

Higher Education

Dr Abigail Adams

Spring 2016

Yale

Higher Education



Yale

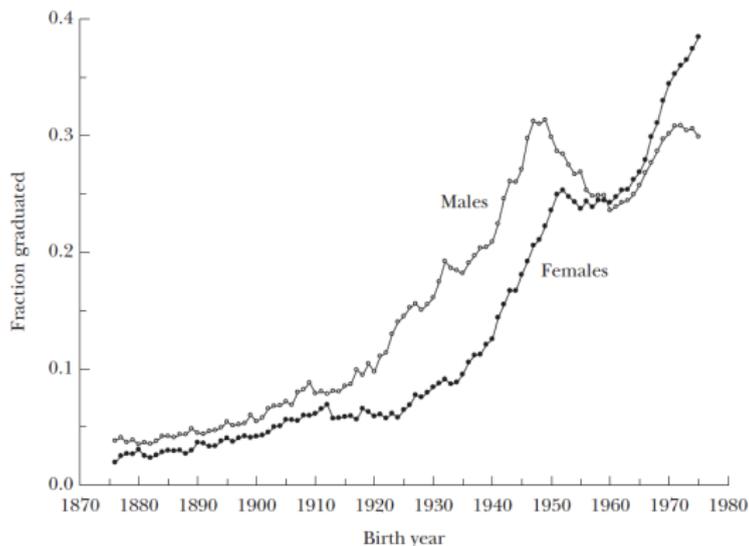
Plan

1. Enrolment
2. Major Choice
3. Explanations
4. Power Couples
5. { Women's Rights }

College Graduation Rates

Figure 1

College Graduation Rates (by 35 years) for Men and Women: Cohorts Born from 1876 to 1975



Trends

- ▶ Early period a mix of elite enrollment and teaching training colleges
 - ▶ 1925: 30% of women were enrolled at teaching training schools, many of whom offered two year programmes
- ▶ Marriage bars — regulations barring women from certain types of employment — reducing the value of a degree for women
 - ▶ Indeed, during the 1930s marriage bars were extended in many school districts reducing female enrollment in teaching degrees
- ▶ Late 1940s/1950s, the GI bill helped to finance college education for men who fought in WW2 and the Korean War

Trends

- ▶ Male graduation actually peaked with cohorts born in the 1940s — prospect of draft deferments for the Vietnam War encouraged men to attend college
- ▶ After this point, graduation rates of men declined, rebounded slightly and then flattened out while women continued to increase their college enrollment and completion
- ▶ Decline in the male/female ratio apparent for all types of institutions: research universities, liberal arts, public, private
 - ▶ Across racial and ethnic groups — female enrollment in college & graduation rates large for Hispanics and black Americans than for white non-Hispanics

High School Preparation

- ▶ Youth must plan for college in high school
- ▶ Wisconsin Longitudinal Survey — survey of a third of graduating seniors in Wisconsin
- ▶ Girls achieve higher grades at high school than boys (replicated across studies)
 - ▶ 1957 — high school rank of the median girl was 21 percentile points above the median boy
 - ▶ NLS — for 1972 graduates, median girl 17 percentile points above median boy
 - ▶ NELS — 16 percentage points in 1992

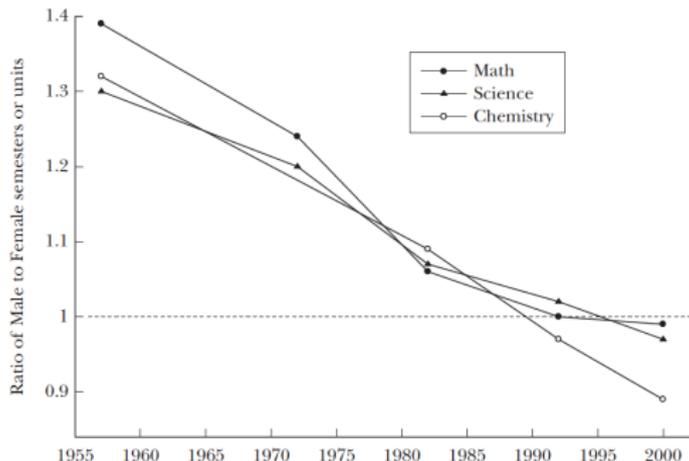
High School Preparation

- ▶ Variation in aptitude scores by gender — asymmetry in maths and reading
 - ▶ For 1972 graduates, boys a quarter of a standard deviation ahead in maths but trailed in reading
 - ▶ 1992: girls widening lead in reading and narrowed gap with boys in maths
 - ▶ Between 1992 and 1972, girls had gained about a 0.17 standard deviation in both maths and reading
- ▶ Catch up in ability and college graduation rates occurred across the ability distribution

High School Courses

Figure 5

Male-to-Female Ratio of High School Courses in Math and Science, 1957 to 2000



Sources: 1957 Wisconsin Longitudinal Survey; 1972 National Longitudinal Survey; 1992 National Educational Longitudinal Survey; and 1982 and 1992 are from U.S. Department of Education (2004, Table 137).

Notes: The figure plots the ratio of the mean number of high school courses taken by male graduating seniors to that of female graduating seniors in each reported subject area for the high school graduating classes of 1957, 1972, 1982, 1992, and 2000. Courses are measured in semesters for 1957 and 1972 and are measured in Carnegie units for 1982, 1992, and 2000.

Explanations

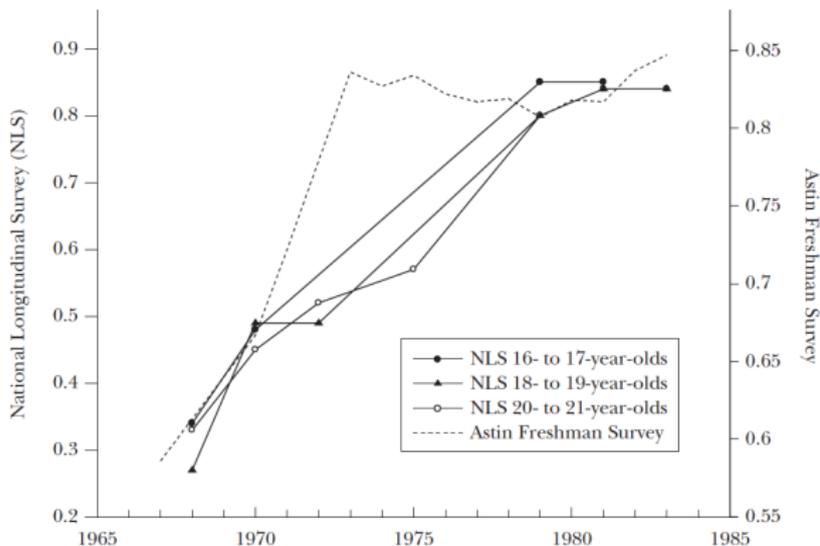
Why?

Yale

Expect to be in Work at 35

Figure 6

Expectations and Opinions of Female Teenagers and College Freshmen:
1967 to 1984



Cohort Outcomes

Table 5
Evolution of College Women's Labor Market Activities by Cohort

		<i>White, college graduate women, 30 to 34 years old</i>			
<i>Birth cohort</i>	<i>Year</i>	<i>Fraction employed</i>	<i>Fraction employed full time</i>	<i>Fraction with children</i>	<i>Fraction who are teachers (out of all those employed)</i>
1906–10	1940	0.484	0.333	0.422	0.555
1916–20	1950	0.402	0.318	0.631	0.418
1926–30	1960	0.387	0.255	0.734	0.471
1936–40	1970	0.494	0.299	0.746	0.555
1946–50	1980	0.695	0.546	0.597	0.363
1956–60	1990	0.806	0.663	0.534	0.185
1966–70	2000	0.801	0.651	0.530	0.184

Source: 1940 to 2000 Census of Population Integrated Public Use Micro-data Samples.

Notes: Samples consist of white, native-born, college graduate women, 30 to 34 years old. Fraction with children consists of those with own-children living in household.

Other Factors

- ▶ Wage premium higher for women in some studies
- ▶ Divorce?
- ▶ Contraception?
- ▶ Girls have a lower nonpecuniary cost of college?
 - ▶ Exceed boys in secondary school performance
 - ▶ Higher incidence of behavioural problems amongst young boys (Jacob, 2002)

Plan

1. Enrolment
2. **Major Choice**
3. Explanations
4. Power Couples
5. { Women's Rights }

Yale

Major

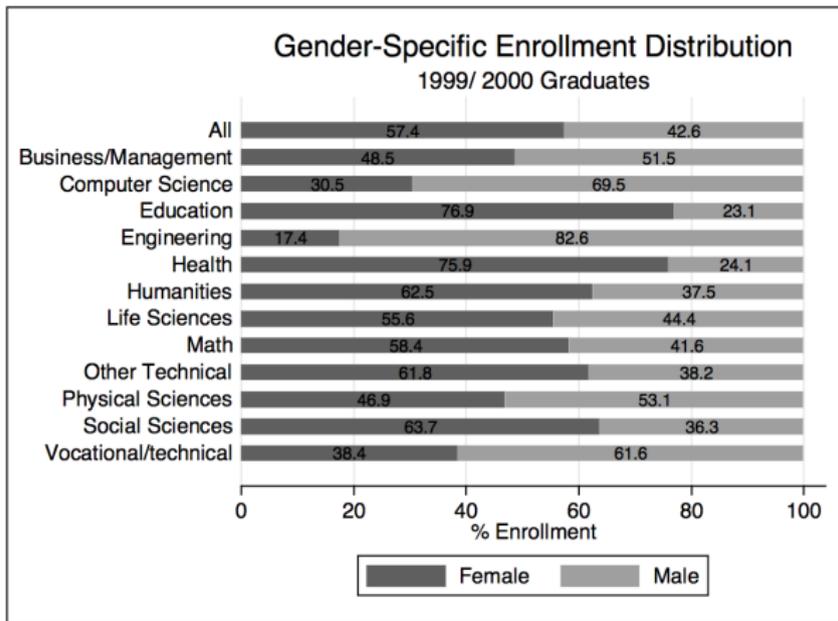


Figure 1: Gender Composition of Majors of 1999-2000 Bachelor's Degree Recipients Employed Full-Time in 2001.

Potential Explanations

- ▶ While there is a huge literature estimating the returns to education, there is much less work on why individuals choose the type of education they do
- ▶ Preferences, ability and high school skills shape feasibility and desirability of educational programmes
- ▶ Only learn gradually about wages and preferences
- ▶ Knowledge accumulation is stochastic and risky

Major Choice: Zafar (2009)

- ▶ Survey of Northwestern sophomores
- ▶ Demographics, preferences and expectation data
- ▶ Finds that nonpecuniary outcomes explain 45% of the choice behaviour of males and over 70% for females
- ▶ Gender differences in importance of pecuniary versus nonpecuniary aspects of future jobs
- ▶ Gender differences in beliefs about tastes for studying in different fields — 30% of gender gap in engineering can be explained by beliefs about how much will enjoy studying

Plan

1. Enrolment
2. Major Choice
3. **Power Couples**
4. { Women's Rights }

Power Couples



Yale

Power Couples: Costa and Kahn (2000)

- ▶ Couples of college educated husbands and wives are increasingly disproportionately located in a small number of large metropolitan areas
- ▶ 1940: 32% of all college educated couples located in metropolitan areas of greater than 2million; 1990: 50%
- ▶ Little change in the proportion of non-college educated couples located in such areas

Power Couples: Costa and Kahn (2000)

- ▶ Returns to education higher in cities
- ▶ Urban amenities might be normal good
- ▶ Marrying later and meeting in large cities
 - ▶ Rising age of first marriage
 - ▶ Moving to urban areas for marriage markets?
- ▶ Colocation problem — dual career households more likely to be joint decision makers

Power Couples

TABLE II
EMPLOYMENT AND FERTILITY TRENDS BY EDUCATION OF COUPLE

	1940	1960	1970	1980	1990
Wife works (%)					
Low-power	18.1	27.0	36.6	52.3	64.2
Part-power	18.3	22.7	34.5	57.4	70.4
Power	20.1	29.6	43.4	64.8	73.3
Have child (%)					
Low-power	73.1	89.9	90.2	85.9	83.4
Part-power	60.9	86.8	82.7	74.6	72.6
Power	58.0	81.3	72.9	64.4	62.7
Wife works and works full-time (%)					
Low-power	73.6	68.0	64.8	66.8	68.5
Part-power	73.4	65.7	60.5	65.6	68.7
Power	68.1	62.7	58.1	68.1	70.2
Wife works and in traditionally female job (%)					
Power	71.5	71.4	73.2	59.4	42.7

A full-time job is defined as 35 hours or more per week. A traditionally female occupation is defined as one in which women were overrepresented relative to men in 1970; that is, one in which more than 50 percent of all employees age 18 to 64 were women in 1970. All couples are restricted to those in which the husband was 25 to 39 years of age and the wife 23 to 37. All numbers are estimated from the integrated public use census samples [Ruggles and Sobek 1997]. A power couple is defined as one in which both husband and wife are college graduates, a part-power couple as one in which only one spouse is a college graduate, and a low-power couple as one in which neither spouse is a college graduate.

Power Couples

TABLE III
PROBABILITY OF LOCATIONAL CHOICE BY HOUSEHOLD TYPE

	1940	1970	1980	1990
Conditional on power couple				
Large metropolitan area	0.321	0.391	0.414	0.495
Midsized metropolitan area	0.254	0.313	0.325	0.295
Small and nonmetropolitan area	0.426	0.296	0.261	0.210
Conditional on part-power couple				
Large metropolitan area	0.319	0.362	0.371	0.421
Midsized metropolitan area	0.268	0.326	0.334	0.308
Small and nonmetropolitan area	0.413	0.312	0.295	0.271
Conditional on low-power couple				
Large metropolitan area	0.266	0.301	0.308	0.339
Midsized metropolitan area	0.240	0.299	0.312	0.292
Small and nonmetropolitan area	0.494	0.399	0.380	0.369
Conditional on single, power man				
Large metropolitan area	0.383	0.523	0.512	0.569
Midsized metropolitan area	0.258	0.291	0.295	0.266
Small and nonmetropolitan area	0.358	0.186	0.193	0.165
Conditional on single, power woman				
Large metropolitan area	0.286	0.507	0.499	0.555
Midsized metropolitan area	0.223	0.309	0.308	0.281
Small and nonmetropolitan area	0.491	0.184	0.193	0.164
Conditional on single, low-power man				
Large metropolitan area	0.299	0.442	0.415	0.441
Midsized metropolitan area	0.225	0.297	0.305	0.278
Small and nonmetropolitan area	0.476	0.260	0.280	0.281
Conditional on single, low-power woman				
Large metropolitan area	0.307	0.455	0.430	0.444
Midsized metropolitan area	0.245	0.305	0.313	0.297
Small and nonmetropolitan area	0.448	0.240	0.257	0.260

Power Couples: Costa and Kahn (2000)

- ▶ Colocation problem significant - estimate that 65% of increased concentration of power couples could be explained by this
- ▶ 35% due to the rising returns to city size by education
- ▶ Potentially important dynamics for growth and inequality
 - ▶ Growth a function of human capital
 - ▶ Small cities facing a greater brain drain than in absence of power couple bundling
 - ▶ Implications for spatial distribution of production

Plan

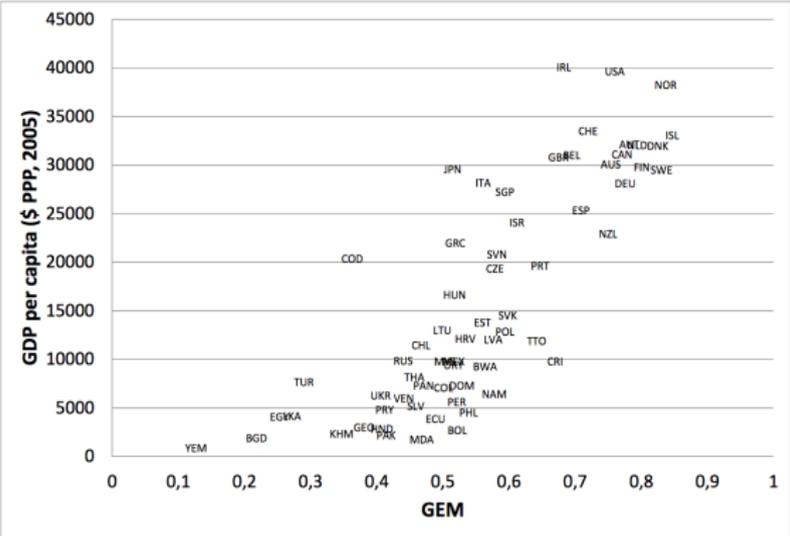
1. Enrolment
2. Major Choice
3. **Power Couples**
4. { Women's Rights }

Women's Rights

- ▶ Rights and development are highly correlated
- ▶ Important differences in the pattern of empowerment in current developed and developing countries
 - ▶ US/England: basic economic rights → political rights → equality and control over one's body
 - ▶ In many African countries, gaining political rights as part of the end of colonialism before basic economic rights
- ▶ Moreover, sex-selective abortions and sex trafficking present new challenges to gender equality

Female Empowerment

Figure I: Female Empowerment and Economic Development Across Countries



Property Rights

- ▶ Most studied in the context of divorce in developed countries
- ▶ In the 1970s and 1980s, the elimination of title-based systems increased the amount of assets awarded to women
- ▶ Large disparities in access to land and security of property (Joireman 2008)
- ▶ Lack of property rights associated with lower investment
- ▶ Udry (1996): profitability of land lower for wives than for husbands — fear of expropriation negatively affecting the productivity of plots

Political Rights

- ▶ Extending suffrage to women seems to have shifted the composition of public spending towards welfare and public health programmes (Doepke, Tertilt & Voena 2011)
- ▶ Coincided with more liberal voting patterns which has been associated with a rise in government expenditures (Lott and Kenny, 1999)
- ▶ Chattopadhyay and Duflo (2004): exploit random variation in reserved and unreserved seats in West Bengal and Rajasthan finding that women Village Council heads favour spending on infrastructure that is relevant for women in the community

Explanations for Expansions: Cultural



Yale

Explanations for Expansions: Cultural

- ▶ Argued to be rooted in the Age of Enlightenment that emphasises equality among people (although note that many enlightenment philosophers were not keen on female emancipation — e.g. Kant & Rousseau)
- ▶ Alesina & Giuliano (2010): fertility and LFP choices of second-generation Americans are correlated with those variables in their parents' countries of origin
- ▶ Oster & Jensen (2009): attitudes about the status of women changed with the availability of cable TV in rural India — decreased acceptability of domestic violence and reported son preference
- ▶ Theoretical papers include Fernandez et al (2004) who model attitudes towards female LFP being formed in childhood; Fogli & Veldkamp (2011) culture as endogenously changing beliefs focusing on beliefs about the impact of working mothers on their children's success

Explanations for Expansions: Economic



Yale

Explanations for Expansions: Economic

- ▶ But why cultural change?
- ▶ Thought (by economists!) to have economic origins:
 - ▶ Miguel (2005) : using variation in rainfall as an instrument for poverty, finds that witch-killing (women killing) more prevalent in areas of starvation
 - ▶ Alesina, Giuliano & Nunn (2011): attitudes to gender roles related to historical agricultural practises — that is wehtehr agriculture was plough based (male strength an advantage) or hoe based (women could also participate)
 - ▶ Greenwood and Guner : technological progress and 'engines of revolution'

Explanations for Expansions: Political Economy

- ▶ Jones (1991) analyses data on the voting behaviour in the US House and Senate on female suffrage during the 19th Century
- ▶ Representatives from states with a large majority of men were more likely to vote in favour of suffrage
- ▶ Also established a link between prohibition and women's suffrage — states where the liquor industry was powerful were more opposed to suffrage

Explanations for Expansions



Yale

Explanations for Expansions

- ▶ Seems that the causality between economic development and women's rights runs in both directions
- ▶ Doepke and Tertilt (2009) men face a tradeoff in their support of women's rights
- ▶ More rights for women likely to increase their bargaining power and their share of household consumption — thus might prefer for their wife not to have any rights
- ▶ Men also care about their daughters, however, and would like them to have rights to protect them from exploitation
- ▶ Higher welfare for wives translates into higher educational investments for children and thus rising returns to education for women result in greater support and expansion of women's rights

Conclusion

What is the finding/theory that has most interested/surprised you this term?

Yale