

Oil Decoupled as the Major Geoscience Enrollment and Employment Driver in 2005

Memories of the great oil crash of the 1980s and the ensuing collapse in geoscience enrollments has created a general view that the health of employment and enrollments in the geosciences is coupled to the price of oil. The geoscience enterprise in the United States is substantially more diversified than in the 1980s, with environmental, engineering, hazards, water, and other resource issues consuming much geoscience talent.

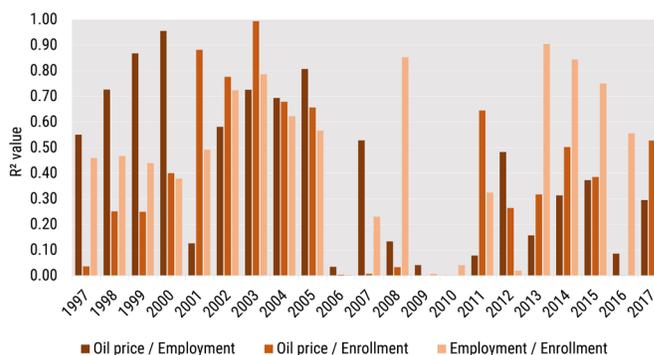
The energy sector does remain an important employer of geoscientists; however, we wanted to test this popular perspective, especially considering the current softness in oil prices, to determine if these factors have decoupled. We analyzed the relationship between oil price, US employment of geoscientists, and undergraduate enrollments in US geoscience programs.

We executed a simple 5-year moving window correlation between the three parameters. We found that a one-year offset of employment to enrollments showed significant improved explanation of variance. The analysis showed several key points:

- The relationship between oil price and employment in the geosciences strongly decoupled after 2005.
- The state of employment in the geosciences is a stronger predictor of enrollment since 2013, which coincides with strong overall employment in the geosciences and shifting student attitudes towards the employability of their degree program.
- Oil price, as a proxy of industry activity, does explain some variance in employment and a higher level of impact on enrollment. This is likely due to some persistence of the public view that petroleum and geology have a shared destiny, though the data does not support this assertion.

- The major investments by the geoscience community in 2007-08 to boost enrollments and promote the state of employment is potentially evident in the data.
- The shale boom and its associated boom in employment in the geosciences clearly had a major impact on enrollments in the mid-2010s.

Correlation between oil price, employment, and enrollment



Credit: AGI; data derived from the U.S. Census Bureau, EIA, AGI

In conclusion, oil price, as a proxy for industry activity, has not been a driving factor for overall geoscience employment or enrollment over the last 15 years, but there potentially continues to be some sentiment about enrolling in geoscience programs which is driven by oil pricing, and perhaps reflects the long shadow of the 1980s.