World Development 112 (2018) 244–258

Contents lists available at ScienceDirect

World Development

journal homepage: www.elsevier.com/locate/worlddev

Workfare versus transfers in rural India ☆

Arthur Alik-Lagrange [a], Martin Ravallion [b,*]

[a] World Bank, Washington DC, USA
[b] Georgetown University, Washington DC, USA

ARTICLE INFO

Article history:
Accepted 17 August 2018
Available online 4 September 2018

JEL classification:
H53
I38

Keywords:
Workfare
Welfare measurement
Unemployment
Targeting
Basic income

ABSTRACT

Prevailing methods for evaluating workfare schemes are inconsistent with the arguments made for workfare in poor rural economies. Those arguments emphasize the existence of higher involuntary underemployment among the poor and the fact that the type of work provided by these schemes gives disutility, deterring non-poor households from participating. To include these features, the consumption-based welfare metric used in past assessments of workfare schemes in underemployed developing countries is generalized to incorporate a welfare loss from casual manual work, while allowing the government to independently value the work done for other reasons. Using data for India's National Rural Employment Guarantee Scheme (NREGS), the paper shows that the policy ranking switches in favor of a basic-income guarantee (BIG) over workfare. Allowing for a welfare loss from casual manual labor implies a more "poor-poor" targeting performance, but this is not sufficient to compensate for the direct welfare loss from the work requirement for plausible parameter values. A BIG dominates NREGS for a given total outlay on workfare wages.

1. Introduction

The ways that social programs are evaluated are sometimes in tension with the government's rationale for the intervention. For example, a common practice in policy discussions has been to use consumption expenditure or income as the measure of household economic welfare in assessing the poverty impacts of social programs. Yet the policy motivation typically assumes that people themselves do not care solely about their consumption or income. Indeed, both the motivation and mechanism design are often anchored to a broader concept of welfare. Thus there is an inconsistency between the policy and how it is evaluated.

An example—the focus of this paper—is found in the context of the longstanding policy issue of the choice between "workfare" and "welfare" programs as antipoverty policies. Workfare has been widely used in crises and by countries at all stages of development.[1] The key theoretical paper on the policy choice between workfare and welfare is Besley and Coate (1992). That paper made a valuable contribution in deriving conditions under which imposing a work requirement on welfare recipients yields a more cost-effective policy against poverty than transfers without such requirements. Workfare permits screening of the poor from the nonpoor, given imperfect information on abilities. This is the longstanding "self-targeting" argument for workfare.

Yet the BC analysis has features that are inconsistent with the arguments made by policy makers in favor of workfare schemes in poor rural economies, which have emphasized the existence of higher involuntary underemployment among the poor and the fact that the type of work provided gives disutility.[2] BC assume instead that there is full employment and that the policy maker attributes no welfare loss to the type of work done.[3] The latter aspect is common

☆ Alik-Lagrange is with the World Bank and Ravallion is with Georgetown University and the NBER. For their comments on an earlier version of this paper the authors thank Sylvain Chabé-Ferret, Pierre Dubois, Rinku Murgai, Dominique van de Walle, Jasmin Fliegner, Jeanne Commault, participants at presentations at the Toulouse School of Economics, the Institute of Fiscal Studies, London, the University of Minnesota, the European Research Development Network, the European Network for Training in Economic Research, and the journal's three referees.

* Corresponding author.
E-mail addresses: aaliklagrange@worldbank.org (A. Alik-Lagrange), mr1185@georgetown.edu (M. Ravallion).

[1] Famously, workfare programs were a key element of the New Deal introduced by US President Franklin D. Roosevelt in 1933 in response to the Great Depression. They were also a key element of the Famine Codes introduced in British India around 1880 and have continued to play an important role to this day in the sub-continent. Relief work programs have helped in responding to, and preventing, famines in Sub-Saharan Africa.

[2] In keeping with the BC model, unemployment is assumed to generally take the form of underemployment (too little work), rather than full unemployment. On the implications of the latter for the BC model see Brett (1998).

[3] This is also true in the generalized framework developed in Besley (1995).

https://doi.org/10.1016/j.worlddev.2018.08.008

to past empirical evaluations of workfare programs in developing countries.[4] It is known, however, that the theoretical case for work requirements can alter when one allows for the disutility of work (Brett and Jacquet, 2015).

The paper re-examines the case for workfare relative to transfer programs. We provide a more general welfare criterion than found in past evaluations—more consistent with the rationale of the program than the consumption-based criterion commonly used, while also allowing for the existence of unemployment. Since our approach departs from the assumptions of the classic BC model of the choice between workfare and transfers, the Appendix provides a generalized BC model to allow for both unemployment and the disutility of work, thus providing a theoretical foundation for our empirical analysis.

We apply our approach to India's Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA). This Act initiated NREGS, which is clearly the largest workfare scheme in the world. The scheme is premised on the view that involuntary underemployment is an important cause of poverty in this setting.[5] To reduce poverty, the scheme promises 100 days of work per year per household to all rural households whose adults are willing to do unskilled manual labor at the statutory minimum wage rate notified for the program. The scheme is seen as self-targeted to poor people.

Much has already been written on NREGS, typically focusing on its performance in reducing poverty as measured by household consumption per person.[6] However, consumption of commodities cannot be considered a satisfactory metric of welfare in this context, given that it ignores the fact that the work involved is physically demanding and unpleasant.[7] Typical work involves digging raw earth with crude tools, breaking large stones with a basic hammer, and moving loose earth in baskets on one's head. Workers often toils for long hours doing such manual labor in the open sun at high temperatures, with poor facilities and little or no likely job satisfaction. While formal-sector employment is known to promote subjective wellbeing and even mental health in more developed economies, this is not a setting in which such effects are likely to be important. Nobody would do this work without being paid for it. Any reasonable ethical observer, whether a policy maker or an evaluator of the scheme, would conclude that casual manual labor in rural India is especially hard and unpleasant work by any standards and that such work entails a welfare loss at given consumption.

The fact that there is underemployment of labor invalidates the standard model of optimal unrationed labor supply. But it does not justify ignoring the welfare loss from work in assessing the gain to poor people from an extra workfare job. Nor is it plausible that people in this setting would choose casual manual labor over regular non-manual work when available. Anyone who can get a regular non-manual job will take it in preference to doing casual manual labor. Furthermore, it is rare that someone does both.[8]

Yet the evaluation methods found in practice typically attach no welfare penalty to doing casual manual work. Two people with the same real consumption expenditure are deemed to be equally poor even if one of them derives all that consumption from hard grinding toil while the other enjoys leisure time or some relatively pleasant form of work. Such inconsistencies between the outcome measure used for evaluation and the policy-maker's rationale for the intervention are troubling. The fact that the work involved is unpleasant is one reason why workfare programs have long been used to fight poverty, in both rich and poor countries. The policy maker (implicitly or explicitly) agrees that the work is unpleasant and would almost certainly not consider doing it. The underlying mechanism design is based on incentives constraints in which work enters negatively in utility functions. How then can the policy maker justify ignoring the fact that the work is unpleasant when assessing the welfare gains from the program?

This is clearly problematic within a welfarist approach whereby "welfare" should only be assessed by whatever people maximize. The evaluations in practice of workfare programs for developing countries have typically been non-welfarist.[9] However, we argue here that even a non-welfarist evaluation should be consistent with the policy maker's rationale for intervention. If the policy maker judges that there is unemployment and that people are worse off doing this work at any given consumption level, then these features need to be built into the evaluation.[10] This does not presume that the policy maker uses the same utility function as participants in assessing their welfare.

Thus it is of interest to see whether incorporating a welfare loss from the type of work done (even if different from participants' actual utility loss) alters the case for NREGS and its evaluation.[11] Theoretically, there are two opposing effects of allowing for a welfare loss from the work. It is plain that, for any given participant, we will tend to over-estimate the benefits of the program by ignoring a welfare cost of doing the kind of work that NREGS provides. However, that does not imply that we will under-estimate the poverty impact of the scheme. To the extent that participants tend to come from households that already do casual manual labor, ignoring any welfare cost of doing that work will lead one to understate how well targeted such a program is to poor people, who will be even poorer (in terms of welfare) than their consumption suggests. And some participants who are not considered poor when any welfare cost of the type of work they do is ignored will now be seen to be poor. Which of these two effects dominates determines how the gains from the program are distributed across the population and whether or not the poverty reduction from the scheme is underestimated by prevailing methods that ignore the welfare cost of work.

The paper examines the sensitivity of past assessments of the cost-effectiveness of workfare to ignoring any welfare loss from casual manual work. We consider the case of an evaluator caring about welfare losses implied by casual manual wage labor. The policy maker is not necessarily welfarist (caring only about utility) or attaching the same value to work as the target population. More generally, however, we allow the possibility that the policy maker attaches a positive value to poor people working, independently of their current utility. This can be rationalized in a number of ways. There may be a value of the work done or a concern about poor

[4] Examples include Ravallion and Datt (1995), Gaiha (1997), Jha et al. (2009, 2013), Ravi and Engler (2015) and Murgai et al. (2016).

[5] The "MGNREGA manual" recognizes explicitly the correlation between unemployment and poverty. The manual is available on the administrative website of the Ministry of Rural Development of the Government of India: see http://nrega.nic.in/netnrega/WriteReaddata/Circulars/MGNREGA_manualjuly.pdf.

[6] Dutta et al. (2012) provides an assessment. Also see the discussions in Jha et al. (2009, 2013), Gaiha (1997), Imbert and Papp (2011), Bhalla (2011) and Murgai et al. (2016).

[7] This was confirmed in field work observations by one of the authors at numerous NREGS work sites in Andhra Pradesh, Bihar, Madhya Pradesh and Rajasthan. The literature on the scheme often notes that the physically demanding nature of the work is a key aspect of the self-targeting mechanism (see, for example, and Dutta et al., 2014, and McCartney and Roy, 2015).

[8] In India's National Sample Survey for 2010, only 7.6% of all rural households reported a casual manual work activity *and* another paid activity, and among those reporting at least one casual manual activity 77.4% did not report any other paid activity. It appears that the vast majority of casual manual workers have little access to other paid activities, including regular non-manual work.

[9] See the examples in footnote 4. In the broader context of antipoverty policy see Kanbur et al. (1994), Kanbur and Keen (1994) and Ravallion (2016). The only welfarist evaluation of the NREGS that we know of is Imbert and Papp (2015).

[10] Notice that the policy maker can think that the work is so unpleasant as to deter the non-poor but still believe that the extra work brings a net welfare gain to the poor.

[11] By welfare loss we do not refer here to households' utility loss, but rather to a consistent government's paternalistic assessment. Hence our approach differs from Besley (1995) who compare income maintenance and utility maintenance workfare programs.