

**The Accelerating Decline in America's
High-Skilled Workforce:**

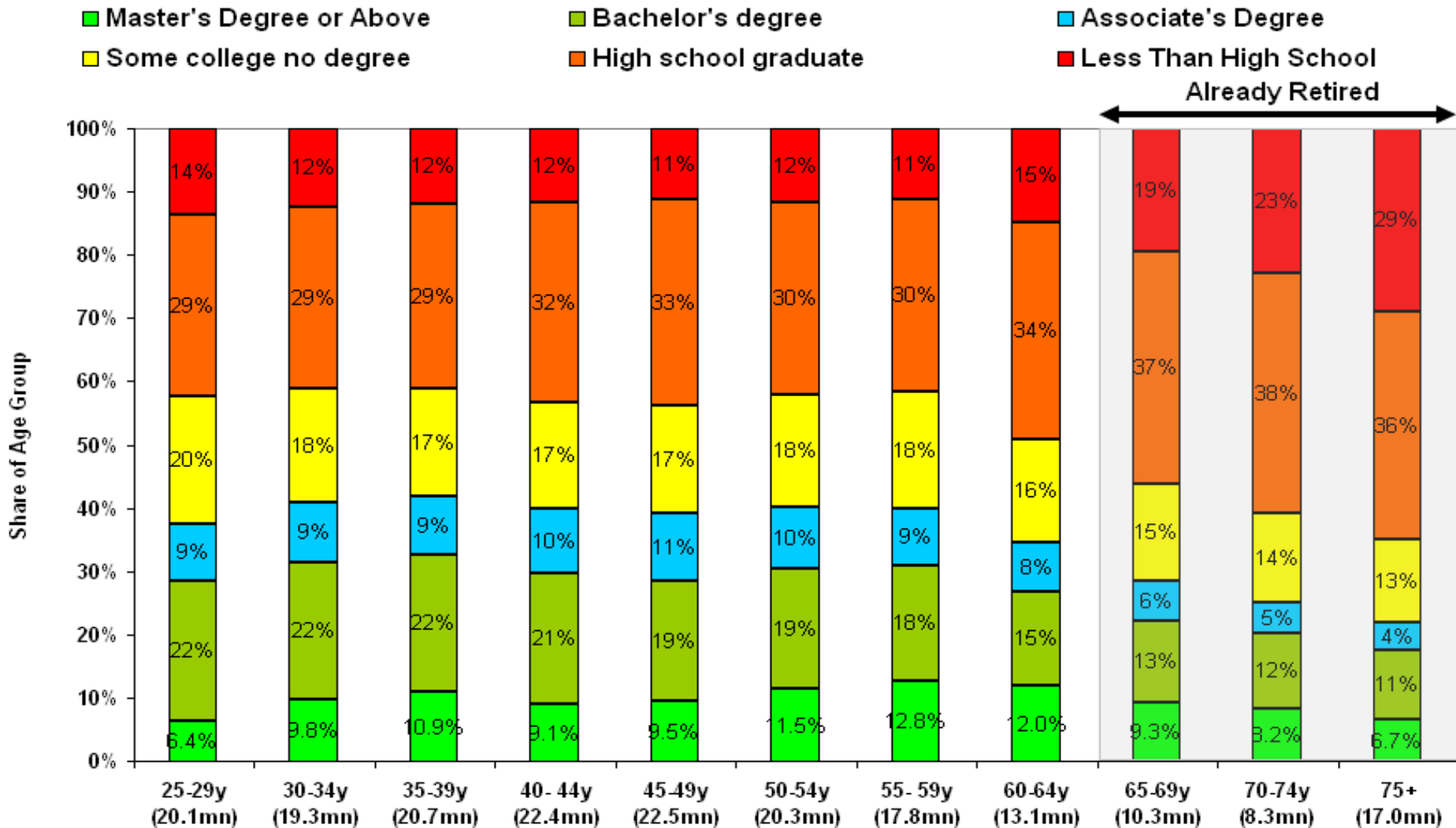
Implications for Immigration Policy

Jacob Funk Kirkegaard

Peterson Institute For International Economics

America's High-Skilled Workforce; The Long-Term Outlook

Figure 1.1 US Educational Attainment (Highest Level Attained), 2006

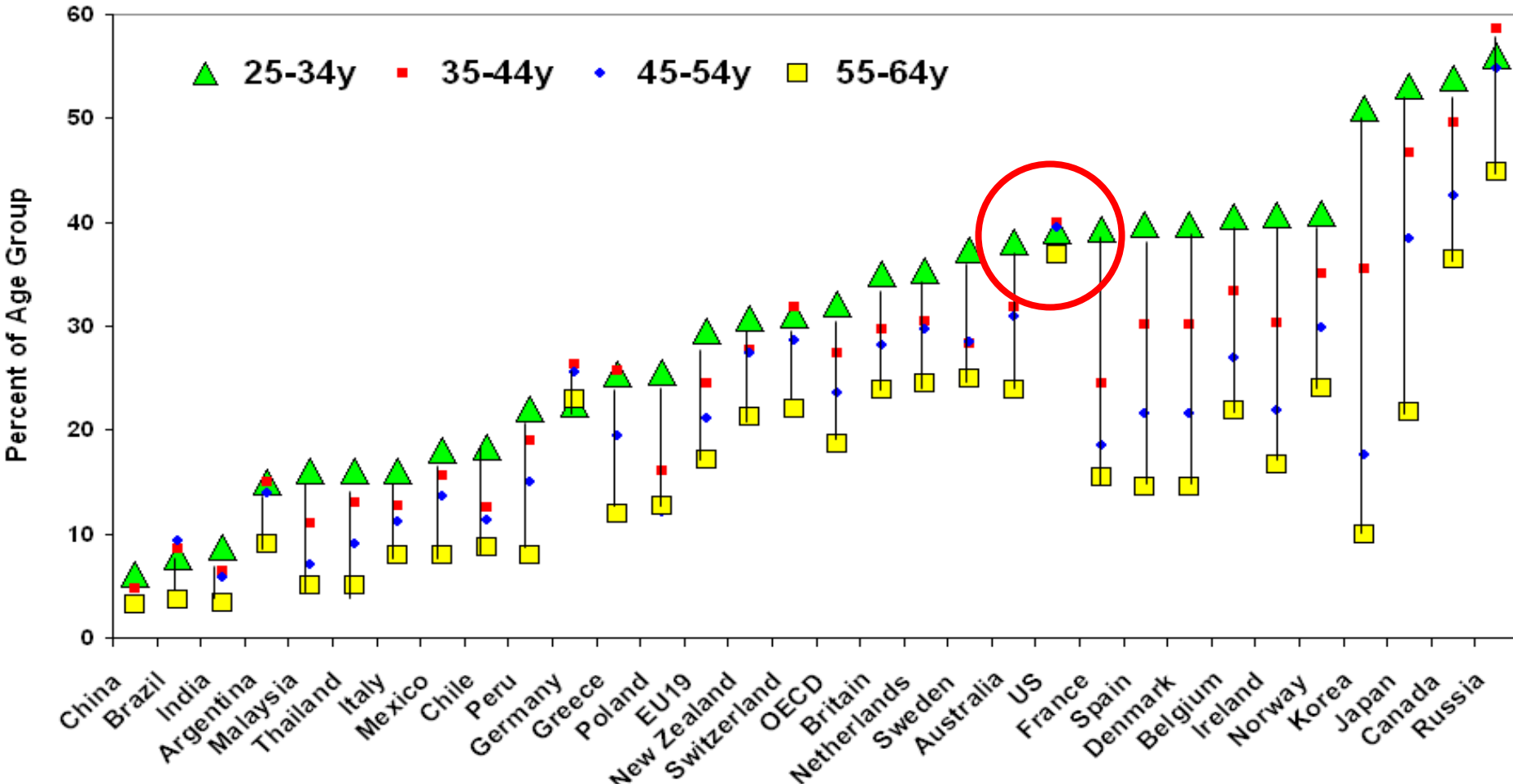


Source: U.S. Census Bureau, Current Population Survey, 2006 Annual Social and Economic Supplement

High-Skilled Workforces Around the World; What Has Been Happening?



Share of Population With Tertiary Education, By Age, 2005

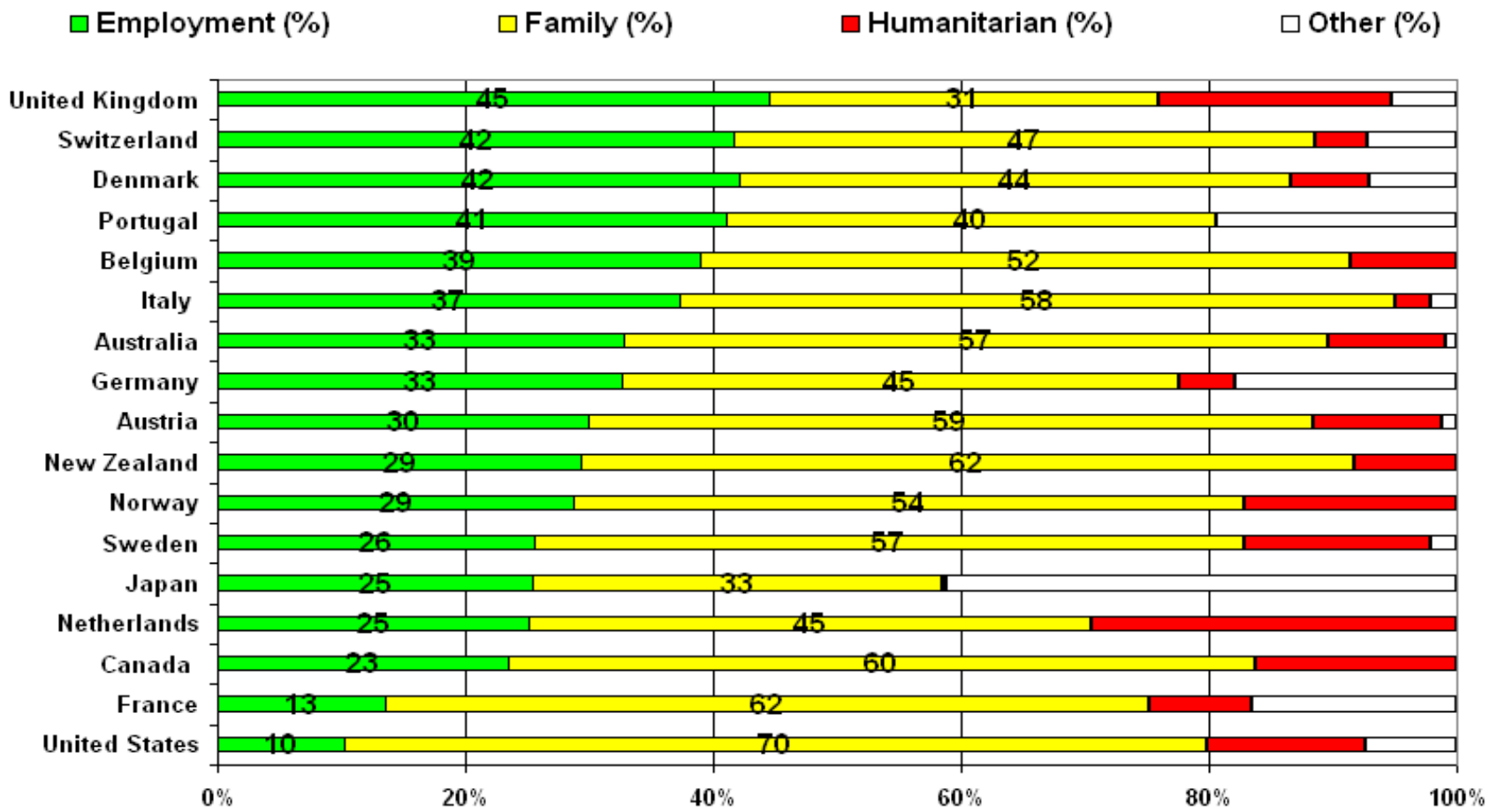


Note: 2005 or latest available from 2003/04. Source: UNESCO/OECD World Education Indicators; OECD Education at a Glance (2007), China Statistical Yearbook 2005 for China; and the 61st NSS Round for India.

High-Skilled Workforces Around the World; What Has Been Happening?



International Permanent Migration by Category of entry, selected OECD countries, 2005 (% of total inflows)

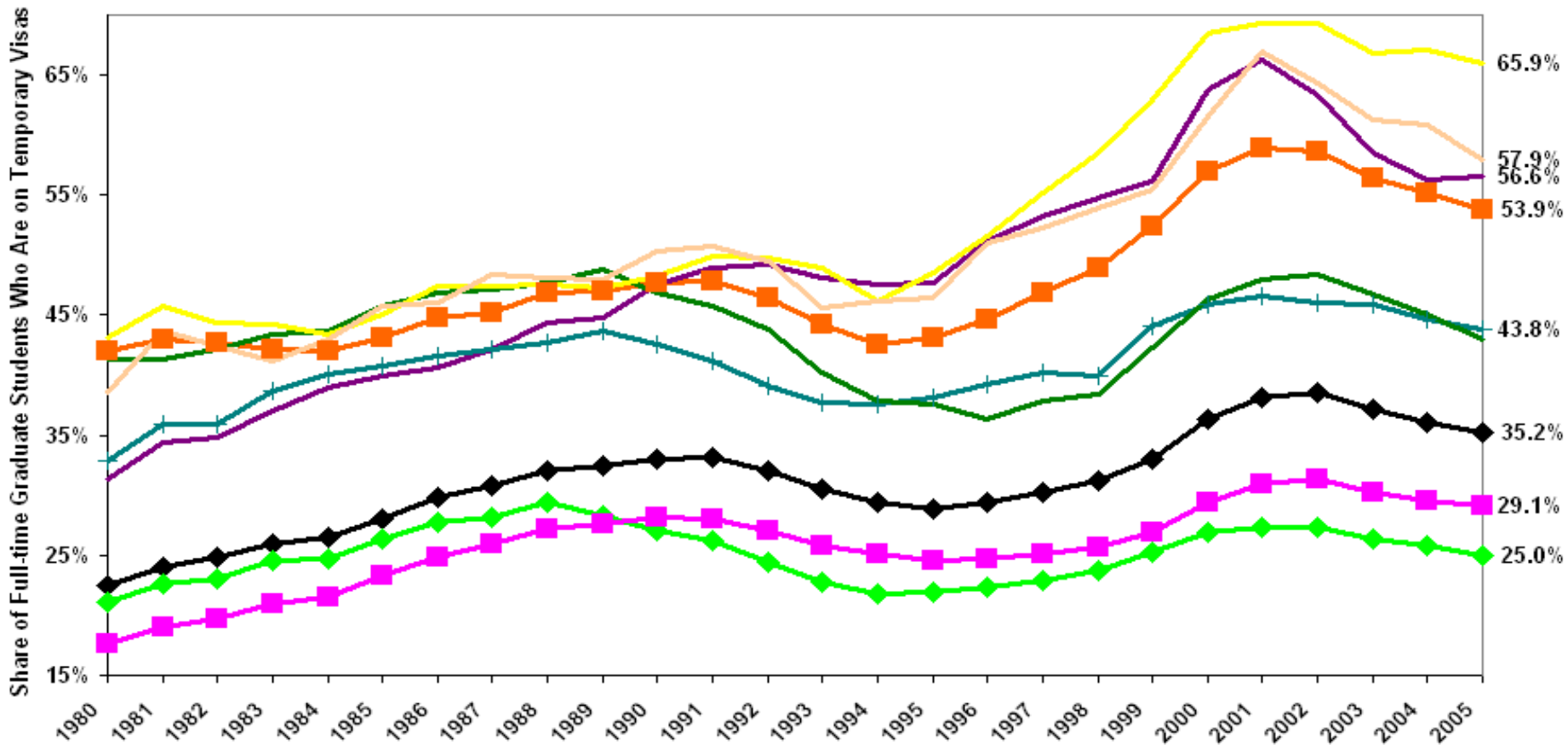


Source: OECD International Migration Outlook 2007

Foreign Students At US Universities; The Key Is Retention Rates

Foreign Graduate Students At US Universities 1980-2005, Share of Total

- ◆ All science and engineering
- ◆ Social sciences
- ◆ Total Science
- ◆ Total Engineering
- ◆ Computer sciences
- ◆ Mathematical sciences
- ◆ Civil engineering
- ◆ Electrical engineering
- ◆ Industrial engineering



Source: NSF (2007)

The US High-Skilled Immigration System

Today; H-1B/L-1 Visas



Top-25 Corporate Recipients of H-1B Visas for FY2007, Initial Employment

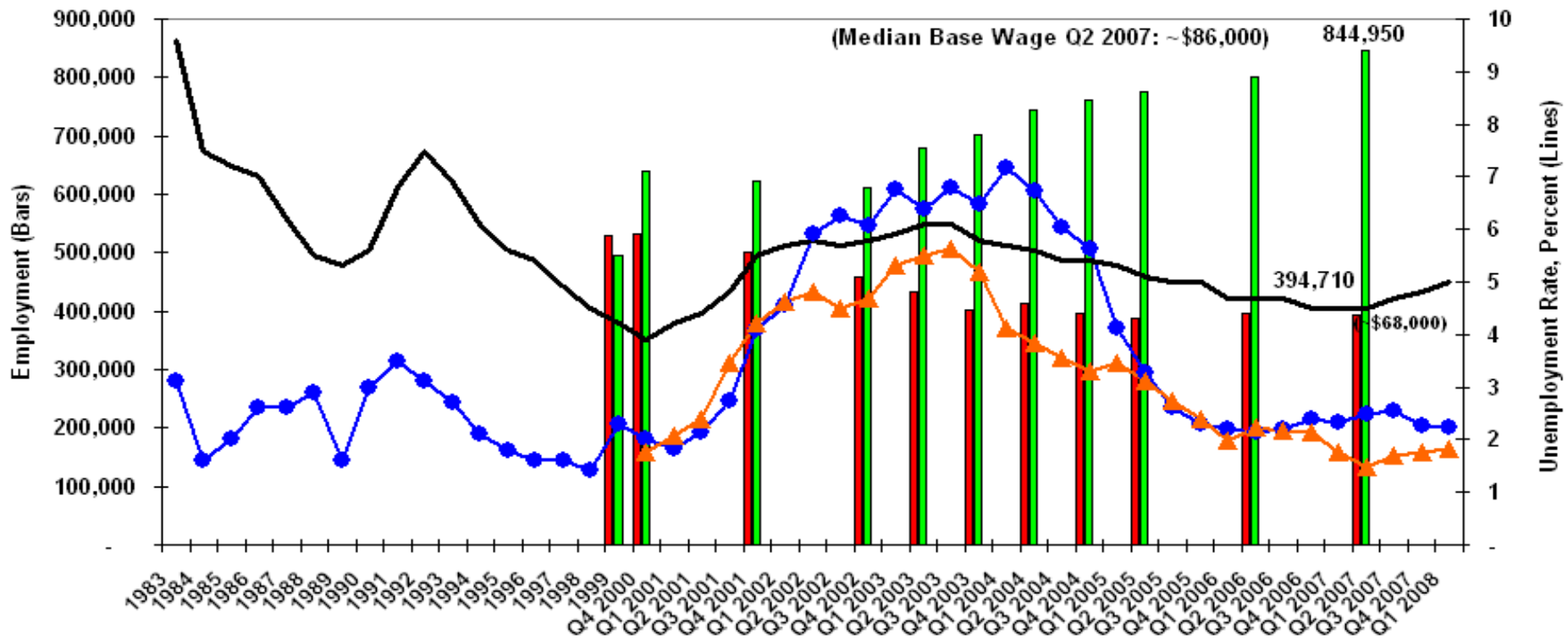
Ranking	Company	Home Country	# of H-1B Visas Approved by USCIS in FY2007 for Initial Employment	Ranking	Company	Home Country	# of H-1B Visas Approved by USCIS in FY2007 for Initial Employment
1	INFOSYS TECHNOLOGIES LIMITED	India	4,559	21	OBJECTWIN TECHNOLOGY INC	US	243
2	WIPRO LIMITED	India	2,567	22	DELOITTE CONSULTING LLP	US	242
3	SATYAM COMPUTER SERVICES LTD	India	1,396	23	PRINCE GEORGES COUNTY PUBLIC SCHS	US	238
4	COGNIZANT TECH SOLUTIONS US CORP	India	962	24	JPMORGAN CHASE & CO	US	236
5	MICROSOFT CORP	US	959	25	MOTOROLA INC	US	234
6	TATA CONSULTANCY SERVICES LIMITED	India	797	Total Top-25		16,833	
7	PATNI COMPUTER SYSTEMS INC	India	477	Total FY2007		>126,000	
8	US TECHNOLOGY RESOURCES LLC	US	416	Total # of Entities Sponsoring H-1B Recipient In FY2007		>29,000	
9	I-FLEX SOLUTIONS INC (ORACLE)	India (US)	374	Top-25 Share of Total Issuance		13%	
10	INTEL CORPORATION	US	369	Top-25 Share of Total 85,000 Cap		19%	
11	ACCENTURE LLP	US	331	Total Indian-7 in Top-25		11,050	
12	CISCO SYSTEMS INC	US	324	Indian-7 Share of 85,000 Cap		13%	
13	ERNST & YOUNG LLP	US	302				
14	LARSEN & TOUBRO INFOTECH LIMITED	India	292				
15	DELOITTE & TOUCHE LLP	US	283				
16	MPHASIS CORPORATION (EDS)	India (US)	248				
17	GOOGLE INC	US	248				
18	UNIVERSITY OF ILLINOIS AT CHICAGO	US	246				
19	JSMN INTERNATIONAL INC	US	245				
20	AMERICAN UNIT INC	US	245				

Source: Website of Senator Grassley at <http://grassley.senate.gov/public/releases/2008/03/1020082.pdf>.

A Little Bit On The Plight of the "US Software Workforce"

US "Software Employment and Unemployment", 1983-2008

- Employment - Computer Programmers
- Employment - Software Engineers
- Unemployment - Computer Programmers
- ▲ Unemployment - Software Engineers
- Unemployment - Total Economy



Note: Annual data 1983-1999, 4-quarter lagging moving average 2000-2008; "Software engineers" includes both applications and systems software engineers. Employment Data do not include selfemployed workers. Source: NSF; BLS CPS and OES Data

Concluding Remarks

- A Fixed Quota is the Worst Way to Regulate Immigration
- Dynamically Regulate High-Skilled Immigration - Preferably at the Company Level
- US Today is Caught in an “Enforcement Blind Alley” - High-Skilled Immigration Must Be Regulated With an Eye on “Economic Growth”, Not Simply “Indiscriminate Enforcement”
- Services Sectors Characteristics Today Demand That High-Skilled Immigration Issues Must Be Made an Integral Part of the US (and other OECD Countries’) Trade Agenda