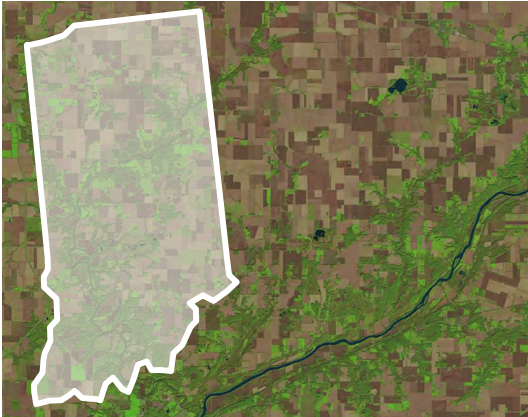


## WHAT IS GEOSCIENCE?

Geoscience is the study of the Earth and the complex geologic, marine, atmospheric, and hydrologic processes that sustain life and the economy. Understanding the Earth's surface and subsurface, its resources, history, and hazards allows us to develop solutions to critical economic, environmental, health, and safety challenges.



Satellite image: NASA/USGS Landsat Program. State outline (not to scale): Matt Battison.

## By the numbers: INDIANA

- 5,874 geoscience employees (excludes self-employed) in 2017<sup>1</sup>
- 699 million gallons/day: total groundwater withdrawal<sup>3</sup>
- \$1.02 billion: value of nonfuel mineral production in 2017<sup>4</sup>
- 48 total disaster declarations, including 24 severe storm, 12 flood, and 6 snow disasters (1953-2017)<sup>6</sup>
- \$6.57 million: NSF GEO grants awarded in 2018<sup>14</sup>

## WORKFORCE IN INDIANA

- 5,874 geoscience employees (excludes self-employed) in 2017<sup>1</sup>
- \$41,866: average median geoscience employee salary<sup>1</sup>
- 14 academic geoscience departments<sup>2</sup>

## WATER USE IN INDIANA

- 699 million gallons/day: total groundwater withdrawal<sup>3</sup>
- 6.48 billion gallons/day: total surface water withdrawal<sup>3</sup>
- 628 million gallons/day: public supply water withdrawal<sup>3</sup>
- 133 million gallons/day: water withdrawal for irrigation<sup>3</sup>
- 2.29 billion gallons/day: self-supplied industrial fresh water withdrawal<sup>3</sup>
- 75% of the population is served by public water supplies<sup>3</sup>

## ENERGY AND MINERALS IN INDIANA

- \$1.02 billion: value of nonfuel mineral production in 2017<sup>4</sup>
- Stone (crushed), cement (portland), sand and gravel (construction): top three nonfuel minerals in order of value produced in 2017<sup>4</sup>
- 28.8 million short tons: coal produced in 2016<sup>5</sup>
- 1.78 million barrels: crude oil produced in 2017<sup>5</sup>
- 4.74 million megawatt hours: wind produced in 2017<sup>5</sup>

## NATURAL HAZARDS IN INDIANA

- 48 total disaster declarations, including 24 severe storm, 12 flood, and 6 snow disasters (1953-2017)<sup>6</sup>
- \$136 million: individual assistance grants (2005-2017)<sup>6</sup>
- \$79 million: mitigation grants (2005-2017)<sup>6</sup>
- \$280 million: preparedness grants (2005-2017)<sup>6</sup>
- \$208 million: public assistance grants (2005-2017)<sup>6</sup>
- 57 weather and/or climate events, each with costs exceeding \$1 billion (inflation adjusted) (1980-2017)<sup>7</sup>

<sup>1</sup> U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2017  
<sup>2</sup> American Geosciences Institute, Directory of Geoscience Departments, 53rd Edition (2018)  
<sup>3</sup> U.S. Geological Survey, Estimated Use of Water in the United States in 2015

<sup>4</sup> U.S. Geological Survey, Mineral Commodity Summaries 2018  
<sup>5</sup> U.S. Energy Information Administration  
<sup>6</sup> FEMA Data Visualization: Summary of Disaster Declarations and Grants (accessed May 2, 2018)  
<sup>7</sup> NOAA National Centers for Environmental Information, U.S. Billion-Dollar Weather and Climate Disasters from 1980 to 2018 (accessed April 6, 2018)

AGI is a network of 52 member societies, representing more than 260,000 geoscientists.

Compiled by the AGI Geoscience Policy program, July 2018. This work is distributed under a Creative Commons BY-NC-ND 4.0 license.

<https://www.americangeosciences.org/policy/factsheet/states> | [govt@americangeosciences.org](mailto:govt@americangeosciences.org)

---

## U.S. GEOLOGICAL SURVEY (USGS)

- \$1.15 billion: total USGS budget in FY 2018 (5.8% increase from FY 2017)<sup>8</sup>
- The National Cooperative Geologic Mapping Program funds geologic mapping projects with federal (FEDMAP), state (STATEMAP), and university (EDMAP) partners
- \$3.36 million: Indiana STATEMAP funding (1993-2016)<sup>9</sup>
- Purdue University has participated in EDMAP<sup>9</sup>
- USGS streamgages collect real-time or recent streamflow, groundwater, and water-quality data throughout Indiana

---

## NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA)

- \$20.7 billion: total NASA budget in FY 2018 (5.5% increase from FY 2017)<sup>10</sup>
- \$1.9 billion: total NASA Earth Science budget in FY 2018 (0% change from FY 2017)<sup>10</sup>
- Gravity Recovery and Climate Experiment (GRACE) satellites measure groundwater changes in Indiana
- Soil Moisture Active Passive (SMAP) satellite measures soil moisture in Indiana

---

## NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)

- \$5.9 billion: total NOAA budget in FY 2018 (4.1% increase from FY 2017)<sup>11</sup>
- Next-generation geostationary (GOES) and polar orbiting (JPSS) satellites provide weather forecasting over Indiana
- Deep Space Climate Observatory (DISCOVER) satellite monitors radiation and air quality over Indiana
- 12 National Weather Service Automated Surface Observing Systems (ASOS) stations in Indiana<sup>12</sup>
- 172 National Weather Service Cooperative Observer Program (COOP) sites in Indiana<sup>12</sup>

---

## NATIONAL SCIENCE FOUNDATION (NSF)

- \$7.8 billion: total NSF budget in FY 2018 (4% increase from FY 2017)<sup>13</sup>
- \$1.4 billion: total NSF Geosciences Directorate (GEO) awards in FY 2017 (7.2% increase from FY 2016)<sup>14</sup>
- 29 NSF GEO awards in Indiana totaling \$6.57 million in 2017<sup>14</sup>
- \$3.8 million: NSF GEO grants awarded to Purdue University in 2017<sup>14</sup>

---

## U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)

- \$8.1 billion: total EPA budget in FY 2018 (0% change from FY 2017)<sup>15</sup>
- 39 active superfund sites in Indiana in 2018<sup>16</sup>
- \$13.4 million: Drinking Water State Revolving Fund (DWSRF) grants in Indiana in 2017<sup>17</sup>

---

## FEDERAL FACILITIES IN INDIANA

- USGS Indiana Water Science Center, Indianapolis
- USGS Lake Michigan Ecological Research Station, East Chesterton
- USDA ARS Research Facility at Purdue University, West Lafayette

---

## YOUR STATE SOURCE FOR GEOSCIENCE INFORMATION

Indiana Geological & Water Survey  
611 N. Walnut Grove  
Bloomington, IN 47405  
<https://igws.indiana.edu/>  
812-855-7636

---

8 U.S. Department of the Interior, *FY 2019 Budget in Brief*

9 U.S. Geological Survey, *National Cooperative Geologic Mapping Program*

10 National Aeronautics and Space Administration, *FY 2019 Budget Estimates*

11 National Oceanic and Atmospheric Administration, *FY 2019 Bluebook*

12 NOAA *In Your State and Territory*

13 U.S. House of Representatives, *FY 2018 Omnibus Spending Bill (Division B) – Commerce, Justice, Science, and Related Agencies Appropriations Act, 2018*

14 National Science Foundation, *Budget Information System*

15 U.S. House of Representatives, *FY 2018 Omnibus Spending Bill (Division G) – Department of the Interior, Environment, and Related Agencies Appropriations Act, 2018*

16 U.S. Environmental Protection Agency, *Superfund Sites*

17 U.S. Environmental Protection Agency, *Drinking Water State Revolving Fund National Information Management System Reports*

---

AGI's Geoscience Policy and Critical Issues programs support well-informed public policy and decision making by providing information and facilitating dialogue between the geoscience community and decision makers at all levels.

This work is distributed under a Creative Commons BY-NC-ND 4.0 license.

<https://www.americangeosciences.org/policy/factsheet/states> | [govt@americangeosciences.org](mailto:govt@americangeosciences.org)