The Chipmakers: U.S. Strengths and Priorities in the High-End Semiconductor Workforce

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- High-skilled immigration restrictions are inconsistent with efforts to reshore the semiconductor supply chain.
- Immigration reform should be coupled with broad investments in the pipeline of American engineering talent, starting in grade school and extending through graduate school.
I. Foreign talent has shaped the U.S. semiconductor industry
II. The United States is a semiconductor talent hub

More electrical engineering patent-holders immigrate to the United States than to any other country.

Foreign-born students outnumber Americans in semiconductor-related graduate programs 2:1.
IV. Foreign talent remains in the United States at high rates

Foreign-born PhD students stay in the United States after graduating

PhD graduates in semiconductor-related fields, NSF Survey of Earned Doctorates, 2002–2017
Green card applicants sponsored by fabs and SME firms come from a wide range of academic backgrounds.
VI. The United States should protect and promote its semiconductor talent advantage

Protect:
- Adopt targeted domestic protections against technology transfer efforts
- Share intelligence and coordinate policy with allies and partners

Promote:
- Invest in domestic education and research
- Retain and strengthen high-skill immigration pathways

Cross-cutting:
- Improve government data collection on the semiconductor workforce
Related CSET analysis

Semiconductor industry
- U.S. Semiconductor Exports to China: Current Policies and Trends
- AI Chips: What They Are and Why They Matter
- Maintaining China’s Dependence on Democracies for Advanced Computer Chips

Workforce and immigration
- Strengthening the US AI Workforce
- Immigration Policy and the Global Competition for AI Talent
- US–China STEM Talent “Decoupling”: Background, Policy, and Impact

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