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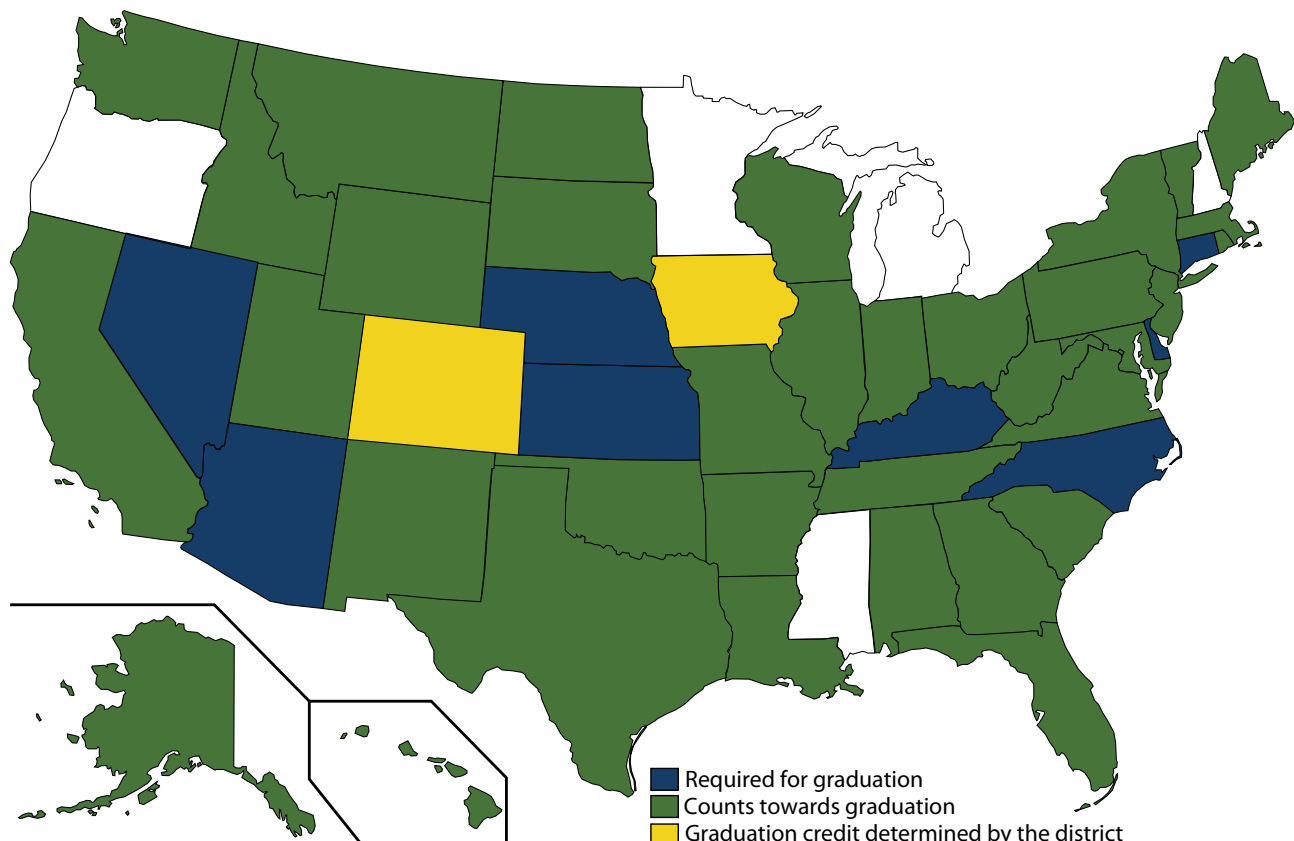
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Earth Science Education

As the Next Generation Science Standards continue to influence state science curriculum, more states are incorporating earth science education concepts and courses into their secondary school curriculum. Figures 1.1 and 1.2 and Table 1.1 show the extent to which states recognize earth science courses within the middle and high school curriculum. Compared to 2016, three additional states require earth science for graduation, bringing the total to six. While most of these states require an earth or environmental science course for graduation, three states, Delaware,

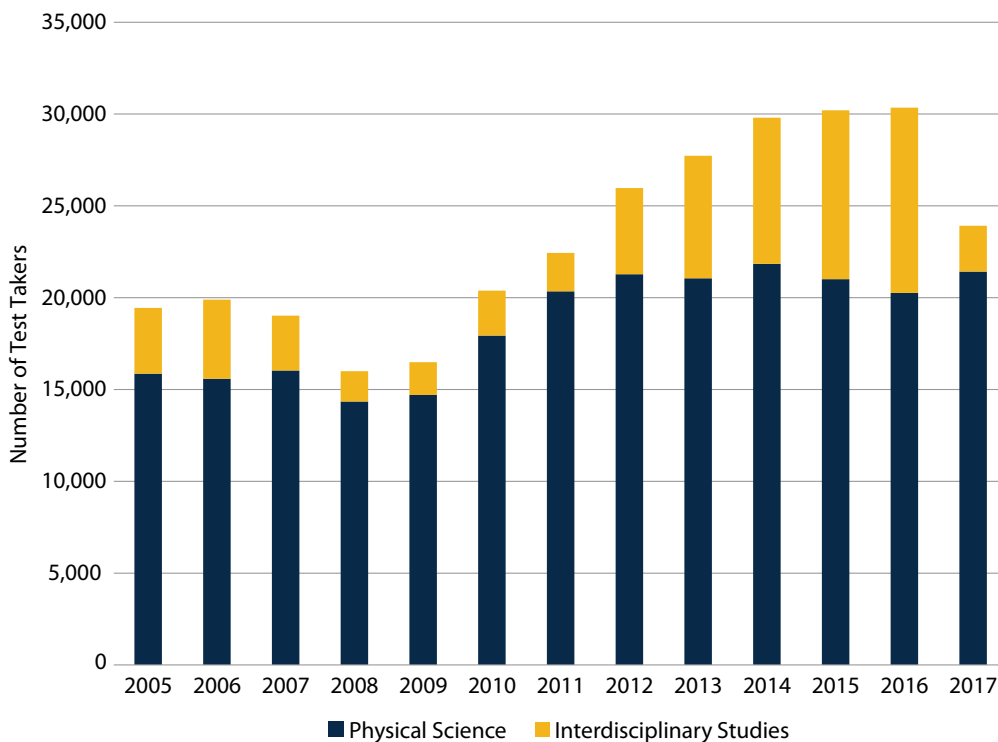
Kentucky, and Nebraska, require a course that covers specific earth science concepts. These concepts are likely informed by the NGSS guidance, which identifies the core concepts in earth and space science that should be covered in K–12 education. Thirty-six states and the District of Columbia allow for, but do not require, an earth or environmental science course to count towards their science graduation requirement. Forty-eight states assess earth science concepts at least once either in middle school and/or high school through a standardized test.

Figure 1.1: Earth Science Education Graduation Requirements in High School



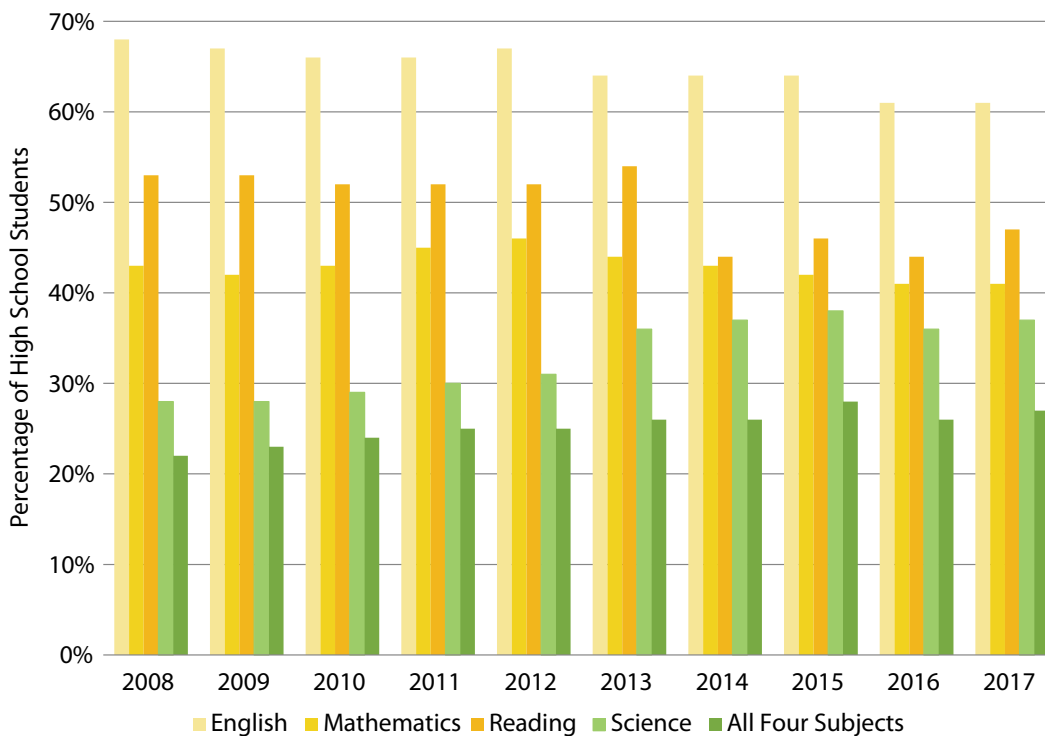
AGI Geoscience Workforce Program; Data derived from state Department of Education websites

Figure 1.11: SAT Test-Takers Intending College Degrees in Physical Sciences or Interdisciplinary Studies



AGI Geoscience Workforce Program; Data derived from the College Board College-Bound Seniors, Total Group Report, 1996-2017

Figure 1.12: High School Students Meeting ACT College Readiness Benchmarks



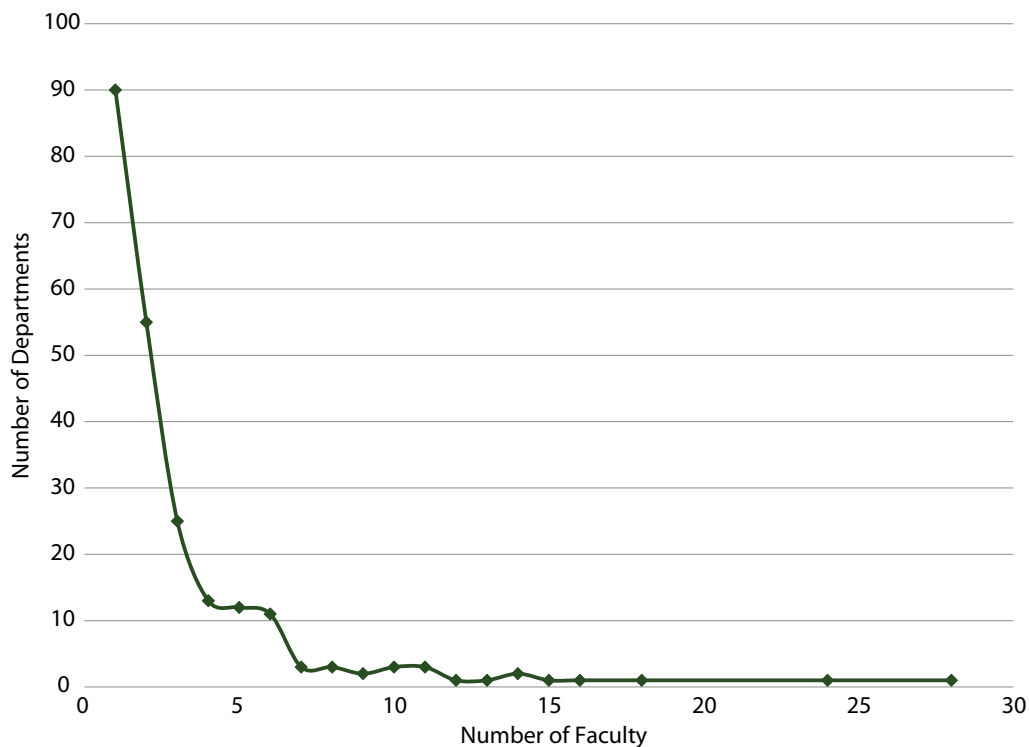
AGI Geoscience Workforce Program; Data derived from ACT National Public Report, 2008-2017

Table 3.1: Percentage of Two-Year Colleges with Geoscience Programs for Selected States

State	2-Year Colleges with Geoscience Programs	2-Year Colleges in the State	Percentages of 2-Year Colleges in the State with Geoscience Programs
California	65	186	35%
Texas	41	113	36%
Illinois	22	63	35%
Washington	21	29	72%
Michigan	14	28	50%
Virginia	13	46	28%
Florida	12	64	19%
New York	12	71	17%
Minnesota	11	32	34%
Arizona	10	33	30%

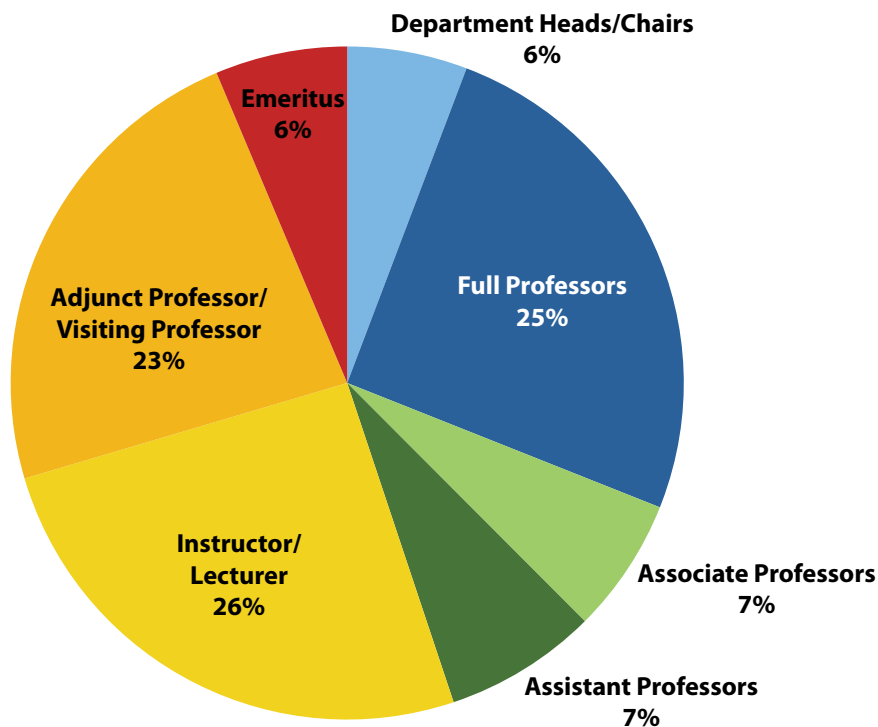
AGI Geoscience Workforce Program; Data derived from AGI's Directory of Geoscience Departments database and Carnegie Classification of Institutions of Higher Education

Figure 3.2: Number of Faculty per Geoscience Department/Program at Two-Year Colleges



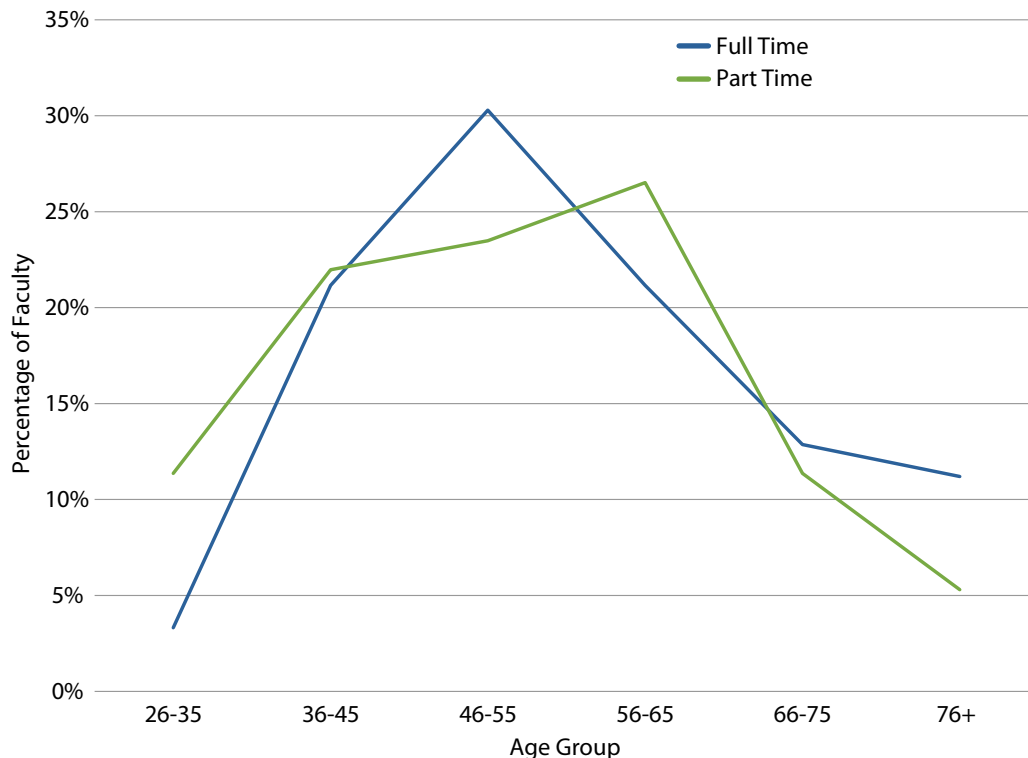
AGI Geoscience Workforce Program; Data derived from AGI's Directory of Geoscience Departments database

Figure 3.3: Percentage of Geoscience Faculty by Rank at Two-Year Colleges, 2017



AGI Geoscience Workforce Program; Data derived from AGI's Directory of Geoscience Departments database

Figure 3.4: Age Demographics of Two-Year College Geoscience Faculty



AGI Geoscience Workforce Program; Data derived from AGI's Directory of Geoscience Departments database