

# Is the Tech World Flat?

A Careful Look at Globalization and the U.S. Tech Industry

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- Thus H-1B/L-1 visas key to both kinds of flow.

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- Others: Ireland, Israel etc., maybe even Mexico.

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- “But isn’t offshore labor cheaper than importing H-1Bs?”

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- Other, e.g. working longer hours.

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- 21%: Type I/II, 2000 BLS/INS

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- H-1B prevailing wage law riddled with gaping loopholes. Wage savings attained with full compliance with the law and regs.

# NRC on H-1B Wages

NRC employer survey, 2000:

“[Employers said that some H-1Bs] received lower wages, less senior job titles, smaller signing bonuses, and smaller pay and compensation increases than would be typical for the work they actually did.”

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- Thus the worker cannot shop around the labor market for the best deal, hence is usually underpaid.
- H-1B “loyalty” of very high value to employers, often more than wage savings.

# Savings from Offshoring

savings	source
10-44%	Rubin/Jaramillo
15-40%	Sand Hill Group
20-40%	<i>CIO Magazine</i>
25-50%	Gartner Group
10-20%	DiamondCluster International

Gartner survey found that 18% had 0 savings, 9% negative “savings.”

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- Time zone problems (*The Odd Couple*).

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- Offshore worker quality tends to be poor.
- Interaction benefit of having the work done onsite is huge.
- Hence preference of U.S. firms for H-1B instead of offshoring (earlier slide)—at least for now.

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- As job market has tightened, % of jobs filled by H-1Bs has *increased*.
- Offshoring currently less of an issue, but could be devastating long-term (later slides).

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- Projects that overall GDP will grow, especially in construction and finance.

# Analysis of GI Findings

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- Growth of IT jobs in non-IT sectors will be in computer technicians, not computer programmers.

# Long-Term Impact on the U.S.

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- UCB survey: Ex-CS students changing majors to psych., history—the “talking majors.”

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- Indeed a viable option for some current displaced IT workers.
- But not a long term option, as one generally needs to work as a programmer first. Without programmer jobs, can’t even enter the “food chain.”

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- Not realistic. Innovation is serendipitous, needing a large programmer base. Without that base, innovation is lost.

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- This has been the case for the retraining programs funded by the H-1B employer fees (Dept. of Commerce study).

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- About 40% of U.S. S&E PhDs go to foreign students (50% in CS).
- Yet foreign student applications down sharply in recent years, nationwide, causing alarm.

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- NRC, 2001: Engineering PhD causes net loss in lifetime earnings.

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- Result: NSF projection was correct.

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- If PhD wages do not rise (and career prospects improve), “big science” research at U.S. universities will become untenable.