

# Getting Ahead With Dual Credit: Dual-Credit Participation, Outcomes, and Opportunities in Idaho

November 2016

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Holten, B., & Pierson, A. (2016). *Getting ahead with dual credit: Dual-credit participation, outcomes, and opportunities in Idaho*. Portland, OR: Education Northwest, Regional Educational Laboratory Northwest.

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## **Acknowledgments**

The authors would like to thank their partners at the Idaho State Board of Education for their collaboration on this report, including the provision of aggregated data, feedback on multiple drafts, and co-presenting the results at local and national conferences. We appreciate the feedback we received from the Idaho State Department of Education, which helped make the content more relevant for Idaho stakeholders. We would also like to thank our colleagues at Education Northwest for their contributions to this project. We appreciate our team members, Jennifer Esswein and Marybeth Flachbart, for providing Idaho context on the project, Havala Hanson and Traci Fantz for a technical quality assurance review, Bracken Reed for copyediting the report, and Allyson Hagen and Ilona Wall for their work on the report design and formatting.

# Overview

This report provides a portrait of dual-credit participation rates and trends between the 2011–12 and 2014–15 school years. Dual-credit participation by demographic characteristics such as race/ethnicity, gender, and socioeconomic status is explored throughout each of the five briefs contained within this report. Each report brief also includes questions to consider—which promote a deeper exploration of the data—as well as next steps that can help educators and stakeholders overcome barriers to expanding dual credit. The report briefs can be read individually or together as a longer report with five content sections. The five briefs address the following questions:



**Who participated in dual-credit courses?**



**What were the characteristics of districts with students who participated in dual-credit courses?**



**In which dual-credit course competency areas were districts most likely to have participated?<sup>1</sup>**



**What were the pass rates of students who participated in dual-credit courses?**



**To what degree did the state meet its goal of 30 percent of high school students participating in dual-credit courses?<sup>2</sup>**

## Why dual credit?

Obtaining a college degree is important because an individual's level of education is linked to better employment opportunities, income, and health.<sup>3</sup> However, the overall college completion rate at two- and-four year colleges and universities in the United States has continued to decrease.<sup>4</sup> In an effort to support student success toward college degree completion, many states have enacted legislation and provided additional funding to increase dual-credit opportunities to expose students to college-level

<sup>1</sup> Competency areas refer to categories of general education coursework at Idaho public postsecondary institutions.

<sup>2</sup> The dual-credit participation rate goal of 30 percent was defined in the Idaho State Board of Education Strategic Plan, which can be found here: [https://boardofed.idaho.gov/policies/documents/strategic\\_plan/SBOE%20FY16%20Final.pdf](https://boardofed.idaho.gov/policies/documents/strategic_plan/SBOE%20FY16%20Final.pdf)

<sup>3</sup> Levin, H., Belfield, C., Muenning, P., & Rouse, C. (2007). *The costs and benefits of an excellent education for all of America's children*. Retrieved on September 19, 2016, from <http://www.literacycooperative.org/documents/Thecostsandbenefitsofanexcellentedforamerchildren.pdf>

<sup>4</sup> Shapiro, D., Dundar, A., Wakhungu, P.K., Yuan, X., Nathan, A., & Hwang, Y. (2015). *Completing college: A national view of student attainment rates—Fall 2009 Cohort* (Signature Report No. 10). Herndon, VA: National Student Clearinghouse Research Center. Retrieved September 19, 2016, from <https://nscresearchcenter.org/wp-content/uploads/SignatureReport10.pdf>

rigor earlier in high school.<sup>5</sup> Research indicates that in addition to expanding opportunities for students to earn college credit while in high school, dual-credit programs are correlated with outcomes such as higher rates of high school graduation<sup>6</sup> and college enrollment, decreased time needed to complete a college degree,<sup>7,8</sup> and increased college degree attainment.<sup>9,10</sup>

## Idaho dual-credit opportunities and participation

Advanced-opportunity programs offer a variety of ways for high school students to earn college credit, such as dual-credit classes in partnership with a local college, Advanced Placement classes, International Baccalaureate classes, and Technical Competency Credits.<sup>11</sup> In this report, dual credit refers to classes taken at the high school or college by a high school student for which they simultaneously earn high school credit and college credit at any one of Idaho's public postsecondary institutions.<sup>12</sup>

Dual credit is offered in Idaho through eight public universities—Boise State University, College of Southern Idaho, College of Western Idaho, Idaho State University, Lewis-Clark State College, North Idaho College, University of Idaho, Eastern Idaho Technical College<sup>13</sup>—and two private universities: Northwest Nazarene University and Brigham Young University-Idaho. In 2014–15, 83 percent of Idaho school districts (123 of 148) had high school students who participated in dual-credit options in partnership with these universities.

**Idaho has made the expansion of dual credit a priority.** In the 2016 legislative session, Idaho passed House Bill 458, which expands access to advanced opportunities through the Fast Forward Program<sup>14</sup>—including dual-credit courses offered to students in grades 7–12—by providing additional funding to school districts across the state. The Fast Forward Program can pay up to \$75 per credit. In most cases, the cost of these credits is \$65. The program also provides juniors with \$200 per year and seniors with \$400 per year to cover up to 75 percent of the cost of dual-credit courses.<sup>15</sup>

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<sup>5</sup> Zinth, J. D. (2014). *Increasing student access and success in dual enrollment programs: 13 model state-level policy components*. Denver, CO: Education Commission of the States. Retrieved November 18, 2016, from <http://ecs.org/clearinghouse/01/10/91/11091.pdf>

<sup>6</sup> Karp, M. M., Calcagno, J. C., Hughes, K. L., Jeong, D. W., & Bailey, T. R. (2007). *The postsecondary achievement of participants in dual enrollment: An analysis of student outcomes in two states*. New York, NY: Columbia University, Teachers College, Community College Research Center. <http://eric.ed.gov/?id=ED498661>

<sup>7</sup> Adelman, C. (2004). *Principal indicators of student academic histories in postsecondary education, 1972–2000*. Washington, DC: U.S. Department of Education, Institute of Education Sciences. <http://eric.ed.gov/?id=ED483154>

<sup>8</sup> Shapiro, D., Dundar, A., Wakhungu, P.K., Yuan, X., Nathan, A, & Hwang, Y. (2016). *Time to degree: A national view of the time enrolled and elapsed for associate and bachelor's degree earners* (Signature Report No. 11). Herndon, VA: National Student Clearinghouse Research Center.

<sup>9</sup> An, B. P. (2013). The impact of dual enrollment on college degree attainment: Do low-SES students benefit? *Educational Evaluation and Policy Analysis*, 35(1), 57–75. <http://eric.ed.gov/?id=EJ1009522>

<sup>10</sup> Rodriguez, O., Hughes, K. L., & Belfield, C. (2012). *Bridging college and careers: Using dual enrollment to enhance career and technical education pathways*. New York, NY: Columbia University, Teachers College, National Center for Postsecondary Research. Retrieved November 18, 2016, from <http://ccrc.tc.columbia.edu/media/k2/attachments/bridging-college-careers.pdf>

<sup>11</sup> For definitions of dual credit options within the Advanced Opportunities program, visit this site: [https://boardofed.idaho.gov/scholarship/advanced\\_opp.asp](https://boardofed.idaho.gov/scholarship/advanced_opp.asp)

<sup>12</sup> Other advanced opportunities to earn college credit not included in this study include Advanced Placement, International Baccalaureate, and Technical Competency Credit.

<sup>13</sup> Eastern Idaho Technical College only offers dual-credit opportunities at a single school.

<sup>14</sup> This report includes four years of data on dual-credit participation between 2011–12 and 2014–15. While the report includes data for the first year of Fast Forward program implementation in 2014–15, additional research may need to be done to understand dual-credit participation trends since the passing of HB 458 in 2015–16.

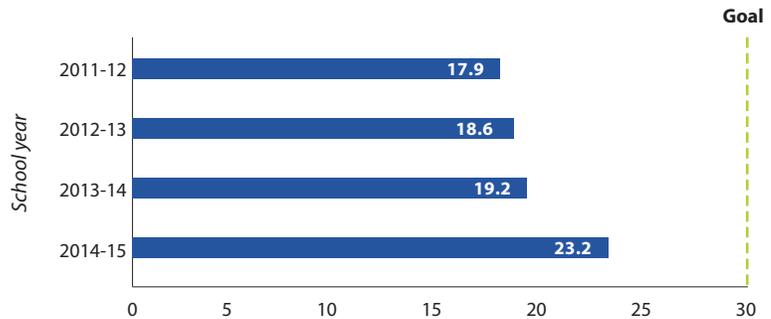
<sup>15</sup> State of Idaho Legislative Services Office. *House Bill 458*. (2016). Retrieved August 14, 2016, from <http://www.legislature.idaho.gov/legislation/2016/H0458.htm>

Historically, funding for Idaho dual-credit course participation was restricted to students in grades 11 and 12.<sup>16</sup> Previous Idaho dual-credit participation was therefore concentrated among grade 11 and 12 students. **In 2014–15, slightly more than 23 percent of Idaho students in grades 11 and 12 participated in dual credit, which has increased by 5 percentage points since 2011–12 (figure 1).**

An analysis of dual-credit participation by Idaho high school students in grades 9–12 shows that the state’s participation rate for these grades is comparable to the national rate of dual-credit participation: 14 percent.<sup>17,18</sup> **In 2014–15, 13 percent of Idaho students in grades 9–12 participated in dual-credit programs with an Idaho public university or college,<sup>19</sup> which is an increase of 4 percentage points from 2011–12.**

Despite the increase in dual-credit offerings and participation, studies have shown that not all student groups—including Hispanic/Latino, male, and economically disadvantaged students—are equally likely to take advantage of dual-credit opportunities.<sup>20</sup> Moreover, school districts within the state also vary in their dual-credit participation levels—from no dual-credit participation to more than 30 percent participation among high school students.

**Figure 1. Dual-credit participation for students in grades 11 and 12 has increased since 2011–12 by 5 percentage points**



Source: Authors’ analysis of Idaho State Board of Education data

## Idaho State Board of Education and project goals

The Idaho State Board of Education (SBOE) is the governing body and general overseer for all K–20 public education in Idaho. The SBOE also serves as the Board of Trustees for Boise State University, Idaho State University, and Lewis-Clark State College, as well as the Board of Regents for the University of Idaho. A collaborative partnership between the SBOE and Regional Educational Laboratory (REL) Northwest began in spring 2016 with the goal of analyzing gaps and trends in dual-credit participation among Idaho school districts.

## Data and methodology

This report used aggregated data at the district and state levels over the span of four school years (2011–12 through 2014–15) to analyze dual-credit participation in grades 9–12. The SBOE aggregated all data to a district or state level and masked the identity of school districts to protect student privacy. No individual or identifiable data were used or transferred for this project. The data provided by the SBOE included aggregations by grade level for grades 9–12, race/ethnicity, gender, free or reduced-price lunch (FRPL) status, course competency area, course credits attempted, and course credits earned. REL Northwest analyzed the data using descriptive statistics, such as averages and percentages, as well as regression analysis methods to identify relationships between data elements.

<sup>16</sup> Source: Idaho State Board of Education.

<sup>17</sup> Snyder, T. D., & Dillow, S. A. (2015). *Digest of education statistics 2013* (NCES 2015-011). Washington, DC: U.S. Department of Education, National Center for Education Statistics. <http://eric.ed.gov/?id=ED556349>

<sup>18</sup> Thomas, N., Marken, S., Gray, L., & Lewis, L. (2013). *Dual credit and exam-based courses in U.S. public high schools: 2010–11* (First Look, NCES 2013-001). Washington, DC: U.S. Department of Education, National Center for Education Statistics. <http://eric.ed.gov/?id=ED539697>

<sup>19</sup> While the private universities in Idaho may participate in dual credit, their data were not available for this study.

<sup>20</sup> Estacion, A., Cotner, B. A., D’Souza, S., Smith, C. A. S., & Borman, K. M. (2011). *Who enrolls in dual enrollment and other accelerated programs in Florida high schools?* (Issues & Answers Report, REL 2012-119). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Southeast. <http://eric.ed.gov/?id=ED526313>

# Key findings

In 2014–15, 23 percent of Idaho students in grades 11 and 12 participated in a dual-credit course. The two most common General Education Matriculation (GEM) competency areas in which students took dual-credit courses were Social and Behavioral Ways of Knowing and Mathematical Ways of Knowing.<sup>21</sup> The two least-common areas were Scientific Ways of Knowing and Oral Communication. Across all course competency areas, 95 percent of students passed the dual-credit courses they took in 2014–15.



## Who participated in dual-credit courses?

- The analysis of student characteristics (for example, socioeconomic background, gender, and race/ethnicity) showed that certain student groups were more likely to participate in dual credit than others.
- An analysis of comparison groups of student characteristics showed:
  - Students from a higher socioeconomic background (that is, not eligible for FRPL) were more likely than FRPL-eligible students to take dual-credit courses.<sup>22</sup>
  - Non-Hispanic/Latino students were more likely than Hispanic/Latino students to take dual-credit courses.
  - Non-American Indian students were more likely than American Indian students to take dual-credit courses.
  - Females were more likely than males to take dual-credit courses.
- A comparison of the share of the dual-credit to the overall populations showed:
  - Higher percentages of female, non-FRPL-eligible (that is, higher socioeconomic status), and White students were in the grade 11 and 12 dual-credit population compared to their share in the overall student population, indicating their overrepresentation in the dual-credit participant population.
  - In contrast, male, FRPL-eligible, Asian, Black, Hawaiian/Pacific Islander, Hispanic/Latino, and American Indian students were underrepresented in the grade 11 and 12 dual-credit participant population.



## What were the characteristics of districts with students who participated in dual-credit courses?

- The analysis of district characteristics looked at district size (small, medium, and large), as well as student demographics and GEM competency area course participation.
- In an analysis of district size characteristics and dual-credit participation, we found:
  - A total of 123 school districts (out of 148) had students who participated in dual-credit courses in 2014–15. Of the 123 school districts that participated in dual credit 59 districts (40 percent) were medium, 33 districts (22 percent) were small, and 31 districts (21 percent) were large.

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<sup>21</sup> GEM competency areas are part of Idaho's evolving general education framework for associate of arts, science, and baccalaureate degrees. College students can earn up to 30 of 36 required general education credits in these six GEM competency areas: Social and Behavioral Ways of Knowing, Mathematical Ways of Knowing, Humanistic and Artistic Ways of Knowing, Written Communication, Scientific Ways of Knowing, and Oral Communication. The remaining six credits are reserved for institutions to create competency areas that address their specific mission and goals. The six GEM competency areas are available as dual-credit courses in many Idaho high schools.

<sup>22</sup> FRPL is provided through a Community Eligibility Provision (CEP). CEP is a meal service option for schools and school districts in low-income areas to provide breakfast and lunch to all students without collecting forms from each household  
<http://www.fns.usda.gov/school-meals/community-eligibility-provision>

- Larger school districts were more likely to have had students who participated in dual-credit courses in all six GEM competency areas compared to school districts with smaller numbers of students.<sup>23</sup>
- Using logistic regression analysis,<sup>24</sup> we found that the number of students enrolled in a district was positively related to whether or not the high school offered dual credit (statistically significant at the 1-percent level). This was true even for small districts, indicating that it is the smallest districts—with the lowest high school enrollment numbers—that are least likely to offer dual credit (statistically significant at the 1-percent level).
- In an analysis of student demographics and GEM competency area dual-credit course participation, we found:
  - Districts with the highest percentage of Hispanic/Latino student enrollment<sup>25</sup> had less dual-credit course participation in Written and Oral Communication than schools with the lowest percentage of Hispanic/Latino students. Among all other races/ethnicities, there was no relationship between the percentage of students of that demographic and the dual-credit course participation in the GEM competency areas.
  - Districts with the highest percentage of students in poverty (as measured by FRPL)<sup>26</sup> had more dual-credit course participation in Written and Oral Communication than schools with the lowest percentage of students in poverty.



### **In which dual-credit course competency areas were districts most likely to have participated?**

- In 2014–15, about 1 in 4 (22 percent) of dual-credit courses taken by students were in the Social and Behavioral Ways of Knowing GEM competency area, while 1 in 20 (5 percent) dual-credit courses were taken by students in the Oral Communication GEM competency area.
- The popularity of dual-credit participation among the six GEM competency areas varied among comparison groups. “Popularity” (or demand) is measured by the number of students who enrolled in courses in each area. For example, the competency area with the highest enrollment would represent the greatest level of popularity.
- In terms of the district supply of courses, Idaho districts were most likely to participate in dual-credit among the following competency areas: 1) Social and Behavioral Ways of Knowing; 2) Mathematical Ways of Knowing; 3) Written Communication; and 4) Humanistic and Artistic Ways of Knowing. Whereas, districts were less than 55 percent likely to participate in dual-credit courses within the Oral Communication and Scientific Ways of Knowing competency areas.
- About 3 percent of districts participate in dual-credit outside of a GEM competency area. Fifty-seven percent of districts participated in four to six of the GEM competency areas. However, 23 percent of districts had dual-credit participation in less than four GEM competency areas.

<sup>23</sup> Dual-credit courses can be taken in any of these six General Education Matriculation (GEM) competency areas: Social and Behavioral Ways of Knowing, Mathematical Ways of Knowing, Humanistic and Artistic Ways of Knowing, Written Communication, Scientific Ways of Knowing, and Oral Communication.

<sup>24</sup> The regression analysis included covariates of: school years; district size based on high school enrollment; and percentage of students in the district who were female, Hispanic/Latino, two or more races, Asian, Native American, Black, Hawaiian/Pacific Islander, White, FRPL eligible, and/or received English language learner services.

<sup>25</sup> The highest percentages of Hispanic/Latino student enrollment is defined as the top 25 percent of Hispanic/Latino student enrollment, which is greater than or equal to 23.2 percent.

<sup>26</sup> The highest percentages of FRPL-eligible student enrollment is defined as the top 25 percent of FRPL-eligible student enrollment, which is greater than or equal to 57.5 or higher.

- Across the six GEM competency areas, there was a dual-credit course pass rate of over 95 percent. In 2014–15, the highest pass rate among districts was seen in the Humanistic and Artistic Ways of Knowing GEM competency area at 98 percent, while the lowest rate was in Oral Communication at 95 percent. The overall pass rate for dual-credit courses taken in the GEM competency areas was 96 percent in 2014–15.



### **What were the pass rates of students who participated in dual-credit courses?**

- Overall, students passed 95 percent of the dual-credit courses they enrolled in and earned credit at both their high school and at the associated college. A student passed if they earned a D or better for the course grade.
- The dual-credit pass rate among high school students was higher than the pass rate for college students taking lower division courses at the same colleges in Idaho.
- Pass rates were similar across different demographic groups.<sup>27</sup>
- The dual-credit course pass rate was over 95 percent across the six GEM competency areas. Pass rates varied somewhat across competency areas. The highest pass rates were in Humanistic and Artistic Ways of Knowing (about 98 percent) and the lowest pass rates were in Oral Communication (about 95 percent).
- Pass rates varied greatly between 63 and 100 percent across Idaho school districts.



### **To what degree did the state meet its goal of 30 percent of high school students participating in dual-credit courses?**

- Twenty-three percent of students in grades 11 and 12 in 2014–15 participated in dual-credit courses.
- Fourteen percent of students in grades 9–12 in 2014–15 participated in dual-credit courses.
- Regarding the goal of 30 percent<sup>28</sup> of all high school students (grades 9–12) participating in dual-credit courses per year among 148 school districts:
  - Nine percent of districts (or 13) met or exceeded the goal
  - Twenty-five percent of districts (or 37) had between 16 and 29 percent dual-credit participation
  - Forty-nine percent of districts (or 73) had less than 15 percent dual-credit participation
  - Seventeen percent of districts (or 25) had no dual-credit participation
- In 2014–15, 22 and 25 percent of high school juniors and seniors, respectively, took a dual-credit course. Although the dual-credit participation rate for freshmen and sophomores has historically been lower than that of juniors and seniors, there was a slight increase in dual-credit participation among students in grades 9 and 10 between 2011–12 and 2014–15.

## **Next steps for future research**

These findings provide information on dual-credit participation in Idaho and highlight areas in which further research on dual credit is needed. Areas of future research include an exploration of the relationship between dual-credit coursetaking and student college outcomes (for example, enrollment, persistence, and completion); opportunities to expand dual-credit participation to all student groups (for example, by race/ethnicity, socioeconomic status, disability status, or gender); and barriers to the expansion of dual-credit participation (for example, teacher qualifications).

<sup>27</sup> The pass rate is calculated using credits attempted and credits earned in dual-credit courses. Therefore, a student contributes to the “pass rate” if they earned credit in a course for which they were attempting credit.

<sup>28</sup> More information may be needed to understand how to measure progress toward meeting the state strategic goal for dual-credit participation, such as a clarification as to whether the goal is 30 percent of each graduating cohort or 30 percent of all high school students in grades 9–12 in a given year.



**BRIEF 1**

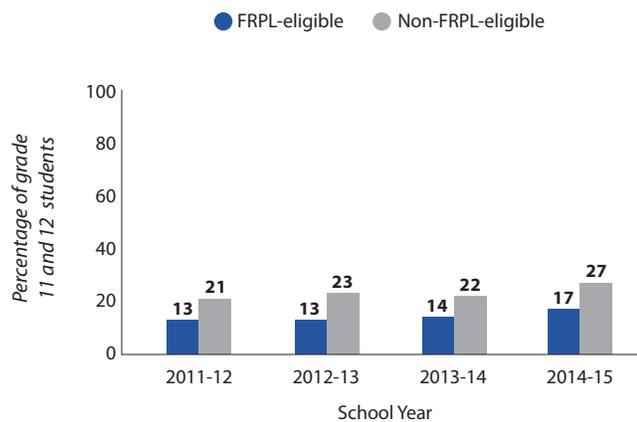
# Who participated in dual-credit courses?

While dual-credit participation has continued to increase throughout Idaho, further consideration could be given to students who were less likely to participate in dual credit and underrepresented compared to their share of the student population. Students within the following groups were less likely to participate in dual-credit courses: students from a lower socioeconomic status (that is, students eligible for free or reduced-price lunch [FRPL]<sup>29</sup>) compared to those from a higher socioeconomic background; Hispanic/Latino students compared to non-Hispanic/Latino students; American Indian students compared to non-American Indian students; and males compared to females (figures 2–5). In terms of equity gaps measured by comparing the share of students who took dual-credit courses to their share in the overall student population, **American Indian, Hispanic/Latino, Hawaiian/Pacific Islander, Black, Asian, FRPL-eligible, and male students were underrepresented in the dual-credit participant population.** In contrast, non-FRPL-eligible (that is, higher socioeconomic status), female, and White students were overrepresented in the dual-credit participant population (figures 6 and 7).

## Equity in dual-credit course participation

**FRPL-eligible students.** On average, 39 percent of all Idaho students in grades 11 and 12 were FRPL eligible between 2011–12 and 2014–15. Only 17 percent of FRPL-eligible students compared to 27 percent of non-FRPL-eligible students in grades 11 and 12 participated in dual credit in 2014–15. There would need to be an increase in participation in dual-credit courses of approximately 10.9 percentage points (or 1,900 students) among FRPL-eligible students to bridge the gap with non-FRPL-eligible students in dual-credit participation. The overall trend of FRPL-eligible and non-FRPL-eligible dual-credit participation in grades 11 and 12 increased between 2011–12 and 2014–15 (figure 2).

**Figure 2. Higher percentages of non-FRPL-eligible students participated in dual credit compared to FRPL-eligible students in grades 11 and 12, 2011–12 to 2014–15**



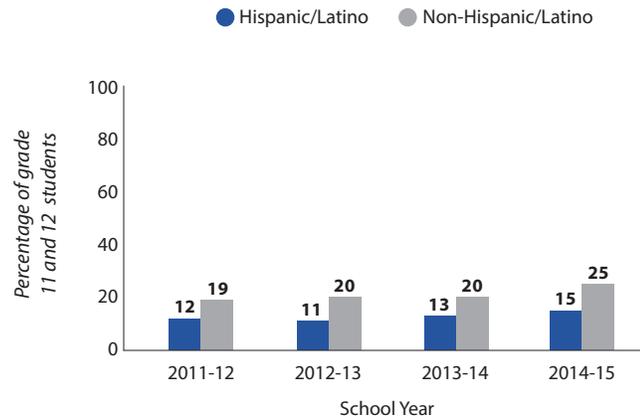
Source: Authors' analysis of Idaho State Board of Education data

<sup>29</sup> Free or reduced-price lunch is provided through a Community Eligibility Provision (CEP). CEP is a meal service option for schools and school districts in low-income areas to provide breakfast and lunch to all students without collecting forms from each household.



**Hispanic/Latino students.** On average, 16 percent of all Idaho students in grades 11 and 12 identified as Hispanic/Latino between 2011–12 and 2014–15. Only 15 percent of Hispanic/Latino students compared to 25 percent of non-Hispanic/Latino students in grades 11 and 12 participated in dual credit in 2014–15. There would need to be an increase in participation in dual-credit courses of approximately 9.7 percentage points (or 732 students) among Hispanic/Latino students to bridge the gap with non-Hispanic/Latino students in dual-credit participation. The overall trend of Hispanic/Latino and non-Hispanic/Latino dual-credit participation increased between 2011–12 and 2014–15 (figure 3).

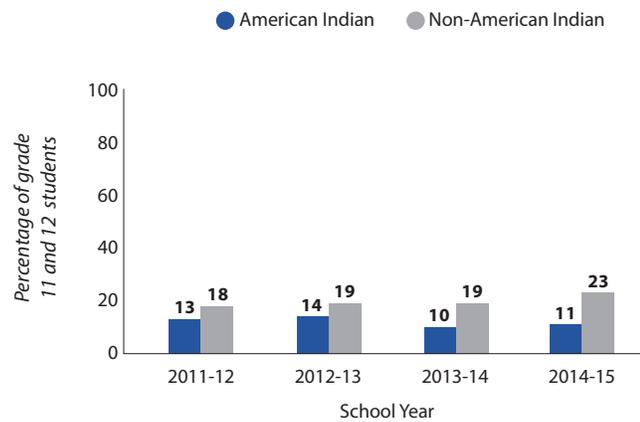
**Figure 3. Higher percentages of non-Hispanic/Latino students participated in dual credit compared to Hispanic/Latino students in grades 11 and 12, 2011–12 to 2014–15**



Source: Authors' analysis of Idaho State Board of Education data

**American Indian students.** On average, 1.25 percent of all Idaho students in grades 11 and 12 between 2011–12 and 2014–15 were American Indian. Only 11 percent of American Indian students compared to 23 percent of non-American Indian students in grades 11 and 12 participated in dual credit in 2014–15. There would need to be an increase in participation in dual-credit courses of approximately 12.2 percentage points (or 63 students) among American Indian students to bridge the gap with non-American Indian students in dual-credit participation. The overall dual-credit participation trend for American Indian students slightly decreased, while it slightly increased for non-American Indian students in grades 11 and 12 between 2011–12 and 2014–15 (figure 4).

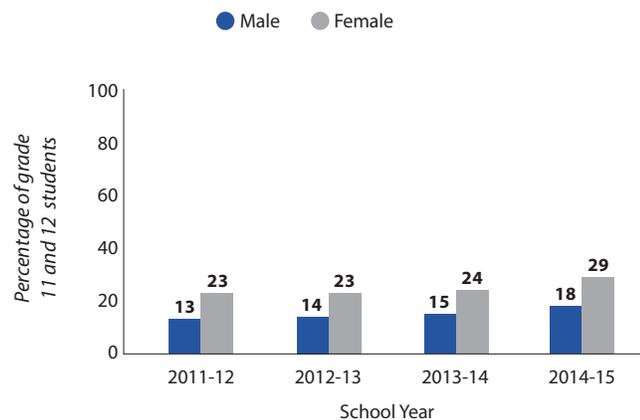
**Figure 4. Higher percentages of non-American Indian students participated in dual credit compared to American Indian students in grades 11 and 12, 2011–12 to 2014–15**



Source: Authors' analysis of Idaho State Board of Education data

**Male students.** On average, 51 percent of all grade 11 and 12 students in Idaho between 2011–12 and 2014–15 were male. Only 18 percent of male students compared to 29 percent of female students in grades 11 and 12 participated in dual credit in 2014–15. There would need to be an increase in participation in dual-credit courses of approximately 10.8 percentage points (or 2,530 students) among male students to bridge the gap with females in dual-credit participation. The overall trend of male and female dual-credit participation in grades 11 and 12 increased between 2011–12 and 2014–15 (figure 5).

**Figure 5. Higher percentages of female students participated in dual credit compared to male students in grades 11 and 12, 2011–12 to 2014–15**

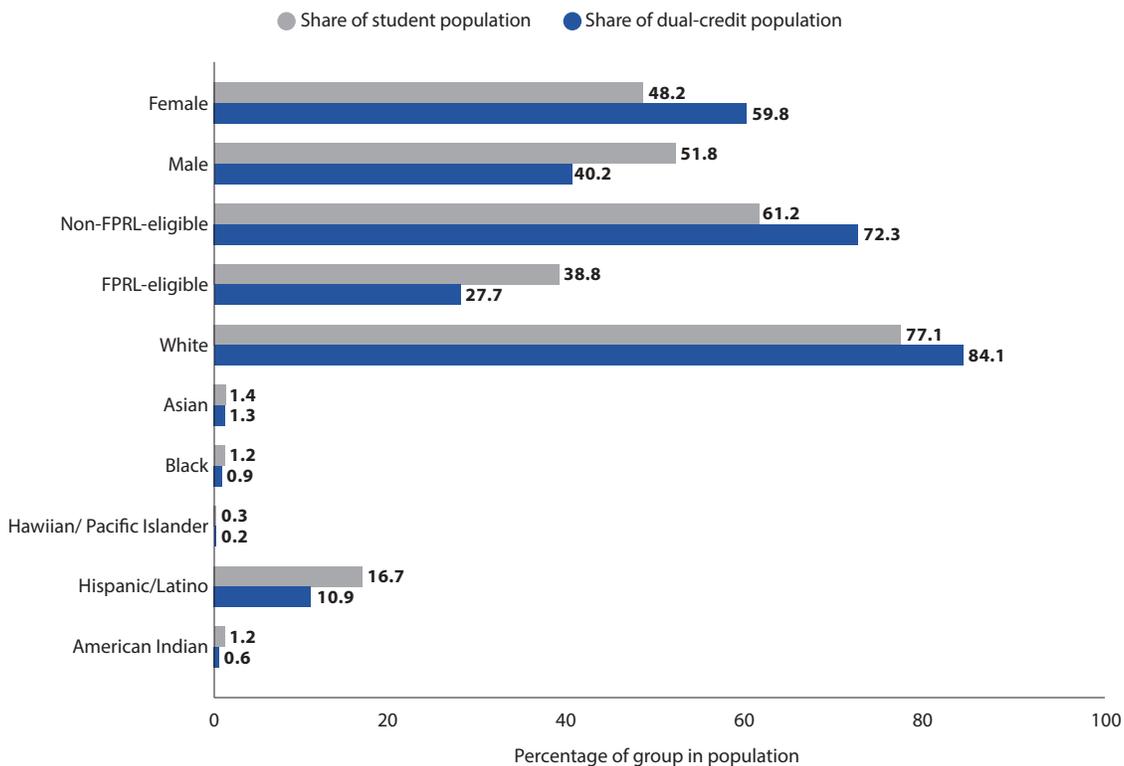


Source: Authors' analysis of Idaho State Board of Education data



Another way to analyze equity gaps is to look at the share of the dual-credit population compared to the overall student population. In 2014-15, the following student groups were underrepresented in the dual-credit population: males compared to females, FRPL-eligible compared to non-FRPL-eligible students, and all students who were of a non-White race/ethnicity (i.e., American Indian, Hispanic/Latino, Hawaiian/Pacific Islander, Black, and Asian) compared to White students. Figure 6 shows underrepresentation in dual-credit participation, where the share of the dual-credit population (blue bar) was less than the share of the student population (gray bar) for that group in 2014–15. Conversely, overrepresentation in dual-credit participation, where the share of the dual-credit population (blue bar) was more than the share of the student population (gray bar), was shown for females, non-FRPL-eligible, and White students.

**Figure 6. Female, Non-FRPL-eligible, and White students represent a greater share of the dual-credit population compared to the overall student population for those groups in grades 11 and 12, 2014–15**

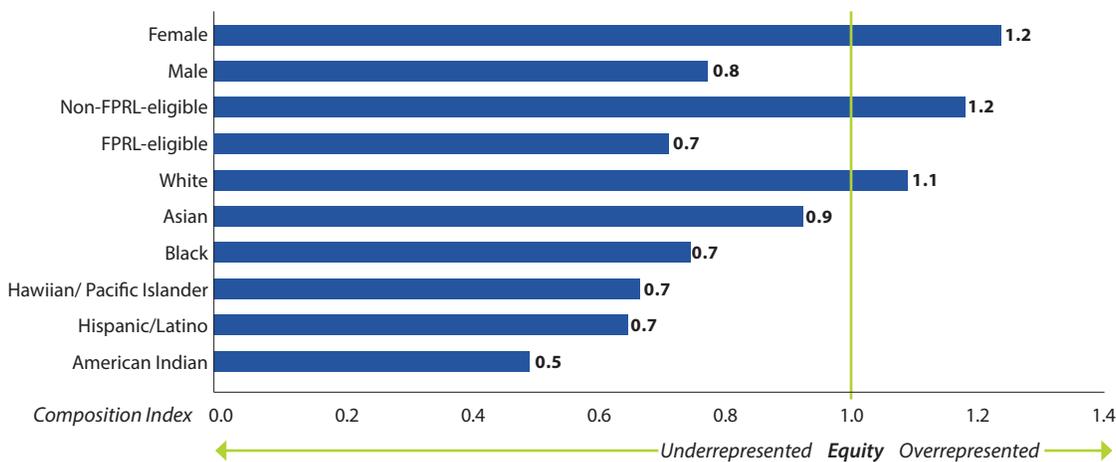


Source: Authors' analysis of Idaho State Board of Education data



Figure 7 shows the proportion of dual-credit population relative to the overall student population in a composition index. The composition index, where “equity” is equal to 1.0 (shown as the green line), further demonstrates equity gaps in the over- and underrepresentation of student groups. Overrepresentation in dual-credit participation was shown among student groups above the green equity line, including female, non-FRPL-eligible, and White student groups. Underrepresentation in dual-credit participation was among student groups below the green equity line, including male, FRPL-eligible, Asian, Black, Hawaiian/ Pacific Islander, Hispanic/Latino, and American Indian student groups. An example of how to read figures 6 and 7 for Hispanic/ Latino students is as follows: Hispanic/Latino students represented 10.9 percent of the dual-credit population and 16.7 percent of the overall student population in 2014–15 (figure 6). Therefore, the proportion of Hispanic/Latino students in the dual-credit population compared to the overall student population (or composition index) was 0.7, which shows that Hispanic/Latino students were underrepresented in the dual-credit population (figure 7).

**Figure 7. Female, Non-FRPL-eligible, and White students represent a greater share of the dual-credit population compared to the overall student population for those groups in grades 11 and 12, 2014–15**



Source: Authors' analysis of Idaho State Board of Education data

## Questions to consider

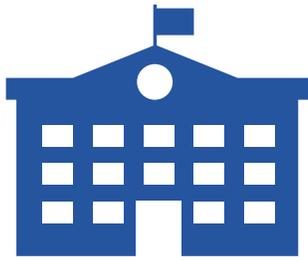
What are barriers to dual-credit participation for underserved groups of students?

What outreach programs or strategies could improve equity in dual-credit participation for underserved groups of students?

## Next steps

Based on the identification of particular barriers to dual-credit course-taking among underrepresented student groups, consider:

- Monitoring dual-credit participation of underrepresented student groups at the state, school district, and school levels to track equity in dual-credit participation among all student groups.
- Checking with school districts about their strategies to promote dual-credit coursetaking among underrepresented student groups.
- Identifying possible barriers to dual-credit expansion within underrepresented student groups. Examples of possible barriers to dual-credit expansion could include lack of communication about dual-credit options with students and families; types of dual-credit course offerings; inadequate funding for dual-credit courses; and lack of teacher accreditation to teach dual-credit courses or insufficient dual-credit policies.

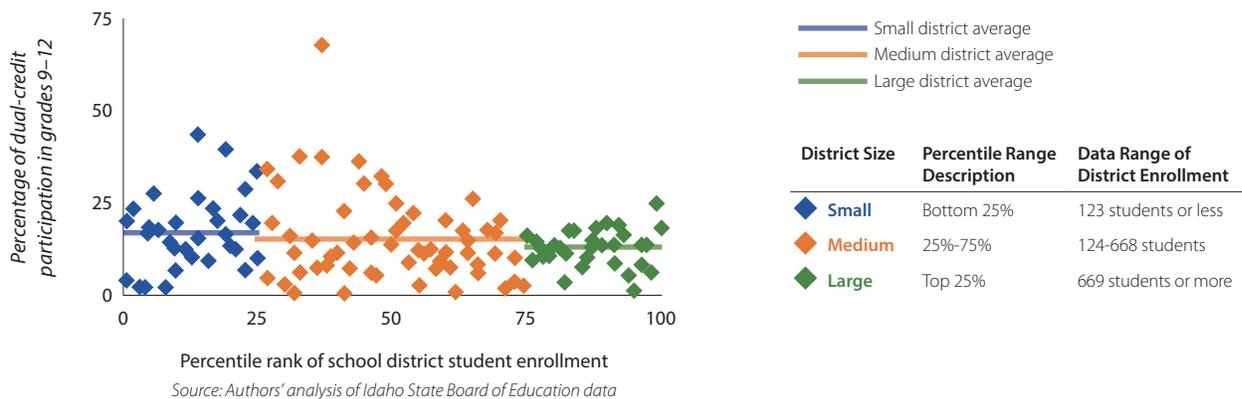


**BRIEF 2**

# What were the characteristics of districts with students who participated in dual-credit courses?

Most districts in Idaho participated in dual credit in the 2014–15 school year, though **a higher number of low-enrollment (small) districts had no dual-credit participation compared to medium- or large-enrollment districts.** Smaller districts, which could be rural or remote schools, might face different barriers to dual credit participation than larger urban districts.<sup>30</sup> Of the 25 districts that did not participate in dual credit (17 percent), 14 districts were small (9 percent), 10 districts were medium (7 percent), and 1 district was large (1 percent). A total of 123<sup>31</sup> of Idaho’s 148 districts participated in dual credit (83 percent). Of the 123 school districts that participated in dual credit: 59 districts (40 percent) were medium, 33 districts (22 percent) were small, and 31 districts (21 percent) were large. The key to the right of figure 8 contains the definition of each district size category. While there were more small districts with no dual-credit participation, the **small districts had a higher average dual-credit participation rate than medium or large districts in 2014–15.** Figure 8 shows the average district dual-credit participation rate by size of enrollment among districts that had students who participated in dual credit. Small districts had a 17 percent rate of participation (blue line), followed by 15 percent for medium districts (orange line), and 13 percent for large districts (green line).

**Figure 8. Small districts had higher average dual-credit participation rates than medium or large districts, 2014–15**



<sup>30</sup> Data on rural school location were not available to use for this report.

<sup>31</sup> This analysis includes 123 districts with dual-credit participation. However, due to lack of access to data for one school district, it was removed from the final results.



Using logistic regression analysis<sup>32</sup>, we found that the number of students enrolled in a district was positively related to whether or not the high school participated in dual credit (statistically significant at the 1-percent level). This was true even for small districts, indicating that it is the smallest districts—with the lowest high school enrollment numbers—that were least likely to participate in dual credit (statistically significant at the 1-percent level).

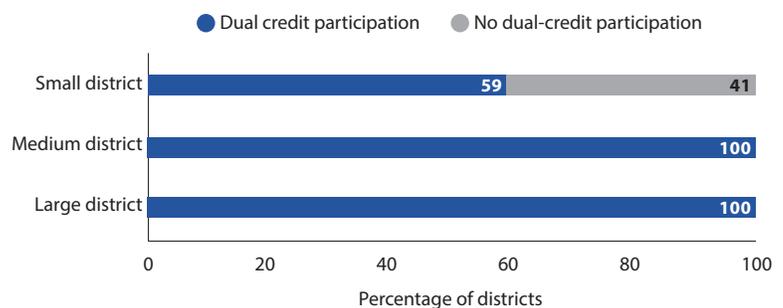
## School district demographics

Next, we examined the relationship between district characteristics such as demographic student breakdown and district size with the likelihood of district dual-credit participation. This analysis shows the composition of districts that tend to participate in dual credit and identifies the district characteristics that are associated with not participating in dual credit. This information can help the state better understand how to promote and expand dual credit.

**Higher percentages of students eligible for free or reduced-price lunch (FRPL) and English language learner (ELL) students also were positively related to dual-credit participation** (statistically significant at the 1-percent level), indicating that schools with larger populations of these historically disadvantaged student groups were more likely to participate in dual credit course offerings.

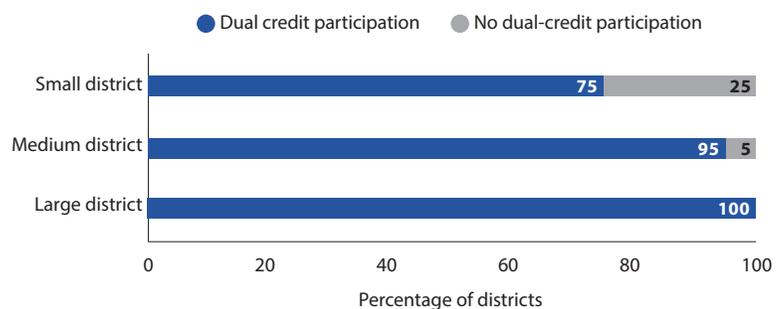
Among districts with the highest percentages of FRPL-eligible student enrollment<sup>33</sup>, large districts were more likely than smaller districts to participate in dual credit. Of the Idaho districts participating in dual credit with the highest percentages of FRPL-eligible students, small districts had the highest rates of no dual credit participation (41 percent, or 7 of 17 districts) in 2014–15 compared to medium- and large-sized districts. Only 59 percent of small districts (or 10 of 17 districts) with the most socioeconomically disadvantaged students participated in dual credit, whereas 100 percent of medium (15 out of 15) and large (6 of 6) districts participated in dual-credit options (figure 9).

**Figure 9. All medium and large districts with the highest percentages of FRPL-eligible student enrollment participated in dual credit, 2014–15**



Source: Authors' analysis of Idaho State Board of Education data

**Figure 10. All large districts with the highest percentages of ELL student enrollment participated in dual credit, 2014–15**



Source: Authors' analysis of Idaho State Board of Education data

<sup>32</sup> The regression analysis included covariates of: school years; district size based on high school enrollment; and percentage of students in the district who were female, Hispanic/Latino, two or more races, Asian, Native American, Black, Hawaiian/Pacific Islander, White, eligible for free or reduced-price lunch, and/or received English language learner services.

<sup>33</sup> The highest percentages of FRPL-eligible student enrollment is defined as the top 25 percent of FRPL-eligible student enrollment, which is greater than or equal to 57.5 or higher.



For districts with the highest percentages of ELL student enrollment<sup>34</sup> the findings were similar. Larger districts with the highest percentages of ELL student enrollment were more likely to participate in dual credit relative to smaller districts. Of the districts with the highest percentages of ELL students, small districts did not participate in dual credit at the same rates as medium and large districts (25 percent, or 2 of 8 districts) in 2014–15. One medium-sized district out of 20 districts (or 5 percent) with the highest percentages of ELL enrollment had no dual-credit participation. At the same time, only 75 percent of small districts (or 6 of 8 districts) and 95 percent of medium districts (or 19 of 20) with the most ELL students participated in dual credit. All large districts (100 percent or 12 of 12) with the highest percentages of ELLs participated in dual-credit options for their students (figure 10). This indicates that **among district sizes—small, medium, and large—with comparable percentages of socioeconomically disadvantaged or ELL students, smaller districts had the most difficulty with dual-credit course participation.**

## District characteristics and GEM competency areas

There were 123 districts with dual-credit participation in 2014–15. **Of the districts participating in dual credit, most districts had dual-credit course participation in Social and Behavioral Ways of Knowing (89 percent) and Mathematical Ways of Knowing (82 percent).** Between 53 and 72 percent of districts participated in courses in Written Communication (72 percent), Humanistic and Artistic Ways of Knowing (71 percent), Oral Communication (55 percent), and Scientific Ways of Knowing (53 percent). Most districts (94 percent) participated in dual-credit courses outside of the GEM competency areas (table 1).

**Table 1. Social and Behavioral Ways of Knowing was the primary GEM competency area with dual-credit course participation across 123 Idaho school districts in grades 9–12, 2014–15 (sorted in descending order)**

GEM Competency Area	Number of Districts	Percentage of Districts with Dual Credit
 Social and Behavioral Ways of Knowing	109	89
 Mathematical Ways of Knowing	101	82
 Written Communication	88	72
 Humanistic and Artistic Ways of Knowing	87	71
 Oral Communication	68	55
 Scientific Ways of Knowing	65	53
Outside of competency area	116	94
<b>Total number of school districts</b>	<b>123</b>	<b>-</b>

Source: Authors' analysis of Idaho State Board of Education data

In the period between 2011–12 and 2014–15 there was a relationship between district characteristics and GEM competency area course participation.<sup>35</sup> For all GEM competency areas, districts with larger numbers of high school students were more likely to participate in courses in all six GEM areas (statistically significant at the 1-percent level). The likelihood of a district participating in GEM courses within the Humanistic and Artistic Ways of Knowing competency area had a particularly strong relationship with the number of high school students in the district, with every 1 percentage point increase in the number of students corresponding to a 308 percent increase in the odds of participating in at least one course in that competency area.

<sup>34</sup> The highest percentages of ELL student enrollment is defined as the top 25 percent of ELL student enrollment, which is greater than or equal to 6.45 or higher.

<sup>35</sup> Indicator variables were included in the logistic regression analysis for each year to control for differences in dual-credit course participation from year to year. A total of 493 Idaho school districts were included in the regressions.



**For certain student groups, the percentage of that student group in the student population was linked to the likelihood of a district participating in particular courses among the GEM competency areas.** A higher percentage of Hispanic/Latino students in a district were negatively related to Written Communication (statistically significant at the 5-percent level) and in Oral Communication (statistically significant at the 1-percent level) dual-credit course participation. Higher percentages of FRPL-eligible students were positively linked to Written Communication and Oral Communication dual-credit course participation (both results were statistically significant at the 1-percent level). The percentage of White, ELL, male, and female students did not exhibit a relationship to whether a district participated in dual-credit within specific GEM competency areas.

## Questions to consider

Why might smaller districts with the highest percentages of FRPL-eligible and ELL students be participating in dual credit at lower rates than medium or larger districts?

Why are students within districts more or less likely to participate in dual-credit courses across certain competency areas?

## Next steps

Based on the findings from this brief, consideration may be given to:

- Determining whether there is equitable access to and preparation for dual-credit courses in different sized districts—small, medium, and large. This is particularly important among small districts, where ELL and FRPL-eligible students had the least frequency of dual-credit participation.
- Developing a statewide strategy for conducting outreach to districts in which there is no or low dual-credit participation among the GEM competency areas. In addition to analyzing participation rates among the competency areas, research on dual-credit course offerings will provide additional information to consider in the expansion of options available to students.
- Researching the transferability of dual-credit courses from high schools to colleges/universities both in and out of state. While the pass rates in dual-credit courses are high (above 95 percent)—indicating that students who enroll in dual-credit courses typically earn credit in those courses—it is essential to better understand whether students earn credit in transferable courses.



**BRIEF 3**

# In which dual-credit course competency areas were districts most likely to have participated?

Idaho public universities are required to provide 36 credits or more of courses within the General Education Matriculation (GEM) curricula.<sup>36</sup> Students can take dual-credit courses within the GEM competency area requirements while still in high school. These GEM competency areas are broadly defined by the Idaho State Board of Education (SBOE) to help provide students who enroll in such courses with a “common” education. The six GEM competency areas include:

-  Social and Behavioral Ways of Knowing
-  Mathematical Ways of Knowing
-  Humanistic and Artistic Ways of Knowing
-  Scientific Ways of Knowing
-  Written Communication
-  Oral Communication

The last two GEM competency areas emphasize the use of learning process skills, while the first four competency areas engage students in “ways of knowing” to provide a range of active learning experiences.<sup>37</sup> Examples of the top three dual-credit courses taken at the state level within each of the GEM competency areas are provided in table 2. A full list of dual-credit course options within each of the GEM competency areas is included in the appendix.

**Table 2. Top three dual-credit courses taken within each GEM competency area, 2014–15**

Social and Behavioral Ways of Knowing	Mathematical Ways of Knowing	Humanistic and Artistic Ways of Knowing	Written Communication	Scientific Ways of Knowing	Oral Communication
American National Government	Introduction to Statistics	Introduction to Literature	English 101	Biology	Fundamentals of Oral Communication
Introduction to Psychology	Calculus 1	Elementary Spanish 1	English 102	Chemistry 1	Public Speaking
United States History 1	Pre-calculus	Elementary German 1	N/A*	Physics	Small Group Communication

Source: Authors’ analysis of State Board of Education data.

\*English 101 and 102 contain a series of courses that may be listed under various section titles among Idaho colleges and universities. For the purposes of this report, English 101 and 102 were consolidated under the course number.

Note: The top three courses within each GEM competency area were determined using student counts in a combination of similar course numbers, course names, and section titles among Idaho colleges and universities.

<sup>36</sup> The following Idaho universities are required to provide courses within the General Education Module curricula: University of Idaho, Boise State University, Idaho State University, Lewis-Clark State College, Eastern Idaho Technical College, College of Southern Idaho, College of Western Idaho, and North Idaho College.

<sup>37</sup> Idaho State Board of Education Governing Policies and Procedures (Section III, Subsection N). (June 2015). Retrieved on August 15, 2016, from [https://boardofed.idaho.gov/policies/documents/policies/iii/iiin\\_general\\_education\\_0615.pdf](https://boardofed.idaho.gov/policies/documents/policies/iii/iiin_general_education_0615.pdf)



Findings related to differences in dual-credit GEM competency areas across school districts include:

- In 2014–15, **about 1 in 4 (22 percent) of dual-credit courses taken by students were in the Social and Behavioral Ways of Knowing GEM competency area, while 1 in 20 (5 percent) dual-credit courses taken by students were in the Oral Communication GEM competency area** (table 3).
- The popularity of dual-credit participation among the six GEM competency areas varied among comparison groups. “Popularity” (or demand) is measured by the number of students who enrolled in courses in each area. For example, the competency area with the highest enrollment would represent the greatest level of popularity.
- In terms of the district supply of courses, Idaho districts were most likely to participate in dual-credit among the following competency areas: 1) Social and Behavioral Ways of Knowing, 2) Mathematical Ways of Knowing, 3) Written Communication, and 4) Humanistic and Artistic Ways of Knowing. Whereas, districts were less than 55 percent likely to participate in dual-credit courses within the Oral Communication and Scientific Ways of Knowing competency areas. Districts with the highest percentages of FRPL-eligible, Hispanic/Latino, and American Indian students showed similar results (figure 11).
- While 17 percent of districts had no dual-credit participation, most districts offered dual-credit courses within at least one of the six GEM competency areas. One of four (26 percent) districts had students who participated in dual credit through all six GEM competency areas (figure 12).
- Across the six GEM competency areas, there was a dual-credit course pass rate of over 95 percent. In 2014–15, the highest pass rate among districts was seen in the Humanistic and Artistic Ways of Knowing GEM competency area at 98 percent, while the lowest rate was in Oral Communication at 95 percent. The overall pass rate for dual-credit courses taken in the GEM competency areas was 96 percent in 2014–15 (table 4).

**Table 3. Social and Behavioral Ways of Knowing was the primary GEM competency area taken across Idaho school districts in grades 9–12, 2014–15 (sorted in descending order)**

GEM Competency Area	Number of Students Taking Courses in a Competency Area	Percentage of Courses Taken in a Competency Area
 Social and Behavioral Ways of Knowing	6,235	22
 Mathematical Ways of Knowing	4,019	14
 Humanistic and Artistic Ways of Knowing	3,458	12
 Written Communication	2,949	10
 Scientific Ways of Knowing	2,328	8
 Oral Communication	1,409	5
Outside of competency area	8,026	28

28,424 courses were taken by 16,333 students.

Some students took courses in more than one GEM competency area.

Source: Authors’ analysis of State Board of Education data.

Note: Student enrollment numbers are unduplicated within each competency area. However, a student can be counted more than once across competency areas. For example, if a student took a course in the Oral Communication and Scientific Ways of Knowing competency areas, they would be counted in each of those areas separately.



## Top GEM competency areas with dual-credit participation: Course popularity through student enrollment

Certain student groups were underrepresented among the dual-credit coursetaking population. In Idaho, free or reduced-price lunch (FRPL) eligible students, Hispanic/Latino students, and male students are groups that take dual-credit courses at lower rates than their comparison groups. The rank of the GEM competency areas for each of those student groups relative to students who are not as representative of that group varied (for example, districts with the highest percentage of FRPL enrollment versus the lowest percentage of FRPL enrollment). **Across all comparison groups, the most popular (or highest ranking) dual-credit courses were taken outside of a competency area. The second ranked area across all comparison groups was Social and Behavioral Ways of Knowing.** The popularity of competency areas deviated among comparison groups, as described below:

- In order of popularity for both males and females, the GEM competency areas ranked as follows: 1) Social and Behavioral Ways of Knowing, 2) Mathematical Ways of Knowing, 3) Humanistic and Artistic Ways of Knowing, 4) Written Communication, 5) Scientific Ways of Knowing, and 6) Oral Communication.
- For districts with the highest<sup>38</sup> and lowest<sup>39</sup> percentages of FRPL-eligible student enrollment the most popular GEM competency area courses, in order, were: 1) Social and Behavioral Ways of Knowing, 2) Mathematical Ways of Knowing, 3) Humanistic and Artistic Ways of Knowing, 4) Scientific Ways of Knowing, 5) Written Communication, and 6) Oral Communication.
- For districts with the highest<sup>40</sup> and lowest percentages<sup>41</sup> of Hispanic/Latino student enrollment, the popularity of courses varied. In order of popularity for districts with the highest percentages of Hispanic/Latino enrollment, the GEM competency areas were: 1) Social and Behavioral Ways of Knowing, 2) Mathematical Ways of Knowing, 3) Humanistic and Artistic Ways of Knowing, 4) Scientific Ways of Knowing, 5) Written Communication, and 6) Oral Communication. In order of popularity for districts with the lowest percentages of Hispanic/Latino enrollment, the GEM competency areas were: Social and Behavioral Ways of Knowing and Written Communication. The least popular areas were Mathematical Ways of Knowing, Humanistic and Artistic Ways of Knowing, Scientific Ways of Knowing, and Oral Communication.

This demonstrates that the popularity of dual-credit course participation within the GEM competency areas for each student comparison group varied.

## Dual-credit participation within the GEM competency areas: District supply of courses

The supply of courses within each of the GEM competency areas varied for districts with the highest percentages of FRPL-eligible, American Indian, or Hispanic/Latino student enrollment. Districts with the highest percentages of FRPL-eligible, American Indian, and Hispanic/Latino students participated in dual credit through courses outside the GEM competency areas (97 percent). In the six GEM competency areas, districts within the highest percentages FRPL-eligible, American Indian, and Hispanic/Latino student enrollment primarily participated in 1) Social and Behavioral Ways of Knowing, 2) Mathematical Ways of Knowing, 3) Written Communication, and 4) Humanistic and Artistic Ways of Knowing. Less than 55 percent (or about half) of districts with the highest percentages of FRPL-eligible, American Indian, or Hispanic/Latino students participated in dual-credit courses in the Oral Communication and Scientific Ways of Knowing competency areas (figure 11).

<sup>38</sup> The highest percentages of FRPL-eligible student enrollment is defined as the top 25 percent of FRPL-eligible student enrollment, which is greater than or equal to 57.5 percent.

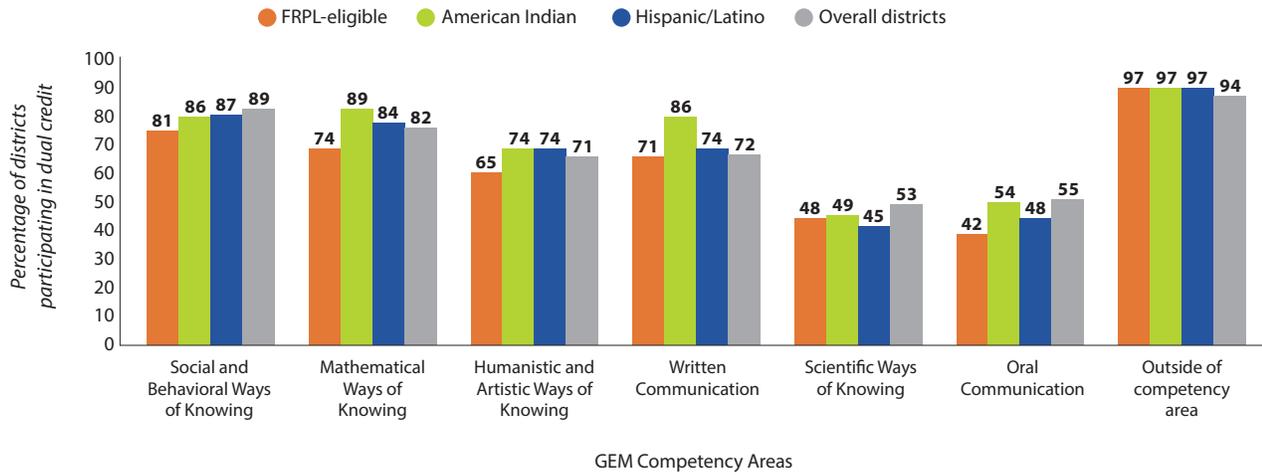
<sup>39</sup> The lowest percentages of FRPL-eligible student enrollment is defined as the bottom 25 percent of FRPL-eligible student enrollment, which is less than or equal to 35.6 percent.

<sup>40</sup> The highest percentages of Hispanic/Latino student enrollment is defined as the top 25 percent of Hispanic/Latino student enrollment, which is greater than or equal to 23.2 percent.

<sup>41</sup> The lowest percentages of Hispanic/Latino student enrollment is defined as the bottom 25 percent of Hispanic/Latino student enrollment, which is less than or equal to 5 percent.



**Figure 11. What percentage of districts with the highest percentages of FRPL-eligible enrollment, American Indian enrollment, or Hispanic/Latino enrollment participated in dual credit in the different GEM competency areas in 2014–15? (sorted in descending order by percentage of overall districts participating in dual credit)**



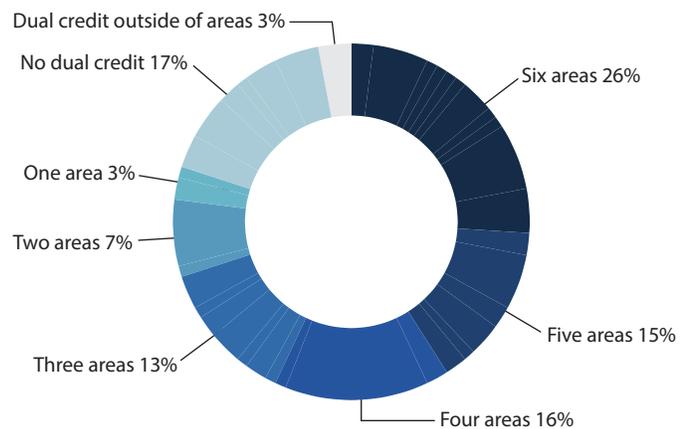
Source: Authors' analysis of Idaho State Board of Education data

In terms of the concentration of dual-credit course participation within the GEM competency areas, it is essential to analyze the number of districts participating in courses in one or more areas. Of the 148 districts in 2014–15, about 1 of 4 districts (26 percent or 38 districts) participated in dual-credit courses in all six of the GEM competency areas. In contrast, about 1 of 5 districts (17 percent or 25 districts) participated in dual-credit courses in none of the GEM competency areas (figure 12).<sup>42</sup>

Figure 13 uses the information from figure 12 to compare the percentage of districts participating in dual-credit courses in: one, two, three, four, five, or six GEM competency areas from all districts in Idaho to districts with the highest percentages of FRPL-eligible, American Indian, or Hispanic/Latino student enrollment, respectively.

Districts with the top FRPL-eligible student enrollment experienced 7 percent of dual-credit participation in a course outside one of the six GEM competency areas. Similarly, districts with the top Hispanic/Latino student enrollment experienced 7 percent of dual-credit participation in a course outside the competency areas. Despite more participation in courses outside the competency areas among these student groups, a total of 61 percent of districts with the most FRPL-eligible students, 68 percent of districts with the most Hispanic/Latino students, and 74 percent of districts with the most American Indian students participated in dual credits in four, five, and six GEM competency areas. This is a fairly equitable rate compared to all Idaho districts (68 percent of districts participating in dual-credit

**Figure 12. One out of four districts (26 percent) offer courses in all six GEM competency areas, 2014-15**



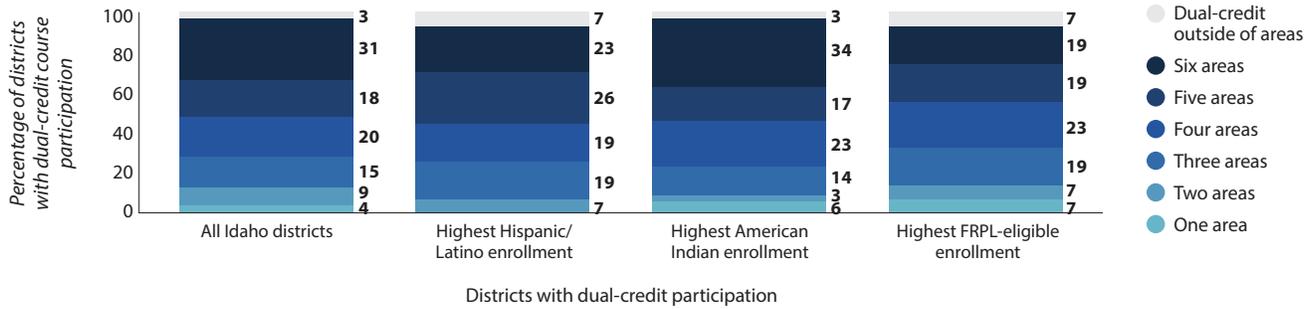
Source: Authors' analysis of Idaho State Board of Education data

<sup>42</sup> For districts with no academic dual-credit participation, there may be participation in technical competency, Advanced Placement, or International Baccalaureate dual-credit course options.



within four, five, and six GEM competency areas). However, just over 1 of 3 Idaho districts (28 percent) had dual-credit participation in less than four GEM competency areas. For districts considering an expansion of dual-credit offerings among the six GEM competency areas, see table 2 for a list of the top three dual-credit courses taken among Idaho districts in 2014–15 (figure 13).

**Figure 13. Comparison of all Idaho districts with dual-credit participation to dual-credit participating districts with the highest percentages of FRPL-eligible, Hispanic/Latino, and American Indian enrollment, 2014–15**



Source: Authors' analysis of Idaho State Board of Education data

### Dual-credit pass rates within GEM competency areas

Nearly all students (over 95 percent) who took a dual-credit course in a GEM competency area passed it. In 2014–15, the highest pass rate was seen in the Humanistic and Artistic Ways of Knowing GEM competency area at 98 percent, while the lowest rate was in Oral Communication at 95 percent. The overall dual credit pass rate for 2014–15 was 96 percent (table 4).

**Table 4. Students who took dual-credit courses in any GEM competency area were likely to pass at a rate of 95 percent or higher, 2014–15**

GEM competency area	Credits earned	Credits attempted	Pass rate (%)
Humanistic and Artistic Ways of Knowing	20,269	20,786	98
Social and Behavioral Ways of Knowing	31,326	32,418	97
Mathematical Ways of Knowing	18,479	19,227	96
Scientific Ways of Knowing	16,940	17,726	96
Written Communication	12,441	13,161	95
Oral Communication	4,827	5,089	95
Outside of competency area	34,341	36,133	95
<b>Total</b>	<b>138,623</b>	<b>144,540</b>	<b>96</b>

Source: Authors' analysis of State Board of Education data.



## Questions to consider

How might offering different competency areas for dual-credit courses affect which students participate in dual credit, particularly in districts with the most disadvantaged populations (for example, those with the most Hispanic/Latino and FRPL-eligible students)?

What strategies might be used to expand the variety of dual-credit course offerings and participation within GEM competency areas overall and within certain student groups?

What is the transferability of dual-credit courses in GEM competency areas to colleges/universities inside and outside of Idaho? Will taking courses in certain GEM competency areas increase outcomes such as college enrollment, time to a college degree, or college degree completion?

## Next steps

At the district level, consider developing a strategy to expand the supply of dual-credit courses within all six GEM competency areas so that high school students can earn general education credit that is likely to transfer to a college degree. At the state and district levels, consider:

- Examining dual-credit course offerings and participation among the GEM competency areas. Dual-credit participation varied by district. Only 26 percent of districts participated in dual credit in all six competency areas. Further analysis of each district's dual-credit courses among the competency areas will help to determine opportunities to expand course offerings and participation across the state.
- Adding dual-credit offerings in areas where there are few or no course offerings, so students have an expanded set of dual-credit course options.
- Targeting resources for school districts with higher percentages of student groups that participate in dual-credit courses at lower rates, such as FRPL-eligible, American Indian, and Hispanic/Latino students.



**BRIEF 4**

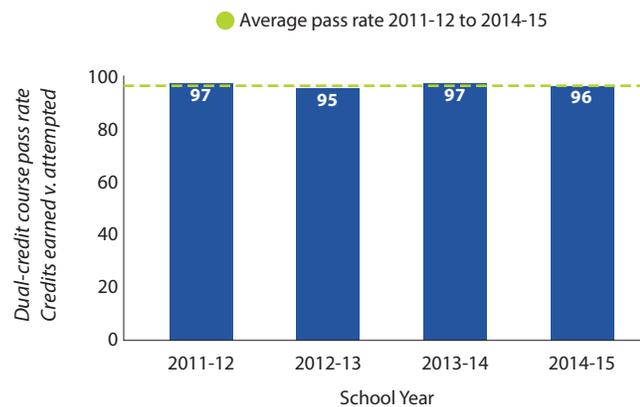
# What were the pass rates of students who participated in dual-credit courses?

Comparing the number of credits that students attempted with the number of credits that students earned allows for an understanding of pass rates<sup>43</sup> in dual-credit courses. A student with a grade of D or higher would be considered “passing” because they earned credit in the course. **Pass rates for dual credit were high at over 95 percent of credits attempted between 2011–12 and 2014–15, and these rates were stable over time** (figure 14). Pass rates by grade were similar over time, averaging 96 to 97 percent in each grade, while ranging from 93 to 100 percent within each grade over time. Additionally, pass rates were also similar among different student groups; little variation was seen when breaking down pass rates by gender, race, ethnicity, socioeconomic status, or English language learner (ELL) status. This indicates that once students were in the courses, historically disadvantaged groups did not seem to be at a disadvantage for earning credit. Despite the high pass rates in dual-credit courses for students in grades 9–12 and for demographic groups, there was variation in pass rates among districts with dual-credit participation ranging from 63 to 100 percent.

## Dual-credit pass rates relative to lower division college courses

Pass rates for high school dual-credit courses were higher than for lower division college courses (entry-level college classes typically taken in the first and second year of college). **High school dual-credit course pass rates averaged 96 percent, while lower division college course pass rates averaged 83 percent between 2011–12 and 2014–15.** With a 13 percentage point gap, this finding might demonstrate that different groups of students take dual credit compared to the overall college population. For example, higher achievers often select into high school dual-credit courses;<sup>44</sup> whereas all college-going students take lower division college courses.

**Figure 14. Most students (96 percent) who took a dual credit course passed, 2011–12 to 2014–15**



Source: Authors' analysis of Idaho State Board of Education data

<sup>43</sup> The pass rate is calculated using credits attempted and credits earned in dual credit courses. Therefore, a student contributes to the “pass rate” if they earned credit in a course for which they were attempting credit.

<sup>44</sup> Rodriguez, O., Hughes, K. L., & Belfield, C. (2012). *Bridging college and careers: Using dual enrollment to enhance career and technical education pathways*. New York, NY: Columbia University, Teachers College, National Center for Postsecondary Research. Retrieved September 19, 2016, from <http://ccrc.tc.columbia.edu/media/k2/attachments/bridging-college-careers.pdf>



## Dual-credit pass rates in GEM competency areas

Idaho public universities are required to provide 36 credits or more of courses within the General Education Matriculation (GEM) curricula.<sup>45</sup> Students can take dual-credit courses within the GEM competency area requirements while still in high school. These GEM competency areas are broadly defined by the Idaho State Board of Education (SBOE) to help provide students who enroll in such courses with a “common” education. Nearly all students (over 95 percent) who took a dual-credit course in a GEM competency area passed with a D or better. In 2014–15, the highest pass rate was seen in the Humanistic and Artistic Ways of Knowing GEM competency area at 98 percent, while the lowest rate was in Oral Communication at 95 percent. The overall dual-credit pass rate for 2014–15 was 96 percent (table 5).

**Table 5. At least 95 percent of students who took dual-credit courses in any GEM competency area passed, 2014–15**

GEM competency area	Credits earned	Credits attempted	Pass rate (%)
 Humanistic and Artistic Ways of Knowing	20,269	20,786	98
 Social and Behavioral Ways of Knowing	31,326	32,418	97
 Mathematical Ways of Knowing	18,479	19,227	96
 Scientific Ways of Knowing	16,940	17,726	96
 Written Communication	12,441	13,161	95
 Oral Communication	4,827	5,089	95
Outside of competency area	34,341	36,133	95
<b>Total</b>	<b>138,623</b>	<b>144,540</b>	<b>96</b>

Source: Authors' analysis of State Board of Education data.

### Questions to consider

What might be driving these relatively high pass rates in dual-credit courses at the state level?

How might you expect these pass rates to change as dual credit grows in the state?

What might be the differences in the characteristics of students taking dual credit in high school and students taking lower division college coursework?

### Next steps

Since 96 percent of students who take a dual-credit course—regardless of race/ethnicity, gender, socioeconomic status (that is, free or reduced-price lunch eligibility), or ELL status—pass the course, consider the drivers of high pass rates in these courses. At the state level, consider investigating the variation of pass rates for districts with a lower percentage of students earning credit for dual-credit courses. Discussion between school district and college/university personnel responsible for administering dual credit would be helpful in understanding selection effects of students who enroll in either high school dual credit or lower division college courses.

<sup>45</sup> The following Idaho universities are required to provide courses within the GEM curricula: University of Idaho, Boise State University, Idaho State University, Lewis-Clark State College, Eastern Idaho Technical College, College of Southern Idaho, College of Western Idaho, and North Idaho College.



## BRIEF 5

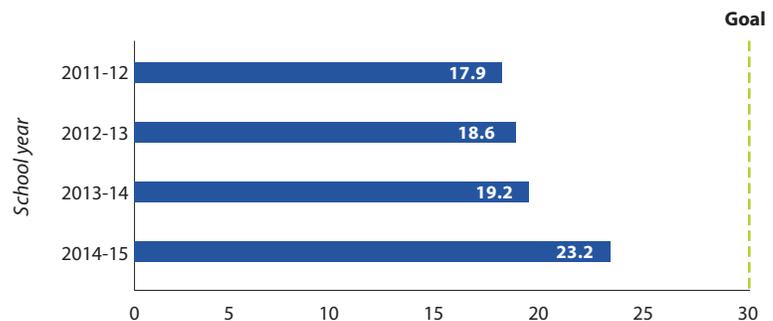
# To what degree did the state meet its goal of 30 percent of high school students participating in dual-credit courses?

The Idaho strategic plan for education sets a **benchmark for dual-credit participation at 30 percent.**<sup>46</sup> When looking at grades 9–12, 13 percent of Idaho students participated in dual credit in 2014–15. Students in all high school grades also saw an increase of 4 percentage points in dual-credit participation since 2011–12 (figure 15). Students tend to participate in dual credit in the later years of high school. **The dual-credit participation rate for Idaho students in grades 11 and 12 was 23 percent in 2014–15. There was an approximately 5 percentage point increase in dual-credit participation for students in grades 11 and 12 since 2011–12.** Part of the Idaho State Board of Education mission is to increase access to dual credit for students in grades 9 and 10.

### Dual-credit participation among Idaho school districts

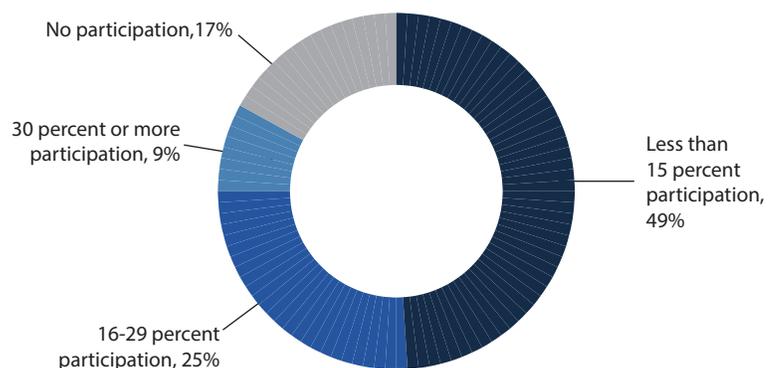
District dual-credit participation rates were analyzed to capture the degree to which districts met the strategic goal of greater than or equal to 30 percent. While the dual-credit participation rate increased between 2011–12 and 2014–15, not all districts participate in dual-credit courses. In 2014–15, 17 percent of Idaho school districts (25 of 148) did not participate in dual credit.<sup>47</sup> About half of districts (73 of 148) had less than 15 percent dual-credit participation. A quarter of districts (37 of 148) had between 16 and 29 percent dual-credit participation. Only about **1 in 10 districts (13 of 148) had met the strategic goal of greater than or equal to 30 percent dual-credit participation** in 2014–15 (figure 16).

**Figure 15. Dual-credit participation for students in grades 11 and 12 has increased since 2011–12 by 5 percentage points**



Source: Authors' analysis of Idaho State Board of Education data

**Figure 16. About half of school districts in Idaho had dual credit participation rates of less than 15 percent, 2014–15**



Source: Authors' analysis of Idaho State Board of Education data

<sup>46</sup> Idaho State Board of Education, FY2014/2021 Strategic Plan. Retrieved August 15, 2016, from [https://boardofed.idaho.gov/policies/documents/strategic\\_plan/SBOE%20FY16%20Final.pdf](https://boardofed.idaho.gov/policies/documents/strategic_plan/SBOE%20FY16%20Final.pdf)

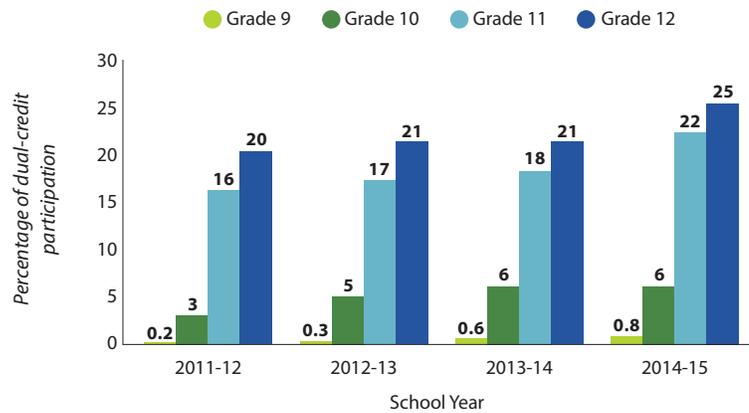
<sup>47</sup> Note that districts included in this analysis may not have high school grades, which could impact the dual-credit participation rates at the state level.



## Grade level

A higher percentage of students in grades 11 and 12 participate in dual credit compared to students in grades 9 and 10. However, the dual-credit participation rate for all students remained relatively stable and has increased slightly from .2 to .8 percent for students in grade 9 and from 3 to 6 percent for students in grade 10 between 2011–12 and 2014–15. In 2014–15, 22 and 25 percent of high school juniors and seniors, respectively, took a dual-credit course (figure 17).

**Figure 17. Dual-credit participation in grades 9 and 10 slightly increased between 2011–12 and 2014–15**



Source: Authors' analysis of Idaho State Board of Education data

## Questions to consider

What are the barriers to expanding dual credit in Idaho? What facilitates that expansion?

What dual-credit courses are appropriate and fit within a potential course sequence for students in grades 9 and 10?

There is wide variation in dual-credit participation among school districts. How could dual-credit participation be expanded to help more school districts reach the 30 percent goal?

Many school districts have no high school dual-credit participation. What strategies could help these school districts increase dual-credit course participation (for example, online learning, teacher training)?

## Next steps

With a statewide focus of expanding dual-credit participation to students as early as grade 7 through the Fast Forward Program, continuous monitoring of these data overall and by grade level could be helpful in checking progress toward state benchmarks. Consider:

- Reaching out to school districts with no or low dual-credit participation to determine existing barriers to participating in dual credit.
- Using resources and information regarding dual-credit participation to assist districts with developing school- or district-level dual-credit policies and procedures.
- Encouraging districts and schools to create clear course progression pathways to help counselors, students, and families understand which dual-credit courses might be appropriate for each high school grade based on prior student courses.

# Appendix. Course participation in General Education Matriculation (GEM) competency areas



## Social and Behavioral Ways of Knowing

American Indian Studies	Infancy-Middle Childhood	Mass Media in a Free Society	United States History to 1865
American National Government	International Politics	Principles of Macroeconomics	United States History to 1876
Anthropology	Interpersonal Communication	Principles of Microeconomics	Western Civilization 1
Foundations of Education	Introduction to Law & Justice	Social Problems	Western Civilization 2
Foundations of Europe	Introduction to Political Science	United States History 1	
Geography	Introduction to Psychology	United States History 2	
History of Civilization 20th Century	Introduction to Sociology	United States History Since 1865	
History of Civilization Since 1500	Introduction to United States Government	United States History Since 1876	



## Mathematical Ways of Knowing

Analytic Geometry/Calculus 1	Calculus 3	Finite Mathematics	Pre-calculus
Calculus 1	College Algebra	Introduction to Statistics	Statistical Methods
Calculus 2	Contemporary Mathematics	Math for Technology	Survey of Calculus



## Humanistic and Artistic Ways of Knowing

Advanced Classical Latin	Elementary French 1	Intermediate Spanish 1	Survey of American Popular Music
American Indian Literature	Elementary French 2	Intermediate Spanish 2	Survey of Art
American Sign Language 1	Elementary German 1	Introduction to Philosophy	Survey of English Literature 1
American Sign Language 2	Elementary German 2	Introduction to Art	Survey of English Literature 2
American Sign Language 3	Elementary Japanese 1	Introduction to Humanities 1	Survey of Jazz & Pop Music
Art History 1	Elementary Japanese 2	Introduction to Humanities 2	Survey of Music
Art History 2	Elementary Spanish 1	Introduction to Literature	Survey of Western World Literature 1
Asian Philosophy	Elementary Spanish 2	Introduction to Theatre	Survey of World Music
Culture of Italy	Ethics	Literature of Western Civilization	Survey of World Mythology
Culture of Latin America	Film & Intern. Culture	Logic and Critical Thinking	Theatre Appreciation
Culture of Turkey	History of Rock & Roll	Major Themes in Literature	Themes in World History
Elementary Mandarin Chinese I	History of Western Art 1	Music Appreciation	Western Civilization 1
Elementary Arabic II	Intercultural Communication	Survey of American Literature 1	Western Civilization 2
Elementary Classical Latin	Interdisciplinary Seminar	Survey of American Literature 2	World Religions



## Written Communication

English 101 includes courses with the following section titles under the same course number: English Composition 1 and Introduction to College Writing.

English 102 includes courses with the following section titles under the same course number: English Composition 2 and College Writing & Research.



## Scientific Ways of Knowing

Architecture of Matter	Environmental Science	Human Anatomy & Physiology I	Introduction to Natural Sciences
Astronomy	Fundamentals of Nutrition	Introduction to Earth Science	Physical Geography
Biology	Fundamentals of Physical Science	Introduction to Engineering	Physics
Chemistry 1	General Microbiology	Introduction to Environmental Science	Planets & Astrobiology
Chemistry 2	General Zoology	Introduction to Life Sciences	
Energy for Society	Geology		



## Oral Communication

College Writing & Rhetoric	Fundamentals of Oral Communication	Public Speaking	Small Group Communication
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