

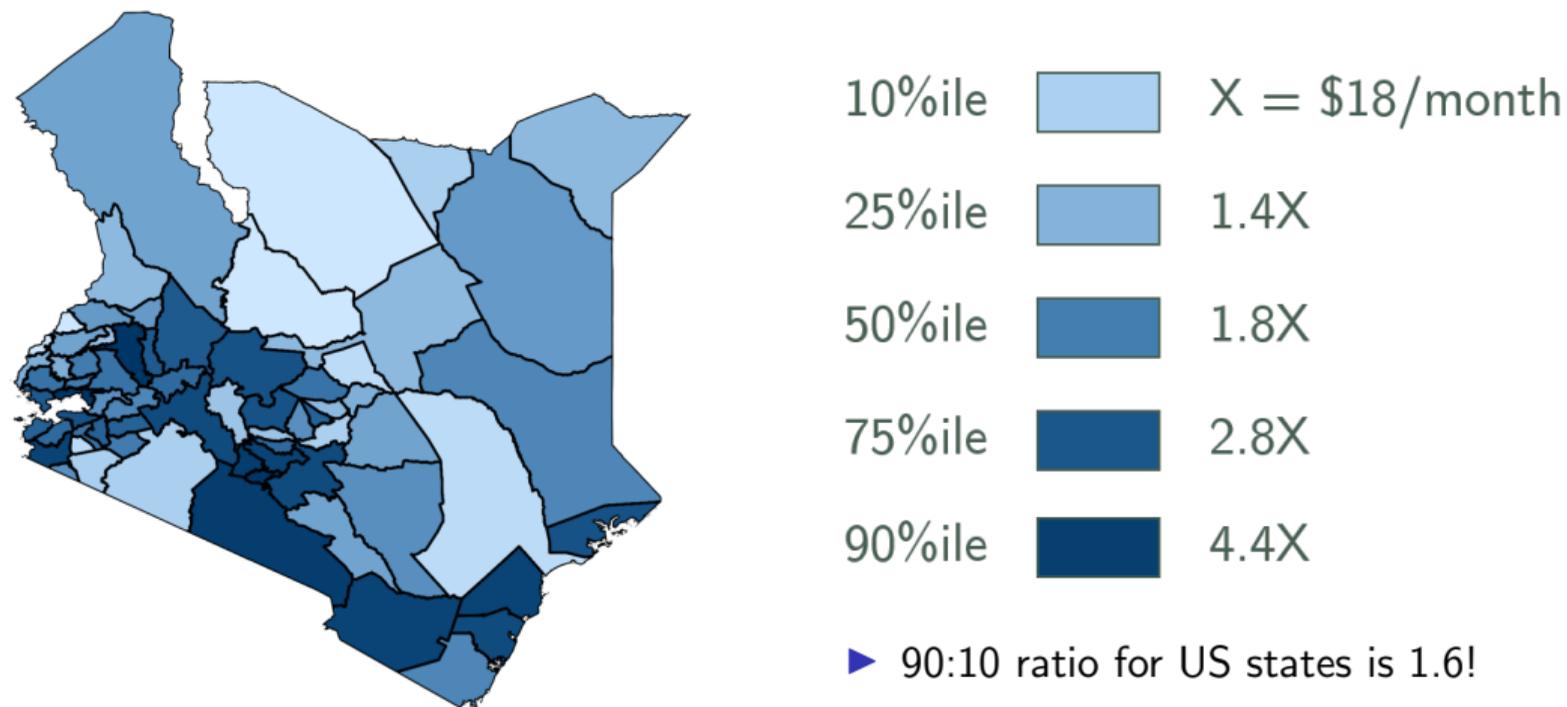
Hidden Income and the Perceived Returns to Migration

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18-Slide Version of Presentation

Large spatial income gaps in many developing countries



Source: Kenya Integrated Household Budget Survey

Paper summary: bad info holds migrants back

Inaccurate information in rural areas is a barrier to migration

- ▶ People in rural areas underestimate big-city incomes
- ▶ Surprising, since 43% of households have sent a migrant to the capital Nairobi (but, crucially, only 13% of 18–35 year-olds have ever been themselves)
- ▶ Information provision increases migration to Nairobi (RCT #1)

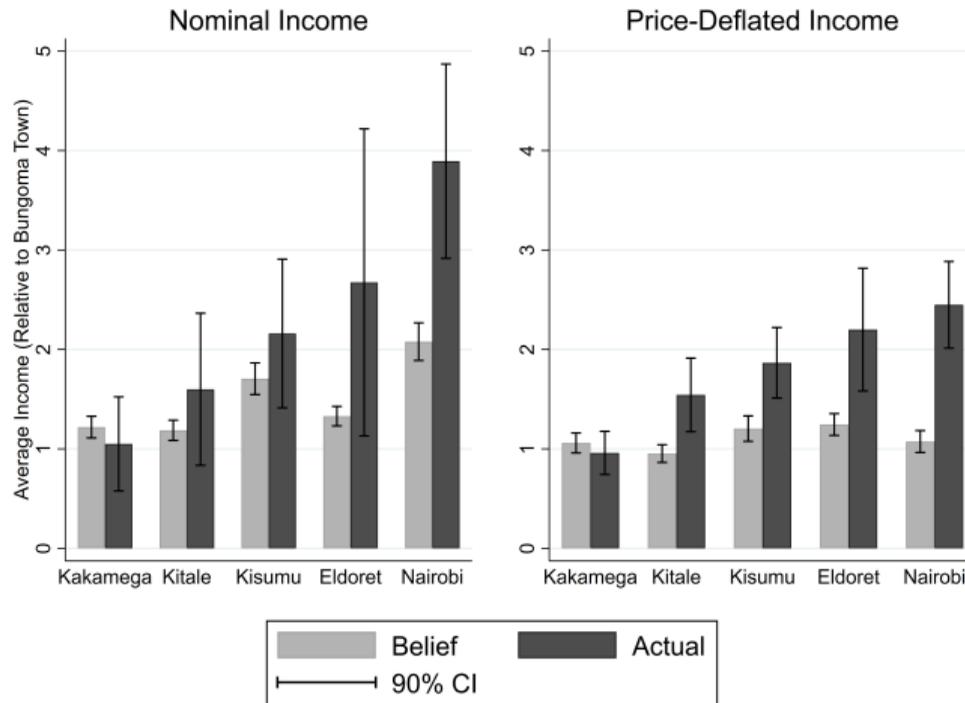
Current migrants under-report their income to friends/family

- ▶ This feeds directly into belief formulation in the village (RCT #2)

Remittance obligations generate the incentive to hide income

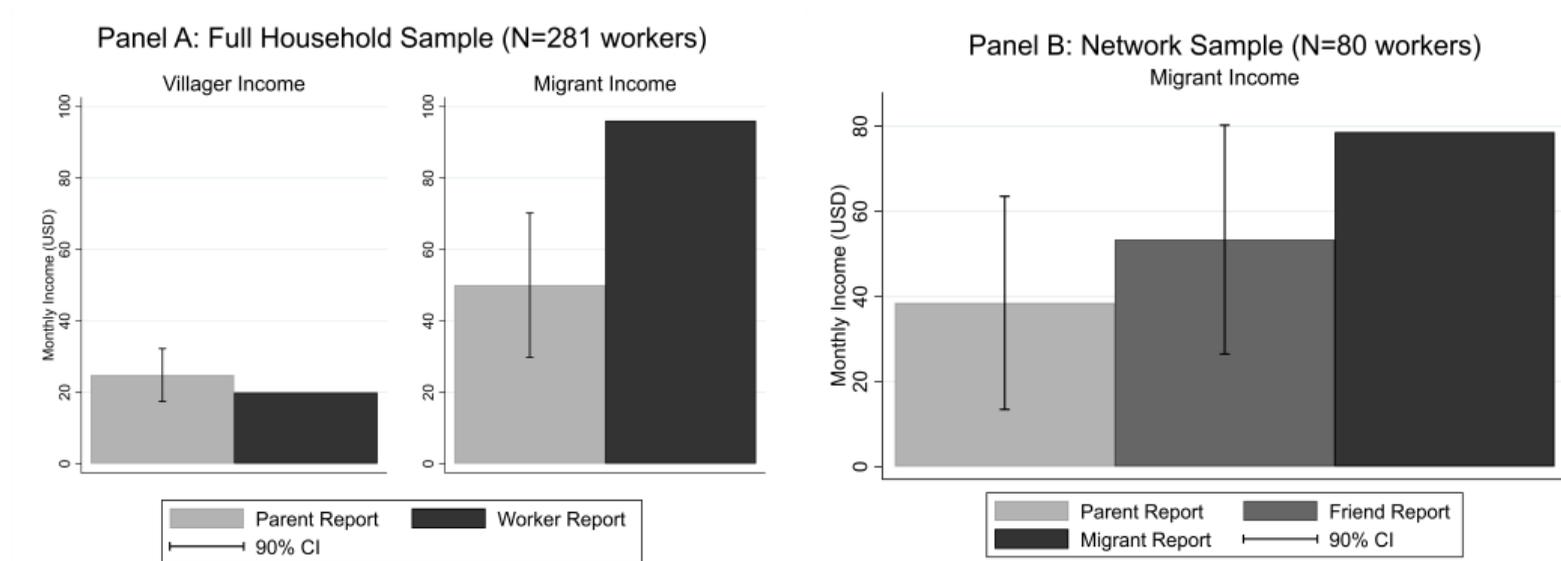
- ▶ I collect data linking migrants to their social connections in villages
- ▶ Hidden income incentives predict gaps in beliefs

Motivation: Low perceptions about big-city incomes



Beliefs from rural household surveys. Actual incomes from Kenya Integrated Household Budget Survey. Cities ranked from lowest to highest actual income. Nominal incomes deflated using real and perceived food prices.

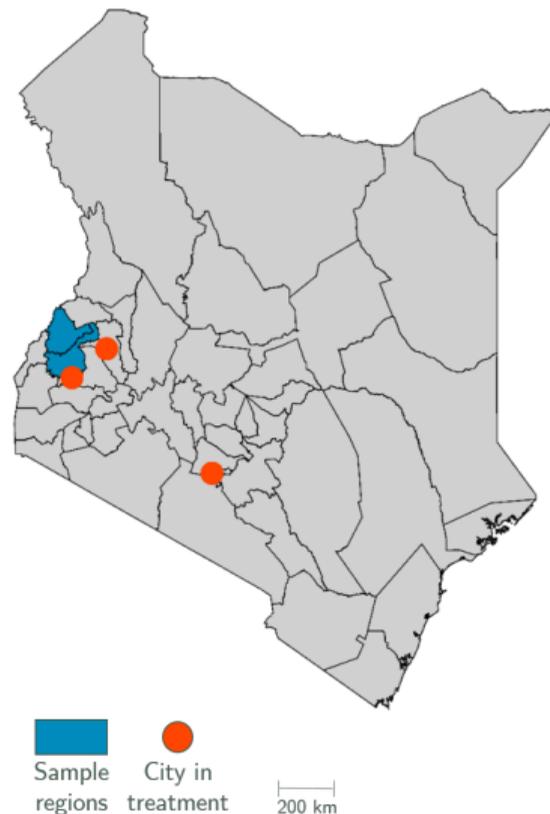
Motivation: Underestimation of in-network migrants' incomes



Data from linked sample of worker-parent or worker-friend pairs. Each bar shows the worker's income, as reported by the worker and the social connection separately. "Villagers" are rural residents.

Design of RCT#1

- ▶ Sample: households in rural Kenya
- ▶ Treatment: “report card” about urban labor markets
 - ▶ Included info about 3 cities: Nairobi, Kisumu, and Eldoret
 - ▶ Showed earnings ratios across cities, migrant employment, common occupations for migrants, and food price ratios
 - ▶ All info taken from Kenya Integrated Household Budget Survey
- ▶ Randomized at the household level



Summary of experimental results

Info causes rural residents to update beliefs about the returns to migration

Migration to Nairobi increases by 40% over two years

Evidence of very high returns to marginal migration

- ▶ About half of those induced to migrate are still in Nairobi 2 years later
- ▶ Large effects on reported income and financial well-being
- ▶ No evidence of significant decrease in amenities for migrants

Information immediately affects beliefs and aspirations to migrate

	(1) Would migrate to Nairobi	(2) Potential own income in Nairobi	(3) Would work in treated job in Nairobi
Received Urban Info = 1	0.091 (0.044) [0.04]	24.8 (12.7) [0.05]	0.11 (0.045) [0.02]
Dep. Var. Mean in Control	0.54	125.5	0.45
Observations	497	494	497

Data from baseline survey. Each observation is a household. Income units are USD/month per worker. For households in the treatment group, these questions were asked *after* the information treatment. Dependent variable in column (3) is a dummy = 1 when the respondent reports that their main source of earnings would be one of the jobs mentioned in the treatment.

Information increases migration and employment in Nairobi

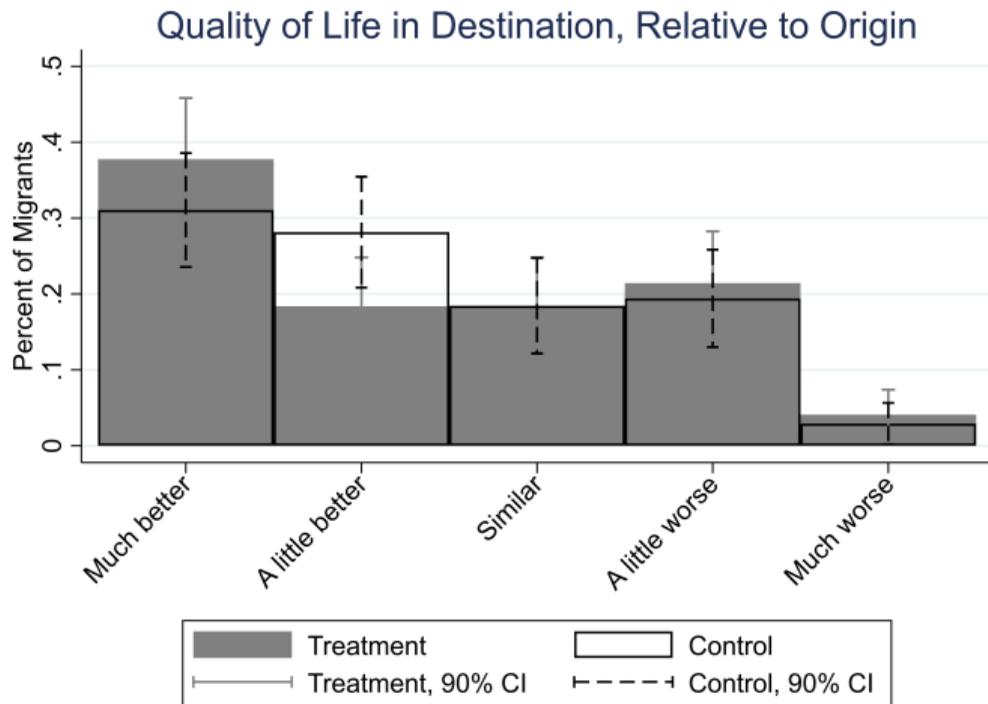
	Intent-to-treat estimates		Control mean	
	1 Year	2 Years	1 Year	2 Years
# Moving to Nairobi	0.14 (0.05) [0.01]	0.18 (0.07) [0.01]	0.22	0.48
# Employed in Nairobi	0.07 (0.03) [0.02]	0.18 (0.05) [0.00]	0.08	0.22
# Employed in Non-Agriculture	0.18 (0.10) [0.06]	0.20 (0.11) [0.08]	1.19	1.77
Observations	485	454		

Treated households report higher earnings

	ITT	Control Mean	N
Total Income	32.7 (10.4) [0.00]	140.0	939
Remittances to Origin Household	2.57 (1.99) [0.20]	10.0	896
Reports Healthy Finances = 1	0.078 (0.03) [0.02]	0.55	896
Mental Health (MHI-5) Index at Origin	0.24 (0.10) [0.01]	0	435

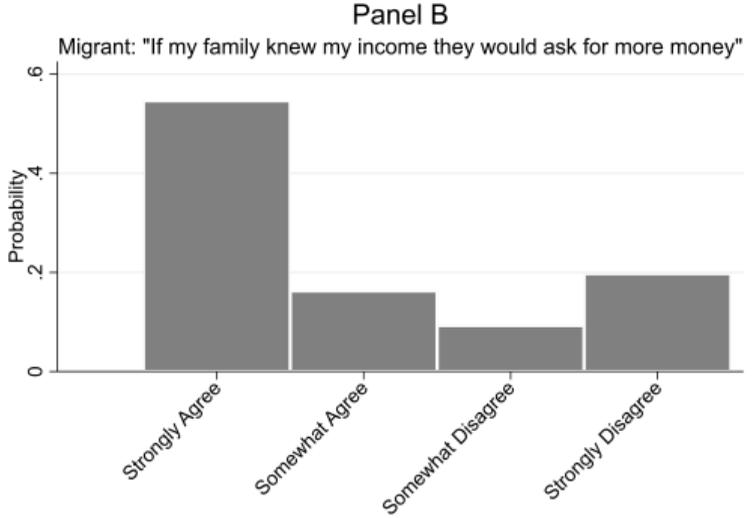
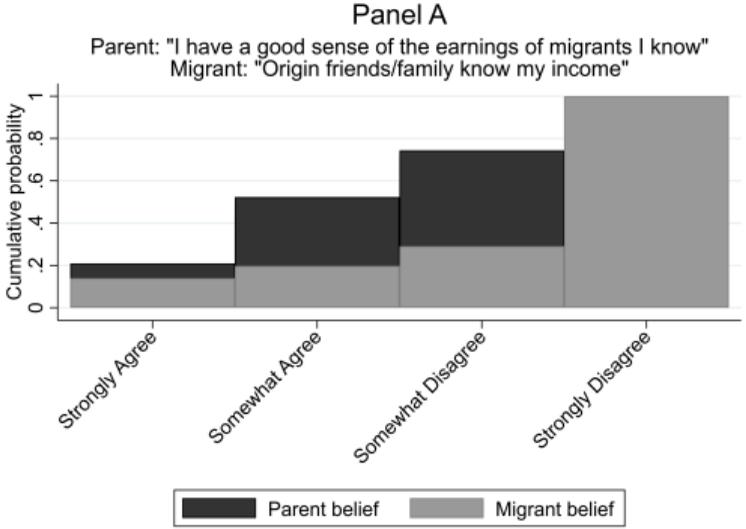
Currency units are USD/month. An observation is a family (origin household + migrants) in a post-treatment year. Results estimated using ANCOVA regression.

No evidence of a compensating differential among surveyed migrants



What causes the info failure? Motivating evidence of hidden income

Parents are overconfident about their information about migrant income. Migrants report hidden income incentives.



Evidence of hidden income from rural beliefs about urban migrant earnings

Evidence from linked data show that rural residents underestimate the incomes of migrants they know

Moreover, underestimation is worse when the migrant's incentive to hide income is higher, specifically when:

- ▶ Family has a high expectation for the share of income remitted
- ▶ Migrant reports that convincing their family members to migrate would not reduce their remittance burden
- ▶ Rural resident is more socially proximate to the migrant's parents (who receive most of remittances)

Migrants' strategic incentives predict low beliefs at origin

	Perceived migrant income					Perceived local income	
True income	0.19 (0.037) [0.00]	0.19 (0.038) [0.00]	0.17 (0.043) [0.00]	0.19 (0.038) [0.00]	0.16 (0.045) [0.00]	0.25 (0.13) [0.06]	0.25 (0.13) [0.05]
Parents' Expected Remittance Share		-47.3 (22.2) [0.03]			-56.2 (21.3) [0.01]	-11.5 (12.8) [0.37]	-11.5 (12.7) [0.36]
Migrant Can't Share Remit Burden = 1			(15.2) [0.03]	-33.0 (15.5) [0.07]	-28.6 (15.5) [0.07]		
Villager Socially Close to Migrant's Parents = 1				-20.6 (19.5) [0.29]	-16.1 (16.2) [0.32]		
Controls?	N	N	N	N	Y	N	Y
Observations	571	571	510	571	510	155	155
Dep. Var. Mean	50	50	50	50	50	15.6	15.6

Each observation is a worker-villager pair. Income units are USD/month.

Purpose and design of RCT#2

Does migrant misreporting generate low beliefs at the origin about the return to migrating?

- ▶ In the paper I show this is theoretically possible even when origin households are sophisticated Bayesian learners, and aware of misreporting incentives
- ▶ Key feature of the model is a dual uncertainty over the urban income distribution **and** whether the migrant is reporting honestly

Information experiment embedded into a household survey

- ▶ Parents overestimate share of income they receive (11% vs 4%)
- ▶ Inform households of true remittance share
- ▶ Exclude those with Nairobi migrants from experiment

Info about true remit % affects beliefs only when respondent has bad outside information about Nairobi

Beliefs about:	(1) Potential own income in Nairobi	(2) Standardized migrant income in Nairobi	(3) Potential own income in Nairobi	(4) Standardized migrant income in Nairobi
Remittance treatment = 1	2.8 (4.9) [0.56]	-1.4 (3.3) [0.67]	14.2 (6.2) [0.02]	3.8 (4.2) [0.36]
Ever traveled to Nairobi = 1			45.5 (8.2) [0.00]	21.3 (5.6) [0.00]
Remittance treatment * Ever traveled to Nairobi = 1			-21.3 (9.41) [0.02]	-9.8 (6.4) [0.13]
Observations	4,414	4,465	4,414	4,465
Dep. Var. Mean	135	115	135	115

Units are USD/month. "Standardized income" is the belief about potential Nairobi earnings for a male secondary-school grad from their village. Traveling to Nairobi used to proxy for outside information.

Conclusion

Bad information is suppressing migration

- ▶ Remittance obligations appear to generate the misalignment
- ▶ Evidence points to high returns to marginal migration

How generalizable is this?

- ▶ Spatial income gaps are high across much of the world
- ▶ Remittance obligations not unique to Kenya
- ▶ Migration patterns may matter: cyclical vs. permanent

Incentives to hide income create measurement difficulties for household surveys

Comments & questions always welcome at
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