

Generating Skilled Youth Self-Employment

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Employment problems in developing countries

- Labor force growing much faster than formal sector employment opportunities
 - Foresee a shortage of educational and job opportunities
 - “Youth bulge” (2007, 2010 WDR)
- May heighten inequality and slow poverty alleviation
- Could weaken community and societal bonds and heighten social unrest

Common state/aid response: Give inputs



- e.g. Cash, skills training, physical capital
- Growing trend towards
 - Decentralized decision-making
 - Cash transfer programs
- Go by different names
 - “Participatory development”
 - “Community driven development”
 - “Social Action Funds”

These aid strategies are rooted in at least four assumptions

1. Inputs will not be “wasted”
 - The poor can make informed economic decisions
2. Poor have high potential returns to inputs like capital
3. An absence of capital is the principle constraint on high returns
 - e.g. Missing markets (credit, insurance) and production non-convexities
4. Poverty reduction will have positive socio-political impacts
 - More empowered and engaged citizens (especially if participatory)
 - Less alienated
 - Less violent

Evidence of public employment programs

- Job training: Poor track record
 - Few have impact and almost none pass a cost-benefit test
 - Heckman et al. (1999), Card et al. (2009), Betcherman et al. (2007)
 - Only three developing country studies
- Microfinance: Mixed record
 - Useful at managing risk and shocks (Collins et al 2009, Karlan & Zinman 2009)
 - Mixed evidence on investment and employment (Karlan & Zinman 2008)
 - Increasing evidence that increases returns for high ability, credit constrained clients (Duflo et al 2010, Fiala 2014)

Impact of cash grants

- Early evidence is promising
 - Many poor have high returns to capital, but are capital and credit constrained (Banerjee and Duflo 2004)
 - High rates of return to microenterprise grants (de Mel et al. 2008, McKenzie & Woodruff 2008)
 - Conditional cash transfers to the poor have low labor market impacts (World Bank 2009)
- Why should cash grants relieve poverty? (de Mel et al 2008, Duflo et al 2010)
 - Credit constraints limit accumulation
 - Production non-convexities (e.g. fixed start up costs)
 - High returns to entrepreneurship (ability)

Social instability

- Theoretical bases
 - Poverty lowers opportunity cost of insurrection (Becker 1962, Grossman 1991)
 - Aggression driven by frustrated ambitions, relative deprivation (Merton 1938, Gurr 1970, Berkowitz 1993)
 - Poor communities have poorer means of preventing violence (Scacco 2009)
 - Poor exposed to environmental risk factors than increase aggression (Myserud & Poleszynski 2003)
- But many reasons to be skeptical
 - Cross-national evidence weak
 - Little convincing micro-evidence
 - Poor unemployed young men may riot, but most do not

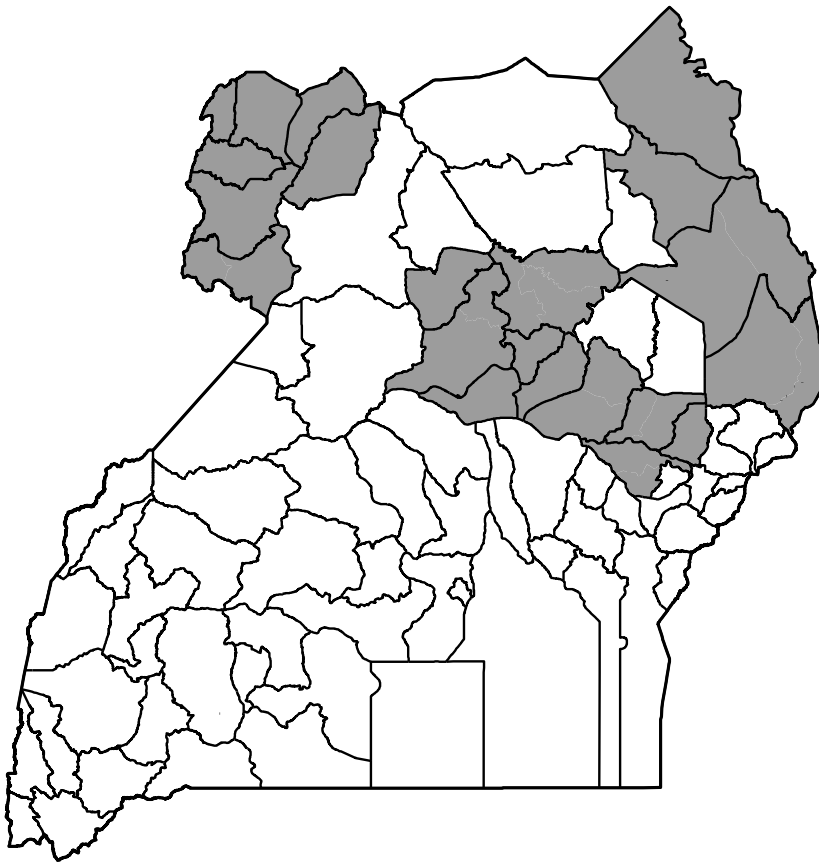
Evidence from a 2007 Ugandan aid program

(Youth Opportunities Program)

- Groups of 15-30 youth apply for cash transfers (~\$400/person)
- Condition: must propose to use for vocational training fees, tools, and start-up costs
- Main purpose is to lead to informal self-employment
- If selected, government transfers lump sum (~\$8000) to a community bank account in names of group leaders
- Zero government monitoring, support, or accountability
- Last-minute opportunity to do a randomized trial

Context: North and eastern Uganda

Newly stable, underdeveloped, growing region



District eligible for YOP and study

- Small poor, growing country
 - Small landlocked East African nation
 - 30 million people
 - \$330 GDP per capita
 - 6.5% GDP growth 1990-2007
- Northeast an underdeveloped, largely agricultural region
 - Poorer, less literate
 - Two decades of political instability
 - War in DRC to the west
 - War in Sudan to the north to 2003
 - Banditry in northeast
 - Rebellion in north-central 1987-2006

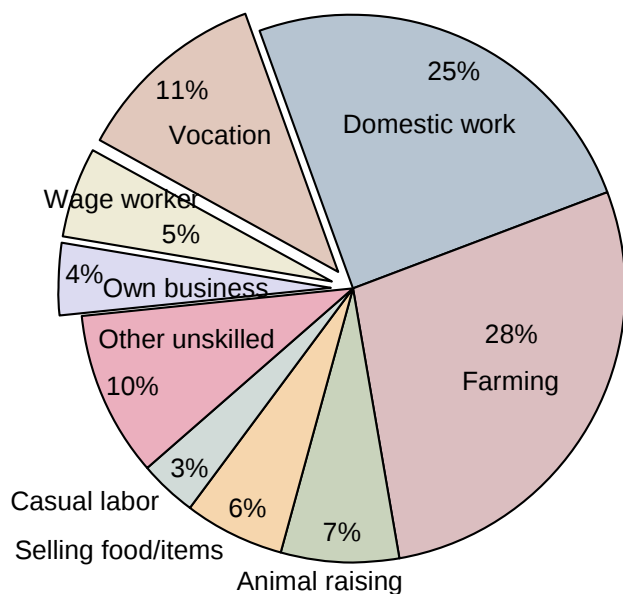
Baseline summary statistics and tests of balance

	Treatment		Control		Difference (controlling for district)	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Age	25.10	[5.2724]	24.81	[5.3294]	-0.006	[-0.021]
Female	0.32	[.4665]	0.36	[.4797]	-0.032	[-1.139]
Educational attainment	7.92	[3.0389]	7.89	[2.8332]	0.098	[0.577]
Literate	0.72	[.4479]	0.74	[.4386]	-0.012	[-0.517]
Prior vocational training	0.08	[.2764]	0.07	[.2583]	0.021	[1.658]*
Activities of Daily Living Index (additive bad)	8.58	[2.2819]	8.69	[2.711]	-0.203	[-1.264]
Index of emotional distress (additive bad)	18.93	[8.0078]	18.40	[7.9644]	-0.249	[-0.613]
Index of housing quality	0.02	[1.0107]	0.00	[1.0084]	0.007	[0.119]
Index of assets	0.04	[1.0595]	0.01	[.9985]	0.046	[0.785]
Indicator for loans	0.35	[.476]	0.33	[.4705]	0.014	[0.569]
Total value of outstanding loans (UGX)	18,368	[90353.28]	20,240	[90419.1]	-188	[-0.046]
Savings indicator	0.13	[.3405]	0.11	[.3082]	0.012	[0.786]
Total savings in past 6 months	22,281	[113504.6]	15,095	[92140.51]	6,788	[1.425]
Total revenue in past 7 days	8,744	[21926.85]	6,814	[16772.69]	1,778	[1.753]*
Total revenue in past 4 weeks	30,109	[63067.53]	26,202	[53280.74]	4,547	[1.372]
Can obtain a 100000 UGX loan if needed	0.40	[.4908]	0.34	[.4744]	0.046	[1.923]*
Can obtain a 1m UGX loan if needed	0.12	[.3269]	0.09	[.2892]	0.020	[1.284]
Days of household work in past 4 weeks	6.58	[11.3629]	5.91	[11.0348]	0.722	[1.160]
Days of nonhousehold work in past 4 weeks	17.18	[16.1001]	16.32	[16.2884]	0.933	[0.909]
Hours worked outside home in past week	10.53	[19.5221]	10.65	[20.0927]	-0.104	[-0.103]

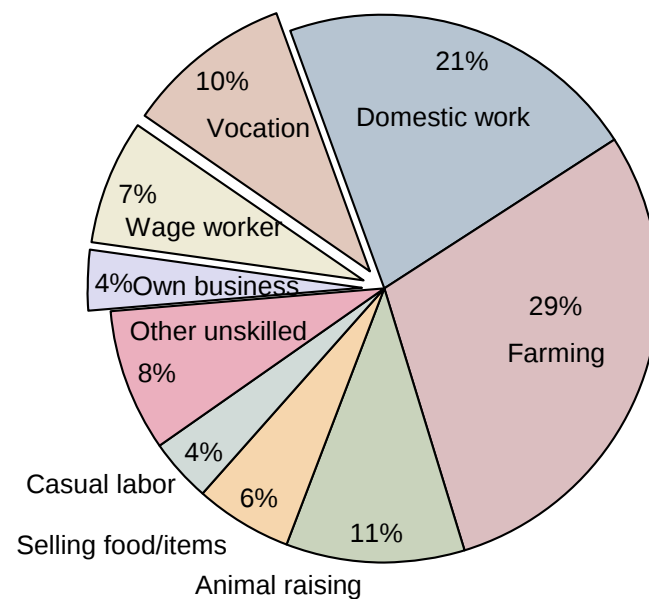
Opportunities outside an intervention like YOP

Distribution of hours worked in control group

Late 2010-Early 2011



Early-Mid 2012



Timeline of events

2006	Program announced, applications received Hundreds of applications funded
2007	Funds remain for 265 groups in 10 districts District governments nominate 600+ groups from the 2006 application pool Central government screens and approves 535 groups
2/2008	Baseline survey with 5 people per group
7-9/2008	Government transfers funds to treatment groups
10/2010	“2-year” endline survey runs through 2/2011
3/2012	“4-year” survey runs through 6/2012

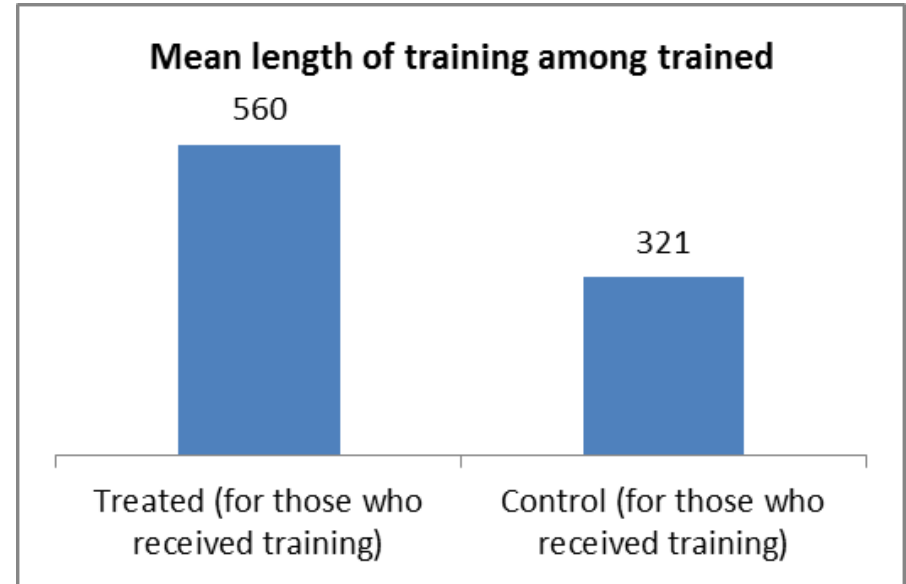
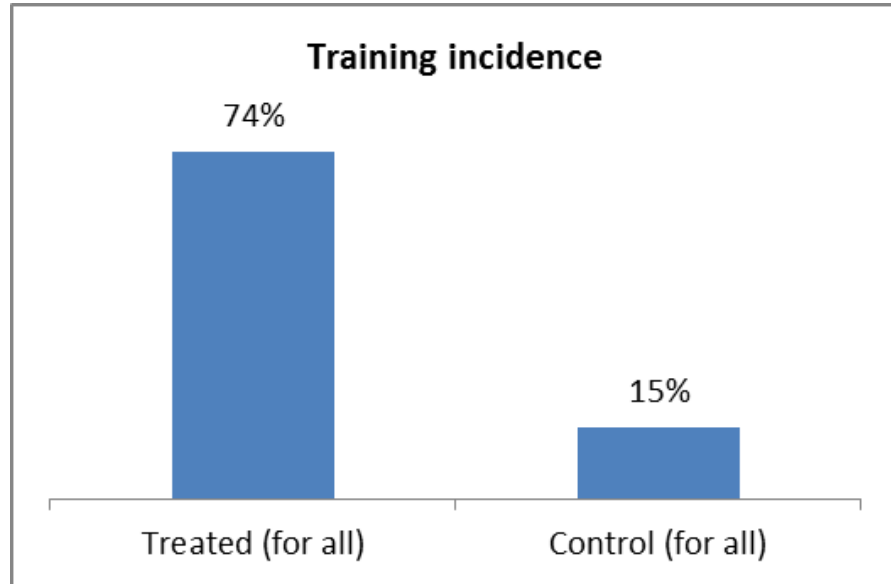
Data and attrition

- Baseline survey
 - Successfully tracked 524 of 535 groups
 - 6 of 11 missing believed to be “ghosts”
 - Interviewed 5 random members per group
 - Balanced along most characteristics
- Follow-up surveys
 - Sought all 5 members of each group, tracking migrants (4 attempts per person)
 - Effective tracking rate of 85% at 2 years and 84% at 4 years
 - Attrition uncorrelated with treatment



Investments in vocational skills and capital

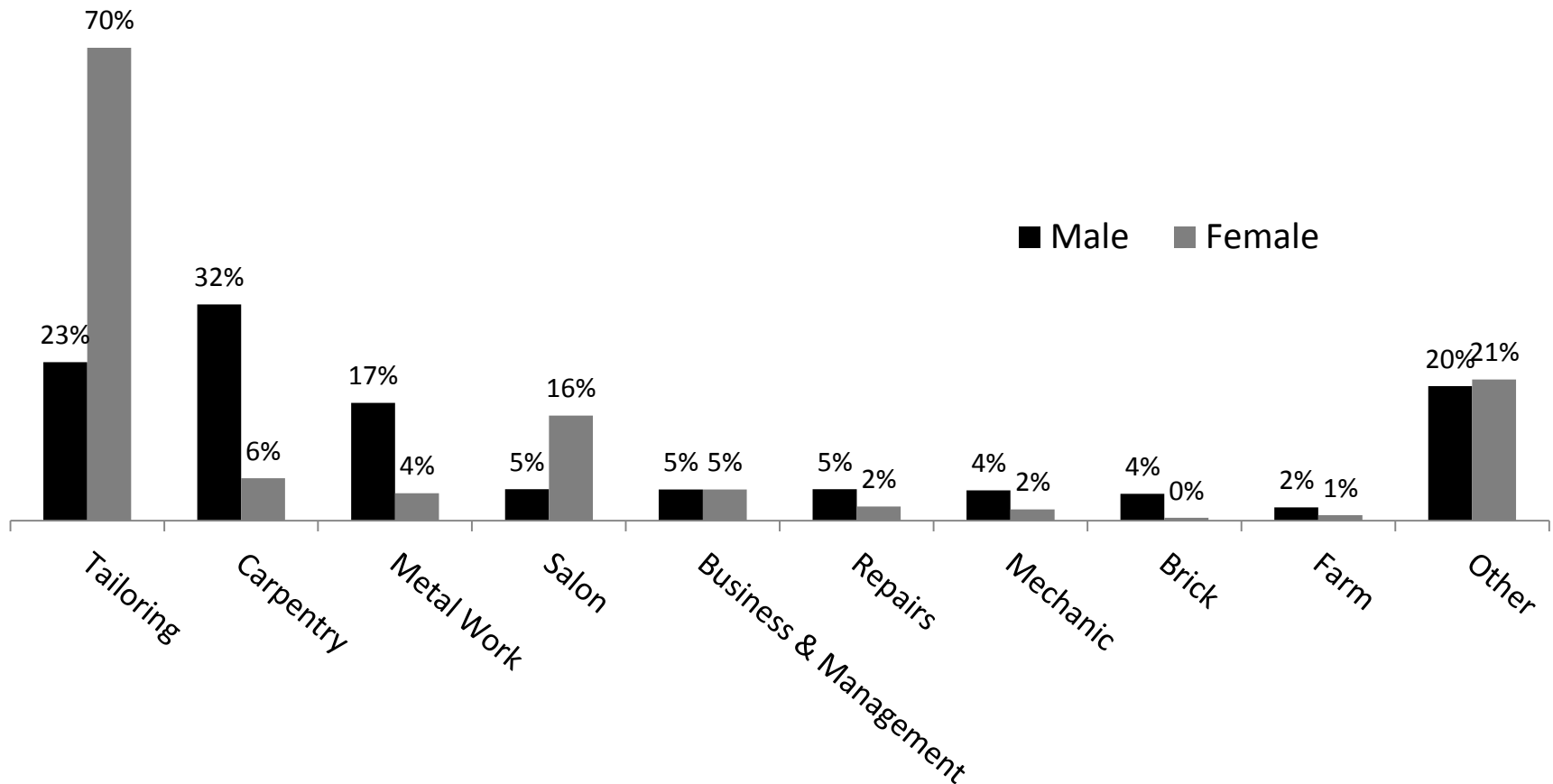
Impact on training?



- Transfer dramatically increases likelihood and intensity of skills training.
- Who trains among treated and control is not correlated with baseline data on capital, ability, patience, group quality, etc.

Types of training received by the treated

Among those who received any training



Implications

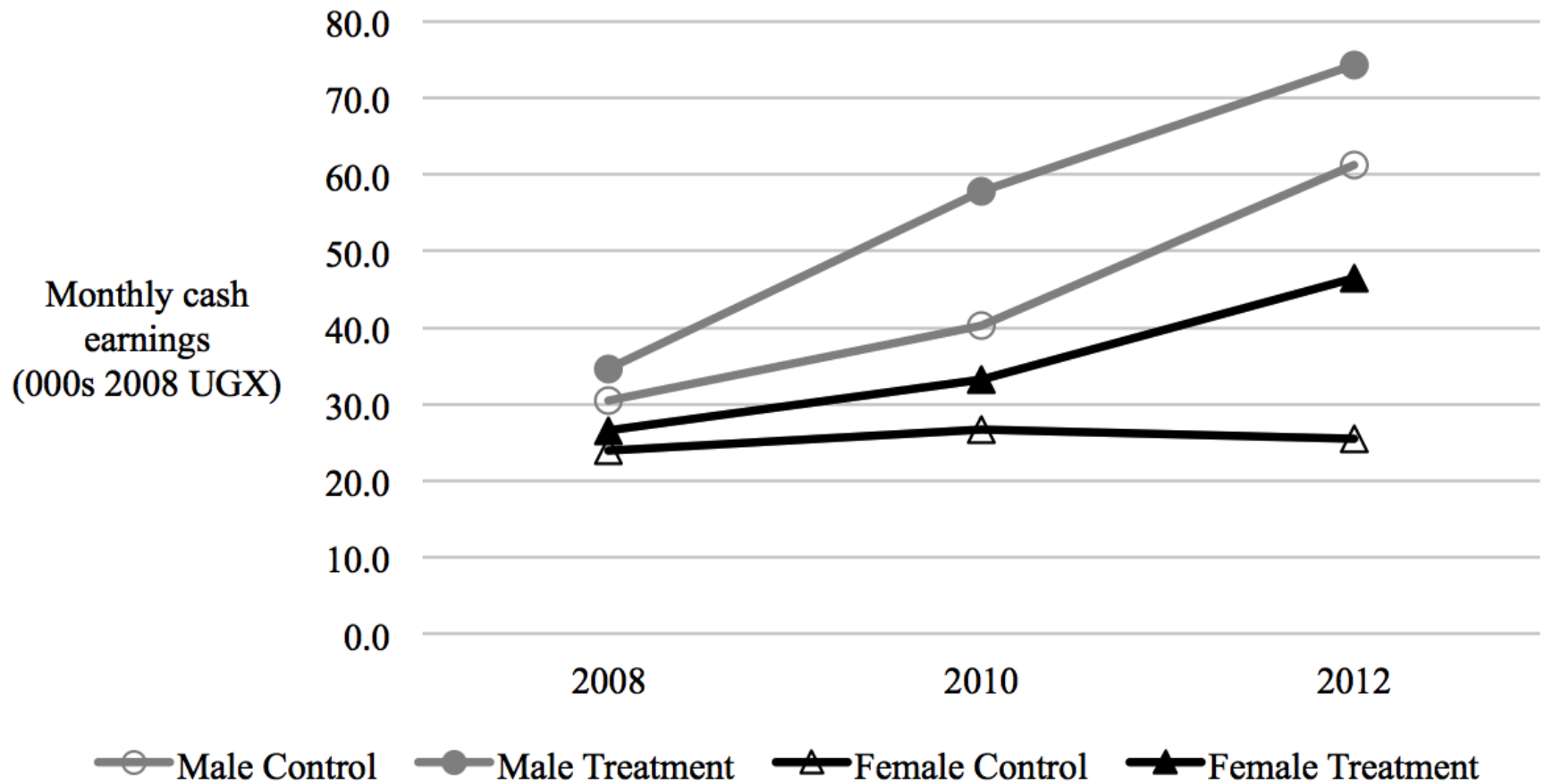
- No transfer, little training
- Some gender differences in skill and capital investment
 - Little difference in training levels
 - Women less likely to train in construction trades, more likely to tailor
 - Women invest less than men; difference is driven partly by “upper tail”
- On balance, transfer was invested not consumed
 - Appears that two thirds of grant was invested in either training fees or tool/capital purchases
 - Remaining third could have been consumed, or could have been invested in inventory, materials, etc. (No data on this)
 - Suggests a substantial amount of self-discipline or group discipline



Impacts on income, consumption and employment

Monthly cash earnings over time

By treatment status and gender



ATEs on employment and income

	Total hours of employment in past 4 weeks			Total profits from last 4 weeks (000s of UGX)			Hst: Total profits from last 4 weeks		
	2Y	4Y	4Y - 2Y	2Y	4Y	4Y - 2Y	2Y	4Y	4Y - 2Y
ATE (All)	20.703	24.99	4.287	20.813	30.438	9.625	1.627	1.481	-0.146
Std. Err.	[6.031]***	[6.82]***	[8.206]	[5.912]***	[8.819]***	[9.391]	[0.279]***	[.29]***	[0.353]
Control mean	120.9	147.0	26.1	44.05	77.12	33.07	7.460	8.235	0.775
ATE as % of mean	17%	17%		47%	39%		22%	18%	
Male ATE	19.646	18.303	-1.343	27.255	27.88	0.625	1.392	0.97	-0.422
Std. Err.	[7.327]***	[8.311]**	[10.023]	[7.995]***	[11.699]**	[12.835]	[0.320]***	[.326]***	[0.415]
Control mean	133.0	169.8	36.8	50.40	98.76	48.36	7.808	9.130	1.322
ATE as % of mean	15%	11%		54%	28%		18%	11%	
Female ATE	22.836	37.917	15.081	7.824	35.352	27.528	2.103	2.469	0.366
Std. Err.	[9.977]**	[11.537]***	[14.391]	[8.380]	[12.955]***	[14.174]*	[.508]***	[.512]***	[.665]
Control mean	99.92	108.9	8.98	33.00	40.94	7.94	6.855	6.740	-0.115
ATE as % of mean	23%	35%		24%	86%		31%	37%	
Female - Male ATE	3.190	19.614	16.424	-19.431	7.472	26.903	0.711	1.499	0.788
Std. Err.	[12.129]	[14.053]	[17.557]	[11.867]	[17.574]	[19.857]	[0.589]	[.586]**	[0.787]
Observations	1999	1867	3866	1999	1867	3866	1999	1867	3866

ATEs on poverty

- Substantial increase in durable assets
- Concentrated in males at 2Y but rising significantly for females after 4Y
- 13% increase in short-term consumption after four years, at least as high in females as males

	Index of wealth (z-score)			Non-durable HH consumption per capita
	2Y	4Y	4Y - 2Y	4Y
ATE (All)	0.129	0.198	0.069	10.833
Std. Err.	[0.055]**	[.06]***	[0.066]	[4.254]**
Control mean	-0.0174	-0.0536	-0.0362	83.80
ATE as % of mean				13%
Male ATE	0.178	0.166	-0.012	10.833
Std. Err.	[0.068]***	[.072]**	[0.080]	[4.254]**
Control mean	5.92e-05	-0.0133	-0.0133592	87.29
ATE as % of mean				12%
Female ATE	0.033	0.261	0.228	13.122
Std. Err.	[.088]	[.099]***	[.115]**	[5.381]**
Control mean	-0.0476	-0.121	-0.0734	77.98
ATE as % of mean				17%
Female - Male ATE	-0.145	0.095	0.240	2.289
Std. Err.	[0.108]	[.118]	[0.137]*	[6.722]
Observations	2000	1846	3846	1865

Are these high rates of return?

	<u>Real rate of return</u>
Treatment effects	
Income ATE	35%
Income QTE	22%
Available rates	
Prime rate	5%
Commercial low	15%
Commercial high	25%
ROSCAs	200%
Moneylenders	200%

- ATE and QTE higher than real commercial lending rates
- ATE implies a “Payback” time of 3 years
- But returns lower than 40 to 60% rates seen among microenterprises in Sri Lanka, Mexico or Ghana



Impacts on alienation, participation and aggression

Little effect on integration / alienation

	Community Participation family (z-score)			Social integration family (z- score)		
	2Y	4Y	4Y - 2Y	2Y	4Y	4Y - 2Y
ATE (All)	0.060	0.059	-0.001	0.080	-0.034	-0.114
Std. Err.	[0.056]	[.06]	[0.082]	[0.055]	[.06]	[0.079]
Control mean	-0.0624	-0.0248	0.0376	-0.0398	0.00750	0.0473
ATE as % of mean						
Male ATE	0.042	0.091	0.049	0.150	-0.066	-0.216
Std. Err.	[0.063]	[.075]	[0.097]	[0.060]**	[.069]	[0.089]**
Control mean	0.127	0.0483	-0.0787	0.0307	0.114	0.0833
ATE as % of mean						
Female ATE	0.095	-0.002	-0.097	-0.059	0.032	0.091
Std. Err.	[.1]	[.11]	[.144]	[.104]	[.113]	[.151]
Control mean	-0.392	-0.147	0.245	-0.162	-0.171	-0.009
ATE as % of mean						
Female - Male ATE	0.053	-0.093	-0.146	-0.209	0.098	0.307
Std. Err.	[0.113]	[.138]	[0.170]	[0.115]*	[.132]	[0.174]*
Observations	2000	1860	3860	2003	1867	3870

Little consistent effect on distress & aggression

	Distress family (z-score)			Aggression and hostile behavior family (z-score)		
	2Y	4Y	4Y - 2Y	2Y	4Y	4Y - 2Y
ATE (All)	-0.031	-0.048	-0.017	-0.073	0.055	0.128
Std. Err.	[0.053]	[.059]	[0.077]	[0.056]	[.055]	[0.079]
Control mean	-0.0186	-0.0276	-0.009	0.0401	-0.0494	-0.0895
ATE as % of mean						
Male ATE	-0.085	-0.076	0.009	-0.186	0.034	0.220
Std. Err.	[0.060]	[.067]	[0.088]	[0.067]***	[.065]	[0.097]**
Control mean	-0.0397	-0.100	-0.0603	0.0967	-0.0418	-0.1385
ATE as % of mean						
Female ATE	0.08	0.009	-0.071	0.155	0.097	-0.058
Std. Err.	[.102]	[.107]	[.139]	[.091]*	[.092]	[.125]
Control mean	0.0181	0.0943	0.0762	-0.0583	-0.0622	-0.0039
ATE as % of mean						
Female - Male ATE	0.165	0.085	-0.080	0.341	0.063	-0.278
Std. Err.	[0.118]	[.122]	[0.160]	[0.109]***	[.109]	[0.153]*
Observations	2000	1863	3863	2000	1863	3863

Overall implications

- The program is an effective poverty intervention, but not a social one
- Cash transfers can be invested wisely by the poor
- They can earn reasonably high rates of return, but growth potential is modest
- Women especially benefit, relative to their alternatives
- But economic success does not seem to be associated with significant social externalities
 - Few advances in social integration or reduced distress or aggression

Preliminary implications for development policy

- Importance of financial development and access for poorest
- Unconditional cash transfers preferable from a cost-benefit perspective?
 - Appear to have high rates of investment
 - Alternative (monitoring) is expensive to deliver
- Targeting strategies
 - Conventional measures of ability poor predictors of success
 - Targeting the poorest may provide highest private and social returns
- But did program design help the poor reach their full capacities?
 - Constrained to vocations