

Women's Liberation: What's in it for Men?

Matthias Doepke and Michèle Tertilt

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“Once married, a bride was obliged by law and custom **to obey her husband** – a requirement so fundamental to the biblical idea of a wife that it remained in most Jewish and Christian wedding vows until the late twentieth century. After all, **wives were considered a husband's “property,”** alongside his cattle and his slaves.”

Marilyn Yalom, *A History of the Wife*



His latest purchase.

The Facts

- In developed countries, drastic change in women's rights over the last 200 years.
- At least initially, increase in female rights was voluntary sharing of power by men.

The Question

- Why did men decide to share power with women?

Key Observations (US and England)

- Unmarried women had similar rights to men by early 19th century.
- Large changes in *married* women's legal position in second half of 19th century.
- Expansion of “economic rights” preceded political rights (right to vote only in 1920).
- Connection to family and children:
 - child custody
 - divorce
 - married women's property
 - school suffrage

Why a Separate Theory for Women?

- Acemoglu and Robinson (2000, 2001, 2006)? Women are unlikely to pose a threat of revolution.
- Lizzeri and Persico (2004)? Economic rights were extended before suffrage.
- Parallels to slavery? All men are closely related to at least some women.

Our Approach:

- Formal model of women's rights.
- Focus on the family:
 - Expansion of female rights started long before widespread female labor force participation.
 - Large changes in the rights of married women.
 - Expansion of rights coincided with changing role of family: fertility decline and rise in education.

The Idea

- Women's rights determine bargaining in marriage.
- Trade-off between own wife and other men's wives.
 - Men prefer own wife to have no bargaining power.
 - However, men may want daughters to have some power.
 - Moreover: Children marry other people's children
→ Men may want mothers of future children-in-law to have more power.
- Strength of motive depends on returns to education.

The Model:

- Overlapping generations of men and women.
- All people marry, spouse is picked at random.
- Utility defined over consumption c , fertility n , and children's utility.
- People are altruistic towards kids (Barro/Becker 1989).
- Endogenous growth: human capital accumulation.
- Decision-making in marriage: will analyze 2 regimes.
- Key assumption: mothers care more about children's welfare than fathers do.

The Altruism Gap between Mothers and Fathers:

- Evolutionary justification: uncertainty about paternity.
- Empirical evidence:
 - Pitt and Khandker (1998): credit provided to women more likely to affect schooling for children (Bangladesh).
 - Lundberg, Pollak, and Wales (1997): paying child allowance to mothers increased spending on children's clothing (UK).
 - Attanasio and Lechene (2002): higher transfer to women leads to increased expenditure share of children's clothing and food (Mexico).

Preferences:

- Man:

$$V_m = u(c_m, c_f, n) + \gamma_m \left[\frac{V_{\text{Sons}} + V_{\text{Daughters}}}{2} \right],$$

$$u(\cdot) = \log(c_m) + \sigma \log(c_f) + \delta \log(n).$$

- Woman:

$$V_f = u(c_f, c_m, n) + \gamma_f \left[\frac{V_{\text{Sons}} + V_{\text{Daughters}}}{2} \right],$$

$$u(\cdot) = \log(c_f) + \sigma \log(c_m) + \delta \log(n).$$

- Women value children more:

$$\gamma_f > \bar{\gamma} = \frac{\gamma_m + \gamma_f}{2} > \gamma_m.$$

Technology:

- Home production function:

$$c_m + c_f = A(t_f H_f)^\alpha (t_m H_m)^{1-\alpha}.$$

- Accumulation of human capital:

$$H'_f = \max\{1, (Be^f)^\theta H_f^\beta H_m^{1-\beta}\},$$
$$H'_m = \max\{1, (Be^m)^\theta H_f^\beta H_m^{1-\beta}\}.$$

- Time constraints:

$$t_f + (\phi + e^f + e^m)n \leq 1,$$
$$t_m \leq 1.$$

- Assumption of specialization in child care is not crucial.
- Key parameter: Return to education θ .

Economic and Political Decisions:

- No commitment across generations.
- Patriarchy regime: Men make decisions, women obey.

$$\max\{V_m\}$$

- Empowerment regime: Equal power and efficient bargaining.

$$\max\{V_m + V_f\}$$

- Men vote on regime (affects current and future marriages).
- For now: Once-and-for-all voting.

Preview of Results:

- Low return to education:
 - Parents don't educate, and decision problem is static.
 - Political regime only affects consumption share of husbands and wives.
 - Men's incentives for sharing power are low.
- High return to education:
 - Dynasty accumulates human capital.
 - Political regime affects speed of accumulation.
 - For sufficiently high return, men prefer to share power.

The No-Education Regime:

- If return to education is low (B low), optimal choice is $e_m = e_f = 0$, implying $H_m = H_f = 1$.
- Decision problem is static. Two decisions need to be taken:
 - Fertility (but husband and wife agree)
 - Allocation of consumption between husband and wife
- Regime only determines consumption allocation; no dynamic implications.
- Men prefer daughters to have equal rights, but incentive to share power is weak.

Patriarchy in No-Education Case

Proposition 1: Consider an economy in which education is never optimal (low B, θ). Then:

- For low γ_m , men prefer patriarchy.
- For high σ , men prefer patriarchy.

Economic growth (B, θ high)

State variables: $H_m, H_f, \bar{H} = (\bar{H}_m, \bar{H}_f)$.

Patriarchal Decision-making:

$$\max \left\{ u(\cdot) + \gamma_m \left[V_m(H'_m, \bar{H}'_f, \bar{H}') + V_m(\bar{H}'_m, H'_f, \bar{H}') \right] \right\}$$

$$\text{Empowerment: } \max \left\{ V_m(H_m, H_f, \bar{H}) + V_f(H_m, H_f, \bar{H}) \right\}$$

- Empowerment raises education. Attractive because
 - Commitment within the dynasty: Men value grandchildren more than the grandchildren's fathers do.
 - Externality across dynasties: Positive effect of education on children's spouses' parents.
- Power sharing optimal if θ sufficiently large.

Growth Rates

- All variables grow at rate

$$\left(B e_f^\beta e_m^{1-\beta} \right)^\theta$$

- When women are involved in decision-making, e_f and e_m increase.
- This benefits men as well. And more so, the larger θ .
- At some point, men are willing to relinquish control over their wives and benefit from the increased control their daughters have.

“Time Inconsistent Preferences”

- Patriarchal decisions are made according to:

$$\begin{aligned} V_m &= u_m + \gamma_m \left(\frac{V_m + V_f}{2} \right) \\ &= u_m + \gamma_m \left(\frac{1}{2} \left[u_m + \gamma_m \left(\frac{V_m + V_f}{2} \right) \right] + \frac{1}{2} \left[u_f + \gamma_f \left(\frac{V_m + V_f}{2} \right) \right] \right) \end{aligned}$$

- Weight on daughter’s kids is γ_f .
- However, daughter’s husband puts only: γ_m .
- \Rightarrow hyperbolic discounting.

Marriage Market Externality

$$V_m(H_m, H_f, \bar{H}) = \max \left\{ u(\cdot) + \gamma_m \left[V_m(H'_m, \bar{H}'_f, \bar{H}') + V_m(\bar{H}'_m, H'_f, \bar{H}') \right] \right\}$$

- Men take human capital of future children-in-law (\bar{H}'_f, \bar{H}'_m) as given.
- Effect that increased education has on children's spouses is not taken into account \rightarrow underinvestment.
- Potentially this externality could be internalized in the marriage market.
- Note: this would require men to write a contract (specifying a son-in-laws' treatment of daughter/grand-children) that is honored **beyond the men's death**.

Comparing Regimes (Proposition 2)

- For given state variables: aggregate consumption is identical across regimes.
- Under patriarchy, men consume more than women.
- Women's time allocation between production and child-rearing is identical across regimes.
- Fertility is lower under empowerment.
- Education is higher under empowerment.
- Ratio male/female education is identical across regimes.
- The growth rate of the economy is higher under empowerment.

Economic Forces (Proposition 4)

- If $\gamma_m = \gamma_f$, the optimal regime does not depend on θ .
- Without the marriage market externality, the incentive to share power *decreases* with θ .

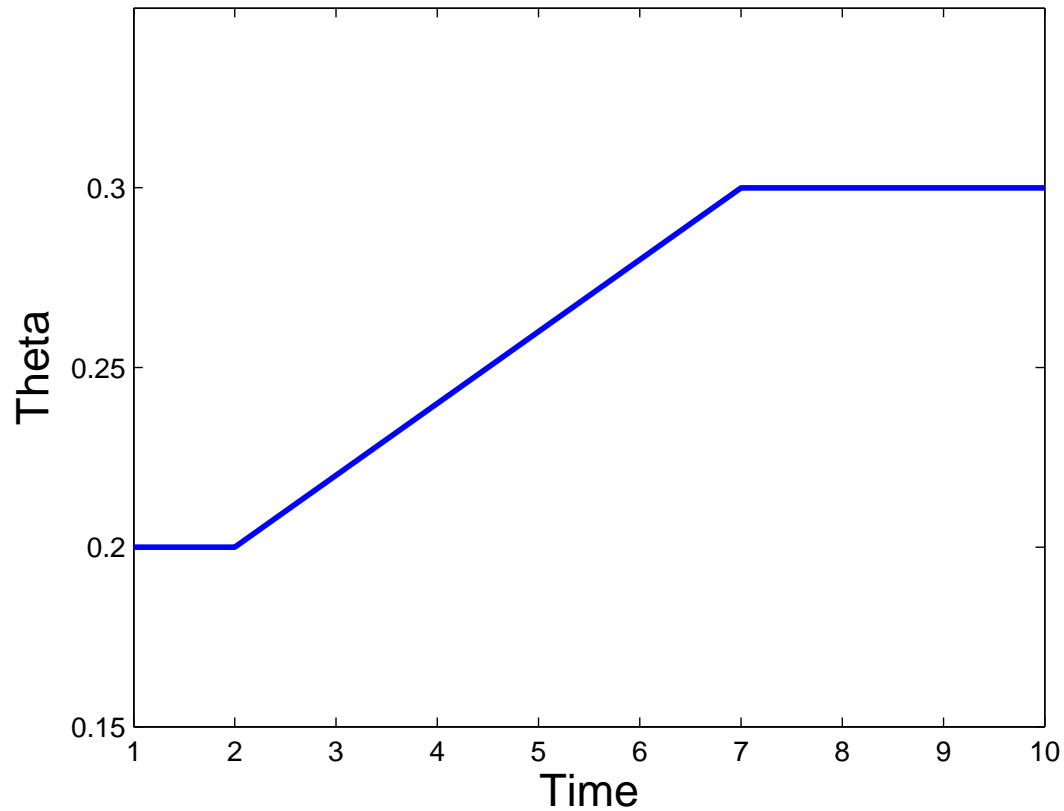
Dynamic Political Equilibria:

- Consider environment with return to education θ changing over time.
- Time path for $\{\theta_t\}_t$ is perfectly anticipated.
- Men can vote for or against empowerment in every period; future votes are fully anticipated.
- Focus on equilibria in which voting strategies depend only on payoff-relevant variables.
- Result: Vote for empowerment in period T if return to education θ_T sufficiently large.

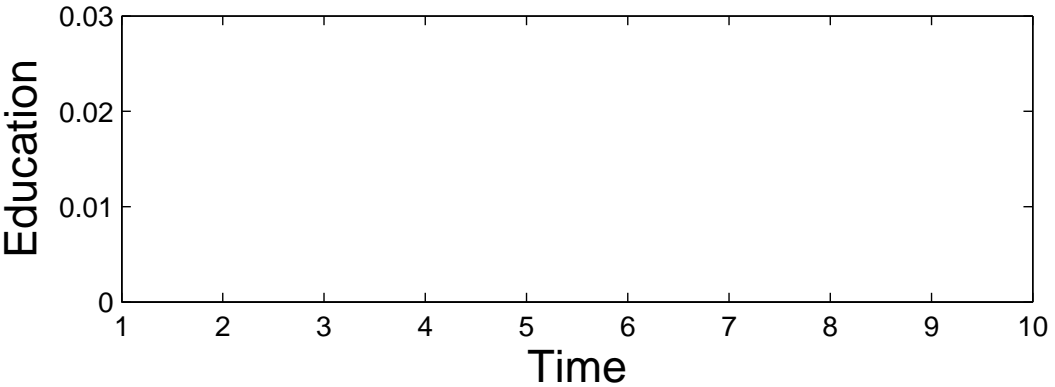
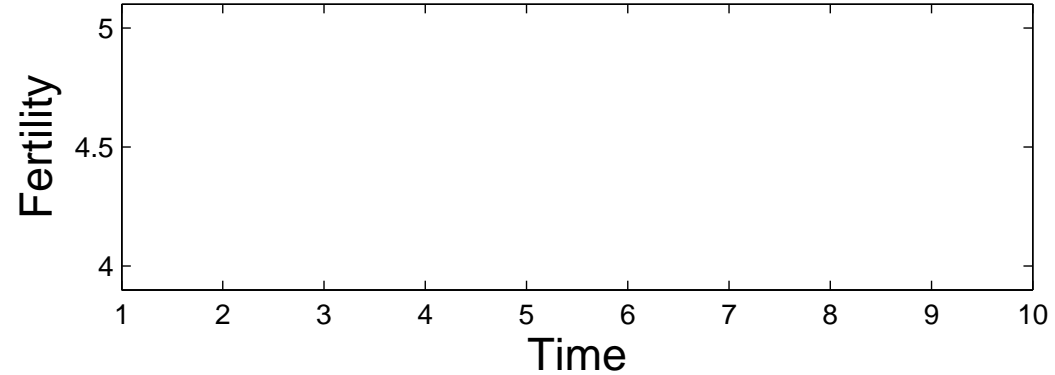
Computed Example of Transition to Power Sharing:

- Economy starts out in no-education regime.
- Return to education θ increases over a number of periods.
- In period 3, economy switches to education regime.
- In period 6, θ is sufficiently high for men to vote for power sharing.

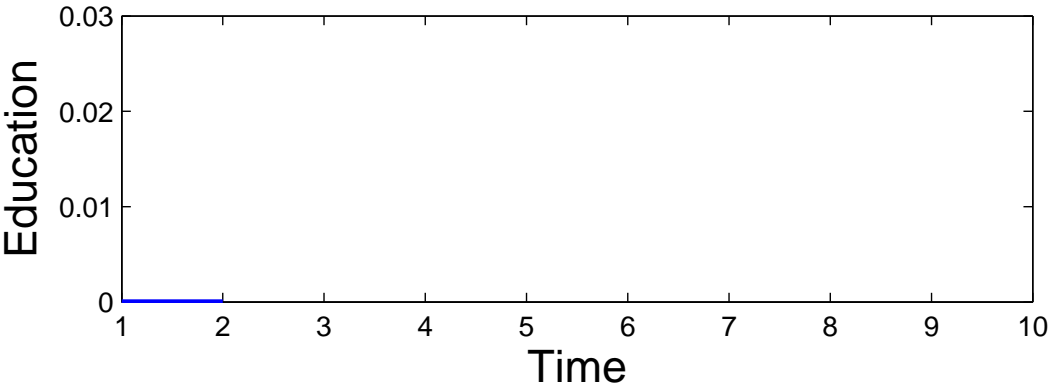
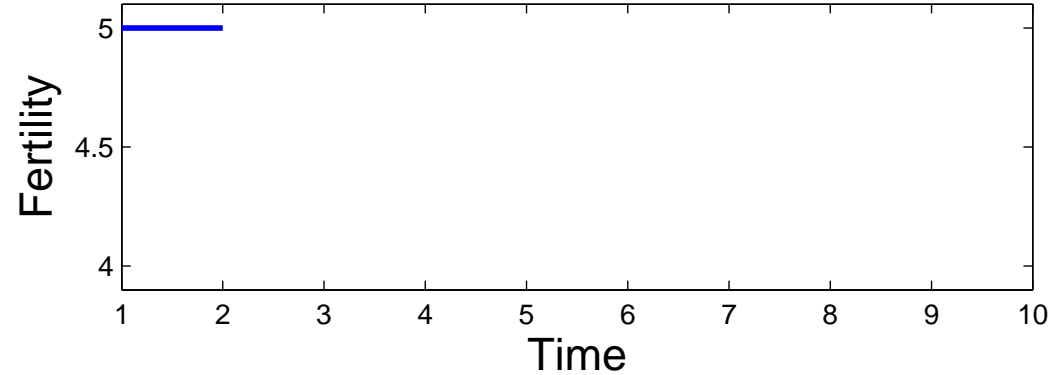
The Assumed Path for θ (Return to Education):



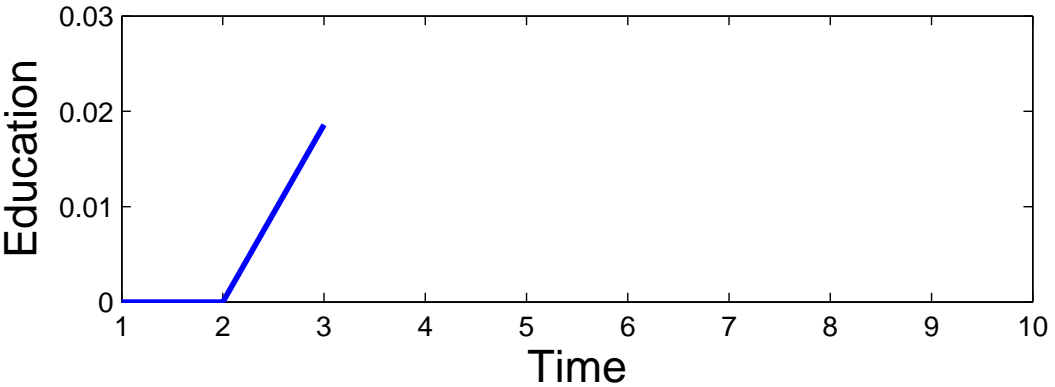
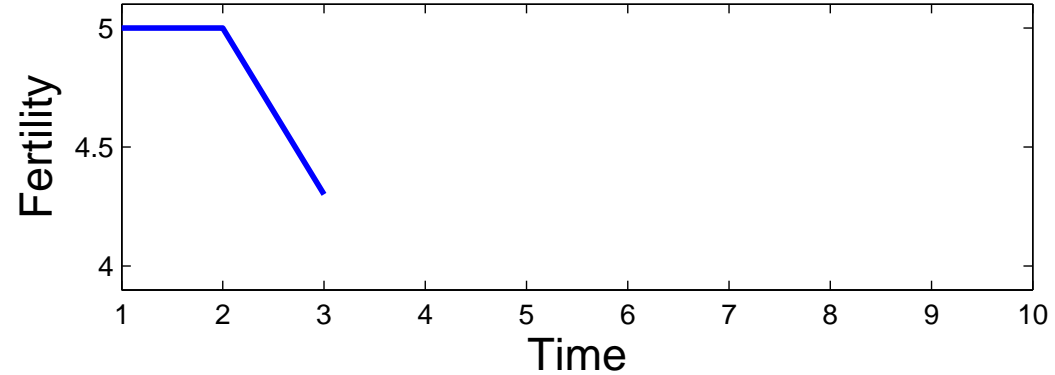
The Outcome under Permanent Patriarchy:



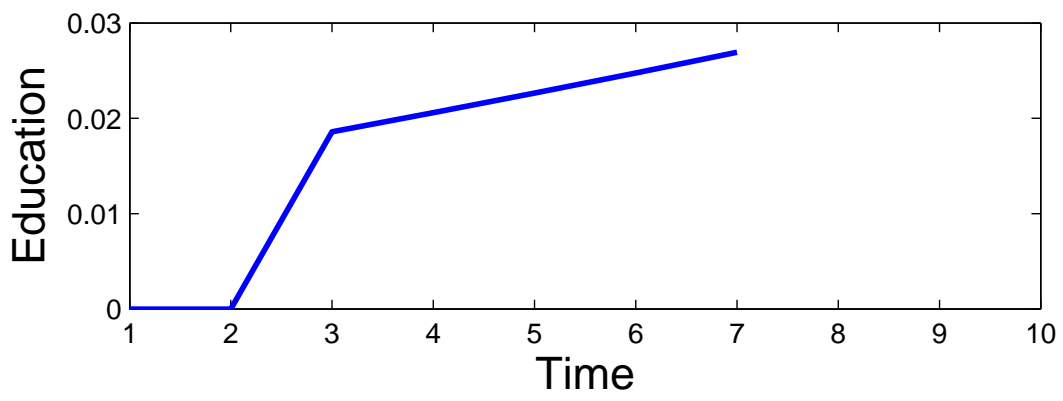
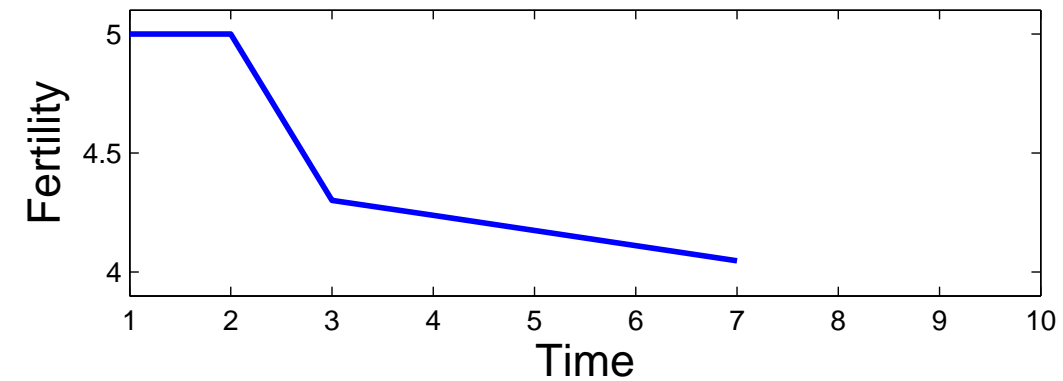
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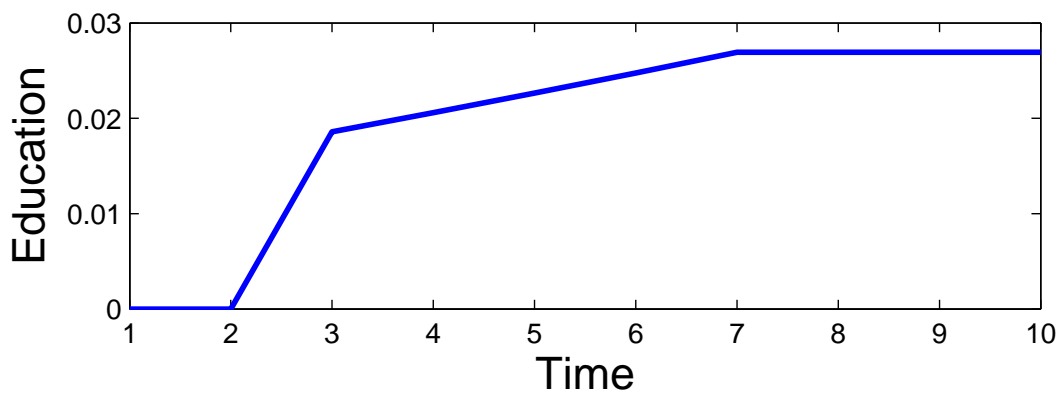
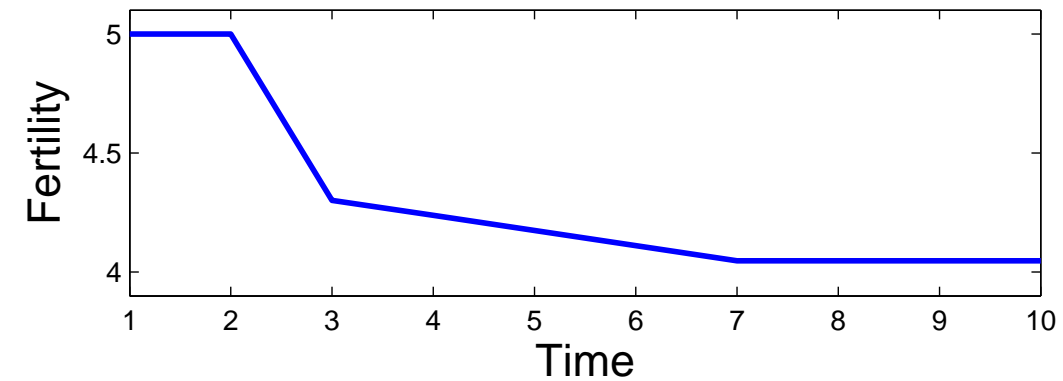
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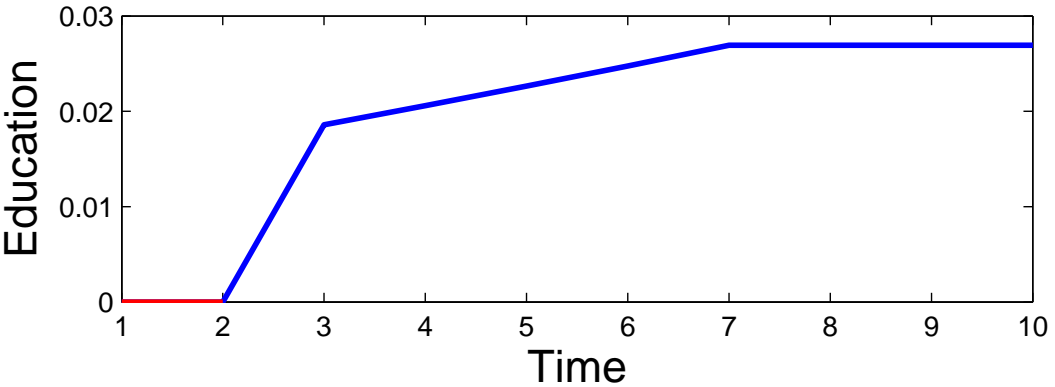
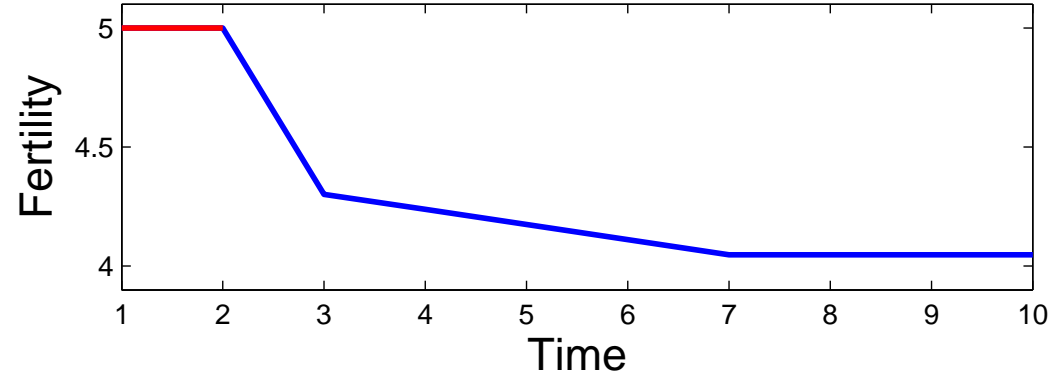
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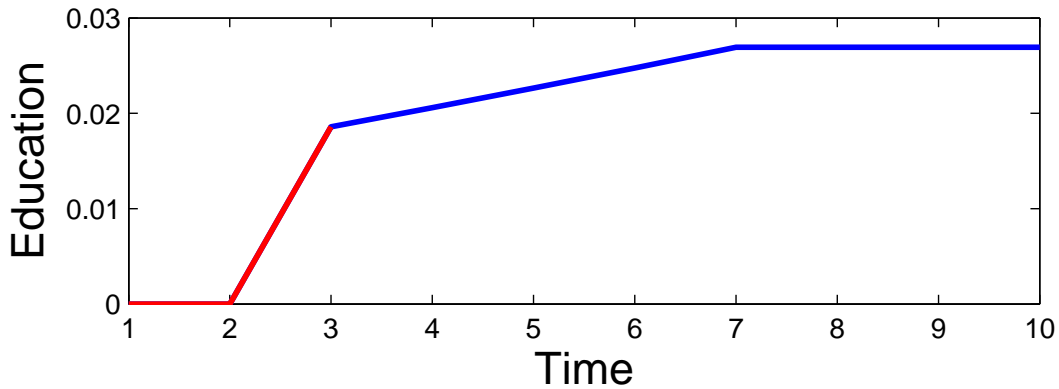
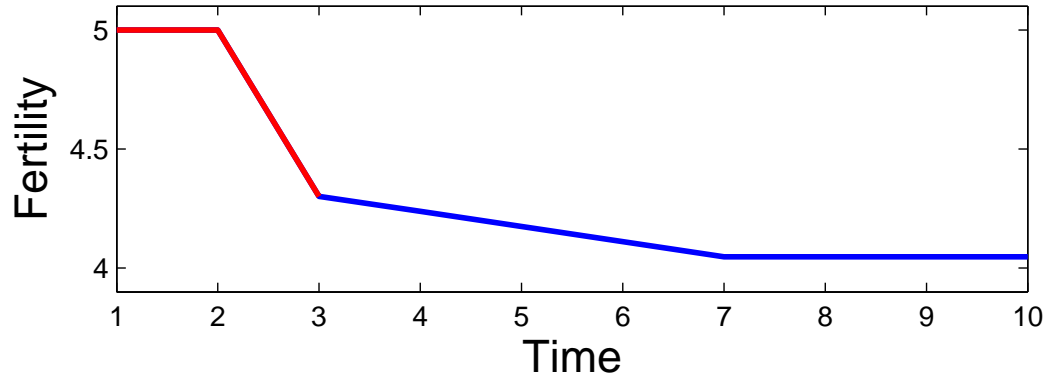
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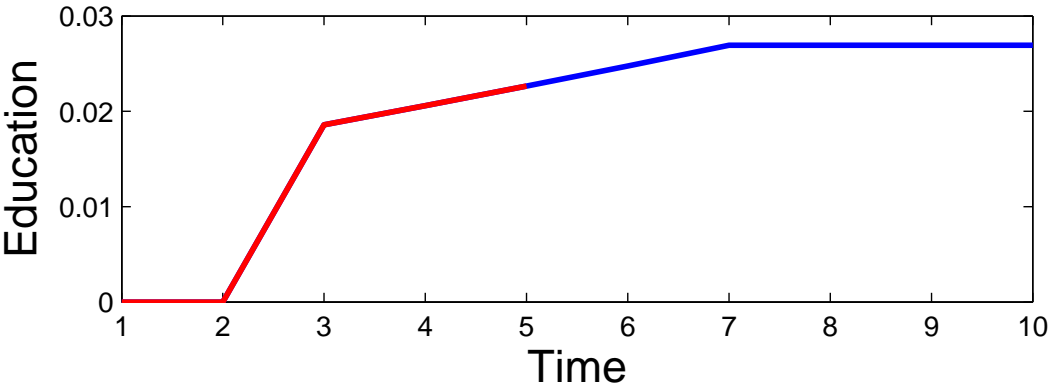
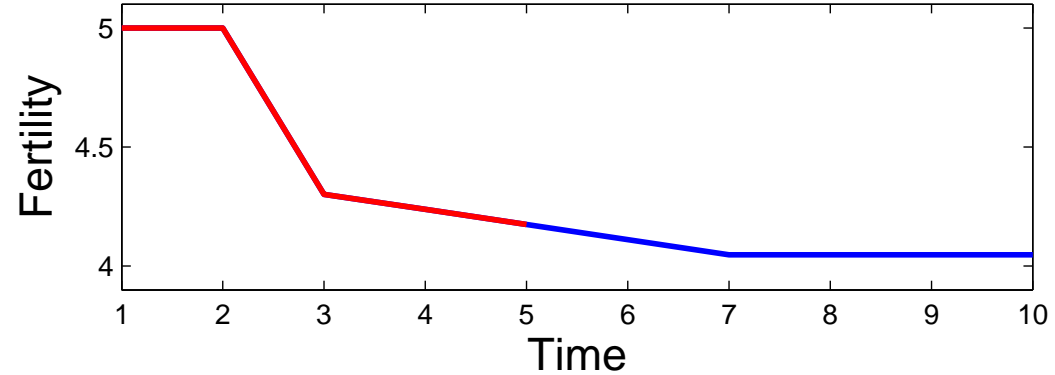
The Outcome under Optimal Female Empowerment:



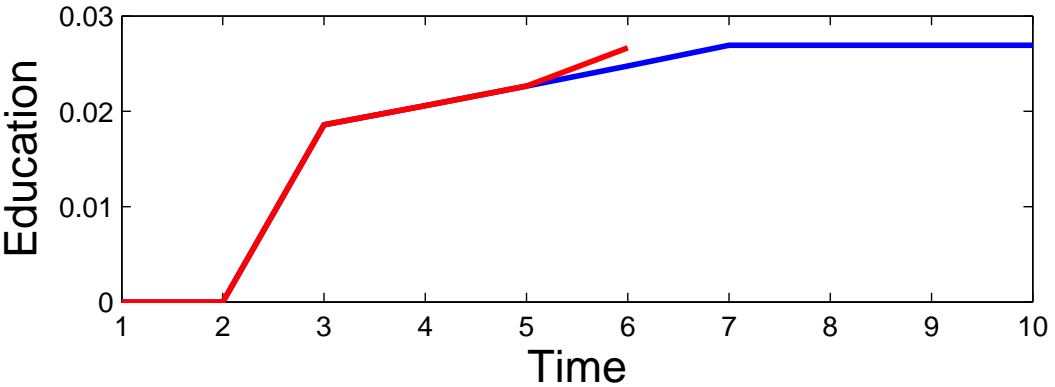
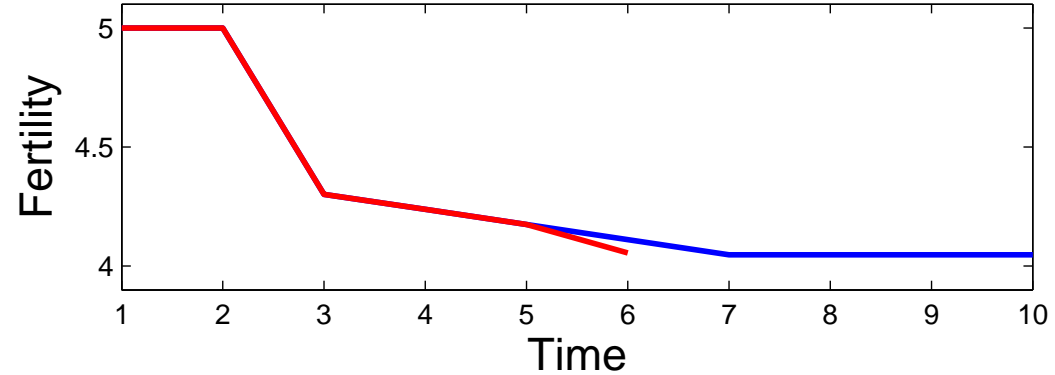
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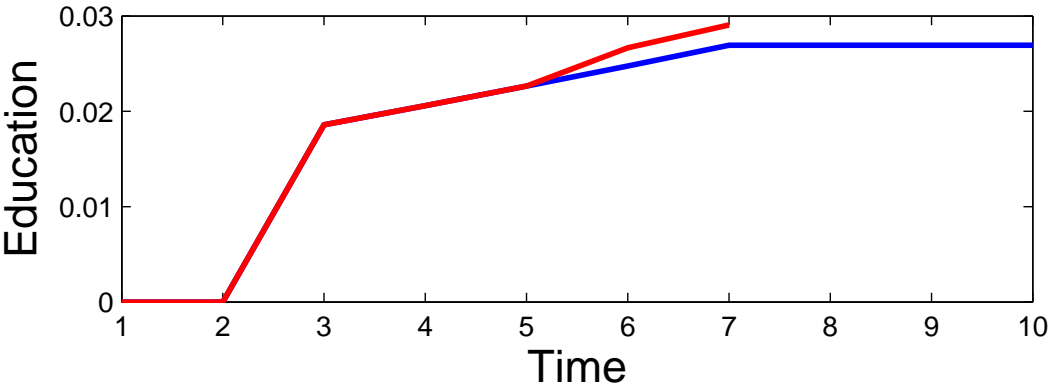
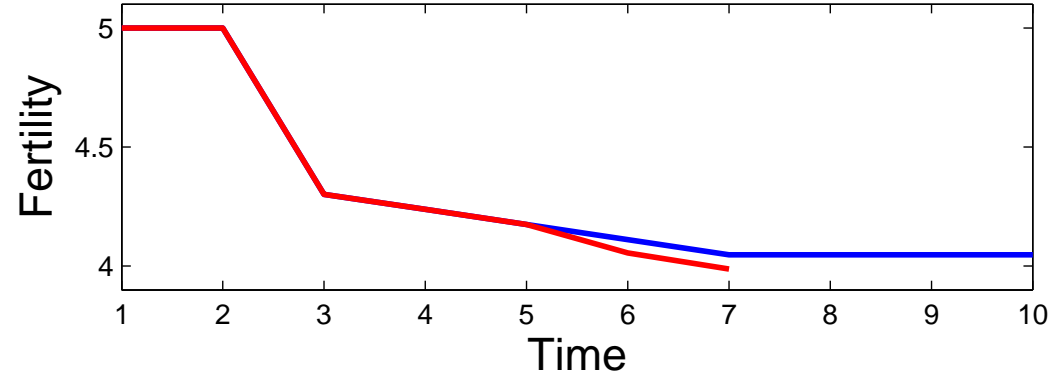
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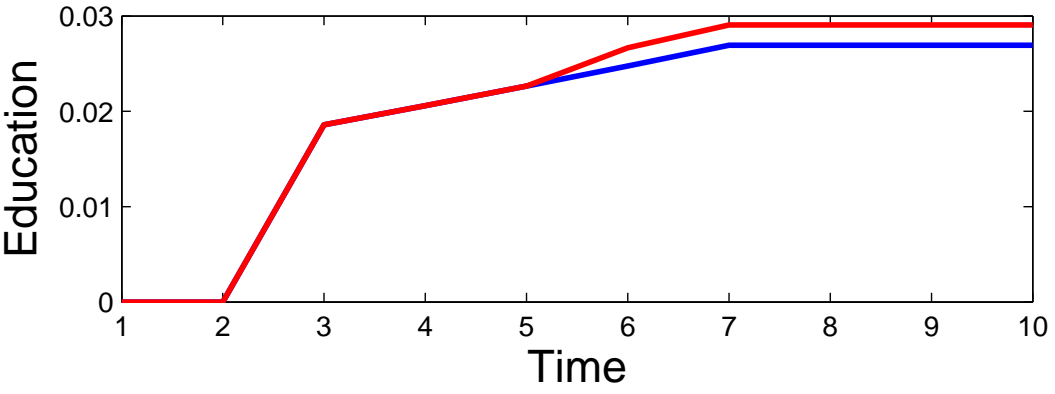
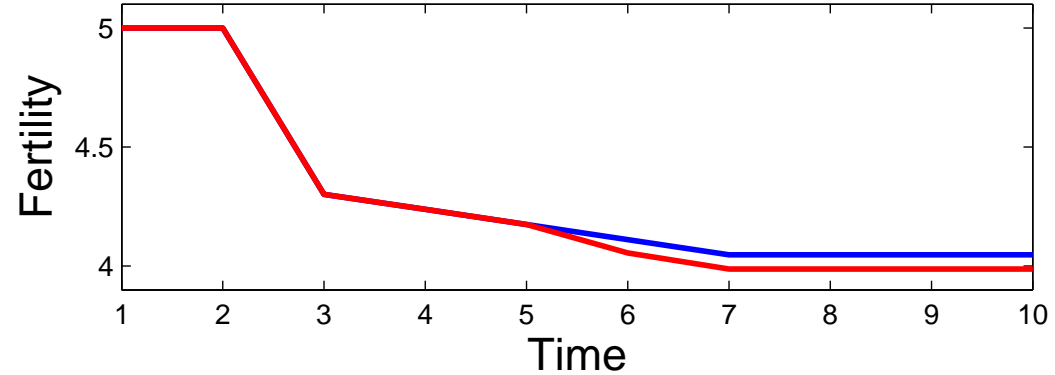
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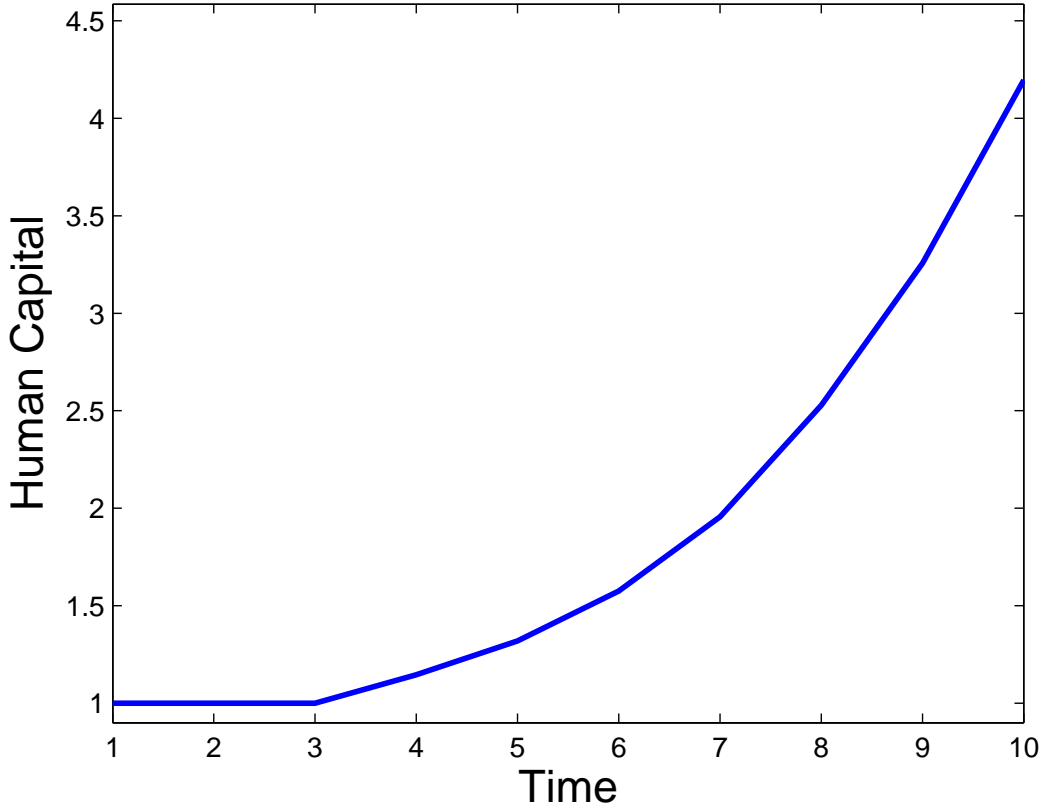
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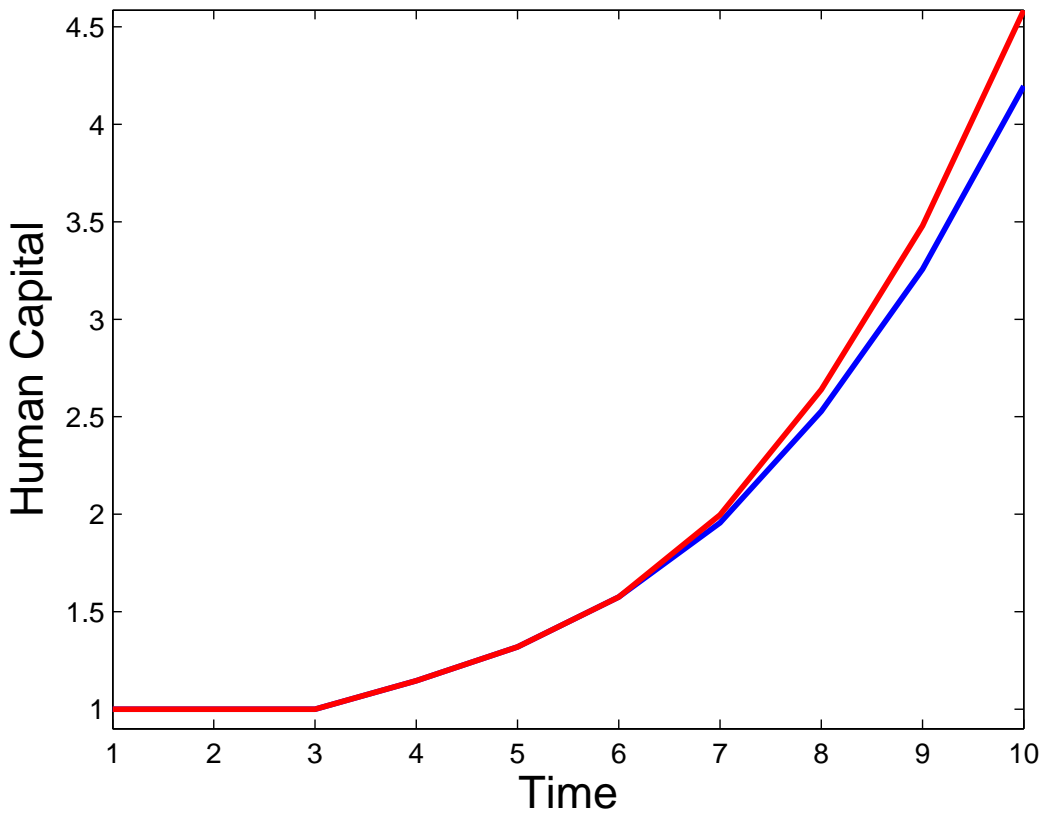
The Outcome under Optimal Female Empowerment:



Human Capital under Permanent Patriarchy:



Human Capital under Optimal Female Empowerment:



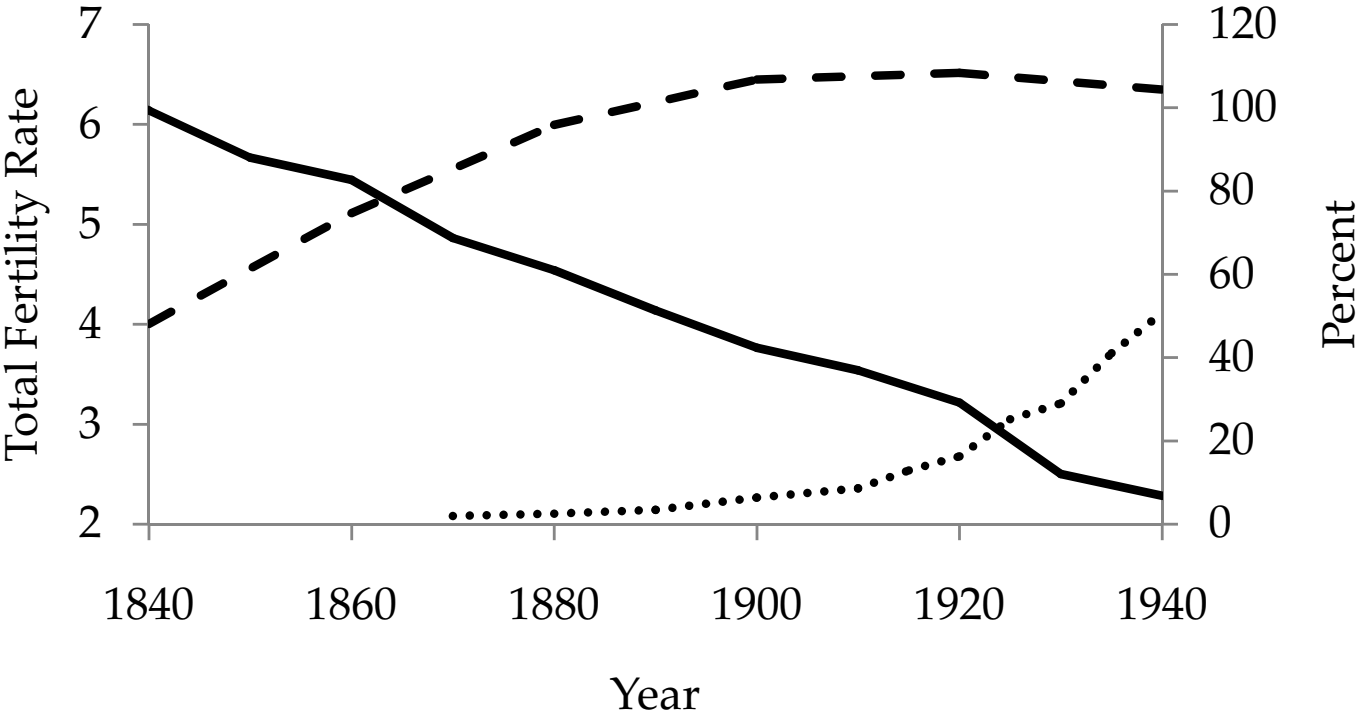
Timing Implications:

- Fertility decline and rising demand for education starts before expansion of female rights.
- Once female rights are extended, fertility decline and expansion of education accelerate.

Timing of Female Empowerment in the United States:

- 1769: “The very being and legal existence of the woman is suspended during the marriage.”
- 1839: Mississippi grants women the right to hold property with their husband’s permission.
- 1869: Wyoming passes the first women suffrage law.
- 1900: Every state has passed legislation granting married women some control over their property and earnings.
- 1920: 19th amendment granting all women right to vote.

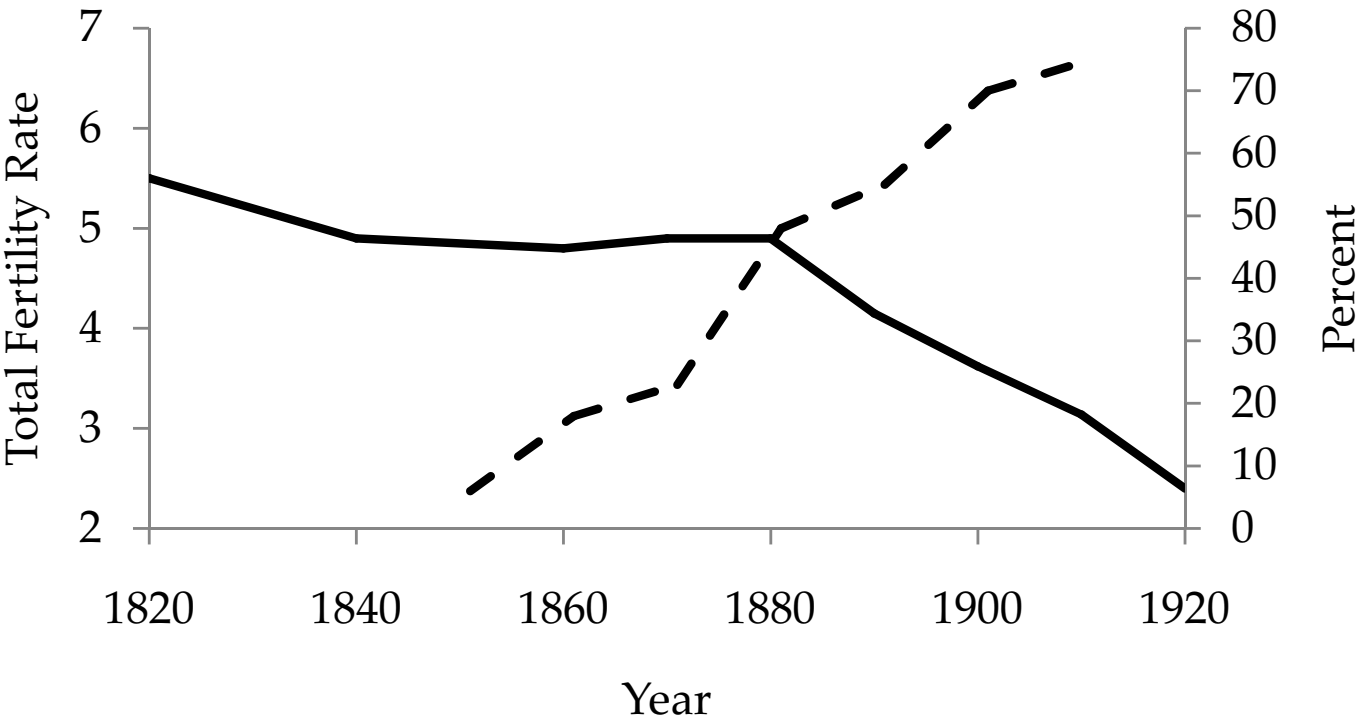
Fertility and Education in the United States:



Timing of Female Empowerment in England:

- 1839: Custody of Infants Act. Divorced and separated women can apply for their children under the age of seven.
- 1857: Matrimonial Causes Act. Women can apply for divorce, regain full property rights after divorce.
- 1870, 1882: Married Women's Property Act. Married women gain control over their earnings and property, can enter into contracts.
- 1918: Woman Suffrage Act.

Fertility and Education in England:



Extension I: Changes in Labor Market

- Geddes and Lueck (AER 2002) argue that changes in technology made female work more profitable.
- This in turn accentuated an agency problem between husband and wife (if effort is unobservable).
- Cost from not giving self-ownership to wives became too high.
- Men extended rights.

Extension I: Changes in Labor Market

- Geddes and Lueck (AER 2002) argue that changes in technology made female work more profitable.
- This in turn accentuated an agency problem between husband and wife (if effort is unobservable).
- Cost from not giving self-ownership to wives became too high.
- Men extended rights.
- Problem 1: Timing. Married FLFP by 1900 about 5%. Large changes in 20th century.
- Problem 2: No correlation between FLFP and rights on state level (Evan Roberts 2006).

Female Labor Market in Our Model

- Market production: $Y = A l_f^\alpha l_m^{1-\alpha}$
- Effective labor supply: $l_f = t_f H_f$ and $l_m = t_m H_m$
- Wages: $w_f = A \alpha l_f^{\alpha-1} l_m^{1-\alpha}$ and $w_m = A(1 - \alpha) l_f^\alpha l_m^{-\alpha}$
- Family budget constraint: $c_m + c_f \leq w_f l_f + w_m l_m$
- Analysis: increase in α .

Comparison: $\alpha_L < \alpha_H$

- Education: $e_f^H > e_f^L$.
- Market work: $t_f^H > t_f^L$.
- Fertility: $n^H < n^L$.
- Wage ratio (wages per unit of time): $\frac{w_f^H H_f^H}{w_m^H H_m^H} > \frac{w_f^L H_f^L}{w_m^L H_m^L}$
- Thus, by many conventional measures, an increase in α increases importance of women.

Optimal Regime Choice

- However, can show that the value function comparison does *not* depend on the regime.
- Thus, optimal regime choice *independent* of female involvement in labor market.

Extension II: Public Education

- Free public education was introduced during the same period when women's rights were first expanded.
- Is a public education policy a substitute for women's rights?
- Answer: Depends on whether public and private inputs in the production of human capital are substitute or complements.
- When inputs are complementary, education policies and expansion of women's rights are mutually reinforcing.

The Model with Public Schooling

- Consider production function for human capital that involves a public schooling input s :

$$H' = B(e^\eta s^{1-\eta})^\theta H_f^\beta H_m^{1-\beta}$$

- s is in units of teacher's time.
- Public schooling financed through tax τ on (male) income.
- Each teacher can educate S children:

$$s = \frac{\tau S}{2n}.$$

- Tax is determined each period through vote among the male population.

Results for Extended Model

- Increase in θ leads to more spending on public education and to adoption of women's rights.
- Incentive for adopting women's rights higher when public education is present (i.e., critical θ is lower).
- Men may have an incentive to vote for female school suffrage.

Evidence from Social Historians (late 19th century)

- Changing view of nature of childhood: from “miniature adults” to innocent beings that require nurturing.
- Lead to a heightened appreciation of motherhood.
- Shift in child-rearing advice literature: from father-centered to mother-centered theories.
- Mothers role as educators raised also the appreciation for female education.

Evidence from Political Debates

Evidence from newspaper editorials (NY Times, London Times), pro-reform pamphlets, and parliamentary debates

- Child custody: Gradual shift from rights of fathers to needs of children and nurturing role of mothers.
- Divorce: Administrative simplification, wider access to divorce, improved legal position of separated and divorced women and their children.
- Property laws: Emphasis on protecting women and children from irresponsible husbands; protection of working women's earnings; effects on the education of women and children.

Evidence from Debates

“Indeed, the gross inhumanity of taking away infants, perhaps hardly able to walk or talk, from the mother’s care could not be seriously defended. . . . but was it less [indefensible] to take them from her, against their will and hers, . . . after they had grown up in her society, had become accustomed to her love, her sympathy, and her watchful guidance, and had developed morally and intellectually under her training?”

(Custody of Infants Act, England 1873)

Evidence from Social Historians

It was not necessarily sympathy for the cause of women's rights that prompted men to vote for women's property rights but rather ... because they perceived plainly that their own wealth, devised to daughters, who could not control it, might be easily gambled away.

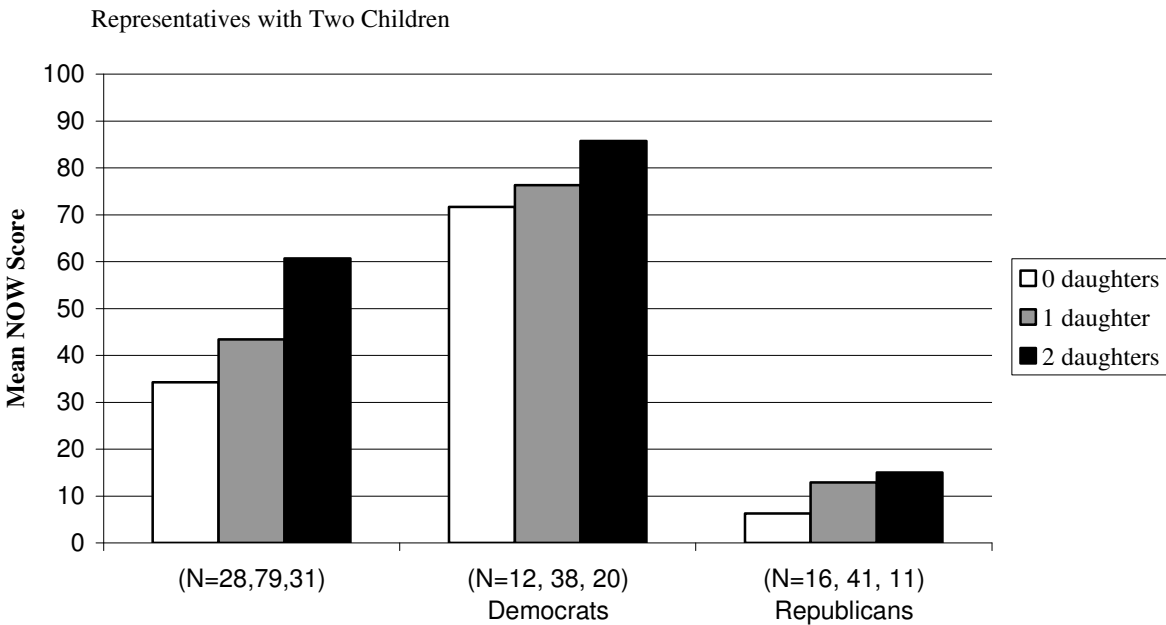
(Mason 1994, U.S.)

[Proponents of women's rights stressed the] importance of the nurturing mother and argued that more rights would lead to more informed homemakers.

(Nolte 1986, Japan)

Evidence from U.S. Congress:

NOW: National Organization of Women



Conclusions:

- Extension of female rights is a prime example of voluntary power sharing.
- Power sharing can be generated in model with tradeoff between rights of one's own and other men's wives.
- Theory explains why rights were extended when increased importance of education changed role of the family.
- Two-way interaction between development and female empowerment.
- Implications for developing countries today?
Certain marriage institutions (such as polygyny, bride-prices, ...) may be obstacle to women's rights – if they solve externality.