The American Geosciences Institute (AGI) developed this infographic as a part of the Geoscience Careers Roadshow to help students entering the workforce redefine what it means to have a career in geoscience. Having a successful geoscience career is not solely about mastering the technical fields of study, but additionally includes how students seamlessly integrate their interests and competencies to build a professional portfolio that will bolster their geoscience career. Recognizing the importance of emphasizing the transferability of skills across different fields is imperative to students' employability as geoscientists. This image is not meant to be definitive, but used as a tool to help those entering the workforce think outside the box. The colored rings signify the different sectors where geoscientists work. The wedges, in turn, represent the fields where geoscientists are employed and include different examples of occupations. Where the wedges intersect with the rings indicate that those fields are included in those sectors.
Competitive *Median Salaries Across Industry Sectors for Geoscience-related Occupations in 2011

The most recent salary data from the U.S. Bureau of Labor Statistics indicate that geoscience-related occupations have competitive salaries across a variety of industry sectors. Petroleum Engineers and Natural Science Managers have the largest range in median salaries across industries ($84,770 - over $187,200 and $73,290 - $180,160, respectively). Petroleum Engineering occupations are found in nine broad-level industry sectors** and Natural Science Manager occupations are found in 15 broad-level industry sectors. Atmospheric, Earth, Marine and Space Science Postsecondary Teachers and Geography Postsecondary Teachers have the smallest range in median salaries ($78,820-$84,590 and $60,820-$69,420, respectively), while Environmental Science Postsecondary Teachers have the largest range in median salaries ($32,700-$66,930) within the Education industry sector. Of the non-management geoscience-related occupations, Environmental Science occupations (e.g. Environmental Engineers, Environmental Scientists, and Environmental and Environmental Engineering Technicians), Soil and Plant Scientists, and Geoscientist occupations are found in more than ten broad-level industry sectors.

*The 2011 median salaries for geoscience-related occupations by industry are on average 6% (+/- 5%) lower than the corresponding mean salary. We use median salaries instead of mean salaries because salary data are often asymmetrically distributed, and thus the median values give better estimates of centrality or a "typical" salary of an occupation. Note, this Currents includes more geoscience-related occupations (e.g. technicians and postsecondary teachers), and salary information than Currents #51.

**Broad-level industry sectors refer to the North American Industry Classification System (NAICS) 2-digit industry codes used by the U.S. Bureau of Labor Statistics. For more information see http://www.bls.gov/bls/naics.htm

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Salary Range</th>
<th>Industry with Lowest Pay</th>
<th>Industry with Highest Pay</th>
<th>Number of Broad-level Industries</th>
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<tr>
<td>Architectural and Engineering Managers</td>
<td>$83,030 to $146,210</td>
<td>Junior Colleges</td>
<td>Oil &amp; Gas</td>
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<td>Natural Sciences Managers</td>
<td>$73,290 to $180,160</td>
<td>State Government</td>
<td>Finance &amp; Insurance</td>
<td>15</td>
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<tr>
<td>Environmental Engineers</td>
<td>$54,250 to $110,610</td>
<td>Health Care</td>
<td>Oil &amp; Gas</td>
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<tr>
<td>Mining and Geological Engineers</td>
<td>$72,200 to $133,970</td>
<td>Nonmetallic Mineral Mining</td>
<td>Manufacturing</td>
<td>7</td>
</tr>
<tr>
<td>Petroleum Engineers</td>
<td>$84,770 to exceeds $187,200*</td>
<td>State Government</td>
<td>Construction</td>
<td>9</td>
</tr>
<tr>
<td>Environmental Engineering Technicians</td>
<td>$33,620 to $76,110</td>
<td>Construction</td>
<td>Oil &amp; Gas</td>
<td>11</td>
</tr>
<tr>
<td>Soil and Plant Scientists</td>
<td>$45,850 to $89,960</td>
<td>Other Services</td>
<td>Mngmt of Companies</td>
<td>11</td>
</tr>
<tr>
<td>Atmospheric and Space Scientists</td>
<td>$72,260 to $120,600</td>
<td>Mngmt of Companies</td>
<td>Manufacturing</td>
<td>8</td>
</tr>
<tr>
<td>Environmental Scientists</td>
<td>$47,420 to $94,960</td>
<td>Colleges &amp; Universities</td>
<td>Federal Government</td>
<td>14</td>
</tr>
<tr>
<td>Geoscientists</td>
<td>$61,000 to $129,450</td>
<td>State Government</td>
<td>Oil &amp; Gas</td>
<td>12</td>
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<tr>
<td>Hydrologists</td>
<td>$61,950 to $85,820</td>
<td>State Government</td>
<td>Mngmt of Companies</td>
<td>6</td>
</tr>
<tr>
<td>Geographers</td>
<td>$54,600 to $88,150</td>
<td>Colleges &amp; Universities</td>
<td>Scientific R&amp;D Svcs.</td>
<td>3</td>
</tr>
<tr>
<td>Geological and Petroleum Technicians</td>
<td>$31,770 to $78,120</td>
<td>Coal Mining</td>
<td>Manufacturing</td>
<td>10</td>
</tr>
<tr>
<td>Environmental Science Technicians</td>
<td>$32,700 to $66,930</td>
<td>Health Care</td>
<td>Utilities</td>
<td>12</td>
</tr>
<tr>
<td>Engineering Teachers, Postsec.</td>
<td>$72,320 to $93,070</td>
<td>Junior Colleges</td>
<td>Colleges &amp; Universities</td>
<td>1</td>
</tr>
<tr>
<td>Atmosph., Earth, Marine, and Space Sci. Teachers, Postsec.</td>
<td>$78,820 to $84,590</td>
<td>Junior Colleges</td>
<td>Colleges &amp; Universities</td>
<td>1</td>
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<tr>
<td>Environmental Sci. Teachers, Postsec.</td>
<td>$54,070 to $79,570</td>
<td>Junior Colleges</td>
<td>Colleges &amp; Universities</td>
<td>1</td>
</tr>
<tr>
<td>Geography Teachers, Postsec.</td>
<td>$68,820 to $69,420</td>
<td>Junior Colleges</td>
<td>Colleges &amp; Universities</td>
<td>1</td>
</tr>
</tbody>
</table>

* The U.S. Bureau of Labor Statistics reports this wage as "greater than $90.00 per hour or $187,200 per year"


To view this data interactively and explore salary percentiles for specific combinations of industries and occupations, visit:

- Leila M. Gonzalez
Geoscience and Energy Resources
Society of Exploration Geophysicists Education Resources
http://www.seg.org/students
What makes the Earth unique?
Energy Basics
http://www.eia.doe.gov/basics/energyBasics101.html
Energy 4 Me – Essential Energy Education – Society of Petroleum Engineers
http://www.energy4me.org/
Department of Energy Education Resources
http://www.energy.gov/foreducators.htm
Mineral Management Service Kids Page
http://www.mms.gov/mmskids/
American Geological Institute
http://www.agiweb.org/index.html
What is geology?
http://www.uncwil.edu/staff/career/Majors/geology.htm
Become a geophysicist
Geoscience Careers
http://www.geotimes.org/careers.html
Earth Science Careers
http://www.earthscienceworld.org/careers/profiles/index.html

Cheap or Free Materials
Earth Science Week
http://www.earthsciweek.org/
Texas Bureau of Economic Geology Educational resources
http://www.beg.utexas.edu/edu/ed_res.php
United States Geological Survey Materials
http://education.usgs.gov/
United States Geological Survey Earth Explorer
http://edc/sns17.cr.usgs.gov/EarthExplorer/
Teach the Earth Lesson Plans
http://serc.carleton.edu/teachearth/index.html
Southern California Earthquake Center Education Resources
http://www.scec.org/education
Incorporated Research Institutions for Seismology Map of World Earthquakes
http://www.iris.edu/dms/seismon.htm
SeisMac – Turn your Apple computer into a seismometer
http://www.suitable.com/tools/seismac.html
Rapid Earthquake Viewer
http://rev.seis.sc.edu/
Earth Science Games
http://www.earthscienceworld.org/games/index.html
Growing Crystals
http://www.science.uwaterloo.ca/earth/waton/crystal.html
Earth Learning Idea
http://www.earthlearningidea.com/
Geoscience Starting Salaries for 2010 Graduates

According to data collected by the National Association of Colleges and Employers in their 2010 Fall Salary Survey, starting salary offers for geoscience graduates were highest for those graduating with geoscience-related engineering degrees (e.g. petroleum engineering, mining engineering, and environmental engineering). Geoscience-related engineering bachelor's graduates received average salary offers ranging between $56,491 for environmental engineering to $77,278 for petroleum engineering graduates. Geological and related sciences bachelor's degree recipients average salary offers were $37,431 which was on par with chemistry and some humanities disciplines (e.g. History, English, and Political science), and more than $10,000 lower than graduates from Mathematics ($48,499) and Physics disciplines ($52,487).

A Master's degree is required for most geoscience occupations. Starting salary offers in 2010 for geological and related sciences averaged $56,689 for Master's degree recipients and $58,625 for doctorates. In geoscience-related engineering disciplines, salary offers for Master's degree recipients ranged from $86,769 for mining engineering to $96,000 for petroleum engineering.

-Leila Gonzales
Society of Exploration Geophysicists Teacher's Resource Page

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Department of Energy Education Resources
http://www.energy.gov/foreducators.htm
Mineral Management Service Kids Page
http://www.mms.gov/mmskids/
American Geological Institute
http://www.agiweb.org/index.html
What is geology?
http://www.unccwil.edu/staff/career/Majors/geology.htm
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Earth Science Careers
http://www.earthscienceworld.org/careers/profiles/index.html

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Texas Bureau of Economic Geology Educational resources
http://www.beg.utexas.edu/edu/ed_res.php
United States Geological Survey Materials
http://education.usgs.gov/
United States Geological Survey Earth Explorer
http://edcsns17.cr.usgs.gov/EarthExplorer/
Teach the Earth Lesson Plans
http://serc.carleton.edu/teachearth/index.html
Southern California Earthquake Center Education Resources
http://www.scec.org/education
Incorporated Research Institutions for Seismology Map of World Earthquakes
http://www.iris.edu/dms/seismon.htm
SeisMac – Turn your Apple computer into a seismometer
http://www.suitable.com/tools/seismac.html
Rapid Earthquake Viewer
http://rev.seis.sc.edu/
Earth Science Games
http://www.earthscienceworld.org/games/index.html
Growing Crystals
http://www.science.uwaterloo.ca/earth/waton/crystal.html
Earth Learning Idea
http://www.earthlearningidea.com/