

# Women's Empowerment, the Gender Gap in Desired Fertility, and Fertility Outcomes in Developing Countries

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# Fertility and Development

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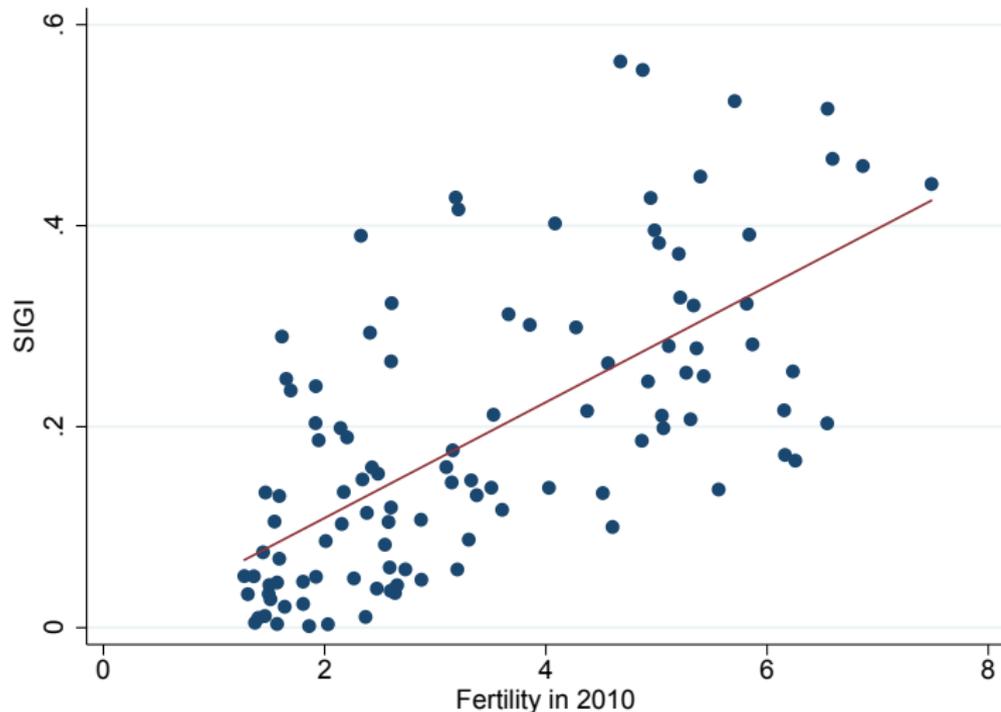
- ▶ **Does this matter?**

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- ▶ **A research agenda:**

- ▶ Incorporate household bargaining into models of fertility.
- ▶ Model interaction between women's rights and fertility.

## Female Empowerment and Fertility

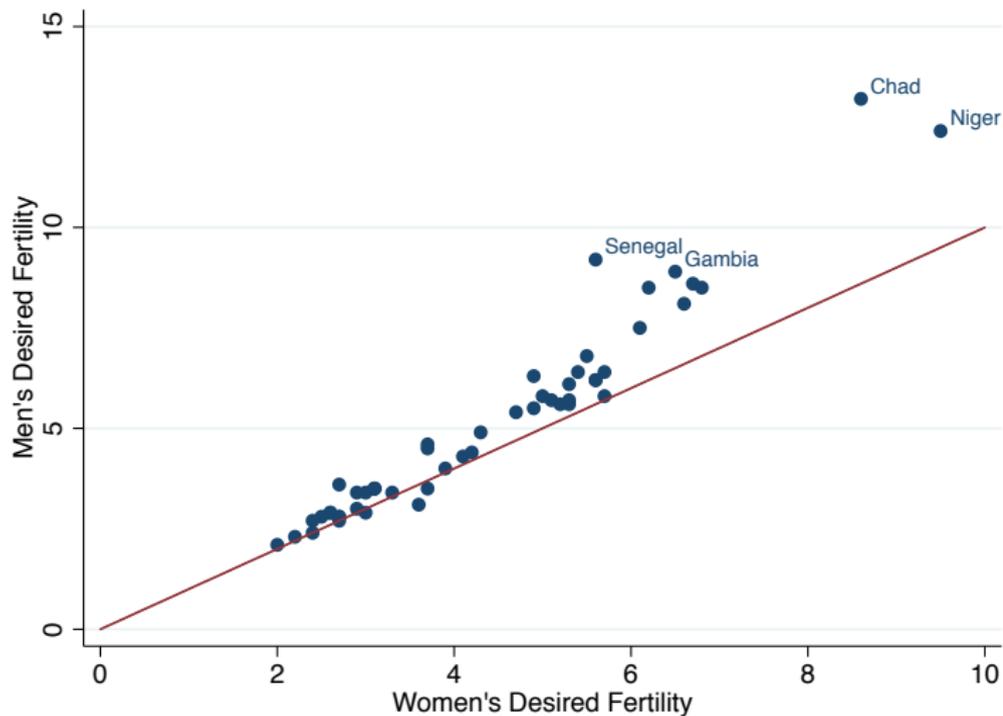


OECD Social Institutions and Gender Index (SIGI) measures women's rights on scale from 0 (full rights) to 1 (no rights).

# Female Empowerment and Fertility

- ▶ Cross-country correlation TFR and SIGI: 0.66.
- ▶ After controlling for GDP per capita:  
One standard deviation increase in empowerment associated with decline in TFR of 0.57.
- ▶ Suggests women want fewer children, and more empowerment gives women more say.
- ▶ Consistent with Ashraf, Field, and Lee (2014): Giving women access to concealable birth control substantially lowers fertility.

# Women's and Men's Desired Fertility across Countries



Demographic and Health Surveys, various years.

## Gender Gaps in Desired or Realized Fertility?

- ▶ Countries with high population growth and large age gaps between spouses also have gender gaps in realized fertility.
- ▶ If there is polygyny and every man marries  $n$  women, have:

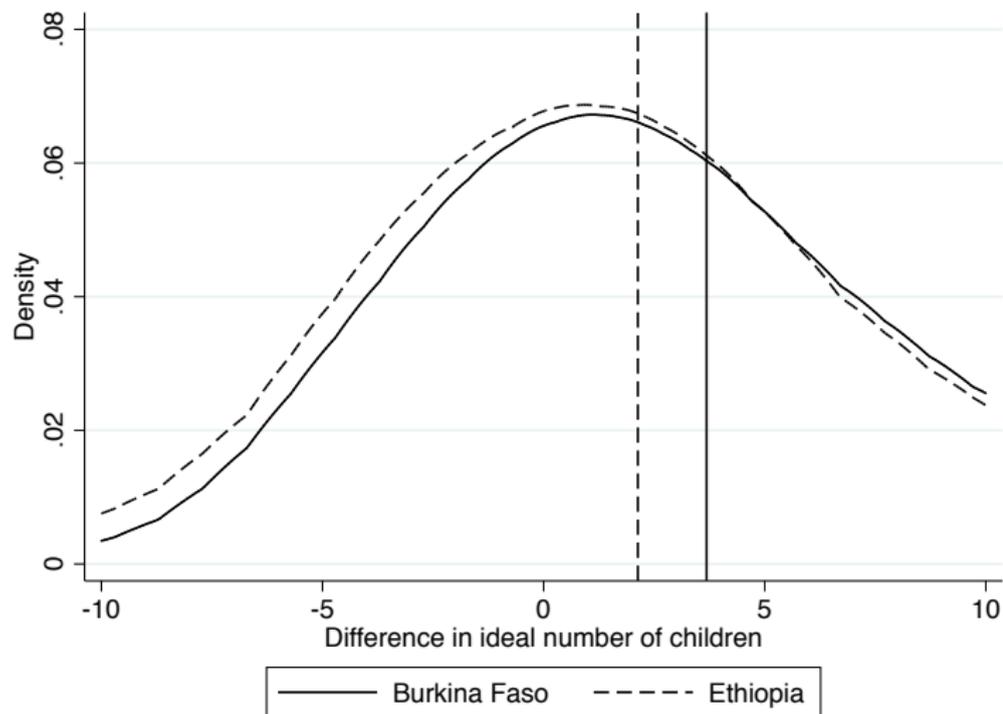
$$f_m = nf_f.$$

- ▶ How this adds up: With age gap  $a$  and population growth  $\eta$  every man can marry  $n = (1 + \eta)^a$  women.
- ▶ Also possible without polygyny: either more women remain childless, or serial monogamy.
- ▶ Empirically, polygyny accounts for substantial part of gender gap in desired fertility.

## Gaps in Desired Fertility at the Couple Level

- ▶ Demographic and Health Surveys.
- ▶ Illustrate with two countries:
  - ▶ Burkina Faso (high polygyny), year 2010-2011.
  - ▶ Ethiopia (low polygyny), year 2011-2012.
- ▶ Focus on women age 40+ (to measure completed fertility).

## Distribution of Gap in Desired Fertility between Husband and Wife



## Desired Fertility Matters for Realized Fertility

Regressions of realized on desired fertility (women 45+, desired children 15 or less):

	Burkina Faso	Burkina Faso	Ethiopia	Ethiopia
$\bar{n}_f$	0.38***	0.33***	0.16**	0.08
$\bar{n}_m$	0.19***	0.12*	0.20**	0.12*
$h_f$		-4.30***		-4.97***
$h_f \times \bar{n}_f$		0.36*		0.34*
$h_f \times \bar{n}_m$		0.24		0.15
$R^2$	0.21	0.25	0.09	0.23

# Desired Fertility Matters for Realized Fertility

- ▶ However, role of empowerment not clear cut.
- ▶ Some variables that don't have large effects:
  - ▶ Education gap between spouses.
  - ▶ Age gap between spouses.
  - ▶ Female labor supply.
  - ▶ Index of woman's power in decision making.

# Why Do Spouses Disagree on Optimal Number of Children?

- ▶ We don't know much.
- ▶ In Burkina Faso, polygyny and education gap matter; not so in Ethiopia.
- ▶ In Ethiopia, women's say in household decisions matters; not so in Burkina Faso.
- ▶ Generally, in regressions only small fraction of variation can be accounted for ( $R^2$  well under 10 percent).

# From Desired to Actual Fertility in Models of Household Decision Making

- ▶ Role of female empowerment depends on mode of decision making in the household.
- ▶ Doepke and Tertilt (2009): polar cases of patriarchy (men decide) and equal power. Empowerment regime maximizes sum of utilities under commitment.
  - ▶ Patriarchy: Actual fertility equal to man's desired fertility.
  - ▶ Empowerment: Actual fertility is weighted average of woman's and man's desired fertility.

# From Desired to Actual Fertility in Models of Household Decision Making

- ▶ Very different outcome in bargaining model with limited commitment (Doepke and Kindermann 2009):
  - ▶ Sequential fertility choice, each spouse has veto power over adding children.
  - ▶ Actual fertility is **minimum** of woman's and man's desired fertility.
  - ▶ Dispersion in desired fertility has **first order** effect on average fertility.
- ▶ Doepke and Kindermann argue that veto model matches rich-country data well.
- ▶ What happens at intermediate stages between patriarchy and full empowerment?

## Conclusion & Research Agenda

- ▶ Theory suggests that women's empowerment and household decision making should be **hugely** important for fertility in developing countries.
- ▶ Data supports this view.
- ▶ **Need better models:** Bargaining over fertility beyond polar cases of patriarchy and full empowerment.
- ▶ **Need better data:** Desire to have an additional child right now linked to fertility outcomes.