

Gender gaps in work outcomes after 19 years/ analysis based on the Kagera Panel 1991-2010

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Introduction

- ◆ Importance of school to work transition for many young people
 - ◆ Early work experiences likely to have longer term consequences?
- ◆ Context in sub-Saharan Africa of poverty, lack of enforced compulsory school attendance
- ◆ In low income countries transition from school often into early marriage and childbirth
 - ◆ Especially important for young girls

Introduction (2)

- ◆ Work done as part of IDRC project on “School to work transitions of young women in low income African countries”
 - ◆ Focus on 6 SSA countries
- ◆ Growth Opportunities for Women programme
- ◆ Very big endogeneity issues; but often only have repeated cross sectional data
- ◆ Long term individual panel data at least allows to identify sequence of events: here 19 year Kagera panel data set
- ◆ Initial descriptive analysis at present

Literature

- ◆ Education critical for success in labour market (Glick, Sahn and Walker, 2016; Marchetta and Sahn, 2016)
- ◆ Boutin (2014) longer transitions for women in Mali .. not due to educational differences
- ◆ Studies use unanticipated shocks in discrete hazards models to identify causal effects e.g. Glick et al 2016
- ◆ Beegle et al (2006 – KHDS): shocks lead to increased child labour, less school attendance

Literature (2)

- ◆ Bandara et al (2014) also look at impact of shocks on child labour in Tanzania (NPS): shock increase probability of dropout of girls
- ◆ Burrone et al (2014): child labour associated with more vulnerable employment later in life (KHDS)
- ◆ Evidence of parental illness/death having adverse impacts on school attainment (Alam, 2015 – KHDS; Sun and Yao, 2010 China; Gertler et al 2004)
- ◆ Here interested in labour outcomes too – and latest round of survey

Data and context

- ◆ Kagera Health and Development survey (KHDS) first conducted in multiple rounds in 1991-4; individual level follow up, with tracking, in 2004 and 2010
 - ◆ NW Tanzania
- ◆ 5353 people in 919 households in 1991, 4430 re-interviewed in 2004, 4336 in 2010
- ◆ Strong focus on health, shocks, migration
- ◆ Qualitative work in same area in 2012 and 2016: urban and rural areas

Data (2)

- ◆ Focus here on 1468 individuals aged between 7 and 20 in 1991 and re-interviewed in 2004 and 2010
 - ◆ 2255 7-20 year olds interviewed in 1991
- ◆ Detailed information on baseline characteristics in 1991
- ◆ Information on key outcomes in 1991, 2004, 2010: education; marriage; work
 - ◆ Though cannot easily identify people's children
 - ◆ Work information gets less detailed over time
- ◆ Data on shocks over period and migration

Descriptive analysis of 1991-2010 panel

- ◆ Most people were sons and daughters of head in 1991; by 2010 86% were household heads or spouses
- ◆ 82% females married by 2004, 92% by 2010 (57% and 82% for males)
- ◆ Migration: 15% left region, similar for M&F; within region M more likely to stay in baseline cluster than F (marriage patterns)

Descriptive analysis of 1991-2010 panel (2)

- ◆ In 1991 majority of 7-14 year olds in school, but most combine with work; minority of 15-20 year olds in school
- ◆ Not much gender difference in 7-14 range, but $F < M$ in school attendance in 15-20 age range
- ◆ By 2010 80% of males and females have at completed primary education or more; slightly more M than F have some secondary
- ◆ Those in school only in 1991 more likely to have post-primary; more of these in wealthier households

Distribution of school and work status of the 1991 baseline sample, by gender, age group and consumption quartile

	males			females		
	7 to 14	15 to 20	Total	7 to 14	15 to 20	Total
School only	17.1	4.2	12.5	13.9	3.2	9.9
Work only	18.2	59.3	33.0	17.8	66.6	36.2
School and work	42.8	34.6	39.9	45.4	28.4	39.0
Neither school nor work	21.8	1.9	14.7	22.8	1.8	14.9
Total	100	100	100	100	100	100

: Percentage distribution of educational completion by panel individuals in 2010

Education level by 2010	males	females
less than primary	19.7	21.1
primary completed	65.6	67.3
some secondary and above	14.7	11.5
All	100	100
Number of observations	730	738

Relation of educational attainment to school/work status in 1991

		School/work status in 1991			
		School only	Work only	School and work	Neither school nor work
Males	Education level in 2010				
	less than primary	11.0	25.7	12.0	34.6
	complete primary	60.4	66.4	72.9	48.6
	some post primary	28.6	7.9	15.1	16.8
Females	Education level in 2010				
	less than primary	6.6	34.4	9.3	36.4
	complete primary	54.9	70.5	74.9	56.1
	some post primary	18.7	5.8	14.4	10.3

Descriptive analysis of 1991-2010 panel (3)

- ◆ Those not in school or work in 1991 have worst education outcomes
- ◆ Qualitative work ... almost everyone saw the value of education, but many do not have it

I would also like to work in a neck tie, but how can I when I am going to fetch firewood? It is not possible, at all. Get education, you become a Chairman of the village and then you go to the meetings, sometimes to discuss nothing, but in a neck tie (FGD, Community 1 young man)

I was in primary seven and I got pregnant. I stopped in order to take care of the pregnancy and the baby and I never went back again because my parents had given up and I myself never wanted to hear anything about school (FGD, Community 2 young woman)

- ◆ Many parents do not see value of educating daughters

Descriptive analysis of 1991-2010 panel (4)

◆ But benefits of education for daughters

- ◆ *And for us women, once you are educated, I do not think men can simply play with you: they will always respect you. I think that sometimes men are a nuisance to us women because we are not educated and because of lack of education, there is no possibility of getting a good job and you always depend on them (FGD, Community 1 young woman)*
- ◆ *Educated women are not here. They are in town doing good jobs. They are also married to educated men who know how to love (FGD Community 2, young woman)*
- ◆ Qualitative work ... almost everyone saw the value of education, but many do not have it

Descriptive analysis of 1991-2010 panel (5)

- ◆ In 1991 work is predominantly agriculture; few cases of wage work and self employment
- ◆ Many more in wage work, skilled wage work and self employment by 2004 and 2010, fewer only doing agriculture
- ◆ But the change is much bigger for men than women .. now a big gender gap
- ◆ Marriage an important factor for women: married women much less likely to do wage, skilled wage jobs; married women (and men) more likely to work in agriculture

Proportions engaged in different activities by age group and gender

age range in 1991	% only working in agriculture	% doing wage work	% in skilled wage work	% working in household business
1991				
Males	63.4	7.1	0.2	3.6
Females	69.4	3.5	0.0	2.3
2004				
Males	19.2	53.2	7.2	30.5
Females	53.6	21.7	1.5	16.5
2010				
Males	12.6	54.4	13.5	49.2
Females	37.5	26.2	5.1	38.8

Note: This table is based on the entire sample of 1448 individuals.

Reduced form analysis of 2010 education/employment outcomes

- ◆ Look at 2010 outcomes as function of 1991 characteristics
- ◆ Marriage not included:
 - ◆ Endogeneity concerns
 - ◆ Also do not (currently) know date of marriage
- ◆ But do control for events between 1991 and 2004: shocks and migration transitions
- ◆ No claim of causality

Reduced form analysis (2)

- ◆ Three educational models; LPMs for:
 - ◆ Failing to complete primary
 - ◆ Exiting on primary completion
 - ◆ Completion of secondary education
- ◆ Standard errors clustered at cluster level
- ◆ Gender, age and gender of head not significant
- ◆ Better educational outcomes for wealthier households
- ◆ Worse educational outcomes for more remote households, those not in school in 1991
 - ◆ No cost of working at same time as studying

Dependent variables are indicator variables for final level of education achieved as reported in 2010.

		(1)	(2)	(3)
		Incomplete primary	Completed primary	Completed secondary
	Woman	0.029	-0.021	-0.022
	Age in 2010	-0.004	0.004	0.005*
1991 household	Female head of household	-0.015	0.015	-0.011
	Household size = 5	0.123**	-0.066*	-0.042
	Household size = 8	0.150	-0.071	-0.056
	Head of household is grandparent of the respondent	-0.139*	0.126*	0.032
	Distance to drinking water (km)	0.027***	-0.020**	-0.010
	Household income per capita	-0.003***	0.004***	0.003***
School and work in 1991	<i>Default: goes to school and does not work</i>			
	Not attending but working	0.107**	-0.103**	-0.086**
	Attending and working	0.060	-0.040	-0.015
	Neither attending nor working	0.062	-0.096**	-0.044*
Migration pattern	<i>Default: non-migrant 1991-2004</i>			
	Non-return migrant	-0.085***	0.061***	0.052**
	Left Kagera	-0.169***	0.132***	0.139***
	Left Tanzania	-0.134	0.183***	-0.009
Community shocks, 1993-2004				
	Drought	0.123***	-0.149***	-0.125***
	Flood	0.122***	-0.167***	-0.082***
	Epidemic	0.079*	-0.091**	-0.046
	Other	0.091**	-0.122	-0.044
	Sample size	1299	1299	1299
	R ²	0.189	0.180	0.162

Reduced form analysis (3)

- ◆ Those hit by shocks between 1991-2004 have worse educational outcomes
- ◆ Those migrating between 1991 and 2004 have better educational outcomes
- ◆ Other results stand even dropping these shock and migration variables

- ◆ Three employment models; LPMs for:
 - ◆ Working exclusively in agriculture
 - ◆ Having worked in in paid off farm employment
 - ◆ Working in a skilled non-farm occupation

Reduced form analysis (4)

- ◆ Gender now definitely significant; women much more likely to be only in agriculture, less likely to be in wage jobs
- ◆ More likely to be in agriculture in larger and more remote households
- ◆ Those from female headed households more likely to be in agriculture
- ◆ Lack of school attendance in 1991 associated with lower likelihood of wage job
- ◆ Little effect of community shocks between 1991 and 2004; or of migration

Dependent variables are indicator variables for type of employment in 2010.

		(1)	(2)	(3)
		Works in Agriculture	Wage job	Skilled wage job
	Woman	0.221***	-0.275***	-0.089***
	Age in 2010	0.007*	0.007*	0.007*
1991 Household	Female head of household	0.151***	-0.120**	-0.004
	Household size = 5	0.072	-0.209***	-0.107**
	Household size = 8	0.197***	-0.301***	-0.101**
	Head of household is grand parent	0.020	0.156	0.048
	Distance to drinking water (km)	0.043***	-0.002	-0.012
	Household income per capita	0.000	0.001	0.001
School and work in 1991	<i>Default: goes to school and does not work</i>			
	Not attending but working	0.031	-0.106*	-0.084***
	Attending and working	-0.038	-0.071	-0.025
	Neither attending nor working	0.062	-0.073	-0.058**
Migration pattern	Default: non-migrant, 2992-2014			
	Non-return migrant	-0.005	-0.017	0.003
	Left Kagera	-0.080	-0.035	0.020
	Left Tanzania	-0.039	-0.186**	0.097**
Community shocks 1991-2004	Drought	0.030	-0.036	0.038*
	Flood	-0.052	-0.014	0.063**
	Epidemic	-0.015	0.056	-0.016
	Other	0.047	-0.023	0.065*
	Sample size	1402	1357	1357
	R ²	0.193	0.172	0.139

Reduced form analysis (5)

- ◆ Estimated models separately for F & M not many differences
- ◆ Estimated model of switching from agriculture only in 2004 to self employment or wage work
 - ◆ 55% of those doing only agriculture in 2004 take on other activities ... significantly higher among M
- ◆ Being able to migrate outside baseline cluster, especially beyond neighbouring villages, increases likelihood of accessing skilled work; but seems easier for men

Qualitative work

- ◆ Qualitative work reveals many respondents feeling women should not work outside household

I know that some people think that such mothers are hopeless because they have left their families. For example, my father always complains about Mr X's wife because she goes to work and comes back in the evening. He always says that she is the one who married the husband and not the husband who married her

- ◆ Women feel differently!

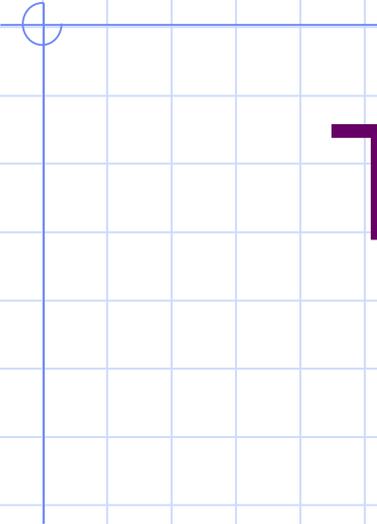
Now like me who has gone to school, why did I go there? To stay at home and do what? Then why did I go there? Do you need to go to school to remain at home? Why don't you stay there from the word go?

Messages so far

- ◆ Few male–female gaps in educational attainment .. although maybe start to emerge at secondary level
- ◆ Much bigger M-F gaps in work; marriage seems to be an important factor. Attitudes towards women working
- ◆ A lot of individuals are able to progress from initial work in agriculture to other areas
- ◆ Better wage and self employment opportunities linked to higher level of education, coming from a wealthier household, migration, being male

Next steps

- ◆ To date a very descriptive analysis trying to exploit all features of panel data set
- ◆ Want to incorporate marriage in analysis ... need date of marriage
- ◆ Duration modelling for education; marriage; and work outside agriculture
- ◆ Need identifying variables at each stage ... have data on shocks, on death of parents
- ◆ Migration is a critical part of the story



**Thank you very
much!**