The Impact of Gender Imbalance on Marriage Markets



Marriage Markets: Previous Work

- Gary Becker
 - Equal number of men and women
 - Costless search
 - Perfect information
 - Marriage revolved around specialization and division of labor



- All men and women married
- Lots of work built on this
- Why do some remain single?
- What if the number of men and women are not the same?

Recent Changes in Marriage

- Technological changes
- Declining fertility rates
- Greater economic opportunity for women
- Acceptability of cohabitation
- Birth control
- Changes in family law*



Differences or Similarities?

Division of Labor



Joint Consumption





More Singles Than Ever Refore Percent Married by Age, 1880–2000



Source: U.S. Censuses of Population, 1880-2000.

(Graph from: Stevenson, Betsy and Wolfers, Justin. 2007. "Marriage and Divorce: Changes and their Driving Forces." Journal of Economic Perspectives, 21: 27-52.)

Trends in Marriage and Divorce

Marriages and Divorces per Thousand People, United States 1860-2005



Sources: Data for 1860-1919 are from Jacobson (1959); 1920-1998 from Carter et al. (2006); 1999-2005 from U.S. Census Bureau (2007).

(Graph from: Stevenson, Betsy and Wolfers, Justin. 2007. "Marriage and Divorce: Changes and their Driving Forces." Journal of Economic Perspectives, 21: 27-52.)



Sex Ratio

 $SexRatio = \frac{\sum Males}{\sum Females}$

- Those seeking mates
- How common is it to have imbalanced populations?
- What are examples?
- What impact does this have?





College Campuses

- By 2015 average graduating class expected to be 60% female
- Competition for male attention?
- James Madison
 University = the wave of the future?
- Basic supply and demand







Evolutionary Psychology in a Nutshell





Education Differences

- Evolutionary psychologists tell us women generally prefer men of higher status than themselves
 - Financial
 - Educational
 - Industriousness
- True even for successful women
- Looming shortage of college educated men?



(From the American Council of Education report on Higher Education)



Washington DC



(Data via U.S. Census Bureau, 2000 Census; CNN; The Williams Institute)



Other Cities

Circles are sized to reflect how many more singles there are in each metro area, by gender





Shortage of Black Men



- 70 single black men for every 100 single black women
- 43% of black women have never married
- Less likely to marry, stay married, and remarry
- Black women are most unpartnered group in US -possibly the world

China: An Imbalanced Country

- Biggest demographic time bomb in the world
- Severe shortage of girls
- Selective abortions
- Preference for sons
- Sex ratio = 1.2
 - Some regions as high as 1.35+
- Black market for boys and brides
- Rising violence?



Japan: The Land of Disappearing Child

- Declining fertility rates
- Fewer women willing to marry
 - Particularly among educated women
 - Economic independence of women
 - Marriage not attractive
 - Sex-ratio of marriedminded?
- Also demographic time bomb?





India: No Toilet? No Bride!

- Gender-specific abortions
 - Illegal, but happens quite often
 - De facto vs. de jure
- Sex-ratio at birth = 1.18
- In rural India, prospective brides insist on a toilet in the home
- Increasing sanitation
- Fewer females gives women greater bargaining power when it comes to arranging a marriage







Sub-Populations in the US

- Several subgroups in the US also exhibit strong sonpreference
- Sex-ratio at birth
 - Chinese-American = 1.25
 - Indian-American = 1.18
 - Korean-American = 1.18
- Implies gender-specific abortions
- If the first two children were girls, the ratio for a third child was 1.51!
- Asian-American women most likely to marry interracially
 - Ticking time bomb for Asian-American men?

Boys per 100 girls, New York State



Note: Data not available for Indian and Korean mothers in earlier periods.

Source: Jason Abrevaya, University of Texas THE NEW YORK TIMES

Need an Ultrasound? There's an App for That!

- General Electric recently announced cell-phone sized sonograms
- Creates cheap, portable handset to help improve the health of mothers
- Potential for misuse
- Lowers cost of determining sex of child
- More difficult to detect illegal activity by authorities
- Impact on sex-ratios?



What About Religious Groups?

- Women tend to be more religious than men
- Shortage of devout men
- Sexual mores
- Within group marriage
- Low sex ratios among singles





Religious Group Demographics

Bachelor Degree+, Ages 30-39 Attend Church Weekly



(Data via General Social Survey, 2000-2006)





Sex ratio = $\frac{(.167)(.259)}{(.244)(.361)} = .49$

- Is education a negative for religious women?
- Anecdotal evidence consistent with this
 - Mormons
 - Muslims
 - Evangelicals

How's That Compare?



(Data via General Social Survey, 2000-2006)



The General Population

Bachelor Degree+, Ages 30-39 General Population



 $Sex \ ratio = \frac{(.301)(.296)}{(.268)(.283)} = \underbrace{1.17}$

- In the general population, collegeeducated men outnumber collegeeducated women.
- Amongst devout, college-educated women outnumber college-educated men 2 to 1.

Religious Prohibitions: Effects?

- 1) Incentive to marry at earlier ages
- 2) Marry more cautiously
- 3) Higher search cost
- 4) Isolated groups
 - Gilligan effect?*
 - Adverse-selection?
- 5) Prohibitions as price controls?
 - Underground economy?
 - Preference falsification?





The Gilligan Effect



Why is no one smiling?

- Why might "lowactivity" singles groups persist?
- Build-up of social capital?
 - Reduces likelihood of leaving
 - Familiarity of people?
 - Raises cost of relational risk-taking
- RESULT: Trapped on a desert island!

Separation of Church and Date?



- Religious men more risk-averse
 - Cause or effect?
- Early marriage?
 - Lower reservation threshold
- Risk-averse dating?
 - Lower dating activity?
 - Longer search time?
- Overall effect
- 26



What About the Internet?

- May help isolated groups better connect
- Could reduce search costs
- Better matching?
 - Lower divorce?
- Paradox of Choice?
- Doesn't impact sex ratios



"Twenty years from now, the idea that someone looking for love won't look for it online will be silly, akin to skipping the card catalog to instead wander the stacks because 'the right books are found only by accident'... serendipity is the hallmark of inefficient markets, and the marketplace of love, like it or not, is becoming more efficient." -- Rufus Griscom, Wired Magazine 2002



Research Agenda

- Religious data
 - Facebook surveys?
 - GSS data imprecise for smaller groups
 - ARDA
 - Field research
 - Other?
- Computer simulations
 - Agent-based models
 - Santa Fe Institute
- Theoretical models
- More empirical data





Comments or Questions?

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