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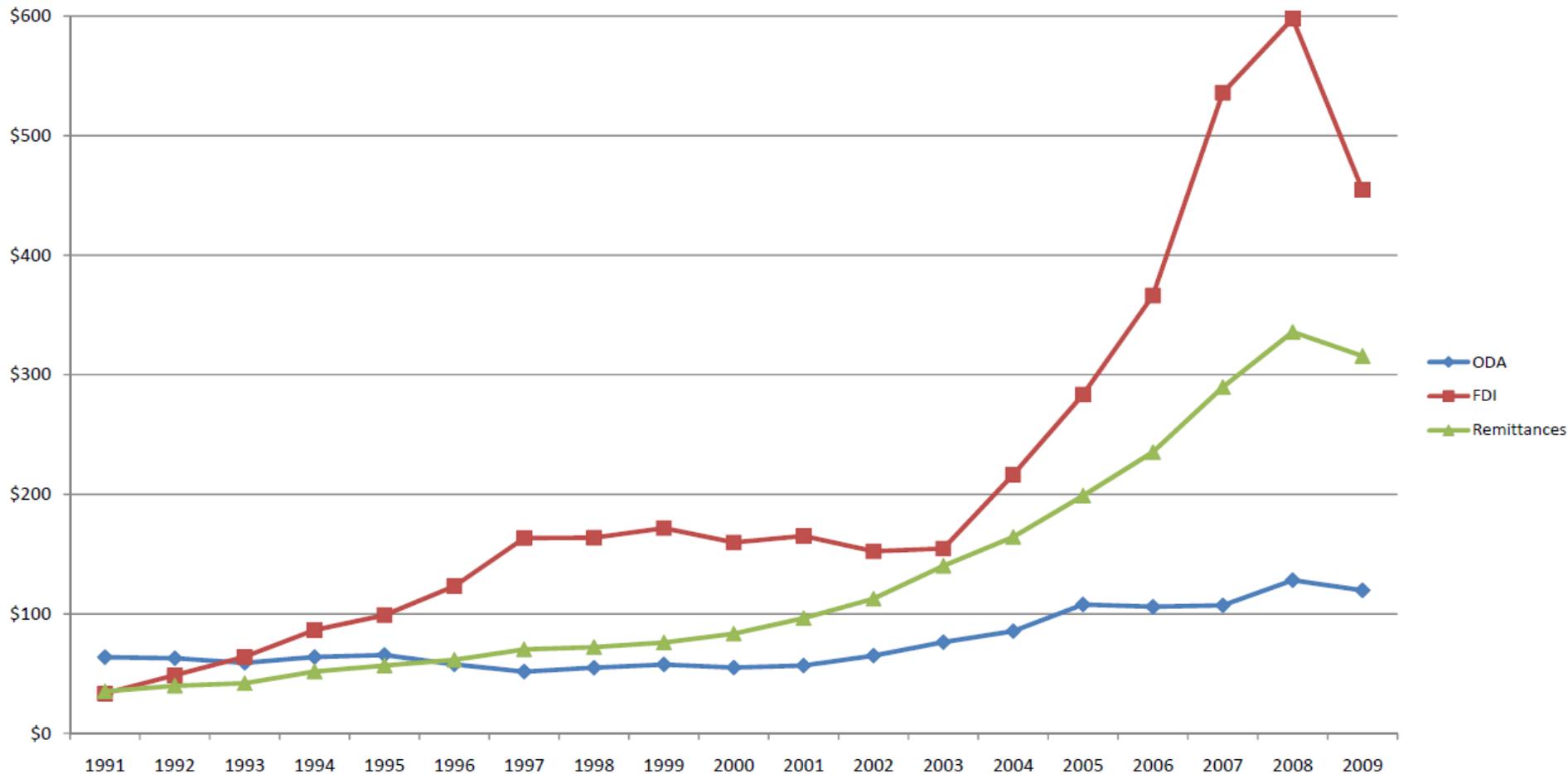
**Transnational Household Finance:  
A Field Experiment on the Cross-Border Impacts of  
Financial Education for Migrant Workers**

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# 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

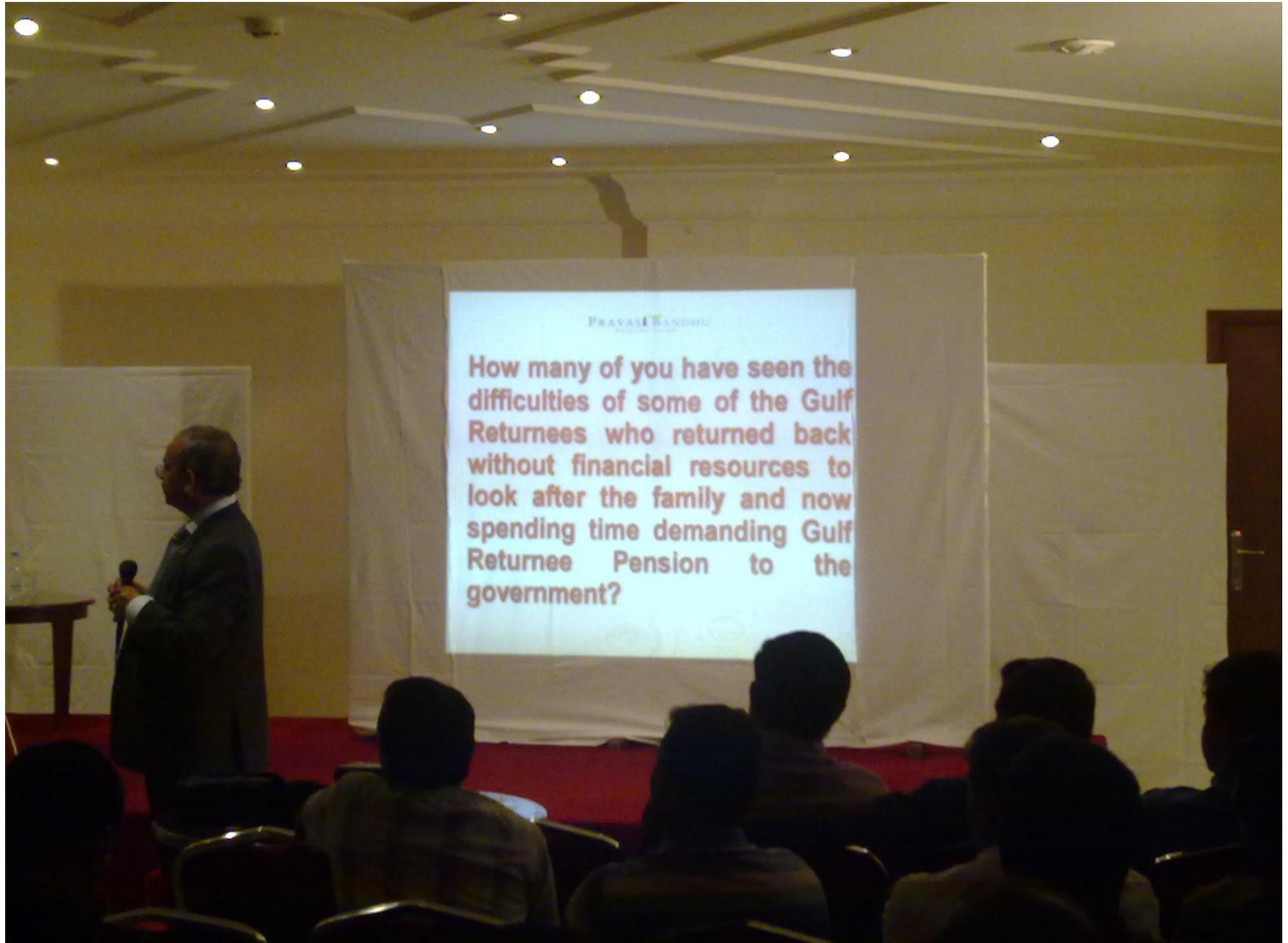
# KVS in action



# KVS's opening slide



# KVS motivating question



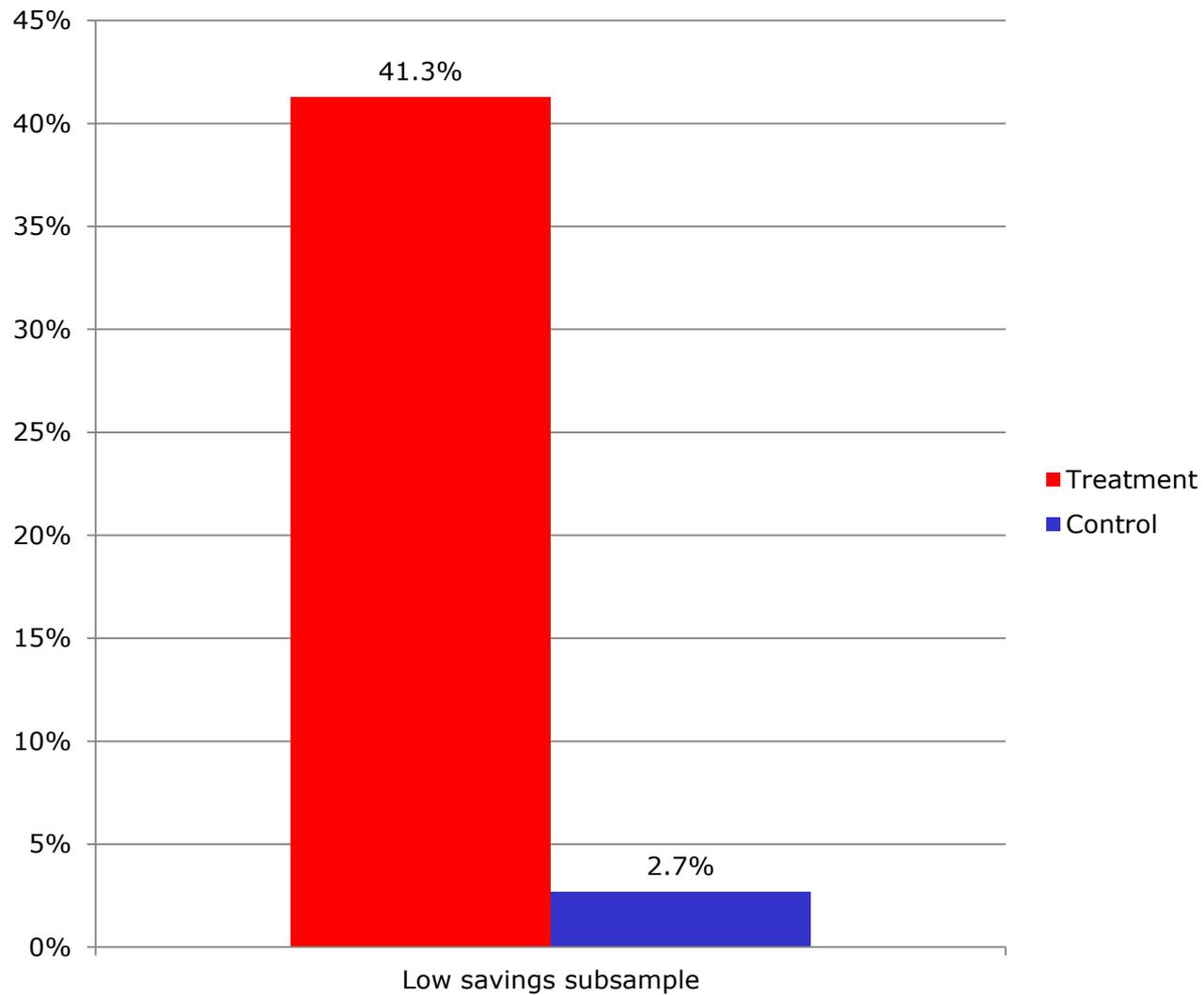
# Financial literacy workshop contents

- 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

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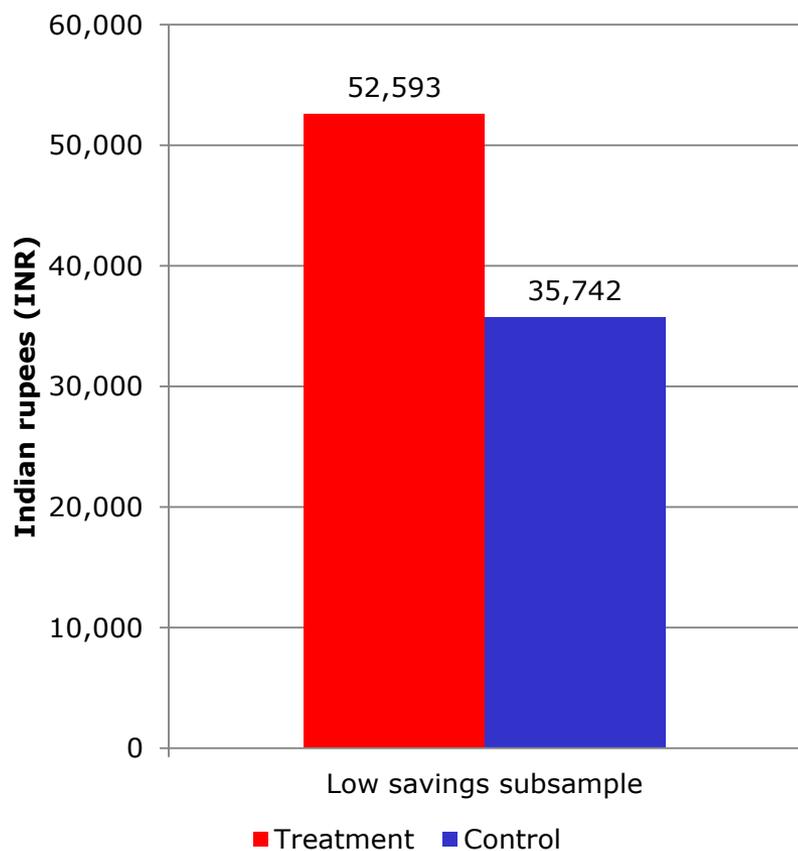
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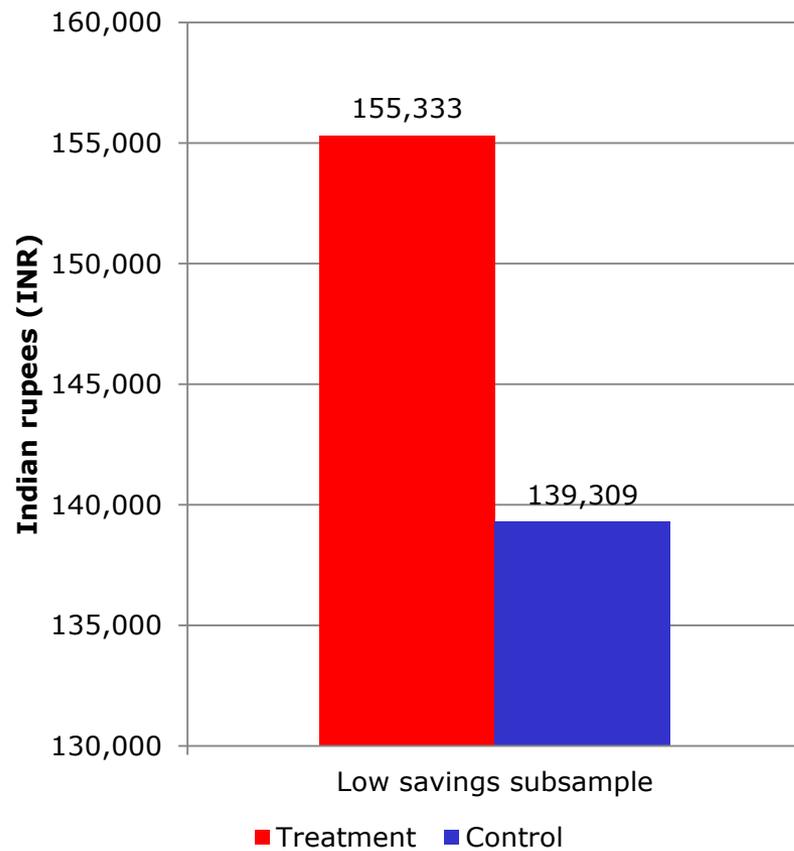
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# Impact on migrant savings, remittances

## Savings



## Remittances

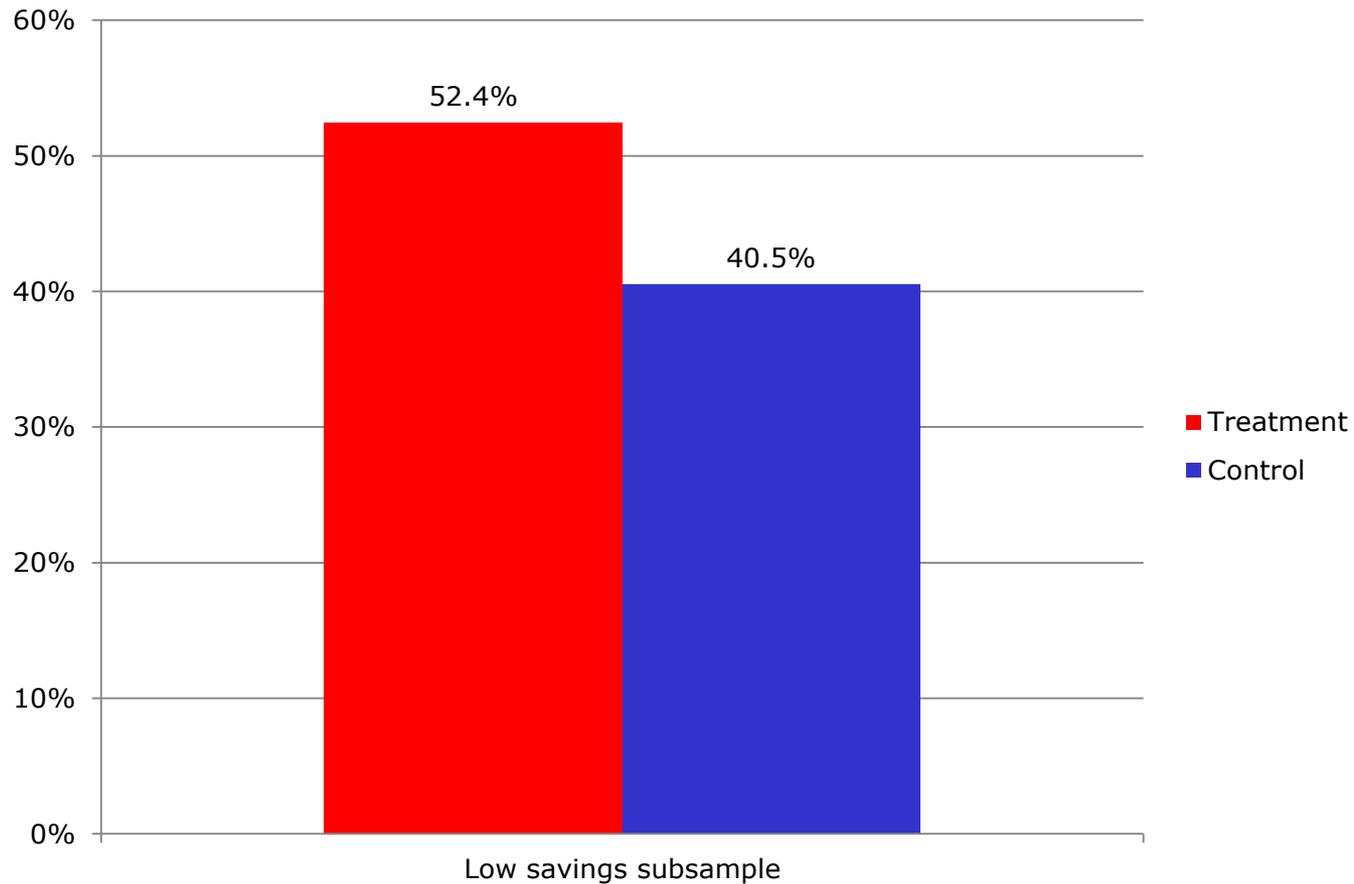


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# Impact on joint decision-making

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



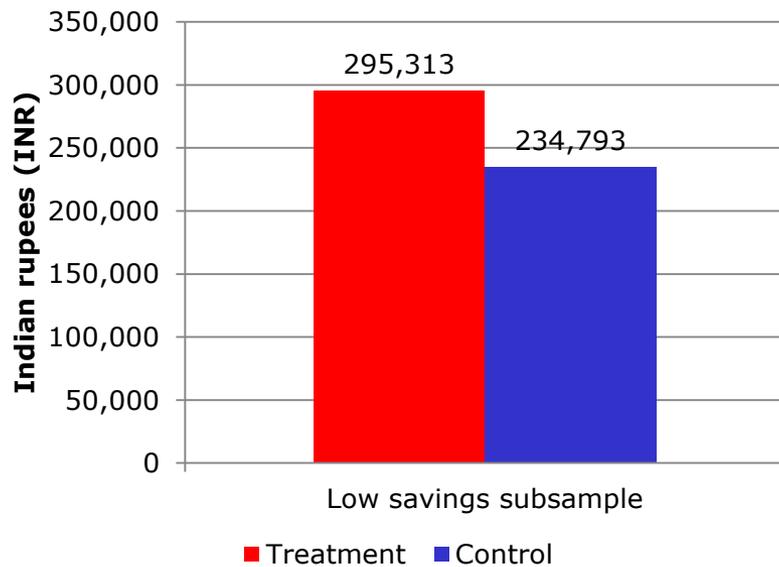
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# Impact on wives' savings

Dependent variable:

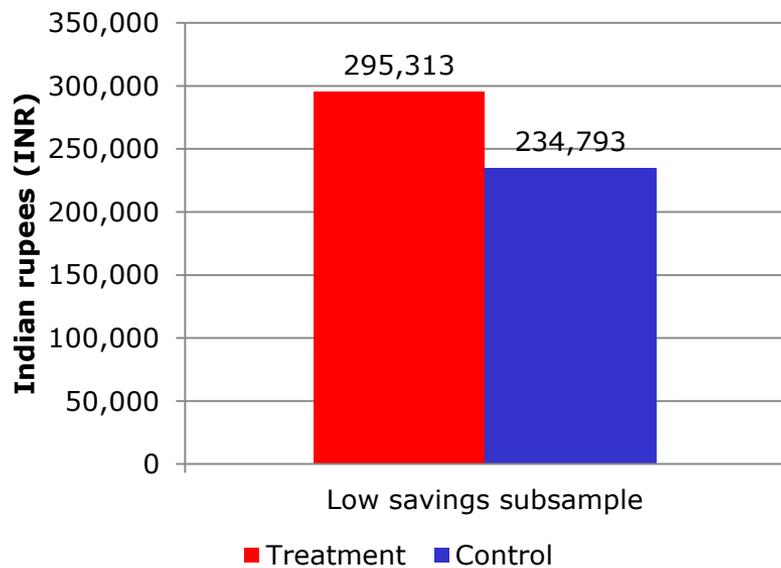
Migrant's report of wife's savings



# Impact on wives' savings

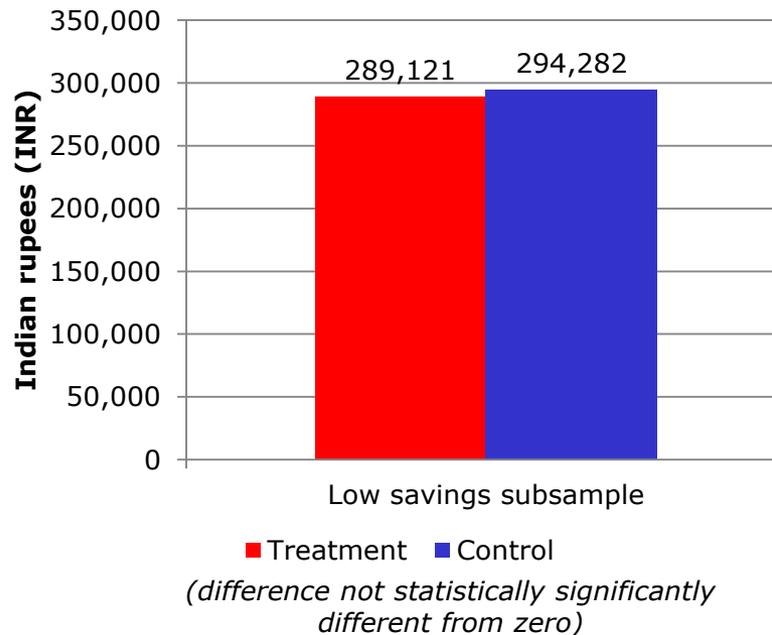
Dependent variable:

Migrant's report of wife's savings



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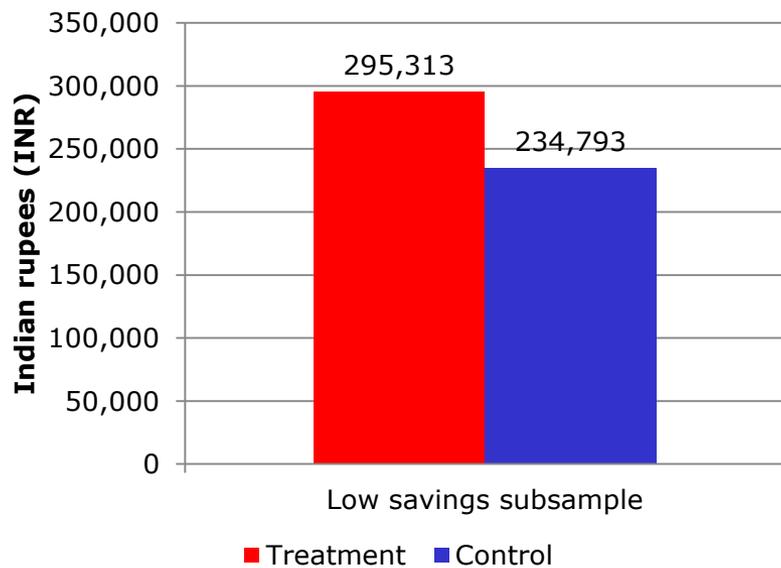
Wife's report of her own savings



# Impact on wives' savings

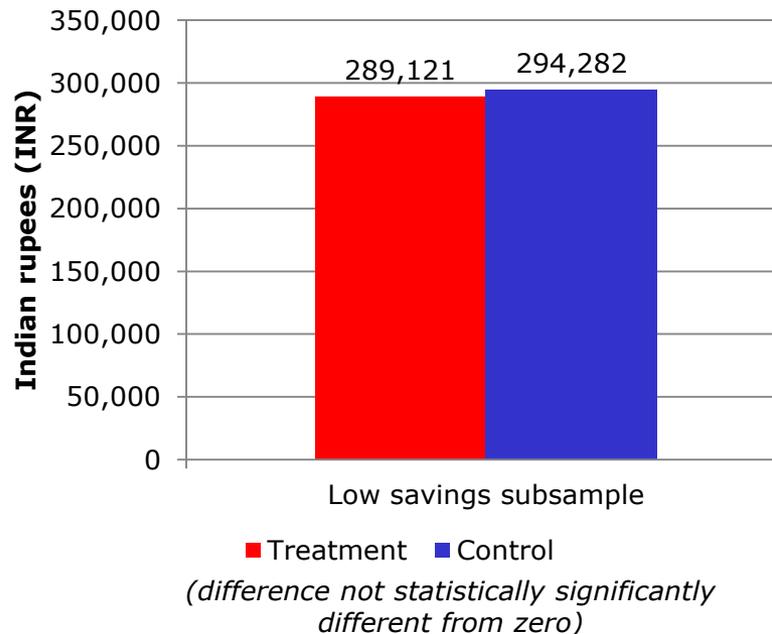
Dependent variable:

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

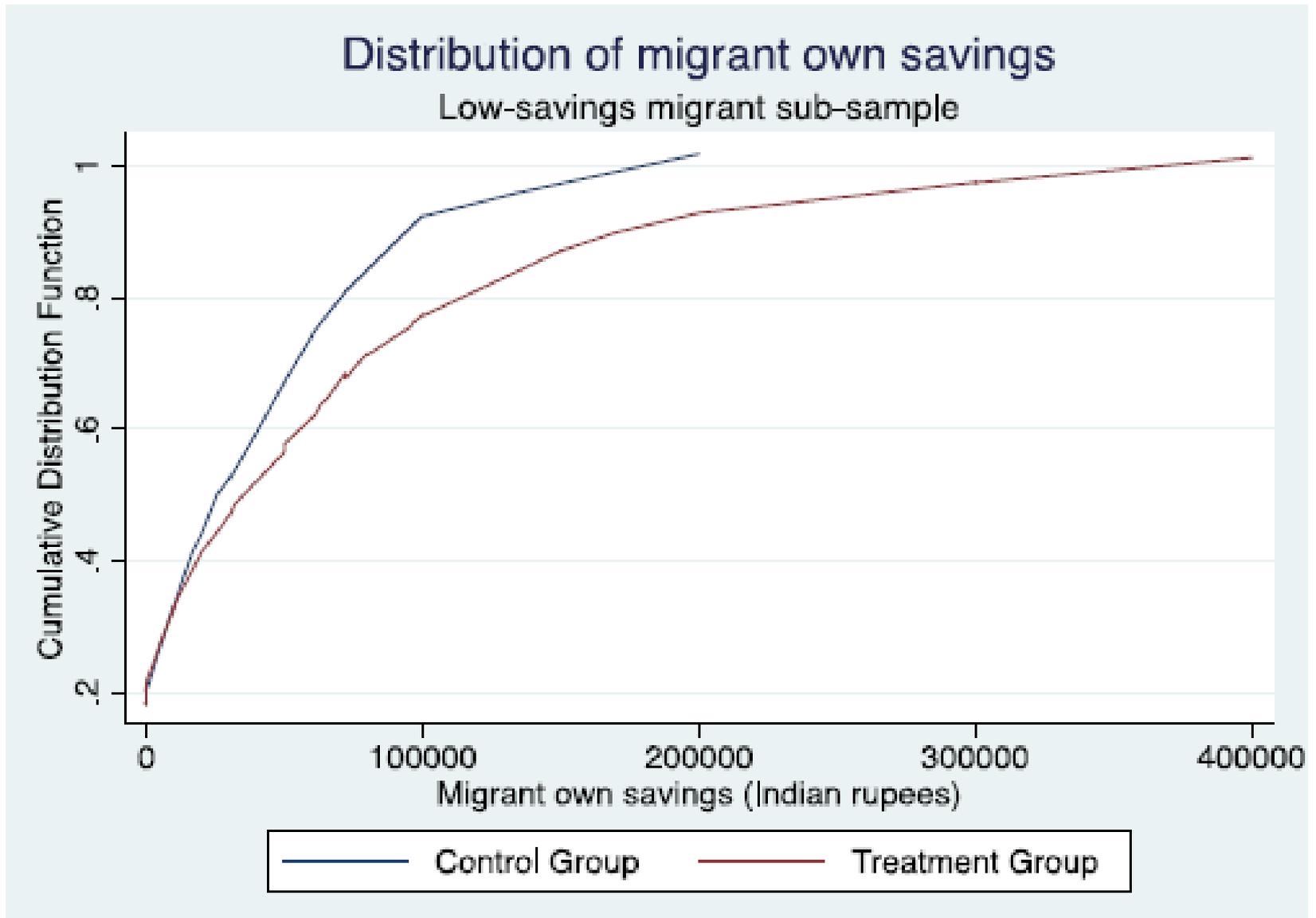
# The sample

- 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

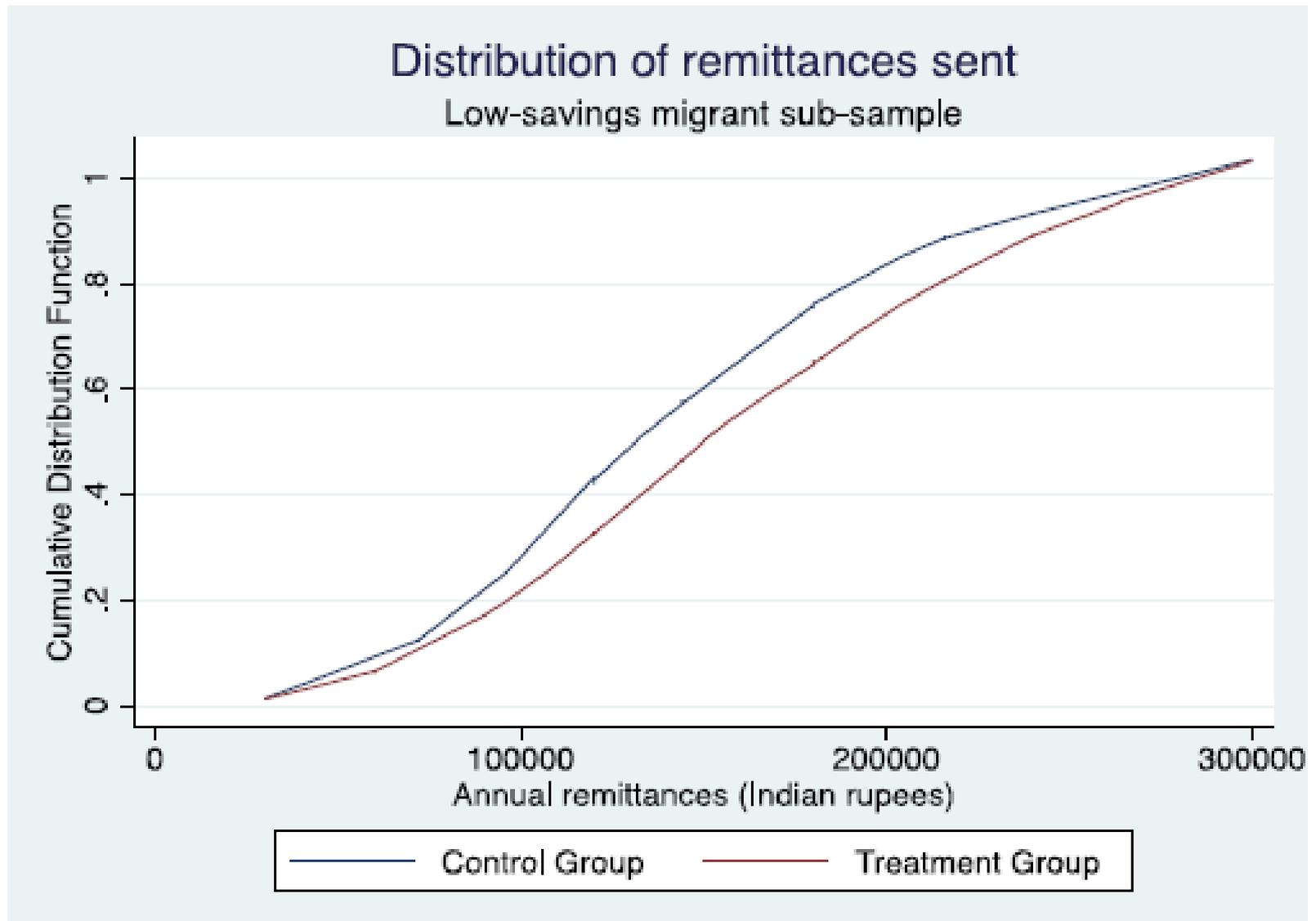
- Migrants from Kerala, India
  - Major source of Indian migration to Gulf states
  - In Kerala, 17.1 percent of households received remittances, and remittances are 31 percent of state GDP (Rajan and Zachariah 2011)
- Migration to Qatar
  - Oil-rich Gulf state
  - Country with most immigrants as share 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

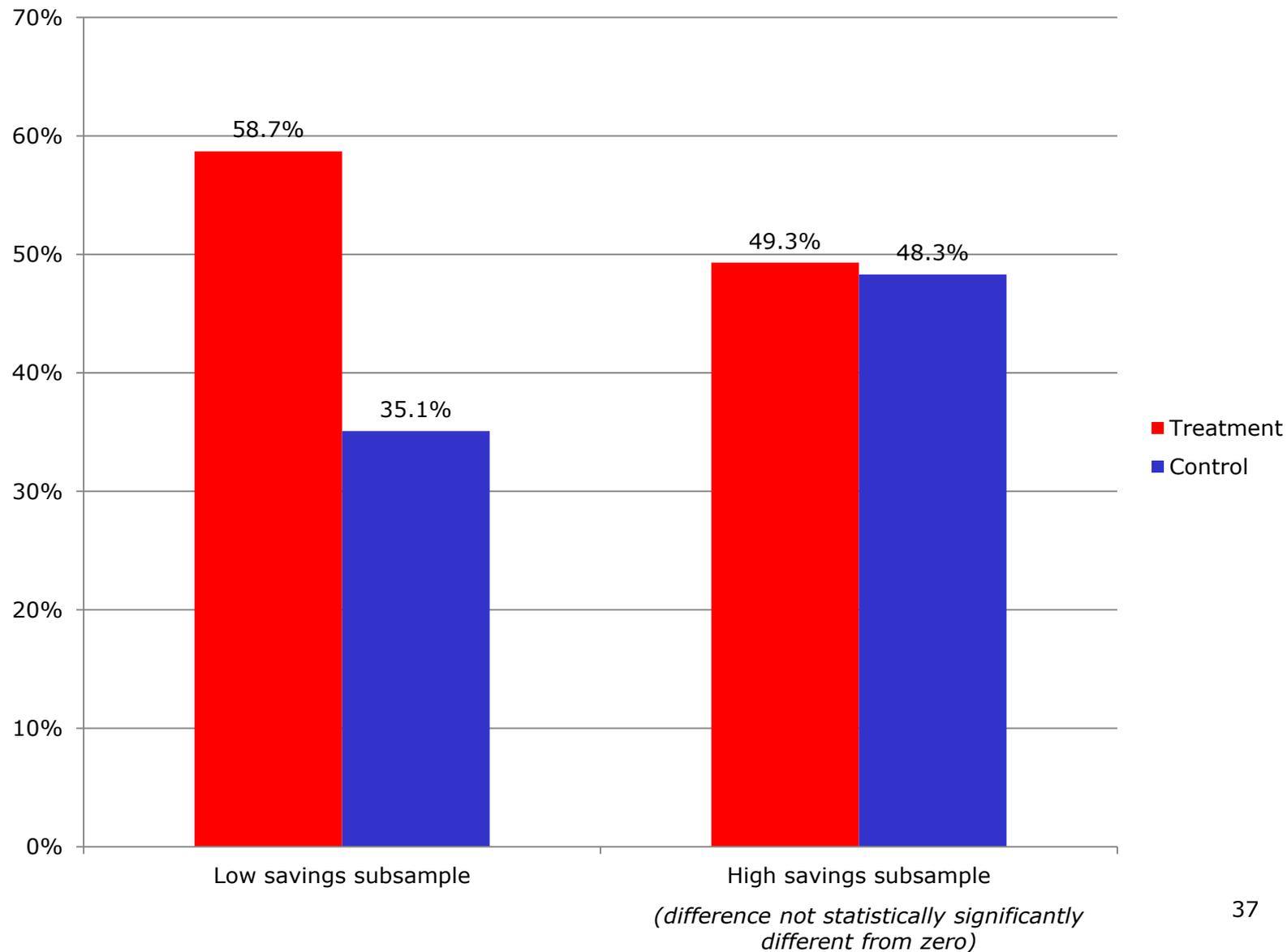


Note: This is not a household from financial literacy study, but another related study by Seshan. Migrant's household's dwelling is concrete house on left.

# Migrant's wife and sons, Kerala



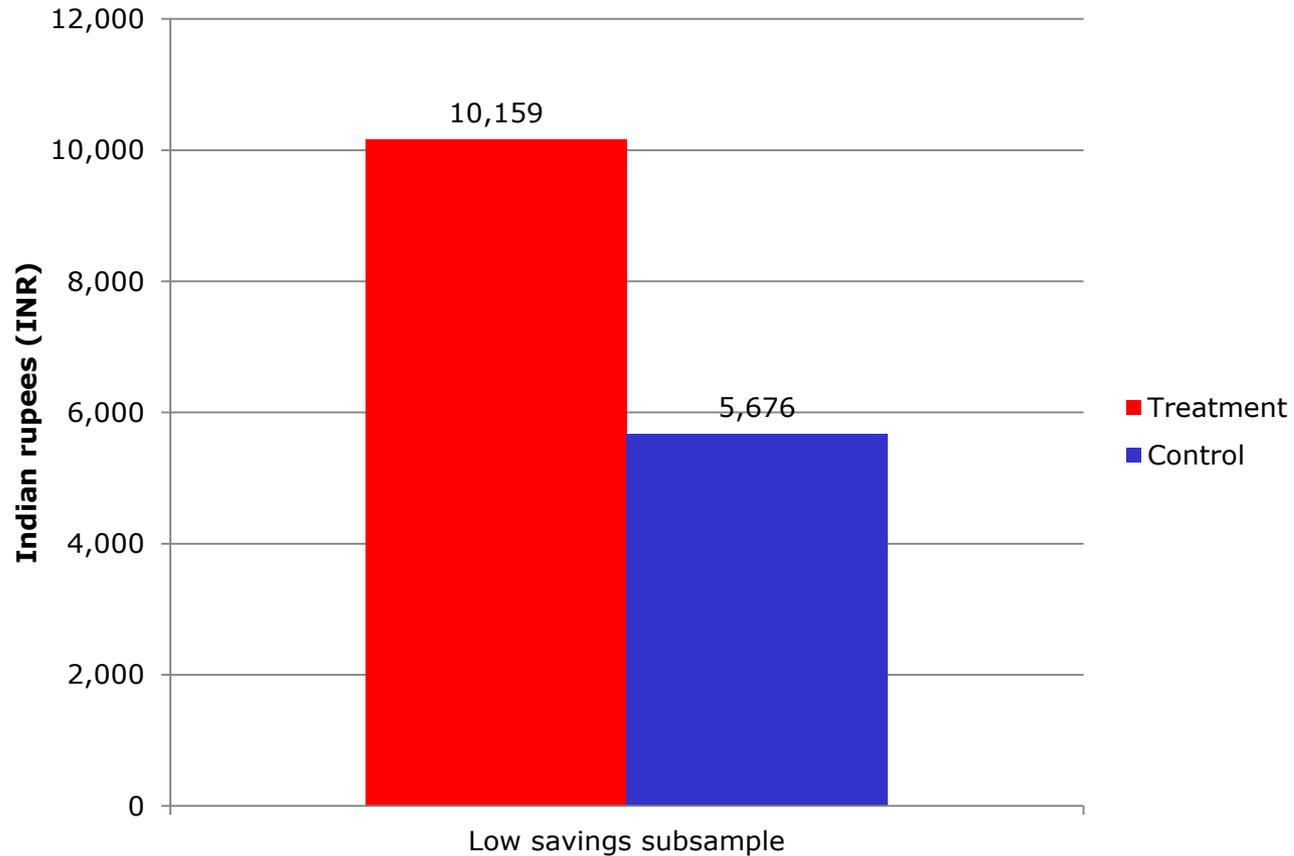
# Impact on KVS radio show listening



# 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