



National Science Foundation

Division of Science Resources Statistics

Findings from the 2007-08 Survey of Earned Doctorates

**Council of Graduate Schools
Education Research & Policy Forum**

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National Science Foundation
Division of Science Resources Statistics
www.nsf.gov/statistics



Agenda

1. 2007 & 2008 in Context

- Field of study
- Gender
- Race/ethnicity
- Citizenship at time of doctorate

2. Educational History

- Time to degree
- Graduate school debt

3. Postgraduation Plans

- Definite commitments
- Employment vs. postdoc
- Sector of employment
- Location of employment
- Salary

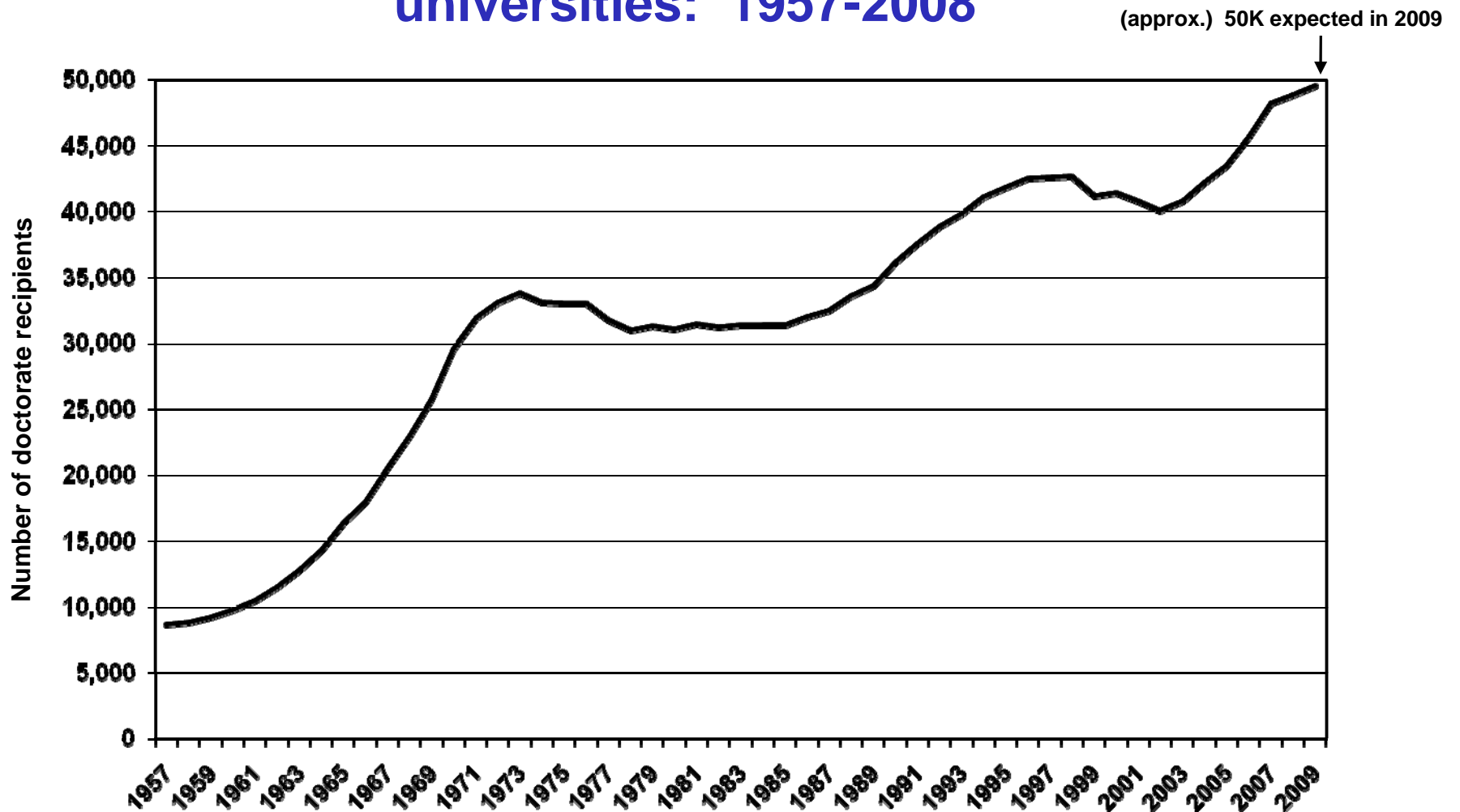


Survey of Earned Doctorates

- Annual census of all individuals receiving research doctorates from U.S. institutions
- Conducted annually since 1957-58; cumulative database includes data back to 1920
- Response
 - 48,112 doctorate recipients in 2007, 48,802 in 2008
 - Response rate at least 91% since 1976



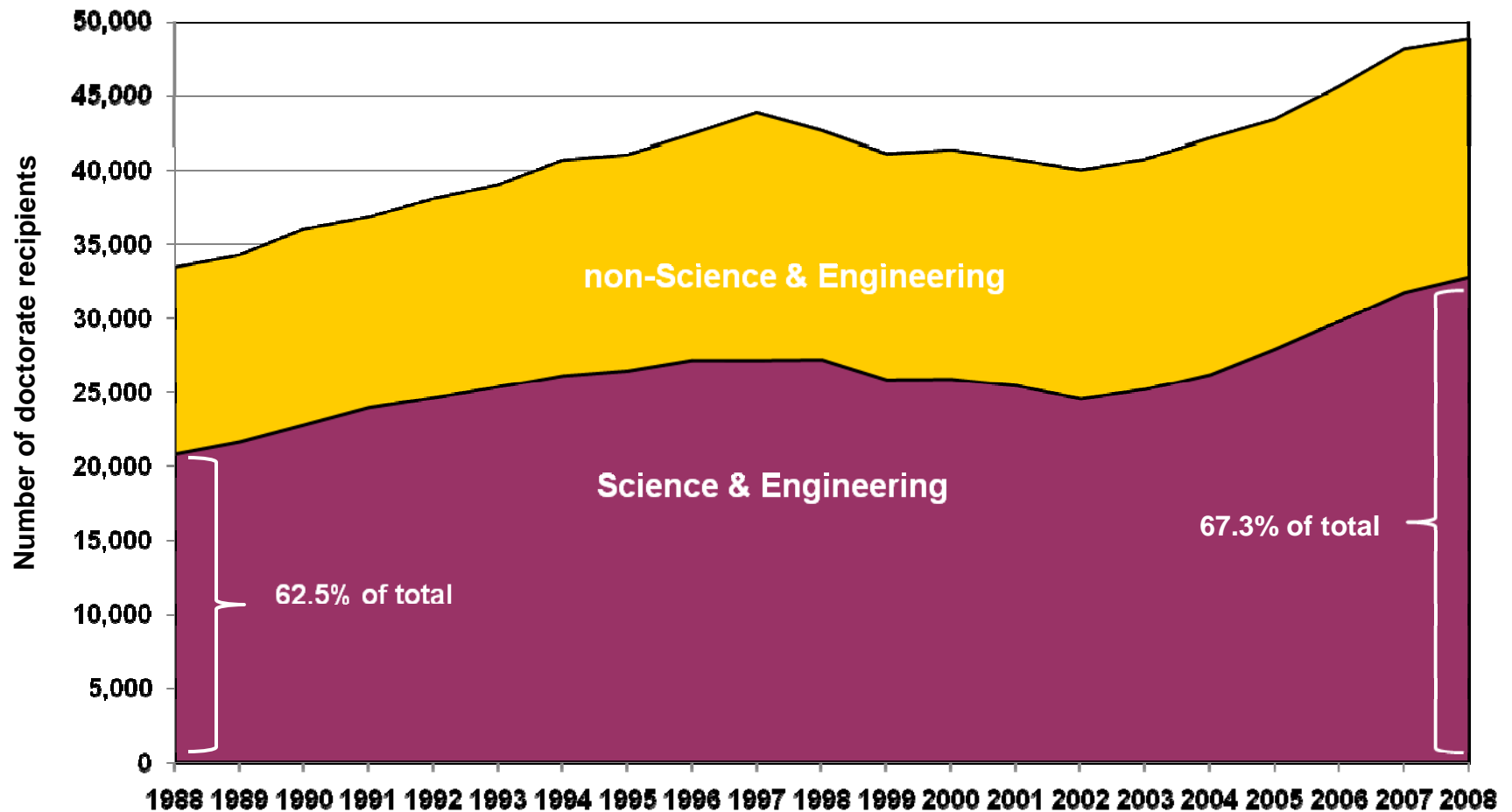
Doctorates awarded by U.S. colleges and universities: 1957-2008



SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2008 Survey of Earned Doctorates.



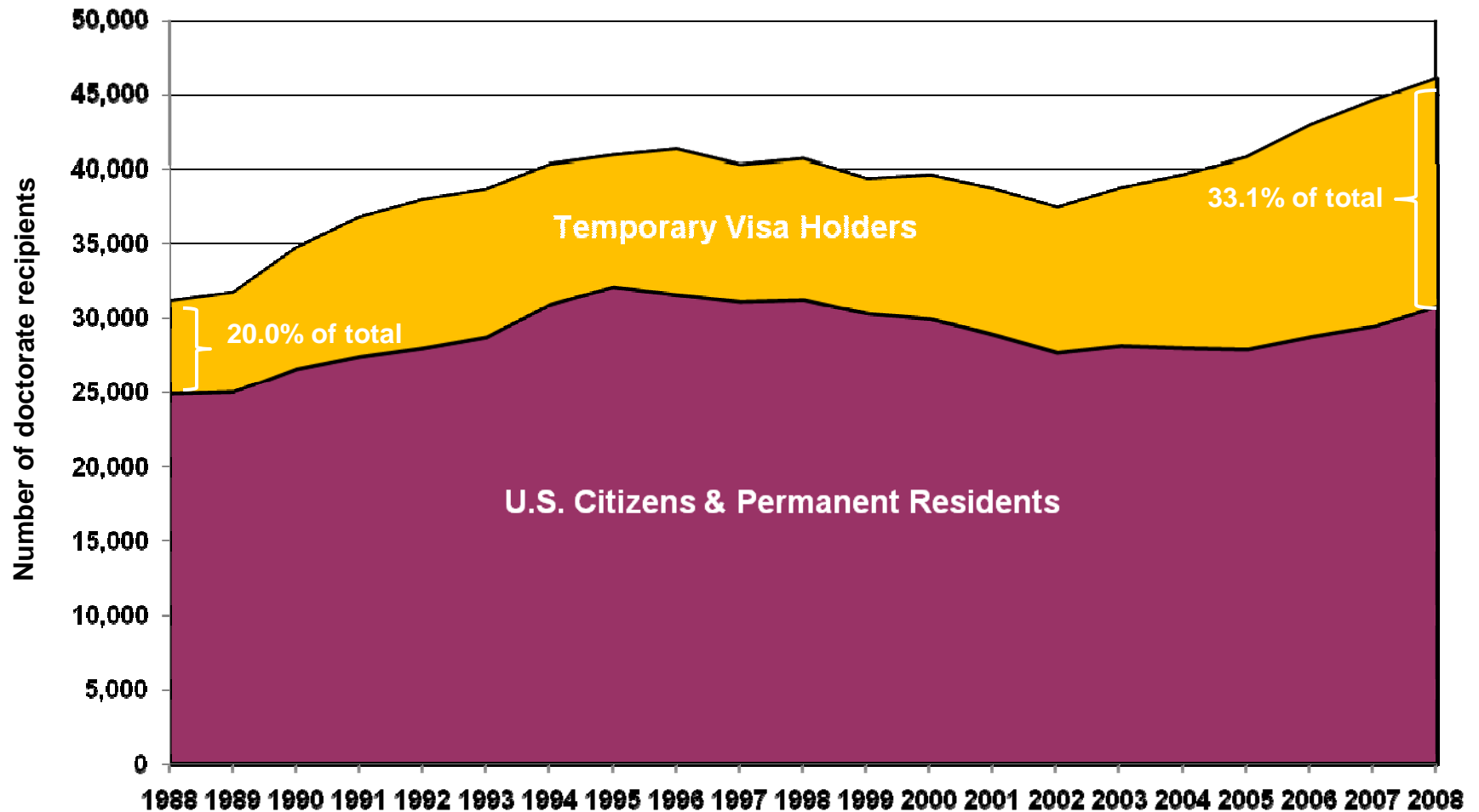
Doctorates awarded in Science & Engineering (S&E) and non-S&E fields: 1988-2008



SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2008 Survey of Earned Doctorates.



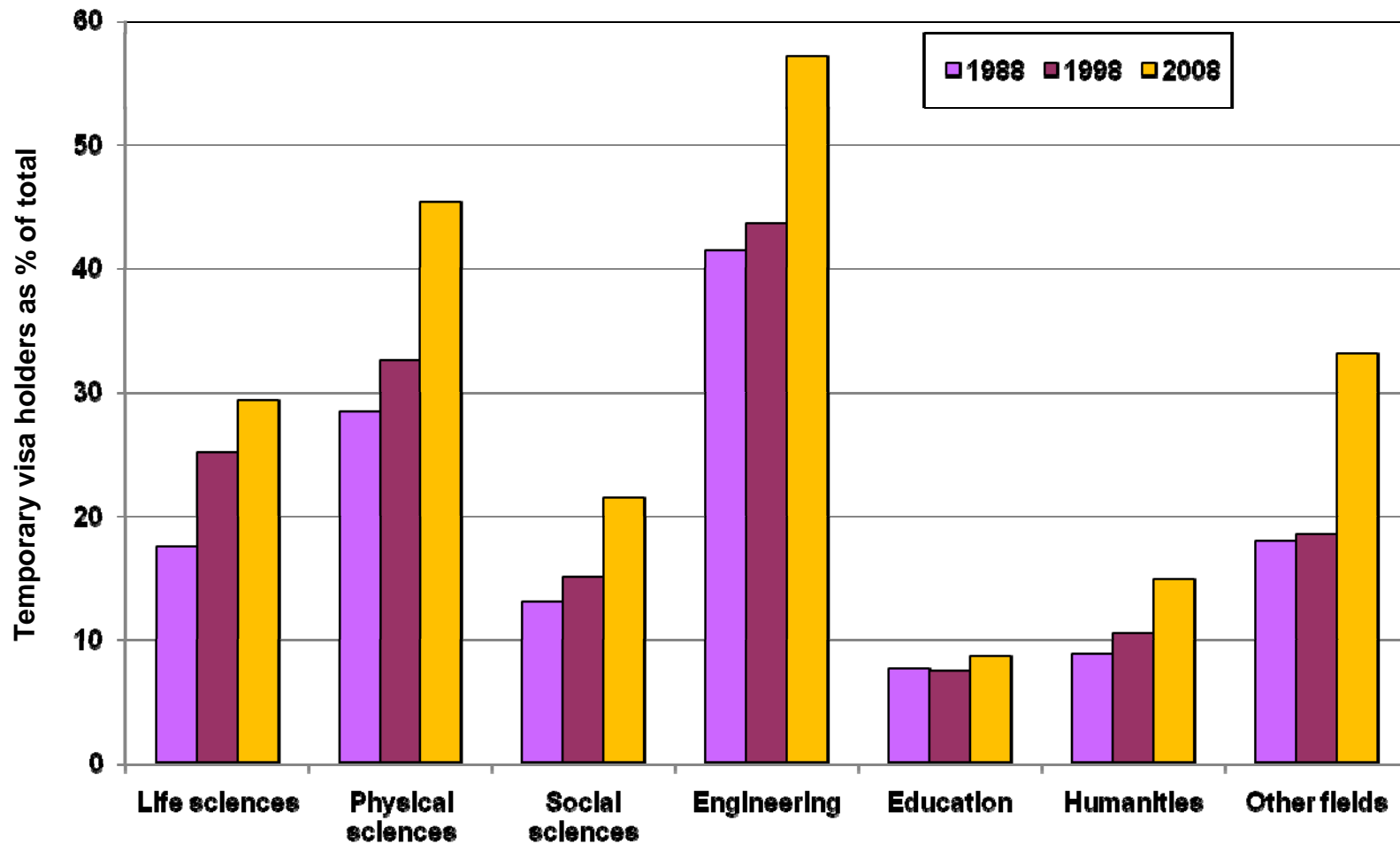
Doctorates awarded, by citizenship status: 1988-2008



SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2008 Survey of Earned Doctorates.



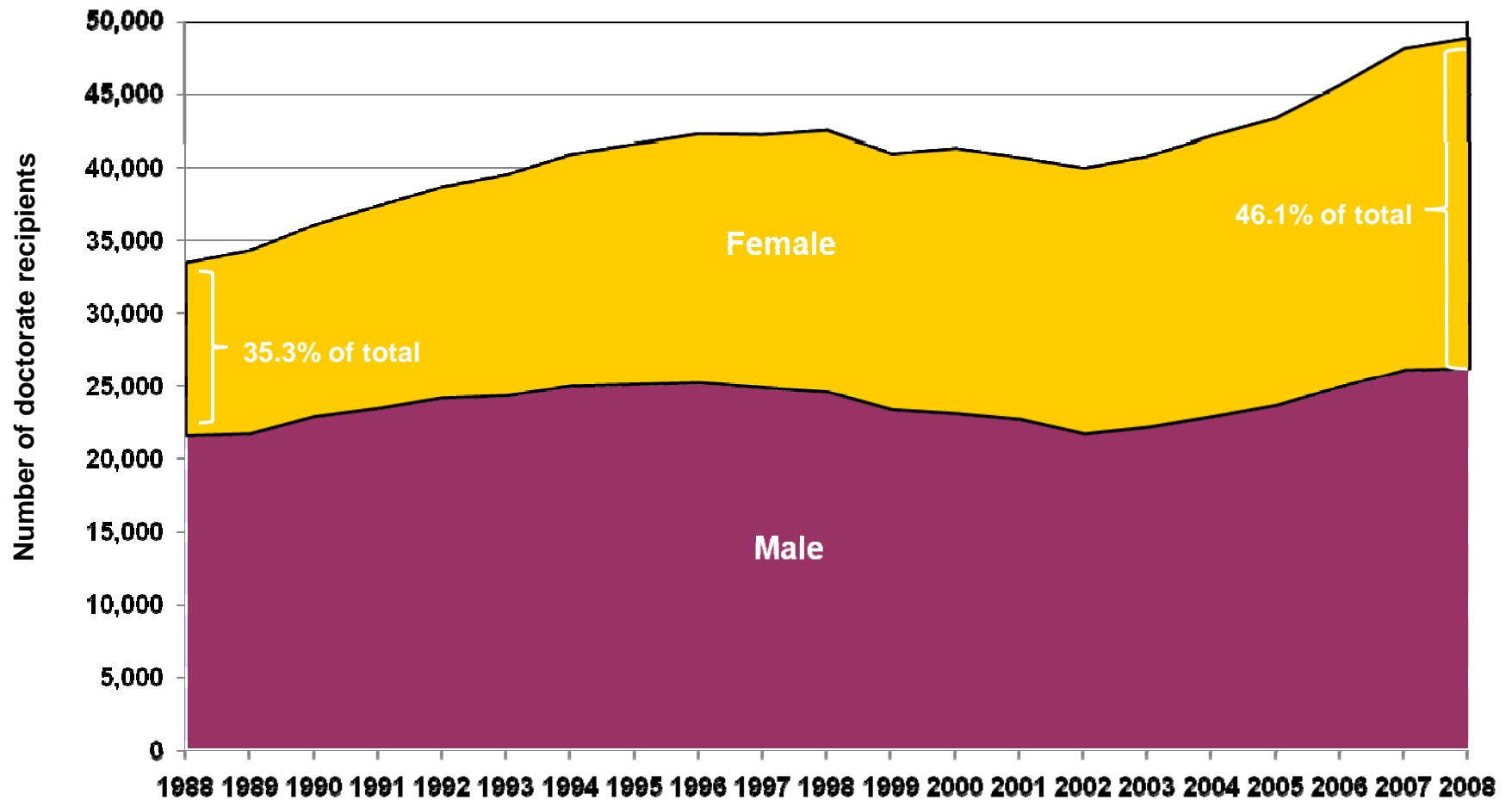
Doctorates earned by temporary visa holders, by broad field of study: selected years, 1988-2008



SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2008 Survey of Earned Doctorates.



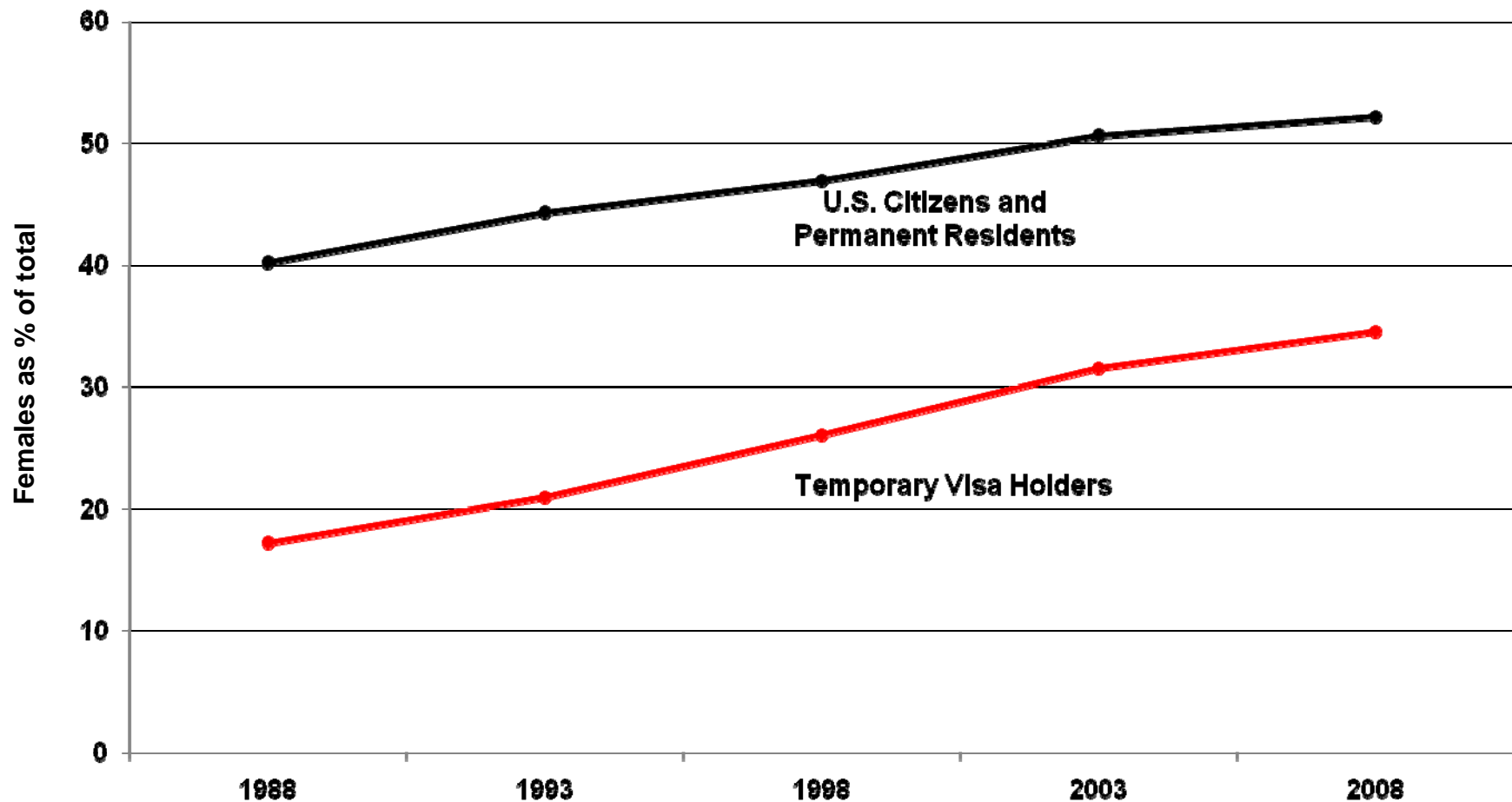
Doctorates awarded, by sex: 1988-2008



SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2008 Survey of Earned Doctorates.



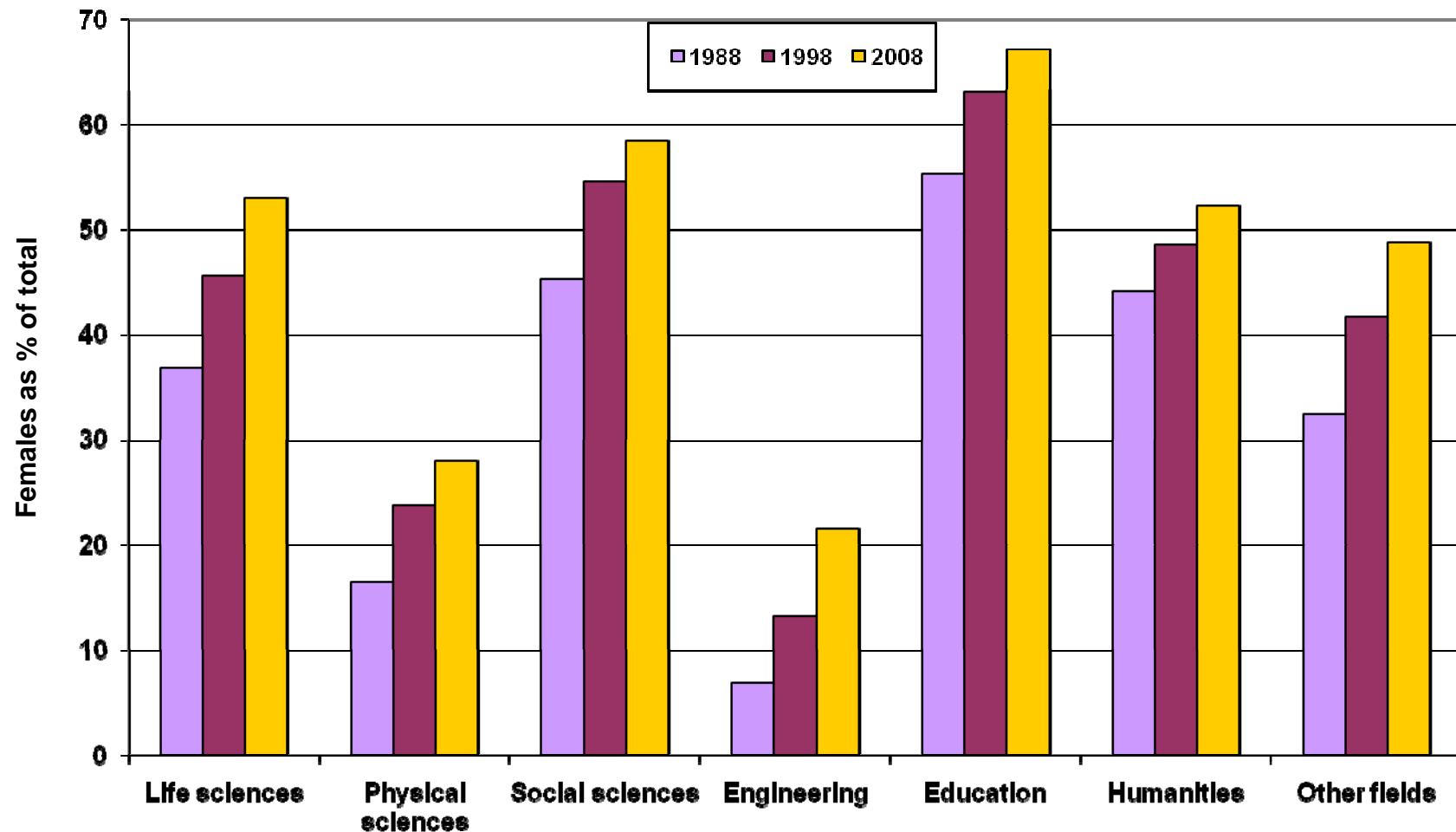
Doctorates earned by females, by citizenship status: selected years, 1988-2008



SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2008 Survey of Earned Doctorates.



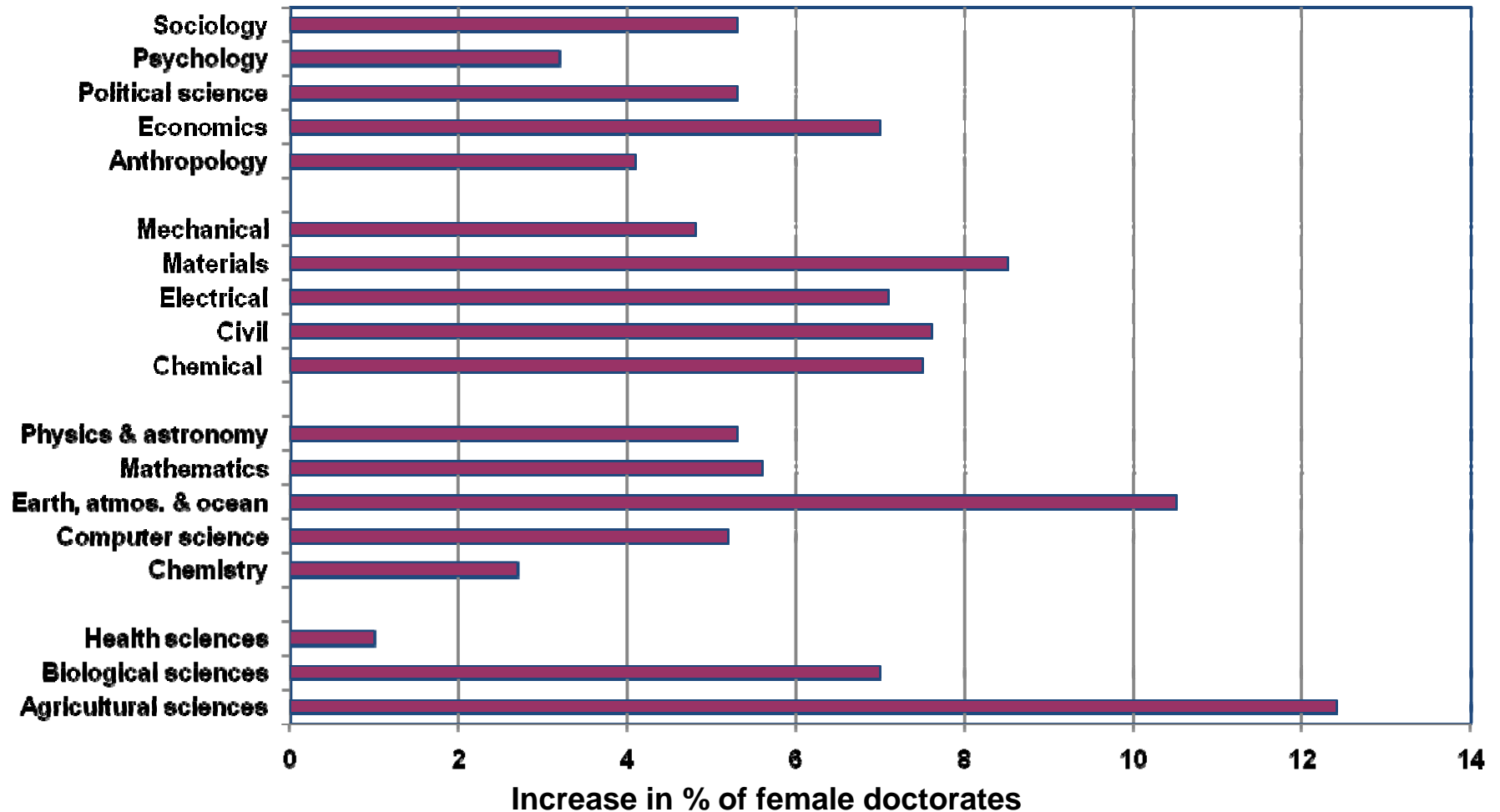
Doctorates earned by females, by broad field of study: selected years, 1988-2008



SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2008 Survey of Earned Doctorates.



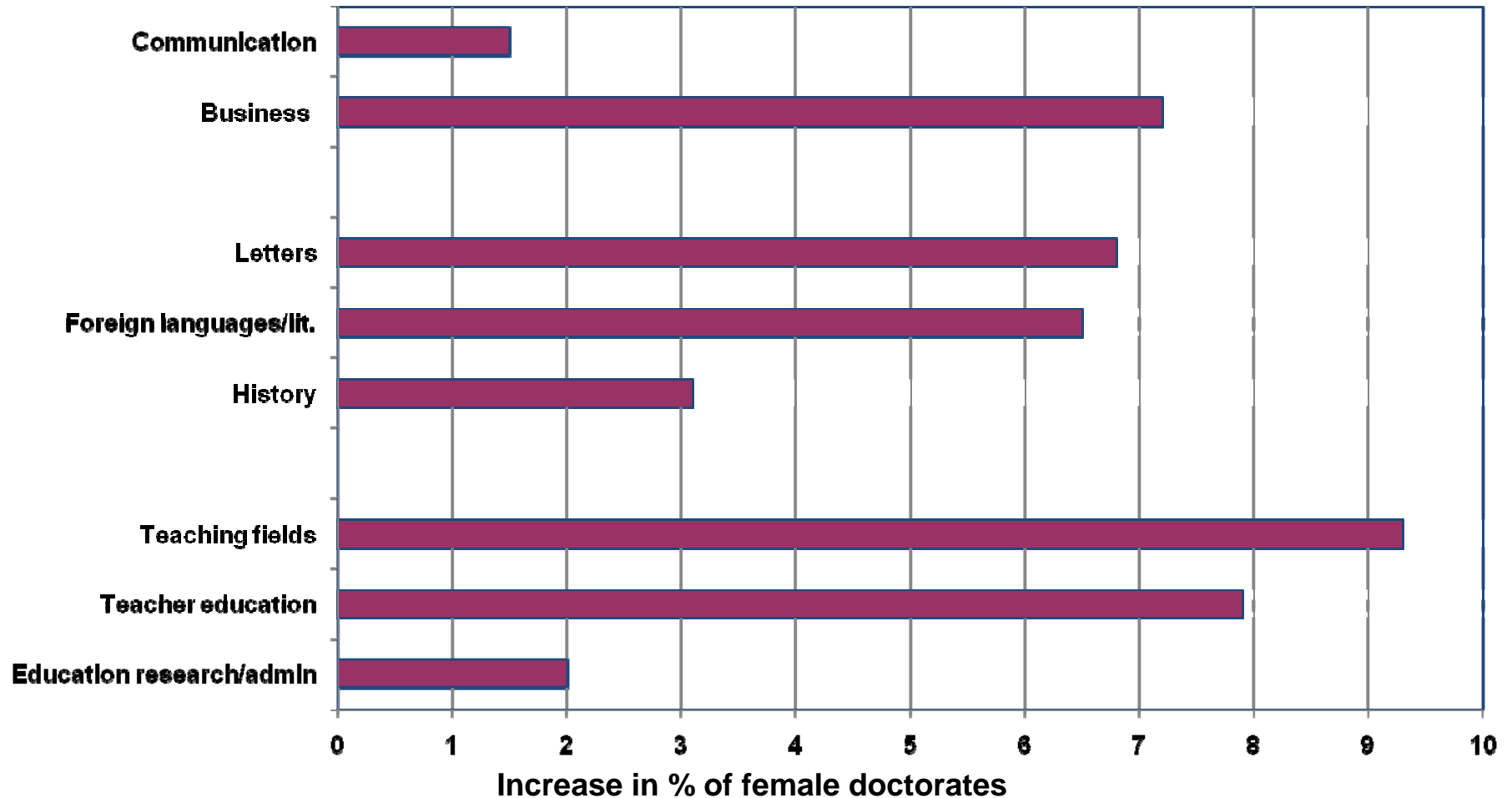
Increase in proportion of female doctorates from 1998 to 2008, by major field of study (S&E)



SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2008 Survey of Earned Doctorates.



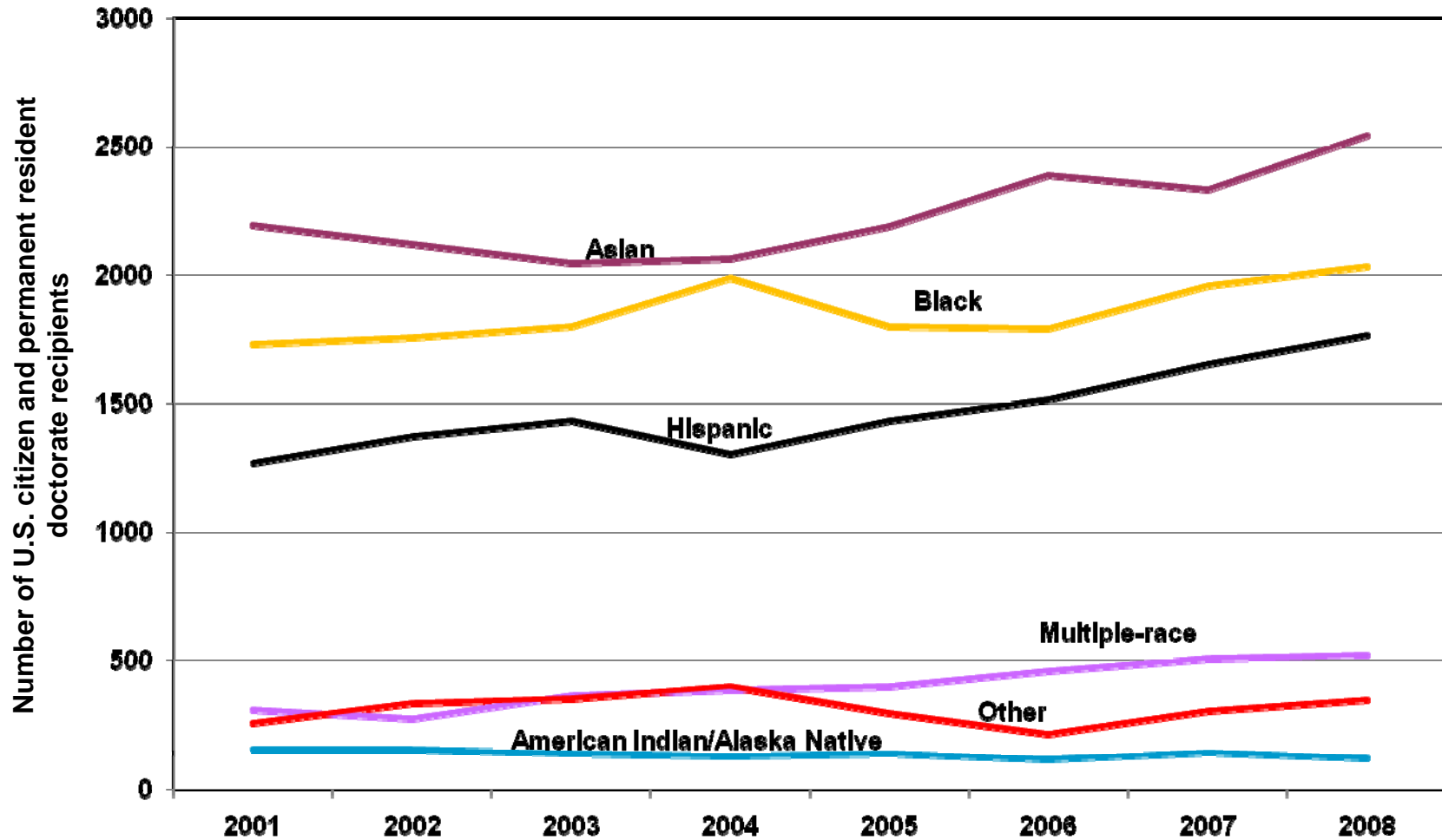
Increase in proportion of female doctorates from 1998 to 2008, by major field of study (non-S&E)



SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2008 Survey of Earned Doctorates.



Doctorates earned by racial/ethnic minorities: 2001-2008



SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2008 Survey of Earned Doctorates.

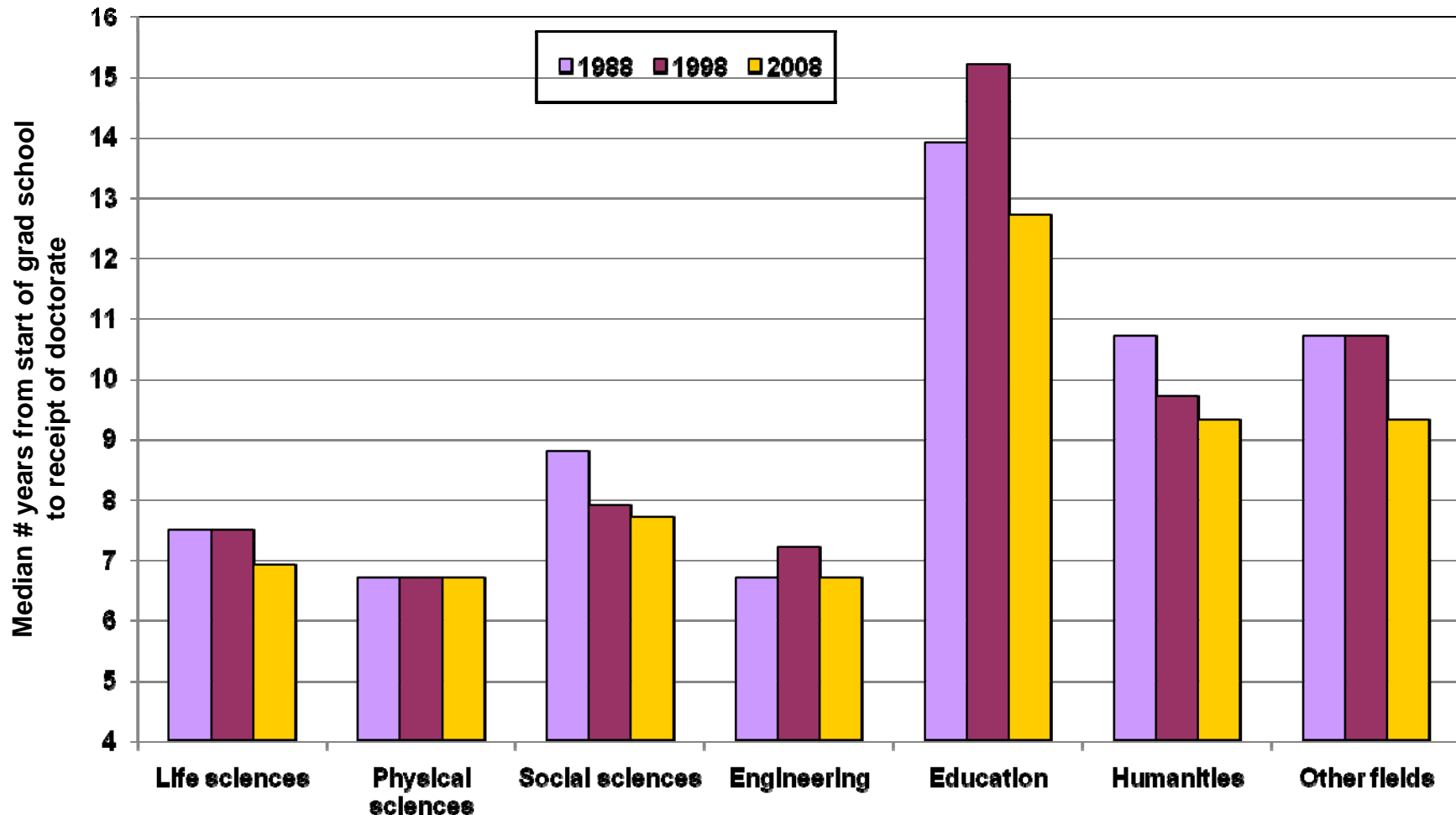


Interim Summary #1

- **Growth in # doctorate awards slowed in 2008 (and 2009)**
- **Continuing trends:**
 - **Increasing proportion of S&E doctorate recipients**
 - **Increasing proportion of female doctorate recipients**
 - **Increasing proportion of temporary visa holder doctorate recipients**
 - **Increasing proportion of minorities among U.S. citizen and permanent resident doctorate recipients**



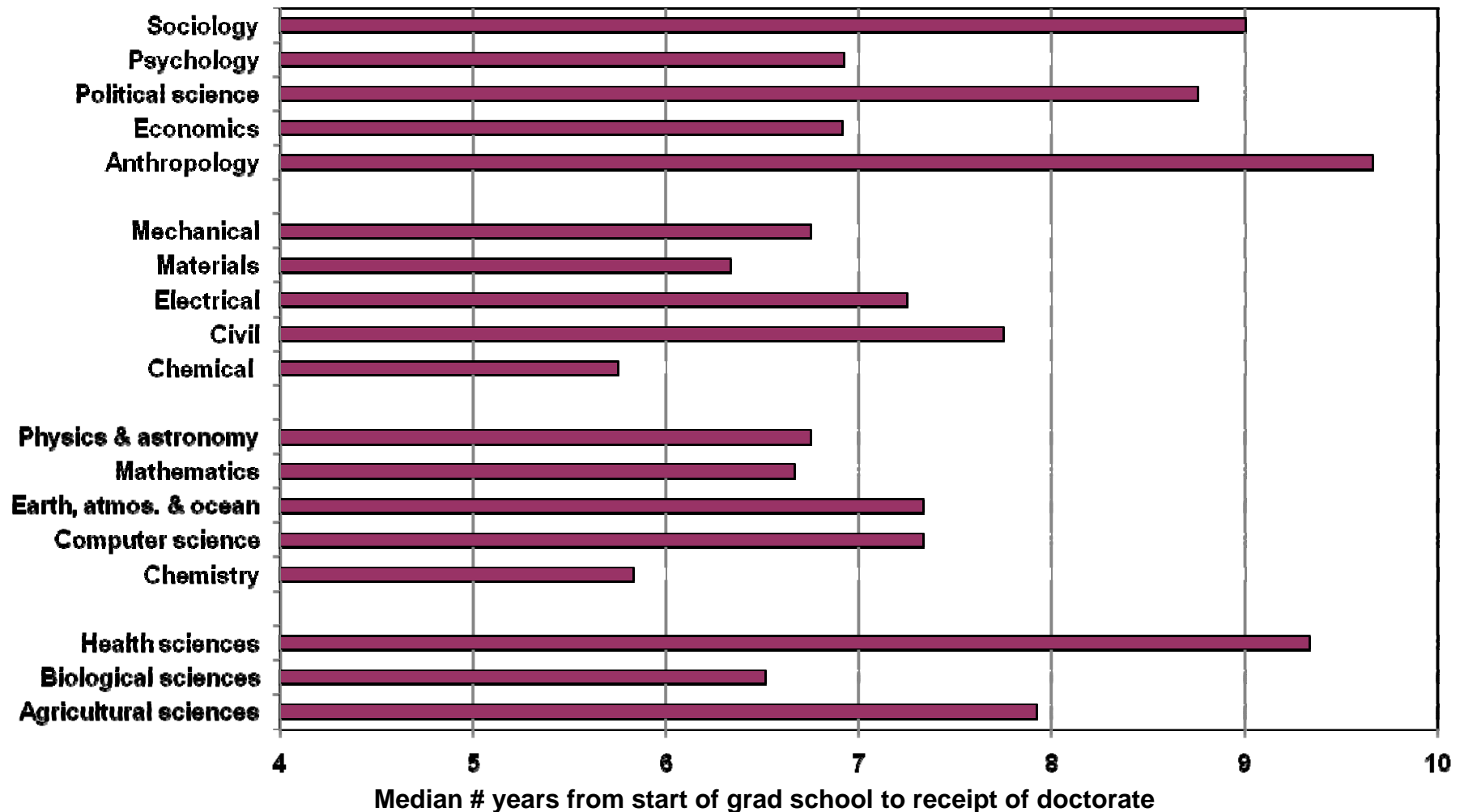
Median time-to-degree, by broad field of study: selected years, 1988-2008



SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2008 Survey of Earned Doctorates.



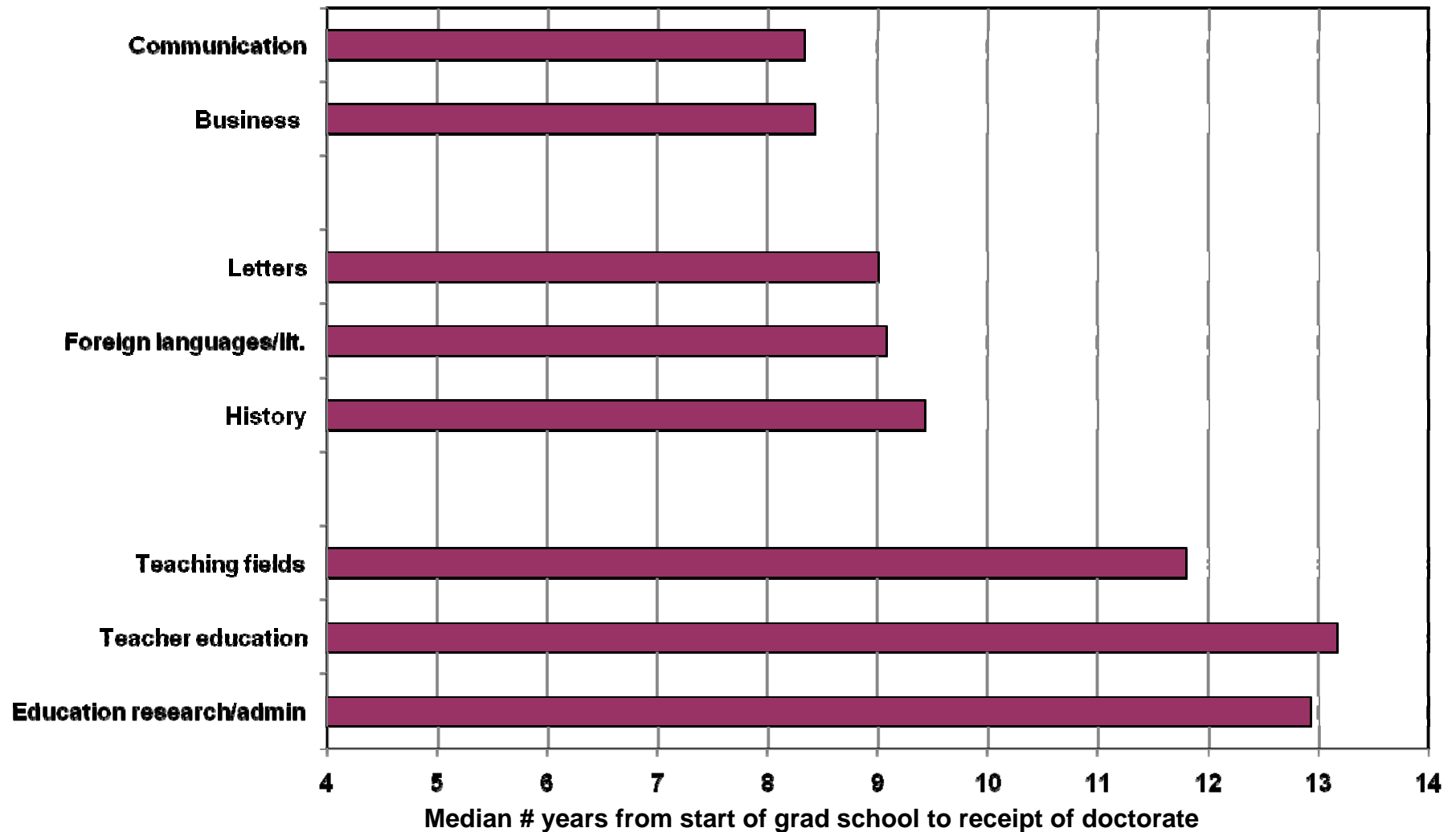
Median time-to-degree, by major field of study (S&E): 2008



SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2008 Survey of Earned Doctorates.



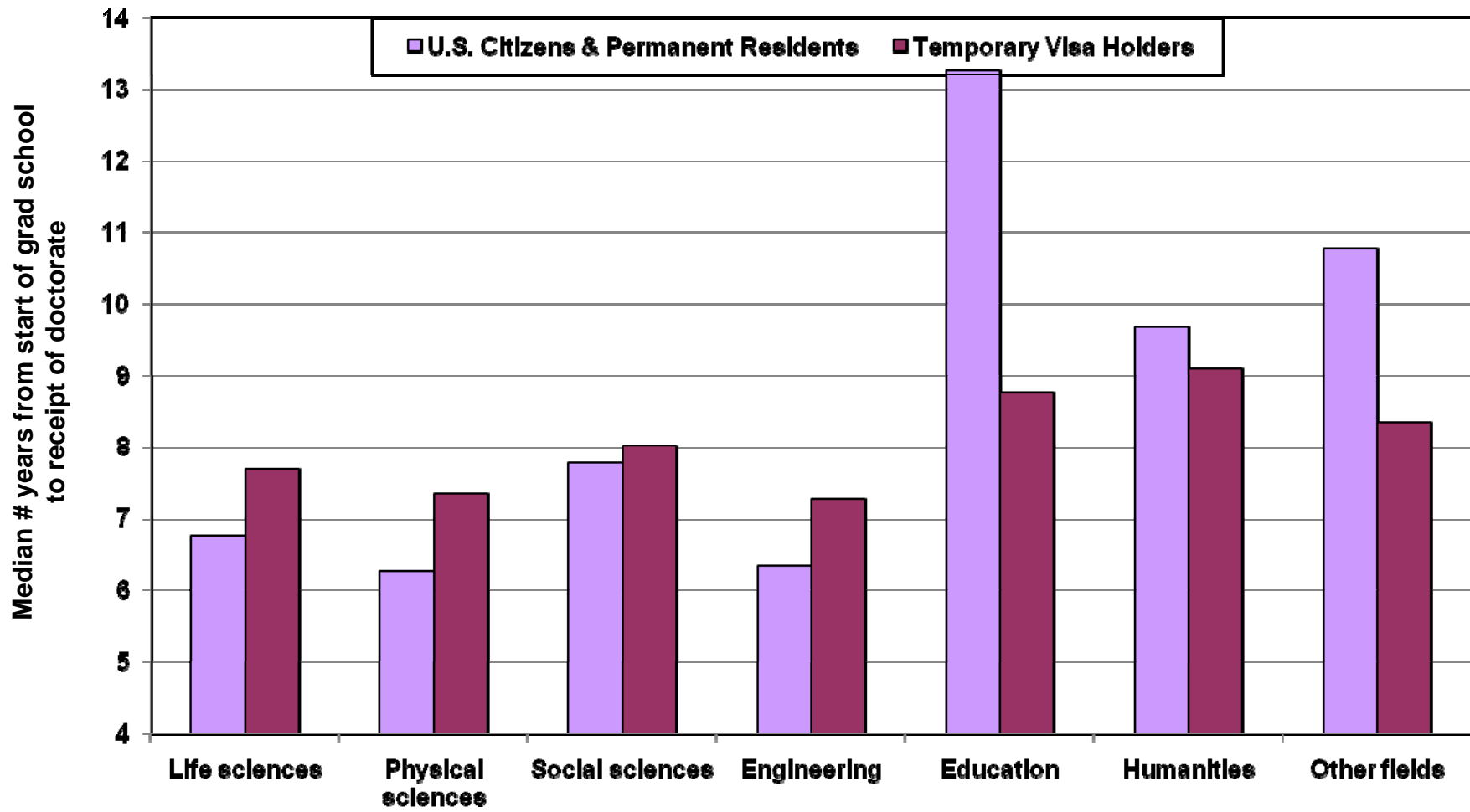
Median time-to-degree, by major field of study (non-S&E): 2008



SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2008 Survey of Earned Doctorates.



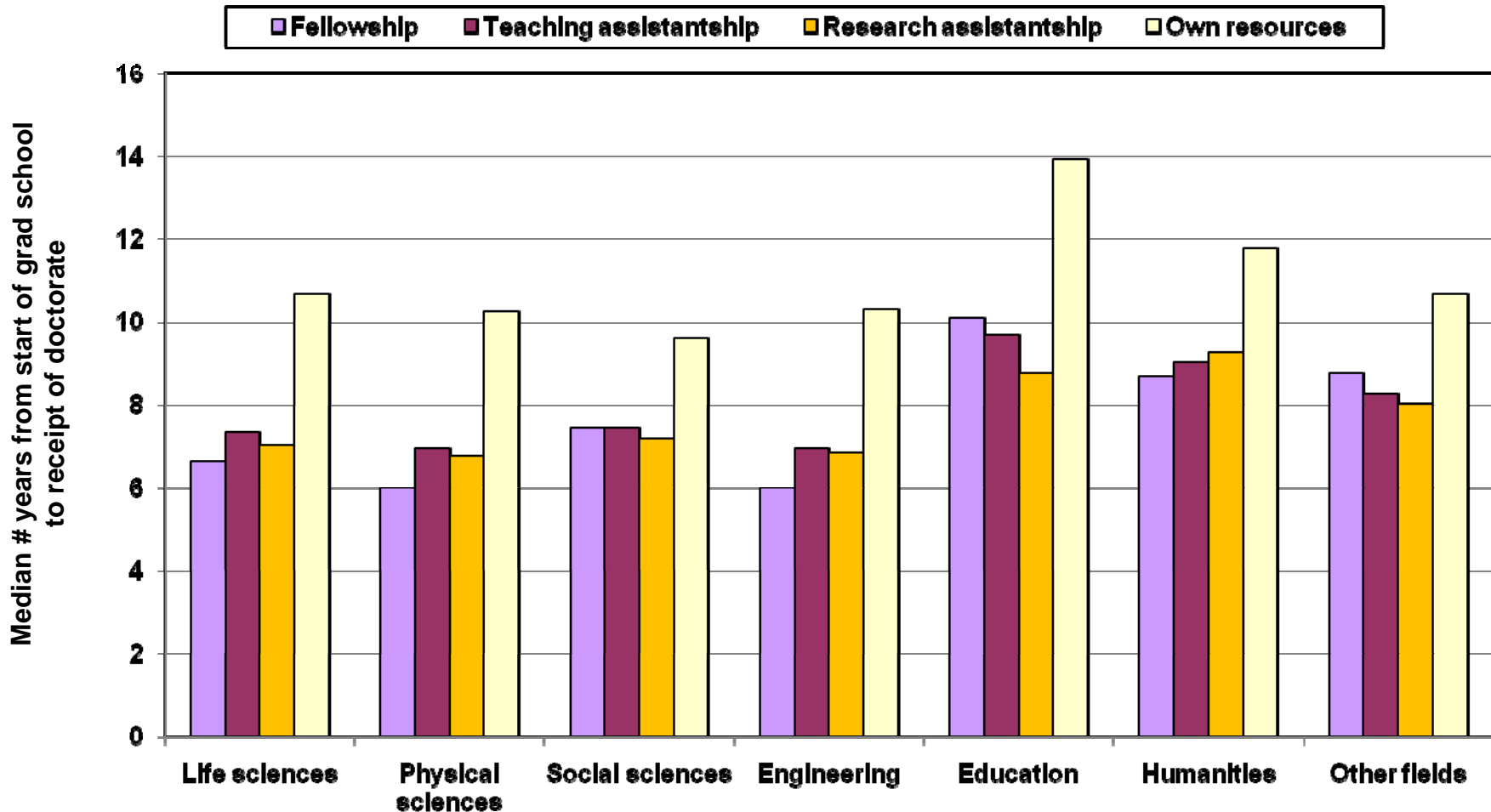
Median time-to-degree, by citizenship status and broad field of study (2006-2008)



SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2008 Survey of Earned Doctorates.



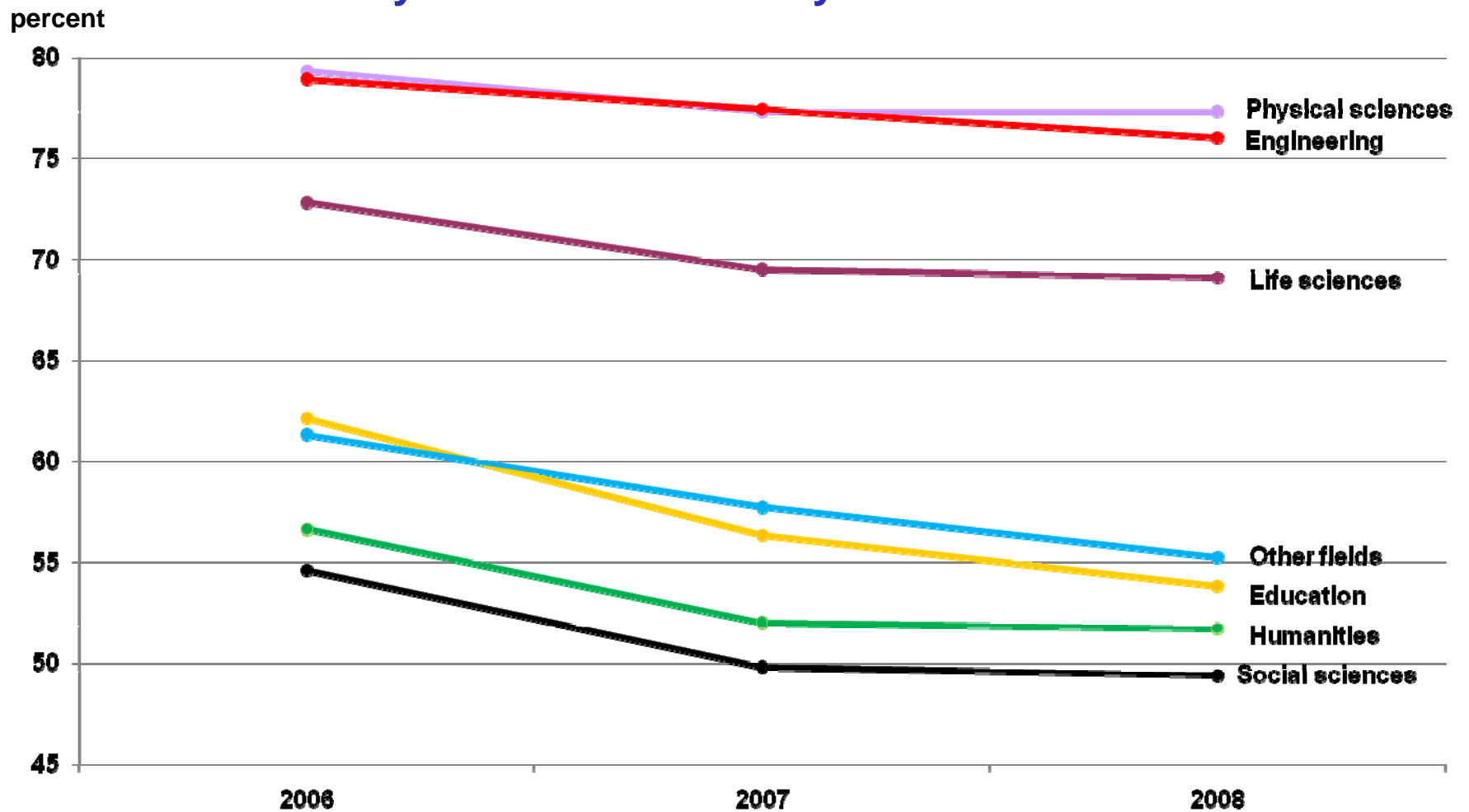
Median time-to-degree, by primary source of financial support and broad field of study (2006-2008)



SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2008 Survey of Earned Doctorates.



% of doctorate recipients with zero grad school debt, by broad field of study: 2006-2008



SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2008 Survey of Earned Doctorates.

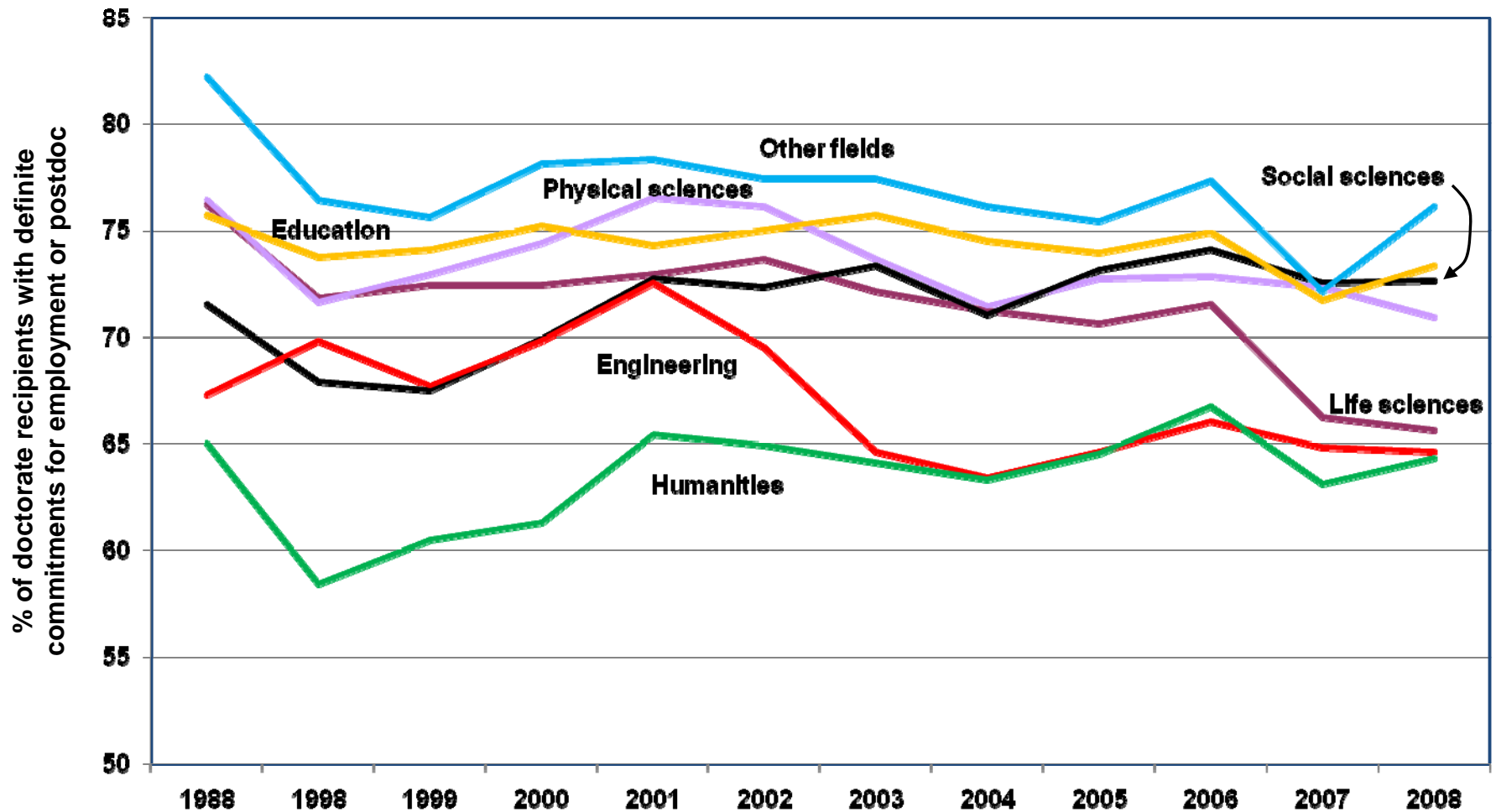


Interim Summary #2

- **Slight declines in time-to-degree since 1998 in most broad fields**
 - Temporary visa holders: longer time-to-degree than U.S. citizens and permanent residents in S&E fields, *shorter in non-S&E fields*
- **Time-to-degree varies by primary source of financial support**
 - Fellowship recipients generally have shortest time-to-degree
 - For those relying primarily on own resources: *shorter time-to-degree for loans and family-\$ support*
- **Recent slight increases (across all fields) in % of doctorate recipients with some debt**



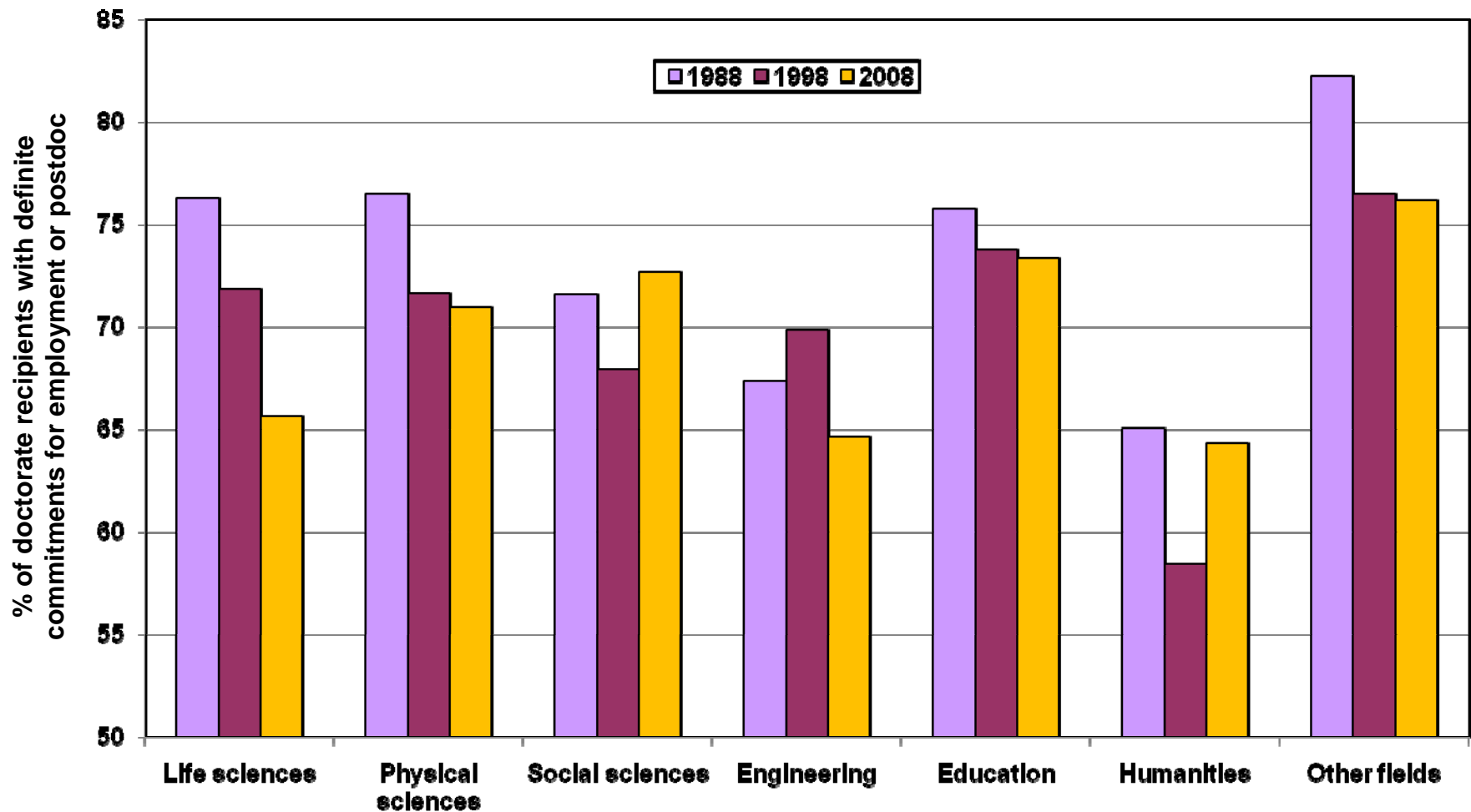
Definite postgraduation commitments, by broad field of study: 1988 and 1998-2008



SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2008 Survey of Earned Doctorates.



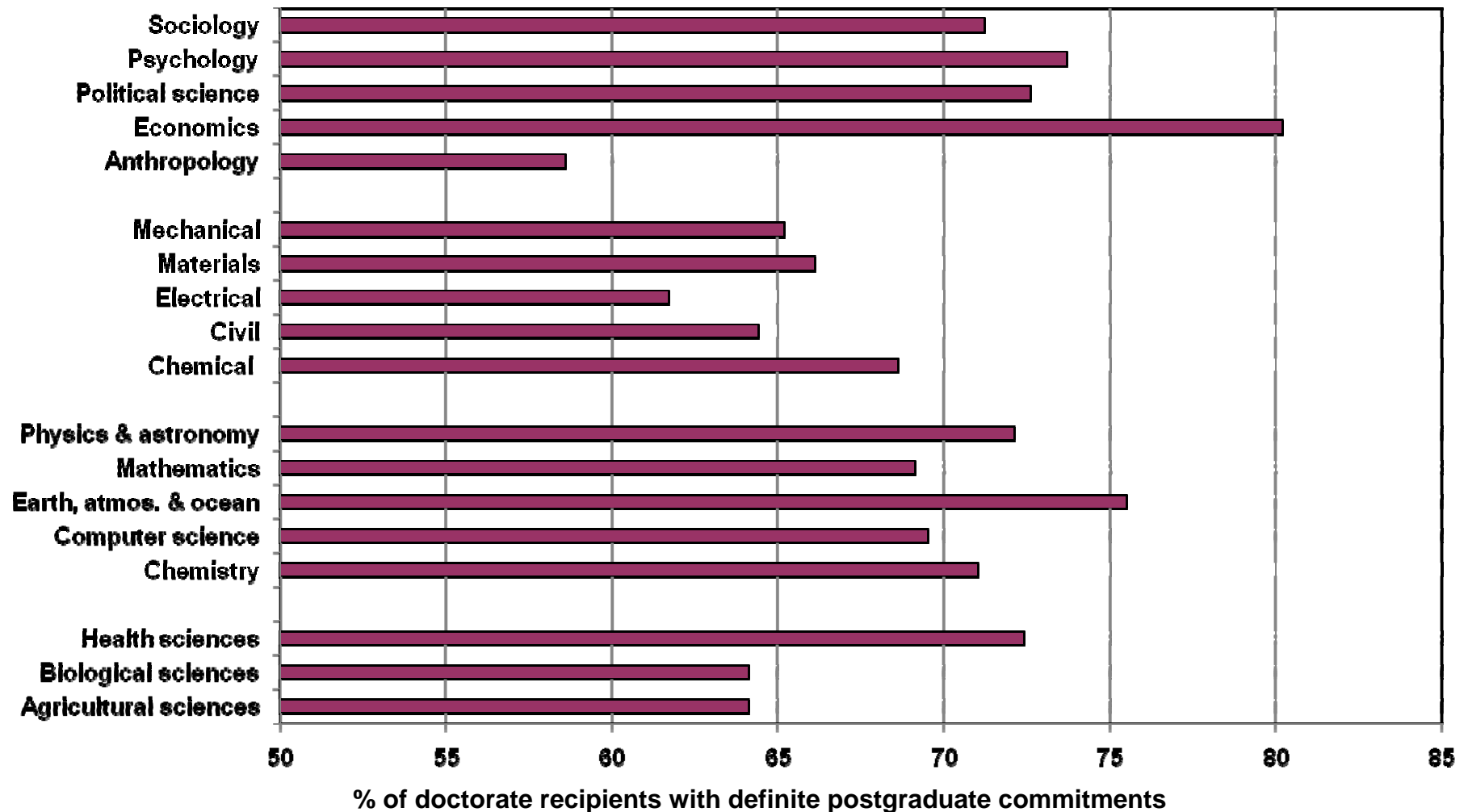
Definite postgraduation commitments, by broad field of study: selected years, 1988-2008



SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2008 Survey of Earned Doctorates.



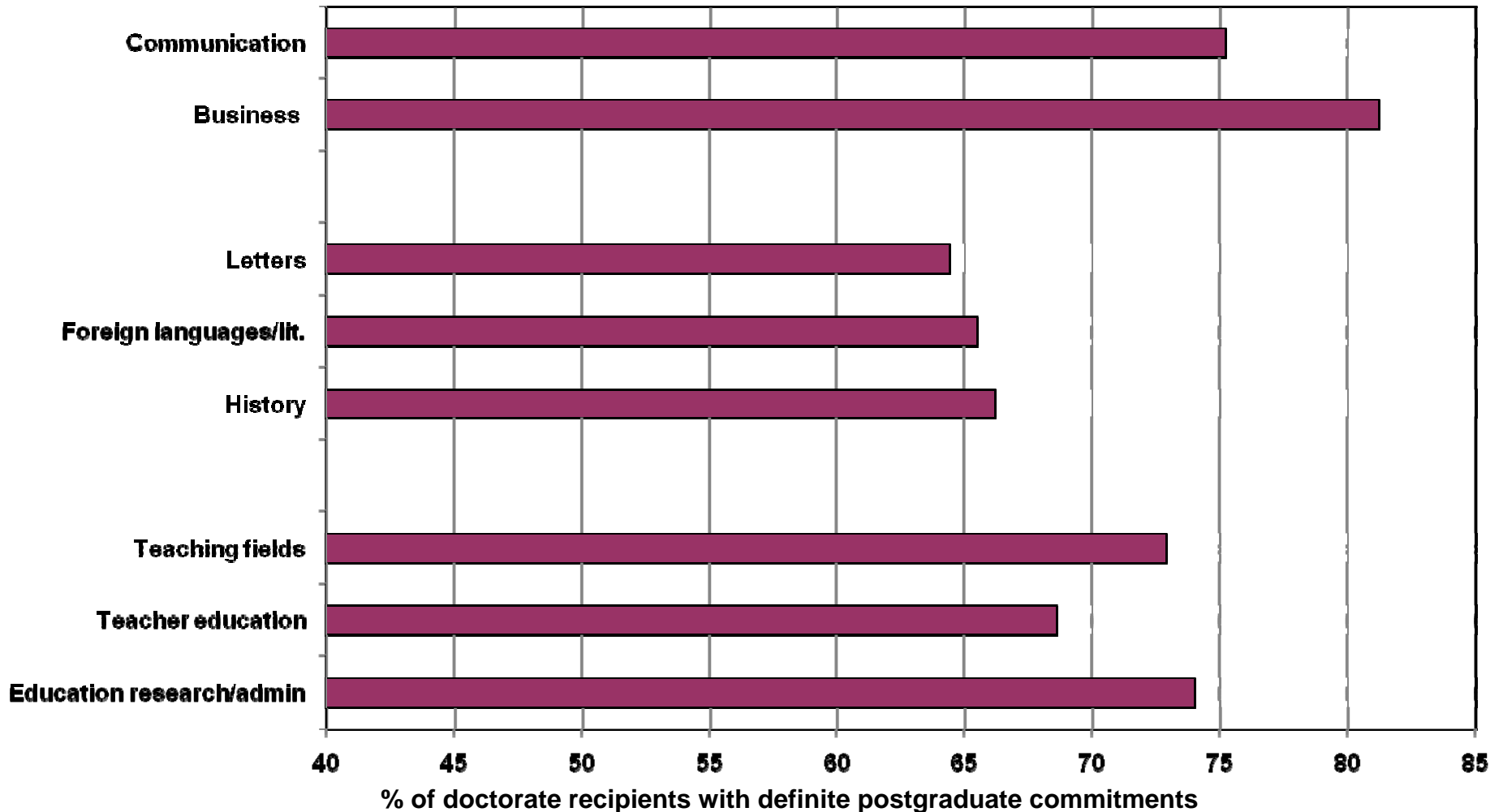
Definite commitments, by major field of study (S&E): 2008



SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2008 Survey of Earned Doctorates.



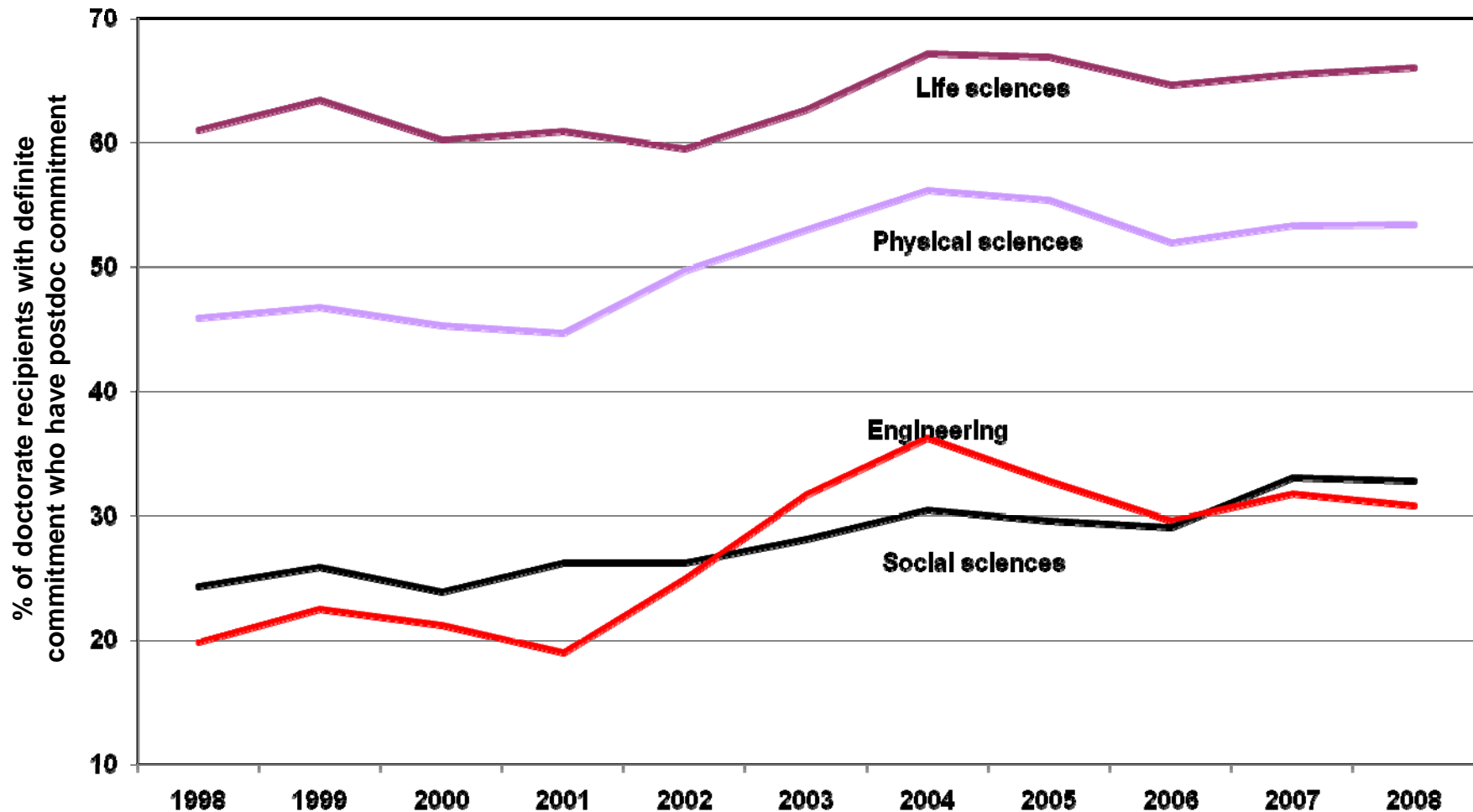
Definite commitments, by major field of study (non-S&E): 2008



SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2008 Survey of Earned Doctorates.



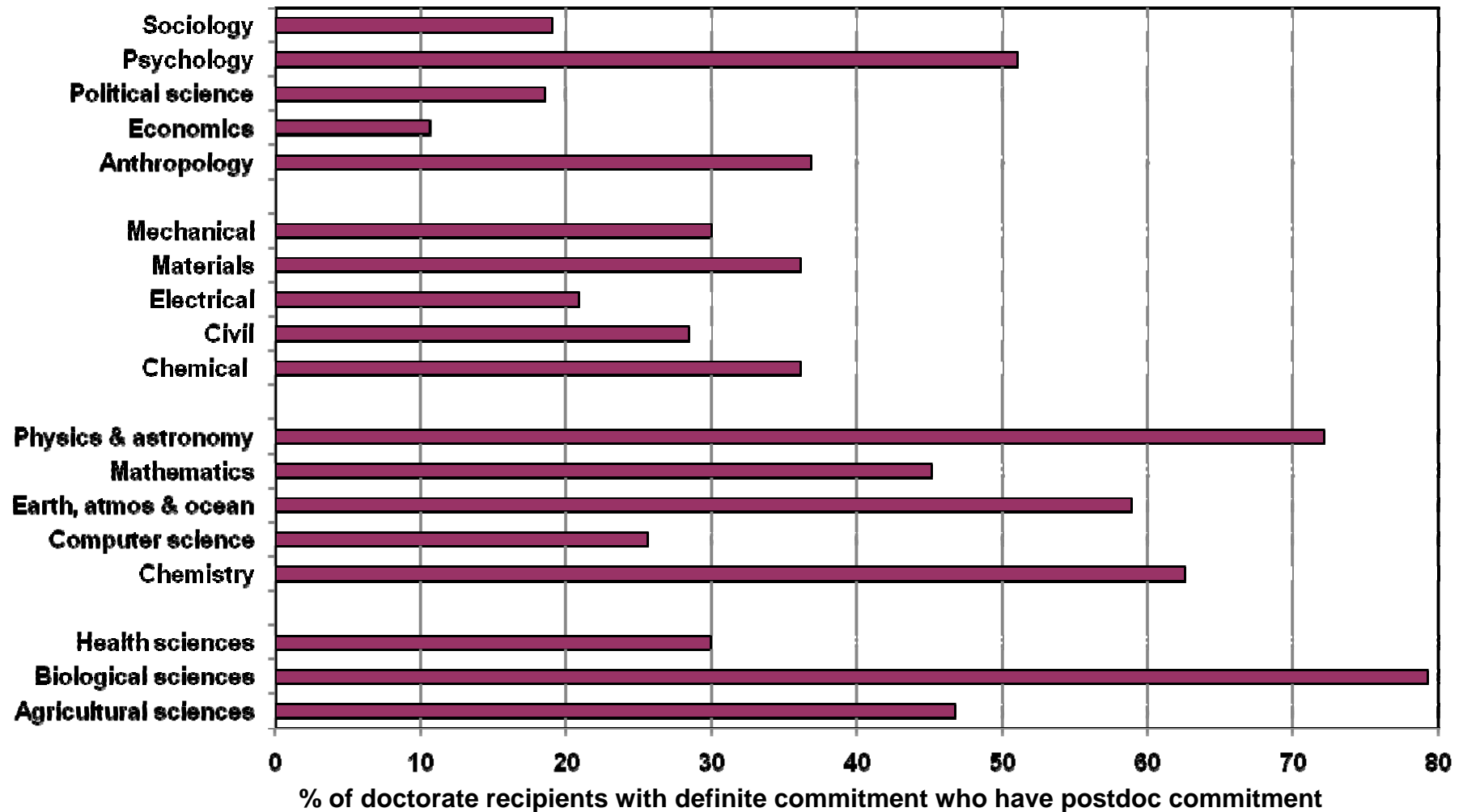
Definite commitments for postdoc, by broad field of study (S&E): 1998-2008



SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2008 Survey of Earned Doctorates.



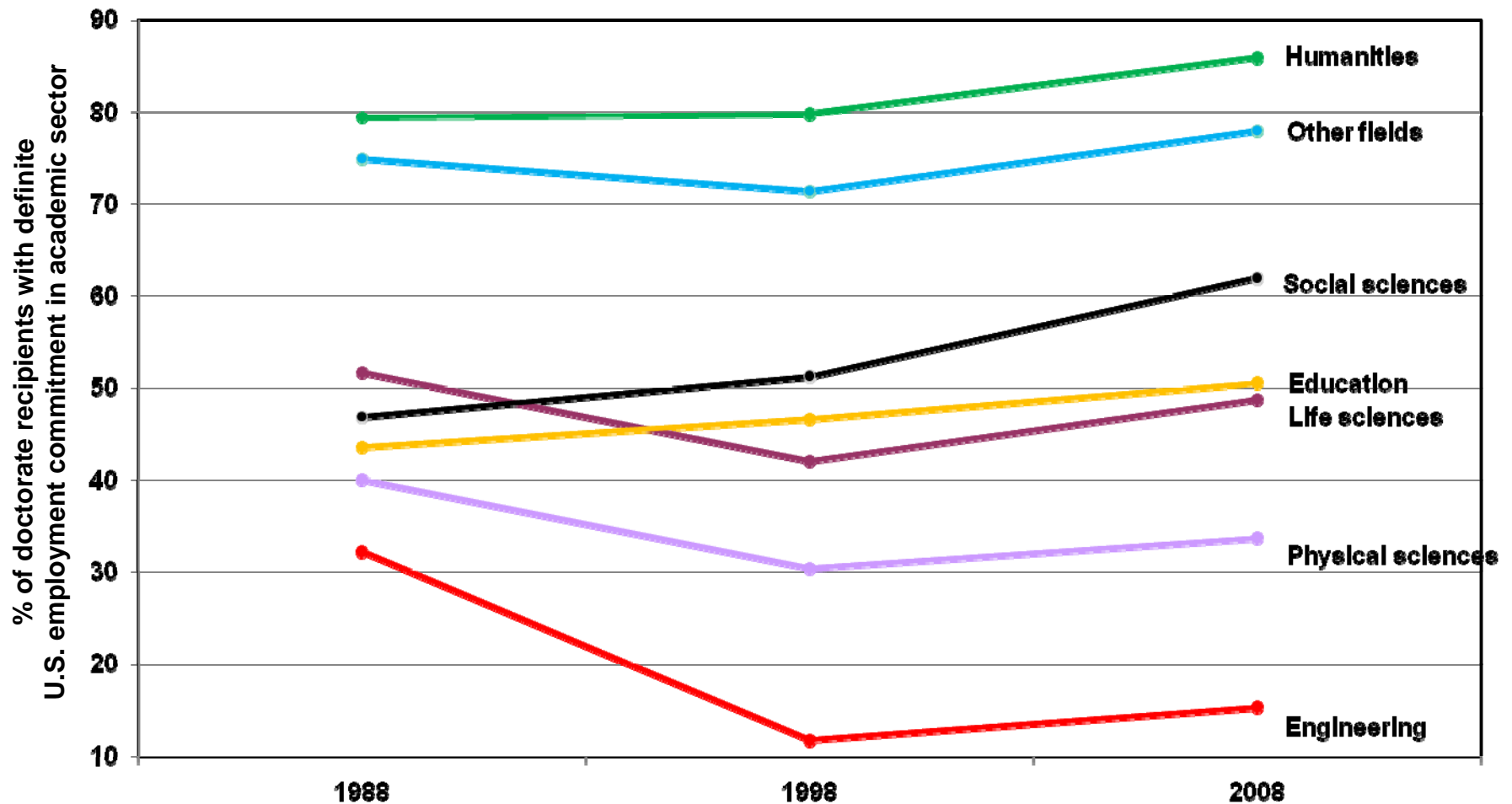
Definite commitments for postdoc, by major field of study (S&E): 2008



SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2008 Survey of Earned Doctorates.



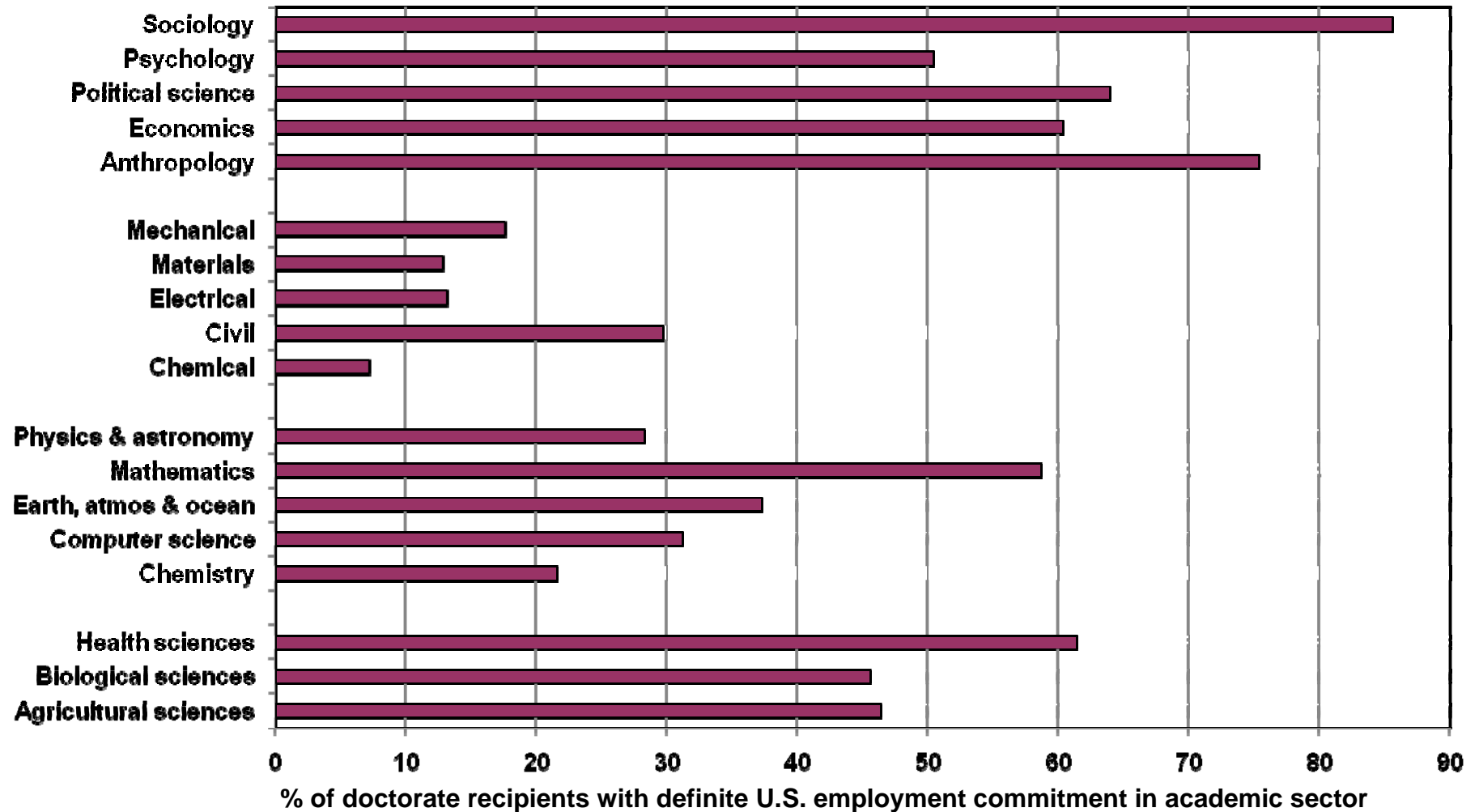
Definite commitments for U.S. employment in academe, by broad field of study (S&E): selected years, 1998-2008



SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2008 Survey of Earned Doctorates.



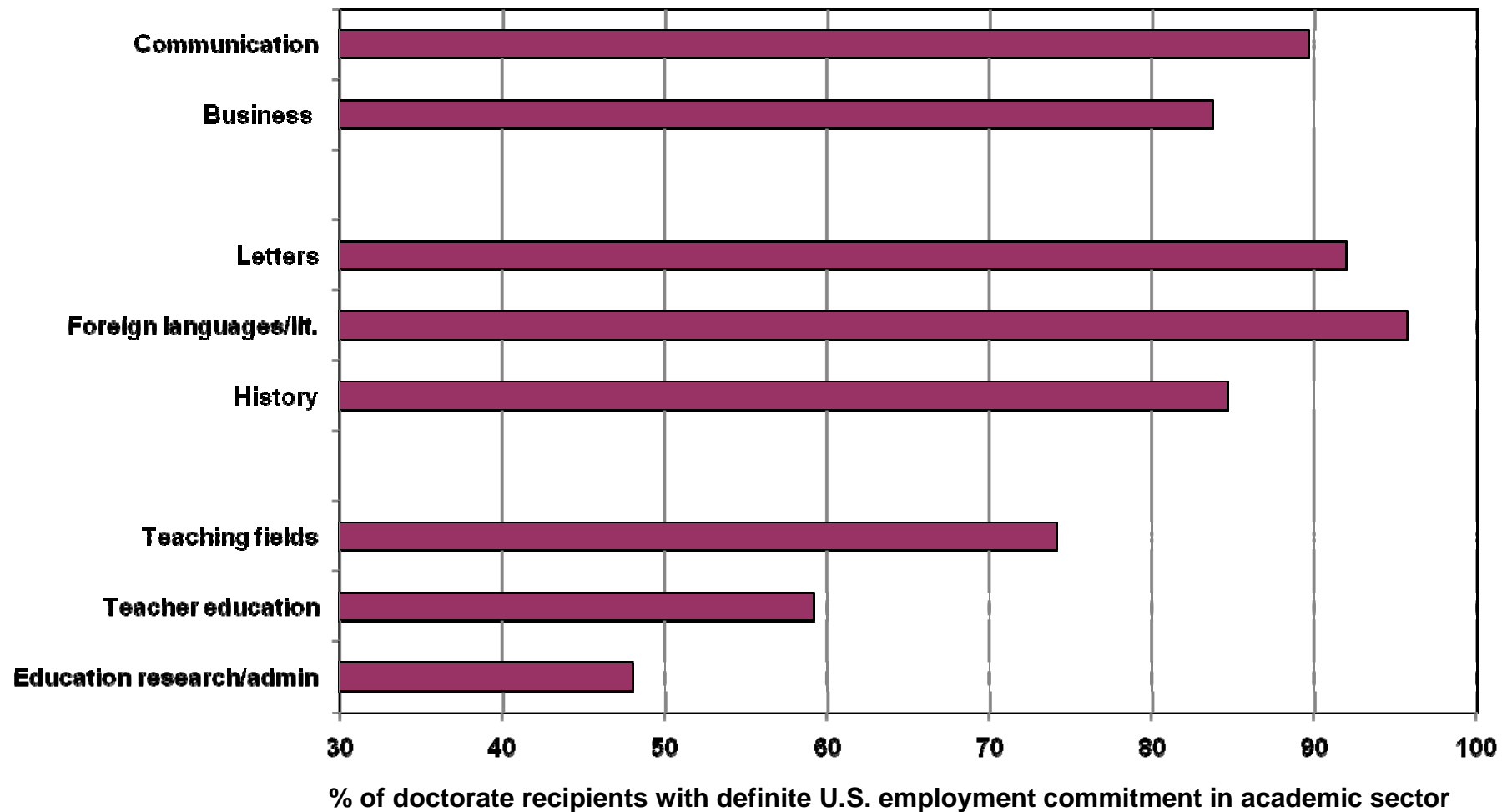
Definite commitments for U.S. employment in academe, by major field of study (S&E): 2008



SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2008 Survey of Earned Doctorates.



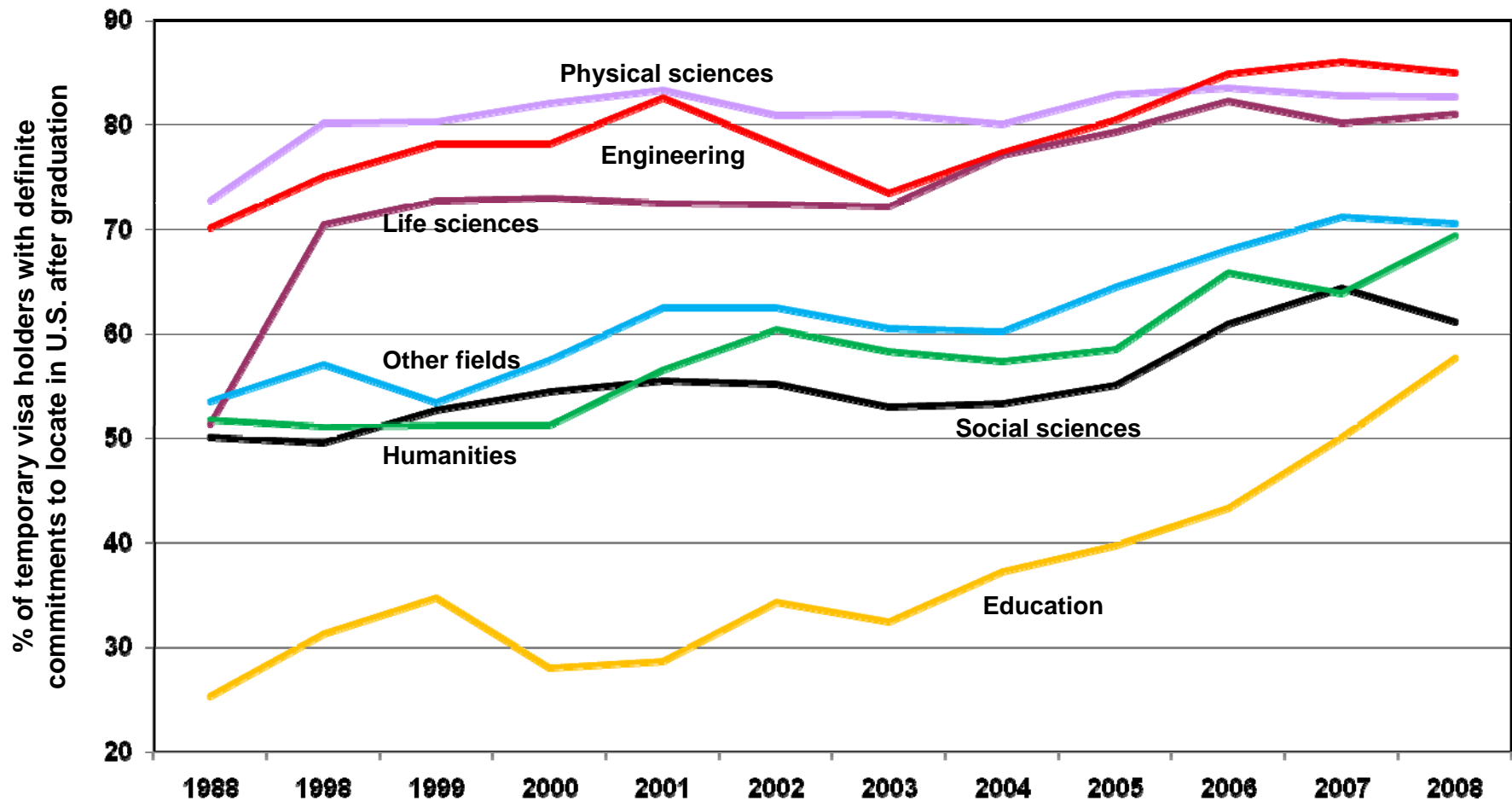
Definite commitments for U.S. employment in academe, by major field of study (non-S&E): 2008



SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2008 Survey of Earned Doctorates.



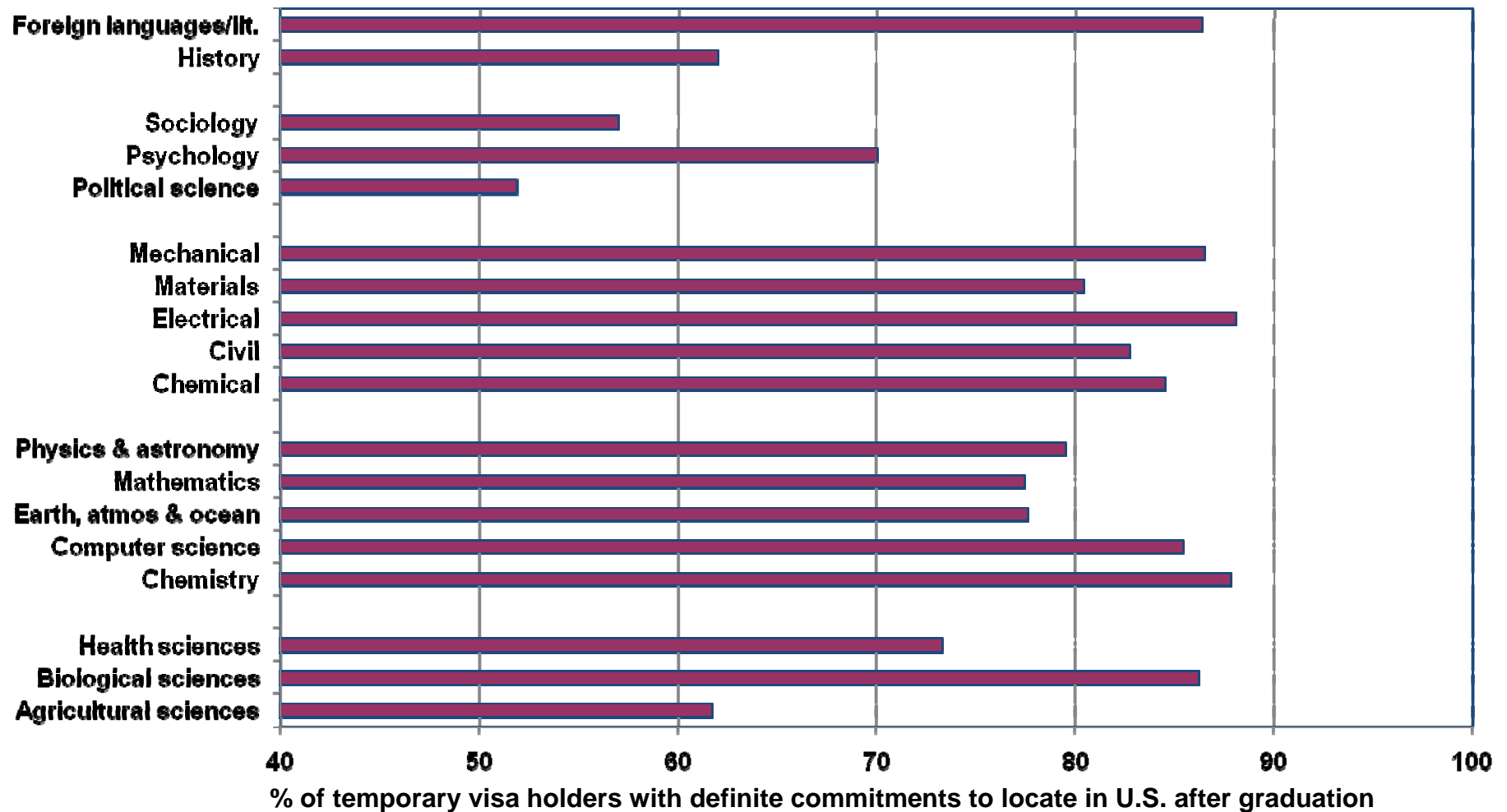
“Stay rate” of temporary visa holders with definite commitments, by broad field of study: 1988 and 1998-2008



SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2008 Survey of Earned Doctorates.



“Stay rate” of temporary visa holders with definite commitments, by major field of study: 2008



SOURCE: NSF/NIH/USED/NEH/USDA/NASA, 2008 Survey of Earned Doctorates.



Interim Summary #3

- **Declines in % of doctorate recipients with definite commitments in all broad fields in 2007**
 - **Further declines in 2008 in all but 2 broad fields**
- **Since 1998, an increasing share of S&E doctorate recipients with definite commitments are taking postdoc positions**
- **Since 1998, an increasing share of doctorate recipients (in all broad fields) with definite *employment commitments* are taking academic positions**
- **Increasing % of temporary visa holders – in all broad fields – have definite commitments to stay in U.S. after graduation**



Sample Table 1 for New Salary Item

SAMPLE TABLE 1. Salary of doctorate recipients with definite postgraduation employment commitments in the United States, by employment sector and broad field of study: 2008

Employment sector and salary and sector	Total	Life sciences	Physical sciences	Social sciences	Engineering	Education	Humanities	Other fields
Number								
All employment								
Academe	x,xxx	x,xxx	x,xxx	x,xxx	x,xxx	x,xxx	x,xxx	x,xxx
Industry/business	x,xxx	x,xxx	x,xxx	x,xxx	x,xxx	x,xxx	x,xxx	x,xxx
Government	x,xxx	x,xxx	x,xxx	x,xxx	x,xxx	x,xxx	x,xxx	x,xxx
Nonprofit	x,xxx	x,xxx	x,xxx	x,xxx	x,xxx	x,xxx	x,xxx	x,xxx
Percent								
Academe								
\$30,000 or less	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$30,001–\$35,000	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$35,001–\$40,000	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$40,001–\$50,000	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$50,001–\$60,000	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$60,001–\$70,000	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$70,001–\$80,000	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$80,001–\$90,000	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$90,001–\$100,000	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$100,001–\$110,000	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$110,001 or above	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Industry/business								
\$30,000 or less	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$30,001–\$35,000	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$35,001–\$40,000	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$40,001–\$50,000	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$50,001–\$60,000	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$60,001–\$70,000	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$70,001–\$80,000	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$80,001–\$90,000	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$90,001–\$100,000	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$100,001–\$110,000	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$110,001 or above	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0



Sample Table 2 for New Salary Item

SAMPLE TABLE 2. Salary of doctorate recipients with definite commitments for employment or postdoctoral study, by broad field of study: 2008								
Type of definite commitment	All fields	Life sciences	Physical sciences	Social sciences	Engineering	Education	Humanities	Other fields
	Number							
Type of definite Employment	x,xxx	x,xxx	x,xxx	x,xxx	x,xxx	x,xxx	x,xxx	x,xxx
Postdoctoral study	x,xxx	x,xxx	x,xxx	x,xxx	x,xxx	x,xxx	x,xxx	x,xxx
	Percent							
Employment								
\$30,000 or less	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$30,001–\$35,000	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$35,001–\$40,000	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$40,001–\$50,000	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$50,001–\$60,000	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$60,001–\$70,000	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$70,001–\$80,000	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$80,001–\$90,000	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$90,001–\$100,000	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$100,001–\$110,000	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$110,001 or above	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Postdoctoral study								
\$30,000 or less	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$30,001–\$35,000	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$35,001–\$40,000	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$40,001–\$50,000	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$50,001–\$60,000	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$60,001–\$70,000	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$70,001–\$80,000	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$80,001–\$90,000	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$90,001–\$100,000	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$100,001–\$110,000	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
\$110,001 or above	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x	xx.x
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0



For further information on the SED:

- **Doctorate Recipients from U.S. Universities:
Summary Report 2007-08**
<http://www.nsf.gov/statistics/nsf10309/>