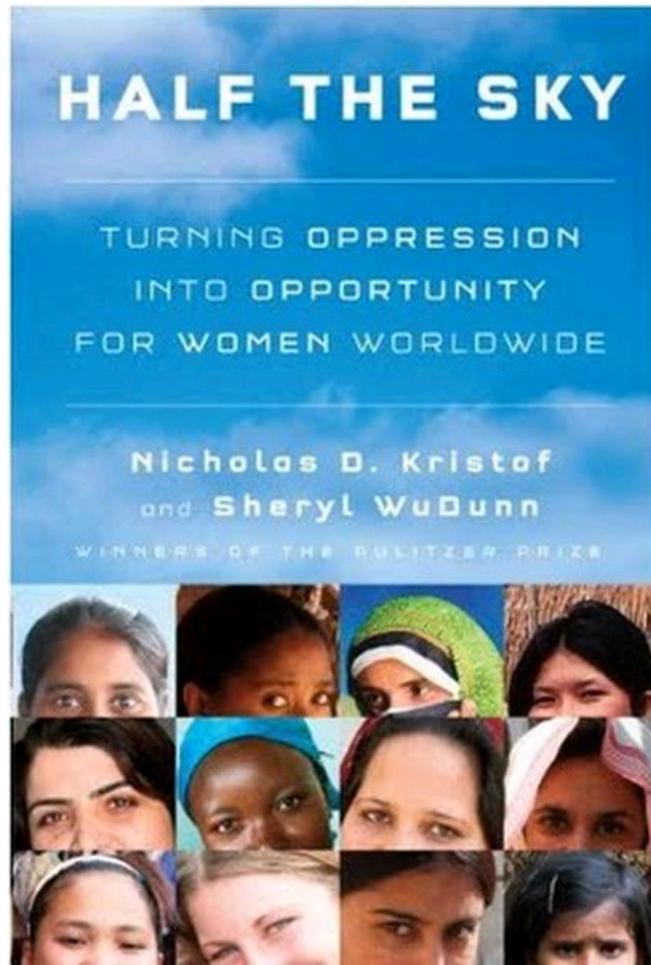


Lecture notes on gender and development

Rajeev Dehejia

Half the Sky



“The best way to fight poverty and extremism is to educate and empower women and girls”

Gender in the course

Gender fits into many places

- Growth
- Child labor
- Population issues
- Poverty
- Health
- Finance and microfinance

Today: 8 issues

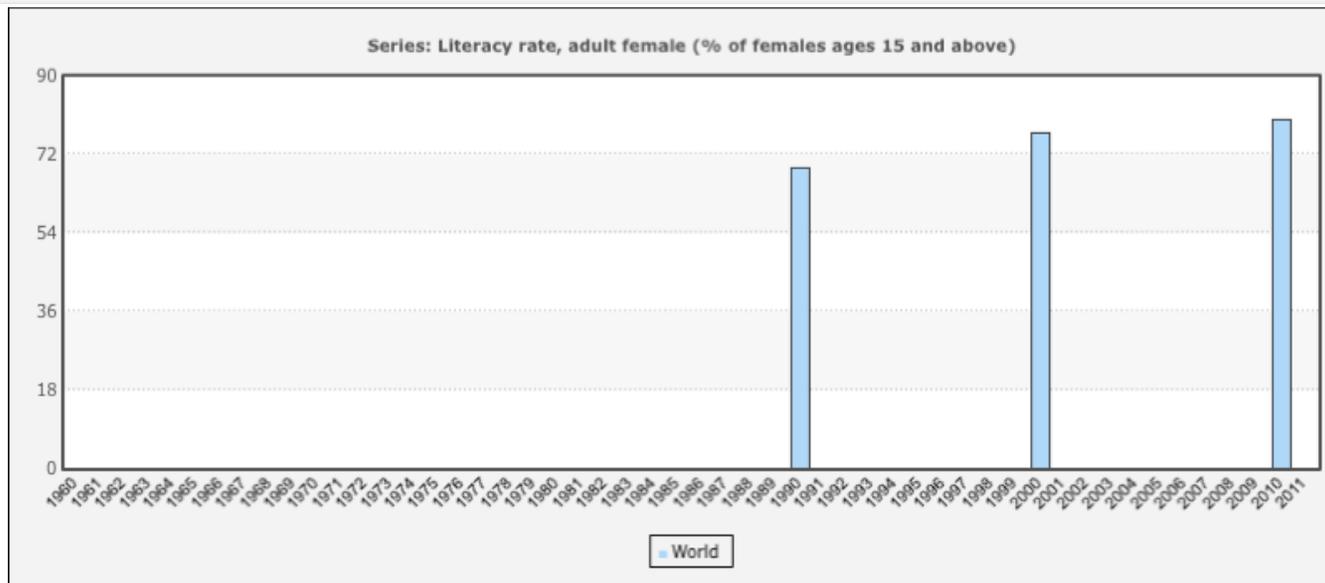
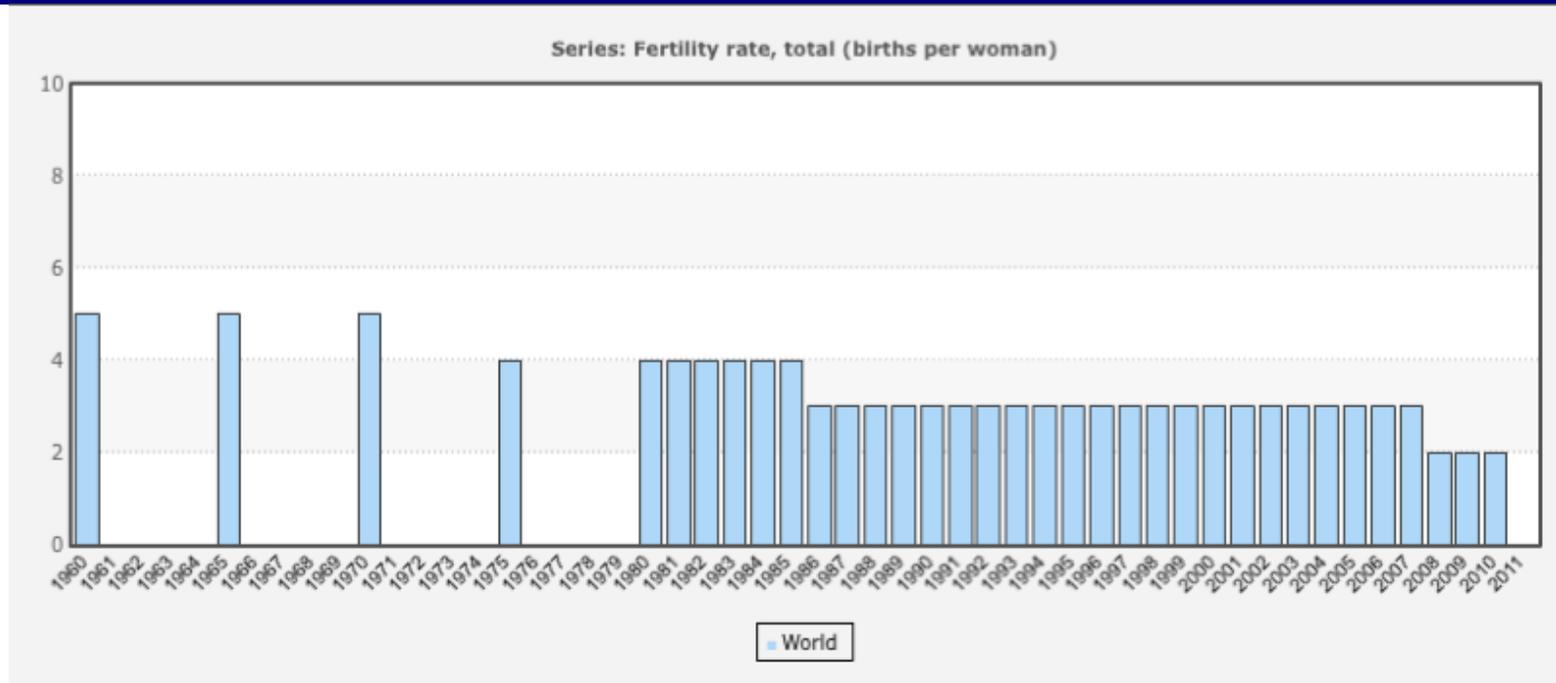
Inherent

1. “Missing women” (Sen)
2. Gaps in health, education, labor market opportunities
3. Sibling rivalry
4. Child labor and marriage markets.

Instrumental

5. Mothers as conduit to children (Thomas)
6. Female politicians favor “social” public goods (Duflo and Chattopadhyay)
7. Social attitudes and gender bias (television breaking the barriers).
8. Efficient microfinance, e.g., ROSCAs (Morduch)

An Optimistic Starting point: Declining Fertility and Female Illiteracy Rates, 1960-2000



Growth and Gender Disparities

- Economic Growth (Dollar and Gatti)
 - Gender disparities in secondary education are associated with slower growth – for higher income countries only.
 - Reinforcement: Increases in per capita income reduce gender inequality (after a level of about \$2000, PPP-adjusted).

1. Missing women

- Population sex ratios are so skewed (in Asia especially) that Amartya Sen (1992) has written of a crisis of “missing women”.
- While in developed countries there are approximately 105.9 females for every 100 males, the ratios are lower in South Asia, the Middle East and North Africa, due to exceedingly high female mortality rates.
- The very large female/male death ratio in such regions is attributed to parents' neglect for their female infants and, in some cases, to selective abortion of female fetuses.
- Sen (1992) estimates that the number of “missing women” (those who died prematurely or who were selectively aborted) in the early 1990s was over 100 million people.

Hypotheses

- Parental neglect of female infants?
- Selective abortion?
 - 1994 Indian law bars doctors from using ultrasound tests to determine the fetus' s sex.
 - Lancet study: as many as 10 mil. female fetuses might have been aborted in India in the last 20 years
- Or could it be Hepatitis B?
 - Known to lead to more male births. Oster famously argued this was the case.
 - Was later disproven and retracted.
 - Key fact against: sex ratios at first birth are pretty balanced even in India and China.

Missing girls in China

Ebenstein JHR

Table 1

Fertility Patterns in China by Sex of Existing Children

Parity	Sex Combination	Percent who have another child			Fraction Male (of next birth)		
		1982	1990	2000	1982	1990	2000
	Overall				0.516	0.520	0.533
1st	None				0.511	0.510	0.515
2nd	One boy	0.71	0.54	0.35	0.51	0.50	0.50
	One girl	0.75	0.60	0.49	0.52	0.55	0.62
3rd	Two boys	0.53	0.30	0.18	0.50	0.43	0.39
	One girl, one boy	0.54	0.29	0.16	0.52	0.52	0.53
	Two girls	0.68	0.55	0.46	0.54	0.61	0.70
4th	Three boys	0.40	0.24	0.17	0.48	0.40	0.37
	One girl, two boys	0.36	0.17	0.11	0.51	0.49	0.52
	Two girls, one boy	0.44	0.23	0.14	0.52	0.55	0.58
	Three girls	0.62	0.54	0.50	0.56	0.64	0.72

Source: China Census 1% sample (1982), 1% sample (1990), .10% sample (2000). Married women ages 21–40 and their matched children ages 0–18.

Notes: Data in thousands. Sex ratio (boys/girls) at birth is calculated by assigning weights to each male and female that account for differential mortality rates by age, sex, and year. China life tables taken from Banister (2004).

Abortion: The Case of Taiwan

Figure 1: Fraction of Males at Birth by Parity over Time in Taiwan (1980-1998)



Lin-Liu-Qian, More Missing Women, Fewer Girls Dying: The Impact of Abortion on Sex Ratios at Birth and Excess Female Mortality in Taiwan

Economic explanations of mortality patterns in India

- Investments in children ought to reflect different returns to education and labor market possibilities.
- Mark Rosenzweig and Paul Schultz (1982): Can asymmetric mortality patterns result because parents are forced to invest in children with the greatest earning potential?
- They find that survival probabilities for female infants in rural India are
 - Higher in areas where opportunities for female employment are greater.
 - Bardhan: Patterns in India as you move toward more rice regions (correlates with higher survival rates of girls).

Cross-cultural explanations

DasGupta et al: India, China, and S Korea

phenomenon in societies without strong son preference, such as in Southeast Asia.

Clearly, fertility decline and the new technology are not *causes* of son preference—they merely intensify the manifestation of gender bias where this bias is already strong.

When fertility levels fall in a society with strong son preference, there is heightened pressure to remove daughters. For example in South Korea between 1959 and 1991, the ideal number of children fell from 5 to 2, while the ideal number of sons fell from 3 to 1.2 (Choe and Han 1994). Although the *proportion* of sons desired remained

Strong cultural factors lead to valuing of boys:

- Kinship / family groups through male descent.
- Inheritance of property.
- Marriage.

Economic factors:

- Old-age security.
- Labor force participation.

Distinguishing economics and culture

Almond and Edlund

- Almond and Edlund look at Chinese, Korean, and South Asian parents in the US.
- For these parents cultural factors may well linger, but we know economic factors change with migration.

Almond and Edlund

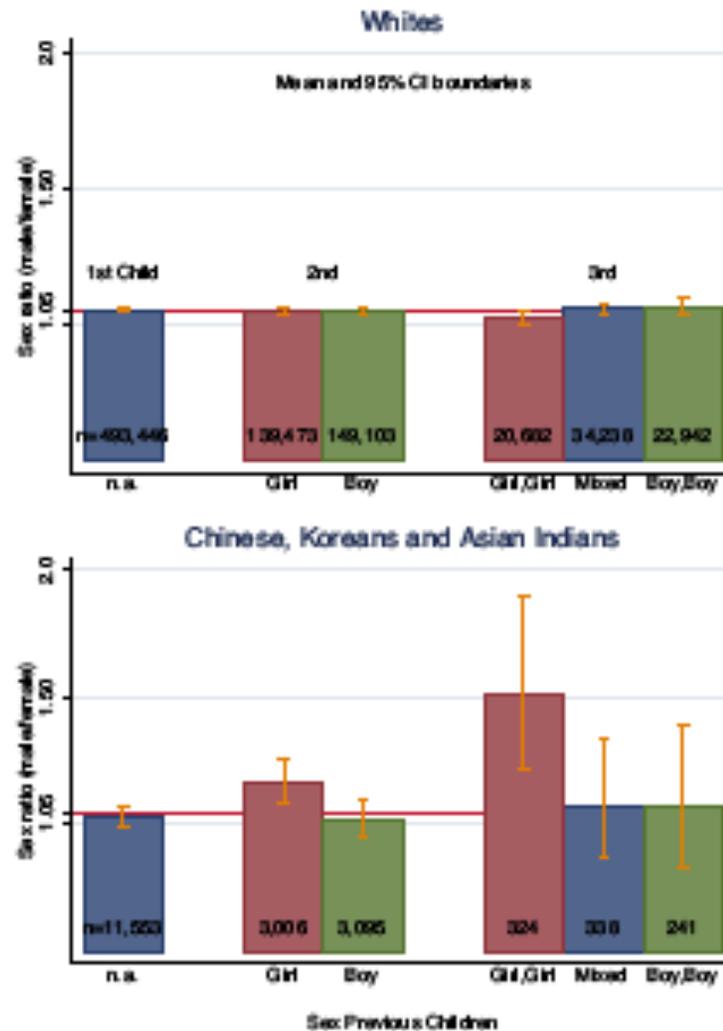


Fig. 1. Sex ratio by parity and sex of previous child(ren).

2. Gender disparities in health, education, wages

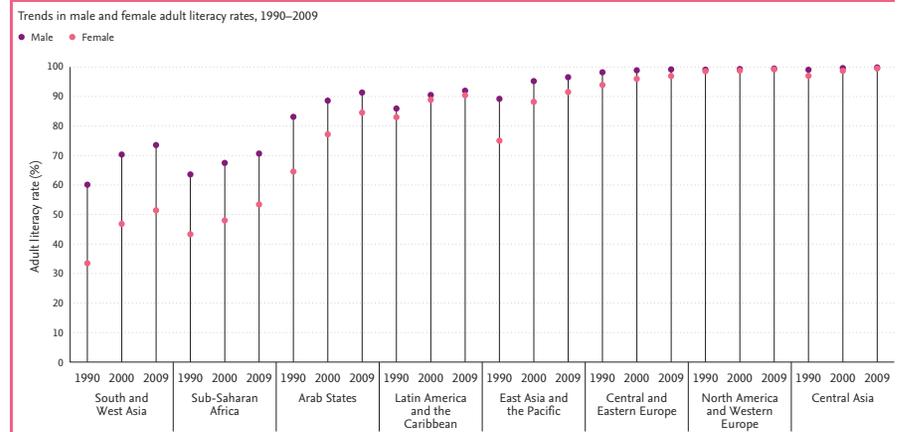
	Adult (15+) illiteracy, 1998, WDR 2000-01, p. 277		Life expectancy at birth, 1998 WDR 2000-01, p. 277	
	Males	Females	Males	Females
USA	0	0	74	80
Sub-Saharan Africa	32	49	49	52
South Asia	35	59	62	63
Latin America and Caribbean	11	13	67	73
East Asia and Pacific	9	22	67	71
Europe and Central Asia	2	5	65	74
Middle East and North Africa	26	48	66	69

Gender disparity in literacy and life expectancy

Life expectancy at birth by region and sex, 1990–1995, 2000–2005 and 2005–2010

	Women			Men		
	1990–1995	2000–2005	2005–2010	1990–1995	2000–2005	2005–2010
Africa						
Northern Africa	68	72	73	64	68	69
Southern Africa	64	51	52	59	49	51
Eastern, Middle and Western Africa	54	55	57	50	52	54
Asia						
Eastern Asia	74	76	77	69	71	72
South-Eastern Asia	66	70	72	62	66	67
Southern Asia	59	65	67	57	62	64
Central Asia	68	70	70	61	61	62
Western Asia	72	75	76	67	71	72
Latin America and the Caribbean						
Caribbean	75	76	77	69	71	72
Central America	73	76	77	67	70	71
South America	72	75	76	66	69	70
Oceania	68	71	73	64	67	68
More developed regions						
Eastern Europe	75	76	77	66	68	69
Western Europe	80	82	83	74	76	78
Other more developed regions	80	83	83	74	77	78

Figure 7.1.1 Despite gains, women still account for substantial majority of adult illiterates



Source: UNESCO Institute for Statistics

Gender gap in wages

- Blau and Kahn (2003):
 - The gap in log earnings corrected for differences in weekly work hours between men and women averaged .307 log points over the 1985-94 period (22 countries studied)
- What causes this?
 - Is it simply that women are less well-educated and, generally, have less human capital?
 - No – women have more education increasingly and also given education gaps persist.
 - Is it that women tend to have gaps in labor force participation?

3. What explains discrimination?

- Culture?
- Economic forces and structures?
- Chickens and eggs?
- But at least useful to know whether existing prices and opportunities correlate with discrimination.
- Might be able to tell us whether changes will occur over time, or which policy levers to pull.

Becker approach

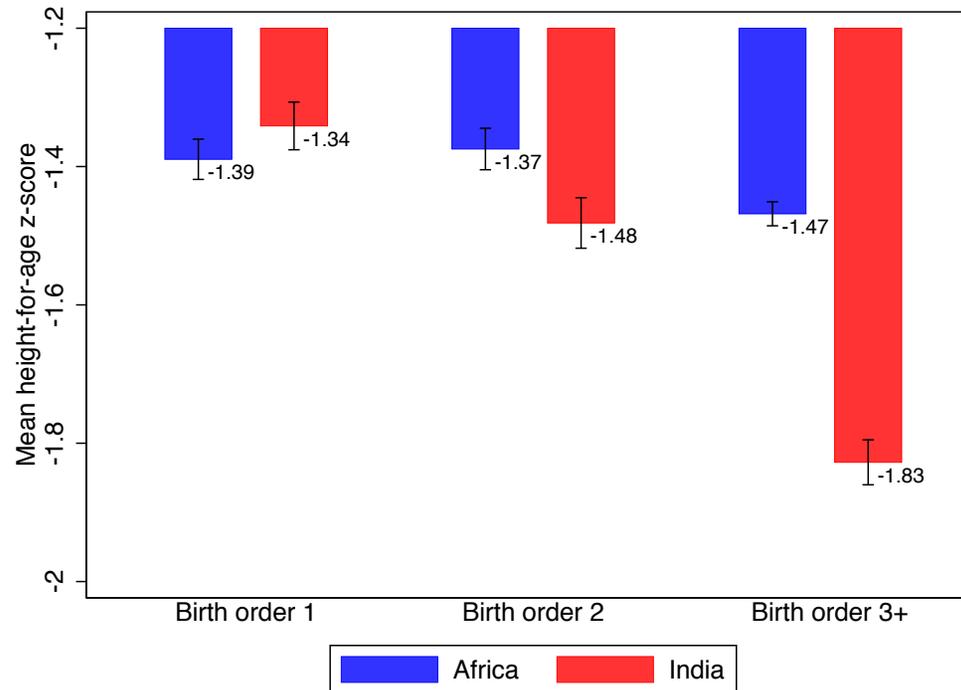
- Think of investing in two children, one boy and one girl.
- Optimal investment will equate marginal returns across kids.
- So less investment in girls if their marginal returns are lower – but opposite is true.
 - Thailand (1980-81) F: 20% vs. M: 11%
 - Cote d'Ivoire (85) F: 29% vs. M: 17%
- Perhaps effective returns are lower due to marriage customs, labor market patterns.

Implication: “sibling rivalry”

- When constraints bind, kids are in competition with each other.
- Theory: any given kid will be better off when they are with other kids who are less “competitive”
- Do all kids benefit by having more sisters (controlling for total number of siblings)?

Evidence: India vs SSA

Figure 2: Child height in India and Africa, by child's birth order



The figure depicts the mean child height-for-age z-scores for Sub-Saharan Africa and India, by the birth order of the child. The mean is calculated over all children less than 60 months old with anthropometric data.

4. Women and work (Tanzania)

- We examine the impact of child labor in rural Tanzania on marriage outcomes for boys versus girls.
- Along the way we also learn some interesting facts on the patterns of child labor for boys versus girls.



The data

- Baseline: Kagera Health and Development Survey (1991-1994)
 - 919 households, across Kagera region
 - 4 rounds between 1991/94
- Follow up: 2700 households interviewed in 2004 (from baseline ~900).
 - For 93% of the baseline households, at least 1 household member was re-interviewed in 2004.
 - The KHDS 2004 tracked respondents outside of the village (within Kagera, Dar es Salaam, Mwanza, Uganda...). Tracking movers was critical. Without efforts to track children who moved out of the village, the recontact rates would have fallen from 81% to 49%.

Table 2: The effect of a crop shock on child labor hours

Sex	Male	Male	Female	Female	Male	Male
Age	7	14	7	14	10	10
Log pc land	Mean	Mean	Mean	Mean	25 th %ile	75 th %ile
Extra hours worked	2.85	2.25	-2.4	6.3	1.5	-0.26
Difference		0.6		8.8		1.75

Table 2: The effect of a crop shock on child labor hours

	Econ hours	Econ hours	Chore hours	Chore hours	Econ hours	Econ hours	Chore hours	Chore hours
Male/ Female	M	M	M	M	F	F	F	F
Age	7	14	7	14	7	14	7	14
Log pc land	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean
Extra hours worked	0.60	2.4	-0.3	0.25	-1.1	0.49	-1.1	3.6
Difference		1.8		0.28		1.59		4.7

Table: The effect of child labor on marriage matches

<i>Dependent variable</i>	All		Female		Male	
	Agricultural hours	Household hours	Agricultural hours	Household hours	Agricultural hours	Household hours
Household size	0.221 (0.145)	0.004 (0.092)	0.367*** (0.187)	-0.123 (0.137)	-0.049 (0.212)	0.108 (0.167)
Physical assets value	0.505* (0.162)	-0.267* (0.102)	0.420* (0.158)	-0.211*** (0.121)	0.496** (0.245)	-0.264** (0.125)
Dwelling value	0.657*** (0.345)	-0.285 (0.208)	0.747*** (0.445)	-0.233 (0.320)	0.353 (0.571)	-0.068 (0.466)
(log) per capita Land value	1.350* (0.371)	-0.642* (0.235)	1.346* (0.469)	-0.425 (0.343)	0.649 (0.578)	-0.246 (0.499)
Livestock value	0.638*** (0.370)	-0.421*** (0.221)	0.724 (0.487)	-0.481 (0.345)	0.224 (0.576)	0.123 (0.441)
Number of observations	572		345		227	

Table: The effect of child labor on bride prices

	Log value of Bride Price		
	Total	Cash	In-kind
Mean agricultural child labor hours	0.444** (0.201)	0.228 (0.656)	1.620** (0.811)
Mean household child labor hours	-0.367** (0.169)	-0.331 (0.333)	-1.252** (0.522)
Number of observations	80	88	87

5. Women as conduits to children

- Policy makers have long been aware of the potential impact of delivering aid for disadvantaged household members to women.
- Food stamps in the United Kingdom and Sri Lanka, for example, and staple food and cash deliveries under the PROGRESA (now called OPORTUNIDADES) program in Mexico were directed to women rather than their husbands.
- Fear: men more likely to sell the food stamps and mis-spend the resources, possibly wasting money on gambling, tobacco, and alcohol.

Women as conduits

- By targeting funds to women, Emmanuel Skoufias (2001) reports that OPORTUNIDADES in rural Mexico led to sharp social improvements:
 - poverty: fell by 10%,
 - school enrollment: up by 4%,
 - food expenditures: up by 11%
 - adults' health (as measured by the number of unproductive days due to illness) improved considerably.

IFPRI studies

Malnutrition = f(education of wife, education of husband, food availability, women's status region, education, etc.)

- **Q:** What explains 15% drop in malnutrition in developing world, 1970-95?
 - Women's education: 43%
 - Food availability: 26%
 - Women's status improvement: 12%
- **Q:** But is coefficient on women's education instead **picking up broader social changes?** Can we read this as a **causal** link?
 - Need more careful work here – difficult but clearly the unitary model doesn't work.

Duncan Thomas (JHR, 1990)

55,000 urban households Brazil 1974/75

Impact of \$1 in the hands of a woman versus \$1 in the hands of a man:

- Calories: 3 x, but **no significant** difference
- Protein: 4 x, significant
- Children ever born: - 4+ x, significant
- Survival rate: 20x, sig

Bottom line:

- Rejection of “unitary” model.
- Doesn't say that it's inefficient, but it gives a suspicion.

Udry

- Looks at agriculture in Cote d' Ivoire, where women and men have their own plots.
- If the household were “unitary” you would find similar crop yields on both men’ s and women’ s plots.
- But in fact men’ s plots have higher yields because of greater labor and fertilizer.
- Suggests household is not unitary.

Galasso

- Looks at Indonesia, where women retain property rights over the dowry assets they bring into the marriage.
- Improves a woman's "outside option" in case of divorce / breakdown in household bargaining.
- Children do better when mother enters with a larger dowry.

6. Gender and politics

- Women under-represented in political office
 - Discrimination, choice, other barriers (education, etc)
- Why do we care?
 - Bargaining versus unitary Models
- There have been some bold experiments requiring women's representation at various levels, e.g., local politics in India, corporate boards in Norway.

Politics in India

- “Reservations” in Political Life
 - The Panchayat is a system of village, block and district level councils whose members are elected and responsible for the administration of local public goods
- 1992: 73rd Amendment of the Constitution: 1/3 of seats must be held for women + 1/3 of the Pradhan positions
- Reservations lead to shift in the allocation of public expenditures
 - Shift appears to be in the direction of the preferences expressed by the member of the group that benefits from the reservation

Evidence from India

- West Bengal and Rajasthan: Collected data on issues raised to Pradhan (local leadership)
- West Bengal:
 - In 31% of villages, a women asked about drinking water (in 17% of villages, men did)
 - Women more likely to ask about road than men
- Rajasthan: women cared about water, but not roads

All-India replication

- Overall, villages reserved for women leaders have more public goods.
 - Measured quality of these goods is at least as high as in non-reserved villages.
 - Moreover, villagers are less likely to pay bribes in villages reserved for women.
- But residents of villages headed by women are less satisfied with the public goods, including goods that are beyond the jurisdiction of the Panchayat.

7. Changing Norms

“The Power of TV: Cable Television and Women’s Status in India.”



From blog.goingtoschool.com

Changing gender norms

- Economists typically take preferences and norms as given.
- They usually ask:
 - What happens when a price changes?
 - Moneylender → microcredit. Female wage increase.
 - Contractual innovation?
 - Rainfall insurance
 - New technology that cuts costs?
 - Mobile phones
 - Supply change
 - Textile factories in Bangladesh

Changing gender norms

- But technology can bring changes in preferences, attitudes, aspirations
 - Telephones
 - Televisions
 - Movies

Jensen and Oster

“The Power of TV: Cable Television and Women’s Status in India.”

- 1959: State-run black and white TV introduced. Slow start.
- By 1977: only around 600,000 sets sold.
- 1982: Color TV!
 - “Even with color, however, most programming remained either government-sponsored news or information about economic development.” [and boring...]
- Early 1990s: CNN and STAR TV
 - Small-scale entrepreneurs would buy a dish and charge nearby homes to connect to it. Especially in villages.
- Dramatic declines in prices due to lower tariffs and more competition.
- Between 2001 and 2006: about 30 million households (\approx 150 million people) added cable. Add family and friends and get an even bigger jump.

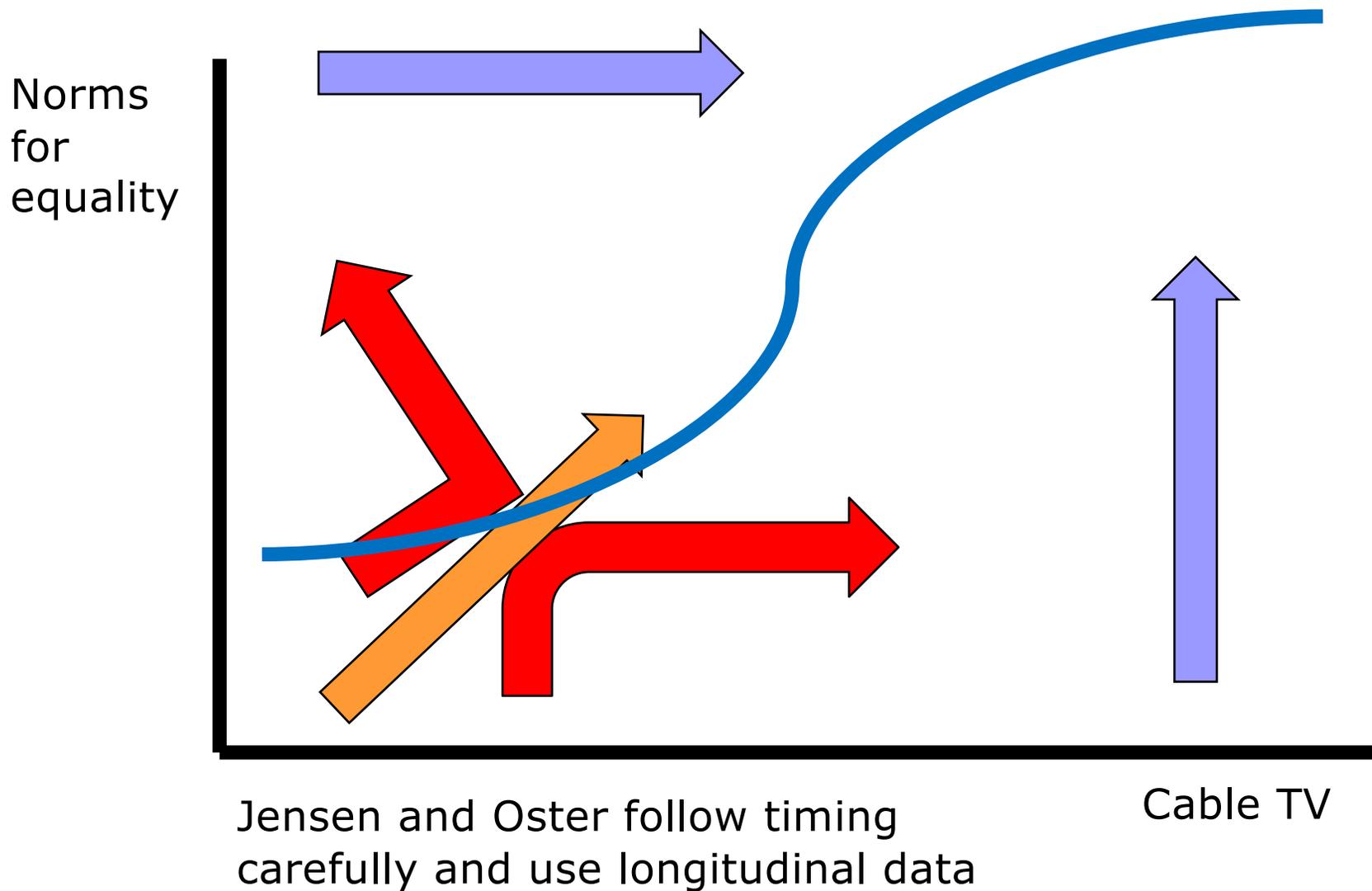
Television progress in India

- 112 million households in India own a television.
 - Tamil Nadu: 61% of homes with TV have cable, even though average income < \$2 per person per day.
- 2001-2006: 30 million households (\approx 150 million individuals) added cable service.
- Main themes and plots of many shows often revolve around issues of family and gender.



Causality? -- Gender norms:

Norms versus media



TV's impact on rural areas

- Women depicted in cable TV shows are modern, urban women
 - Work outside the home, run businesses, control money
 - More educated, have fewer children than women in rural areas
 - International shows now also available
- Cable TV has stronger effect than state-run TV
 - More entertainment (particularly soap operas)
 - More urban shows

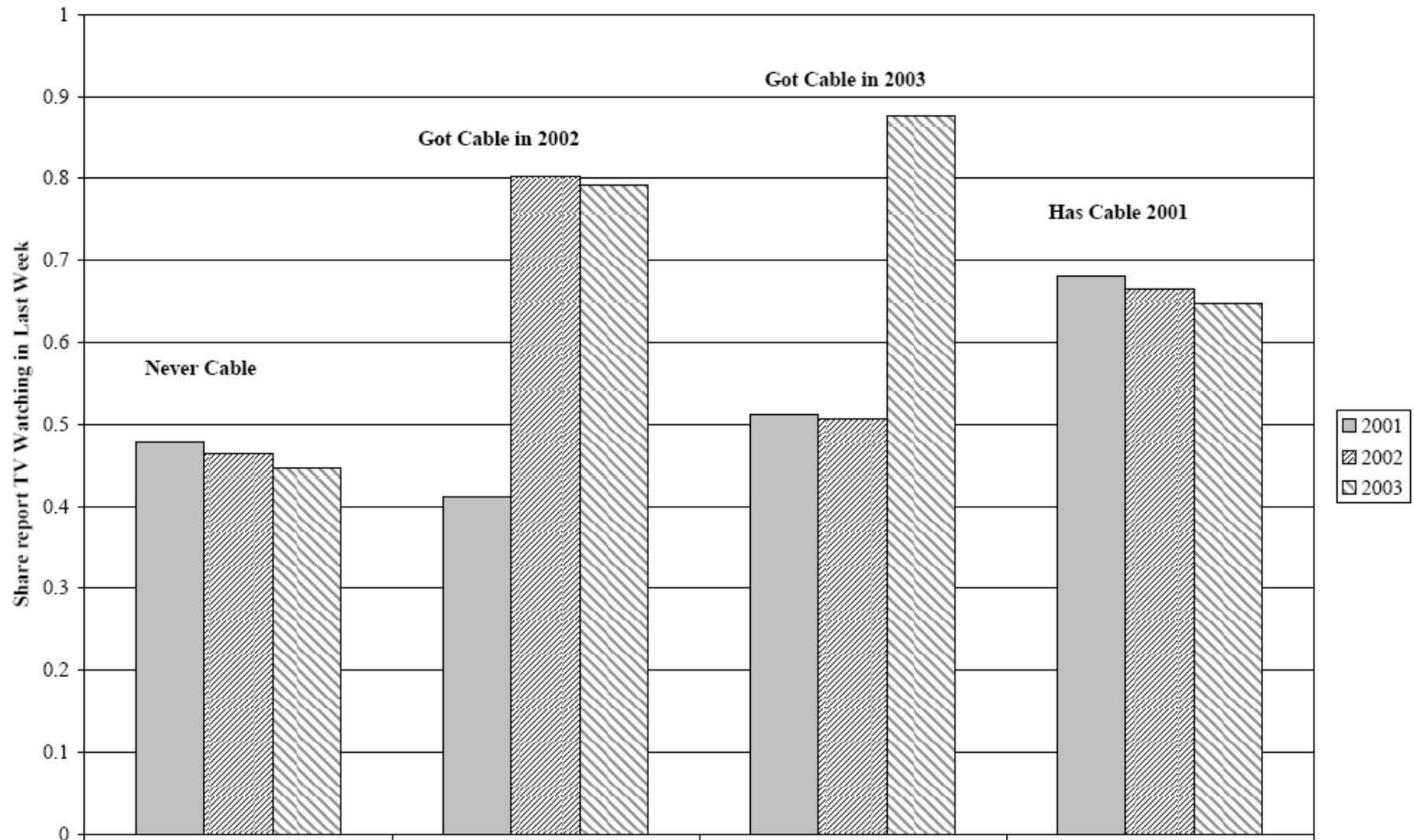


Ekta Kapoor's new mega drama *Kahe Naa Kahe* revolves around Kinjal and her family. *Kahe Naa Kahe* will air Mondays to Thursdays at 9 pm. Only on 9 X.

Who's watching TV?

Average share of people who report watching television at least once in the past week.

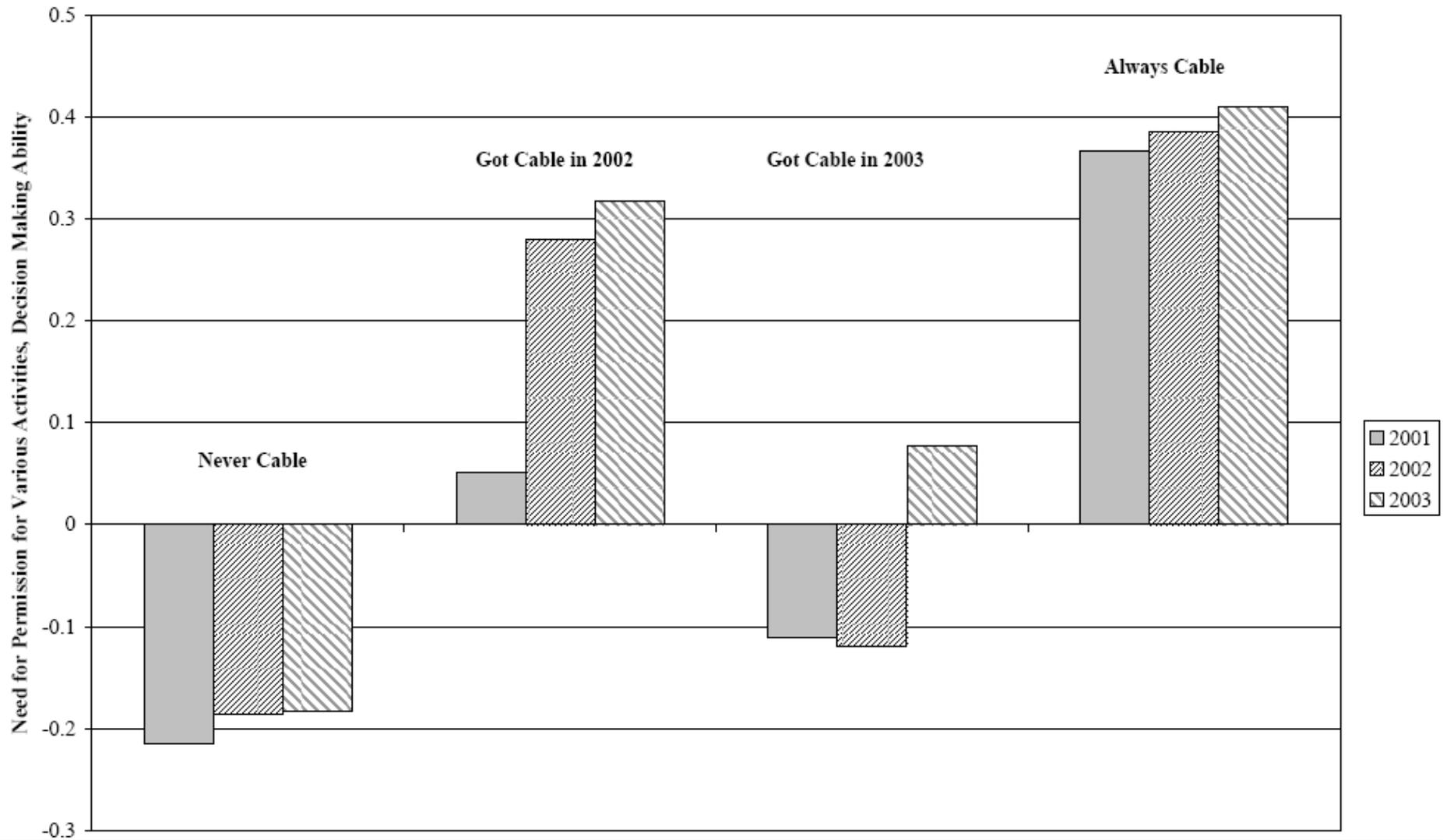
Figure 1:
Cable Access and Television Viewership



Female autonomy

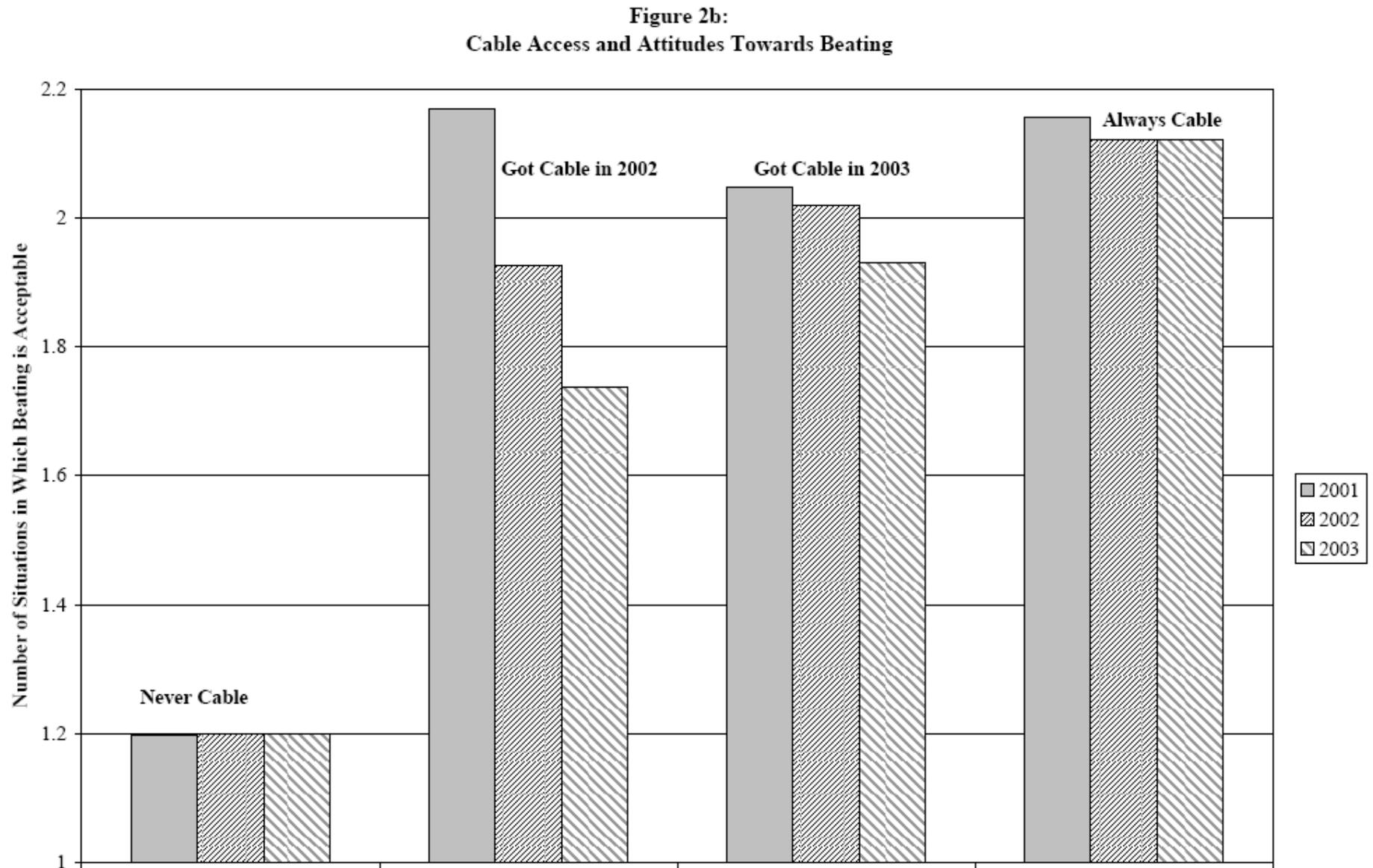
First principal component of 6 measures of female autonomy

Figure 2a:
Cable Access and Female Autonomy



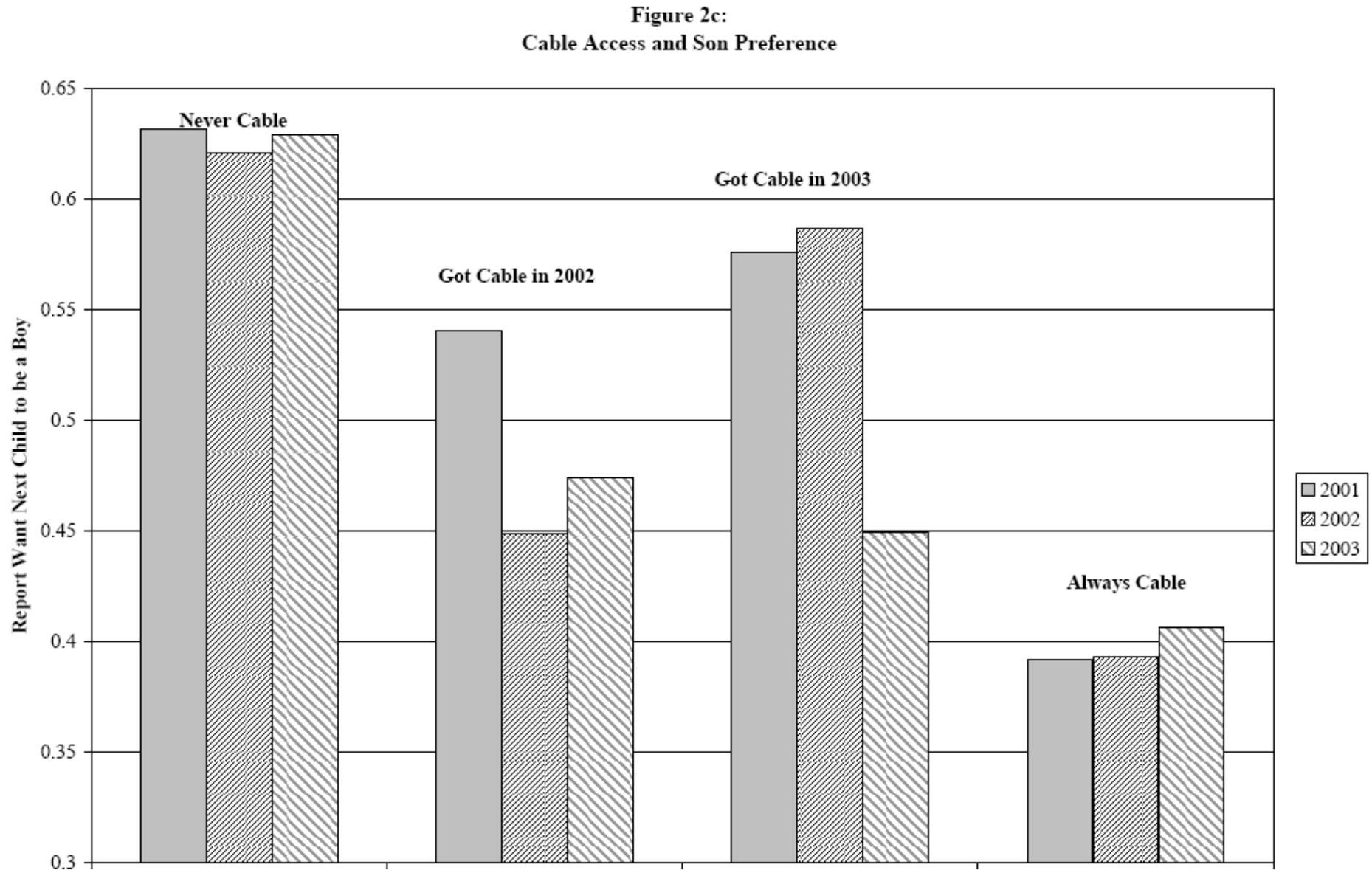
Spousal beating?

Fig. 3: Average number of situations in which women feel that spousal beating is acceptable (max = 6)



Son bias?

Fig. 4: Share of women who want a boy as their next child



From Jensen and Oster. Caveats:

- “From the policy perspective, however, there are potential concerns about whether the changes in reported autonomy, beating attitudes, and son preference actually represent **changes in behaviors, or just in reporting**. For example, we may be concerned that exposure to television only changes what the respondent thinks the interviewer wants to hear about the acceptability of beating, but does not actually change how much beating is occurring.
- “This concern is likely to be less relevant in the case of fertility or education; the former is directly verifiable based on the presence of a baby in the household, and the latter is listed as part of a household roster.
- “The fact that we find effects on these variables provides support for the argument that our results represent real changes in outcomes.
- “Without directly observing people in their homes, however, it is difficult to conclusively separate changes in reporting from changes in behavior.
- “However, even if cable only changes what is reported, it still may represent progress: changing the perceived “correct” attitude seems like a necessary, if not sufficient, step toward changing outcomes.”

Summary

Cable TV introduces large changes

- 45% to 70% of the difference in attitudes and behaviors between urban and rural areas disappears within 2 years of cable introduction in this sample
- Effect is large relative to education
 - Introducing cable TV roughly \approx 5 years of female education

Policy impact

- Underlying causes of discrimination against women in India?
 - Literature highlights the dowry system, low levels of female education, and other socioeconomic factors as central factors
- Changing these underlying factors is difficult; introducing television, or reducing any barriers to its spread, may be less so.

8. Microfinance: women are more reliable

- Khandker, et al., (1995) find that 15.3 percent of male borrowers were “struggling” in 1991 (that is, missing some payments before the final due date), while only 1.3 percent of women were having difficulties, and the finding is echoed in studies elsewhere in Asia.
- The field experience of Grameen replications in southern Mexico indicates a similar pattern, and evidence from credit scoring regressions using data from Latin American microlenders confirms this tendency too (these are studies of repayment rates, in which gender is an explanatory variable).

Microfinance: women are more reliable

- While the advantage of women in the credit scoring studies falls after controlling for age, income, region, and other covariates, it is the simple correlation that is most important in determining the attractiveness of women as customers.
- Michael Kevane and Bruce Wydick (2001): at a group lending institution in Guatemala, female borrowing groups misused funds least often, and as a result outperformed male borrowing groups.

Conclusions

Gender lecture - Conclusion

- Getting inside family helps us see constraints, challenges and possibilities.
- Understanding inequalities has public policy implications.
- Also helps us understand the nature of decision-making itself.

Concluding thoughts

- In many ways, this is a general conclusion for the course:
 - Look inside institutions, families.
 - Build better policy based on mechanisms to overcome constraints and seize opportunities:
 - Health (Health insurance? Better info on private sector doctors?)
 - Education (Combat absenteeism)
 - Finance (Commitment savings, microcredit)
 - Poverty (Progresa)