

Education as Liberation?

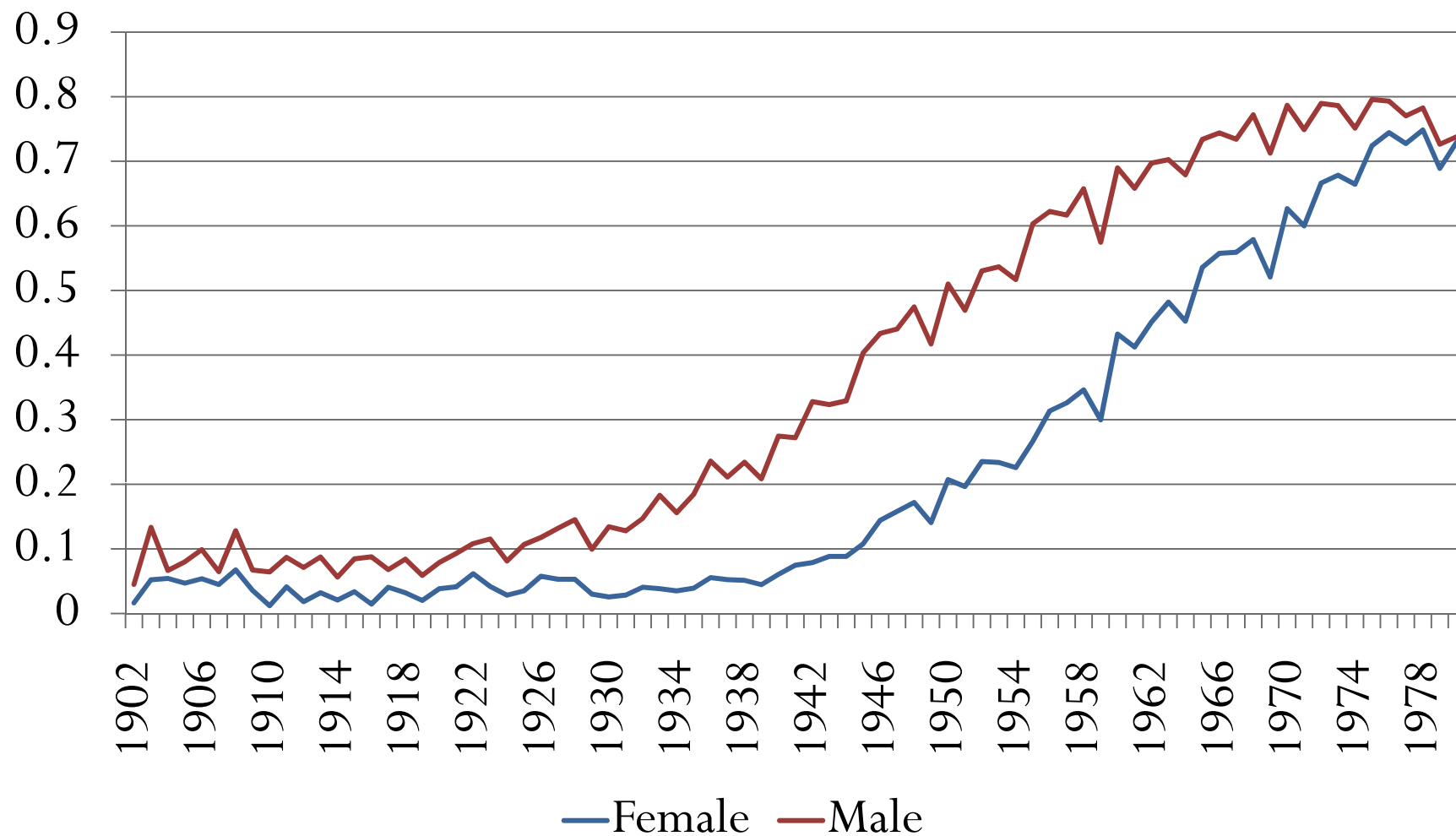
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Primary completion – Kenya (IPUMS)



IPUMS Census, 1999

Theories

- Social and political impact of education
 - Modernization theory: education weakens ascriptive identities (gender, ethnicity), promotes secularization, democracy
 - Education reproduces authority structures (Gramsci, Freire, Fanon, Bowles and Gintis)
 - Education empowers disadvantaged

Policy Impact

- Modernization theory
 - Education as a vehicle for building national identity
 - Calls for promoting education as antidote to violent extremism
- Empowerment View
 - Calls for gender equity in education (MDGs, UN, etc.)
 - NGO and government girls' scholarship programs (Bangladesh, Egypt, Cambodia, Pakistan , West Bengal)

Previous Empirical Evidence

- Cross country relationship between education and democracy
- Individual level correlations between education and political knowledge, interest, participation, and voting
 - Mixed evidence in developing countries
- Causal relationship?

This Paper

- Girls' scholarship program in rural western Kenya in 2001 and 2002
 - Grade 6 girls offered merit scholarship for grades 7 and 8
 - Student and teacher attendance improved
 - Test score gains of 0.25 s.d.
- What are the social and political impacts of the gains in human capital 4-5 years later?

Kenyan Context

- Kenyan girls in study are socially marginalized and politically disempowered, but important changes over time
 - Traditional parental role in spouse choice, role of bride wealth, increasingly replaced by elopement
 - Domestic violence common, but changing attitudes
 - Politically/ethnically disadvantaged, but opening up
- Transmission of values within education system?
 - National vs. ethnic identity (curriculum, language)
 - Religious education
 - Reinforcement of authority hierarchy? Corporal punishment, prefect system, gender roles within school

The Girls Scholarship Program (GSP)

- Scholarship program for girls in rural Western Kenya
- Administered by ICS, a local NGO
- Top 15% (district-wide) of grade 6 girls in program schools won:
 - 500 KSh (US\$6.40) for school fees, for two years
 - 1000 KSh (US\$12.80) cash, for two years
 - Public recognition, certificate at an award ceremony
 - Total cash component: US\$38 (annual per-capita income US\$400)
- Two cohorts competed (2001, 2002)
- Focus on Busia
- Randomization produced comparable program and control groups

Program vs. Comparison Schools

	Comparison group variable mean (s.d.)	Coefficient estimate (s.e.) on program indicator OLS
Student age (2001)	13.3 (1.48)	-0.07 (0.13)
Iron roof ownership	0.79 (0.41)	-0.020 (0.034)
Mother years of schooling	8.81 (4.02)	0.63* (0.33)
Father years of schooling	10.63 (4.06)	0.47 (0.39)
Proportion ethnic Teso	0.055 (0.23)	0.015 (0.029)
Test score pre-program (2000) (all subjects, normalized, cohort 1)	0.00 (1.00)	0.24 (0.22)

Short-Run Incentive Effect on Education (Kremer, Miguel, and Thornton 2009)

- Incentive effect on student and teacher effort (reducing absenteeism by one third)
- Large test score gains for both cohorts (2001, 2002): **0.25 standard deviations**
- Cannot reject equally large gains for girls throughout the baseline (2000) test score distribution, even at the bottom
- Test score gains persisted through 2003

Measuring Longer Run Effects

- 2005-2007 Survey
 - Girls tracked throughout Kenya and Uganda
 - Direct contact with 84.3% of target respondents
 - Survey completion balance across program and comparison
- Outcomes:
 - Human Capital measures: educational attainment, arithmetic, reading, vocabulary (English, Swahili), spatial reasoning (Ravens matrix)
 - Life outcomes: demographic information (marriage, fertility, migration), labor market
 - Attitudes: to gender, ethnicity, and religion
 - Political: knowledge, attitudes, behavior

Estimation Strategy

- Reduced form estimates: program vs. comparison
- Controls for student cohort, student age, pre-program average school test score, educational attainment of parents, and month of follow up survey.
- Clustered standard errors
- OLS, but similar results with probits
- Channels?
- IV approach to compare non-experimental estimates

Longer Run Effects on Human Capital

	Comparison mean (s.d.)	Program indicator (s.e.)
Test score mean effect	0.00 (1.00)	0.196** (0.089)
Attended at least some secondary school (0-1)	0.30 (0.46)	0.086** (0.041)
Still in school, at time of survey (0-1)	0.52 (0.50)	0.078* (0.044)
Grades of school completed	7.8 (1.2)	0.086 (0.103)

Household and Gender Outcomes

- Many argue that education, especially for adolescent girls, empowers
- Modernization theory suggests that education should erode support for traditional gender roles

Household and Gender Outcomes

	Comparison mean (s.d.)	Program indicator (s.e.)
“ Women have always been subject to traditional laws and customs and should remain so.” (0 to 1) (vs. “Women should have equal rights and receive the same treatment as men do.”) [AFB]	0.17 (0.31)	-0.009 (0.022)
“ Men can beat their wives and children if they misbehave.” (0 to 1) (vs. “No one has the right to use physical violence against anyone else.”) [AFB]	0.25 (0.38)	-0.067*** (0.024)
Ever married (0-1)	0.21 (0.40)	-0.018 (0.034)
Ever married, with family involvement in spouse choice (0-1)	0.042 (0.201)	-0.024* (0.013)
Total fertility	0.397 (0.760)	-0.028 (0.065)
Lack of autonomy mean effect	0.00 (1.00)	-0.203** (0.084)

Ethnicity and Religious Identity

	Comparison mean (s.d.)	Program indicator (s.e.)
Ethnic identity not “very important” to respondent (0-1)	0.110 (0.313)	-0.033 (0.020)
Ethnic identity not “very important” to respondent (0-1), among those surveyed in 2005 and 2006	0.126 (0.332)	-0.044** (0.021)
Migrated out	0.257 (0.438)	0.006 (0.036)
Religious identity not “very important” to respondent (0-1)	0.014 (0.117)	0.005 (0.006)
Member of a prayer group (0-1)	0.371 (0.484)	0.018 (0.034)

Democratic Attitudes

	Comparison mean (s.d.)	Program indicator (s.e.)
Agree with: "We should choose our leaders in this country through regular, open and honest elections. " (0 to 1)	0.93 (0.19)	0.001 (0.014)
Agree with: " Democracy is preferable to any other kind of government" (0 to 1) [AFB, WVS]	0.69 (0.46)	-0.006 (0.035)
Disagree with: " Only those who are sufficiently well educated should be allowed to choose our leaders." (0 to 1) [AFB]	0.27 (0.38)	0.022 (0.030)
Disagree with: " Only one political party should be allowed to stand for election and hold office." (0 to 1) [AFB]	0.36 (0.40)	0.057 (0.037)
Disagree with: " All decisions should be made by a council of elders." (0 to 1) [AFB]	0.27 (0.36)	0.031 (0.029)
Disagree with: "The military should come in to govern the country." (0 to 1) [AFB]	0.61 (0.41)	0.003 (0.033)
Disagree with: " Elections and the Parliament should be abolished so that the president can decide everything." (0 to 1) [AFB]	0.64 (0.41)	-0.006 (0.032)
Democratic attitudes mean effect	0.00 (1.00)	0.056 (0.088)

Media Behavior

	Comparison mean (s.d.)	Program indicator (s.e.)
Days listened to the radio in last week (0 to 7)	0.757 (0.429)	-0.086** (0.035)
Days read a newspaper in last week (0 to 7)	0.44 (1.01)	0.135* (0.074)
Has a favorite newspaper	0.667 (0.472)	0.095** (0.037)
Favorite newspaper is the <i>Daily Nation</i>	0.306 (0.461)	0.194*** (0.035)

Political Knowledge

	Comparison mean (s.d.)	Program indicator (s.e.)
Knows Kenyan President's name (0-1)	0.997 (0.54)	-0.000 (0.002)
Knows Kenyan Vice President's name (0-1)	0.84 (0.37)	0.048 (0.030)
Knows Kenyan Education Minister's name (0-1)	0.33 (0.47)	0.042 (0.037)
Knows Kenyan Health Minister's name (0-1)	0.51 (0.50)	0.095*** (0.033)
Knows Ugandan President's name (0-1)	0.62 (0.49)	0.093* (0.047)
Political knowledge mean effect	0.00 (1.00)	0.220** (0.091)

Satisfaction with Authority

	Comparison mean (s.d.)	Program indicator (s.e.)
“We should show more respect for authority. ” (0 to 1) (vs. “As citizens, we should be more active in questioning the actions of our leaders.”) [AFB]	0.53 (0.46)	-0.076*** (0.026)
Kenya’s quality of government is better than two years ago (0-1)	0.56 (0.50)	-0.054* (0.031)
Kenya’s economy is better than two years ago (0-1)	0.50 (0.50)	-0.060* (0.033)
Satisfaction with Kenyan democracy (0 to 1) [WVS]	0.74 (0.29)	-0.048*** (0.017)
Satisfaction with authority mean effect	0.00 (1.00)	-0.247*** (0.062)
Taking everything together, respondent is “ very happy ” (0-1) [WVS]	0.65 (0.48)	-0.027 (0.039)

Perceived Political Efficacy

	Comparison mean (s.d.)	Program indicator (s.e.)
Disagree with: "Politics and government sometimes seem so complicated that you can't really understand what's going on. " (0 to 1) [AFB]	0.16 (0.29)	0.009 (0.020)
Disagree with: "This world is run by a few people in power, and there is not much that someone like me can do about it." (0 to 1)	0.30 (0.37)	0.019 (0.027)
Perceived political efficacy mean effect	0.00 (1.00)	0.052 (0.064)

Participation in Democracy and Civic Affairs

	Comparison mean (s.d.)	Program indicator (s.e.)
Interested in public affairs (0-1) [AFB, WVS]	0.26 (0.44)	-0.029 (0.028)
Intends to vote in the next presidential election (0-1)	0.48 (0.50)	-0.026 (0.045)
Community group memberships	1.41 (1.39)	0.058 (0.105)
Participation in politics and civic affairs mean effect	0.00 (1.00)	-0.040 (0.072)
“Generally speaking, would you say that most people can be trusted ” vs “that you need to be very careful in dealing with people?” (0-1) [WVS]	0.187 (0.390)	-0.018 (0.025)

Attitudes towards Political Violence

“It is sometimes **necessary to use violence** in support of a just cause.” (0 to 1) (vs. “The use of violence is never justified in politics.”)
[AFB]

Comparison mean (s.d.)	Program indicator (s.e.)
0.47 (0.18)	0.030** (0.012)

Summary of Results

- Long term human capital gains
- **No evidence that education induces “modern” attitudes**
 - Ethnicity
 - Religion
 - Democracy and abstract questions on traditional gender roles
- **More empowered in household**
 - Marital decisions
 - Reduced acceptance of the legitimacy of domestic violence
- **Politically more aware, less satisfied**
 - More likely to read newspapers
 - More knowledgeable about politics
 - **Less satisfied** with Kenya’s democracy and economic conditions, less respect for authority
- **Expression**
 - No greater sense of political efficacy
 - No more likely to vote or participate in community groups.
 - Greater willingness to accept the legitimacy of the use of **violence in politics**

Channels

- Several possible mechanisms: direct human capital, public ceremony, cash prize
- Were effects due to human capital effects or winning merit scholarship?
 - Those scoring below +2 standard deviations in 2000 had only 8% chance of winning scholarship
 - Schools with 5 or less GSP winners

	Comparison mean	Program indicator
Test score mean effect	0.00 (1.00)	0.196** (0.089)
Test score mean effect, (baseline scores < +2 s.d.)	0.06 (0.97)	0.154* (0.084)
Test score mean effect, (schools ≤5 predicted GSP winners)	-0.06 (1.01)	0.180** (0.083)

- Results on political and social impact similar among these samples, suggests human capital channel

Comparing estimates in the full sample vs. among those with “low” baseline test scores

	Program indicator	Program indicator, test score < +2 s.d.	Test of equality of coefficients (p-value)
Lack of autonomy mean effect	-0.214** (0.070)	-0.195* (0.102)	0.68
Democratic attitudes mean effect	-0.038 (0.065)	-0.048 (0.096)	0.84
Political knowledge mean effect	0.117* (0.062)	0.120 (0.101)	0.87
Satisfaction with authority mean effect	-0.173*** (0.066)	-0.158* (0.086)	0.86
Perceived political efficacy mean effect	0.079 (0.060)	0.078 (0.077)	0.96
Participation in politics and civic affairs mean effect	-0.146** (0.063)	-0.147 (0.096)	0.92
“It is sometimes necessary to use violence in support of a just cause.” (0 to 1)	0.012 (0.011)	0.008 (0.012)	0.85

Experimental vs. Non-experimental Results

- Compare IV estimates with OLS estimates in comparison group

	Program indicator	Coefficient on test score	Coefficient on test score (2005-07)	Hausman test
	OLS	(2005-07) IV-2SLS [Experimental]	OLS [Non-experimental]	p-value, $H_0: \beta_{IV} = \beta_{OLS}$
Lack of autonomy mean effect	-0.203** (0.084)	-0.942* (0.516)	-0.321*** (0.091)	0.018**
Democratic attitudes mean effect	0.056 (0.088)	0.262 (0.338)	0.305*** (0.050)	0.823
Political knowledge mean effect	0.220** (0.091)	1.020*** (0.341)	0.479*** (0.046)	0.070*
Satisfaction with authority mean effect	-0.229*** (0.059)	-1.106** (0.460)	-0.164*** (0.049)	0.001***
Perceived political efficacy mean effect	0.052 (0.064)	0.240 (0.322)	-0.031 (0.047)	0.332
“It is sometimes necessary to use violence in support of a just cause.” (0 to 1)	0.030** (0.012)	0.140 (0.095)	-0.008 (0.009)	0.017**

Experimental vs. Non-experimental Results

- Most striking differences between IV and OLS on satisfaction with authority, lack of autonomy, violence
- Why a difference?
 - One hypothesis: ability to progress in school (or do well in school) is related to willingness to accept authority
 - Potential important omitted variable bias in OLS estimates
 - Accounts for view of education as reproducing authority structures?
- Differences between IV and OLS estimates significant for 4 of 10 dependent variables suggesting value added from experimental method

Conclusion

- What are the longer run effects of increased human capital among Kenyan girls?
 - Modernization theory: ethnicity, secularization, attitudes towards democracy
 - No evidence that education instills acceptance of authority.
 - Evidence that education empowers women within the household, awakens political consciousness
 - In our sample, translates not into participation in democratic politics, community affairs, but into acceptance of violence

What is likely to generalize?

- Education may make people less likely to accept subordinate status
- Political expression of this discontent likely depends on context