What Does the Future of the Scientific Labor Market Look Like?

Looking Back and Looking Forward

by

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Introduction

In the last 20 years we have witnessed remarkable changes in both our workforce and in scientific advancements and discoveries.

- In the past 20 years our native born workforce increased 44%.[1]
- There was a 19% increase in our post high school educated workforce.
- In the next 20 years, our native born workforce will hold steady or decline.
- The post high school educated workforce will increase by no more than 4%.
- By far the greatest expansion in the working sector will be in quantitative and IT oriented jobs that will require at least a bachelor's degree.[2]
- In the year 2000, according to the U.S. Census, 75.1% of respondents identified themselves as White. This is down from 80.3% who identified as White, non-Hispanic in 1990 and 83.1 percent in 1980. So clearly the white population is declining in the U.S.
- Minorities – African Americans, Hispanic Americans, Asian Americans, and American Indians – all gained in population over this same 20-year period.
- Minority children account for 98% of the increase in the under-18 population in the United States.[3]

Yet, minorities and women are underserved by our educational system in terms of gaining scientific and quantitative literacy. In 1997, white men made up 69% of our scientific and engineering workforce; White women (50% of the white population) only 15%. Asians (approx 3% of the population) made up 10%. Other minority groups (African Americans 12% of the population, Hispanics 10%, and Native Americans less than 1% of the population) combined made up only 6% of the S&E workforce (increasing to 7% by 1999).

At the same time, the work of the S&E workforce has changed, as have the avenues to success in that workforce. In this report we will present statistics that outline these changes. Some present a rather negative picture of the future of the scientific workforce. Some give a certain amount of hope, although limited.

We have been especially distressed to hear senior academic scientists state that they personally have begun to discourage their students from choosing scientific careers in academia or research because of the difficulties faced by those choosing that career path in the current S&E climate.

I. Educational Trends

A. Enrollment Trends at the Baccalaureate Level

Educational and enrollment trends at all levels of postsecondary education have changed dramatically over the last 20-30 years.

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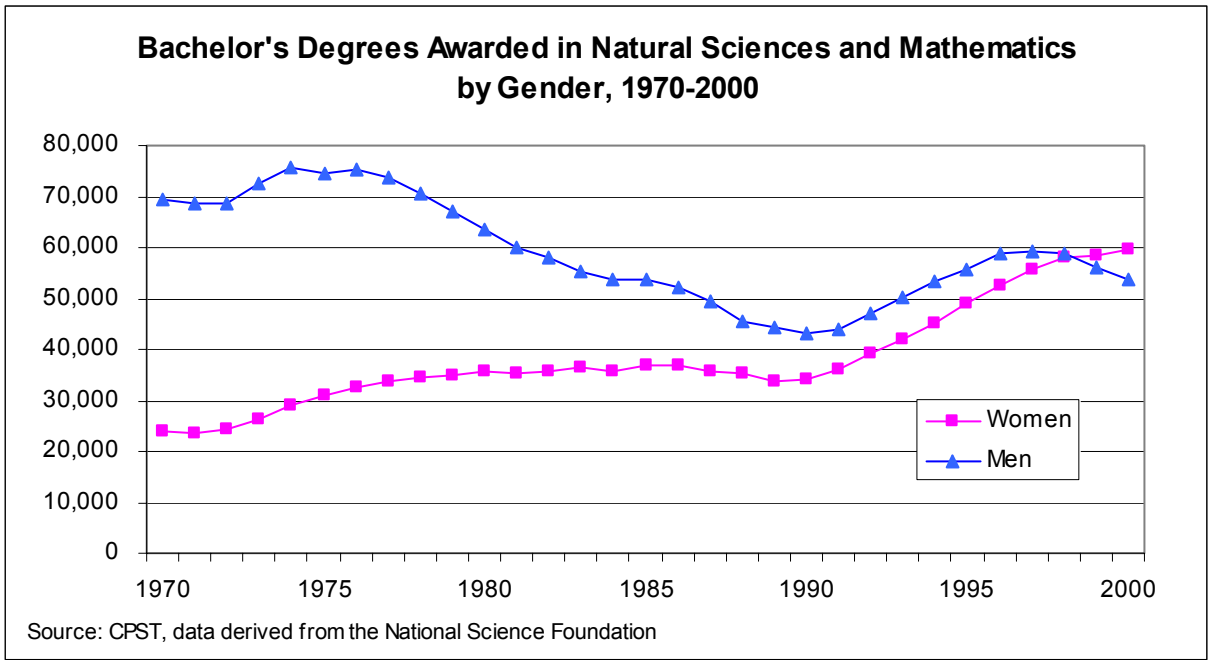
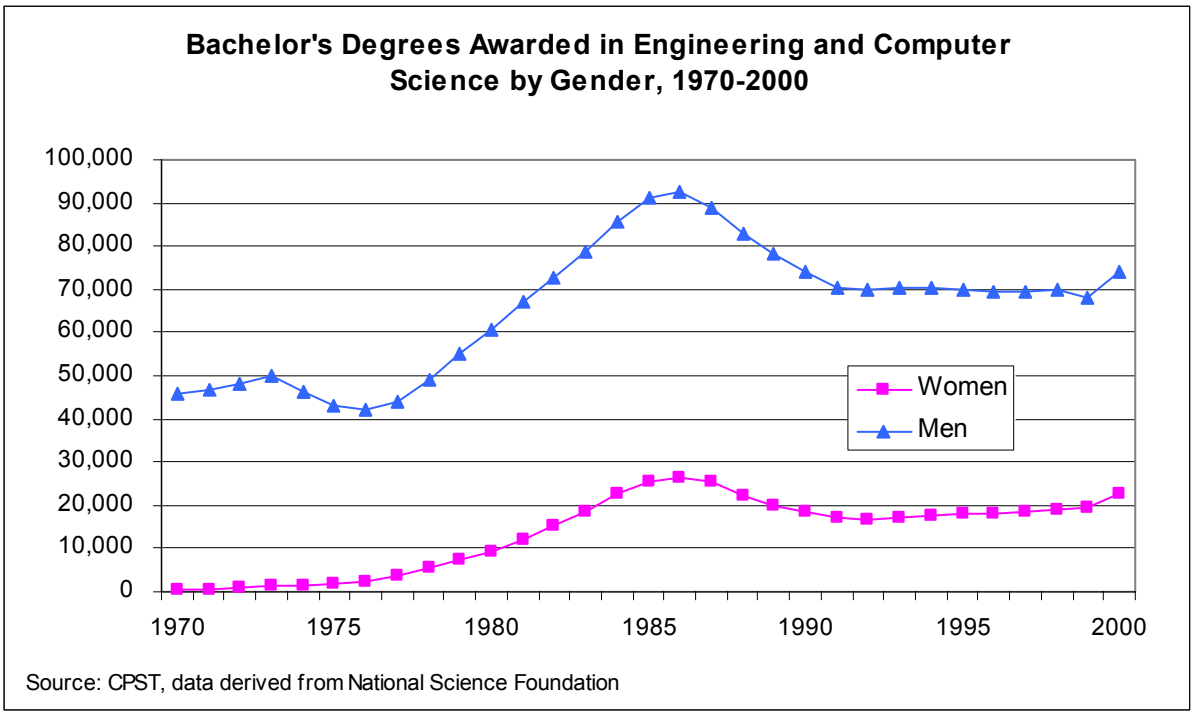
[1] *"Grow Faster Together. Or Grow Slowly Apart. How Will America Work in the 21st Century?"* The Aspen Institute Domestic Strategy Group, 2002.
[2] U.S. Dept. of Labor, 2002-2003 Occupational Outlook Handbook, http://stats.bls.gov/news.release/ooh.t01.htm.
[3] O'Hare, W. P. "The Child Population: First Data from the 2000 Census." The Annie E. Casey Foundation, 2001.

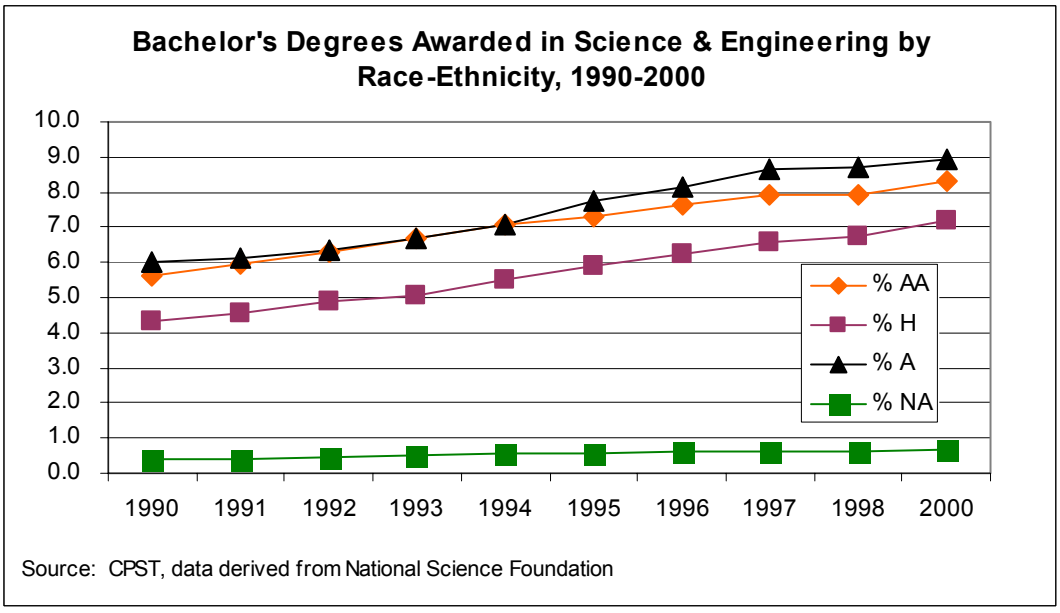
In 1999, women earned more natural science and mathematics bachelor's degrees than men for the first time and even increased their majority in 2000. It is the biological sciences that push the women above the men. Women surpassed men in the biological sciences in 1996, and earned 56% of the bachelor's degrees in 2000. In the mathematical sciences women and men earned a comparable number of the bachelor's degrees in 2000. But in the physical sciences (chemistry, physics and all the environmental sciences) women earned only 41% of the bachelor's degrees awarded in 2000. Women are making great strides in chemistry but are still doing poorly in physics and the environmental sciences. It is important to note that in the last half of the 1990s, while the number of bachelor's degrees earned by women in the natural sciences and mathematics continued to increase, the number earned by men decreased.



The picture in engineering and computer science is dramatically different, however. Women earned less than a quarter of the degrees in computer science and engineering in 2000, and enrollment trends do not foresee much progress. For example, undergraduate engineering enrollment data from the Engineering Workforce Commission find that the proportion of first-year women undergraduates in engineering has been dropping over the past five years – from 1996 when they comprised 19.9% to 2001 when they represented 18.3%. Again, data from the from the most recent Taulbee Survey (conducted by the Computing Research Association) indicate that despite the double digit increases in computer science/computer engineering baccalaureate production in 2000 and 2001, the total number of new undergraduates enrolled actually dropped slightly (about 1%) in 2001. These two enrollment indicators do not provide much hope that women will make much progress in narrowing the gap in degree production in engineering and computer science at the baccalaureate level.



Bachelor's degrees in S&E awarded to minorities in the last 10 years have increased steadily, but only Asians earn more S&E degrees than their representation in the population at large. When the social sciences and psychology are taken out of the picture, African Americans, Hispanic Americans and Native Americans receive an even smaller percentage of the bachelor's degrees awarded than their representation in the population at large. Interestingly, minority women outnumber minority men in earning bachelor's degrees. Among African Americans, women outnumber men by almost 2 to 1; for Hispanics and Native Americans women outnumber men 3 to 2.

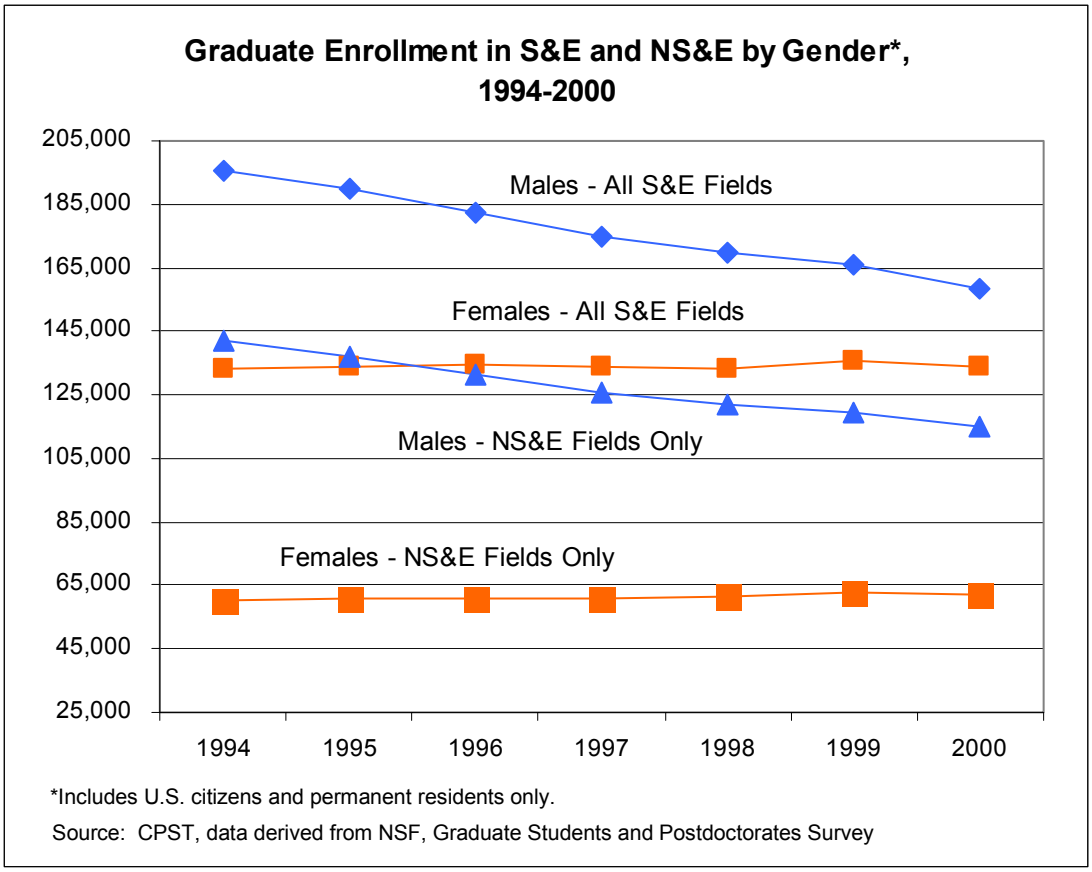


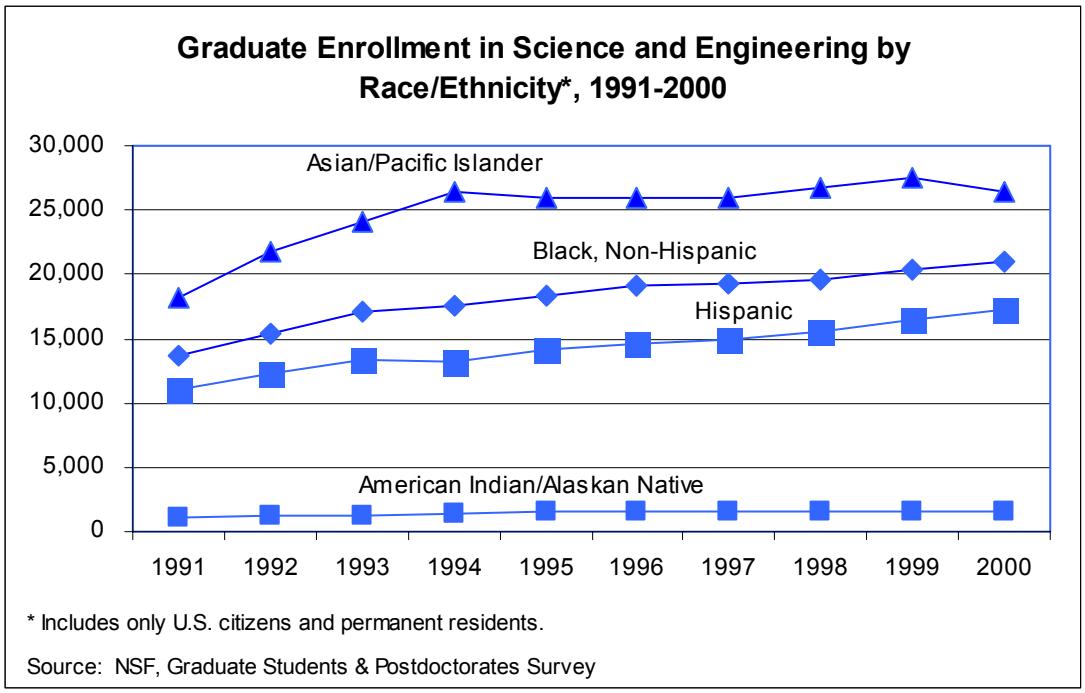
B. Enrollment Trends at the Graduate Level

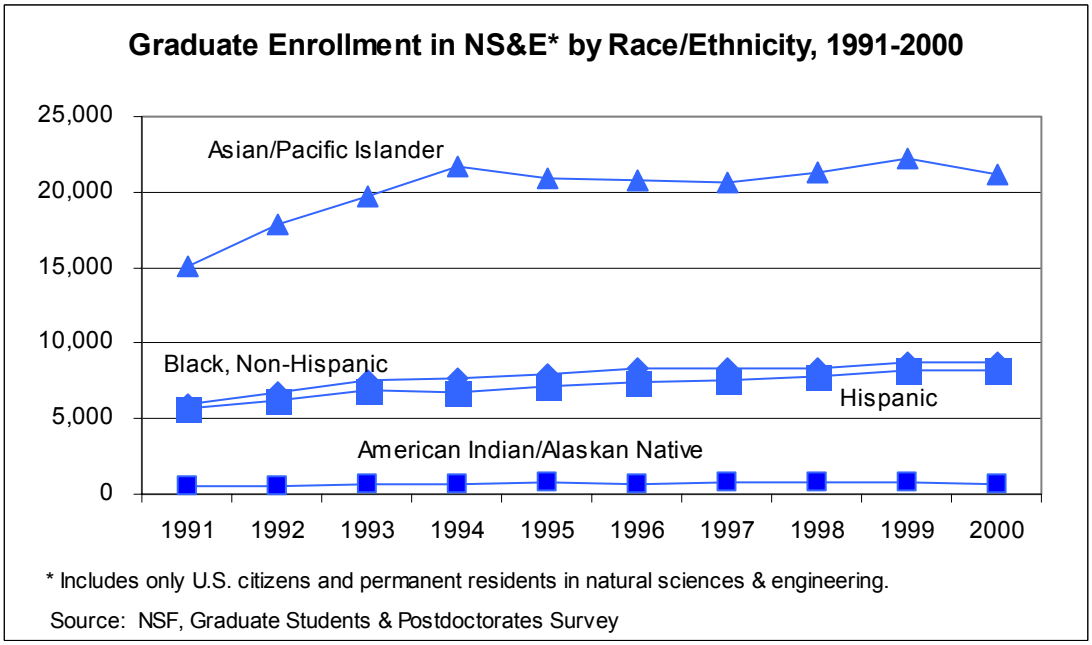
At the graduate level, the picture changes dramatically. The gap between women and men has decreased, but mostly because fewer men are enrolling in graduate school. Women's enrollment has remained steady or increased slightly in all S&E fields. When the social sciences and psychology are taken out, the gap between men's and women's enrollments in graduate education increases substantially, although the decline in men's enrollment is still evident. Women do outnumber men in graduate enrollments in some of the biological sciences, psychology (by more than 2 to 1), some of the social sciences (especially anthropology) and in all of the health fields.

Enrollment of minorities in science and engineering has increased over the last 10 years, although graduate enrollment of minorities in natural science and engineering shows a sizable gap between Asians and other minority groups. The numbers of African Americans, Hispanic Americans and Native Americans are extraordinarily low in the physical sciences, engineering and computer science fields.

Graduate enrollment broken out by gender and race/ethnicity is shown in the following three graphs.




Graduate Enrollment in Science and Engineering by Race/Ethnicity*, 1991-2000
30,000
25,000
20,000
15,000
10,000
5,000
0
Asian/Pacific Islander
Black, Non-Hispanic
Hispanic
American Indian/Alaskan Native
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
* Includes only U.S. citizens and permanent residents.
Source: NSF, Graduate Students & Postdoctorates Survey


Graduate Enrollment in NS&E* by Race/Ethnicity, 1991-2000
25,000
20,000
15,000
10,000
5,000
0
Asian/Pacific Islander
Black, Non-Hispanic
Hispanic
American Indian/Alaskan Native
1991
1992
1993
1994
1995
1996
1997
1998
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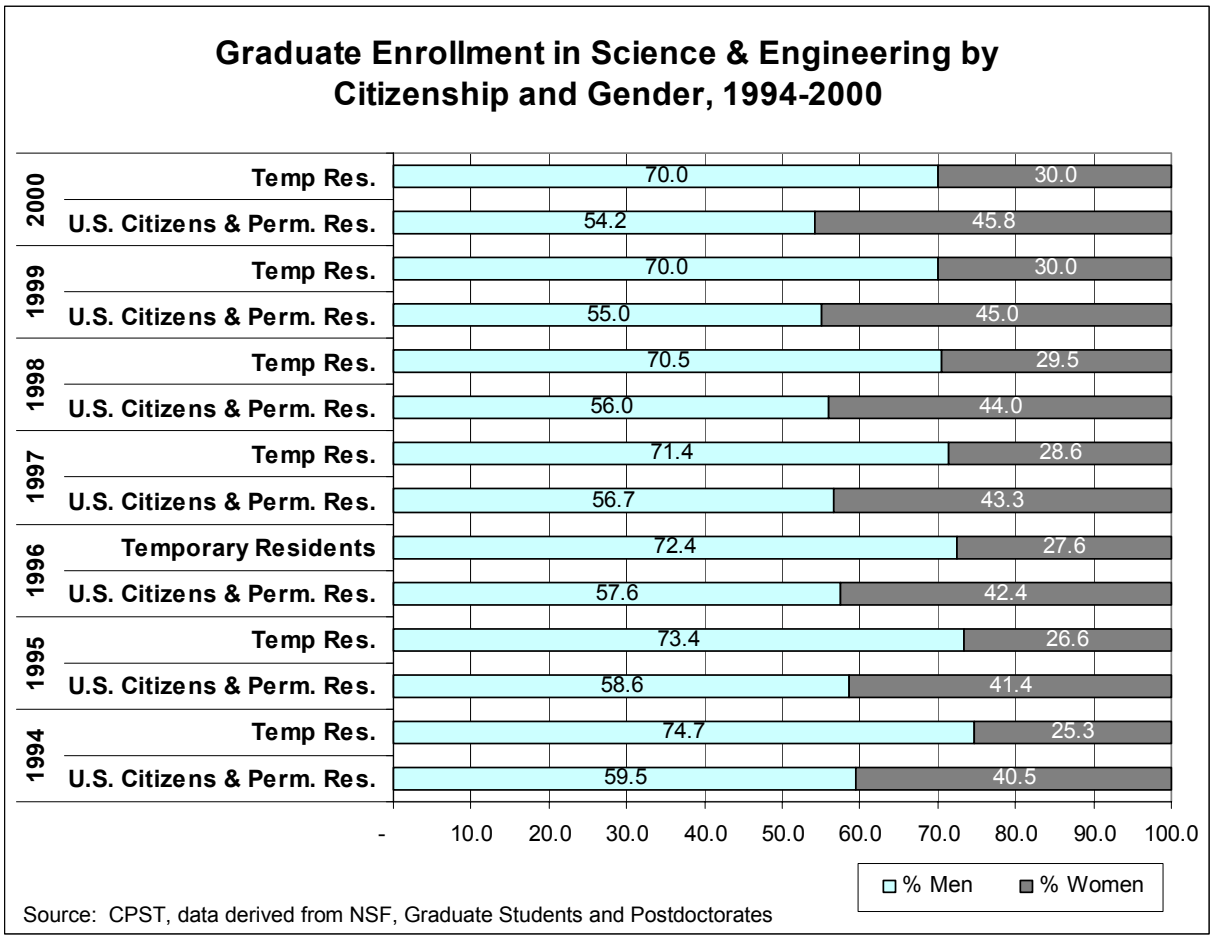
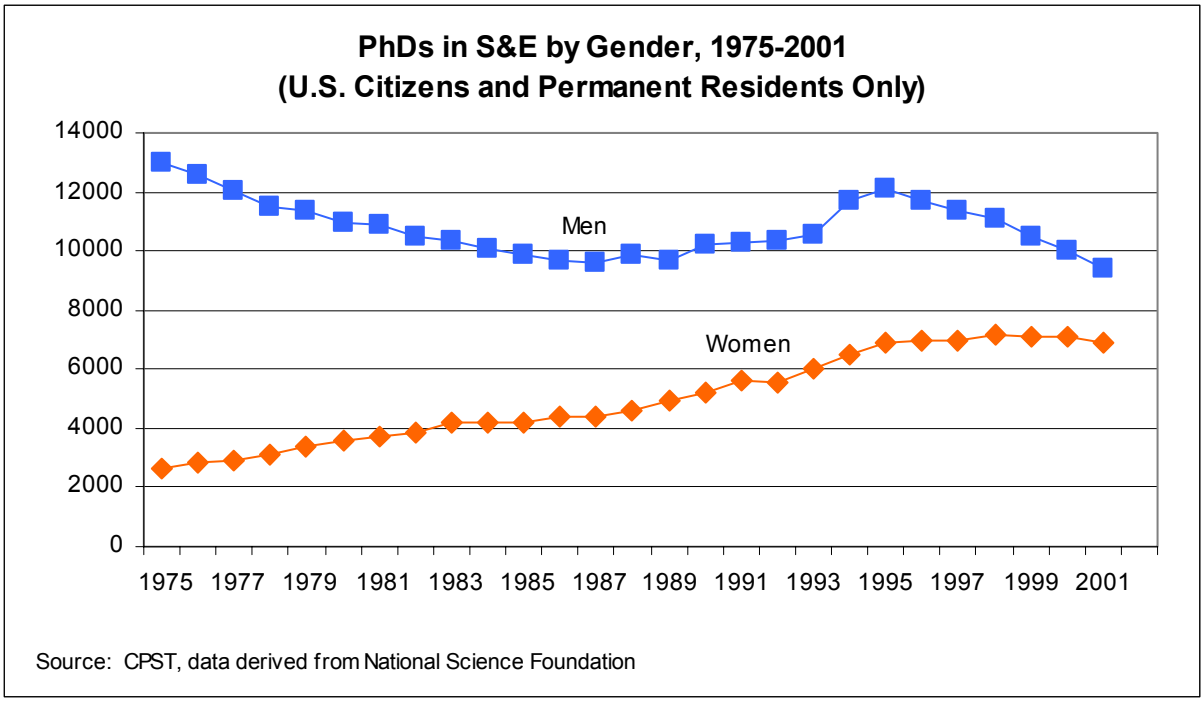
* Includes only U.S. citizens and permanent residents in natural sciences & engineering.
Source: NSF, Graduate Students & Postdoctorates Survey

C. Graduate Enrollment by Citizenship

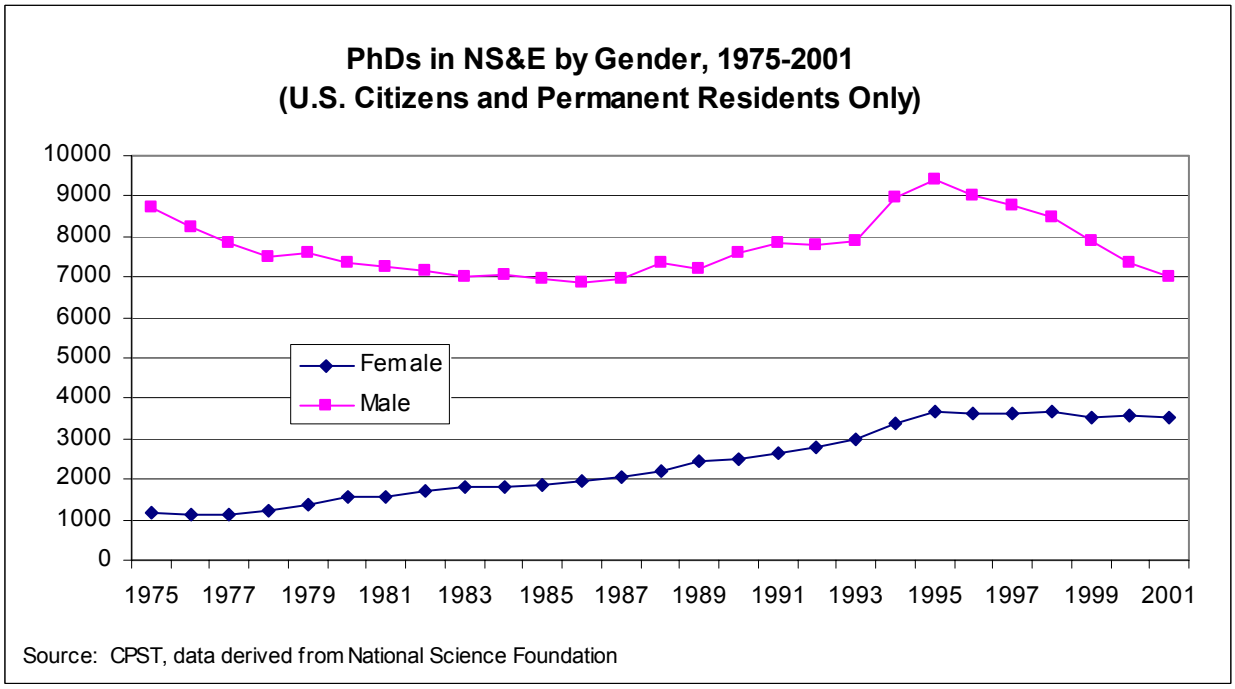


Non-US citizens with temporary visas make up an increasing number of graduate enrollments in S&E fields. In 1991, temporary visa holders made up 33% of S&E graduate enrollees. By 2000, temporary visa holders made up 36%. The largest percentages of temporary visa holders were in the physical sciences, mathematical sciences, computer sciences (more than half), and engineering (also more than half).

Women are earning an increasing number of PhDs in S&E fields as shown in the graph on the following page. By 2001, women earned over 42% of the S&E doctorates awarded, up from almost 17% 25 years earlier. Part of the proportional increase for women is attributable to the decline in PhDs awarded to men.

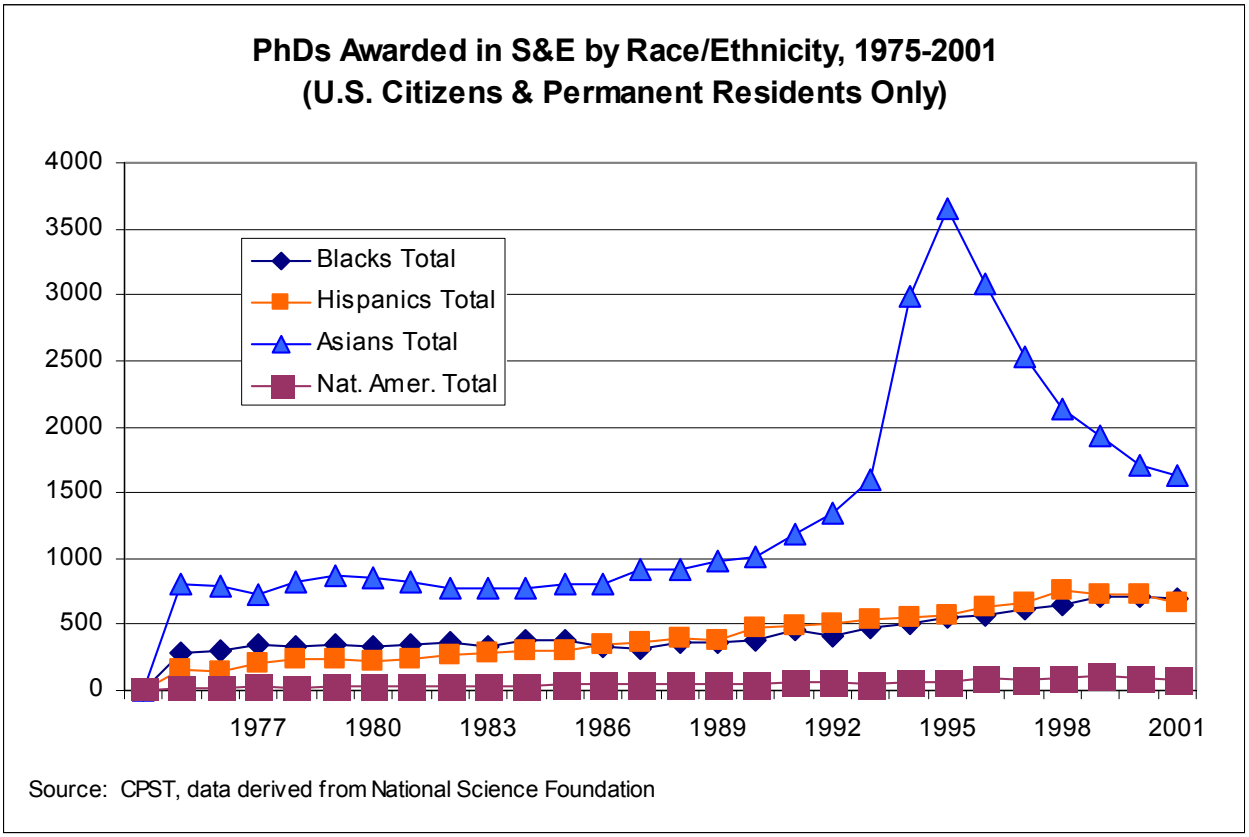


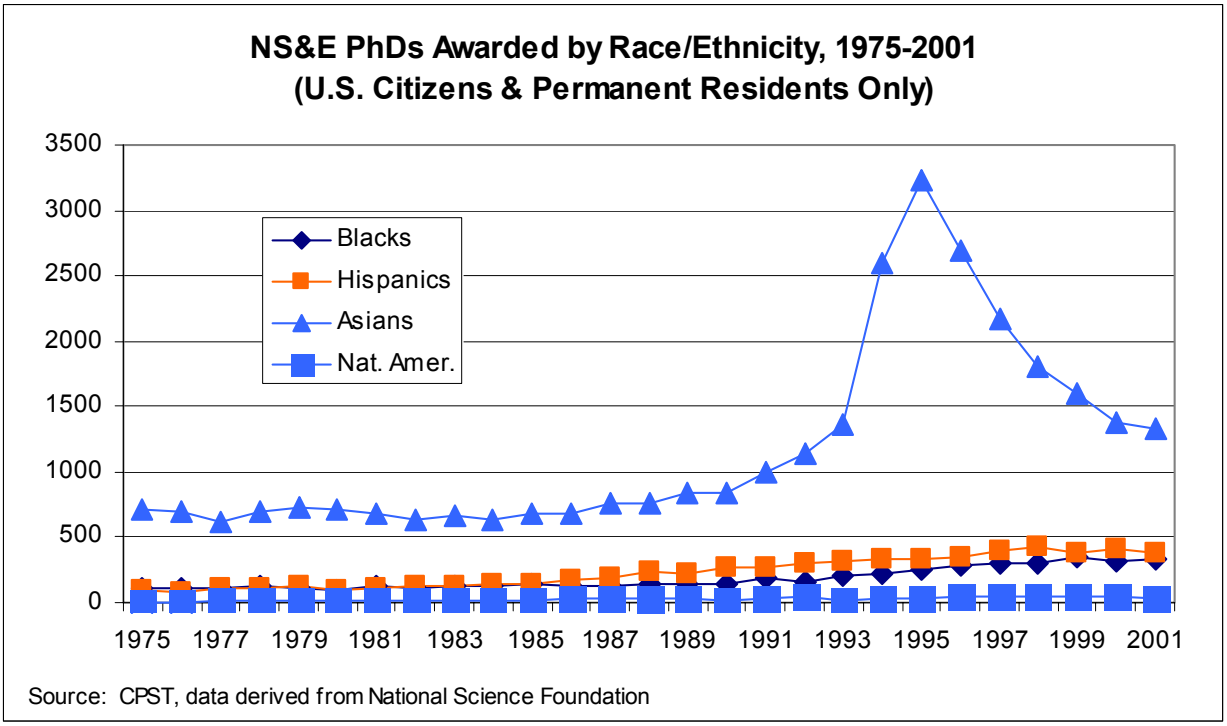
But when the social sciences and psychology are filtered out of the picture, the gap between male and female PhDs is substantially wider as shown in the following graph. For example, in the natural sciences and engineering, women increased their proportion of doctorates awarded from about 12% in 1975 to more than a third (33.6%) 25 yeas later in 2001. Again, some of the gap between male and female PhDs was due to the decline in the number of doctorates earned by men.



Doctorate awards to minorities in science and engineering have increased somewhat over the last 20 years. Looking only at U.S. citizens and permanent residents, the proportion of PhDs earned by underrepresented minorities tripled from 3% to 9% in the period from 1975-2001.

However, in the natural sciences and engineering, the numbers are fairly flat. The spike in the Asian numbers in 1996 in both of the graphs reflects the change in status for Chinese students in the U.S. at the time of the Tiannamen Square massacres when all Chinese students in the U.S. became permanent residents.





The percentage of non-U.S. Citizens with temporary visas receiving S&E doctorates from U.S. universities is not necessarily problematic, if those doctoral degree recipients stay in the U.S. and join our S&E workforce. The percentage of non-U.S. citizens with temporary visas receiving doctorates in S&E in 1997 and who were still in the U.S. in 1999 was 63% for all S&E fields with a high of 81% in computer and electrical engineering and a low of 34% in economics.

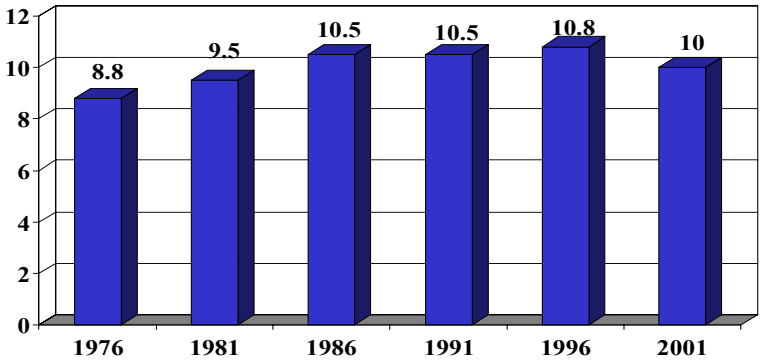
Non-U.S. Citizens with Temporary Viasa Receiving S/E Doctorates from U.S. Universities in 1997 Who Were in the United States, by Degree Field, 1998 to 1999

Degree Field	Foreign PhD Recipients	Percent in the U. S.	
		1998	1999
Physical Sciences	1,232	74	73
Mathematics	416	68	66
Computer Science	315	74	73
Agricultural Science	351	48	46
Life Sciences	1,283	71	69
Computer/EE Eng.	649	82	81
Other Engineering	1,746	63	60
Economics	449	35	34
Other Social Sciences	500	39	37
Total, All S/E Fields	**6,941**	**65**	**63**

Source: CPST, data derived from Oak Ridge Associated Universities

One disturbing trend is that it is taking longer and longer for PhD candidates to finish their degree. Since 1976 the time it takes for a PhD candidate to finish their doctorate has climbed from 8.8 years to a high of 10.8 years in 1996 to 10 years in 2001 as shown in the following graph.

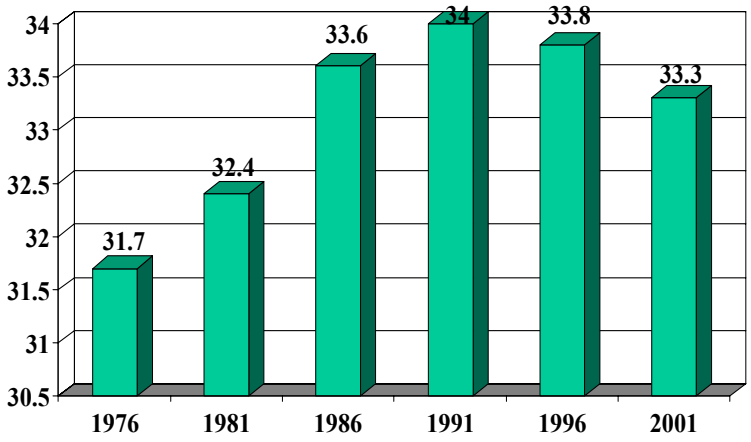
Median number of years from Baccalaureate to Doctorate, 1976-2001



Source: NORC. (2002) Doctorate Recipients from United States Universities: Summary Report 2001. Chicago: University of Chicago.

The average age of PhD recipients has also gone up from 31.7 years old in 1976 to a high of 34 years old in 1991 and 33.3 years old in 2001. This means that PhD recipients are still in school through an increasing amount of their prime economic productive years, and this is not including postdoc work after the doctorate.

Median Age at Doctorate, 1976-2001

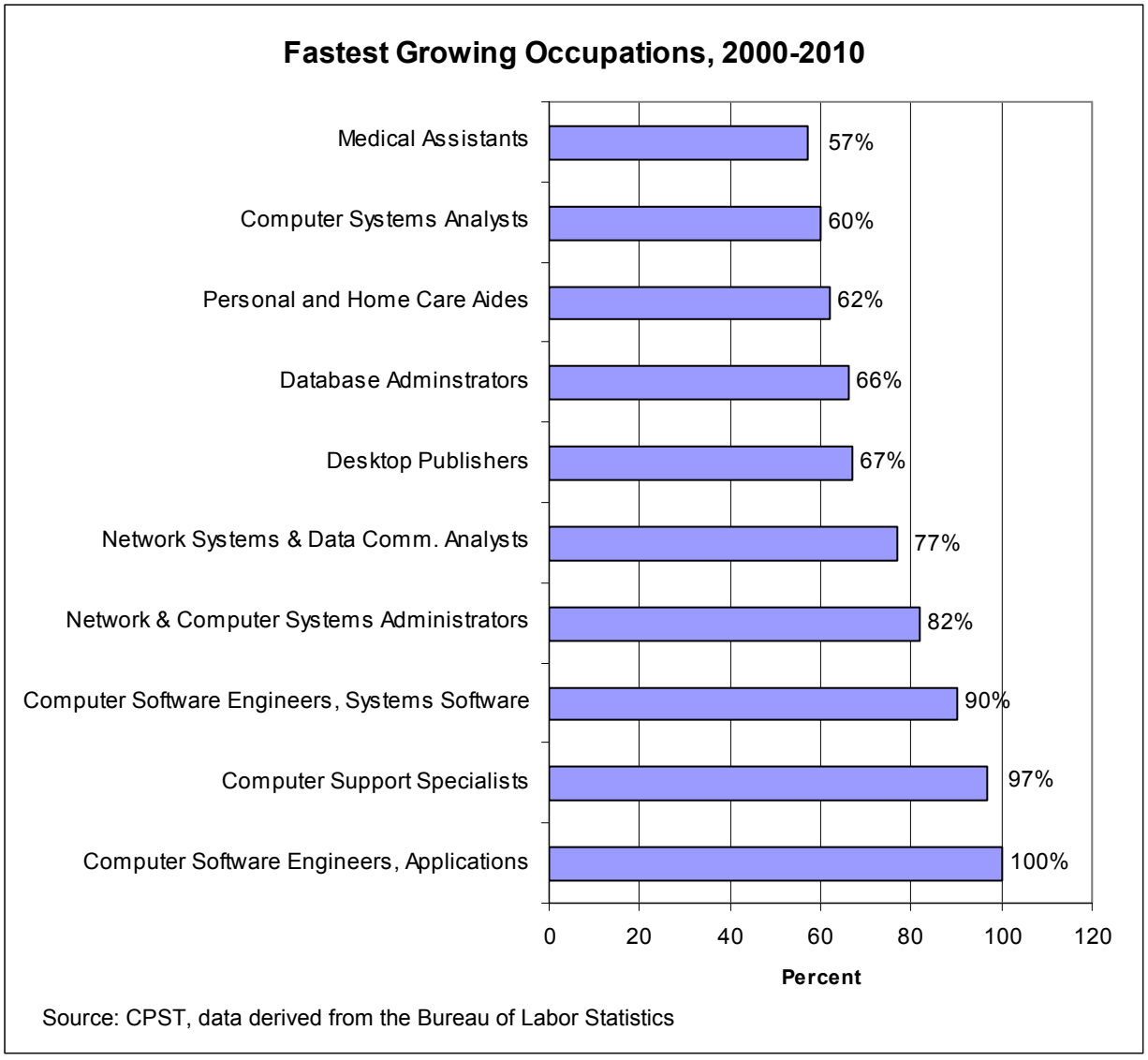


Source: NORC. (2002) Doctorate Recipients from United States Universities: Summary Report 2001. Chicago: University of Chicago.

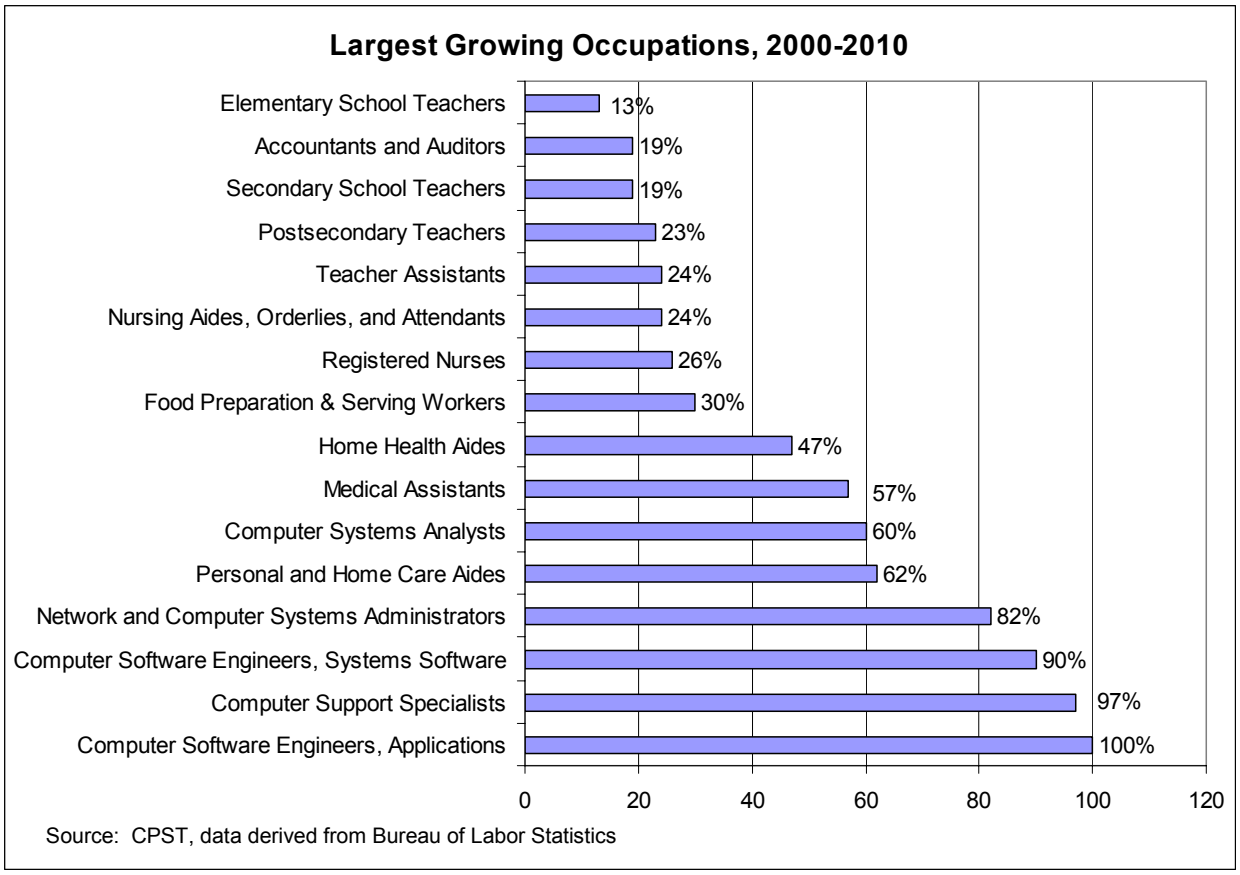
II. Employment Trends

A. Occupation Trends

As indicated earlier, eight of the top 10 (including the top 7) fastest growing occupations in the U.S. projected from 2000-2010 are in the computer and technical fields, most requiring at least a bachelor's degree. Computer software engineers will grow at a rate of 100%. The other two fastest growing occupations are in health related fields.



The top four largest growing occupations are also computer related, including computer software engineers, computer support specialists, and network and computer systems administrators as shown in the graph on the following page.



B. Activity Trends

The S&T workforce is increasingly busy with managing and supervising and computer applications. Less than 15% of the S&T workforce indicated that basic research is a major part of the typical workweek's activities.

Work Activities of the S&T Workforce, 1999

Activity	Percent Identifying Activity*	Activity	Percent Identifying Activity*
Managing & Supervising	53%	Teaching	25%
Computer Applications	38%	Design	22%
Employee Relations	36%	Applied Research	22%
Sales	34%	Development	21%
Accounting, Finance	31%	Basic Research	14%
Professional Services	31%	Production, Operations	9%
Quality/Productivity Mgmt.	25%	Other	6%

* Taking at least 10% of typical work week
Source: CPST, data derived from National Science Foundation

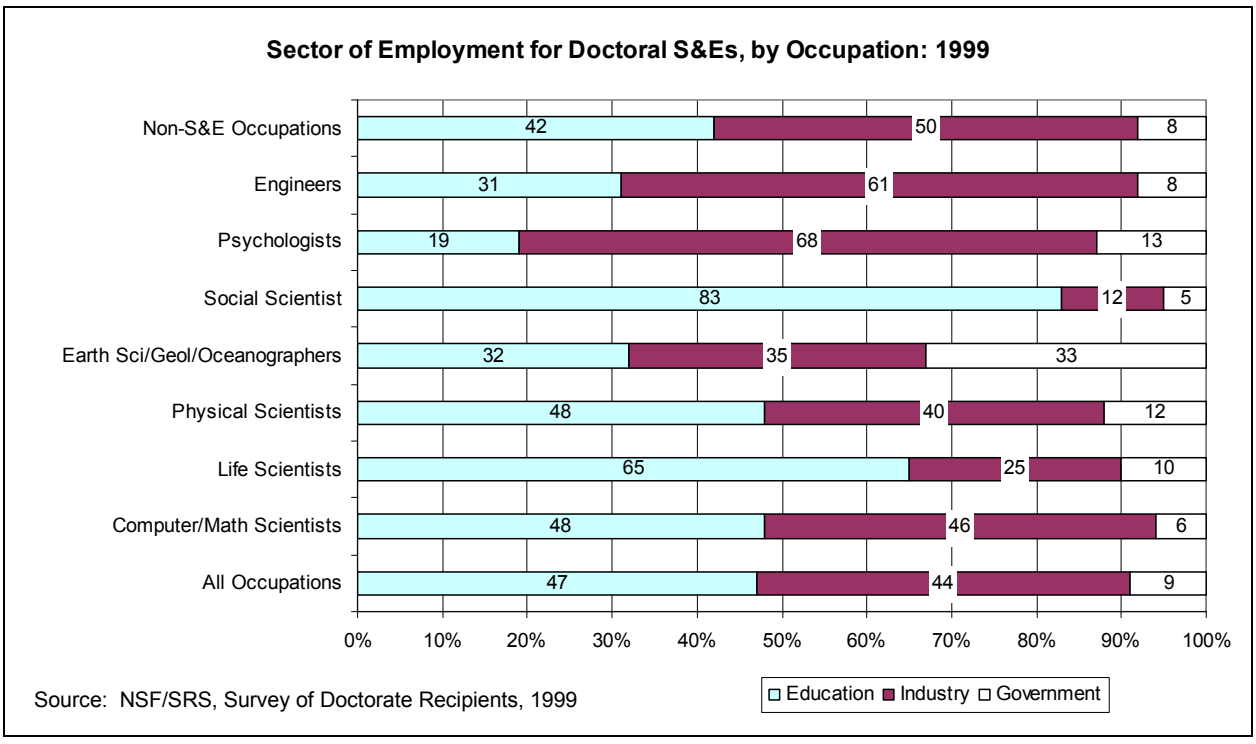
Scientists and engineers, regardless of S&E occupation, are more likely to be employed in business and industry than any other sector as shown in the following table.

Employed U.S. Scientists and Engineers by Sector of Employment, 1999

Occupations	Number	Sector of Employment		
		Business/ Industry	Educational Institutions	Government
All Occupations	10,981,600	68.8%	18.4%	12.8%
S&T Occupations	3,540,800	70.1	17.2	12.7
Computer/math scientists	1,167,400	80.8	11.3	7.8
Life/related scientists	341,900	33.2	47.8	19.1
Physical/related scientists	297,900	54.1	27.7	18.2
Social/related scientists	166,400	23.6	62.8	13.6
Psychologists	197,000	58.9	30.2	11.0
Engineers	1,370,300	80.9	4.9	14.2
Other occupations (non-S&T)	7,440,800	68.2	19.0	12.8

Source: CPST, data derived from National Science Foundation

However, employment sector for doctoral scientists and engineers is much different. PhD scientist and engineers are more likely to be employed in academe as shown in the following chart.



Salaries of PhDs vary considerably by field of doctorate and employment sector. In 1999, the median salary for PhD scientists and engineers, across all employment sectors, was $70,000 as shown in the table.

Salaries of PhDs by Field of Doctorate and Employment Sector, 1999

Field of Doctorate	All Sectors	Academe*	Private-for Profit	Self-employed	Private Non-profit	Federal Gov't
All Sciences and Engineering	$ 70,000	$ 60,000	$ 85,000	$ 75,000	$ 70,000	$ 76,000
Physical Sciences	75,000	58,000	85,000	70,000	78,000	82,000
Chemistry	75,000	54,000	85,000	75,000	74,900	75,700
Physics & Astronomy	79,900	65,000	85,000	56,000	82,000	86,000
Earth Sciences	63,800	54,000	75,000	50,000	63,000	84,000
Computer & Info Sciences	80,500	63,000	95,000		95,000	86,400
Mathematical Sciences	67,000	59,000	88,000	100,000	85,000	76,000
Biological Sciences	64,000	56,000	85,000	50,000	65,000	70,000
Agricultural Sciences	64,000	58,000	74,600	45,000	70,000	66,400
Health Sciences	65,000	59,500	88,200	60,000	72,000	73,000
Social Sciences	62,000	59,000	90,000	60,000	72,000	80,000
Economics	75,000	69,300	100,000	75,000	76,900	84,700
Political Science	62,000	58,300	100,000	70,000	78,000	89,000
Sociology	56,000	55,000	66,300	34,000	73,000	82,000
Psychology	60,000	55,000	75,000	75,000	57,000	70,200
Engineering	82,000	74,400	86,000	100,000	85,000	82,600

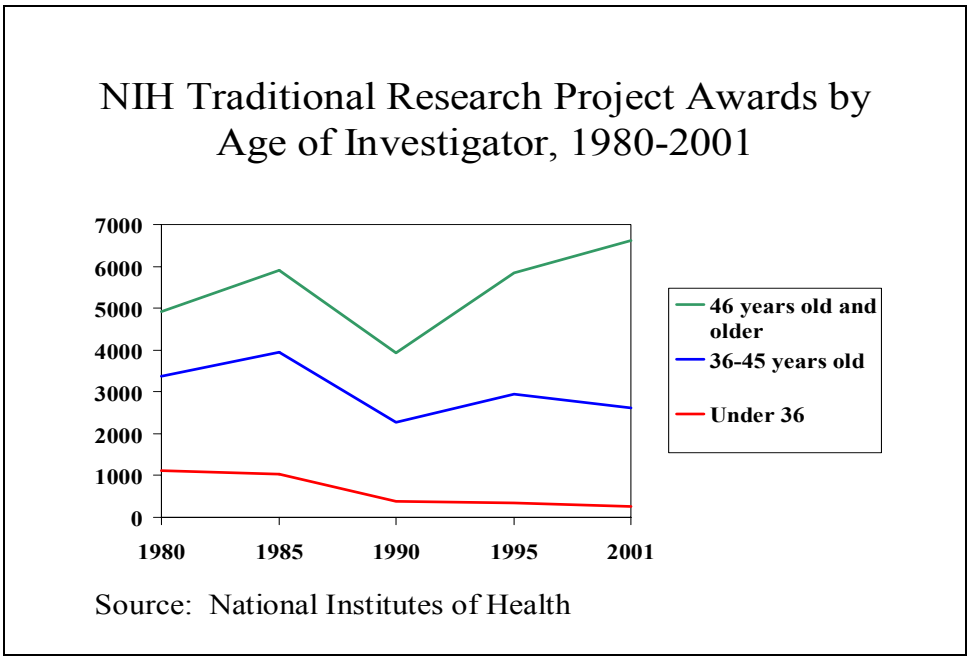
Source: CPST, data derived from National Science Foundation

*Includes only universities and four-year colleges

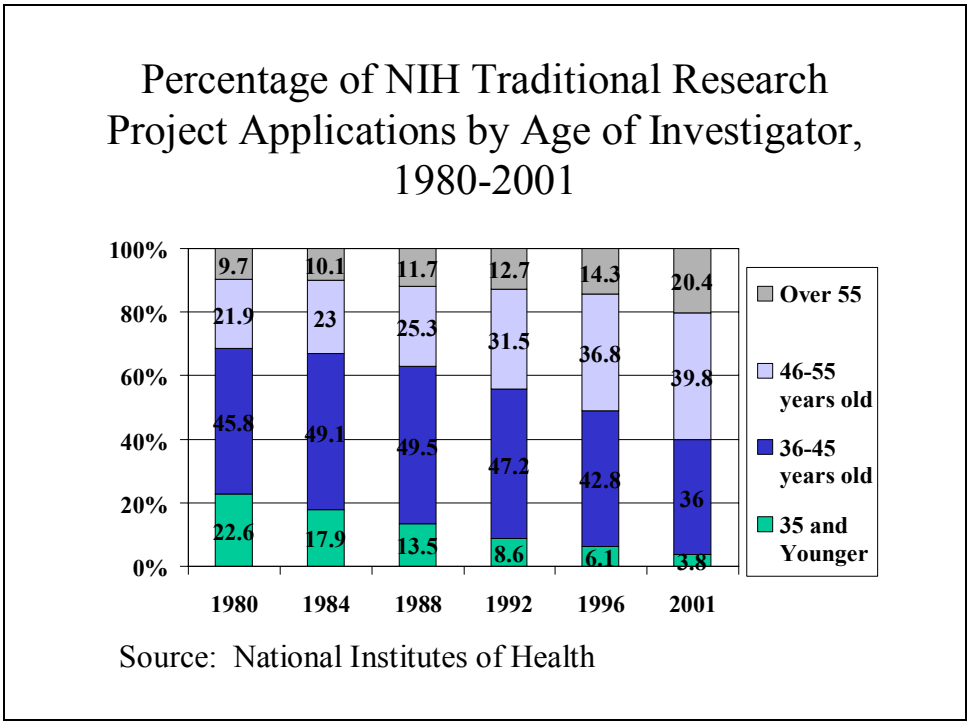
C. Age Trends

The S&T workforce is aging. For those who received an S&E degree and are working in an S&E occupation, in 1993, 48% were over the age of 40. By 1999, that percentage had increased to 56%. Of the entire S&T workforce (including those with S&T degrees not working in S&E fields) in 1993, 46% were under the age of 40, by 1999 only 40% were under the age of 40.

NIH recently reported that the age of principal investigators awarded research project awards has gone up. The majority of award recipients are 46 years old and older. The gap between the number of younger PIs and older PIs has grown significantly over the last five years, the time in which NIH's budget has doubled as shown in the chart on the following page.



The trend is also evident in the percentage of research project applications submitted to NIH over the last 20 years. Younger investigators have submitted fewer and fewer applications. 22.6% of applications to NIH in 1980 came from investigators 35 years old or younger. In 2001 that percentage was 3.8%. Meanwhile investigators over the age of 55 submitted 9.7% of applications to NIH in 1980. By 2001 that percentage was 20.4%. This means that there is less and less money going to younger investigators who must establish their labs and are under increasing pressure to publish research in order to attain tenure.

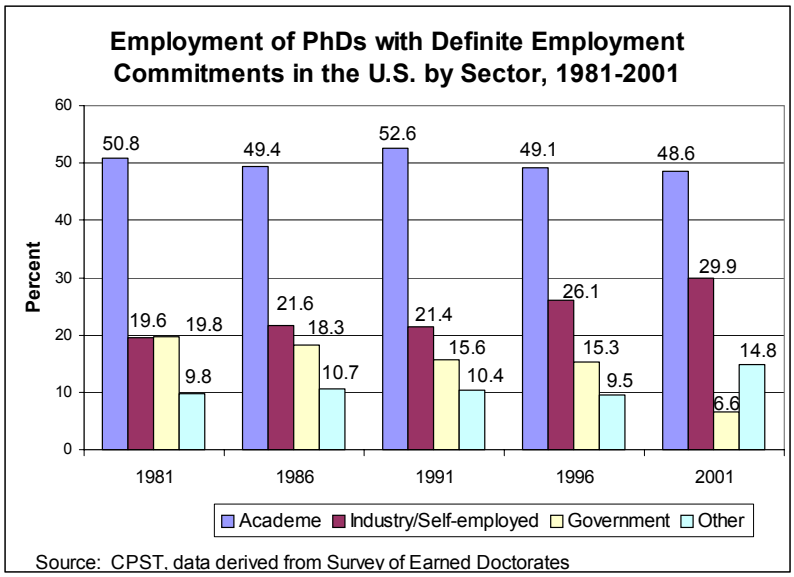


III. Trends in Academia

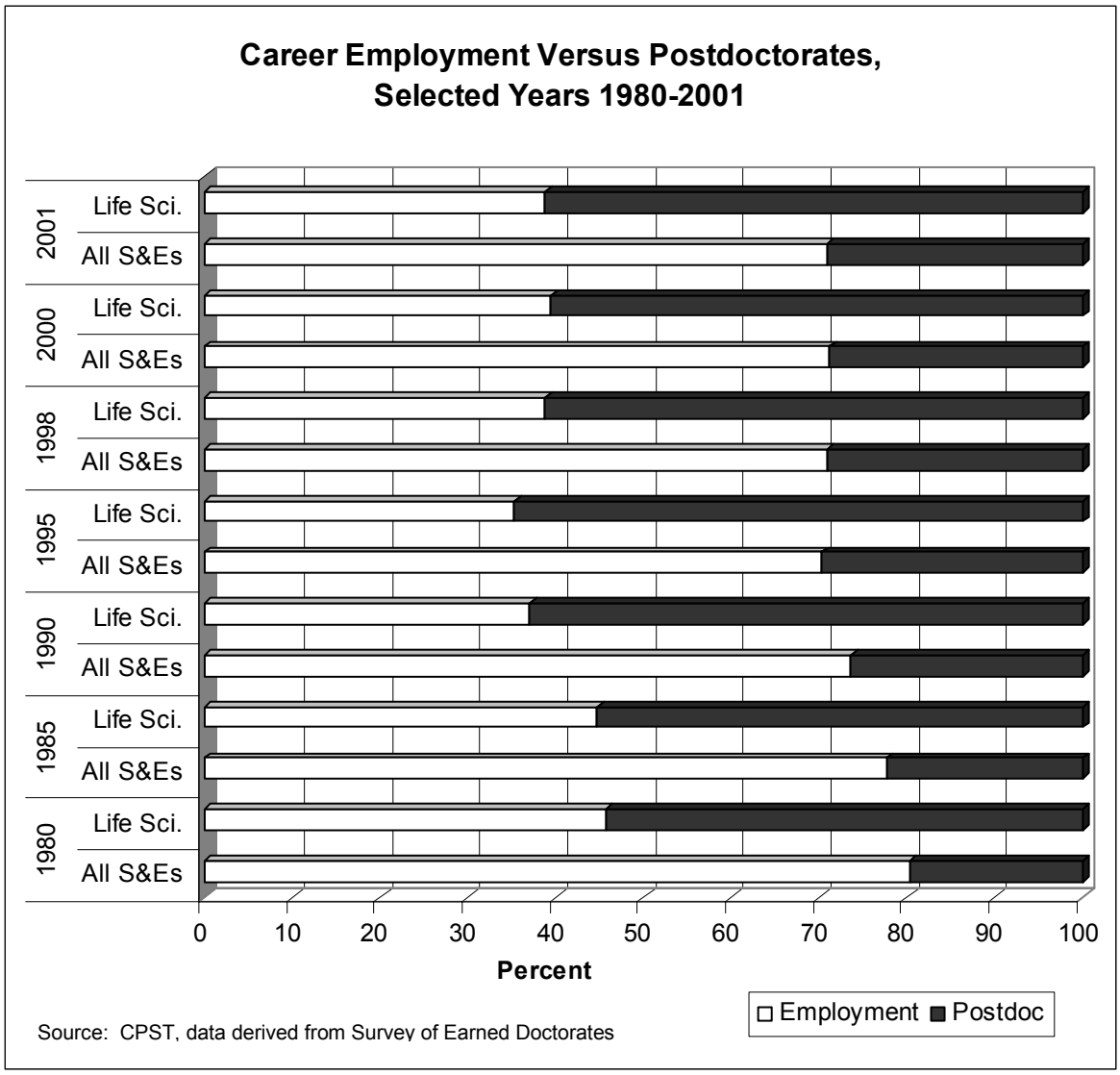
A. PhD Employment Trends

This brings us to trends in academic employment. Here the news is particularly discouraging.

Academia still employs the lion's share of new PhDs as shown in the accompanying chart which presents employment of PhDs with definite employment commitments in the U.S. by sector, 1981-2001. But, in the last two decades, the percentage of doctoral recipients going into industry instead of academia increased by 10 percentage points from 20% to 30%. In the 5 years between 1996 and 2001, government employment of new PhD recipients dropped precipitously from 15% to 7%. Why that occurred is uncertain, but perhaps budget cuts in government laboratories may have had some impact here.



Over an almost two-decade period, the proportion of PhDs securing permanent career employment versus those going into temporary postdoc positions has decreased. This phenomenon is most pronounced in the life sciences where about two-thirds of all PhD recipients now take postdoc positions after completing their doctorates. For all sciences combined, however, only about one-third take postdoc positions. Career employment versus postdoc positions in the life sciences compared to all science and engineering disciplines is shown in the chart on the following page.

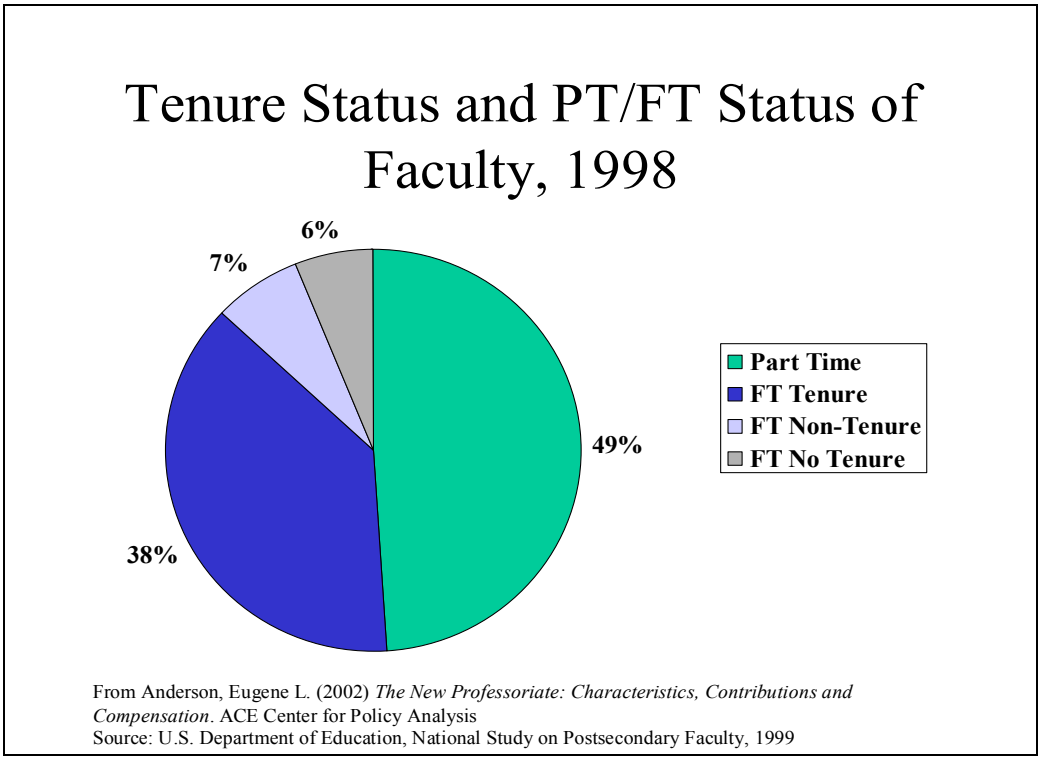


B. Faculty Trends

While nearly half (49%) of all faculty were part time in 1998, only 38% of faculty were full time tenured or on the tenure track. Another 13% were either full time but not on the tenure track, or were at institutions without a tenure system as shown in the following charts.

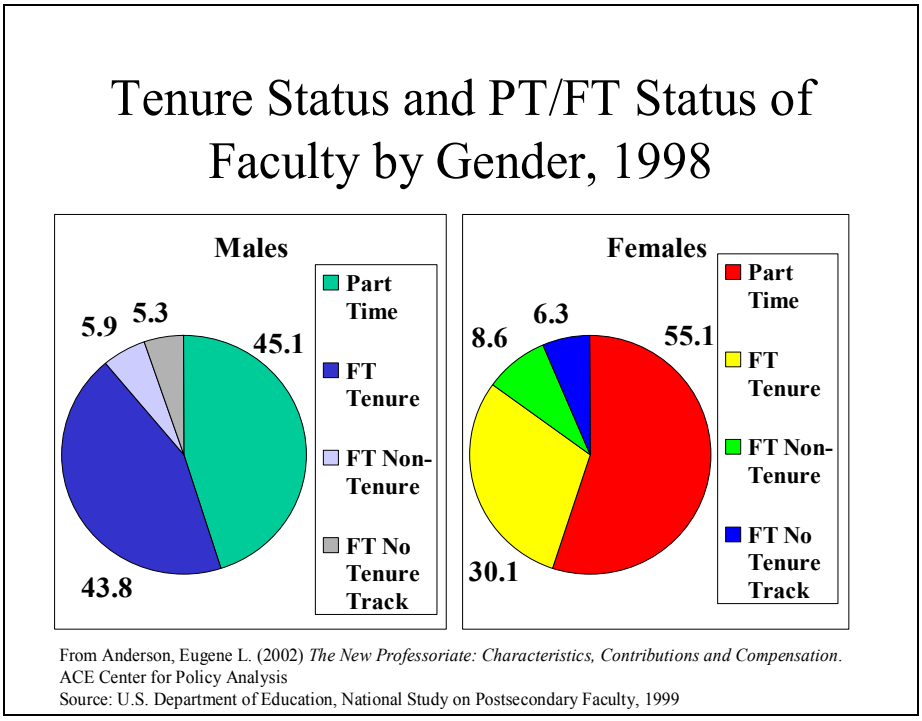
Demographics of Faculty: 1998				
		Percentage Full Time		
	Percentage Part Time	Tenured/Tenure Track	Non-Tenure Track	No Tenure System
Total	**49.0**	**38.0**	**7.0**	**6.0**
Gender				
Male	45.1	43.8	5.9	5.3
Female	55.1	30.1	8.6	6.3
Race/Ethnicity				
American Indian	50.2	32.1	11.8	6.2
Asian American	37.6	52.9	6.6	2.9
African American	45.1	41.6	8.2	5.1
Hispanic	53.5	35.1	7.8	3.6
White	50.0	37.2	6.9	5.9

From Anderson, Eugene L. (2002) *The New Professoriate: Characteristics, Contributions and Compensation*. ACE Center for Policy Analysis
Source: U.S. Department of Education, National Study on Postsecondary Faculty, 1999



From Anderson, Eugene L. (2002) *The New Professoriate: Characteristics, Contributions and Compensation*. ACE Center for Policy Analysis
Source: U.S. Department of Education, National Study on Postsecondary Faculty, 1999

Women were far more likely to be part time or not on the tenure track than their male counterparts with over 55% of women faculty employed part-time in 1998 as shown in the following chart.



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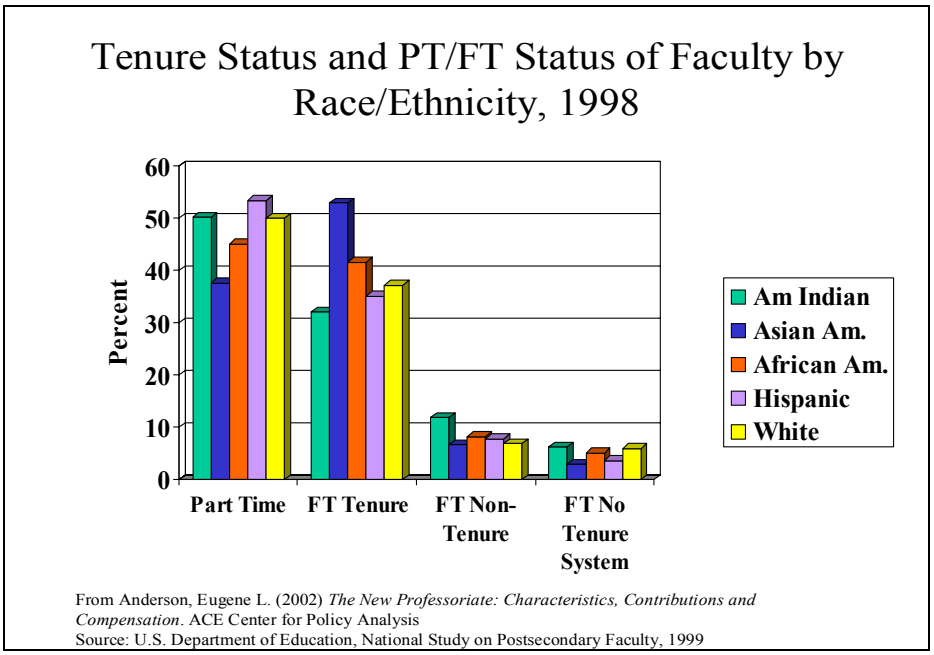
Differences by race/ethnicity are also evident. American Indians, African Americans, Hispanics and Whites were more likely to be part time, although whites far outnumbered all ethnic groups in the nation's faculty. Asians were the most likely to be full time and on the tenure track.



From Anderson, Eugene L. (2002) *The New Professoriate: Characteristics, Contributions and Compensation*. ACE Center for Policy Analysis
Source: U.S. Department of Education, National Study on Postsecondary Faculty, 1999

The number of part time faculty increased for almost all disciplines from 1992 to 1998, although business and the natural sciences saw slight decreases. The humanities and the social sciences used part time faculty the most, followed by education. The percentage of full time tenured or tenure track faculty decreased for all disciplines except engineering, which had a very slight increase. Use of full time, non-tenure track faculty increased for all disciplines, most dramatically in the natural sciences.

Faculty Status by Principal Field: 1992 and 1998								
	Percentage Part Time		Percentage Full Time					
			Tenured/Tenure Track		Non-Tenure Track		No Tenure System at Institution	
	1992	1998	1992	1998	1992	1998	1992	1998
Business	50.5	48.4	37.4	35.5	4.4	7.8	7.8	8.2
Education	49.4	50.2	41.3	37.1	5.3	7.6	4.1	5.1
Health Sci.	42.8	46.6	36.0	32.7	10.6	12.2	10.6	8.5
Humanities	50.4	52.3	38.1	36.1	4.9	7.6	6.7	3.9
Social Sci.	47.0	51.2	43.1	39.0	4.4	5.0	5.5	4.8
Engineering	36.4	36.1	54.6	54.9	3.4	4.6	5.6	4.4
Natural Sci.	33.0	32.2	58.0	55.3	3.7	7.3	5.3	5.2

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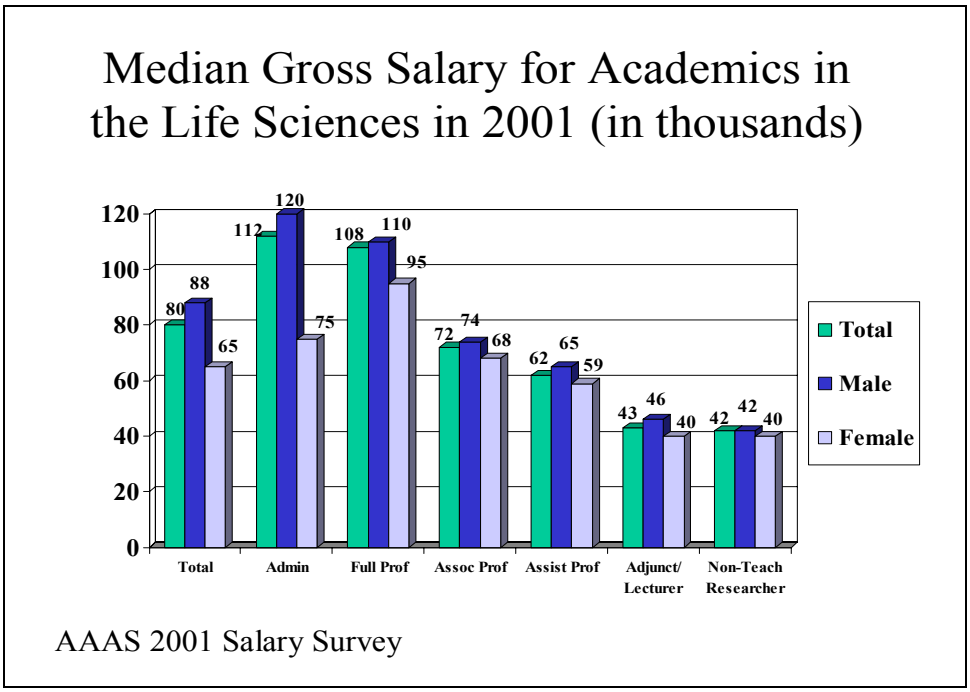
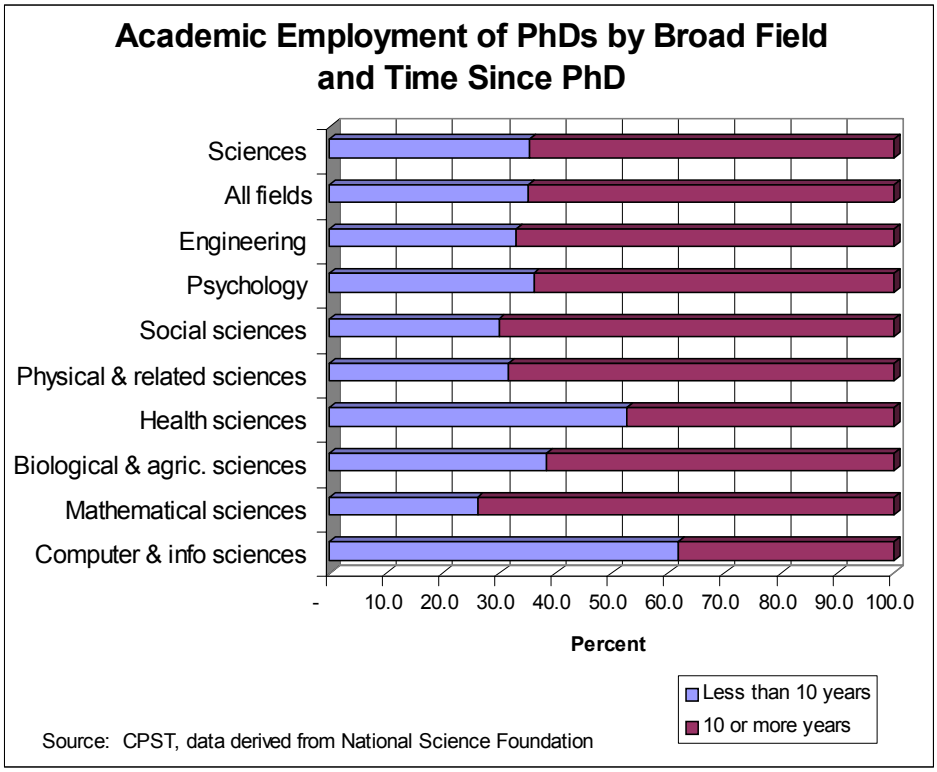
A gender breakdown of salaries of men and women in academia in 2001 conducted by the American Association for the Advancement of Science (AAAS) of AAAS members showed huge gender disparities. Women made about 75% of men's salaries in academia, with the most dramatic differences being among administrators where woman made 63% of male salaries and among full professors where women made only 86% of their male counterparts as shown in the chart on the following page.



The academic employment of PhDs by broad field and time since PhD shows an aging professoriate. Only in 2 fields, computer science and the health sciences, is there any evidence of a younger faculty. These are also relatively young academic fields.



IV. Future Trends

A. Women and Minorities

For the first time, women earned over half of all the degrees awarded in science and engineering fields in 2000. Even in the natural sciences and mathematics, women earned more degrees at the baccalaureate level, primarily because of their increasing proportion in the biological sciences. However, in engineering and computer science, women earned less than a quarter (23.4%) of the baccalaureates in 2000. Not much change is anticipated in that proportion based on undergraduate engineering enrollment data from the Engineering Workforce Commission (EWC) and data from the most recent Taulbee Survey from the Computing Research Association (CRA).

Data from the EWC find that the proportion of first-year women undergraduates in engineering has been dropping over the past five years – from 1996 when they comprised 19.9% to 2001 when they represented 18.3%. Data from the Taulbee survey (conducted by the Computing Research Association) indicate that despite the double digit increases in CS/CE baccalaureate production in 2000 and 2001, the number of new undergraduates enrolled actually dropped slightly (about 1%) in 2001. The Taulbee survey has been conducted annually for 25 years, but only covers PhD granting institutions.

Underrepresented minorities at the baccalaureate level in 2000 earned slightly over 16% of all the degrees, up from about 11% in 1991. Again not much growth is anticipated in the next decade, unless some special programs and effort is put into place.

Graduate enrollment in science and engineering (S&E) for U.S. citizens and permanent residents has been declining since 1994 as a result of the decline of males in these fields, thus women have been increasing their proportion of total S&E graduate enrollment. Because the numbers are so small for underrepresented minorities in graduate S&E, again not much change over the next couple of years in their proportion is anticipated.

At the doctorate level, over the 15-year period from 1986-2000, women increased their proportion of S&E doctorates ten percentage points, from 32% to 42%. The biggest gains for women were seen in psychology – from 52% to 68% – in the biological sciences – from 34% to 46% – in the physical sciences – from 17% to 27% – and in mathematics from 19% to 28%. Whether women will continue to increase their proportion of earned doctorates depends greatly on what men continue to do.

Underrepresented minorities at the doctorate level in 2001 earned about 9% of the degrees awarded in S&E, and based on graduate enrollment data as well as the size of the pool, not much upward movement is projected.

B. Aging of the S&E workforce

The S&T workforce is aging, but what effect that will have on employment data is uncertain. Data from the National Science Foundation SESTAT database reveal that well over half (56%)

of those individuals who earned a degree in S&T and were working in an S&T occupation in 1999 were over the age of 40, up eight percentage points from 1993. For the entire S&T workforce – i.e. those who either received a degree in S&T or are working in an S&T occupation – in 1999, two out of every five (40%) were under the age of 40, down 6 percentage point since 1993.

C. Difficulties in choosing an S&E Research Career

After spending years in training (and as we noted earlier, the median age at the time of receipt of a PhD in 2001 was 33.3 years, although that figure varied considerably by field, from 30.6 years in the physical sciences to 31.8 years in the life sciences, to 43.8 years in education), finding a research position, whether in academe or outside the academy is becoming more and more difficult. In academe, faculty research positions are difficult to land. And even when one does find a research faculty position, getting funded is far from a certainty. Researchers under the age of 36 seeking funding from the NIH are becoming an almost invisible part of the pie. Even more alarming is the decrease in the number of young applicants to NIH for funding. And despite all the talk about careers outside the academy, there can still be a stigma attached to those research scientists who choose to pursue their careers in non-academic settings.

Since women and underrepresented minorities are older than their male and majority colleagues, an additional burden is placed on them. Women have to fight the "biological clock" as well.

For those life scientists who were unable to get funding when the budget of the NIH was growing annually in double digits, it may become even more difficult as NIH funding grows much slower.

D. Alternatives to the PhD

One alternative to the PhD is the **professional science masters degree**. It is meant to supply an intermediate level professional for the scientific workforce, largely in business and industry. It is a *professional* not a research degree, intended to be equivalent to a law or business degree for young people who major in the sciences and mathematics. Traditionally, in the sciences and mathematics, the master's is a failed PhD Since 1997, as a result of substantial private (non-governmental) funding and faculty and administrative support, 67 new degree programs in 30 Research I universities have been launched with Sloan Foundation funding and one wholly new master's degree institution (largely dedicated to training biotechnology professionals) with Keck Foundation financing.

The first graduates – a small cohort of 70 – went into the job market in June 2002 and, to our knowledge have landed very good positions at ~$50 k. Six hundred and sixty are currently enrolled (not all programs are sufficiently launched to have students) and the programs have received favorable publicity among the scientific periodicals.

The program will grow by the end of 2003 to approximately 80 tracks in 45 universities as a number of comprehensive (master's focused) institutions are funded. More information can be found online at www.sciencemasters.com. CPST has received funding from the Sloan

Foundation to carry out a number of activities to promote the revitalization of the master's degree in the sciences and mathematics, and further information about CPST is available at www.cpst.org,

V. Final Note

Let us end with the results of a survey conducted by ***The Scientist*** addressing "If I were not a scientist, I'd like to be a …"

The most popular choices of the 751 readers who responded were: writer (18.3%), doctor (13%) and musician (10.7%). More than three times as many readers would prefer to be teachers than lawyers. However, by far the largest number of respondents were in the "other" category, which included artist, photographer and cabinetmaker/carpenter.