Chart of the Day: Female shares of BA degrees by major, 1971 to 2017

Carpe Diem

Mark J. Perry @Mark_J_Perry

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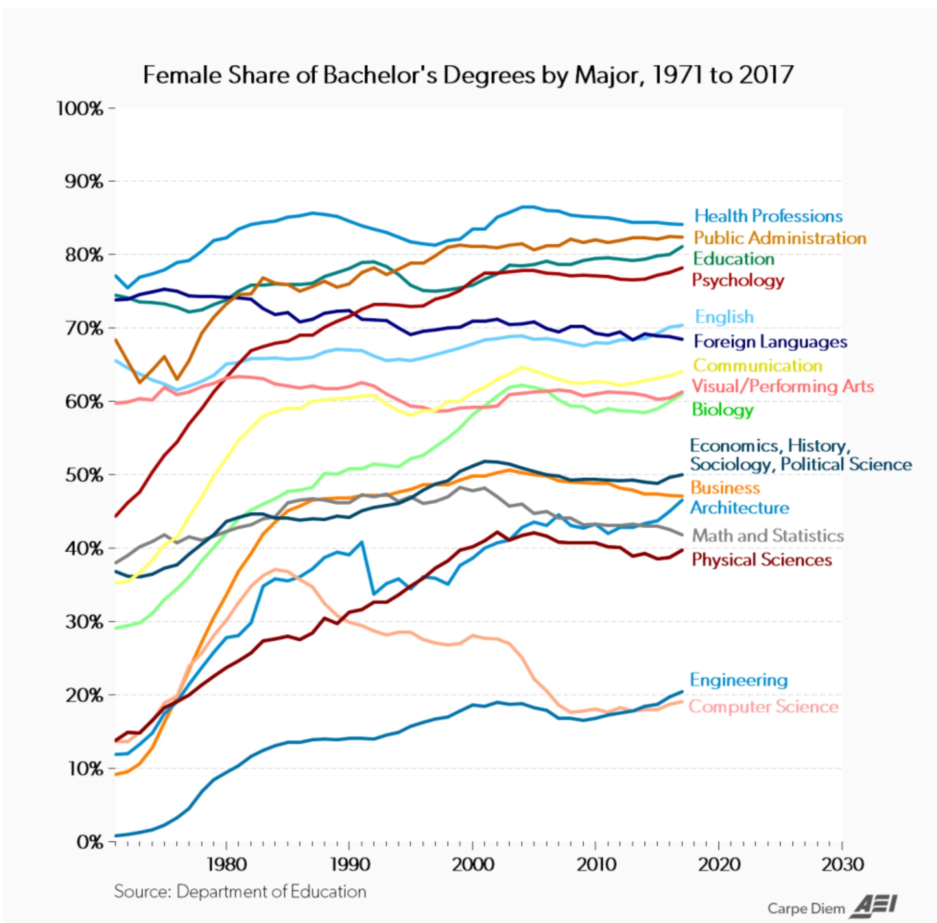

The chart above displays the female shares of US bachelor's degrees annually from 1971 to 2017 for the 16 major academic fields according to data the Department of Education's National Center for Education Statistics. A few observations and comments:

1. In 2017, women earned 61% or more of the bachelor's degrees in 9 out of the 16 academic fields: Health Professions (84.1% and the greatest gender disparity for either sex of the 16 majors), Public Administration (82.4% and the field with the second highest gender imbalance), Education (81.1% and the field with the third highest gender disparity), Psychology (78.2%), English (70.4%), Foreign Languages (68.5%), Communication and Journalism (64.1%), Visual and Performing Arts (61.3%) and Biology (61%).

2. Women have earned a majority of degrees in Biology in every year since 1988, and have earned more than 60% of those degrees in 7 of the last 30 years, including a peak 62.2% share in 2004.

3. In 6 of the 9 fields above in Item #1 above, women have never earned fewer than 60% of bachelor's degrees in any year since 1971: Health Professions, Public Administration, Education, English, Foreign Languages, and Visual/Performing Arts. For Psychology, women have earned a majority share in every year since 1974, a 60% share or greater starting in 1979, a 70% share or greater starting in 1988 and a 75% share or greater starting in 1999.

4. For five academic majors Social Studies (Economics, History, Sociology and Political Science), Business, Architecture, Math and Statistics, and Physical Sciences, women earned a slight minority of those degrees ranging between 40% for Physics and 50% for Social Studies in 2017. For the other three fields, women earned 42% of Math/Statistics degrees, 46.5% of Architecture degrees and 47% of Business degrees. For degrees in Business,

the female share exceeded 50% in 2002, 2003 and 2004 but then declined to a 47% share in 2017, the lowest share since 1990.

5. Over the 1971 to 2017 period, the three largest increases in the female shares of degrees were in Business (from 9.1% to 47.1% = +38%) Architecture (from 11.9% to 46.5% = +34.6%) and Psychology (from 44.4% to 78.2%).

6. There were just two fields where women were significantly underrepresented in 2017 and have been historically: Engineering (20.4%) and Computer Science (19.1%). It's interesting to note that the female share of Computer Science degrees increased every year between 1972 and 1984 when it reached a peak of 37.1% before falling almost every year since then to a low of 17.6% in 2008, less than half the share in 1984. Over the last decade, the female share of Computer Science has gradually increased by 1.5 percentage points from 17.6% in 2008 to 19.1% in 2017. But for whatever reason(s), women's interest in pursuing degrees in Computer Science peaked 35 years ago, and declined steadily ever since then except for a small uptick in recent years.

7. Interestingly, there has been similar though not quite as dramatic decrease in female interest in majoring in Mathematics/Statistics in recent years. After increasing steadily over time and almost reaching parity in 2001 when the female share of Math degrees reached 48.2%, the share has steadily decreased over the last 16 years and fell below 42% in 2017 for the first time since 1979.

8. For all of the attention being paid to a shortage of women in Computer Science and for all of the massive amounts of resources being devoted to "coerce" young girls to become interested in Computer Science (e.g., Girls Who Code, Black Girls Code, Latina Girls Code, Native Girls Code, hundreds of summer STEM/Code camps etc.) there hasn't been a lot of progress made

in terms of increasing the female share of Computer Science degrees.

And assuming that gender parity in Computer Science degrees was the ultimate goal of gender activists, progressives and feminists, it would take until the year 2418 or 400 years from now to reach parity, given the average growth trends in Computer Science majors over the last ten years of 5.34% per year for men and 5.72% for women. Good luck with that.

Reaching gender parity for Engineering degrees is a little more hopeful, but still a long way off. *If* the present trends continue (4.6% annual growth for male graduates vs. 7% for female graduates), gender parity could be reached for Engineering degrees in 2076, more than half a century from now.

Bottom Line: The academic interests of men and women vary significantly in many cases as reflected in the female/male shares of college degrees by major over the last nearly half-century and displayed in the chart above. And some of those gender differences evolve and change over time, sometimes converging to parity or near parity (e.g., Business, Biology, Architecture, Mathematics/Statistics, Social Sciences and Physical Sciences). Other gender differences/imbalances have remained fairly stable over time including female over-representation in Health Professions, Public Administration, Education, Psychology, English, Communications and Foreign Languages. The one trend that departs from the other patterns is the significant decline in the female share of Computer Science degrees since the mid-1980s.

What is maybe the most remarkable features of the patterns displayed in the chart above is the relative stability of the female/male shares of bachelor’s degrees in all 16 academic majors over the last decade. The only changes in the female shares of degrees by more than 2 percentage points in either direction over the last 10 years were Business (-2.1%), Education

(+2.1%), Engineering (+3.5%), English (+2.1%), and Math (-2.2%).

The gender differences in college degrees will likely continue to shift gradually over time, but major departures from the current pattern of fairly stable shares by gender are unlikely. Can we just accept the fact that there are gender differences in academic interests, reflected in their choices for college degree programs, and stop with the selective obsession about female under-representation in Computer Science and Engineering while ignoring the significant female over-representation in 9 out of the 16 fields above?

About the author

Mark J. Perry @Mark_J_Perry

Mark J. Perry is concurrently a scholar at AEI and a professor of economics and finance at the University of Michigan's Flint campus. He is best known as the creator and editor of the popular economics blog Carpe Diem. At AEI, Perry writes about economic and financial issues for American.com and the AEIdeas blog.

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