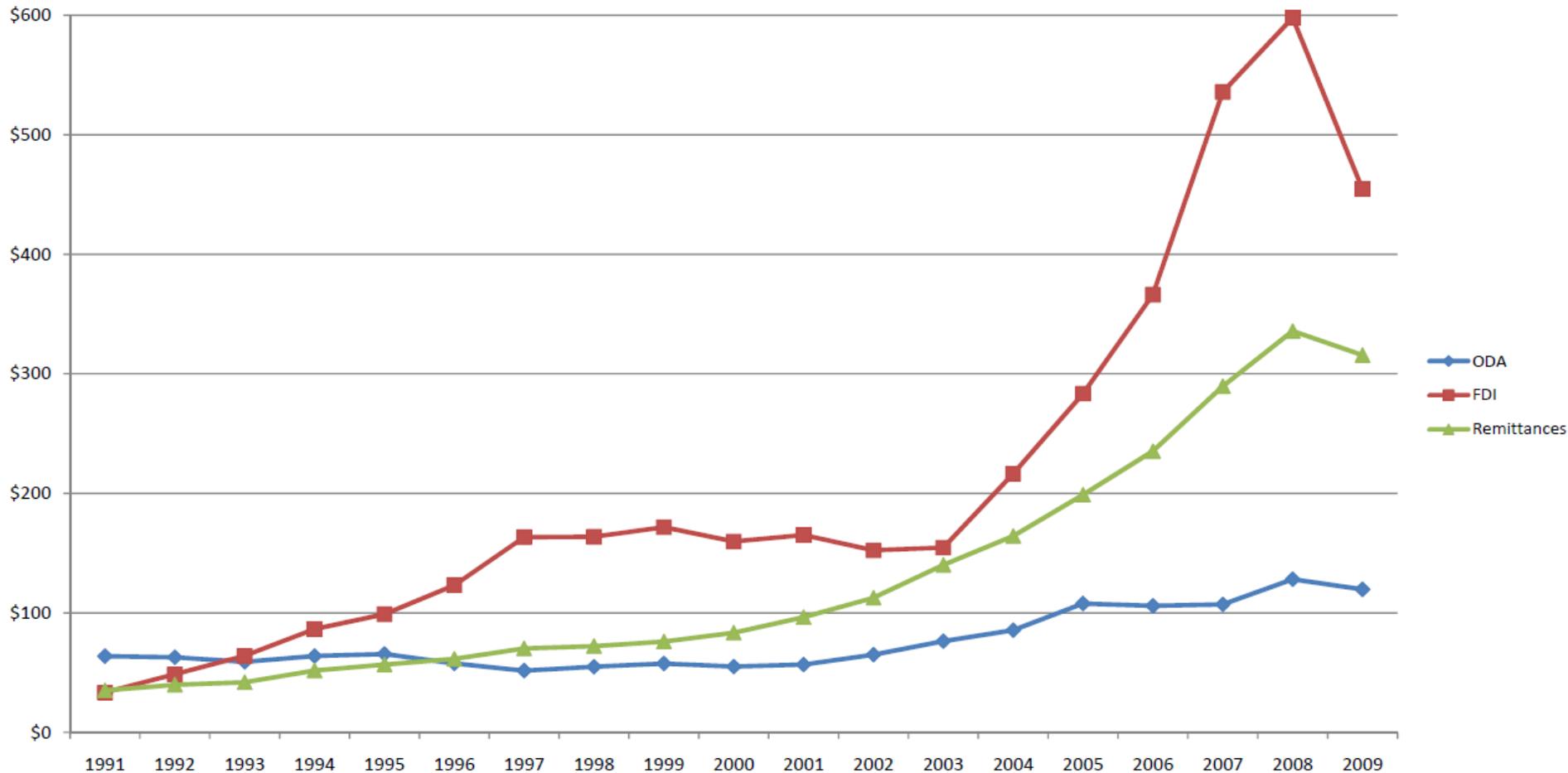

**Transnational Household Finance:
A Field Experiment on the Cross-Border Impacts of
Financial Education for Migrant Workers**

Ganesh Seshan
Georgetown University

Dean Yang
University of Michigan, BREAD, & NBER

Remittances vs. ODA, FDI (Billions of US\$, 1991-2009)



Source: Data up to 2008 are from World Development Indicators 2010. Data are in billions of current US\$, in total across developing countries (low & middle income as classified by World Bank). Variables displayed are: "Net official development assistance and official aid received (current US\$)", "Foreign direct investment, net inflows (BoP, current US\$)", and "Workers' remittances and compensation of employees, received (current US\$)". 2009 data compiled from World Bank Migration and Remittances Factbook, OECD, and UNCTAD.

Motivating ideas and questions

- The microeconomics of financial decision-making in transnational households is poorly understood
- Insights into transnational household decision-making can help suggest innovative development policies
 - Much interest in “harnessing” migrants (and their remittances) for development goals
 - But decentralized nature of remittances poses major challenges
 - Interventions need to be focused on individual knowledge and capabilities

Transnational household finance

Household financial management that faces complexities associated with...

- Extended separation from important income earners
- Management of international remittances
- Oftentimes, substantial increases in household income

Concern: in combination with low levels of education of many migrants, may lead to sub-optimal financial decision-making

Some basic questions

- Do transnational households make high-quality financial decisions?
 - And are there ways in which their decision-making can be improved?
- Do physically separated members of transnational households attempt to make joint decisions on financial matters?
 - Or do such households operate as independent economic units?
- If transnational households do seek to make coordinated financial decisions, how constrained is their ability to do so?
 - In particular, is intra-household asymmetric information an important constraint?

What we do

- We randomly assigned invitations to a savings-focused financial literacy workshop for migrant workers in Qatar who are from Kerala, India
- Via surveys of migrants as well as their wives remaining behind in India, we provide a unique window into financial decision-making in transnational households
- We exploit the intervention to examine impacts on...
 - Financial decision-making of the migrants
 - Migrants' attempts to influence the financial decision-making of their wives in the home country
 - Migrant beliefs about their wives' behaviors
 - Wives' actual behaviors

Summary of results

- Treatment led to substantial changes in migrant financial practices and savings goals
- Migrants with below-median baseline savings are most responsive to the treatment
 - Migrants' own savings and the remittances sent to wives rise substantially
- Migrants and wives commonly engage in joint financial decision-making, and the treatment increases this propensity
- Evidence of asymmetric information in transnational households
 - In the low-baseline-savings subsample, positive impact of treatment on migrant report of wife's savings in India, but no corresponding impact on wife's report of same
 - Likely due to treatment-induced upward updating by migrants of wives' savings

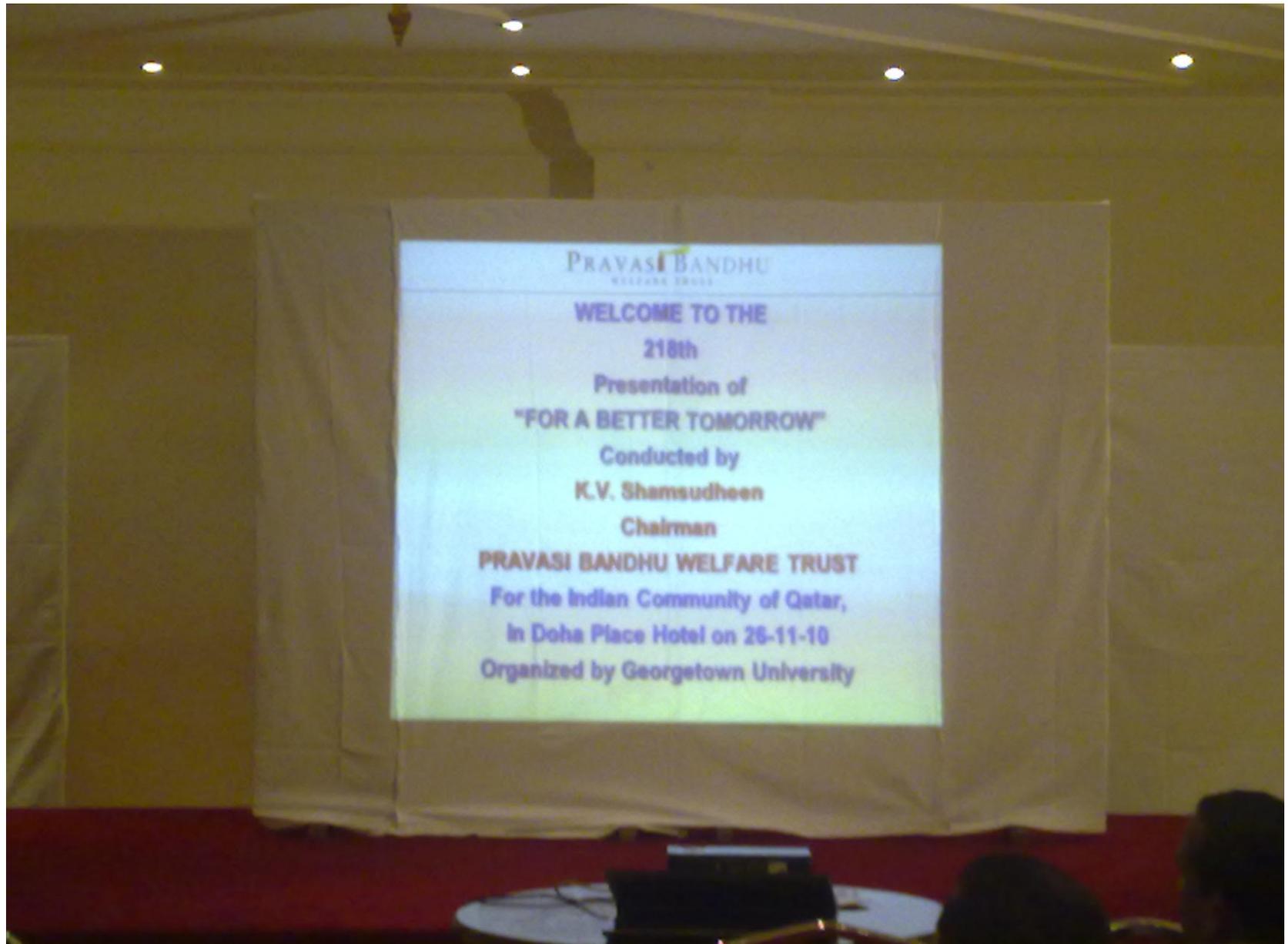
The experiment

- After baseline, migrants randomly assigned to treatment with $2/3$ probability
- Treatment: invitation to financial literacy workshop at local hotel in November 2010
 - Invitation by phone
 - Three-hour workshop, plus two-hour dinner
 - 41% of invitees attended the workshop
- Financial literacy workshop led by K. V. Shamsudheen
 - Head of Pravasi Welfare Trust, NGO serving migrants from Kerala in Gulf
- Sample: married male migrant workers from Kerala, India whose wives have remained behind in India
 - N=200 migrants, 200 wives

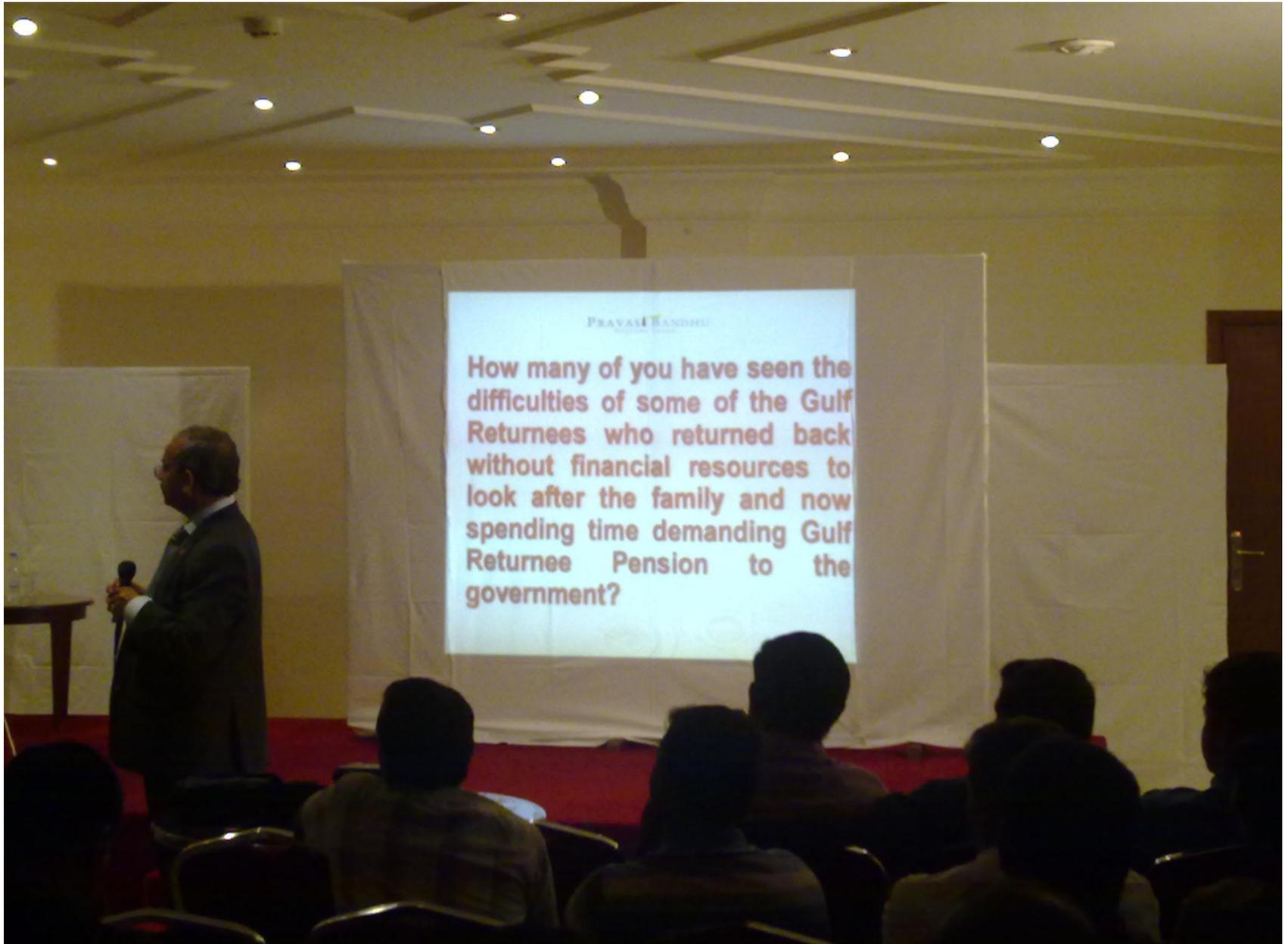
KVS in action



KVS's opening slide



KVS motivating question



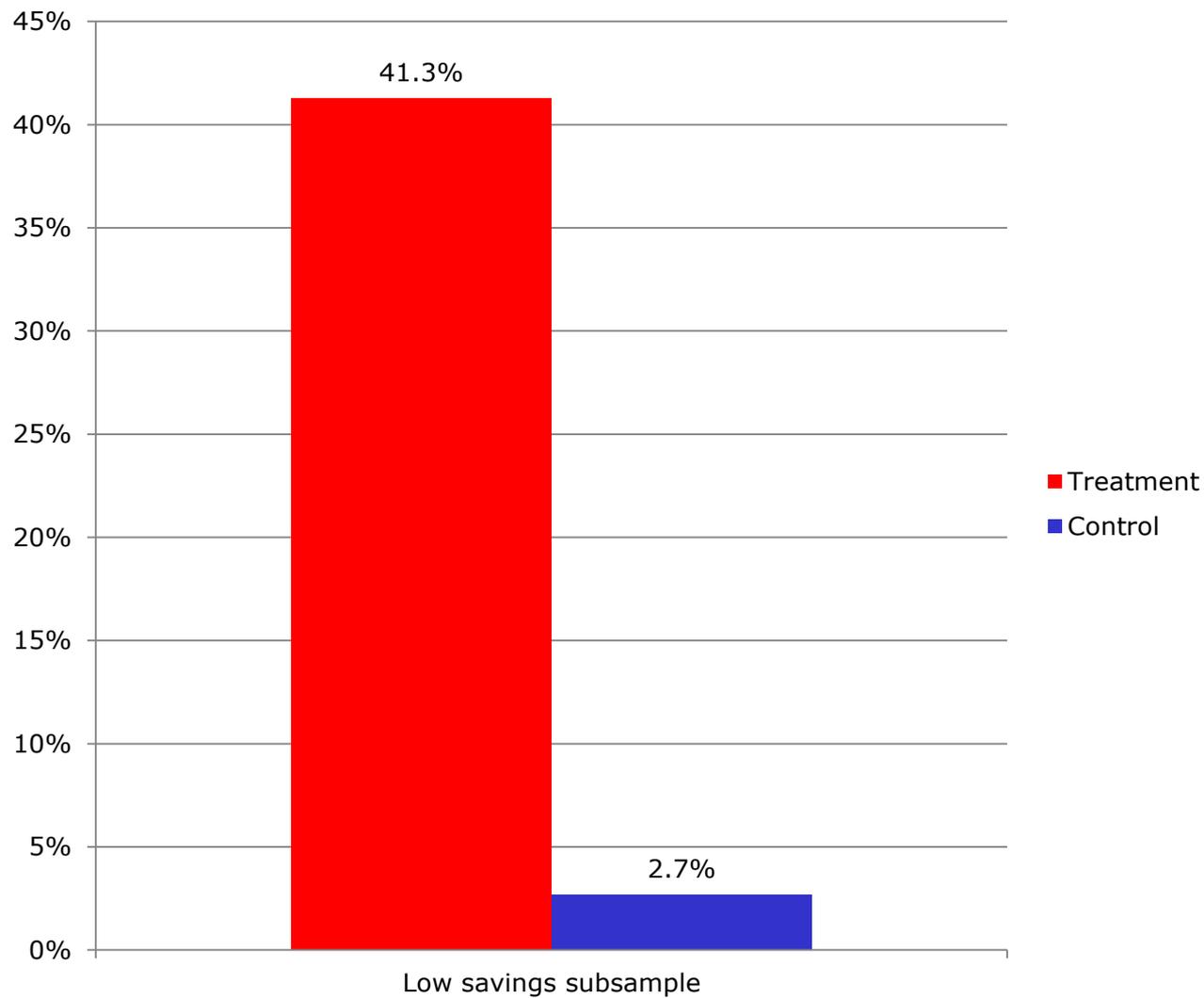
Financial literacy workshop contents

- Unifying theme: importance of setting financial goals to ensure long-term financial security once the migrant returns home permanently
- Specific financial literacy topics covered:
 - Creating and following a budget, for both migrant and the household in India
 - Consulting entire family in financial planning
 - Setting aside money from remittances to save
 - Different types of investment options
- Secondary topics covered: time management; maintaining a positive attitude; good work ethics; healthy living

Analysis of treatment impacts

- Because those attending workshop in treatment group may be different from those not attending, simply compare entire treatment group with entire control group
 - Intent-to-treat (ITT) effects
- Make comparisons separately for subsamples defined by:
 - Low (at or below median) baseline savings
 - High (above median) baseline savings

Impact on KVS workshop attendance



Key results

- For migrants with low baseline savings...
 - Treatment has substantial impact on migrants' financial outcomes
 - Treatment increases joint decision-making with wives
 - Migrant reports substantially overstate impact of treatment on wives' savings

Key results

- For migrants with low baseline savings...

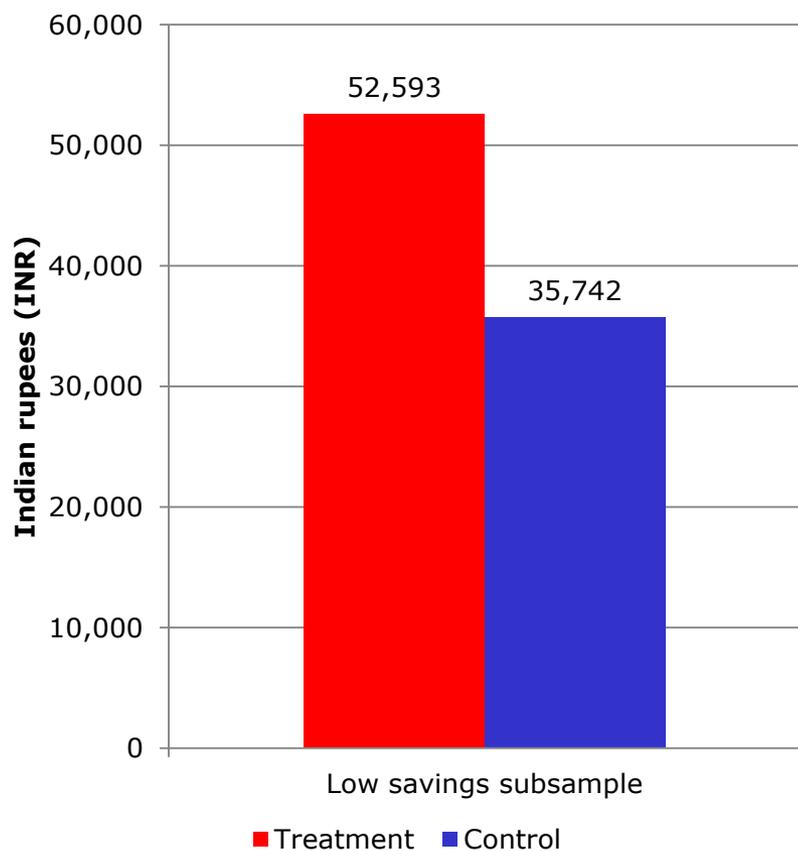
– Treatment has substantial impact on migrants' financial outcomes

– Treatment increases joint decision-making with wives

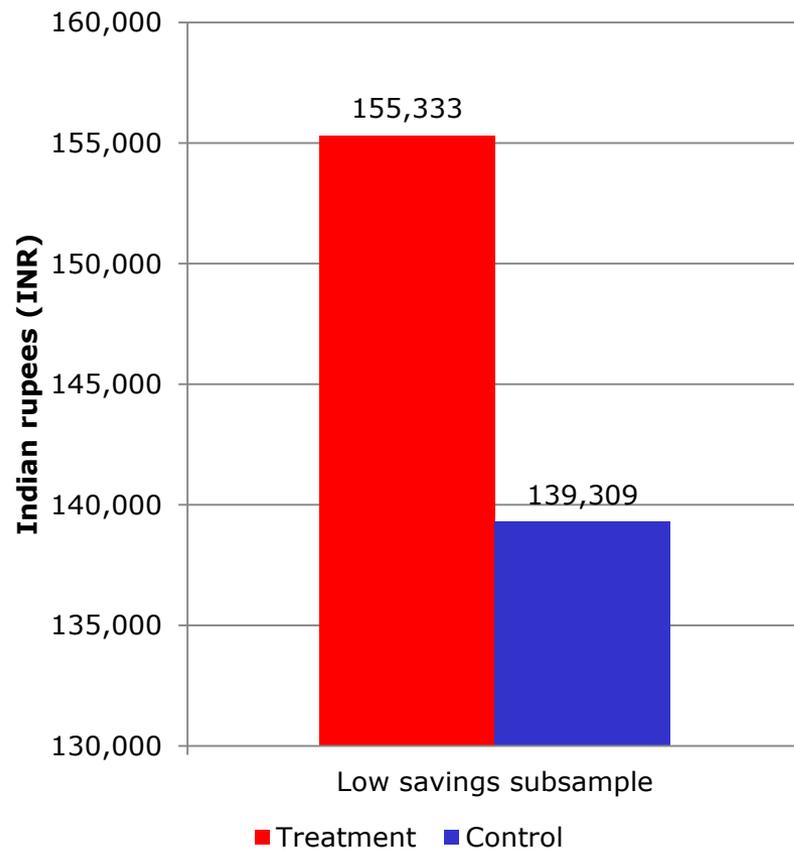
– Migrant reports substantially overstate impact of treatment on wives' savings

Impact on migrant savings, remittances

Savings



Remittances

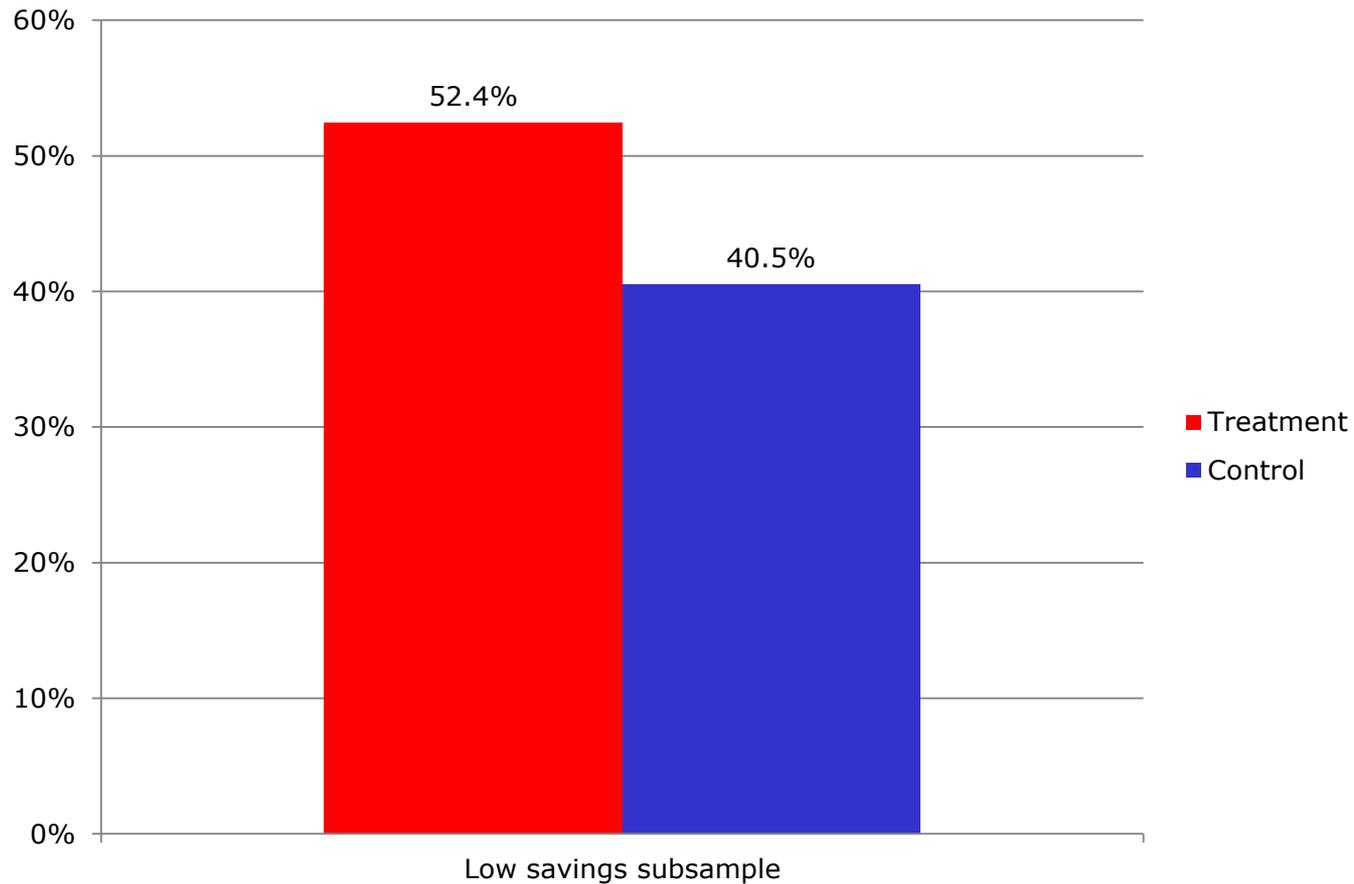


Key results

- For migrants with low baseline savings...
 - Treatment has substantial impact on migrants' financial outcomes
 - Treatment increases joint decision-making with wives
 - Migrant reports substantially overstate impact of treatment on wives' savings

Impact on joint decision-making

Dependent variable: Migrant discusses household financial goals with wife (indicator)



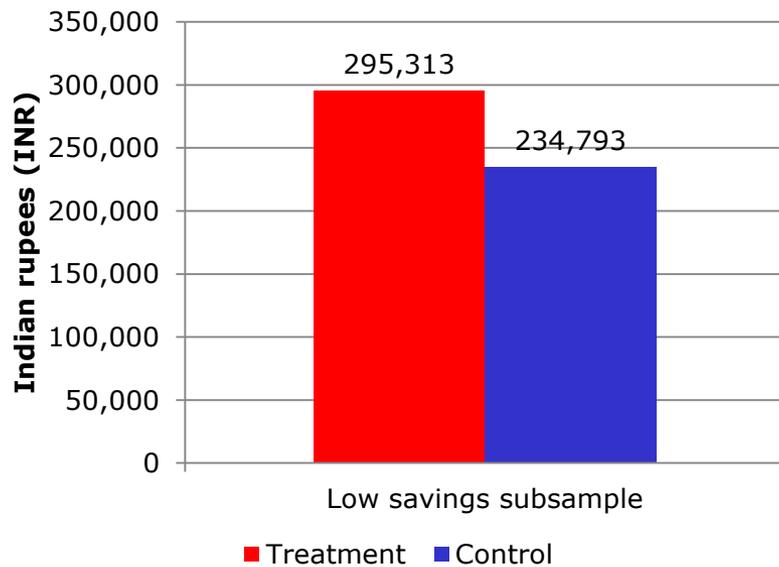
Key results

- For migrants with low baseline savings...
 - Treatment has substantial impact on migrants' financial outcomes
 - Treatment increases joint decision-making with wives
- Migrant reports substantially overstate impact of treatment on wives' savings

Impact on wives' savings

Dependent variable:

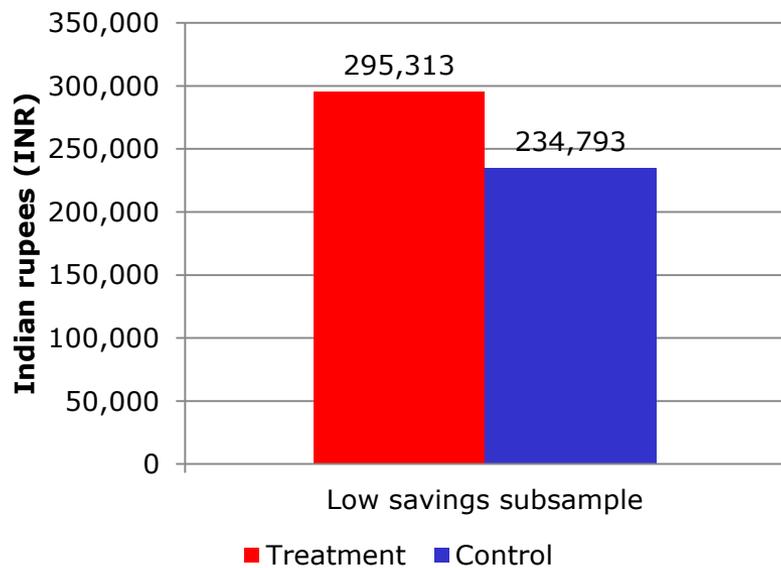
Migrant's report of wife's savings



Impact on wives' savings

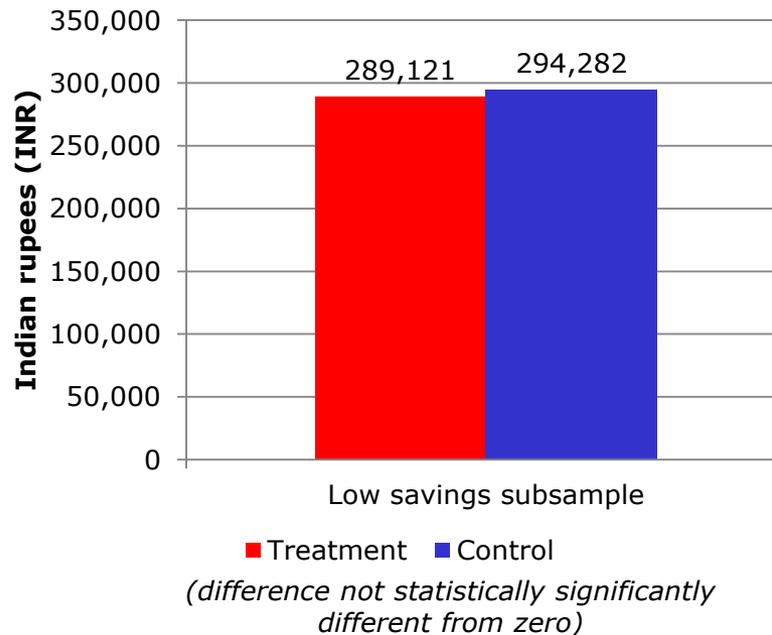
Dependent variable:

Migrant's report of wife's savings



Dependent variable:

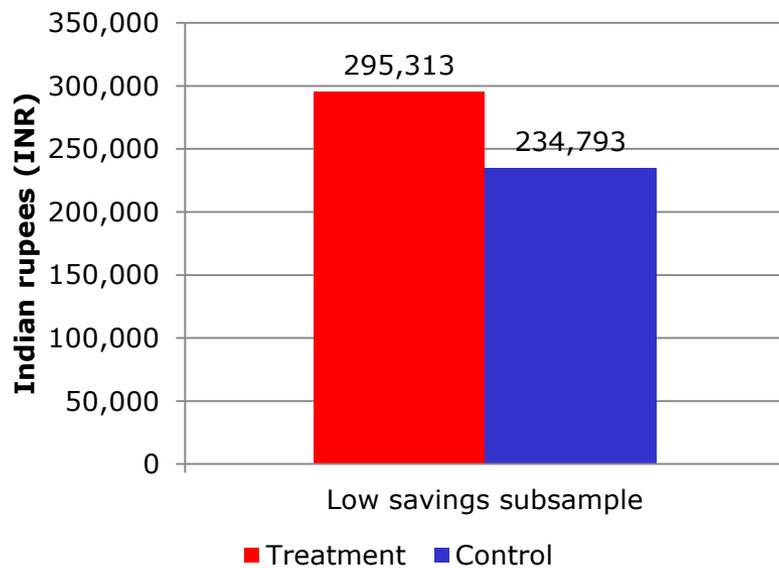
Wife's report of her own savings



Impact on wives' savings

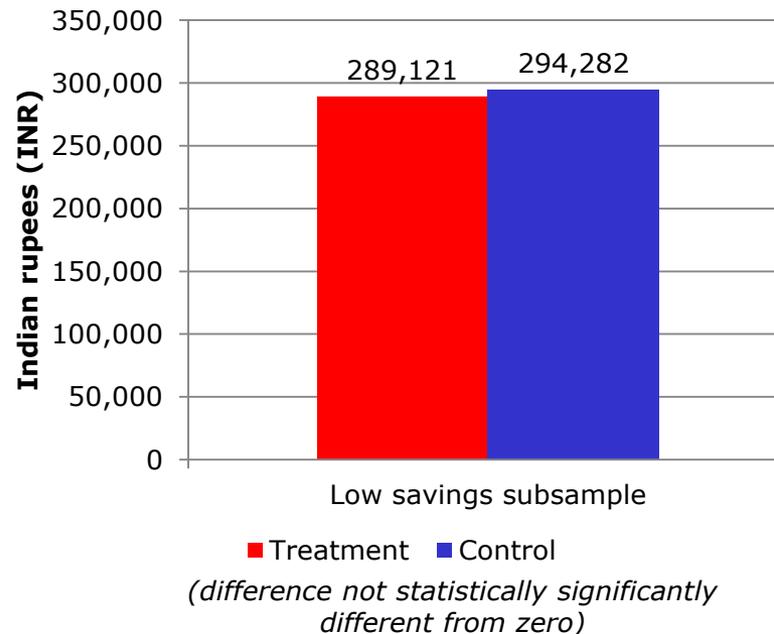
Dependent variable:

Migrant's report of wife's savings



Dependent variable:

Wife's report of her own savings



- Treatment effect on wives' savings substantial if reported by migrants, but zero if reported by wives
- Entire difference accounted for by differences in reporting of wives' gold holdings
- How to interpret this difference?

Explaining reporting treatment effect differences on wives' savings

- No statistically significant difference in treatment impact on migrant and wife reports of other financial outcomes
 - His own savings
 - Remittances sent to wife
- So it is not the case that treatment induces *wives* to systematically *understate* financial outcomes, or *husbands* to *overstate*

Interpretation of migrant-wife discrepancy

Two possibilities:

1. Non-cooperative behavior by wives

- In response to treatment, migrants ask wives to save more
- Wives tell migrants they are saving more, but are not saving in practice

2. Treatment-induced updating of migrants' previous underestimates

- In response to treatment, migrants *ask* wives how much they have saved
- This can lead to systematic upward updating by migrants, if migrants normally (in control group) systematically underestimate wives' savings

Implications:

- Important intra-hh information asymmetries exist
- Future work should seek to distinguish between these two possible explanations

In sum ... Main conclusions (1)

- Financial literacy interventions can have substantial impacts on migrant financial decision-making and outcomes
 - That such a short, simple intervention had large impacts suggests that migrants did not have strong beliefs that their previous decisions were optimal
- Migrants commonly seek to make joint decisions with families back home
 - Financial literacy interventions can increase migrant interest in such joint decision-making, and change reported financial *practices* and *goals* of wives back home
 - But limited evidence of effects on actual financial *decisions* of families back home

In sum ... Main conclusions (2)

- Important information asymmetries exist in transnational households
- Future work should explore whether these information asymmetries facilitate non-cooperative behavior
- For example: couple financial literacy with mechanisms that facilitate migrant monitoring and control of origin-household financial behaviors
 - Ashraf, Aycinena, Martinez and Yang (2012) show that providing migrants with better ability to monitor and control savings in home country increases savings in home country
 - Impact could be magnified if savings intervention was combined with financial literacy training

Departure from existing research

- Our work is at the intersection of two literatures:
 - intra-household decision-making
 - financial literacy and its relationship with financial outcomes
- We use a randomized financial literacy intervention to look inside the black box of financial decision-making within the household
- Key innovations:
 - Surveys of both migrants and their wives back home
 - Results from incentivized budget allocation exercise bolster results from self-reports
- Complements previous work:
 - Gibson, McKenzie and Zia (2012), Doi, McKenzie and Zia (2012) experiments on financial literacy
 - Ashraf, Aycinena, Martinez and Yang (2012) migrant savings experiment

Sampling and surveys

- Convenience sample of migrants from Kerala residing in labor camps in Doha's Industrial Area
- Baseline survey: Aug – Nov 2010
- Follow-up survey: Dec 2011 – Apr 2012
- Surveys conducted in Malayalam by survey staff who were also migrants from Kerala
 - Face-to-face interviews of migrants in Qatar (phone allowed at follow-up if face-to-face attempt unsuccessful)
 - Phone interviews of wives in Kerala
- N=232 at baseline, N=200 at follow-up
 - Attrition not correlated with treatment in full sample or in either subsample

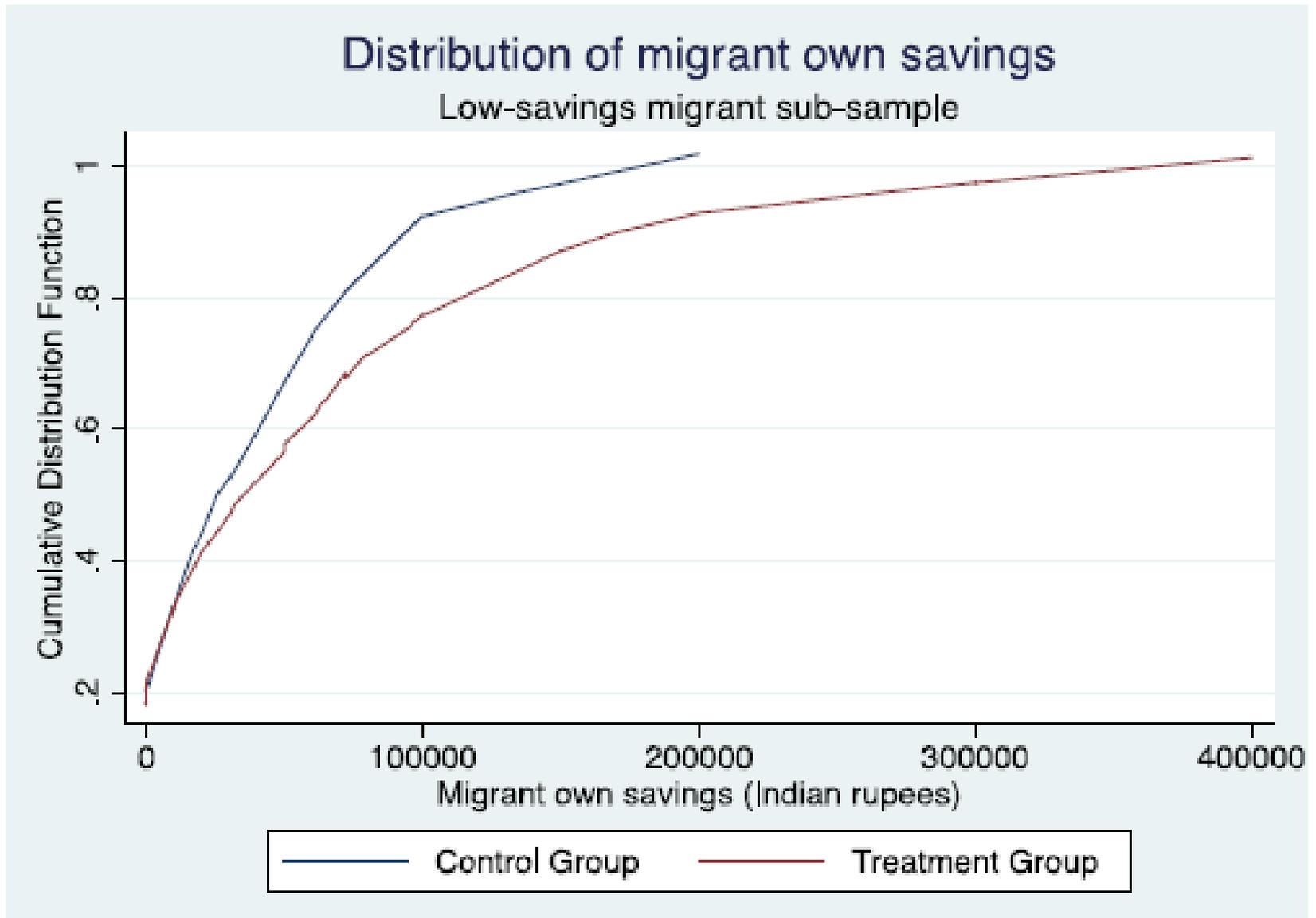
The sample

- Married male migrant workers from Kerala, India whose wives have remained behind in India
- Occupations mostly manual, low-skill
 - 79% services (of which, 2/3 are “drivers”)
 - 14% construction
- Migrant medians at baseline:
 - 10 years of education, 40 years of age
 - 8.4 years abroad
 - Savings: INR 50,601 (~US\$1,000)
 - Annual remittances: INR 117,727 (~US\$2,300)
 - Annual income: INR 272,397 (~US\$5,400)
- Wife medians at baseline:
 - 12 years of education, 32 years of age
 - Savings: INR 153,496 (~US\$3,000)
 - Annual income in India: none

Context

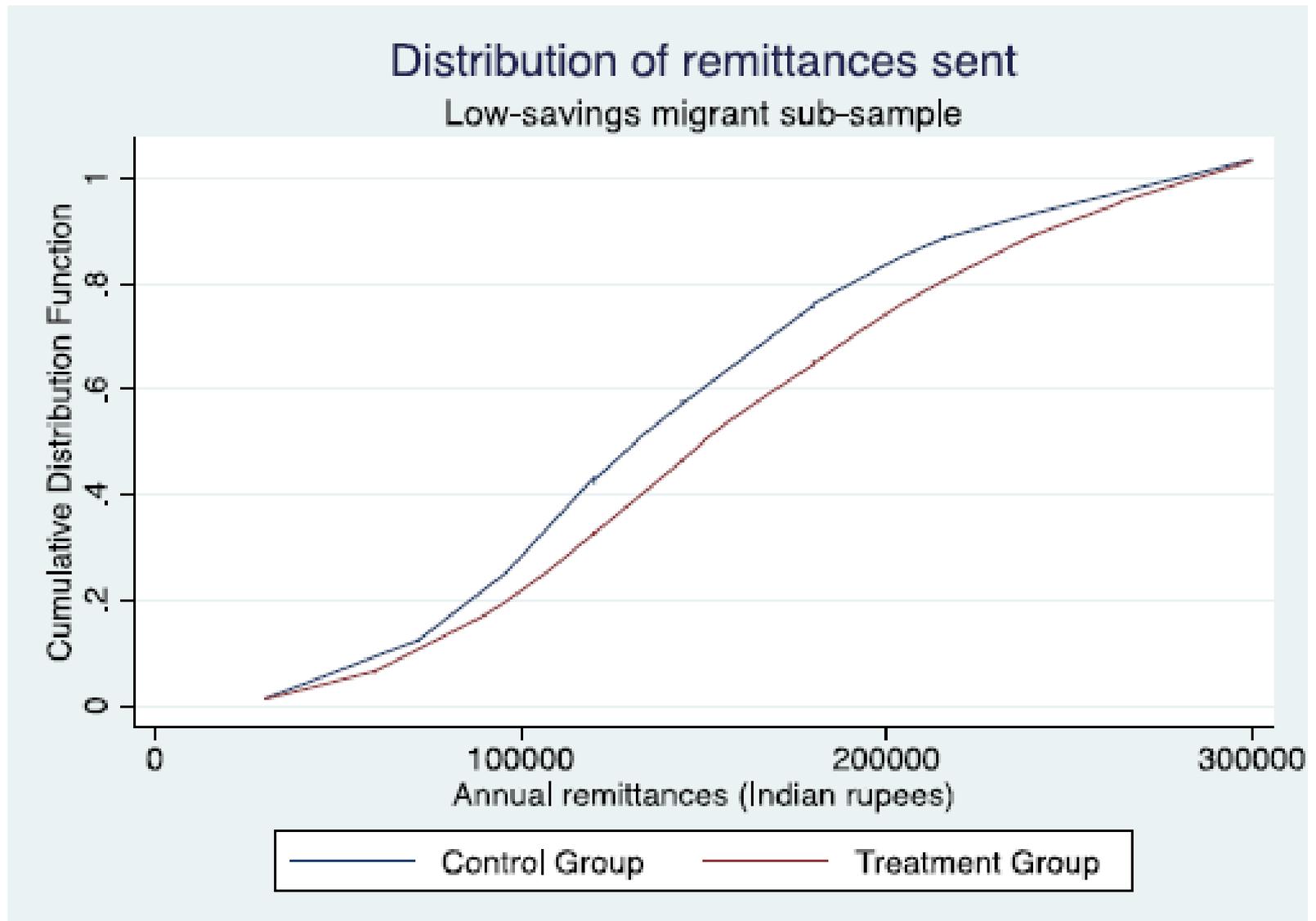
- Migrants from Kerala, India
 - Major source of Indian migration to Gulf states
 - In Kerala, 17.1 percent of households received remittances, and remittances are 31 percent of state GDP (Rajan and Zachariah 2011)
- Migration to Qatar
 - Oil-rich Gulf state
 - Country with most immigrants as share of population: 90% of population age 15+ were foreign-born
 - US\$8.43 billion in outgoing remittances in 2011

Treatment impact on migrant own savings



Notes: Distributions shown are for migrant report of own savings in follow-up survey, for low-baseline-savings subsample.

Treatment impact on remittances



Notes: Distributions shown are for migrant report of annual remittances sent home to wife in follow-up survey, for low-baseline-savings subsample.

A migrant household's dwelling, Kerala

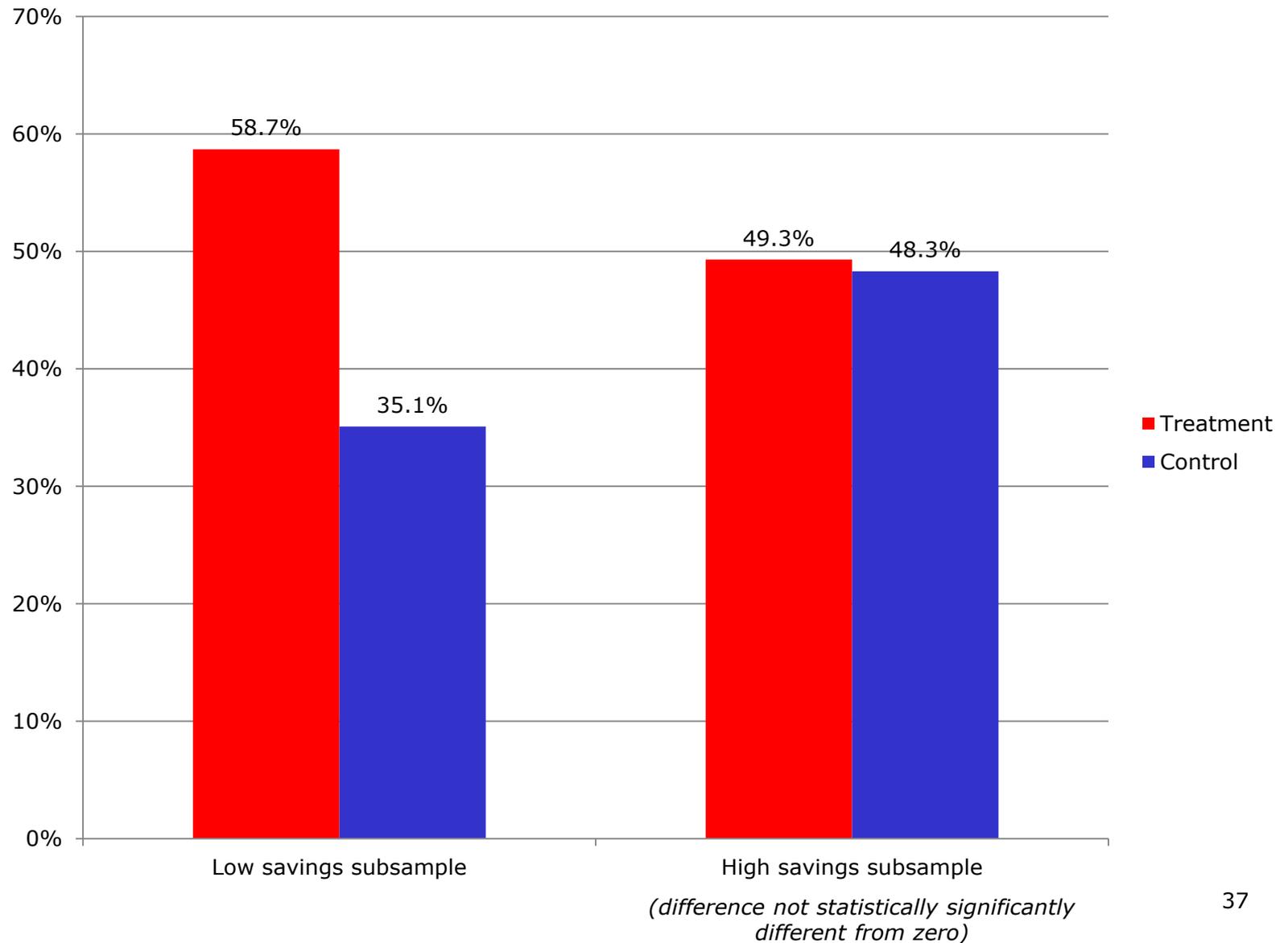


Note: This is not a household from financial literacy study, but another related study by Seshan. Migrant's household's dwelling is concrete house on left.

Migrant's wife and sons, Kerala



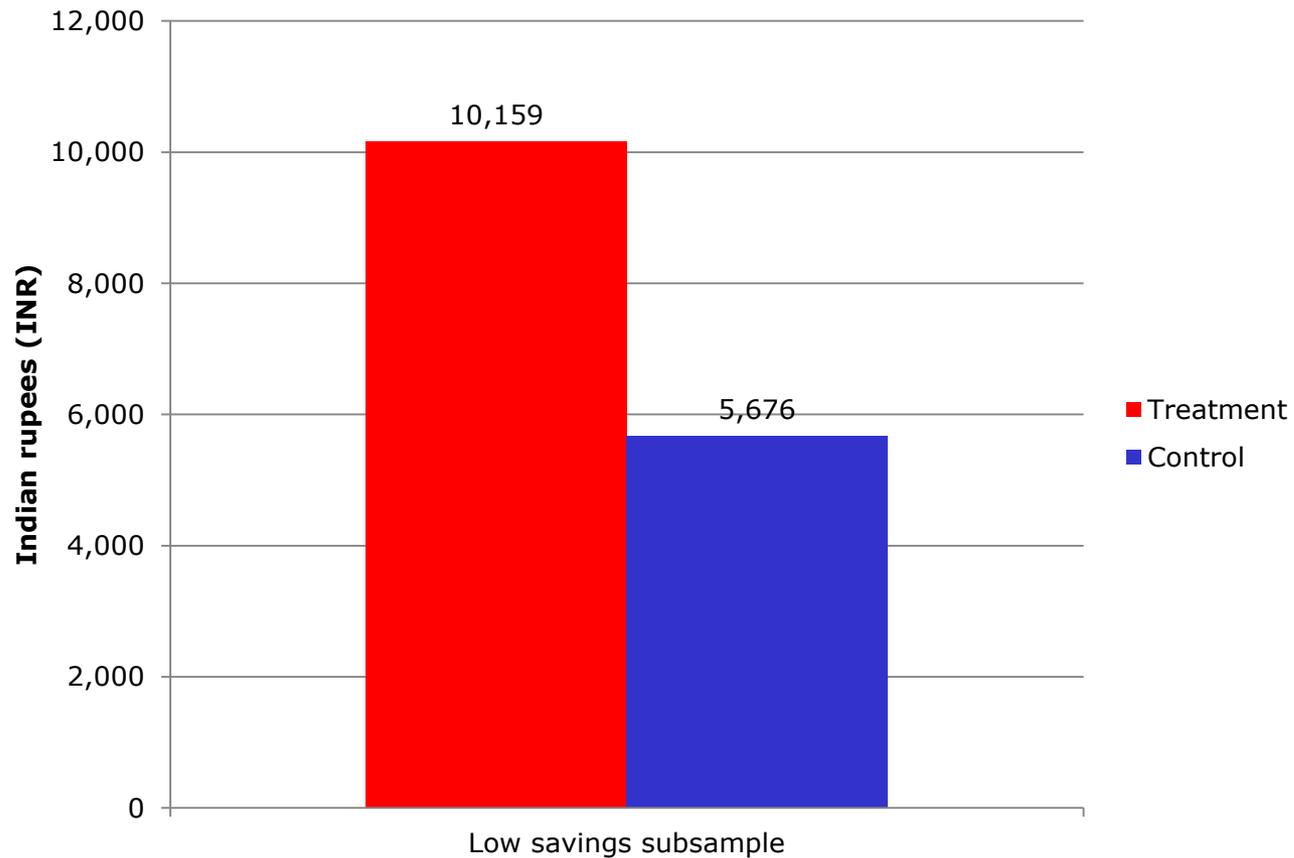
Impact on KVS radio show listening



Incentivized budget and savings exercise

- Concern: self-reported savings and other outcomes might be biased by experimenter demand effects (desire to “please the experimenter”)
 - Such misreporting comes at no cost to respondent
- Approach: See if treatment impacts on decisions in *incentivized* choices correspond to impacts in self-reports
- What we do: enter respondents into a lottery
 - Winner’s household in Kerala gets INR 20,000 (~\$400)
 - Winnings must be pre-allocated among 18 categories of expenditures plus savings; “cash” is not an option
 - “Savings” option is *committed* savings (must specify an eventual use)
 - Migrant specifies allocation of money for wives
 - Wife specifies how money will be allocated for herself
 - Separate lottery for migrants and wives
 - Respondents told that project staff will enforce allocations for winners
- Since actual money is potentially at stake, responses to this exercise are less likely to reflect reporting bias

Impacts on incentivized savings choices (migrants)



In sum ... secondary conclusions

- Financial literacy training has very heterogeneous effects
 - Average effects mask impacts in low-savings group
 - Suggests possibility that *tailored* trainings could enhance benefits; should be explored in future work
- Examining treatment impacts on decision-making in incentivized choices bolsters confidence in interpretation of treatment effects on self-reported outcomes
- Important to survey both “sides” when assessing impact of interventions in transnational households
 - Relying solely on one side’s report (in particular, migrant’s) leads to misleading conclusions