
| Baker High School | Baker SD 5J | Rural | No | Town: Remote | 11 | Yes | 51\% | 11\% | 8\% | * |
| Baker Web Academy | Baker SD 5J | Rural | No | Town: Remote | 11 | Yes | 29\% | 29\% | * | * |

[^9]| School name | District name | High school rurality | Reclassified as rural per Ford Family Foundation | National Center for Education Statistics Urbancentric locale | Urban Influence Code ${ }^{1}$ | At least one grade 12 student evertook college coursework | Percent of grade 912 <br> students who took dualcredit course ${ }^{3}$ | Percent of grade 9-12 students who took directenrollment course | Percent of grade 912 students who took Advanced Placement (AP) course | Percent of grade 9-12 students who took <br> International Baccalaureate (IB) course |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bandon Senior High School | Bandon SD 54 | Rural | No | Town: Remote | 8 | Yes | 24\% | 4\% | 5\% | * |
| Banks High School | Banks SD 13 | Rural | No | Rural: Distant | 1 | Yes | 34\% | * | * | * |
| Bonanza Junior/Senior High School | Klamath County SD | Rural | No | Rural: Remote | 8 | Yes | 8\% | * | 18\% | * |
| Bridge Charter Academy | Lowell SD 71 | Rural | No | Rural: Distant | 2 | Yes | 46\% | 2\% | 16\% | * |
| Bridges High School | Jefferson County SD 509J | Rural | No | Town: Distant | 6 | Yes | 4\% | 1\% | * | 28\% |
| Brookings-Harbor High School | Brookings-Harbor SD 17C | Rural | No | Town: Remote | 8 | Yes | * | 11\% | * | * |
| Burns High School | Harney County SD 3 | Rural | No | Town: Remote | 11 | Yes | 24\% | 2\% | 30\% | * |
| Burnt River School | $\begin{gathered} \text { Burnt River SD } \\ 30 \mathrm{~J} \end{gathered}$ | Rural | No | Rural: Remote | 11 | Yes | * | * | * | * |
| Butte Falls Charter School | Butte Falls SD 91 | Rural | No | Rural: Distant | 2 | Yes | 15\% | * | 12\% | * |
| Camas Valley School | Camas Valley SD 21J | Rural | No | Rural: Remote | 5 | Yes | 84\% | * | * | * |
| Canby High School | Canby SD 86 | Rural | Yes | Town: Fringe | 1 | Yes | * | * | * | * |
| Cascade Opportunity Center | Cascade SD 5 | Rural | Yes | Rural: Fringe | 2 | No | 3\% | 6\% | * | 38\% |
| Cascade Senior High School | Cascade SD 5 | Rural | Yes | Rural: Fringe | 2 | Yes | * | * | * | * |
| Central High School | Central SD 13J | Rural | Yes | Town: Fringe | 2 | Yes | 15\% | * | 9\% | 15\% |
| Central Linn High School | Central Linn SD 552 | Rural | No | Rural: Distant | 2 | No | 20\% | 38\% | * | * |
| Childs Way Charter School | South Lane SD 45J3 | Rural | No | Rural: Distant | 2 | Yes | 14\% | * | * | * |
| Chiloquin High School | Klamath County SD | Rural | No | Rural: Remote | 8 | Yes | * | * | * | * |
| Clatskanie Middle/High School | Clatskanie SD 6J | Rural | No | Rural: Distant | 1 | Yes | 36\% | * | 28\% | * |
| Colton High School | Colton SD 53 | Rural | No | Rural: Distant | 1 | Yes | * | * | * | * |
| Columbia County Education Campus | St Helens SD 502 | Rural | Yes | Town: Fringe | 1 | No | 26\% | * | * | * |


| School name | District name | High school rurality | Reclassified as rural per Ford Family Foundation | National Center for Education Statistics Urbancentric locale | Urban Influence Code ${ }^{1}$ | At least one grade 12 student ever took college coursework 2 | Percent of grade 912 students who took dualcredit course ${ }^{3}$ | Percent of grade 9-12 students who took directenrollment course | Percent of grade 912 students who took Advanced Placement (AP) course | Percent of grade 9-12 students who took <br> International Baccalaureate (IB) course |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Condon High School | Condon SD 25J | Rural | No | Rural: Remote | 12 | No | 28\% | * | 12\% | * |
| Coquille Junior Senior High | Coquille SD 8 | Rural | No | Town: Remote | 8 | Yes | 35\% | * | * | * |
| Cottage Grove High School | South Lane SD 45J3 | Rural | No | Town: Distant | 2 | Yes | * | * | 94\% | * |
| Cove Charter School | Cove SD 15 | Rural | No | Rural: Remote | 8 | Yes | * | * | * | * |
| Crane Union High School | Harney County Union High SD 1J | Rural | No | Rural: Remote | 11 | Yes | 30\% | 5\% | 5\% | * |
| Crater Lake Charter Academy | Eagle Point SD 9 | Rural | Yes | Suburb: Mid-size | 2 | Yes | 8\% | * | 15\% | 24\% |
| Creswell High School | Creswell SD 40 | Rural | Yes | Town: Fringe | 2 | Yes | 25\% | 2\% | 16\% | * |
| Crook County High School | Crook County SD | Rural | No | Town: Distant | 5 | Yes | 12\% | 3\% | 33\% | * |
| Crow Middle/High School | Crow-Applegate- <br> Lorane SD 66 | Rural | No | Rural: Distant | 2 | Yes | 30\% | 1\% | 37\% | * |
| Culver High School | Culver SD 4 | Rural | No | Rural: Distant | 6 | Yes | 21\% | 5\% | * | * |
| Dallas High School | Dallas SD | Rural | Yes | Town: Fringe | 2 | Yes | 6\% | 7\% | 7\% | * |
| Days Creek Charter School | Douglas County SD 15 | Rural | No | Rural: Distant | 5 | Yes | 26\% | 7\% | 30\% | * |
| Dayton High School | Dayton SD 8 | Rural | Yes | Rural: Fringe | 1 | Yes | 21\% | 8\% | 36\% | * |
| Dayville School | Dayville SD 16J | Rural | No | Rural: Remote | 12 | No | * | * | * | * |
| Destinations Academy | Coos Bay SD 9 | Rural | No | Town: Remote | 8 | No | 1\% | 4\% | * | 54\% |
| Dillard Alternative High School | Winston-Dillard SD 116 | Rural | No | Rural: Fringe | 5 | No | 11\% | 38\% | * | * |
| Douglas High School | Winston-Dillard SD 116 | Rural | No | Rural: Fringe | 5 | Yes | * | * | * | * |
| Dufur School | Dufur SD 29 | Rural | No | Rural: Distant | 3 | Yes | 34\% | * | * | * |
| EAGLE CAP Innovative HS | Baker SD 5J | Rural | No | Town: Remote | 11 | Yes | 16\% | * | 33\% | * |
| Eagle Point High School | Eagle Point SD 9 | Rural | Yes | Town: Fringe | 2 | Yes | 14\% | 8\% | 30\% | * |
| EagleRidge High School | Klamath Falls City Schools | Rural | No | Town: Remote | 8 | Yes | 13\% | 11\% | 7\% | 4\% |
| Echo School | Echo SD 5 | Rural | No | Rural: Fringe | 5 | Yes | * | * | * | * |


| School name | District name | High school rurality | Reclassified as rural per Ford Family Foundation | National Center for Education Statistics Urbancentric locale | Urban Influence Code ${ }^{1}$ | At least one grade 12 student ever took college coursework 2 | Percent of grade 912 students who took dualcredit course ${ }^{3}$ | Percent of grade 9-12 students who took directenrollment course | Percent of grade 912 students who took Advanced Placement (AP) course | Percent of grade 9-12 students who took <br> International Baccalaureate (IB) course |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Eddyville Charter School | Lincoln County SD | Rural | No | Rural: Distant | 8 | No | * | 6\% | * | * |
| Elgin High School | Elgin SD 23 | Rural | No | Rural: Remote | 8 | Yes | 25\% | 7\% | 9\% | * |
| Elkton Charter School | Elkton SD 34 | Rural | No | Rural: Remote | 5 | Yes | 20\% | 3\% | 3\% | * |
| Elmira High School | $\begin{aligned} & \text { Fern Ridge SD } \\ & 28 \mathrm{~J} \end{aligned}$ | Rural | Yes | Rural: Fringe | 2 | Yes | 9\% | 2\% | 25\% | 6\% |
| Enterprise High School | Enterprise SD 21 | Rural | No | Rural: Remote | 10 | Yes | 22\% | * | * | * |
| Eola Hills Charter School | Amity SD 4J | Rural | No | Rural: Distant | 2 | No | 14\% | * | 11\% | * |
| Estacada High School | Estacada SD 108 | Rural | Yes | Town: Fringe | 1 | Yes | 44\% | 5\% | 24\% | * |
| Falcon Heights Academy | Klamath County SD | Rural | No | Town: Remote | 8 | Yes | 13\% | 1\% | 25\% | 7\% |
| Falls City High School | Falls City SD 57 | Rural | No | Rural: Distant | 2 | Yes | 15\% | 22\% | 15\% | * |
| Forest Grove High School | $\begin{aligned} & \text { Forest Grove SD } \\ & 15 \end{aligned}$ | Rural | Yes | Suburb: Large | 1 | Yes | * | * | * | * |
| Fossil Charter School | Fossil SD 21J | Rural | No | Rural: Remote | 10 | No | 16\% | 6\% | 24\% | * |
| Gaston Jr/Sr High School | Gaston SD 511J | Rural | Yes | Rural: Fringe | 1 | Yes | 13\% | * | 12\% | * |
| Gervais High School | Gervais SD 1 | Rural | Yes | Town: Fringe | 2 | Yes | * | * | * | * |
| Gilchrist Junior/Senior High School | Klamath County SD | Rural | No | Rural: Remote | 8 | Yes | 31\% | * | * | * |
| Glendale High School | Glendale SD 77 | Rural | No | Rural: Remote | 5 | Yes | 23\% | 3\% | 14\% | * |
| Glide High School | Glide SD 12 | Rural | No | Rural: Distant | 5 | Yes | 17\% | * | * | * |
| Gold Beach High School Grant Union | Central Curry SD 1 | Rural | No | Rural: Remote | 8 | Yes | * | * | * | * |
| Junior/Senior High School | John Day SD 3 | Rural | No | Rural: Remote | 12 | Yes | * | * | * | * |
| Grants Pass High School | Grants Pass SD 7 | Rural | Yes | City: Small | 2 | Yes | 25\% | 6\% | 32\% | * |
| Harper Charter School | Harper SD 66 | Rural | No | Rural: Remote | 5 | Yes | 21\% | * | 17\% | * |
| Harrisburg High School | Harrisburg SD 7J | Rural | Yes | Town: Fringe | 2 | Yes | 30\% | * | 17\% | * |


| School name | District name | High school rurality | Reclassified as rural per Ford Family Foundation | National Center for Education Statistics Urbancentric locale | Urban Influence Code ${ }^{1}$ | At least one grade 12 student ever took college coursework 2 | Percent of grade 912 <br> students who took dualcredit course ${ }^{3}$ | Percent of grade 9-12 students who took directenrollment course | Percent of grade 912 students who took Advanced Placement (AP) course | Percent of grade 9-12 students who took <br> International Baccalaureate (IB) course |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hawthorne Middle/High School | Pendleton SD 16 | Rural | No | Town: Distant | 5 | Yes | 11\% | 20\% | * | * |
| Helix School | Helix SD 1 | Rural | No | Rural: Remote | 5 | Yes | * | * | * | * |
| Henley High School | Klamath County SD | Rural | No | Rural: Fringe | 8 | Yes | * | * | * | * |
| Heppner Junior/Senior High School Hermiston High School | Morrow SD 1 Hermiston SD 8 | Rural Rural | No No | Rural: Remote Town: Distant | 5 5 | Yes Yes | 7\% | $1 \%$ $13 \%$ | 27\% | * |
| Hidden Valley High School | Three Rivers/Josephine County SD | Rural | Yes | Rural: Fringe | 2 | Yes | 14\% | 3\% | * | 18\% |
| Hood River Valley High School | Hood River County SD | Rural | No | Rural: Fringe | 3 | Yes | * | * | * | * |
| Huntington School | Huntington SD 16J | Rural | No | Rural: Remote | 11 | Yes | 26\% | 11\% | 11\% | * |
| Illinois Valley High School | Three Rivers/Josephine County SD | Rural | No | Rural: Remote | 2 | Yes | * | * | * | * |
| Imbler Charter School | Imbler SD 11 | Rural | No | Rural: Distant | 8 | Yes | 26\% | 24\% | * | * |
| Insight School of Oregon Painted Hills | Mitchell SD 55 | Rural | No | Town: Distant | 5 | No | 30\% | 9\% | * | 37\% |
| Ione Community Charter School | Ione SD R2 | Rural | No | Rural: Remote | 5 | Yes | 27\% | * | * | * |
| Irrigon Junior/Senior High School | Morrow SD 1 | Rural | No | Town: Distant | 5 | Yes | 30\% | * | * | * |
| Jefferson High School | Jefferson SD 14J | Rural | Yes | Rural: Fringe | 2 | Yes | 20\% | 2\% | 30\% | * |
| Jewell School | Jewell SD 8 | Rural | No | Rural: Remote | 3 | Yes | 55\% | * | * | * |
| John F Kennedy High School | Mt Angel SD 91 | Rural | Yes | Town: Fringe | 2 | Yes | 12\% | 1\% | 27\% | * |
| Jordan Valley High School | $\begin{gathered} \text { Jordan Valley SD } \\ 3 \end{gathered}$ | Rural | No | Rural: Remote | 5 | Yes | 30\% | * | 19\% | * |
| Joseph Charter School | Joseph SD 6 | Rural | No | Rural: Remote | 10 | Yes | 35\% | 4\% | * | * |
| Junction City High School | Junction City SD 69 | Rural | Yes | Town: Fringe | 2 | Yes | 11\% | 14\% | * | * |


| School name | District name | High school rurality | Reclassified as rural per Ford Family Foundation | National Center for Education Statistics Urbancentric locale | Urban Influence Code ${ }^{1}$ | At least one grade 12 student evertook college coursework | Percent of grade 912 <br> students who took dualcredit course ${ }^{3}$ | Percent of grade 9-12 students who took directenrollment course | Percent of grade 912 students who took Advanced Placement (AP) course | Percent of grade 9-12 students who took <br> International Baccalaureate <br> (IB) course |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { Kings Valley Charter } \\ \text { School } \end{gathered}$ | Philomath SD 17J | Rural | No | Rural: Distant | 2 | No | 32\% | * | 26\% | * |
| Klamath Learning Center | Klamath Falls City Schools | Rural | No | Town: Remote | 8 | Yes | 34\% | 3\% | * | * |
| Klamath Union High School | Klamath Falls City Schools | Rural | No | Town: Remote | 8 | Yes | 23\% | 9\% | 26\% | * |
| Knappa High School | Knappa SD 4 | Rural | No | Rural: Distant | 3 | Yes | * | 12\% | * | * |
| La Grande High School | La Grande SD 1 | Rural | No | Town: Remote | 8 | Yes | 4\% | 1\% | 5\% | 1\% |
| Lakeview Senior High School | Lake County SD 7 | Rural | No | Town: Remote | 12 | Yes | * | 20\% | * | * |
| LaPine Senior High School | Bend-LaPine Administrative SD 1 | Rural | No | Rural: Distant | 2 | Yes | * | 4\% | * | * |
| Lebanon High School | Lebanon Community SD 9 | Rural | No | Town: Distant | 2 | Yes | * | * | * | * |
| Lincoln City Career Technical High School | Lincoln County SD | Rural | No | Town: Remote | 8 | No | 28\% | * | * | * |
| Long Creek School | Long Creek SD 17 | Rural | No | Rural: Remote | 12 | No | * | * | * | * |
| Lost River High School | Klamath County SD | Rural | No | Rural: Remote | 8 | Yes | 18\% | 2\% | 41\% | * |
| Lowell Junior/Senior High School | Lowell SD 71 | Rural | No | Rural: Distant | 2 | Yes | 18\% | 11\% | 9\% | * |
| Madras High School | $\begin{aligned} & \text { Jefferson County } \\ & \text { SD 509J } \end{aligned}$ | Rural | No | Town: Distant | 6 | Yes | 21\% | * | * | * |
| Mapleton Jr/Sr High School | Mapleton SD 32 | Rural | No | Rural: Remote | 2 | Yes | 14\% | 11\% | 9\% | * |
| Marshfield Senior High School | Coos Bay SD 9 | Rural | No | Town: Remote | 8 | Yes | 27\% | * | 27\% | * |
| Mazama High School | Klamath County SD | Rural | No | Town: Remote | 8 | Yes | * | 9\% | * | * |
| McKenzie River Community School | McKenzie SD 68 | Rural | No | Rural: Remote | 2 | No | 25\% | * | * | * |
| McLoughlin High School | Milton-Freewater Unified SD 7 | Rural | No | Suburb: Small | 5 | Yes | 37\% | * | 15\% | * |
| McMinnville High School | McMinnville SD 40 | Rural | No | Town: Distant | 1 | Yes | * | * | * | * |


| School name | District name | High school rurality | Reclassified as rural per Ford Family Foundation | National Center for Education Statistics Urbancentric locale | Urban Influence Code ${ }^{1}$ | At least one grade 12 student ever took college coursework | Percent of grade 912 students who took dualcredit course ${ }^{3}$ | Percent of grade 9-12 students who took directenrollment course | Percent of grade 912 <br> students who took Advanced Placement (AP) course | Percent of grade 9-12 students who took <br> International Baccalaureate (IB) course |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mitchell School | Mitchell SD 55 | Rural | No | Rural: Remote | 10 | No | 23\% | * | 17\% | * |
| Mohawk High School | Marcola SD 79J | Rural | No | Rural: Distant | 2 | No | * | * | * | * |
| Molalla High School | Molalla River SD 35 | Rural | Yes | Town: Fringe | 1 | Yes | 45\% | * | * | * |
| Monroe High School | Monroe SD 1 J | Rural | No | Rural: Distant | 2 | No | * | * | * | * |
| Monroe School | ODE YCEP <br> District | Rural | No | Rural: Fringe | 11 | Yes | 18\% | 2\% | * | 24\% |
| Monument School | Monument SD 8 | Rural | No | Rural: Remote | 12 | No | 25\% | * | * | * |
| Myrtle Point High School | Myrtle Point SD 41 | Rural | No | Rural: Distant | 8 | Yes | * | * | * | * |
| Neah-Kah-Nie High School | Neah-Kah-Nie SD 56 | Rural | No | Rural: Remote | 4 | Yes | 3\% | 4\% | 28\% | * |
| Nestucca High School | Nestucca Valley SD 101J | Rural | No | Rural: Remote | 4 | Yes | 22\% | * | 14\% | * |
| Newberg Senior High School | Newberg SD 29J | Rural | Yes | Town: Fringe | 1 | Yes | 44\% | * | * | * |
| Newbridge High School | ODE YCEP District | Rural | Yes | City: Small | 2 | Yes | * | * | * | * |
| Newport High School | Lincoln County SD | Rural | No | Town: Distant | 8 | Yes | 9\% | 4\% | 10\% | * |
| Nixyaawii Community School | Pendleton SD 16 | Rural | No | Rural: Distant | 5 | No | * | * | * | * |
| North Bend Senior High School | North Bend SD 13 | Rural | No | Town: Remote | 8 | Yes | * | 15\% | * | * |
| North Columbia Academy | Rainier SD 13 | Rural | Yes | Rural: Fringe | 1 | No | 13\% | 9\% | 21\% | * |
| North Douglas High School | North Douglas SD 22 | Rural | No | Rural: Remote | 5 | Yes | * | 75\% | * | * |
| North Lake School | North Lake SD 14 | Rural | No | Rural: Remote | 12 | Yes | 22\% | 9\% | 6\% | * |
| North Powder Charter School | North Powder SD 8J | Rural | No | Rural: Remote | 8 | Yes | * | 23\% | * | * |
| North Valley High School | Three Rivers/Josephine County SD | Rural | Yes | Rural: Fringe | 2 | Yes | * | * | * | * |
| Nyssa High School | Nyssa SD 26 | Rural | No | Town: Distant | 5 | Yes | 37\% | 15\% | 9\% | * |
| Oakland High School | Oakland SD 1 | Rural | No | Rural: Fringe | 5 | Yes | * | 3\% | * | * |


| School name | District name | High school rurality | Reclassified as rural per Ford Family Foundation | National Center for Education Statistics Urbancentric locale | Urban Influence Code ${ }^{1}$ | At least one grade 12 student evertook college coursework 2 | Percent of grade 912 <br> students who took dualcredit course ${ }^{3}$ | Percent of grade 9-12 students who took directenrollment course | Percent of grade 912 students who took Advanced Placement (AP) course | Percent of grade 9-12 students who took <br> International Baccalaureate (IB) course |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Oakridge High School | Oakridge SD 76 | Rural | No | Town: Distant | 2 | No | 21\% | 6\% | 22\% | * |
| Ocean Dunes High School | ODE YCEP District | Rural | Yes | Rural: Fringe | 2 | No | 8\% | 11\% | 19\% | * |
| Ontario High School | Ontario SD 8C | Rural | No | Town: Distant | 5 | Yes | * | * | * | * |
| Oregon Connections Academy | Santiam Canyon SD 129J | Rural | No | Rural: Distant | 2 | Yes | 14\% | 9\% | 11\% | * |
| Oregon Trail Academy | $\begin{gathered} \text { Oregon Trail SD } \\ 46 \end{gathered}$ | Rural | Yes | Rural: Fringe | 1 | No | 21\% | * | 23\% | * |
| Oregon Virtual Academy | North Bend SD 13 | Rural | No | Town: Remote | 8 | Yes | * | * | * | * |
| Pacific High School | Port OrfordLanglois SD 2CJ | Rural | No | Rural: Remote | 8 | Yes | 17\% | 2\% | 26\% | * |
| Paisley School | Paisley SD 11 | Rural | No | Rural: Remote | 12 | Yes | 16\% | * | 9\% | * |
| Pendleton High School | Pendleton SD 16 | Rural | No | Town: Distant | 5 | Yes | 12\% | * | 16\% | * |
| Perrydale School | Perrydale SD 21 | Rural | No | Rural: Distant | 2 | Yes | 18\% | 14\% | 66\% | * |
| Philomath High School | Philomath SD 17J | Rural | Yes | Suburb: Small | 2 | Yes | 15\% | 6\% | * | * |
| Phoenix School | Douglas County SD 4 | Rural | No | Town: Remote | 5 | Yes | 8\% | * | * | * |
| Pilot Rock High School | Pilot Rock SD 2 | Rural | No | Rural: Distant | 5 | Yes | 43\% | 1\% | 13\% | 11\% |
| Pine Eagle Charter School | Pine Eagle SD 61 | Rural | No | Rural: Remote | 11 | Yes | * | * | * | * |
| Pioneer Secondary Alternative High School | Crook County SD | Rural | No | Town: Distant | 5 | No | 5\% | * | * | * |
| Pleasant Hill High School | Pleasant Hill SD 1 | Rural | Yes | Rural: Fringe | 2 | Yes | 29\% | * | * | * |
| Powers High School | Powers SD 31 | Rural | No | Rural: Remote | 8 | No | * | 16\% | * | * |
| Prairie City School | Prairie City SD 4 | Rural | No | Rural: Remote | 12 | Yes | 47\% | 3\% | 30\% | * |
| Prospect Charter School | Prospect SD 59 | Rural | No | Rural: Distant | 2 | Yes | 19\% | * | * | * |
| Rainier Jr/Sr High School | Rainier SD 13 | Rural | Yes | Rural: Fringe | 1 | Yes | 28\% | 1\% | 14\% | * |
| Redmond High School | Redmond SD 2J | Rural | No | Town: Distant | 2 | Yes | * | * | * | * |


| School name | District name | High school rurality | Reclassified as rural per Ford Family Foundation | National Center for Education Statistics Urbancentric locale | Urban Influence Code ${ }^{1}$ | At least one grade 12 student evertook college coursework 2 | Percent of grade 912 students who took dualcredit course ${ }^{3}$ | Percent of grade 9-12 students who took directenrollment course | Percent of grade 912 students who took Advanced Placement (AP) course | Percent of grade 9-12 students who took <br> International Baccalaureate <br> (IB) course |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Redmond Proficiency Academy Reedsport Community Charter School | Redmond SD 2J <br> Reedsport SD 105 | Rural Rural | No No | Town: Distant Town: Remote | 2 5 | Yes Yes | $12 \%$ $32 \%$ | 14\% | $22 \%$ $5 \%$ | * |
| Renaissance Public Academy | Molalla River SD 35 | Rural | No | Rural: Distant | 1 | No | * | * | * | * |
| Resource Link Charter School | Coos Bay SD 9 | Rural | No | Town: Remote | 8 | Yes | 41\% | 7\% | 26\% | 18\% |
| Riddle High School | Riddle SD 70 | Rural | No | Town: Remote | 5 | Yes | 23\% | 1\% | 29\% | * |
| Ridgeview High School | Redmond SD 2 J | Rural | Yes | Rural: Fringe | 2 | Yes | 6\% | * | * | 31\% |
| RiverBend High School | ODE YCEP District | Rural | No | Rural: Distant | 8 | No | 21\% | 7\% | 7\% | * |
| Rivers Edge Academy Charter School Riverside | $\begin{gathered} \text { Rogue River SD } \\ 35 \end{gathered}$ | Rural | Yes | Suburb: Small | 2 | Yes | * | * | * | * |
| Junior/Senior High School | Morrow SD 1 | Rural | No | Town: Distant | 5 | Yes | 15\% | 5\% | 7\% | 28\% |
| Rogue River Junior/Senior High | $\begin{gathered} \text { Rogue River SD } \\ 35 \end{gathered}$ | Rural | Yes | Rural: Fringe | 2 | Yes | 15\% | 1\% | 37\% | * |
| Rose School | Douglas County SD 4 | Rural | No | Town: Remote | 5 | Yes | * | * | * | * |
| Roseburg High School | Douglas County SD 4 | Rural | No | Town: Remote | 5 | Yes | 29\% | 3\% | 8\% | 2\% |
| Samuel Brown Academy | Gervais SD 1 | Rural | Yes | Town: Fringe | 2 | No | 10\% | 12\% | * | * |
| Sandy High School | $\begin{gathered} \text { Oregon Trail SD } \\ 46 \end{gathered}$ | Rural | Yes | Town: Fringe | 1 | Yes | 20\% | * | 10\% | * |
| Santiam Junior/Senior High School | Santiam Canyon SD 129J | Rural | No | Rural: Distant | 2 | Yes | 41\% | * | 23\% | * |
| Scappoose High School | Scappoose SD 1J | Rural | Yes | Town: Fringe | 1 | Yes | 30\% | 10\% | * | * |
| Scio High School | Scio SD 95 | Rural | No | Rural: Distant | 2 | Yes | 17\% | * | 7\% | * |
| Seaside High School | Seaside SD 10 | Rural | No | Town: Remote | 3 | Yes | * | 12\% | * | * |
| Sheridan AllPrep Academy | Sheridan SD 48J | Rural | No | Town: Distant | 1 | Yes | 6\% | 9\% | 33\% | * |
| Sheridan High School | Sheridan SD 48J | Rural | No | Town: Distant | 1 | Yes | * | 50\% | * | * |


| School name | District name | High school rurality | Reclassified as rural per Ford Family Foundation | National Center for Education Statistics Urbancentric locale | Urban Influence Code ${ }^{1}$ | At least one grade 12 student ever took college coursework | Percent of grade 912 <br> students who took dualcredit course ${ }^{3}$ | Percent of grade 9-12 students who took directenrollment course | Percent of grade 912 students who took Advanced Placement (AP) course | Percent of grade 9-12 students who took <br> International Baccalaureate (IB) course |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sheridan Japanese School | Sheridan SD 48J | Rural | No | Town: Distant | 1 | No | 24\% | 6\% | 3\% | 44\% |
| Sherman Junior/Senior High School | Sherman County SD | Rural | No | Rural: Remote | 10 | Yes | 15\% | 17\% | * | * |
| Siletz Valley Early College Academy | Lincoln County SD | Rural | No | Rural: Distant | 8 | Yes | * | * | * | * |
| Silverton High School | Silver Falls SD 4J | Rural | Yes | Town: Fringe | 2 | Yes | 13\% | * | 6\% | * |
| Silvies River Charter School | Frenchglen SD 16 | Rural | No | Town: Remote | 11 | Yes | 8\% | 2\% | 3\% | * |
| Sisters High School | Sisters SD 6 | Rural | No | Rural: Distant | 2 | Yes | * | * | * | * |
| Siuslaw High School | Siuslaw SD 97J | Rural | No | Town: Remote | 2 | Yes | 25\% | 42\% | * | * |
| South Umpqua High School | South Umpqua SD 19 | Rural | No | Rural: Fringe | 5 | Yes | 21\% | 3\% | 17\% | * |
| South Wasco County High School | South Wasco County SD 1 | Rural | No | Rural: Remote | 3 | Yes | 29\% | 2\% | 6\% | 28\% |
| Spray School | Spray SD 1 | Rural | No | Rural: Remote | 10 | No | 31\% | 4\% | 9\% | * |
| St Helens High School | St Helens SD 502 | Rural | Yes | Town: Fringe | 1 | Yes | 21\% | * | * | * |
| St Paul High School | St Paul SD 45 | Rural | No | Rural: Distant | 2 | Yes | * | * | * | * |
| Stanfield Secondary School | Stanfield SD 61 | Rural | No | Town: Distant | 5 | Yes | * | 19\% | * | * |
| Stayton High School | North Santiam SD 29J | Rural | Yes | Town: Fringe | 2 | Yes | * | * | * | * |
| Summit Community College High School | Estacada SD 108 | Rural | Yes | Town: Fringe | 1 | Yes |  |  |  |  |
| Summit Learning Charter | Estacada SD 108 | Rural | Yes | Rural: Fringe | 1 | Yes | * | * | * | * |
| Sutherlin High School | Sutherlin SD 130 | Rural | No | Town: Remote | 5 | Yes | * | * | * | * |
| Sutherlin Valley Online Academy | Sutherlin SD 130 | Rural | No | Town: Remote | 5 | No | 23\% | 21\% | * | * |
| Sweet Home High School | Sweet Home SD 55 | Rural | No | Town: Distant | 2 | Yes | 49\% | * | * | * |
| Taft High School | Lincoln County SD | Rural | No | Town: Remote | 8 | Yes | * | * | * | * |
| The Dalles-Wahtonka High School | North Wasco County SD 21 | Rural | No | Town: Remote | 3 | Yes | 33\% | * | * | * |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tillamook High School | Tillamook SD 9 | Rural | No | Town: Distant | 4 | Yes | 8\% | * | * | * |
| Toledo Senior High School | Lincoln County SD | Rural | No | Rural: Fringe | 8 | Yes | * | 12\% | * | * |
| Trask River High School | ODE YCEP District | Rural | No | Rural: Fringe | 4 | Yes | 20\% | * | 11\% | * |
| Triangle Lake Charter School | Blachly SD 90 | Rural | No | Rural: Distant | 2 | Yes | 48\% | * | * | * |
| Ukiah School | Ukiah SD 80R | Rural | No | Rural: Remote | 5 | Yes | 14\% | 12\% | * | * |
| Umatilla High School | Umatilla SD 6R | Rural | No | Town: Distant | 5 | Yes | 19\% | * | 41\% | * |
| Union High School | Union SD 5 | Rural | No | Rural: Remote | 8 | Yes | 26\% | 9\% | 35\% | * |
| URCEO-Upper Rogue Centerfor Educational Opportunities | Eagle Point SD 9 | Rural | Yes | Town: Fringe | 2 | No | * | * | * | * |
| Vale High School | Vale SD 84 | Rural | No | Rural: Remote | 5 | Yes | 23\% | 2\% | 48\% | * |
| Vernonia High School | Vernonia SD 47J | Rural | No | Rural: Distant | 1 | Yes | 18\% | 1\% | 28\% | * |
| Wahtonka Community School | North Wasco County SD 21 | Rural | No | Town: Remote | 3 | Yes | 31\% | 6\% | 35\% | * |
| Waldport High School | Lincoln County SD | Rural | No | Rural: Fringe | 8 | Yes | 24\% | 9\% | 35\% | * |
| Wallowa High School | Wallowa SD 12 | Rural | No | Rural: Remote | 10 | Yes | 22\% | 2\% | 10\% | 17\% |
| Warrenton High School | Warrenton- <br> Hammond SD 30 | Rural | No | Rural: Fringe | 3 | Yes | * | * | 15\% | * |
| Wellness, Business and Sports School | $\begin{aligned} & \text { Woodburn SD } \\ & 103 \end{aligned}$ | Rural | Yes | Town: Fringe | 2 | Yes | 10\% | * | * | * |
| West Lane Technology Learning Center | $\begin{aligned} & \text { Fern Ridge SD } \\ & 28 \mathrm{~J} \end{aligned}$ | Rural | Yes | Rural: Fringe | 2 | No | * | 8\% | * | * |
| Weston-McEwen High School | Athena-Weston SD 29RJ | Rural | No | Rural: Distant | 5 | Yes | 11\% | 3\% | 41\% | * |
| Willamina High School | Willamina SD 30J | Rural | Yes | Rural: Fringe | 1 | Yes | 22\% | 1\% | 45\% | * |
| William P Lord High School | ODE YCEP District | Rural | Yes | Rural: Fringe | 2 | Yes | * | 8\% | * | * |
| Winter Lakes School | Coquille SD 8 | Rural | No | Town: Remote | 8 | Yes | 43\% | * | * | 26\% |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Woodburn Academy of Art, Science and Technology | $\begin{gathered} \text { Woodburn SD } \\ 103 \end{gathered}$ | Rural | Yes | Town: Fringe | 2 | No | 7\% | * | * | 23\% |
| Woodburn Arts and Communications Academy | $\begin{aligned} & \text { Woodburn SD } \\ & 103 \end{aligned}$ | Rural | Yes | Town: Fringe | 2 | Yes | * | * | * | * |
| Woodburn Success | $\begin{gathered} \text { Woodburn SD } \\ 103 \end{gathered}$ | Rural | Yes | Town: Fringe | 2 | Yes | 18\% | 5\% | * | * |
| Yamhill Carlton High School | Yamhill Carlton SD 1 | Rural | No | Rural: Distant | 1 | Yes | * | 14\% | * | * |
| Yoncalla High School | Yoncalla SD 32 | Rural | No | Rural: Remote | 5 | Yes |  |  |  |  |
| Academy of Arts and Academics | Springfield SD 19 | Nonrural | N/A | Suburb: Mid-size | 2 | Yes | * | * | 34\% | * |
| Albany Options School | Greater Albany Public SD 8J | Nonrural | N/A | City: Small | 2 | Yes | 18\% | 5\% | * | 4\% |
| Alliance Charter Academy | $\begin{gathered} \text { Oregon City SD } \\ 62 \end{gathered}$ | Nonrural | N/A | Suburb: Large | 1 | Yes | 9\% | * | * | 32\% |
| Alliance High School | Portland SD 1 J | Nonrural | N/A | City: Large | 1 | Yes | 27\% | * | * | * |
| Aloha High School | Beaverton SD 48J | Nonrural | N/A | Suburb: Large | 1 | Yes | 9\% | * | * | * |
| Armadillo Technical Institute Arts and | Phoenix-Talent SD 4 | Nonrural | N/A | Suburb: Mid-size | 2 | Yes | * | 15\% | * | * |
| Communication Magnet Academy | Beaverton SD 48J | Nonrural | N/A | City: Small | 1 | Yes | * | 35\% | * | * |
| Arts and Technology High School | West Linn- <br> Wilsonville SD 3J | Nonrural | N/A | Suburb: Large | 1 | Yes | * | 14\% | * | * |
| Beaverton High School | Beaverton SD 48J | Nonrural | N/A | City: Small | 1 | Yes | 15\% | 4\% | 40\% | * |
| Bend Senior High School | Bend-LaPine <br> Administrative SD 1 | Nonrural | N/A | City: Small | 2 | Yes | * | * | * | * |
| Benson Polytechnic High School | Portland SD 1J | Nonrural | N/A | City: Large | 1 | Yes | 6\% | * | 7\% | * |
| Centennial High School | $\begin{aligned} & \text { Centennial SD } \\ & 28 \mathrm{~J} \end{aligned}$ | Nonrural | N/A | Suburb: Large | 1 | Yes | 35\% | * | * | * |
| Centennial Park School | $\begin{aligned} & \text { Centennial SD } \\ & 28 \mathrm{~J} \end{aligned}$ | Nonrural | N/A | Suburb: Large | 1 | Yes | 10\% | * | * | * |
| Centerfor Advanced Learning | $\begin{aligned} & \text { Gresham-Barlow } \\ & \text { SD 10J } \end{aligned}$ | Nonrural | N/A | Suburb: Large | 1 | No | 4\% | * | 49\% | * |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Central Medford High School | Medford SD 549C | Nonrural | N/A | City: Small | 2 | Yes | * | * | * | * |
| Century High School | Hillsboro SD 1J | Nonrural | N/A | City: Small | 1 | Yes | 21\% | 1\% | 27\% | * |
| Churchill High School | Eugene SD 4J | Nonrural | N/A | City: Mid-size | 2 | Yes | 29\% | 7\% | 12\% | * |
| Clackamas Academy of Industrial Sciences | $\begin{gathered} \text { Oregon City SD } \\ 62 \end{gathered}$ | Nonrural | N/A | Suburb: Large | 1 | Yes | * | 81\% | * | * |
| Clackamas High School | North Clackamas SD 12 | Nonrural | N/A | Suburb: Large | 1 | Yes | 24\% | 9\% | 10\% | * |
| Clackamas Middle College | North Clackamas SD 12 | Nonrural | N/A | Suburb: Large | 1 | Yes | * | 13\% | * | * |
| Clackamas Web Academy | North Clackamas SD 12 | Nonrural | N/A | Suburb: Large | 1 | Yes | 22\% | * | 12\% | * |
| Cleveland High School | Portland SD 1J | Nonrural | N/A | City: Large | 1 | Yes | 19\% | * | 11\% | * |
| Community School | Beaverton SD 48J | Nonrural | N/A | City: Small | 1 | Yes | 19\% | 4\% | 28\% | * |
| Corbett School | Corbett SD 39 | Nonrural | N/A | Rural: Fringe | 1 | Yes | 7\% | 4\% | 12\% | 25\% |
| Corvallis High School | Corvallis SD 509J | Nonrural | N/A | City: Small | 2 | Yes | 17\% | 1\% | 23\% | * |
| Crater Academy of Health and Public Services | $\begin{gathered} \text { Central Point SD } \\ 6 \end{gathered}$ | Nonrural | N/A | Suburb: Mid-size | 2 | Yes | 27\% | * | * | * |
| Crater Renaissance Academy | Central Point SD 6 | Nonrural | N/A | Suburb: Mid-size | 2 | Yes | * | 22\% | * | * |
| Crater School of Business Innovation and Science | $\begin{gathered} \text { Central Point SD } \\ 6 \end{gathered}$ | Nonrural | N/A | Suburb: Mid-size | 2 | Yes | * | * | * | * |
| Crescent Valley High School | Corvallis SD 509J | Nonrural | N/A | Rural: Fringe | 2 | Yes | 28\% | * | 11\% | * |
| David Douglas High School | $\begin{gathered} \text { David Douglas SD } \\ 40 \end{gathered}$ | Nonrural | N/A | City: Large | 1 | Yes | 27\% | 6\% | 11\% | * |
| Durham Center | Tigard-Tualatin SD 23J | Nonrural | N/A | Suburb: Large | 1 | Yes | * | * | * | * |
| Early College High School | $\begin{gathered} \text { Salem-Keizer SD } \\ 24 \mathrm{~J} \end{gathered}$ | Nonrural | N/A | Suburb: Mid-size | 2 | Yes | * | * | * | * |
| Eugene Education Options | Eugene SD 4J | Nonrural | N/A | City: Mid-size | 2 | Yes | * | 18\% | * | * |
| Franklin High School | Portland SD 1J | Nonrural | N/A | City: Large | 1 | Yes | 32\% | 2\% | 11\% | * |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Gateways High School | Springfield SD 19 | Nonrural | N/A | Suburb: Mid-size | 2 | Yes | * | * | * | * |
| Gladstone High School | Gladstone SD 115 | Nonrural | N/A | Suburb: Large | 1 | Yes | 15\% | * | 23\% | * |
| Glencoe High School | Hillsboro SD 1J | Nonrural | N/A | City: Small | 1 | Yes | 25\% | 1\% | 34\% | * |
| Grant High School | Portland SD 1 J | Nonrural | N/A | City: Large | 1 | Yes | 13\% | 6\% | * | * |
| Gresham High School | Gresham-Barlow SD 10J | Nonrural | N/A | Suburb: Large | 1 | Yes |  |  |  |  |
| Health \& Science School | Beaverton SD 48J | Nonrural | N/A | City: Small | 1 | Yes | 9\% | 3\% | 22\% | * |
| Hillsboro High School | Hillsboro SD 1J | Nonrural | N/A | City: Small | 1 | Yes | * | 6\% | * | * |
| Hillsboro Online Academy | Hillsboro SD 1J | Nonrural | N/A | City: Small | 1 | Yes | 6\% | * | * | * |
| International School of Beaverton | Beaverton SD 48J | Nonrural | N/A | Suburb: Large | 1 | No | 16\% | * | 38\% | * |
| Jefferson High School | Portland SD 1 J | Nonrural | N/A | City: Large | 1 | Yes | * | * | * | * |
| Kalapuya High School | BethelSD 52 | Nonrural | N/A | City: Mid-size | 2 | Yes | 16\% | 12\% | * | * |
| Lake Oswego Senior High School | Lake Oswego SD 7J | Nonrural | N/A | Suburb: Large | 1 | Yes | 31\% | 2\% | 25\% | 7\% |
| Lakeridge High School | Lake Oswego SD 7J | Nonrural | N/A | Suburb: Large | 1 | Yes | 32\% | 44\% | * | * |
| Liberty High School | Hillsboro SD 1J | Nonrural | N/A | Rural: Fringe | 1 | Yes | 25\% | 2\% | 22\% | * |
| Lincoln High School | Portland SD 1 J | Nonrural | N/A | City: Large | 1 | Yes | 69\% | 26\% | * | * |
| Logos Public Charter School | Medford SD 549C | Nonrural | N/A | City: Small | 2 | Yes | 11\% | 20\% | * | * |
| Madison High School | Portland SD 1 J | Nonrural | N/A | City: Large | 1 | Yes | 14\% | * | * | * |
| Marshall High School | Bend-LaPine <br> Administrative SD 1 | Nonrural | N/A | City: Small | 2 | Yes | * | 2\% | * | 57\% |
| McKay High School | Salem-Keizer SD 24J | Nonrural | N/A | City: Mid-size | 2 | Yes | 22\% | * | 12\% | * |
| McNary High School | Salem-KeizerSD 24 J | Nonrural | N/A | Suburb: Mid-size | 2 | Yes | * | * | * | * |
| Metro East Web Academy | Gresham-Barlow SD 10J | Nonrural | N/A | Suburb: Large | 1 | Yes | 16\% | 20\% | * | * |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Metropolitan Learning Center | Portland SD 1J | Nonrural | N/A | City: Large | 1 | Yes | * | * | * | * |
| Milwaukie Academy of the Arts | North Clackamas SD 12 | Nonrural | N/A | Suburb: Large | 1 | Yes | 16\% | 9\% | * | * |
| Milwaukie High School | North Clackamas SD 12 | Nonrural | N/A | Suburb: Large | 1 | Yes | 26\% | 8\% | 95\% | * |
| Mountain View Senior High School | Bend-LaPine Administrative SD 1 | Nonrural | N/A | City: Small | 2 | Yes | 29\% | 7\% | 25\% | * |
| Network Charter School | Eugene SD 4J | Nonrural | N/A | City: Mid-size | 2 | No | 29\% | 2\% | 14\% | * |
| New Urban High School | North Clackamas SD 12 | Nonrural | N/A | Suburb: Large | 1 | Yes | 19\% | * | * | * |
| North Eugene High School | Eugene SD 4J | Nonrural | N/A | City: Mid-size | 2 | Yes | 16\% | * | * | * |
| North Marion High School | North Marion SD 15 | Nonrural | N/A | Rural: Fringe | 2 | Yes | 20\% | 5\% | 11\% | * |
| North Medford High School | Medford SD 549C | Nonrural | N/A | City: Small | 2 | Yes | * | 11\% | * | * |
| North Salem High School | $\begin{aligned} & \text { Salem-Keizer SD } \\ & 24 \mathrm{~J} \end{aligned}$ | Nonrural | N/A | City: Mid-size | 2 | Yes | 10\% | * | 15\% | * |
| Oregon City Senior High School | $\begin{gathered} \text { Oregon City SD } \\ 62 \end{gathered}$ | Nonrural | N/A | Rural: Fringe | 1 | Yes | 20\% | * | 14\% | * |
| Oregon City Service Learning Academy | Oregon City SD 62 | Nonrural | N/A | Suburb: Large | 1 | Yes | 17\% | 8\% | 24\% | * |
| Oregon Virtual Education-West | Scio SD 95 | Nonrural | N/A | Rural: Fringe | 1 | No | 54\% | * | 32\% | * |
| Parkrose High School | Parkrose SD 3 | Nonrural | N/A | City: Large | 1 | Yes | 24\% | 9\% | 25\% | * |
| Phoenix High School | Phoenix-Talent SD 4 | Nonrural | N/A | Suburb: Mid-size | 2 | Yes | 18\% | * | * | * |
| Putnam High School | North Clackamas SD 12 | Nonrural | N/A | Suburb: Large | 1 | Yes | 13\% | 13\% | 17\% | * |
| Reynolds High School | Reynolds SD 7 | Nonrural | N/A | Suburb: Large | 1 | Yes | 12\% | 6\% | 8\% | * |
| Reynolds Learning Academy | Reynolds SD 7 | Nonrural | N/A | Suburb: Large | 1 | Yes | 19\% | * | 10\% | * |
| Riverdale High School | Riverdale SD 51J | Nonrural | N/A | City: Large | 1 | Yes | 15\% | 17\% | * | * |
| Riverside High School | ODE YCEP District | Nonrural | N/A | City: Small | 2 | Yes | 13\% | 4\% | * | * |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Roberts High School | $\begin{gathered} \text { Salem-KeizerSD } \\ 24 \mathrm{~J} \end{gathered}$ | Nonrural | N/A | City: Mid-size | 2 | Yes | * | * | * | * |
| Roosevelt High School | Portland SD 1J | Nonrural | N/A | City: Large | 1 | Yes | * | * | * | * |
| Sam Barlow High School | Gresham-Barlow SD 10J | Nonrural | N/A | Rural: Fringe | 1 | Yes | * | * | * | * |
| School of Science \& Technology | Beaverton SD 48J | Nonrural | N/A | City: Small | 1 | Yes | 11\% | 8\% | * | * |
| Sheldon High School | Eugene SD 4J | Nonrural | N/A | City: Mid-size | 2 | Yes | 32\% | * | * | * |
| Sherwood High School | Sherwood SD 88J | Nonrural | N/A | Suburb: Large | 1 | Yes | * | * | * | * |
| South Albany High School | Greater Albany Public SD 8J | Nonrural | N/A | Town: Fringe | 2 | Yes | * | * | * | * |
| South Eugene High School | Eugene SD 4J | Nonrural | N/A | City: Mid-size | 2 | Yes | 9\% | * | 18\% | * |
| South Medford High School | Medford SD 549C | Nonrural | N/A | City: Small | 2 | Yes | 35\% | * | * | * |
| South Salem High School | Salem-Keizer SD 24J | Nonrural | N/A | City: Mid-size | 2 | Yes | * | 47\% | * | * |
| Southridge High School | Beaverton SD 48J | Nonrural | N/A | City: Small | 1 | Yes | 29\% | * | * | * |
| Sprague High School | Salem-Keizer SD 24J | Nonrural | N/A | City: Mid-size | 2 | Yes | * | * | * | * |
| Springfield High School | Springfield SD 19 | Nonrural | N/A | Suburb: Mid-size | 2 | Yes | 29\% | * | * | * |
| Springwater Trail High School | Gresham-Barlow SD 10J Bend-LaPine | Nonrural | N/A | Suburb: Large | 1 | Yes | * | 12\% | * | * |
| Summit High School | Administrative SD 1 | Nonrural | N/A | Rural: Fringe | 2 | Yes | 7\% | 6\% | 14\% | * |
| Sunset High School | Beaverton SD 48J | Nonrural | N/A | City: Small | 1 | Yes | 13\% | 7\% | 18\% | * |
| Three Lakes High School | ODE YCEP District | Nonrural | N/A | City: Small | 2 | Yes | * | * | * | * |
| Thurston High School | Springfield SD 19 | Nonrural | N/A | Suburb: Mid-size | 2 | Yes | 8\% | 4\% | 11\% | * |
| Tigard High School | Tigard-Tualatin SD 23J | Nonrural | N/A | Suburb: Large | 1 | Yes | * | * | 8\% | * |
| Trillium | Portland SD 1J | Nonrural | N/A | City: Large | 1 | Yes | * | * | * | * |


| School name | District name | High school rurality | Reclassified as rural per Ford Family Foundation | National Center for Education Statistics Urbancentric locale | Urban Influence Code ${ }^{1}$ | At least one grade 12 student ever took college coursework 2 | Percent of grade 912 <br> students who took dualcredit course ${ }^{3}$ | Percent of grade 9-12 students who took directenrollment course | Percent of grade 912 <br> students who took Advanced Placement (AP) course | Percent of grade 9-12 students who took International Baccalaureate (IB) course |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tualatin High School | Tigard-Tualatin SD 23J | Nonrural | N/A | Suburb: Large | 1 | Yes | * | * | * | * |
| Twin River Charter School | Eugene SD 4J | Nonrural | N/A | City: Mid-size | 2 | Yes | 19\% | * | 38\% | * |
| West Albany High School | Greater Albany Public SD 8J | Nonrural | N/A | Town: Fringe | 2 | Yes | * | * | * | * |
| West Linn High School | West Linn- <br> Wilsonville SD 3J | Nonrural | N/A | Suburb: Large | 1 | Yes | 9\% | 2\% | 39\% | * |
| West Salem High School | Salem-Keizer SD 24J | Nonrural | N/A | City: Mid-size | 2 | Yes | 17\% | * | 22\% | * |
| Westview High School | Beaverton SD 48J | Nonrural | N/A | Suburb: Large | 1 | Yes | * | * | * | * |
| Willamette High School | Bethel SD 52 | Nonrural | N/A | City: Mid-size | 2 | Yes | 5\% | 11\% | * | * |
| Willamette Leadership Academy | Springfield SD 19 | Nonrural | N/A | Rural: Fringe | 2 | Yes | 21\% | * | * | * |
| Wilson High School | Portland SD 1 J | Nonrural | N/A | City: Large | 1 | Yes | 32\% | * | 15\% | * |
| Wilsonville High School | West Linn- <br> Wilsonville SD 3J | Nonrural | N/A | Suburb: Large | 1 | Yes | 14\% | * | 32\% | * |


[^0]:    ${ }^{1}$ College coursework is defined by a student record in National Student Clearinghouse data prior to the student's high school graduation date.

[^1]:    ${ }^{2}$ https://www.oregon.gov/highered/about/Pages/state-goals.aspx

[^2]:    ${ }^{3}$ Population information for each city from https://www.census.gov/quickfacts/fact/table/US/PST045219.

[^3]:    ${ }^{4}$ Includes degree-granting, undergraduate-serving, two-year and four-year public and private not-forprofit colleges and universities in Oregon.

[^4]:    ${ }^{5}$ The authors would like to thank ODE staff who assisted with the data for this research request.

[^5]:    ${ }^{6}$ Eligible Oregon students can pay resident tuition rates at select California
    (https://sou.edu/admissions/afford/california/califoregon-reciprocity-agreements/) and Washington (https://apps.leg.wa.gov/rcw/default.aspx?cite=28B.15.0139) two-year public colleges. We are unaware of resident tuition payment programs for Oregon residents in Idaho or Nevada.
    ${ }^{7}$ https://www.studentclearinghouse.org/colleges/studenttracker/

[^6]:    Source: Authors' analysis of Oregon Department of Education data.

[^7]:    Source: Authors'analysis of Oregon Department of Education and National Student Clearinghouse data.

[^8]:    Note: Student attributes include gender, race/ethnicity, standardized test scores, whether student ever received an IEP, whether student was ever eligible for FRPL, whether student was ever classified as an English learner. High school attributes include mean high school attendance rate, mean high school standardized math score, percentage of high school students ever eligible for FRPL, percentage of high school students ever received an IEP, percentage of high school students ever classified as English learners. Year attributes include student's grade 12

[^9]:    ${ }^{1} 2013$ Urban Influence Codes (UIC): 1 - In large metro area of $1+$ million residents, 2 - In small metro area of less than 1 million residents, 3 - Micropolitan area adjacent to large metro area, 4 - Noncore adjacent to large metro area, 5 - Micropolitan area adjacent to small metro area, 6 - Noncore adjacent to small metro area and contains a town of at least 2,500 residents, 7 - Noncore adjacent to small metro area and does not contain a town of at least 2,500 residents, 8 Micropolitan area not adjacent to a metro area, 9 - Noncore adjacent to micro area and contains a town of at least 2,500 residents, 10 - Noncore adjacent to micro area and does not contain a town of at least 2,500 residents, 11 - Noncore not adjacent to metro or micro area and contains a town of at least 2,500 residents, 12 Noncore not adjacent to metro or micro area and does not contain a town of at least 2,500 residents.
    ${ }^{2}$ College coursework is defined by a student record in National Student Clearinghouse data prior to the student's high school graduation date.
    ${ }^{3}$ Accelerated learning participation data for the 2018-19 school year are obtained from Riggs, Pierson, \& Hodara (2020). * denotes that fewer than 10 students at this school were reported as taking this form of accelerated learning. The exact percentage is suppressed for privacy.

