

Understanding Access to and Participation in Dual Enrollment by Locale and Income Level

By providing students with an opportunity to take college courses and earn college credits while in high school, dual enrollment programs effectively increase college access, enrollment, and degree attainment. Such programs might be particularly beneficial for high school students who might be less likely to go to college, including students from rural areas and low-income households. Given the comparatively rural geography of the Regional Educational Laboratory (REL) Central region, stakeholders need a comprehensive resource for understanding dual enrollment access and participation in their states in order to support the identification of strategies to expand opportunities for college and career preparation. This report presents information on patterns in dual enrollment access and participation for the 2017/18 school year in the REL Central states (Colorado, Kansas, Missouri, Nebraska, North Dakota, South Dakota, and Wyoming) and the region as a whole and compares these state and regional patterns with national patterns. The report also reveals how dual enrollment access and participation varied with school characteristics, including school locale (city, suburban, town, or rural) and percentage of students from low-income households. The study found that dual enrollment access and participation were higher in the REL Central region than nationally. Additionally, students in rural and city locales tended to have lower dual enrollment access than did their peers in town and suburban locales. In contrast, dual enrollment participation was generally higher for students in rural and town locales than for their peers in city locales. In some states, however, both dual enrollment access and participation were higher in rural and town schools than in city schools. The study also found that in the REL Central region and nationally, schools serving higher percentages of students from low-income households had higher dual enrollment access and participation than did schools serving lower percentages of students from low-income households. Education leaders can use the study findings to advance progress toward state and district postsecondary readiness goals and to inform the development of supports or incentives related to dual enrollment.

Why this study?

Education leaders have expressed concern that rural students and students from low-income households might lack important opportunities for improving college readiness that are available to their peers. Although achievement trends and high school graduation rates are similar for rural students and their peers in nonrural locales,¹ rural students attend college at a lower rate (62 percent) than nonrural students do (67 percent).² Partly for this reason, the National Rural Education Association has identified “college and career readiness/preparation for

1. Aud, S., Wilkinson-Flicker, S., Kristapovich, P., Rathbun, A., Wang, X., & Zhang, J. (2013). *The condition of education 2013* (NCES 2013–037). U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. <https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2013037>; Snyder, T. D., & Dillow, S. A. (2012). *Digest of education statistics 2011* (NCES 2012–001). U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. <https://eric.ed.gov/?id=ED544580>.
2. National Student Clearinghouse Research Center. (2016). *National college progression rates for high schools participating in the National Student Clearinghouse StudentTracker service*. Retrieved August 17, 2020, from <https://nscresearchcenter.org/hsbenchmarks2016/>.

postsecondary experiences” as one of its top research priorities.³ Disparities in education outcomes between students from low-income households and students from higher income households are well documented, and achievement gaps along income lines have been widening.⁴ Education leaders throughout the country remain focused on improving outcomes for students from low-income households.

Providing opportunities for students to participate in college-level courses and earn college credits through dual enrollment or Advanced Placement courses is one well documented strategy for improving college readiness and success. Dual enrollment can offer advantages over other forms of advanced coursework, such as Advanced Placement courses, by providing a variety of options for when and where courses are offered and a more seamless transition from high school to college. Dual enrollment courses can be taken on a high school campus, on a college campus, online, or through some combination of these settings.⁵ Dual enrollment often offers a broader variety of advanced coursework than does Advanced Placement,⁶ and it can help students develop social capital by becoming familiar with the nonacademic aspects of college as well as the academic ones.⁷ There is also evidence that dual enrollment programs have a positive effect on student high school academic outcomes, such as attendance and achievement, and student postsecondary outcomes, such as college readiness and degree attainment.⁸ Accordingly, some state education agencies have identified dual enrollment access as a strategic priority.⁹

Although dual enrollment programs are common, stakeholders in the Regional Educational Laboratory (REL) Central region need a comprehensive resource for understanding dual enrollment access and participation in their states in order to support the identification of strategies to expand opportunities for college and career preparation. It is important that detailed data on dual enrollment be made available to states in a digestible, contextually relevant manner (for example, by examining dual enrollment by student and school locale). This report provides detailed information on dual enrollment access and participation in the REL Central region and across its seven states (Colorado, Kansas, Missouri, Nebraska, North Dakota, South Dakota, and Wyoming).

What was studied and how?

The study team used publicly available data for the 2017/18 school year to address the following research questions related to dual enrollment in REL Central states, the REL Central region, and the country:

1. What are the rates of dual enrollment access and dual enrollment participation?
2. Do rates of dual enrollment access and dual enrollment participation vary by school locale or by percentage of students from low-income households?

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3. National Rural Education Association. (n.d.). *NREA research agenda 2016–2021*. Retrieved August 17, 2020, from https://www.nrea.net/Research_and_Publications.
 4. Reardon, S. F. (2013). The widening income achievement gap. *Educational Leadership*, 70(8), 10–16. <https://eric.ed.gov/?id=EJ1029019>.
 5. Arnold, B., Knight, H., & Flora, B. (2017). Dual enrollment student achievement in various learning environments. *Journal of Learning in Higher Education*, 13(1), 25–32. <https://eric.ed.gov/?id=EJ1139694>.
 6. Borden, V. M. H., Taylor, J. L., Park, E., & Seiler, D. J. (2013). *Dual credit in U.S. higher education: A study of state policy and quality assurance practices*. Higher Learning Commission. <https://www.hlcommission.org/Publications/dual-credit-programs-and-courses.html>.
 7. Bailey, T. R., Hughes, K. L., & Karp, M. M. (2002). *What role can dual enrollment programs play in easing the transition between high school and postsecondary education?* U.S. Department of Education, Office of Vocational and Adult Education. <https://eric.ed.gov/?id=ED465090>.
 8. What Works Clearinghouse. (2017). *Dual enrollment programs*. U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance. <https://eric.ed.gov/?id=ED572842>.
 9. Education Commission of the States. (2019). *Dual/concurrent enrollment: Statewide policy in place*. Retrieved August 20, 2020, from <http://ecs.force.com/mbdata/MBQquest2RTanw?Rep=DE1901>; Nebraska Department of Education & Nebraska Coordinating Commission for Postsecondary Education. (2019). *NDE/CCPE joint dual credit initiative: Final report*. Retrieved August 17, 2020, from <https://www.education.ne.gov/boardreport/march-2020/>.

The study team obtained data on dual enrollment access and participation from the Civil Rights Data Collection (<https://ocrdata.ed.gov/Home>) and data on school locale and percentages of students eligible for the national school lunch program (a proxy for low-income status) from the Elementary/Secondary Information System of the National Center for Education Statistics (<https://nces.ed.gov/ccd/elsi/>). Each school was coded with a city, suburban, town, or rural locale. Additionally, each school was placed into a school income quartile based on the percentage of students in the school who were eligible for the national school lunch program. The study team examined data only for schools that enrolled grade 11 and 12 students, were not juvenile justice facilities, and were categorized as “regular” schools. Regular schools are public schools that do not focus primarily on special education, vocational/technical education, alternative education, or any particular theme associated with magnet/special program emphasis schools.¹⁰ The dataset was missing very few data elements for this universe of schools: only 0.4 percent of values or lower were missing for all variables. The resulting dataset included 2,001 schools in the REL Central region and 18,624 schools in the United States.

The study team calculated rates of dual enrollment access and participation for each state in the REL Central region, for the region, and for the country. Two measures were used to determine dual enrollment access: the percentage of schools providing at least one dual enrollment course and the percentage of students attending schools that provided at least one dual enrollment course. Dual enrollment participation was defined as the percentage of students who participated in at least one dual enrollment course. Dual enrollment access and participation were calculated by school locale (city, suburb, town, and rural) and school income quartile for each REL Central state, the region, and the country.

Findings

- **Dual enrollment access and participation in the Regional Educational Laboratory Central region were higher than the national average.** In the 2017/18 school year 82 percent of high schools in the REL Central region provided at least one dual enrollment course compared with 78 percent nationally. The trend was similar at the student level, as 89 percent of grade 11 and 12 students in the REL Central region attended high schools that provided dual enrollment compared with 83 percent of students nationally. In the 2017/18 school year 27 percent of grade 11 and 12 students in the REL Central region participated in at least one dual enrollment course, which was higher than the 21 percent average for the country. However, participation rates varied across states in the region. For example, dual enrollment participation rates in Kansas and Wyoming were roughly twice the rate in Colorado.
- **In the Regional Educational Laboratory Central region, students in rural and city locales tended to have lower dual enrollment access than students in other locales, but students in rural, town, and suburban locales had higher dual enrollment participation than their peers in city locales.** Rural locales had the lowest percentage of students attending high schools that provided dual enrollment in Nebraska (92 percent), North Dakota (90 percent), South Dakota (88 percent), Colorado (84 percent), and Wyoming (73 percent). In all these states except North Dakota, rural locales also had the lowest percentage of high schools providing dual enrollment (85 percent in Nebraska, 80 percent in South Dakota, 73 percent in Colorado, and 69 percent in Wyoming). Rural locales had the highest percentage of students participating in dual enrollment courses in Wyoming (41 percent), Missouri (33 percent) and Nebraska (32 percent).
- **High schools with high percentages of students from low-income households were more likely than high schools with low percentages of students from low-income households to provide dual enrollment.** In all seven states in the REL Central region, as well as nationally, school-level dual enrollment access was higher in schools with the highest percentages of students from low-income households than in schools with the lowest percentages of students from low-income households.

10. National Center for Education Statistics. (n.d.). *School and district glossary*. Retrieved October 26, 2020, from <https://nces.ed.gov/ccd/commonfiles/glossary.asp>.

- **Across the Regional Educational Laboratory Central region, dual enrollment participation was higher in schools with higher percentages of students from low-income households, but participation varied across states.** In the REL Central region 30 percent of grade 11 and 12 students in schools with the highest percentages of students from low-income households participated in dual enrollment compared with 19 percent in schools with the lowest percentages of students from low-income households. This finding should be interpreted cautiously, however, as it does not imply that students from low-income households had higher rates of dual enrollment participation than did students from higher income households.

Implications

The study findings suggest that dual enrollment programs might serve as a crucial opportunity for rural students, who generally have more limited opportunities for college and career preparation, to improve their college readiness. Rates of dual enrollment access for rural students in the REL Central region were lower than those for town and suburban students but similar to those for city students. However, rates of dual enrollment participation tended to be higher for rural and town students than for suburban and city students. State education agencies interested in expanding dual enrollment opportunities for rural students could explore strategies to encourage participation. Education agencies might also want to explore strategies to expand dual enrollment access, such as by offering courses online or at locations in addition to high school and college campuses or by focusing on programs to certify high school teachers to serve as postsecondary instructors.¹¹

In addition, implementing strategies to increase dual enrollment participation in schools that already provide dual enrollment is likely a key part of ensuring that students from low-income households benefit from dual enrollment. The study found that schools serving higher percentages of students from low-income households were more likely to provide dual enrollment and had higher levels of dual enrollment participation. Although encouraging from an equity standpoint, this finding needs to be examined more closely. For example, students from low-income households who attend schools serving high percentages of students from low-income households might be less likely than other students at the schools to participate in dual enrollment. Especially in larger schools, higher dual enrollment access might not lead to higher dual enrollment participation for students from low-income households if the larger school size leads to higher rates of separating students based on academic ability (tracking) that are correlated with low-income status. State education agencies might want to compare participation rates in larger schools for students from low-income households and for other students to ensure that students from low-income households are participating in dual enrollment opportunities. When introducing dual enrollment programs to schools that do not provide such programs, state education agencies might want to consider solutions that ensure equitable access for students from low-income households.

11. Zinth, J. D. (2014). *Dual enrollment: A strategy to improve college-going and college completion among rural students*. Education Commission of the States. <https://eric.ed.gov/?id=ED561909>.

This brief was prepared for the Institute of Education Sciences (IES) under Contract ED-IES-17-C-005 by the Regional Educational Laboratory Central administered by Marzano Research. The content of the publication does not necessarily reflect the views or policies of IES or the U.S. Department of Education, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government. The full report is available on the Regional Educational Laboratory website at <http://ies.ed.gov/ncee/edlabs>.

Gagnon, D., Liu, J., & Cherasaro, T. (2021). *Understanding access to and participation in dual enrollment by locale and income level* (REL 2021–089). U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Central.