

# Long-Term Effects of the Targeting the Ultra Poor Program in India

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## Long-term impacts of TUP

- Idea behind “big push” approach: households stuck in poverty trap; large capital grant sets off virtuous cycle of investment, savings, earnings enabling escape.
- Over 3 million recipient households across 43 countries (Partnership for Economic Inclusion “State of the Sector” 2018 report.)
- Open question: do they help, or would households escape poverty on their own over time?

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- Open question: do they help, or would households escape poverty on their own over time?

**This project:** RCT tracking households over 10 years.

- ① Do big-push programs affect poverty in the long-run?
- ② What are the channels through which impact persists—do households change what they do? (poverty trap models)

# TUP in India

## Selection

- 120 villages in Bengal: participatory ranking + female member + no formal credit + 3 among 5 criteria (no assets, no land, no male, child labor, begging)
- 978 households: 514 T, 464 C, stratified by hamlet

## Intervention

- Asset from menu (2 cows, 4 goats, or 1 cow and 2 goats); weekly consumption support (\$8) for 30 weeks; access to savings; weekly training visits for 18 months.
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## Surveys

- Baseline: 2007. Re-surveyed in 4 waves: 18 months, 3 years, 7 years, 10 years after asset transfer.

Banerjee et al. 2015 reports positive effects from year 3. This paper extends beyond. [Throwback: Banerjee et al. \(2015\)](#)

# Baseline characteristics

	Treatment Mean	Control Mean	Difference	Obs
<i>Household Level Variables</i>				
Consumption per capita, month	37.751	38.162	-0.881 (1.448)	978
Everyone in HH gets enough food everyday	0.105	0.114	-0.008 (0.019)	978
No adults skipped meals	0.086	0.088	0.004 (0.018)	978
Agricultural Profits (last month)	0.093	-0.111	0.227 (0.192)	978
Nonfarm Microenterprise Income (last month)	23.181	15.553	5.726 (9.883)	978
Paid Income (last month)	56.183	49.684	5.751 (3.578)	978
Self-Reported Economic Status (1-10)	2.012	1.925	0.065 (0.075)	978
Total Outstanding Loans	204.472	206.484	-9.949 (26.099)	976
Total Savings (last month)	1.437	2.751	-1.493 (2.645)	977
<i>Adult Level Variables</i>				
Minutes spent on productive activities in last day	168.190	170.791	-0.702 (9.910)	1731
Member has not missed any days due to illness, last month	0.476	0.512	-0.045 (0.024)	1731
Activities of Daily Living Score	0.603	0.593	0.010 (0.017)	1731
Self-reported happiness	1.682	1.631	0.040 (0.038)	1730

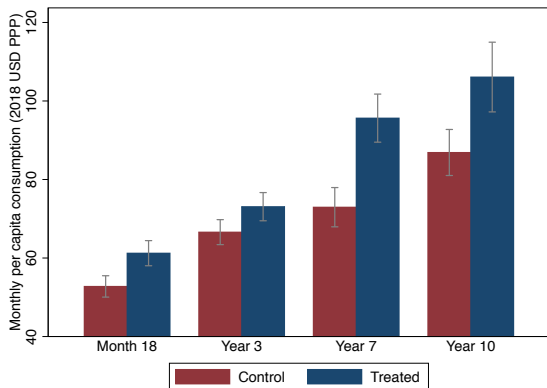
- 2018 USD PPP

① **Do big-push programs affect poverty in the long-run?**

- ▶ Yes, in this setting.

② What are the channels through which impact persists?

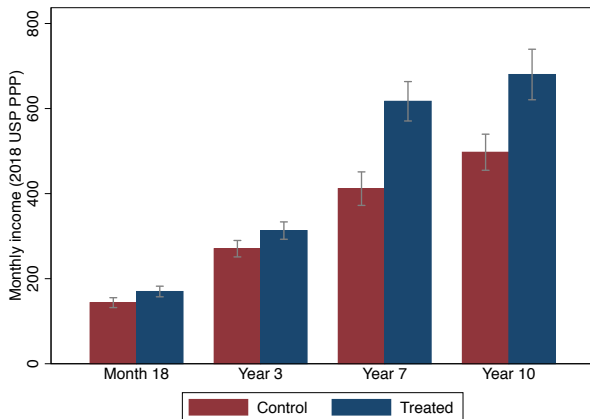
## Per capita consumption (2018 USD PPP) persistently higher for TUP hh



- Treatment effect grows and persists: 0.3 SD; 0.3 SD; 0.7 SD; 0.6 SD.
- Control level at four endlines: \$1.8/day, \$2.2/day, \$2.4/day, \$2.9/day.
- Extreme poverty definition: \$2.1/day; Moderate poverty definition: \$3.5/day.



## Income (2018 USD PPP) persistently higher for TUP hh



- Treatment effect grows and persists: 0.15 SD; 0.15 SD; 0.33 SD; 0.26 SD.

# Positive effect on food security, physical, mental health

	Food security	Financial inclusion	Physical health	Mental health
<i>18 months</i>				
Treatment	0.184*** (0.048)	-0.004 (0.042)	0.061** (0.028)	0.115*** (0.029)
Control Mean	0.35	0.14	0.12	0.32
<i>3 years</i>				
Treatment	0.251*** (0.059)	0.192*** (0.062)	0.027 (0.027)	0.012 (0.037)
Control Mean	0.94	0.30	0.21	0.75
<i>7 years</i>				
Treatment	0.431*** (0.062)	0.181 (0.135)	0.130*** (0.031)	0.249*** (0.042)
Control Mean	1.09	0.67	0.57	1.09
<i>10 years</i>				
Treatment	0.127** (0.063)	0.121 (0.152)	0.187*** (0.040)	0.203*** (0.044)
Control Mean	1.21	1.08	0.12	0.76

- Similar pattern of growth, persistence.
- In baseline standard deviation units: index creates z-scores, standardizes to baseline.

## Positive effect on assets, but declines by year 10

	Asset index	Productive	Household
		<i>18 months</i>	
Treatment	0.222** (0.111)	0.467*** (0.087)	0.125 (0.092)
Control Mean	-0.19	-0.23	-0.12
		<i>3 years</i>	
Treatment	0.389*** (0.103)	0.571*** (0.072)	0.245** (0.098)
Control Mean	-0.25	-0.30	-0.17
		<i>7 years</i>	
Treatment	0.814*** (0.132)	0.795*** (0.083)	0.600*** (0.118)
Control Mean	-0.46	-0.40	-0.35
		<i>10 years</i>	
Treatment	0.346*** (0.121)	0.197* (0.105)	0.245** (0.113)
Control Mean	-0.26	-0.10	-0.21

- Principal component analysis + z-scores.
- Households diversify income source by year 10: up next.

- ① Do big-push programs affect poverty in the long-run?
- ② **What are the channels through which impact persists?—do households change what they do?**

## Short-term: changing composition of household income

	Livestock	Business	Wage
		<i>18 months</i>	
Treatment	10.258*** (2.342)	2.644 (3.234)	5.083 (8.485)
Control Mean	3.33	25.23	106.45
		<i>3 years</i>	
Treatment	7.683*** (2.652)	11.618** (5.408)	4.628 (13.674)
Control Mean	7.99	37.81	217.89
		<i>7 years</i>	
Treatment	27.262*** (5.158)	55.734*** (10.794)	89.024*** (25.730)
Control Mean	9.70	61.91	301.31
		<i>10 years</i>	
Treatment	16.710* (8.756)	-15.320 (20.330)	52.671* (30.402)
Control Mean	17.80	14.26	361.08

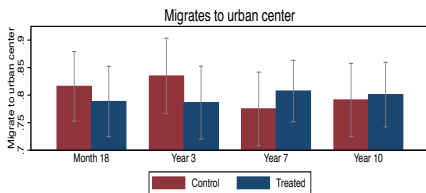
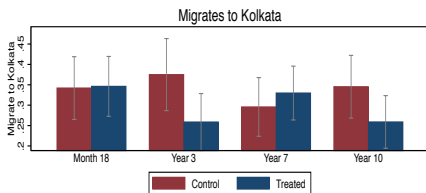
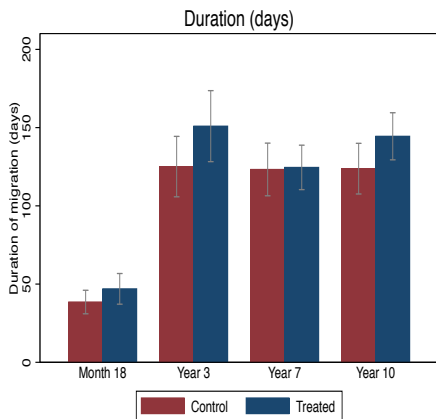
- By month 18: Transferred livestock asset.
- By year 7: Diversify into micro-business.

## Long-term: diversify into wage employment

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- Wage employment: Ag labor, non-ag labor, salaried/regular.

# Diversify into wage employment, through migration



- Control households increase migration by threefold over 10 years (40 to 120 days)
- Treated households avail of migration opportunities more: month longer, further away.

# Migration matters

	Per capita consumption (excl. migrant)	Per capita consumption (incl. migrant)	Wage income	Remittances
<i>18 months</i>				
Treatment	7.554*** (1.837)	8.196*** (2.255)	5.083 (8.485)	0.000 (.)
Control Mean	49.25	52.77	106.45	0.00
<i>3 years</i>				
Treatment	7.080*** (1.913)	7.429*** (2.441)	4.628 (13.674)	3.696 (2.369)
Control Mean	61.37	66.59	217.89	12.88
<i>7 years</i>				
Treatment	17.385*** (3.030)	21.252*** (3.916)	89.024*** (25.730)	8.871 (6.455)
Control Mean	67.15	72.95	301.31	34.87
<i>10 years</i>				
Treatment	14.037*** (4.242)	18.454*** (5.390)	52.671* (30.402)	19.443** (7.590)
Control Mean	79.88	86.88	361.08	37.56

- Effect on consumption higher by 30% when account for migrants.
- Remittances account for 36% of wage income.



## Ratio of costs to benefits

- Total cost (2018 USD PPP): \$2048
- Of which direct transfer: 56%
- Breaks even by year 4.
- Return: 351% by year 10; 510% if 10-year consumption gains persist until year 15; 1123% if in perpetuity.

## In summary

- TUP in India positively affects consumption, income, food security and health over 10 years.
- Effects grow between year 3 and 7, and remain persistently higher than control at year 10.
- Driven by changes in the composition of household activity: first to livestock, then to micro-enterprise, and finally to wage employment.
- Control group becomes richer over time: consumption grows by 60%, income by 400% (wage employment).
- Treated better avail of migration opportunities that arrive in natural course of economy.
- Pays for itself 2.5 times over by year 10.

## TUP India in broader context

- In contrast to Blattman et al. (2019) in Uganda: control group catches up by year 9.
- Consistent with Balboni et al. (2020) in Bangladesh: identify existence of poverty trap.
- But different mechanism than Bandiera et al. (2017) in Bangladesh: TUP enabled women to shift away from casual labor to livestock; wage employment emerges as important in our setting.

Thank you!

## Index components

- **Food security:** Everyone in the household gets enough food every day, No adult skipped a meal in the last year, No household member went without food for a day, No children skipped meals, and Everyone in the household regularly ate 2 meals a day
- **Financial inclusion:** Loans, savings
- **Physical health:** Perceived health, Whether the individual missed a day of work in the past month due to poor health, ADL score
- **Mental health:** Life satisfaction, Feelings of sadness, and Periods of worry

[Back to effects](#)

# Throwback: Banerjee et al. (2015)

## Pooled average intent-to-treat effects, endline 2 at a glance

This figure summarizes the average treatment effects in each country for the 10 primary outcomes. All treatment effects are presented as standardized z-score indices and 95% confidence intervals.

