

Vocational Education in Kenya: Demand, Gender and Impacts

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1. Introduction

- Youth unemployment a pressing social problem in poor countries (WDR 2007).
How to best to smooth the school-to-work transition?
- With free primary education, unprecedented primary school grads compete for few academic secondary spots. The applicability of academic secondary school skills is unclear, especially for below-average school performers
- Uncertainty about *which type* of vocational training is best, and *for whom*
- Recent rigorous impact evaluation studies of vocational education:
 - Card et al. (2007): Job-training in the Dominican Republic had moderate positive impacts on wages and health insurance coverage
 - Attanasio et al. (2009): Positive impacts of a vocational training program in Colombia on earnings and formal sector employment
- We are conducting a randomized evaluation of the impact of vocational education in Kenya, with funding provided by the BNPP and the SIEF

2. Sample and Design

- Sample and baseline data drawn from the Kenya Life Panel Survey (KLPS), a panel dataset with education, cognitive, health, nutrition, labor market, and demographic outcomes for over 5000 Kenyan adolescents from 1998-2008
- 2700 youths invited to apply for a voucher covering the fees and tuition of a vocational training course; 2164 chose to apply
- 1055 individuals randomly chosen to receive a voucher
- Courses last from one month to two years, starting in early 2009
- First follow-up survey in 2009, second follow-up in 2010 - 2011

	Youths who applied
% female	59
Age range	17 – 28
Current income per month, USD	11
% working	13
% in (last year of) school	3
Three most common jobs	Fishing, hawking, tailoring
Mean years of schooling	9

3. Public vs Private Voc. Ed.

- Traditional public sector vocational education seen as expensive and ineffective
- The growing private vocational sector the focal point of recent reforms in many low and middle income countries (WDR 2007). Might labor market returns be higher in the private sector?
- Individuals in our sample are of a different view:

	All	Female	Applied
Belief about average income per month for someone who has completed vocational training at a <i>private</i> training center, USD	144	125	139
Belief about average income per month for someone who has completed vocational training at a <i>public</i> training center, USD	155	136	150

- We focus on this important policy issue. ~500 individuals were randomly chosen to receive a voucher covering any course (public or private), and ~500 received a voucher covering only public training center courses
- Note that public sector vocational courses are typically longer than those at private centers in Kenya

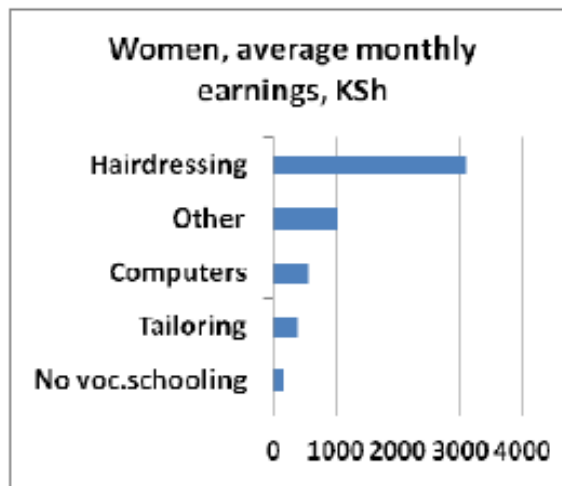
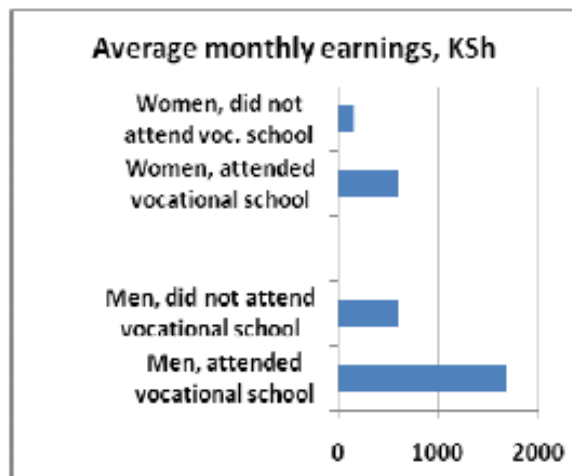
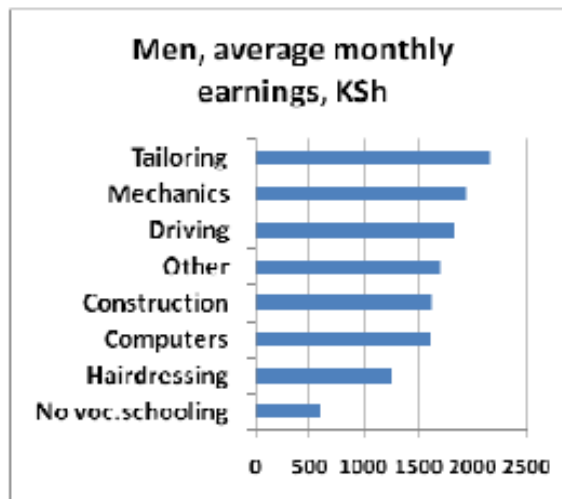
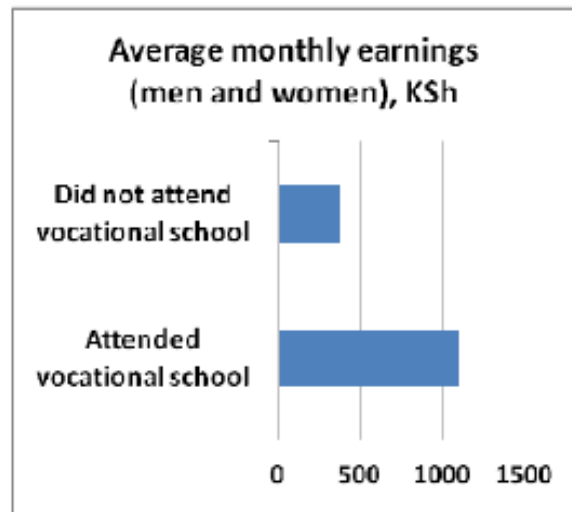
4. Training Centers & Courses

Most popular courses for men (stated preference)	Motor vehicle mechanics, Driving, Masonry
Most popular courses for women (stated preference)	Tailoring, Hairdressing & beauty, Computer packages
% who prefer a private training center	46
% women who prefer a "male-dominated" course	20
% men who prefer a "female-dominated" course	3

5. Beliefs about returns to vocational education

	All	Female	Applied
Current income per month, USD	13	8	11
Current income per month for those who have a job, USD	76	70	70
Expected income per month upon completing voc.ed. , USD	120	99	113
Expected returns to vocational education (conditional on employed)	59%	41%	61%
<i>Actual return to vocational education for KLPS individuals</i>	190%	279%	
<i>Actual return to vocational education for KLPS individuals (conditional on employed)</i>	37%		
Belief about vocational trade with highest earnings for women, USD	Tailoring		
<i>Actual vocational trade with highest earnings for women in KLPS</i>	Hairdressing		
Belief about vocational trade with highest earnings for men, USD	Motor vehicle mechanics		
<i>Actual vocational trade with highest earnings for men in KLPS</i>	Tailoring		

6. Information Intervention & Gender



- A random half received an **information intervention**, inspired by Jensen (2008), but especially targeted to females:
 - Information on average voc. ed. returns in KLPS, and returns to different courses
 - Encouraging girls to choose male-dominated trades: information on returns, a video featuring role models, discussion with female field officers

7. Preliminary results on the impact of information

The Impact of Information & Encouragement on Female Demand for Vocational Training Courses

	(1) ChooseMaleTrade	(2) ChooseMaleTrade	(3) Tailoring	(4) Tailoring
Info_treat	0.105 *** (0.0258)	0.103 *** (0.0257)	-0.109 *** (0.0309)	-0.107 *** (0.0307)
Age		-0.000327 *** (0.0000529)		0.000152 ** (0.0000579)
Occupation		-0.0312 (0.0223)		0.0376 (0.0255)
HaveVocEd		0.0889 ** (0.0286)		-0.153 *** (0.0357)
_cons	0.170 *** (0.0161)	0.750 *** (0.131)	0.528 *** (0.0215)	0.390 ** (0.151)
N	1037	1037	1037	1037
r2	0.0160	0.0272	0.0120	0.0295
F	16.61	19.78	12.58	10.95

Standard errors in parentheses * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

- Large effect on demand for male trades: 10 percentage points increase
- Substantial impact on choices of trades
- Appears that the treatment also had an impact on likelihood of applying

8. Lessons learned / Future plans

- Information on returns to vocational education seems to influence demand, especially for girls going into male-dominated trades
- Surveys planned for 2009, and 2010-2011 to measure enrollment, quality of vocational education institutions, and ultimately post-training labor market outcomes
- Major goal: to estimate the returns to vocational education
 - Differential returns due to access to private sector
 - Differential returns for females in "male" courses
 - Heterogeneous treatment effects by gender, cognitive ability, age, educational attainment