

## Participation in College-Level Coursework

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Disparities exist related to students' access to and participation in college-level opportunities. The Oregon Department of Education's High School Success (HSS) Program seeks to reduce those disparities while expanding access across all student groups. This brief focuses primarily on AP and IB coursework, but readers should understand that other credit-bearing options are available to students.

In Oregon, students have multiple options to earn college credit while in high school, saving them money and potentially increasing their likelihood of high school graduation and college enrollment.<sup>1</sup> While some students participating in advanced coursework may have been likely to do well in college or university regardless of advanced coursework access, research describes a small but meaningful increase in the likelihood of college graduation for students who scored just high enough to earn credit, compared to those who scored just below the credit-bearing threshold.<sup>2</sup> What this means is that opportunities for earning early college credit are likely to increase the odds of college completion, even among students of similar aptitude and advantages.

### How do Oregon Students Access College-Level Coursework?

Students have access to various options for college-level coursework, including:

- participating in Advanced Placement (AP) or International Baccalaureate (IB) courses offered by their high school;
- participating in a dual credit program offered in collaboration between their high school and a college or university;
- enrolling directly in a college/university class while in high school via programs such as expanded options or early college.

The options available to each student depend in large part on the programming offered by their school or district, and on the level of cooperation between their school or district and local institutions of higher education. Availability for individual students may also hinge on placement and scheduling decisions made at the local level. HSS is [working to ensure](#) that all placement decisions are made based on multiple measures of academic qualifications and without bias, and that scheduling and other administrative barriers do not keep students from challenging coursework.

### AP and IB Coursework

Both AP and IB coursework participation rates<sup>3</sup> had been increasing up to 2018-19.<sup>4</sup> In that year, more than 8,000 students participated in IB coursework (up from 6,200 in 2014-15), and nearly 31,000 in AP coursework (up from 25,800 in 2014-15). Around two-thirds of IB students and half of AP students were taking a STEM class, including laboratory science, mathematics, computer science, and technology coursework. The average number of unique AP/IB subjects districts offered also increased.

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<sup>1</sup> Shields, Katherine A., Jessica Bailey, Makoto Hanita, and Xinxin Zhang. "The Effects of Accelerated College Credit Programs on Educational Attainment in Rhode Island. REL 2021-103." *Regional Educational Laboratory Northeast & Islands* (2021). Retrieved from <http://ies.ed.gov/ncee/edlabs>.

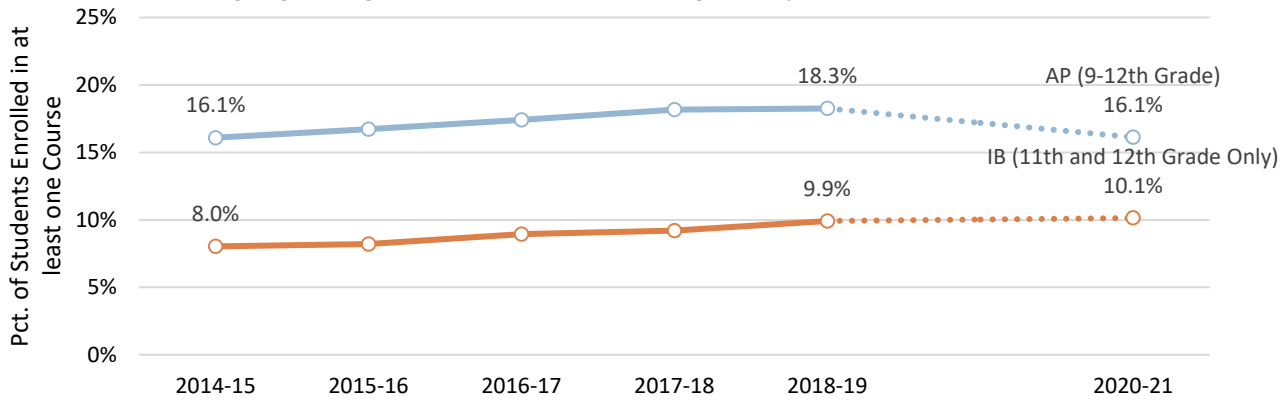
<sup>2</sup> Smith, Jonathan, Michael Hurwitz, and Christopher Avery. "Giving college credit where it is due: Advanced Placement exam scores and college outcomes." *Journal of Labor Economics* 35, no. 1 (2017): 67-147.

<sup>3</sup> Calculated based on the proportion of students enrolled on the first school day in May of each year, for whom any coursework was reported. Excludes enrollments too short to appear in the relevant dataset (less than 10 days), and enrollments that are not reportable, including courses offered by and at colleges and universities.

<sup>4</sup> 2019-20 data collection was cancelled due to the impacts of the COVID-19 pandemic.

### Enrollment in AP or IB Courses

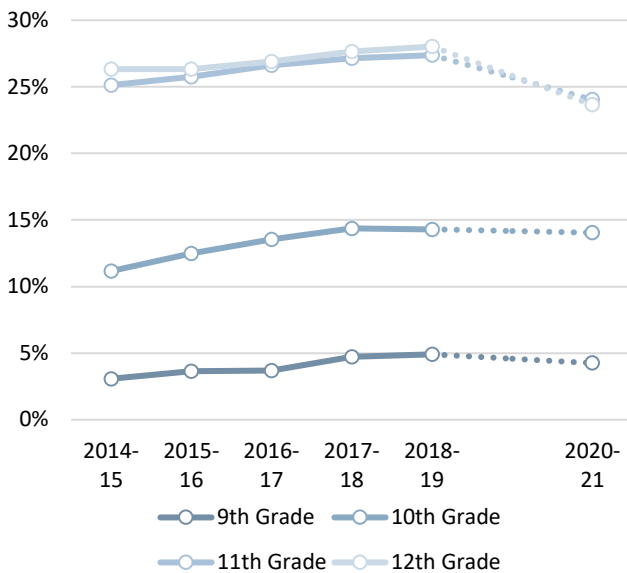
Among Eligible High School Students, Reflecting the Impact of the COVID-19 Pandemic



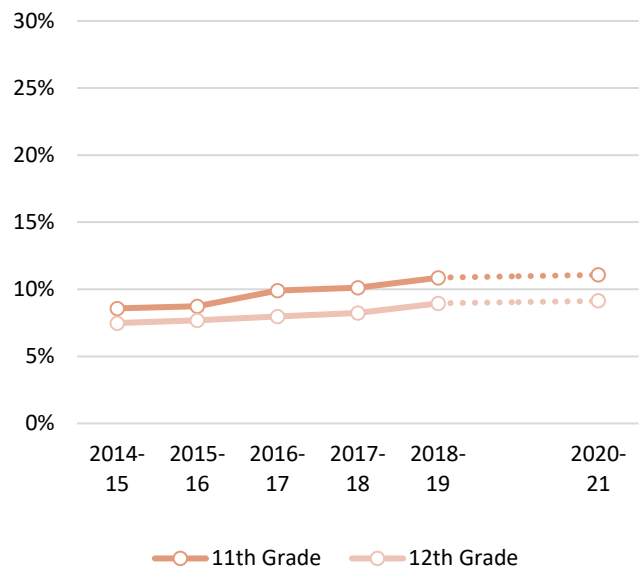
2019-20 course enrollment data collection was cancelled due to the impacts of the COVID-19 pandemic.

By 2020-21, however, AP coursework participation rates had fallen substantially, while IB coursework participation remained steady. This may reflect the “a la carte” nature of AP courses, which are easier for schools to suspend or for students to opt out of relative to the more comprehensive “diploma program” focus of IB coursework, which is also often smaller and more self-contained than AP programs. Schools and districts experienced tremendous challenges during 2019-20 and 2020-21, as a result of the COVID-19 global pandemic, and may not have been able to maintain their full suite of course offerings. Students who experienced disruptions at the end of 2019-20 may also have been less inclined to opt for challenging coursework in 2020-21, while also trying to ensure enough credit attainment for on-time graduation.

#### AP Enrollment by Grade Level



#### IB Enrollment by Grade Level



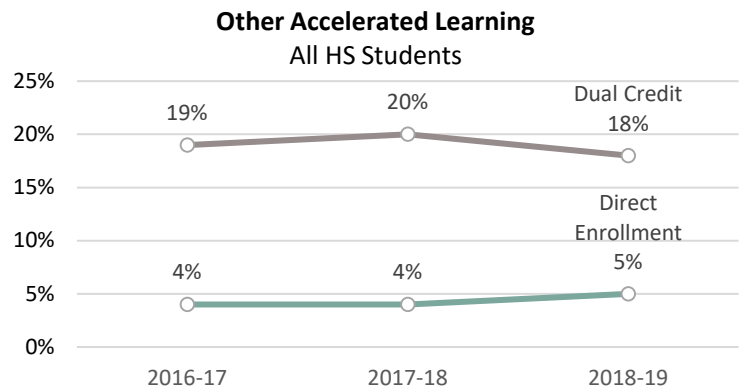
Prior to the pandemic, AP enrollment had been increasing at all high school grade levels. During the pandemic, enrollment fell sharply in 11<sup>th</sup> and 12<sup>th</sup> grade, but remained relatively steady in lower grades. IB enrollment had been similarly increasing prior to the pandemic, but during the pandemic, IB enrollment remained relatively steady for all grades.

For the 2019-21 biennium, 65% of HSS grantees spent money on improving student access to college-level opportunities. 17% (39 grantees) planned activities specific to AP and IB coursework, including partnerships to review equity in college-level

courses, stipends for test preparation or testing fees, increased supports for students participating in these courses, and expanding the number of courses available. Some of these planned activities involved training and professional development for teachers to be able to provide more coursework options, and may take time to result in increased opportunities for students. All of these activities may also have been impacted or delayed by pandemic.

### Other Types of Accelerated Learning

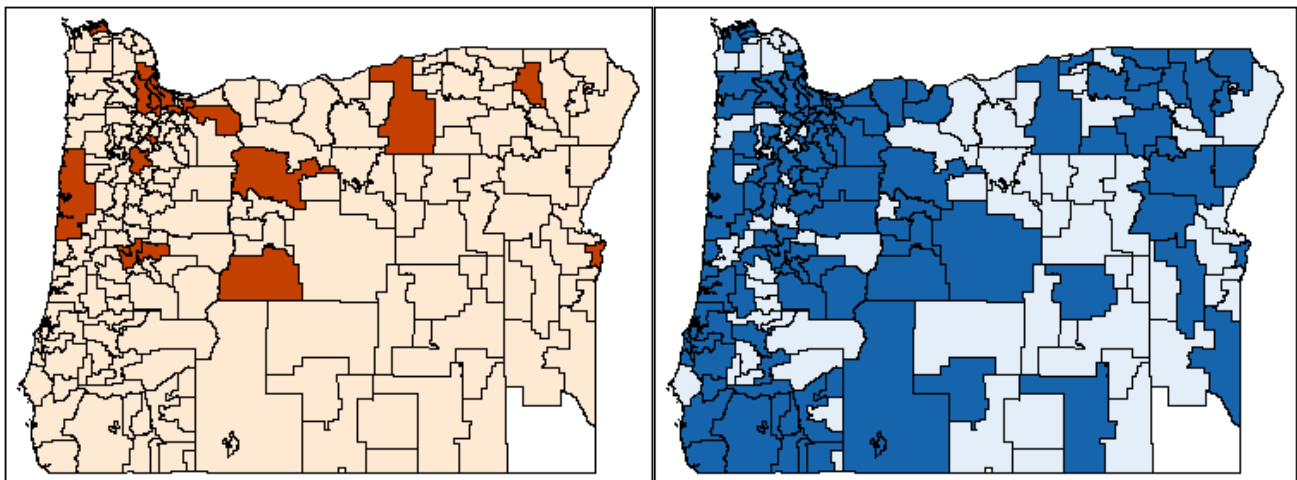
ODE does not yet have dual credit and direct enrollment data for 2019-20 or later, but 2018-19 data (right) shows a small decline in dual credit, and relatively steady/slight increase in direct enrollment, the other two main ways students in Oregon earn college credit while in high school.<sup>5</sup> Some research has found that AP and IB course enrollment is associated with higher high school graduation rates and college persistence rates compared with students who had dual enrollment, though both were higher than rates for students with no accelerated coursework.<sup>6</sup>



### Rural Availability of AP and IB Courses

AP courses are significantly more prevalent than IB courses in Oregon schools, both in terms of the number of students taking them, and in terms of the number of schools offering at least one course. In 2018-19, 178 schools reported offering AP courses, compared to only 34 schools reporting IB courses. Most districts that offered IB in at least one school also offered AP courses. Students in more rural districts were much less likely to have access to IB coursework, and somewhat less likely to have access to AP coursework as well. Students in these districts may need to rely on partnerships with local colleges and universities for access to advanced coursework and college credit opportunities while in high school.

School Districts reporting IB (dark orange, left) or AP (dark blue, right) Courses, 2018-19



<sup>5</sup> Regional Education Laboratory Northwest (2021). *Accelerated Learning in Oregon* [data dashboard]. Retrieved from [https://public.tableau.com/app/profile/sam.riggs/viz/AcceleratedlearninginOregon\\_CTETraining/DashboardParticipationRates](https://public.tableau.com/app/profile/sam.riggs/viz/AcceleratedlearninginOregon_CTETraining/DashboardParticipationRates).

<sup>6</sup> Hodara, Michelle, and Ashley Pierson. "Supporting the Transition to College: Accelerated Learning Access, Outcomes, and Credit Transfer in Oregon." Regional Educational Laboratory Northwest (2018). <https://eric.ed.gov/?id=ED589159>.

Notably, comparing the maps above with the map to the right, showing current community college service areas (colored) and unserved areas (white)<sup>7</sup> demonstrates the lack of options available to students in some of Oregon’s more remote areas. While districts can and do partner with community colleges outside their service areas to offer dual enrollment, and some have taken great advantage of colleges and universities offering virtual college coursework, distance and remoteness can still be an additional barrier to overcome.

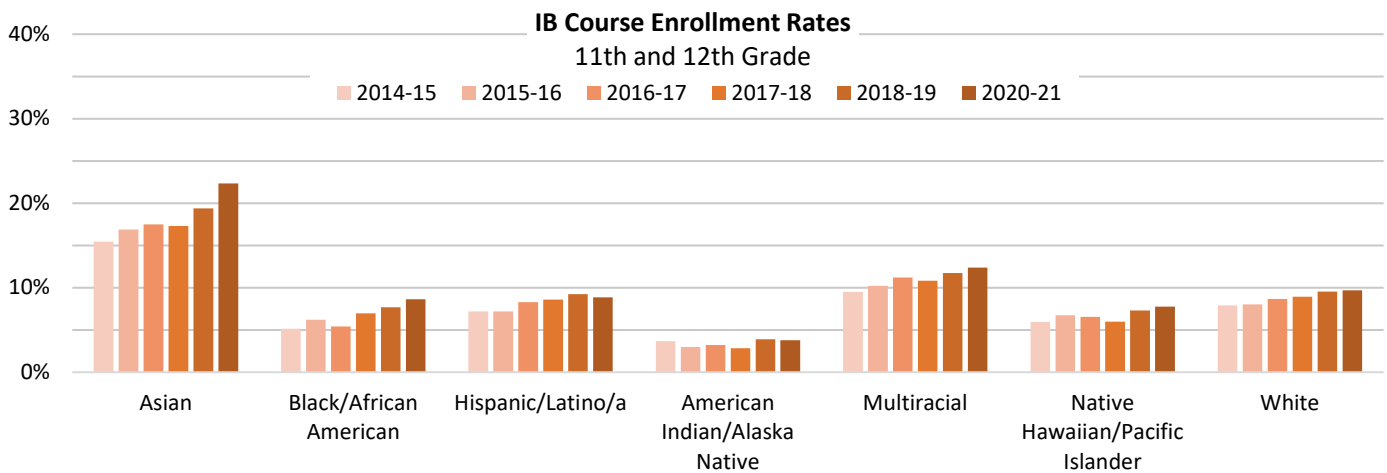
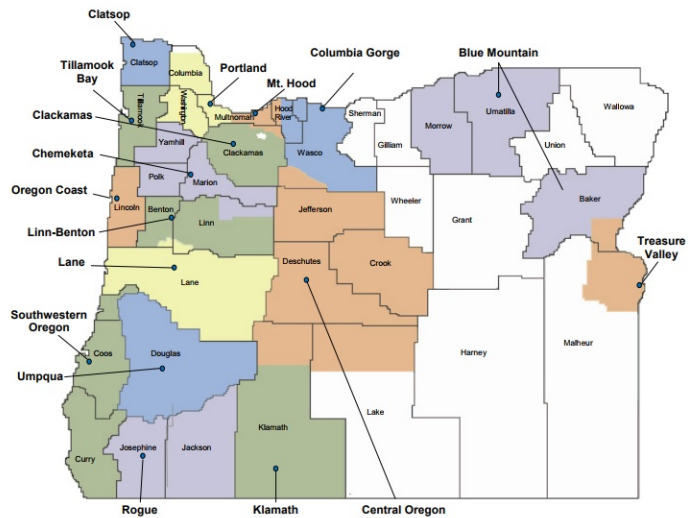
**Benefits to Advanced Coursework**

Research has found that additional AP credits are associated with a number of beneficial outcomes for students who continue on to college or university.<sup>8</sup> Some of the associated outcomes may represent the higher degree of access to AP coursework among urban/suburban and affluent students; however, many of the outcomes likely reflect the impacts of the AP credit attainment itself. These include finishing college earlier, increased likelihood of enrolling in graduate school, and increased access to advanced math and science courses during college.

**Racial and Ethnic Disparities in Advanced Coursework Participation**

Because of these many benefits, it’s important for all students in Oregon to have access to opportunities to earn college credit while in high school. As in many arenas, racial disparities in course participation exist. Among IB courses, there is evidence of improvement in representation for some groups, such as Black/African American students, whose participation rate has increased 68% between 2014-15 and 2020-21, from 5% of students to almost 9% of students participating in IB coursework in 11<sup>th</sup> or 12<sup>th</sup> grade. Hispanic/Latino/a students and Native Hawaiian/Pacific Islander students have seen smaller, but still substantial, growth in the rates at which they enroll in IB coursework. While enrollment does not necessarily lead to earning credit, it is an important intermediary indicator.

**Oregon Community College Service Areas**

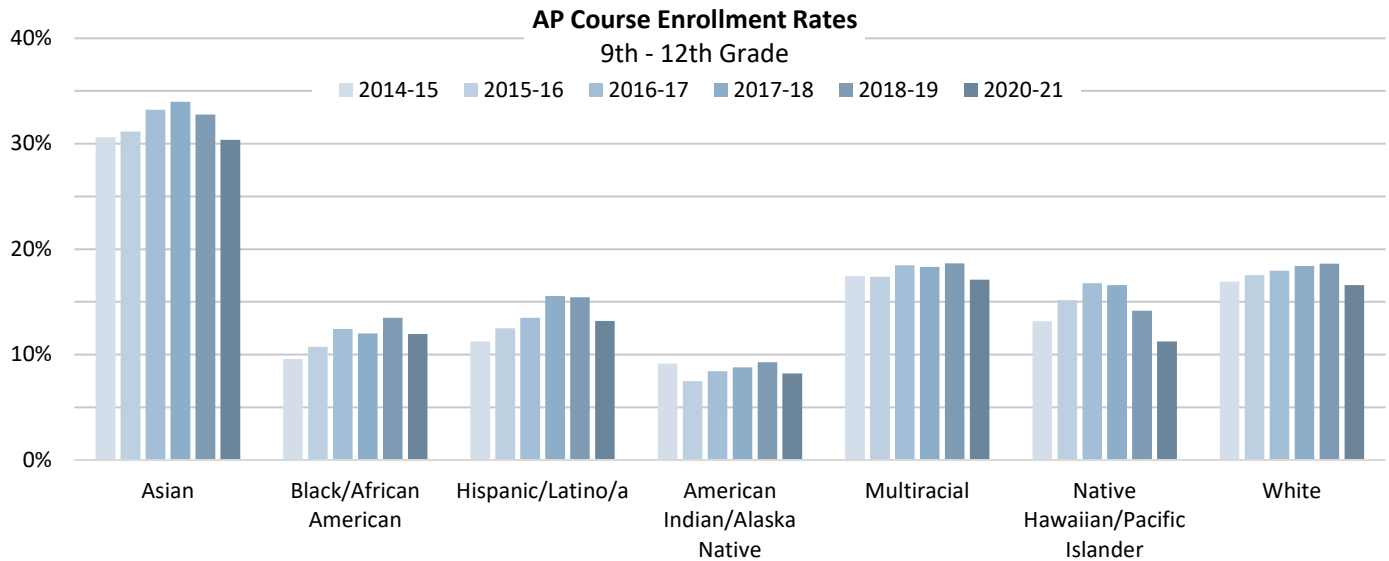


Prior to the pandemic, equity of participation in AP coursework was also increasing for Black/African American students (up 41% between 2014-15 and 2018-19, from under 10% participation to 13.5% participation) and for Hispanic/Latino/a students

<sup>7</sup> Map courtesy of the Oregon Community College Association, retrieved from <https://occa17.com/about/governance/occa-board/>.

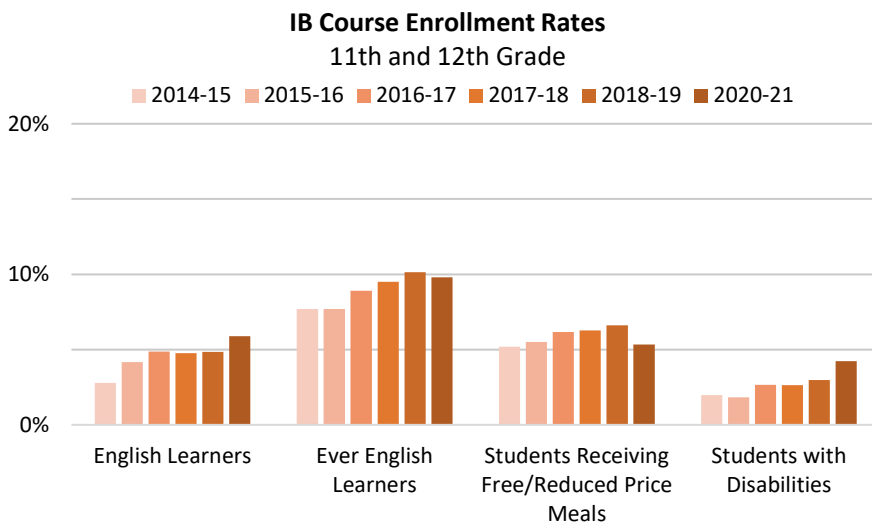
<sup>8</sup> Evans, Brent J. “How College Students Use Advanced Placement Credit.” *American Educational Research Journal* 56, no. 3 (June 2019): 925–54. <https://doi.org/10.3102/0002831218807428>.

(up from 11% to 15% over the same time period, a 37% increase). However, the pandemic and related instructional factors in the 2019-20 and 2020-21 school year have negatively impacted these trends.



For both AP and IB coursework, participation by American Indian/Alaska Native students is far below that of other racial/ethnic groups. This may, in part, reflect geographic concentration of this population in districts that use other methods for students to earn credit. Regional Education Laboratory Northwest (REL) data<sup>9</sup> has found that in 2018-19, American Indian/Alaska Native student participation in dual or direct enrollment was, while below the average for all students, on par with participation for Black/African American and Native Hawaiian/Pacific Islander students. Rates for all three groups, however, lagged behind participation rates for white and Asian students.

#### Disparities in Enrollment for Other Student Groups<sup>10</sup>



English Learners/Emerging Bilinguals are substantially underrepresented among both AP and IB course takers. Although their enrollment rates in both course types have doubled between 2014-15 and 2020-21, a large improvement, they still enroll in AP coursework at one quarter of the rate of students overall, and in IB coursework at 60% of the rate of students overall.

Enrollment rates for students who have ever been English Learners (including those who have exited) are much higher – for IB coursework, they are roughly on par with the rates for students overall. For AP

coursework, they had increased steadily until 2018-19, though they have dropped again in 2020-21. These bilingual students

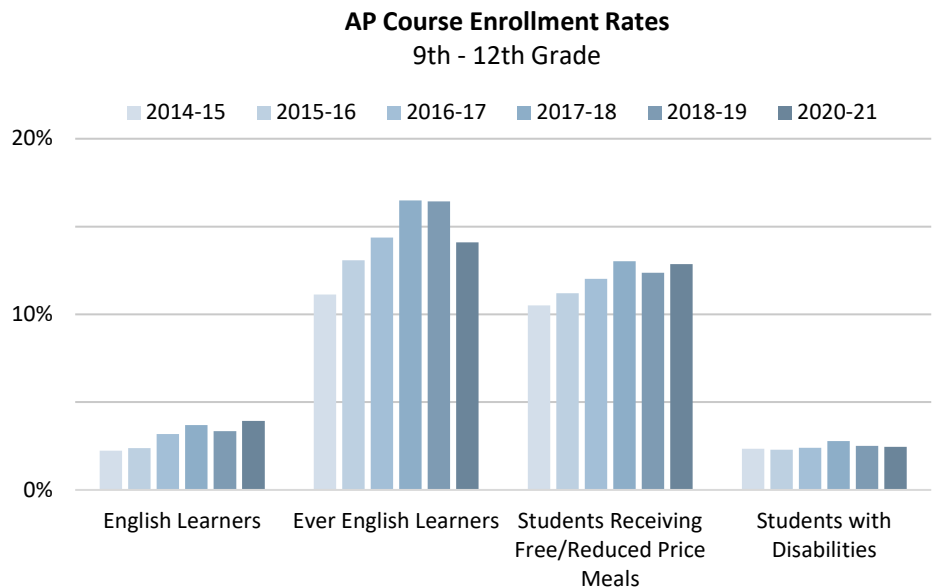
<sup>9</sup> Regional Education Laboratory Northwest, *Accelerated Learning* dashboard.

<sup>10</sup> Due to changes in the availability of proficiency exams during the pandemic, the English Learner population was substantially larger in 2020-21 than in 2018-19, which may impact these rates. The number of high school students receiving free/reduced price meals also increased substantially in 2020-21, which could be impacted by changing eligibility criteria, meal services and service provision, or economic conditions.

demonstrate generally high academic performance in other areas as well, including graduation rates.

While AP participation for students with disabilities has remained low, at only 15% of the participation rates of all students, IB participation has climbed steadily, more than doubling between 2014-15 and 2020-21.

REL data from 2018-19<sup>11</sup> show similar disparities for direct and dual enrollment. 1% of English learners and 3% of students with disabilities participated in Direct Enrollment, relative to 5% of the total population. 6% of English learners and 10% of students with disabilities participated in Dual Credit, compared to 18% of the total population.



### AP and IB Tests

The overall enrollment declines in recent years are also reflected in test taking data. Specifically, Oregon covers AP and IB exam fees for students navigating poverty, and receives data on the number of exams covered. The number of AP exams administered to students navigating poverty fell sharply from 2018-19 to 2019-20, then again to 2020-21, totaling a 48% reduction in reimbursed exams from 2018-19 to 2020-21 – a much steeper decline than what was seen in course participation rates for all students. IB exam counts for students navigating poverty also fell over this period, by 36% over the two school years. In contrast, overall IB enrollment rates over the same time period remained fairly steady, though there was a decline in IB enrollment among students eligible for free/reduced price lunch<sup>12</sup> in 2020-21. These declines during the pandemic may reflect higher burdens on students, decreased testing opportunities, or lack of support to prepare for the exams.

### Conclusion

Despite participation in AP and IB courses increasing prior to the pandemic, it's clear that the many urgent needs and exigent circumstances of education during a public health crisis have taken a toll on student participation in AP and IB courses, particularly AP coursework. As Oregon recovers, school districts must ensure that students have access to advanced coursework, in order for students to garner the many benefits of accessing advanced coursework and earning college credit. As our education system works toward this recovery, we must also ensure that these opportunities are broadly available to all students, including those from historically disadvantaged populations.

School districts should [do more](#) to increase availability of these courses, which promote high school and college success. These and similar opportunities to participate in challenging coursework and earn college credit must not only be equitably available to all students, but must also strive toward equitable participation. A national report from The Education Trust<sup>13</sup> suggests that this includes ensuring that Black/African American and Hispanic/Latino/a students feel welcome and a sense of belonging in these programs (and in precursor/gatekeeper programs such as advanced mathematics and TAG) by adopting culturally relevant and engaging curriculum. They can also work to increase [educator equity](#), particularly among teachers of

<sup>11</sup> Regional Education Laboratory Northwest, *Accelerated Learning* dashboard.

<sup>12</sup> Note that these are not precisely the same populations, as "Students eligible for free/reduced price lunch" includes students who qualify because their school provides lunch at no charge to all students under (e.g.) the community eligibility provision. Oregon requires additional verification of income for these students to receive AP/IB fee reductions or waivers.

<sup>13</sup> Patrick, Kayla, Allison Rose Socol, and Ivy Morgan. "Inequities in advanced coursework." (2020). Retrieved from <https://files.eric.ed.gov/fulltext/ED603195.pdf>.

advanced courses, or even automatically enroll students in more rigorous coursework when they meet grade-level standards. Some research<sup>14</sup> has found that, while students enrolled in AP coursework report more rigorous and challenging curriculum compared to students in other high-level courses, AP enrollment is also associated with increased levels of stress and decreased confidence among students enrolled in the courses, which districts can provide supports to ameliorate.

Some of this work is already underway, as [eligibility requirements](#) for High School Success grantees come into force for the 2022-23 school year, including multiple provisions and practices related to increasing equity in assignment to advanced coursework. These include establishing college credit opportunities, ensuring that scheduling barriers do not prevent students from accessing advanced coursework, counseling students about pathways leading to advanced coursework starting in middle school, and evaluating placement and eligibility decisions to remove bias. High School Success program staff continue to work to help grantees improve their systems and practices to meet these requirements.

*Thanks to our colleagues in Standards & Instructional Support for their contributions to this brief*

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<sup>14</sup> Conger, Dylan, Alec I. Kennedy, Mark C. Long, and Raymond McGhee. "The effect of Advanced Placement science on students' skills, confidence, and stress." *Journal of Human Resources* 56, no. 1 (2021): 93-124.