

Global Evidence on Impact Evaluations: Public Works Programs

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Setting the stage:

What are Public Works Programs?

- Temporary safety net response to a covariate shock (macroeconomic crisis (ex. Argentina) or agro-climatic crisis (droughts, cyclones).
- Permanent poverty relief/insurance instrument: income support during the lean season (India, many Sub-Saharan countries)
- Require participants counterpart work in order to obtain benefits
- Assure income support by providing unskilled manual labor at low wages to anyone who wants it, if not rationed
- Small scale local public works programs
- Relatively high labor intensity

The key anti-poverty feature: self-targeting and the wage rate

- Setting the wage rate low enough to allow only those who are willing to see reservation wage to self-select into the program (Ravallion 1991, 1999) (below the prevailing market wage for unskilled manual labor, well below the statutory minimum wage) :
- ↑ wage rate means that:
 - fewer poor people would benefit from the program: ↓ need to ration / ↑ risk benefits
 - Dilute the targeting: Increase the likelihood of excluding poor people, including not so poor people
 - Likely to reduce the net gains of the program (job diversion rather than job creation)

Setting the stage: public works objectives

- *Poverty alleviation* through net income gains to participants
- *Insurance*: ability to smooth consumption, prevent households from taking costly actions as response to the shock.
- *Promotion*? Insurance floor to allow households to diversify in higher returns activities? Skills acquired? Will depend on the *duration* of participation and the *type of work* performed
- Indirect benefits: *value of the public goods* created, maintained

Typology of PWP and objectives

- Useful classification for Sub-Saharan Africa (McCord and Slater 2009):

Type A	Type B	Type C
Single short episode of employment	Provide employment on a repeated basis	Increase the labor intensity of construction sector
Response to natural disasters (droughts, floods)		
Safety net: Temporary consumption smoothing (ex. Malawi, Tanzania)	Income insurance (ex. Maharashtra EGS, NREGA in India; PSNP in Ethiopia)	Short term employment creation (rather than SP) (ex. Agetipa)
Many FFW, wage < w(min)		Often wage ≥ w(min)

Cover 96% programs in SSA

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Most impact evaluations focus on A, B (+Argentina)		

Research and Policy Questions addressed by impact evaluations

- Key question: What is the *net income gains* to participating workers? The income gains of the program do not equal to the gross wage rate
 - Depend on the behavioral responses of the main recipient. Poor people “cannot afford to be idle”. Need to forego other forms of income to join PWP
 - Depends on the behavioral response of other household members (take up displaced activities?)
 - Depends on the conditions of the local labor market at the time of the introduction of the program
- What is the impact on *aggregate poverty*? Depends on targeting (errors of inclusion/exclusion) and scale (often small)
- What is the *social protection role*?

How to estimate the net gains from the program?

- Clearly a question that needs a counterfactual analysis: what would have happened in the absence of the program
- Net Gains = Gross Wage – Foregone Income
needs to be estimated
- Estimate of foregone income essential to provide cost-benefit analysis compared to alternative (Murgai, Ravallion 2005)

type B: 1. Maharashtra Employment Guarantee Scheme (EGS)

- Started in the 1970s as a relief famine operation, *large scale*
- Countercyclical: expand/contract depending on macroeconomic conditions
- Allow workers to work at the prescribed wage for whomever wants to work on piece rate basis (no rationing)
- Estimated *foregone income* 1/5 to 1/3 of the wage rate (net income gains of about 10%-7% of the pre-transfer earnings) (Datt, Ravallion 1994). *Empirical model of time allocation*
- Wage < market agr. wages. Initially doubled in 1988 (Ravallion, Datt, Chaudhuri (1993) → shift to activities with lower piece rates, ↑ rationing
- *Insurance*: Key. Suggestive evidence of lower variability in income streams in villages where EGS was operating (Walker, Ryan 1990) + role of the program in averting famine as a result of the drought (Dreze-Sen 1989)

Type B 2. India's new National Rural Employment Guarantee Scheme (NREGS)

- largest antipoverty policy in India's (and world's) history
- Government as employer of last resort: *employment guarantee*. Promises to provide up to 100 days of unskilled manual labor per family per year, at the statutory minimum wage rate for agricultural labor, to anyone who wants it in rural India
- Debate about potential impact vs implementation constraints
- Current planned evaluation in one of the poorest states: Bihar (Murgai, Ravallion) focus on governance: pilot experiment on awareness, auditing

Type A - Argentina: response to macroeconomic crisis 1) Trabajar

1. introduced as a response to a macroeconomic crisis in the mid-1990s
 - Medium scale: 300,000 beneficiaries, allowed to participate more than once
 - Two stage targeting: poor areas + self-targeting
 - Work for 4-6 months on local community projects
 - Jalan, Ravallion (2002) estimate the *foregone income* from the program to be about 1/2 of the gross wage
 - Method of matching, cross-section
 - High quality data (individual, household background including social/political 'connections', community characteristics)

Type A/B - Argentina: response to macroeconomic crisis 2) Jefes y Jefas

2. introduced as a response to a macroeconomic crisis in 2001
 - Much larger scale, rapid scale-up (2m beneficiaries)
 - *No time limit*
 - Galasso, Ravallion (2004) estimate the *foregone income* to be at 1/3 transfers of the wage rate (lower opportunity cost during the crisis)
 - Matched DD, sample of participants and applicants
 - Relied on the national labor force survey (rotating panel)

Type A/B - Argentina: response to macroeconomic crisis 2) Jefes y Jefas

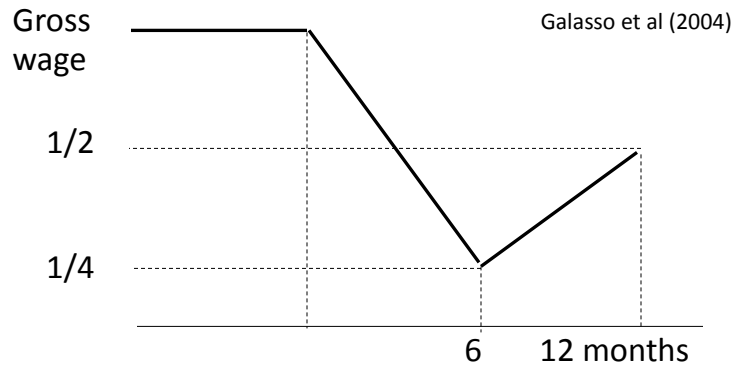
- Estimated *social protection* role of the program: partially protect income loss participants. Income gains prevented 10% beneficiaries from falling into extreme poverty
- Projected impact estimates to another round of panel data
 - In 2003 economy bounced back
 - Higher opportunity cost of participation : estimated foregone income increased to 2/3 of the gross wage → costly to sustain

Workfare: Exit strategies?

- Experiment to reduce dependency on *Trabajar* in Argentina: voucher for wage subsidy, wage subsidy+skills training
 - Galasso, Ravallion, Salvia (2001): voucher offer increased the impact of finding a private sector job, no value added of training. Higher impact on women, young
- Transition out of *Jefes*: pilot grants to promote self-employment (+technical assistance)
 - Evaluation design based on the promotional activities of the program (Almeida, Galasso (2010)):
 - Low take-up of the program among Jefes
 - Increased hours worked, moved away from wage employment
 - No impact on income in the short run

What happens to the workfare participants after they leave the program?

- The mean income loss for leavers is about $\frac{3}{4}$ wage after 6 months
- Loss is smaller in areas with lower levels of unemployment
- over time (after 12 months) some losses are recovered to around $\frac{1}{2}$ wage



- qualitative evidence of expected longer-term gains (jobs, skills, contacts)

Type B: Ethiopia's Productive Safety Net Program

- First SP program in Sub-Saharan Africa to be implemented at scale. New innovative features:
 - Multi-year (3, now extended) aim to provide predictable transfers.
 - Labor intensive projects to build community assets
 - Geographic + community targeting
 - PWP for poor hh'lds with able-bodied power + direct support for hh'ld without labor power
 - Link to interventions to enhance agricultural productivity

Type B: Ethiopia's Productive Safety Net Program

- IFPRI evaluation (Gilligan, Hoddinott, Kumar, Taffasse) highlighted implementation issues + shocks (food price hikes in 2007, droughts)
 - About ½ beneficiaries participated all 3 years
 - Problems in ensuring payment on a timely basis
 - Low access to the complementary input intervention, increasing over time
 - Evaluation with detailed longitudinal survey 2006-2008, matched DD

Type B: Ethiopia's Productive Safety Net Program

- Encouraging results: program
 - Improved food security by 0.4 months
 - Increased growth in livestock holding
 - Increased subjective welfare
 - ↓likelihood distress sales
- Higher impact *with higher level of transfers*
- Higher impact when *PWP combined with compl input*
- Higher growth in calorie acquisition for those who received *at least 10 days work per month*