

January 2017

Thank you for your request to our REL Reference Desk regarding **graduation requirements across states**. **Ask REL Southwest** is part of a collaborative Ask-A-REL reference desk service provided by the 10 regional educational laboratories (RELs). By design, this service functions much in the same way as a technical reference library, by providing references, referrals, and brief responses in the form of citations for research-based education questions.

Please note that REL Southwest has not done an evaluation of the resources themselves but offers this list to you for your information only.

BACKGROUND

High school students in each of the fifty states must meet credit and testing requirements prior to graduating. Typically, each State Board of Education works to create a framework that's designed to be flexible—mandating some courses and leaving others up to a student's selection, from among several options.

Following an established REL Southwest protocol, we conducted a search for research reports, websites, as well as descriptive briefs on graduation requirements across states. **We searched the references in the response from the most commonly used resources of research, but they are not comprehensive and other relevant references and resources may exist.** The sources included federally funded organizations, additional research institutions, educational databases, and general Internet searches using Google and Bing. See the methods section at the end of this Ask A REL for additional information on how we identified the following sources.

QUESTION

What exiting graduation requirements are across states, including course-taking and testing?

SOURCES

Elbaum, B., Myers, N. D., Rodriguez, R. J. & Sharpe, S. T. (2014). Graduation rates of students with disabilities: Issues and implications for district accountability. *Journal of Special Education Leadership*, v27 n1 p3-12. <https://eric.ed.gov/?id=EJ1088850>.

From the ERIC abstract: "Following the reauthorization of the Individuals with Disabilities Education Act (IDEA, 2004), states were required to develop a State Performance Plan (SPP; U.S. Department of Education, 2011) addressing 20 accountability indicators for students with disabilities, ages 3 to 21. First and arguably foremost among these is Indicator 1, the "percent of youth with IEPs [Individualized

Education Programs] graduating from high school with a regular diploma" (Office of Special Education Programs [OSEP], 2012). Reasons for the prominence of this indicator are well-known. Graduation from high school is a predictor of many critical outcomes in adulthood, including psychosocial well-being (Liem, Dillon, & Gore, 2001), physical health (Freudenberg & Ruglis, 2007; Winkleby, Jatulis, Fran, & Fortmann, 1992), longevity (Molla, Madans, & Wagener, 2004), employment (National Center for Education Statistics [NCES], 2002), and earnings (U.S. Census Bureau, 2011). However, district-level reporting requirements of the State Performance Plan do not take into account key factors that are known to affect graduation rates and that are beyond the control of individual school districts. An analysis of four years of accountability data from a large southeastern state showed that district differences in graduation rates for students with disabilities were highly related to sociodemographic factors including district poverty, the percentage of students with disabilities who were Black or African American, and the percentage of students with disabilities who were Hispanic. Differences in graduation rates were not related to district size. This article discusses the study's findings and implications for district accountability and offers recommendations for district administrators."

Plunk, A. D., Tate, W. F., Bierut, L. J. & Grucza, R. A. (2014). Intended and unintended effects of state-mandated high school science and mathematics course graduation requirements on educational attainment. *Educational Researcher*, v43 n5 p230-241. <https://eric.ed.gov/?id=EJ1032987>.

From the ERIC abstract: "Mathematics and science course graduation requirement (CGR) increases in the 1980s and 1990s might have had both intended and unintended consequences. Using logistic regression with Census and American Community Survey (ACS) data (n = 2,892,444), we modeled CGR exposure on (a) high school dropout, (b) beginning college, and (c) obtaining any college degree. Possible between-groups differences were also assessed. We found that higher CGRs were associated with higher odds to drop out of high school, but results for the college-level outcomes varied by group. Some were less likely to enroll, whereas others who began college were more likely to obtain a degree. Increased high school dropout was consistent across the population, but some potential benefit was also observed, primarily for those reporting Hispanic ethnicity."

Raphael, J., Sage, N., Ishimaru, Ann (2012). Meeting Oregon's new high school math graduation requirements: Examining student enrollment and teacher availability summary. Issues & Answers. REL 2012-No. 126. *Regional Educational Laboratory Northwest*. <https://ies.ed.gov/pubsearch/pubsinfo.asp?pubid=REL2012126>.

From the REL description: "The study was motivated by a 2005 Oregon law that requires students to take three years of mathematics courses at the algebra I level or above (advanced math), beginning with the Class of 2014. This study examines the percentage of Oregon students enrolled in high school-level math courses during 2006/07 and 2007/08 who would have been on track to graduate had the new mathematics requirements been in place. It also examines whether there would have

been an adequate supply of teachers endorsed to teach advanced math in 2006/07 and 2007/08, had the new requirements been in place.”

ADDITIONAL RESOURCES

Center on Standards and Assessments Implementation. (2016). High school graduation requirements in a time of college and career readiness. CSAI Report. <https://eric.ed.gov/?id=ED570363>.

From the ERIC abstract. “Ensuring that students graduate high school prepared for college and careers has become a national priority in the last decade. To support this goal, states have adopted rigorous college and career readiness (CCR) standards in English language arts (ELA) and mathematics. Additionally, states have begun to require students to pass assessments, in addition to specific coursework, in order to earn a high school diploma. This report aims to explore the definition(s) of college and career readiness across states and the efforts that states are currently engaging in to ensure that students graduate from high school ready for college and careers. The following are appended: (1) States' College and/or Career Readiness Definitions; (2) States' High School Graduation Requirements--Coursework; (3) Course Requirements for College Admission in Selected States (n = 10); and (4) States' High School Graduation Requirements--Assessments.” NOTE: This source was not peer reviewed.

Education Commission of the States. (2010). End-of-course exams: A growing trend in high school-level assessments. *The Progress of Education Reform. vol 11, n 2.* (NJ3). <https://eric.ed.gov/?id=ED512141>.

From the ERIC abstract. “In recent years, criticism of high school graduates' lack of readiness for college and work has led a number of states to raise high school graduation requirements--particularly in terms of the number and rigor of courses students must pass. This issue of "The Progress of Education Reform" addresses end-of-course assessments at the high school level. It addresses the following questions: (1) What are end-of-course exams (EOCs), and how do they differ from the assessments many states have been administering to date?; (2) Why the trend toward EOCs?; (3) How many states administer EOCs?; (4) For what purposes are these assessments used, including: (a) Are these tests aligned with "college-ready" indicators?; and (b) Are they used as exit exams?; (5) What has been the impact on students of the transition to end-of-course assessments? What does the research say?; and (6) Are there "best practices" other states can learn from? A list of ECS resources is included. (Contains 23 endnotes.)” NOTE: This source was not peer reviewed.

Stanton, R. (2010). State high school graduation requirements and access to postsecondary education. *ProQuest LLC, Ph.D. Dissertation, New York University.* <https://eric.ed.gov/?id=ED513545>.

From the ERIC abstract. “This study examined the relationship between state policies mandating increased mathematics credits for high school graduation and access to postsecondary education. The purpose of this study was to determine if the state policy

intervention of increasing high school mathematics requirements was related to a higher likelihood that students would complete higher-level mathematics course work, enter postsecondary education, and pursue a science, technology, engineering, or mathematics (STEM) major. Analysis of National Education Longitudinal Study (NELS:88) student data using linear and logistic regression provided evidence that increased requirements supported policy objectives that included a more rigorous academic education and improved preparation for postsecondary entry and careers in science and mathematics. Holding constant a set of factors related to educational outcomes, students who were required to complete three mathematics credits for high school graduation were more likely to have taken additional high school mathematics course work, reached the level of trigonometry or above, enrolled in a bachelor's degree program, and pursued a STEM major, compared with those who had lower requirements. Overall, the policy that increased requirements met its objectives through a small but important increase in mathematics course taking, and that increase is shown to be related to a greater likelihood of entry into a bachelor's degree program and a STEM major. The finding of a greater likelihood of enrollment in a bachelor's degree program associated with higher mathematics requirements suggests that this policy was an effective mechanism through which to improve postsecondary access. [The dissertation citations contained here are published with the permission of ProQuest LLC. Further reproduction is prohibited without permission. Copies of dissertations may be obtained by Telephone (800) 1-800-521-0600. Web page: <http://www.proquest.com/en-US/products/dissertations/individuals.shtml.>]

The Education Commission of the States—Standard High School Graduation Requirements (50-state)—<http://ecs.force.com/mbdata/mbprofall?Rep=HS01>.

From the website: The information in this database was last updated in 2007. “The database information describes state high school graduation requirements as defined by state statutes and regulations. These requirements should be understood to show minimum course requirements, in that local boards may adopt graduation requirements above and beyond those mandated by the state. Policies reflect courses to be completed and do not include exit exam requirements. This database indicates where state policy specifies courses that may or must be completed to earn subject area credit.

With the exception of **Nebraska** and **New Jersey**, required coursework is expressed in Carnegie units, with one unit reflecting one year of coursework. Units defined in **Idaho** and **Indiana** policy have been translated from half-year to full-year units to maintain consistency. Exceptions and other circumstances related to completing high school graduation course requirements are included in the "Technical Notes and Citations" field at the end of each state's report. Subject area fields with a --- indicate that the state does not set course requirements for that subject. Where the number of state-mandated units in specific subjects falls below the total number of state-mandated units, this difference is indicated in the "total units" field rather than the "electives" field to reflect local districts' option to increase unit requirements in subject areas.

Contact Jennifer Dounay Zinth at the Education Commission at 303.299.3689 or zjzinth@ecs.org with questions regarding state policies on this issue.”

Requirement Information for the Four Other States in the Region Served by REL Southwest

- Arkansas Department of Education—AR Curriculum Framework Documents <http://www.arkansased.gov/divisions/learning-services/curriculum-and-instruction/curriculum-framework-documents>.
- Louisiana Department of Education—LA High School Graduation Requirements <http://www.louisianabelieves.com/courses/graduation-requirements>.
- Oklahoma State Department of Education—OK High School Graduation Requirements <http://sde.ok.gov/sde/achieving-classroom-excellence-resources#hsgr>.
- Texas Education Agency—TX High School Graduation Requirements <http://tea.texas.gov/graduation.aspx>.

METHODS

Keywords and Search Strings Used in the Searches:

Graduation requirements; High school graduation requirements; High school graduation requirements by state

Search of Databases and Websites

- Institute of Education Sciences (IES) website (<http://www.ies.ed.gov>) and IES sources: Regional Educational Laboratory (REL) Program, National Center for Education Statistics (NCES), National Center for Education Research (NCER), What Works Clearinghouse (WWC)
- ERIC database (www.eric.ed.gov)
- Google Scholar (scholar.google.com)
- Google (www.google.com)
- Bing (www.bing.com)

Criteria for Inclusion

REL Southwest selected resources that provide research on graduation requirements cross states. When REL Southwest staff reviewed resources, we considered – among other things – three factors:

1. Date of Publication: The most current information (primarily published from 2010 to the present) is included.

2. Source and Funder of the Report/Brief/Article: Priority was given to publications written in relevant, peer-reviewed journals or reports or produced by well-known research organizations.
3. Methodology: sources include reported studies, literature reviews and policy reports.

Ask A REL is a service provided by a collaborative of the Regional Educational Laboratory (REL) Program, funded by the U.S. Department of Education's Institute of Education Sciences (IES). This response was prepared by REL Southwest under contract ED-IES-12-C-0012 with IES. The content of this document 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.