Geoscience departments provide information about their graduating students’ theses and dissertations to AGI’s GeoRef database where they are then made discoverable to the geoscience research community. The trends in theses and dissertations reported over time as well as the topics of these publications provides insight into new research horizons/emphasis within the geoscience community.

In this data brief, we examine the changes in the number of U.S. and Canadian theses and dissertations reported to GeoRef and in the research topics of these publications. Of note is the increasing number of faculty publications available in GeoRef and the decreasing trend in theses between 1985 and 2009 which rebounded thereafter before declining again, and in dissertations between 1999 and 2016. Although the following factors are causing downward pressure on the number of theses and dissertations submitted to GeoRef, the proportion of influence each factor has on the decline is unknown. Factors involved in the decreasing number of theses and dissertations submitted to GeoRef include:

- A change in the way geoscience graduate research is disseminated to the scientific community as graduate students are authors and co-authors of peer-reviewed publications in lieu of traditional dissertations.
- The availability of geoscience degree programs that do not required a thesis or dissertation, including cohort programs.
- The deposition of theses and dissertations into institutional repositories without also submitting these publications to GeoRef or ProQuest.
Changes in graduate research topics

Trends in topics of reported theses and dissertations indicate increasing percentages of these publications focusing on economic geology (especially related to energy sources), environmental geology, extraterrestrial geology, geomorphology, and Quaternary geology. Those topics that have been steadily decreasing include areal geology, geochemistry, hydrogeology, mineralogy, oceanography, and petrology. These trends may indicate a shift in research focus, and/or may also reflect a merging of topics within disciplines.

![Trends in Geoscience Master's Theses Topics](chart1)

![Trends in Geoscience Ph.D. Dissertation Topics](chart2)

Source: AGI GeoRef