Female-Male Earnings Ratio

For two decades (1960s and 1970s), full-time, year-round working women earned 59 cents to every dollar earned by comparable men

- 59¢ pin

Earnings ratio began to rise in early 1980s to reach 76% in 2003

1990s: the pace began to slow and movement became more erratic

Early 2000s: the pace picked up again
Earnings Gap

Female-to-Male earnings ratio tends to decrease with work experience
- Less accumulation of work experience
- Barriers to advancement

Selection bias may influence results
- Which men and women choose to seek paid employment each year and which ones are successful

Gap persists at all educational categories (all narrowed over time)
- Note: In 1970s it was common that women college graduates earned less than male high school dropouts
Gender Pay Gap in the News

See Handout 6

Trends in Female and Male Wages

Overview:

- **Wage inequality** - wage gap between those at bottom and those at top

- For both men and women, dramatic increase in wage inequality since 1970

- Male workers have experienced stagnating real wages since mid-1970s

- Returns to skill have increased
  - Labor market reward for various skills or qualifications increased
Increase in returns to skill

Increase in demand for skills may be a result of:

- Technological change
- Increasing international competition
- Decline in unionization
- Decreasing real value of the minimum wage

Real earnings trends

- Real earnings peaked for men in 1973

- 1980s
  - Women - Increased 11.5%
  - Men - Decreased 6.4%

- 1990s and early 2000s
  - Women’s real wages increased more than men’s

- Overall: Gender gap affected by women’s real earnings growth AND men’s weak real earnings trend
Declining Gender Gap

**Question:** Overall labor market trends have been unfavorable for low-wage workers where women are disproportionately represented, so how did the gender pay gap narrow in the same time period?

Three major explanations for gender gap (and its decline):

1. Differences in human capital investments
2. Labor market discrimination
3. Changing wage structure
   - Returns the labor market offers to various skills and employment in higher-paying industries or occupations

Three explanations not necessarily mutually exclusive

Empirical Results for 1980s

Women:
- Improved their qualifications relative to men
- Shifted occupations
- Were less affected by deunionization compared to men

A decrease in the “unexplained” portion of gender differential (which includes discrimination measures)

Changes in qualifications and decrease in unexplained wage gap resulted in a substantial increase in female to male wage ratio
1980s - Wage structure

Change in the wage structure during the 1980s favored men:

- Rise in return to experience
- Increase in returns to employment in male dominated occupations and industries

For wage gap to decline, factors favorable to women’s wages need to offset unfavorable shifts

Wage Gap Decline in 1980s

Potential reasons for declining wage gap in 1980s

- Along with increased measurable skills, women may have increased relative level of unmeasurable skills

- Increase in marketability of women’s education

- Decline in discrimination against women
  - Decline in taste discrimination unlikely since antidiscrimination enforcement was cut back in 1980s
  - Changing societal views may have decreased statistical discrimination

- Change in social attitudes
Wage Gap Decline 1980s

Additional (potential) reasons wage gap declined in 1980s

- Select labor market demand shifts favoring women
  - Technological change produced within-industry demand shifts favoring white-collar relative to blue-collar jobs
  - Increase in computer usage
  - Deemphasized physical strength

- Shifts in composition of female labor force
  - Female entrants had relatively high skills

Black - White wage gap in 1980s

Blacks:

- Lower educational attainment on average

- More adversely affected than whites by declining relative wages for less-educated workers

- Rate of progress slower during 1980s than in previous decades

- Decline in availability of blue-collar jobs in manufacturing negatively affected black males
Hispanic - White wage gap in 1980s

Educational gap between Hispanics and whites larger than black-white gap

Hispanics:

- Negatively affected by declining relative wages of less-educated workers
- Negatively affected by decrease in blue-collar and manufacturing employment
- Larger proportion of new Hispanic entrants are young, recent immigrants that may not speak English well

Empirical Results for 1990s

Slowdown in convergence of women’s and men’s wages

- Not caused by human capital trends or changes in wage structure
- Slowing convergence in occupations and deunionization accounted from some of slowdown but only small part
- Main reason: decreased narrowing of “unexplained” gender pay gap in 1990s compared to 1980s
“Unexplained” gender pay gap

Potential Reasons “unexplained” portion of gender pay gap narrowed slower in 1990s:

- Slower improvement in women’s unmeasured qualifications relative to men’s
- Smaller decline in discrimination
- Less favorable demand shifts
- Entry of relatively low-skilled, female single-family heads

Unemployment

US labor market is “high-churning”

- Employers layoff workers to streamline operations and increase efficiency
  - May result in age discrimination
- Workers who retain jobs have sense of insecurity
- Perception of job security
  - Similar for men and women
  - Blacks twice as likely to expect job loss
Black unemployment rates

Black unemployment rates twice as high as white unemployment rates at ALL ages

Possible reasons for this discrepancy:

- Lower levels of education
- Fewer acquired skills
- Lack of jobs near predominantly black communities
- Regional shifts in demand
- Employment discrimination
- Higher incarceration rates among blacks than whites

Trends in Gender Differences in Unemployment

1. Labor force attachment
   - Women have lower labor force attachment
     - Increases unemployment of women relative to men
     - Unemployed women more likely to exit labor force
       - Those that exit labor force are not counted as unemployed
       - Unemployment rises less for women, especially during economic downturns

2. Different occupations and industries
   - Predominantly male sectors have above average layoff and unemployment rates

Before 1980s - Net results was higher unemployment rate for women

Since 1980s - Women’s unemployment rates equal to men’s and lower during recessions
Issues with unemployment measures

- Do not provide information about **underemployed workers**
  - Workers who take jobs for which they are clearly overqualified or offer fewer hours than prefer

- Does not include marginally attached workers
  - Discouraged workers

Nonstandard Workforce

**Nonstandard workforce** includes all workers who do not hold “regular” full-time jobs:

- Temporary help agency workers (“temps”)
- On-call workers
- Contract workers
- Independent contractors
- Part-time workers (BFW)

~ 25% of employed workers

May be voluntary or due to lack of full-time opportunities
Nonstandard Workforce

Employers use of nonstandard workers

Reasons to employ nonstandard workers:

- Small or medium-size firm
  - Contract services in specialized areas
- Peak and off-peak periods of demand for product
- Method to screen future workers
- Lower wages and benefits

Nonstandard employment

Cons:

- Access to limited training
- Limited promotional opportunities
- Few benefits
- Less job security
- Routine jobs
- Lack of protection from unions

Women are over-represented among part-time, on-call and temp workers which have lower average earnings and fewer benefits than contract workers or independent contractors
Rise in Nonstandard Workers

Increase in demand for nonstandard workers

Possible reasons:
- Job growth in industries with more nonstandard work arrangements
- Increased cost of benefits (health insurance)
- State limitations on employers to terminate “at will”
- Increased number of small firms

Self-Employment

Men’s self-employment rate considerably higher than women’s

Gap continues to narrow

Factors that motivate self-employment:
- Ability to set own hours
- Presence of spousal health insurance
- Expectation of high return
Women self-employment

Reasons women begin self-employment opportunities:

- Last resort for employment
- Escape from glass ceiling
- Route out of poverty

Self-employment earnings

Research found self-employed workers receive lower earnings than labor market (employed) counterparts with same qualifications

- May be a form of compensating differential
- Even greater difference when consider lack of benefits to self-employed workers

Women who leave self-employment for wage or salary positions may also experience lower wage growth

- Lose out on valuable firm- and industry-specific human capital
- Men do not face same penalty
Goldin et al. (2006) - *The Homecoming of American College Women: The Reversal of the College Gender Gap*

Four periods (ratio of male-to-female undergraduates):

1. **Gender parity (1900-1930)**

2. **Increase in male enrollments during Great Depression and after WWII**
   - Highest value in 1947: 2.3

3. **Relative increase in female enrollments after 1947 and rapid changes in 1970s**

4. **Reversal of gender gap around 1980**
   - Female advantage of 1.35 in 2003

**Question:** Why parity in college attendance between men and women in early 1900's when later labor market participation for married women was so low?

- Large fraction who graduated never married and did enter labor force

- College served two purposes:
  - Labor market (HK accumulation)
  - Marriage market
Goldin et al. (2006) - Data

- 1972 National Longitudinal Survey (NLS)
  - High school seniors in 1972

- 1988 National Educational Longitudinal Survey (NELS)
  - Eighth graders in spring 1988 and seniors in 1992

- Wisconsin Longitudinal Survey (WLS)
  - 1957 survey of $\frac{1}{3}$ of all Wisconsin seniors

Outcome of interest: receipt of bachelor’s degree within 7 or 8 years of high school graduation

Goldin et al. (2004) - Descriptive Statistics

- Girls achieved considerably higher grades in high school than boys

- Math and science
  - 1952 - boys took far more
  - 1992 - equal and girls ahead in foreign language

- Greatest advances for girls relative to boys occurred between 1972 to 1982

- Ratio of female to male graduates:
  - 1957: 0.66
  - 1979: 0.87
  - 2000: 1.21 (reversal)

- Catch up found in ALL portions of ability distribution
Goldin et al. (2006) - Regression Results

Dependent variable is dummy variable for completion of bachelor’s degree

Covariates taken together do nothing to explain gender differences in 1957 and 1972

40% of female advantage in 1992 can be explained by test scores, grades, and courses

High school rank of women
  - 1972 - worth 0.6 of boys rank
  - 2002 - worth 1.6 of boys rank

Goldin et al. (2006) - Family Socioeconomic Status

Conventional presumption: Increase in family income and parental education improve female relative college outcomes
  - Lower socioeconomic status households tend to favor sons to daughters

Evidence:
  - True in data from 1957 but not in 1992
  - 1992 - Ratio of females to males graduating college higher in lower half of socioeconomic status distribution

Gender gap favoring females founds throughout socioeconomic status distribution
Goldin et al. (2006) - Human Capital Investment

Decision to attend and graduate college: weigh costs against benefits

Costs:
- Direct monetary outlay, potential financial constraints, effort cost, college preparation

Benefits:
- Labor market returns (depends on opportunity cost), consumption value of higher education, acquired health and parenting skills, marriage market

Goldin et al. (2006) - Changing expectations

*Figure 6*
Expectations and Opinions of Female Teenagers and College Freshmen: 1967 to 1984
Goldin et al. (2006) - Historical perspective of Female College Graduates

- Born 1926-1930 (Early post-WWII)
  - High fertility (baby boom mothers)
  - Low labor force participation (39% employed)
  - Worked in traditionally female-dominated occupations

- Born 1936-1940 (30-34 in 1970)
  - High fertility
  - Teaching still dominant occupation
  - Substantially higher labor force participation (49% employed)

- Born between 1946-1950 (30-34 in 1980)
  - High labor force participation (70%)
  - Reliable birth control pills - reduced uncertainty

Goldin et al. (2006) - Major factors in changing expectations

- Acceptance of the pill - ability to plan future more accurately

- Resurgence of feminism

- Expectations of large labor market payoff to college reinforced by:
  - rising college wage premium
  - secular labor demand shifts favoring occupations and industries disproportionately employing college-educated women
Goldin et al. (2006) - Other sources of college gender gap reversal

- College provided relatively greater economic benefits for women compared to men
  - College wage premium higher for women than men
  - Rise in divorce rates in 1960s
  - Women’s greater economic responsibility for children

- Relatively higher effort costs of college going and preparation for men

- Higher incidence of behavioral problems among boys

- Boys were found to spend less time on homework

- Greater legal protection for gender equality in workplace

- Changing social norms about role of work, marriage, and motherhood

Goldin et al. (2006) - Model Limitations

- Used three different data sets for comparison - variables and measurement may not be consistent

- Bachelors degree 7 to 8 years after high school may not capture all people who serve in armed forces or women who went back to school after raising children

- Changed measure of aptitude from IQ to test score measure
Collins (2000) - Minority Groups in the Economics Profession

Minorities have been underrepresented in economics professions

“Minority” - blacks, Hispanics, and Native Americans

Why is equal representation important?

- Sound economic analysis benefits from broader range of perspectives and experiences
- Role models

Collins (2000) - Statistics

Since blacks and Hispanics are disproportionately represented among permanent residence, it is important to include permanent residents in analysis

Economics is similar to overall average with 12% of bachelor degrees earned by minorities
Collins (2000) - Trends

US citizens only:

- Total Americans receiving economics degrees declined since 1970s with partial recovery in 1992
- Blacks: Rose in 1980s to 1990s
- Hispanics: Rose from late 1970s to 1980s
- Native Americans: Fell slightly in 1990s

US citizens and Permanent residents:

- Decline in American degrees offset by increases in degrees to permanent residents
- Hispanics: sustained level
- Blacks: gained in early 1980s, lowered in late 1980s and gained in 1990s
- Native Americans: already low and went even lower
Collins (2000) - Persistence

Why has low representation of minorities in economics professions not improved?

- Talented minorities may choose not to pursue Ph.D’s because of allure of professional schools in business, law or medicine
- Rising minority graduation rates in these alternative fields support this claim

Collins (2000) - Data and Results

- National Science Foundation (NSF):
  - Minorities overrepresented in 2-year colleges and employment in business for non-profit and underrepresented in 4-year colleges and government employment

- American Economic Association (AEA) surveys:
  - Hispanics and blacks account for just 4% of AEA economists who received degrees since 1998
  - Few minorities in specific fields

- 1997 Universal Academic Questionnaire
  - Minority faculty better represented among junior than senior faculty
  - Blacks and Hispanics only 2% of all full professors and 7.6% of assistant professors
  - Potential gain for Hispanics in near future but no evidence of potential gain for blacks
Readings for Next Section:

Explained Differences: The Human Capital Model

- BFW - Chapter 6