Are They the Best and the Brightest? Analysis of Employer-Sponsored Tech Immigrants

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- Industry wants more H-1B work visas, and fast-track green cards for STEM foreign students.

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- And for those who ARE of that caliber, is current policy reasonably welcoming?

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department quality	% foreign-born
highest quarter	37.2%
second quarter	44.5%
third quarter	47.5%
lowest quarter	50.6%

Table: Foreign-student enrollments in Ph.D. engineering programs

Our Approaches

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- Congressionally-commissioned employer surveys, (NRC, 2001) and (GAO, 2003), found many employers admitting to paying H-1B workers less than comparable Americans.
- GAO even noted role of loopholes:

> *... [employers] hired H-1B workers in part because these workers would often accept lower salaries...however, these employers said they never paid H-1B workers less than the required wage.*

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- Consider nonmonetary evidence of outstanding talent, such as awards and patents.

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- Lacks data on education, age.

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- So, only (median) values higher than, say 1.25, indicate a firm is hiring mainly the "best and brightest."

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firm	WR	WR, s.e.
Microsoft	1.18	1.15
Intel	1.13	1.08
Google	1.12	1.15
Cisco	1.04	1.04
Oracle	1.13	1.15
HP	1.20	1.08
Motorola	1.00	1.00
Qualcomm	1.00	1.00
eBay	1.05	1.02
PayPal	1.15	1.09

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Not enough to cover the 15-33% deficiency in prevailing wage.
In any case, not "genius" level. (Some workers have $WR > 2$.)

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PUMS Analysis/Results

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Logistic regression:

$$\text{probability of } \mathit{Salary} > \$150K =$$

$$\text{logit}(\beta_0 + \beta_1 \mathit{Age} + \beta_2 \mathit{MS} + \beta_3 \mathit{PhD} + \beta_4 \mathit{TmpVisa} + \beta_5 \mathit{China} + \beta_6 \mathit{India})$$

Factor Impacts on Probability of Earning > \$150K

	coef.	conf. int.
β_0 (const.)		-3.85 $\pm$ 0.28
β_1 (Age)		0.005 $\pm$ 0.006
β_2 (MS)		0.71 $\pm$ 0.12
β_3 (PhD)		1.42 $\pm$ 0.18
β_4 (spons.)		0.06 $\pm$ 0.13
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- no evidence of overall "foreign genius"

Why Negative Impact in China Case?

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- Governments of China, Japan, S. Korea and Taiwan have all tried to remedy this.
- Language effects?

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- 25 of the 58 foreign, slightly underrepresented.
- Again, no evidence that the foreign students are outperforming the domestic ones.

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- But only one has calculated *per capita* patents by immigrants, (Hunt, 2010). She finds after controlling for field and education level:

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  This is especially interesting in that the second group is the one the industry lobbyists highlight.

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- We should facilitate the immigration of such talents.
- Recently there has been some concern about long green card waits for employer-sponsored workers. However, for PhDs, who have their own category, the wait continues to be short.

Resources

These slides, and the R programming code used to compile the statistics, are available at `http://heather.cs.ucdavis.edu/BGIT.html`