



By Leila Gonzales · American Geosciences Institute · October 20, 2026

# Temporary Foreign Worker Demand in Core U.S. Geoscience Occupations

Demand for temporary foreign worker positions across core geoscience occupations declined during the pandemic and rebounded in FY2025 to approximately FY2017 levels. In FY2025 employer demand shifted substantially toward science-related occupations and was concentrated in the professional services and educational services sectors. This analysis examines employer-reported demand for temporary foreign workers across core U.S. geoscience occupations, using Labor Condition Applications (LCAs) submitted to the U.S. Department of Labor for the H-1B, H-1B1, and E-3 visa programs. These applications represent an early step in the process of hiring temporary foreign workers, providing insight into the number and types of positions employers seek to fill.

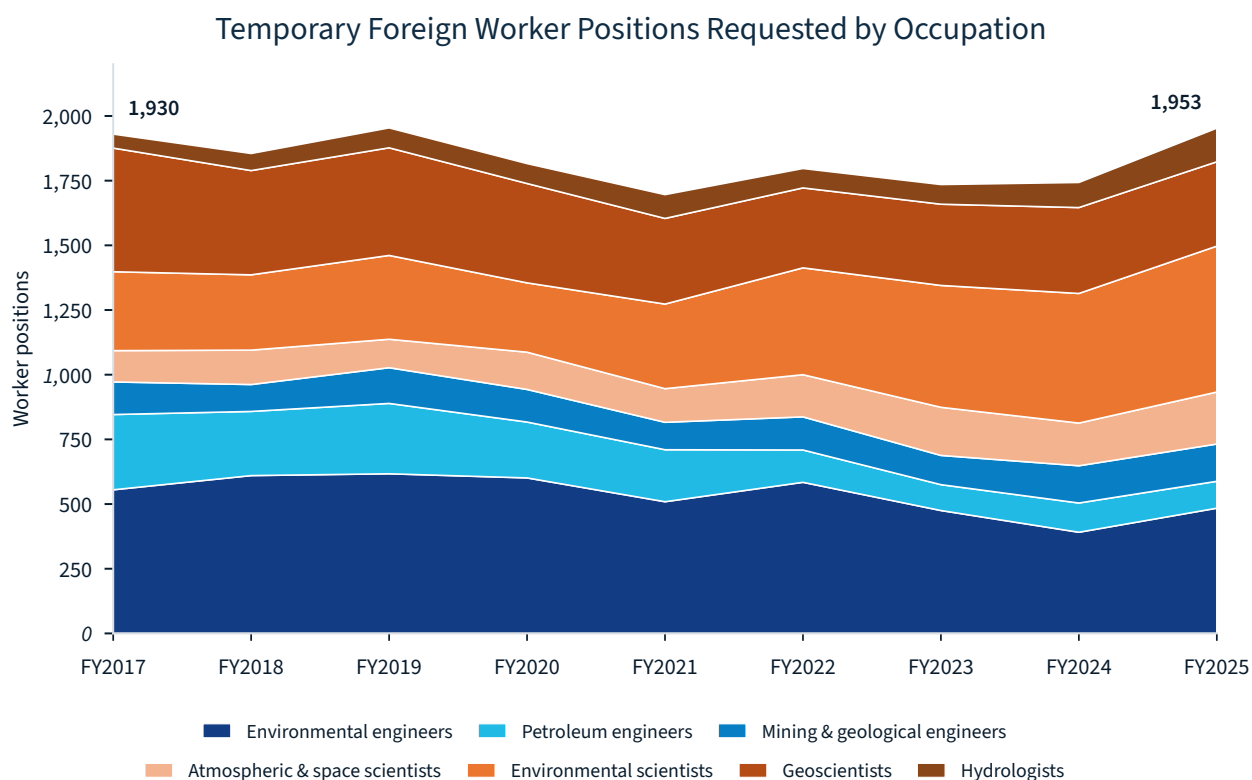


Figure 1. Worker positions requested in H-1B, H-1B1, and E-3 Labor Condition Applications by occupation, FY2017–FY2025.  
Source: U.S. Department of Labor, Labor Condition Application disclosure data; AGI analysis.

Demand for temporary foreign worker positions across core geoscience occupations declined from 1,930 in FY2017 to 1,696 in FY2021 before rebounding to 1,953 in FY2025. Over this period, the occupational composition shifted from a nearly even split between engineering and science occupations to 63% of requested positions being in science occupations. Much of this shift reflected an increase in the share of positions requested for environmental scientists (from 16% to 29%) and a decline for petroleum engineers (from 15% to 5%). The share of positions requested for geoscientists also declined, from 25% to 17%.

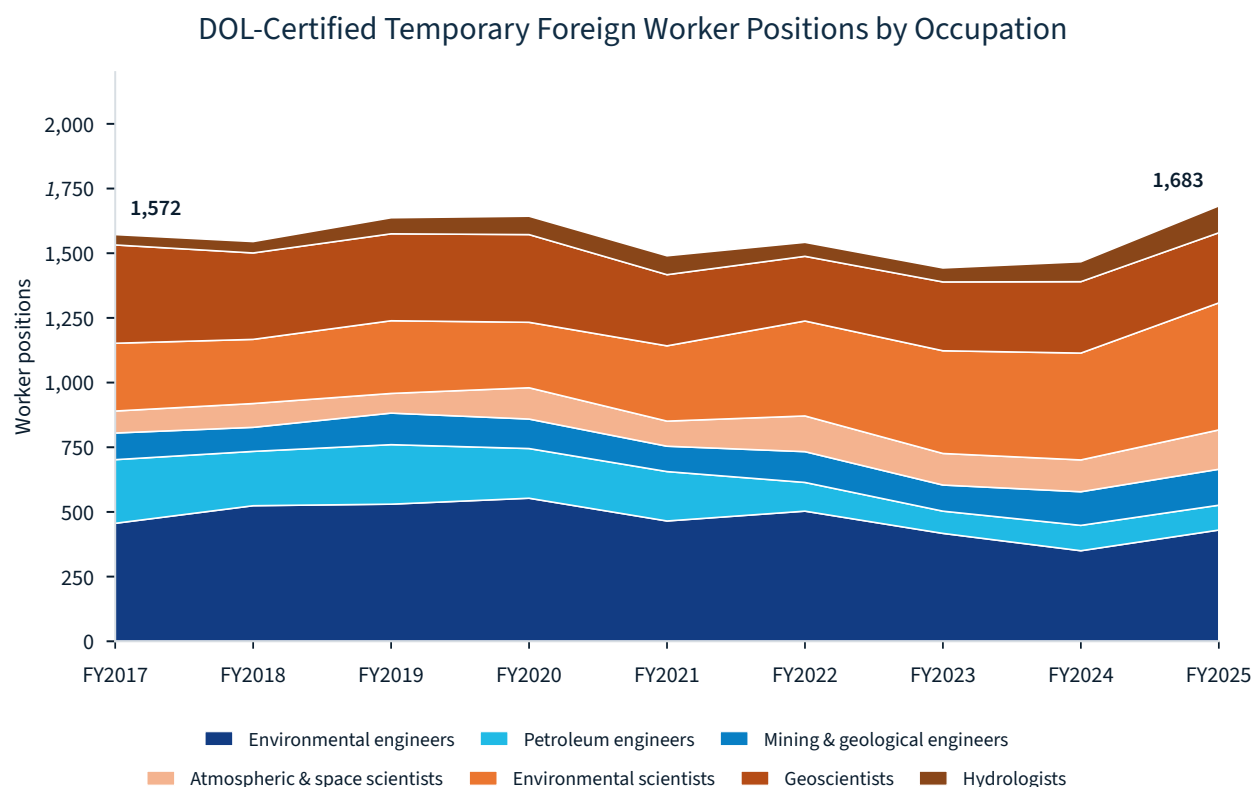


Figure 2. Worker positions in DOL-certified H-1B, H-1B1, and E-3 Labor Condition Applications by occupation, FY2017–FY2025.  
Source: U.S. Department of Labor, Labor Condition Application disclosure data; AGI analysis.

Worker positions in U.S. Department of Labor (DOL)-certified Labor Condition Applications (LCAs) increased by 7%, from 1,572 in FY2017 to 1,683 in FY2025. DOL certification indicates that an employer has met the applicable labor-condition requirements, allowing the employer to proceed with the next stage of the immigration process. Certification does not constitute approval of an immigration petition or issuance of a visa, nor does it confirm that a worker was ultimately hired. Nevertheless, certified LCAs provide a useful measure of employer-reported demand for temporary foreign workers who have met this initial administrative requirement. In FY2025, certified positions accounted for 86% of all worker positions associated with LCAs receiving determinations.

Occupational trends in certified positions generally mirrored those in requested positions, with notable increases in environmental science occupations (+229), as well as in atmospheric and space science (+67) and hydrologist occupations (+64). Whereas environmental science occupations had the largest numerical increase, hydrologists had the largest percentage increase between FY2017 and FY2025. In contrast, petroleum engineering occupations experienced the largest decline (-150), followed by geoscientists (-109).

In FY2025, half of certified worker positions (848) were classified as new employment requests, ranging from 42% among atmospheric and space science occupations to 62% among mining and geological engineering occupations. These classifications indicate the type of employment requested in the LCA rather than confirmed new hires.

## DOL-Certified Temporary Foreign Worker Positions by Occupation and Industry, FY2025

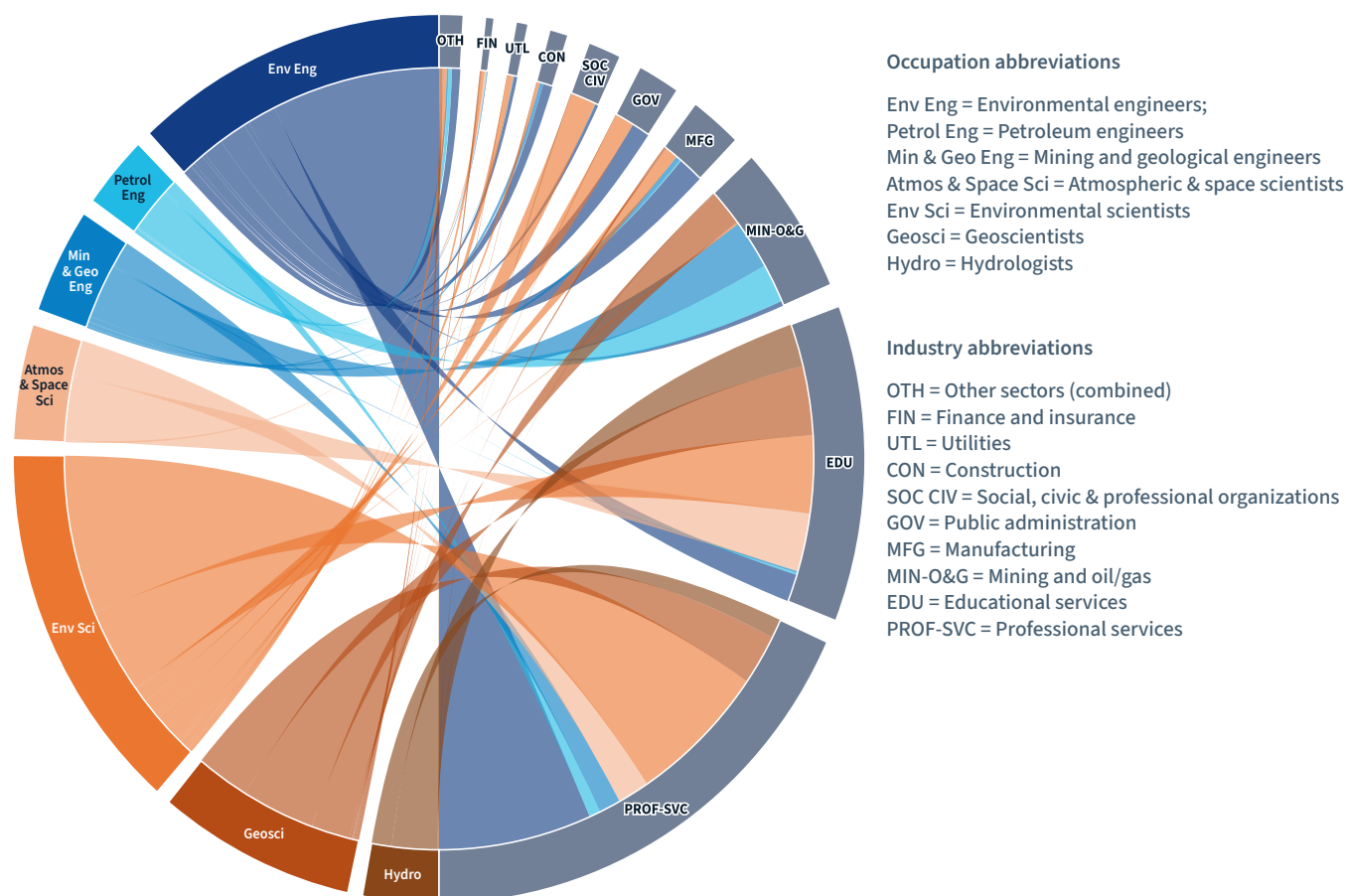


Figure 3. Certified worker positions by geoscience occupation and employer industry, FY2025. Ribbon widths represent the number of positions associated with each occupation–industry relationship. Ten industry sectors with fewer than ten certified positions each are combined into Other sectors. Source: U.S. Department of Labor, Labor Condition Application disclosure data; AGI analysis.

Employer industry classifications provide insight into how demand for temporary foreign geoscience workers varies across industries and occupations. In FY2025, professional, scientific, and technical services accounted for 722 DOL-certified temporary foreign worker positions, representing 43% of the total across core geoscience occupations. Educational services and mining, quarrying, and oil and gas extraction were also major employer sectors (27% and 13%, respectively).

The distribution of certified positions across industries varied considerably by occupation. Professional, scientific, and technical services accounted for 61% of certified environmental engineering positions and 48% of environmental scientist positions. Educational services was the leading sector for several occupations, accounting for the largest shares of certified positions among hydrologists (67%), atmospheric and space scientists (63%), and geoscientists (42%). In addition, mining, quarrying, and oil and gas extraction accounted for the largest shares of certified positions for petroleum engineers (67%) and mining and geological engineers (58%).

These patterns highlight the distinct industry profiles of temporary foreign worker demand across core geoscience occupations.