

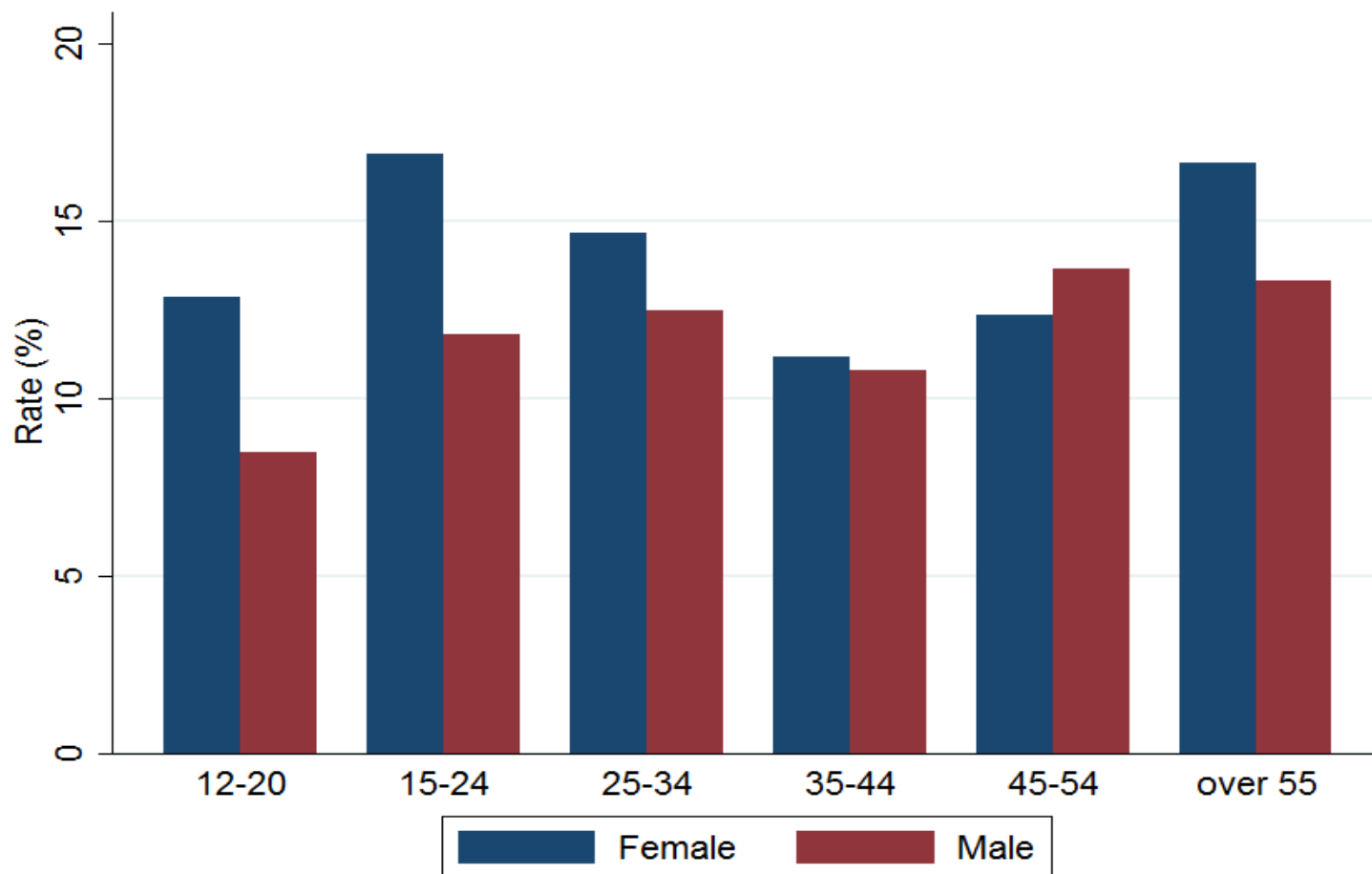
Empowering Adolescent Girls: Evidence from a Randomized Control Trial in Uganda

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Oriana Bandiera (LSE)
Robin Burgess (LSE)
Selim Gulesci (Bocconi)
Munshi Sulaiman (BRAC)

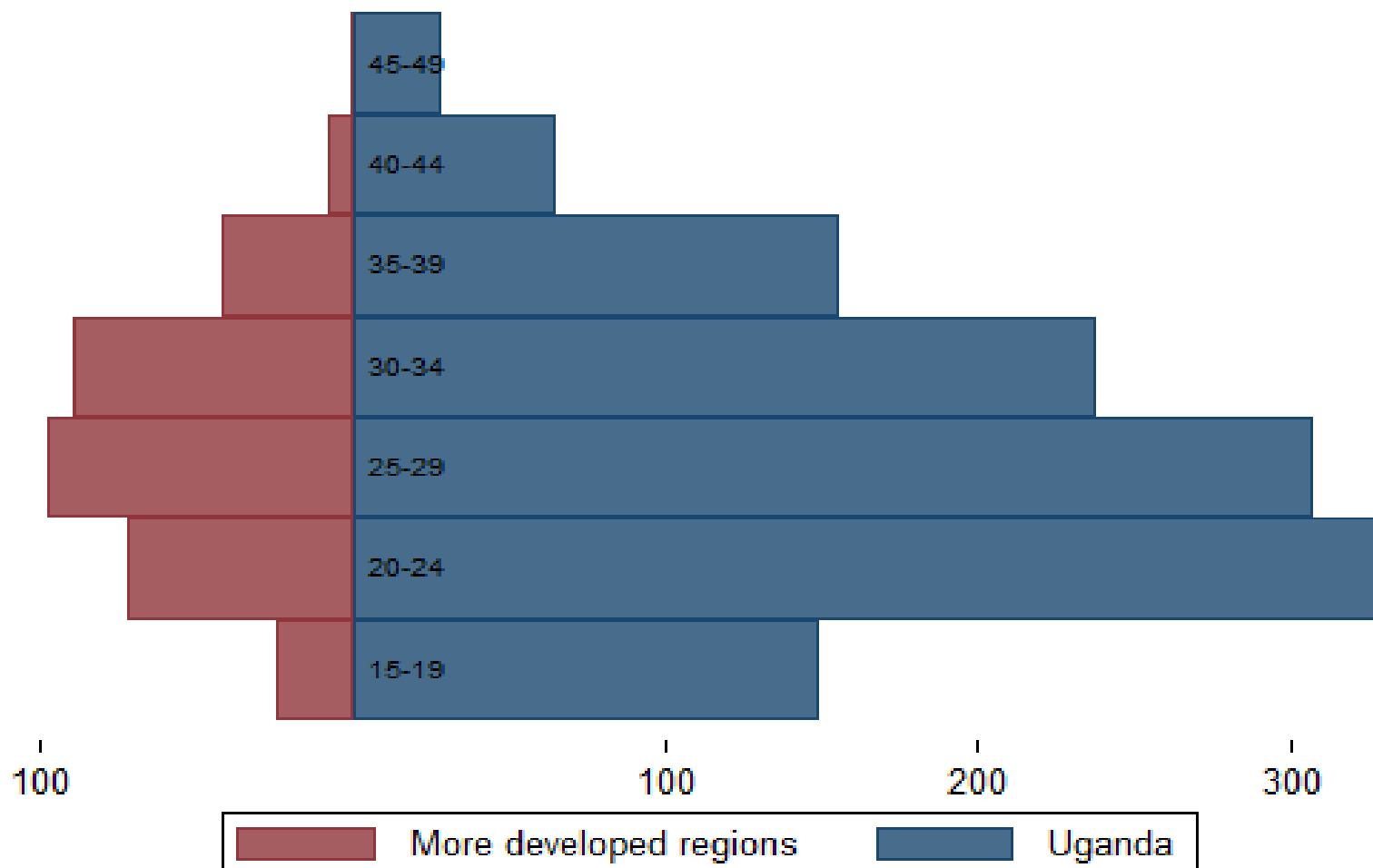
Niklas Buehren (W. Bank)
Markus Goldstein (W. Bank)
Imran Rasul (UCL)

Unemployment Rates (%), by Age and Gender, Uganda 2006/06



Notes: Unemployment is defined as those who actively wanted a job but did not participate in any employment activities, inclusively self-employment and agricultural works).

Age-specific Fertility Rate, 1995-2010



Notes: The data stems from the 2010 UN World Population Prospects data base. The fertility rate is measured by the number of births per 1,000 women. More developed regions comprise Europe, Northern America, Australia/New Zealand and Japan.

Economic and Reproductive Health Challenges are **Interlinked**

Teen pregnancy and motherhood → lower human capital accumulation in youth [Field and Ambrus, 2008]

Lack of future labor market opportunities → lower incentives to invest in human capital [Jensen, 2012], increase likelihood to engage in risky behaviors [Dupas, 2011]

YET,

Many policy interventions targeted to youth focus on:

- HIV education and related issue to reduce risky behaviors

OR

- Vocational training to improve labor market outcomes

This paper:

- Provide evidence from an intervention that attempts to *simultaneously* tackle economic, health and broader empowerment challenges
- BRAC's *Empowerment and Livelihood for Adolescents* (ELA) program:
 - Establishes community youth clubs for girls
 - And provides:
 1. Life skills training (peers) to build knowledge and reduce risky behaviors
 2. Vocational skills training (professionals) to improve self-employment opportunities

Evaluation Strategy

- BRAC chose 10 branches for the ELA evaluation
 - 5 branches in semi-urban Kampala and Mukono
 - 5 branches in rural Iganda and Jinja
 - A branch has a radius of roughly 4km (depending on population density, could be smaller)
- 15 communities in 10 branches were identified for ELA clubs
- Within each branch, 10 communities were selected to receive a club, 5 as controls
- Listing of all adolescent girls in 150 communities
- 5,966 girls (~40 per community) were surveyed at baseline – 30% of all girls in these communities

Impact on Entrepreneurship Skills

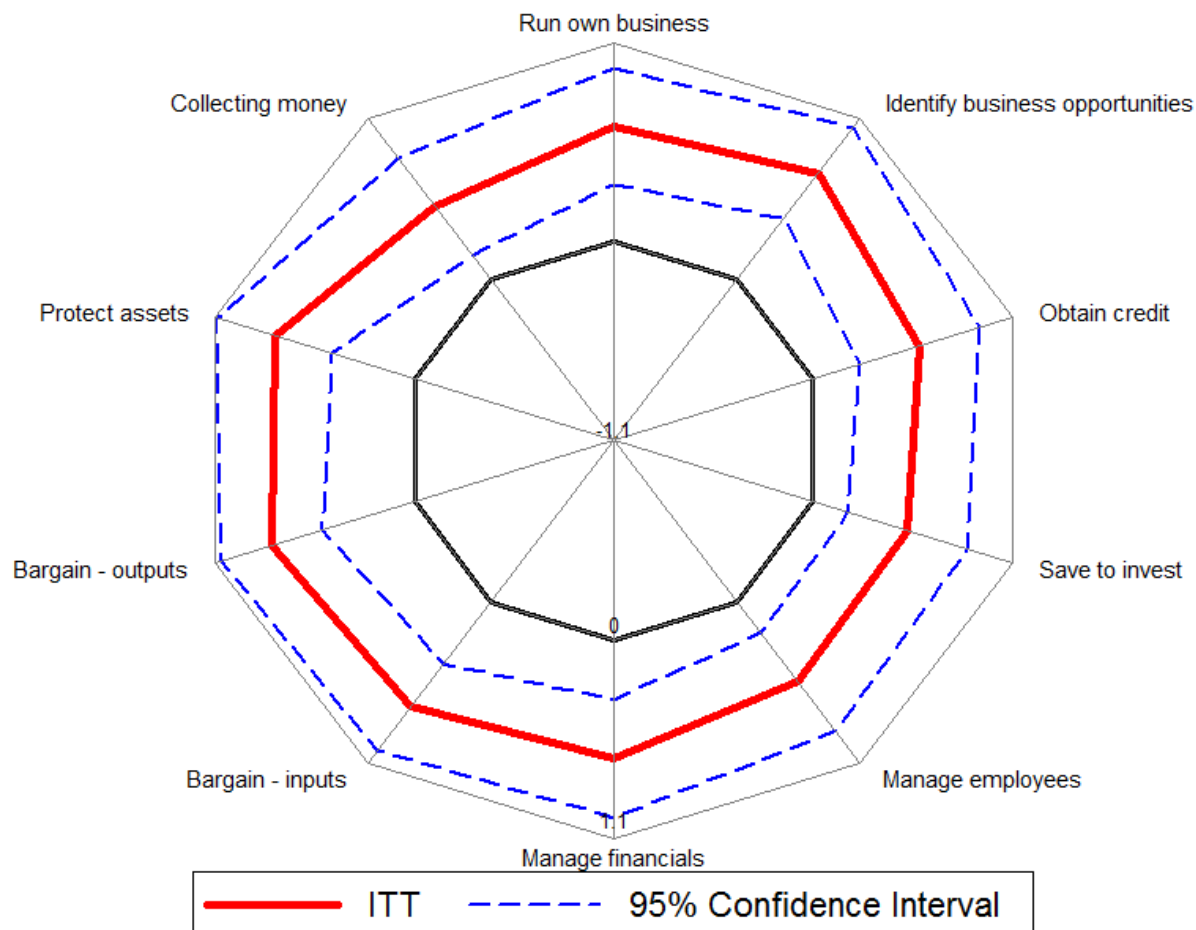


Table 3: The Impact of the ELA Program on the Economic Empowerment of Adolescent Girls
Coefficients, standard errors in parentheses, standard deviations in brackets

Outcome		(1) Baseline Levels, Control	(2) Sample Size	(3) ITT , OLS	(4) ITT, Probit Marginal Effects	(5) ATE
A. Indices						
	1. Gender empowerment index [0-100 score]	31.6 [24.5]	4,831	2.86*** (.932)		18.3*** (6.27)
	2. Entrepreneurial ability [0-100 score]	71.6 [25.0]	4,765	5.63*** (.982)		35.6*** (7.75)
B. Income Generation						
	3. Engaged in any IGA [yes=1]	.094 [.292]	4,831	.068*** (.016)	.071*** (.015)	.434*** (.097)
	4. Self-employment [yes=1]	.060 [.237]	4,831	.059*** (.012)	.060*** (.011)	.375*** (.074)
	5. Wage employment [yes=1]	.036 [.186]	4,831	.009 (.007)	.007 (.006)	.056 (.046)

Notes: *** denotes significance at 1%, ** at 5%, and * at 10%. The standard errors are clustered by community. The control variables include the adolescent age and a series of indicator variables for branch areas. The gender empowerment index is a variable that cumulates the number of times a respondent answers "Both/Same" to the following questions: "Who should earn money for the family?", "Who should have a higher level of education in the family?", "Who should be responsible for washing, cleaning and cooking?", "If there is no water pump or tap, who should fetch water?", "Who should be responsible for feeding and bathing children?", "Who should help the children in their studies at home?" and "Who should be responsible for looking after the ill persons?" The other possible answers given to the respondent were "Male" and "Female". The index is then rescaled such that 100 indicates that the respondent answered that the female should (at least partly) be responsible for all the activities. The entrepreneurial ability index is the cumulative and rescaled score aggregating the self-assessed ranks to the following activities (where 10 was the highest rank and 1 the lowest): "Run your own business", "Identify business opportunities to start up new business", "Obtain credit to start up new business or expand existing business", "Save in order to invest in future business opportunities", "Make sure that your employees get the work done properly", "Manage financial accounts", "Bargain to obtain cheap prices when you are buying anything for business (inputs)", "Bargain to obtain high prices when you are selling anything for business (outputs)", "Protect your business assets from harm by others", "Collecting the money someone owes you". The index for satisfaction with earnings/income is the reversed and rescaled respondent's self-assessment on a 7 point score (where originally "1" is completely happy and "7" is not at all happy). For the expenditure variable, the goods categories are jewelry/ornaments, cosmetics/makeup, clothes, hairdressers, shoes/footwear, going to restaurants/bars/teashop/cafe, talk time for your mobile phone and presents/gifts. The top 1% outliers of the expenditure variable have been removed. All monetary variables are deflated and expressed in terms of the price level in January 2008 using the monthly consumer price index published by the Uganda Bureau of Statistics. In Column 5, the ATE estimates are based on club participation being instrumented by the offer of treatment.

Table 4: The Impact of the ELA Program on **Control Over the Body**
Coefficients, standard errors in parentheses, standard deviations in brackets

	Outcome	(1) Baseline Levels, Control	(2) Sample Size	(3) ITT , OLS	(4) ITT, Probit Marginal Effects	(5) ATE
<u>A. Childbearing and Marriage</u>	1. Has child(ren) [yes=1]	.105 [.306]	4,670	-.027*** (.010)	-.022*** (.008)	-.169** (.066)
	2. Married or cohabiting [yes=1]	.120 [.325]	4,633	-.069*** (.013)	-.075*** (.014)	-.432*** (.093)
<u>B. Sexual Violence</u>	3. Had sex unwillingly in the past year [yes=1]	.142 [.350]	922	-.061** (.028)	-.056** (.026)	-.246** (.120)
<u>C. Knowledge</u>	4. Pregnancy knowledge [0-1 score]	.746 [.436]	4,550	.048** (.021)	.050** (.021)	.299** (.128)
	5. HIV knowledge [0-6 score]	3.78 [1.24]	4,831	.471*** (.047)		3.02*** (.418)
<u>D. Contraception</u>	6. If sexually active, always uses condom [yes=1]	.514 [.500]	816	.130*** (.038)	.138*** (.040)	.675*** (.219)
	7. If sexually active, uses other contraceptives [yes=1]	.208 [.406]	816	.028 (.031)	.031 (.033)	.148 (.163)

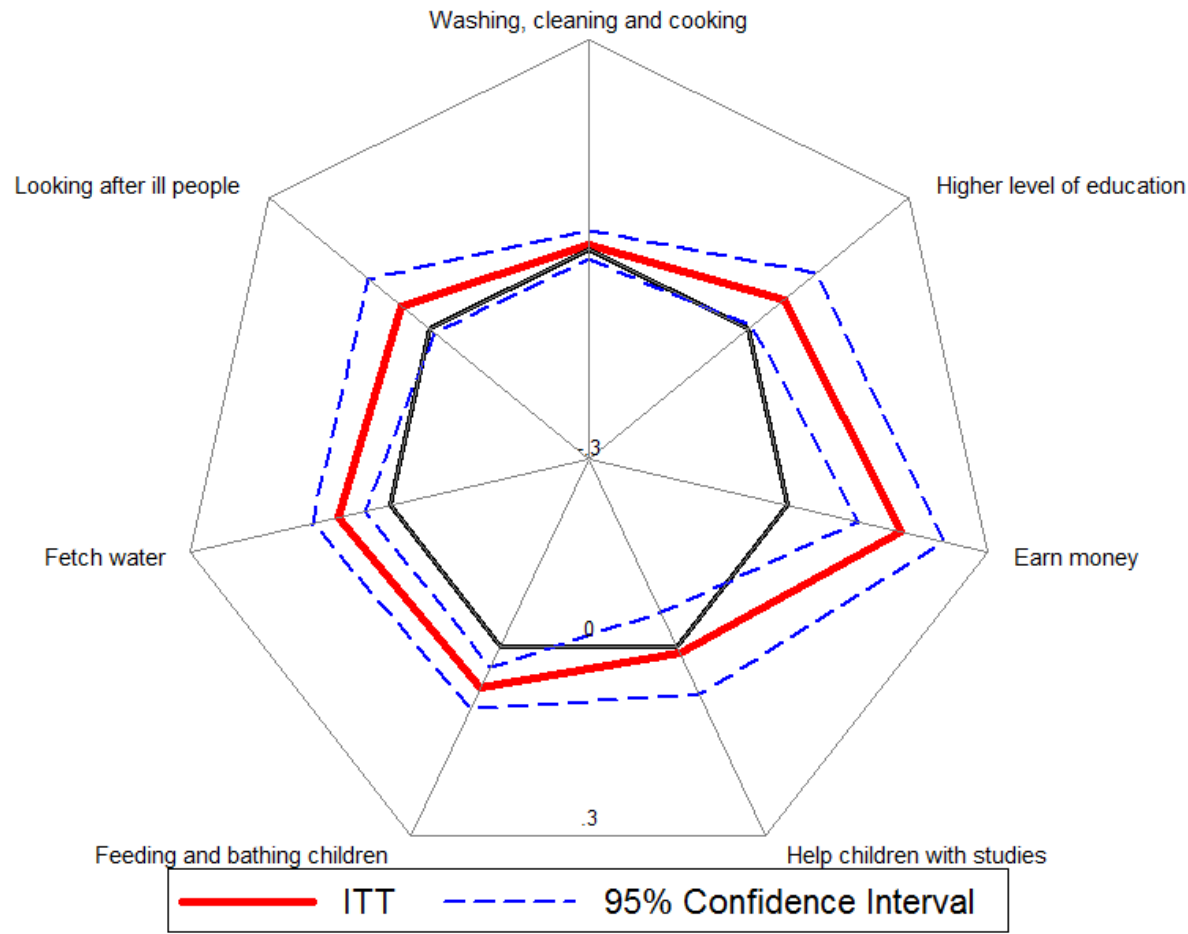
Notes: *** denotes significance at 1%, ** at 5%, and * at 10%. The standard errors are clustered by community. The control variables include the adolescent age and a series of indicator variables for branch areas. The pregnancy knowledge index equals 1 if the respondent correctly identifies the statement "A women cannot become pregnant at first intercourse or with occasional sexual relations" as true or false. The HIV knowledge index is based on the number of statements correctly identified as true or false. The relevant statements are "A person who has HIV is different from a person who is ill with AIDS", "During vaginal sex, it is easier for a woman to receive the HIV virus than for a man", "Pulling out the penis before a man climaxes keeps a women from getting HIV during sex", "A women cannot get HIV if she has sex during her period", "Taking a test for HIV one week after having sex will tell a person if she or he has HIV." and "A Pregnant woman with HIV can give the virus to her unborn baby". In Column 5 the ATE estimates are based on club participation being instrumented by the offer of treatment.

Table 5: The Impact of the ELA Program on Aspirations Related to Marriage and Child Bearing
 Coefficients, standard errors in parentheses, standard deviations in brackets

		(1) Baseline Levels, Control	(2) Sample Size	(3) ITT , OLS	(4) ATE
<u>A. Marriage</u>	1. Suitable age for marriage for a woman	23.9 [3.13]	4,730	.770*** (.116)	4.92*** (.907)
	2. Suitable age for marriage for a man	28.1 [3.69]	4,705	.693*** (.125)	4.49*** (.954)
<u>B. Child Bearing</u>	3. Preferred number of children	4.14 [1.44]	4,700	-1.279*** (.052)	-1.77*** (.352)
	4. Suitable age for women to have the first baby	23.7 [3.27]	4,701	.619*** (.110)	3.93*** (.819)
<u>C. Children's Marriage</u>	5. Preferred age at which daughter(s) get married	24.8 [2.78]	4,603	.718*** (.118)	4.58*** (.878)
	6. Preferred age at which son(s) get married	28.4 [3.25]	4,504	.120 (.113)	.763 (.719)

Notes: *** denotes significance at 1%, ** at 5%, and * at 10%. The standard errors are clustered by community. The control variables include the adolescent age and a series of indicator variables for branch areas. All variables indicating ages were trimmed at 15 years or younger. Indicated ages of 51 years or older are removed from the variable "Anticipated age at marriage". In Column 4 the ATE estimates are based on club participation being instrumented by the offer of treatment.

Impact on Empowerment



Cost-Benefit Analysis of the ELA Program

- Total cost of the program is \$366K in year 1, \$232 in year 2 [set-up costs are sunk]
- Cost per potential beneficiary [relevant group for our ITT analysis] is \$17.9 in year 2
- Corresponds to
 - .54% of hh income at baseline
 - 21% of annual pce of an adolescent girl on sub-set of goods we asked them about
- Weigh this against reduction in fertility, inc in employment, and drop in sex against her will