RESEARCH DIRECTIONS ON SOCIAL PROTECTION IN LOW- AND MIDDLE-INCOME COUNTRIES:

J-PAL-EPoD Social Protection Initiative Evidence Review*

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TABLE OF CONTENTS

1. INTRODUCTION

Social protection programs have been rapidly evolving worldwide. Today, social protection programs cover about 2.5 billion people. Social protection refers to the wide variety of programs and systems that aim to provide assistance to low-income and marginalized families and individuals, insure against shocks, break poverty traps, help people through the life cycle, and potentially improve social outcomes (e.g., health, education, gender equality).

These programs are common and come in many forms. For example, more than 120 low- and middle-income countries run cash transfer programs for poor families, and more than 70 of them run social pension programs (both contributory and non-contributory pensions, which will be discussed in depth below). In just the past decade, the number of low- and middle-income countries running conditional cash transfer programs, which condition benefits on households making human capital investments in their children, has more than doubled (World Bank 2018a). These programs have increasingly taken the place of subsidies of basic commodities, promising increased efficiency and an enhanced ability to both redistribute income to the poor, but also to provide needed support to middle-class households.

The recent Covid-19 crisis further expanded social protection policies and is expected to continue to play a pivotal role in low- and middle-income countries' strategies in the Covid recovery and beyond.[1] The crisis highlighted the essential role of social protection in ensuring that the poor are not left behind, but also its pivotal role in ensuring that the middle class does not fall back into poverty—either due to the large macro shocks that affect the whole economy (e.g., recessions, commodity shocks), or also due to individual shocks (e.g., the death or injury of a main income earner, job loss, etc.).

The J-PAL-EPoD Social Protection Initiative was born out of this strong and growing consensus that *social protection policies and systems* are important policy tools to help reduce poverty, improve livelihoods and dignity, and protect vulnerable groups (e.g., children, the elderly, minorities). In order to do so, we believe that programs and policies must be designed to meet the needs of people, and to also ensure that evidence on what is effective in meeting these needs helps guide policy design. Thus, the Initiative aims to fund new *randomized control trials* that:

1. Increase rigorous empirical evidence in understudied topics and questions in social protection, particularly in research areas where we both have large evidence gaps, and there are pressing policy needs for answers

2. Increase rigorous empirical evidence across different contexts, where different programs and policies may have different effects due to underlying conditions, to ensure more context-specific evidence

3. Improve our long-run understanding of the impacts of programs and policies, and understand how programs evolve

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[1] In April 2020, 126 countries introduced or adapted social protection programs as a response to Covid-19 (Gentilini et al. 2021). For a full list of social protection programs and jobs responses to Covid-19 see Gentilini et. al. 2021.

4. Improve our knowledge of the causal impact of cross-cutting programs and policies to develop more comprehensive systems that provide protection for individuals at different stages of life and provide the right support for people with different needs

5. Better understand the political economy around such programs

To help diagnose the evidence gaps and provide a foundation and guide for our funding competitions, this evidence review aims to review and synthesize the literature on social protection, providing insight into what we know and what we do not know. As such, while there is a broad research base on social protection—spanning many countries, contexts, and research methods—given the mandate of the Initiative to fund new randomized evaluations, we focus much of our review (although not exclusively) on causal, quantitative studies in low- and middle-income countries. It is important to note that we broaden the evidence review beyond randomized trials evidence to quasi-experimental evidence to ensure that the randomized trials are filling gaps in causal evidence across a range of causal empirical methodologies.

Since the purpose of this document is to help guide future research funding, in addition to reviewing the state of the literature today, we end each section with a list of key open empirical questions where our review suggests additional new evidence can play an important role.

The rest of this evidence review is structured as follows. Section 2 discusses the design of social assistance programs, including those that are designed with poverty as a primary organizing principle, and those that are designed with life-cycle challenges as an organizing principle. Section 3 discusses the design of social insurance programs. Section 4 discusses cross-cutting design and implementation issues across all these programs, including systems for targeting and identifying program beneficiaries, take-up issues, gender, and ensuring that assistance gets delivered. Section 5 discusses interlinkages among different types of programs and systems, and Section 6 discusses interlinkages with politics. Section 7 concludes.

2. SOCIAL ASSISTANCE

2.1: SOCIAL ASSISTANCE PROGRAMS TO ADDRESS POVERTY

In the sections that follow, we review the evidence on a wide range of social assistance programs aimed at addressing poverty. We start with the simplest program conceptually—unconditional cash transfers— and then organize the subsequent empirical sections based on the key program design choices that one can make beyond this benchmark. In this section we review a number of general social assistance programs; in the subsequent section, we focus on those programs with specific lifecycle-related features, such as child and elderly grants, which may also address poverty but do so through focusing on particular populations.

In doing so, we focus on whether and how those choices affect well-being in a few senses: affecting future income above and beyond the transfer itself (i.e., by raising wages, or allowing the household to overcome credit constraints); affecting future taxpaying decisions; changing *intra*-household allocations (e.g., between spouses, or between parents and children); changing patterns of consumption in ways a social planner may care about, even if the household does not; spillovers to other households; and affecting well-being by allowing households to overcome information constraints, credit constraints, or other frictions.

Note that we are not attempting a systematic meta-analysis of all papers; we instead refer interested readers to several recent reviews, such as Bastagli et al. (2016) and Ralston, Andrews, and Hsiao (2017). We also refer interested readers to Perera et al. (2022), a systematic review of reviews exploring the impact of social protection on gender. Instead, our aim is to capture key themes from the literature and to highlight where additional evidence is needed for the Initiative.

2.1.1: Unconditional Cash Transfers

We begin by considering the simplest programs: unconditional cash transfers (UCTs). The benchmark program would be a transfer that, once allocated, is completely unconditional—i.e., a households' ability to receive the transfer does not depend on any action.

Figure 1 plots the percentage of countries at different income levels with UCTs covering at least 1 percent of the population. The figure shows that at the beginning of the period we study (1980) such programs were essentially only found in the wealthiest countries. By the end of the period, UCTs have become much more common—and almost equally likely to be found in rich or poor countries alike.

FIGURE 1: PERCENTAGE OF COUNTRIES THAT ENACTED UCTS COVERING AT LEAST 1% OF THE POPULATION BY INCOME CLASSIFICATION, OVER TIME
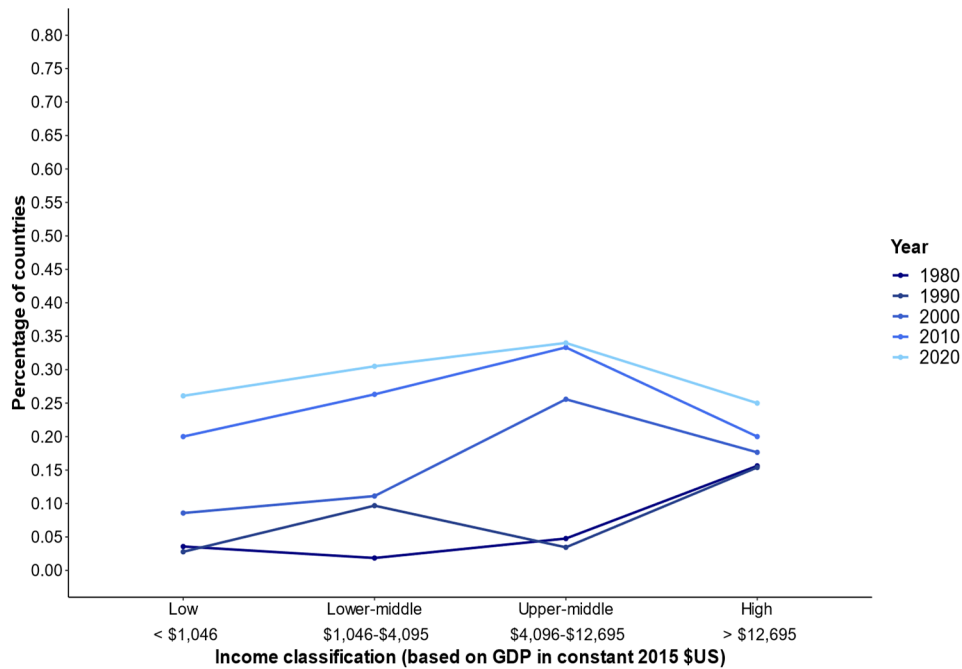
Notes: This figure plots the percentage of countries that enacted UCTs covering at least 1% of the population, by each year considered against income classification, following the World Bank's 2021 income classification thresholds, as measured by GDP per capita (in constant 2015 $US). We define UCT as a government-implemented, large-scale program that enforces no conditions on recipients and is means-tested. *Source:* GDP per capita and population data from the World Bank (2021a; 2021b). See Appendix Table 1 for the exact figures plotted in this chart.

Several randomized studies directly evaluate the impacts of UCTs, such as the Haushofer and Shapiro (2016; 2018) and Egger et al. (2019) studies of the GiveDirectly program in Kenya, or consider it in comparison to other programs, such as the Baird, McIntosh, and Özler (2011) study of transfers in Malawi. There are many other non-randomized studies as well; Bastagli et al. (2016) provide a systematic review of 201 cash transfer studies (25 percent of which are UCTs).

In general, these programs find substantial evidence that cash transfers improve different aspects of the welfare of recipient households—consistent with the idea that $1 of cash transfer typically yields $1 of benefits to the recipient household.[2] For example, Haushofer and Shapiro (2016) find that recipients of cash transfers in Kenya report increases in self-reported psychological well-being and increases in food security, assets, and non-durable expenditures. Many of these effects persist even several years after all transfers ended (Haushofer and Shapiro 2018). More generally, the systematic review from Bastagli et al. (2016) finds that most cash transfer programs lead to increases in both overall expenditures and food expenditures. There is less systematic attention to the incidence of these programs, which is important for welfare considerations.

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[2] For conceptual issues about evaluating cash transfer programs given that $1 in cash typically yields $1 in benefits to recipients, see the discussions in Egger et al. (2019) and Banerjee et al. (2022).

There has also been less research in the causal literature on the role of social assistance for those with disability.[3] Even programs that are not explicitly aimed at those with disability, such as general-purpose UCTs, can have important effects for people with disability. de Groot et al. (2021) is one exception, providing experimental evidence on the impact of Lesotho's Child Grant, a UCT, on people with disability. This is an important area for future research.

Effects on adult labor supply. There is substantial focus in policy debates on whether transfers reduce work. Conceptually, however, it is important to note that even if a transfer led a household to reduce labor supply, this in itself is not necessarily a problem from a social welfare perspective. For example, someone may choose to work less in a back-breaking, hard job with a cash transfer to preserve their health or to spend time with their children, or simply to not have to spend as many hours toiling away. Their lives may be improved, and their decision to work less is not necessarily a problem—the decision about how to trade off labor vs. the other things one can do with one's time can be thought of just like another consumption decision. For example, people may differ as to whether they want to work harder, earn more, and live in a nicer home, or work less hard, but live in less nice physical conditions.

Nevertheless, there is substantial interest in this question from a policy perspective, particularly around the political support of these programs, as this is often a key part of the political debate on whether transfers should be made, and how generous they should be. However, the evidence overwhelmingly suggests that cash transfers—at least how they are designed in low- and middle-income country settings—do not have measurable impacts on labor supply. For example, Banerjee et al. (2017) re-analyzed seven different transfer programs across six countries, all of which were implemented as randomized trials, and found no detectable impacts of these transfers on hours worked. In their review piece, Handa et al. (2018) showed similar findings on the effect of transfers on work.

Effects on consumption of so-called "temptation goods." A common concern about cash transfers is that people may buy some "temptation goods," such as alcohol and tobacco. However, the same arguments that apply to labor supply apply here: to the extent that households are rationally choosing to consume more of these goods, this should not matter. Nonetheless, voters appear to be less enthusiastic about funding transfer programs if they were to lead to consumption of these goods, either because of fears that these choices reflect short-term temptations (Banerjee and Mullainathan 2010) rather than rational decisions, because of intra-household issues (e.g., an addict may grab the funds to fund his or her addiction), or simply because voters disapprove of these goods.

Nonetheless, time and time again, researchers observe little effect of cash transfers on consumption of these types of goods. A systematic review by Evans and Popova (2016) examines nineteen cash transfer studies (a mix of unconditional and conditional transfers), and finds no evidence that cash transfers increase expenditures on these goods.

Effects on investment and future incomes. Many households in low- and middle-income countries are credit-constrained, and many are not able to make investments that could have productive returns (e.g., Banerjee and Duflo 2010). In this case, transfers may have effects beyond themselves if households are

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[3] We discuss disability insurance below in Section 3.1.2.

able to use this to take advantage of productive investments.

Indeed, there are a number of studies that suggest that households use cash transfers to make future investments. Gertler, Martinez, and Rubio-Codina (2012) study the Oportunidades cash transfer program in Mexico and find that households consume 74 percent of the transfer received and invest the rest.[4] They then compare households who were treated eighteen months earlier rather than later, and find that those treated earlier have higher incomes, even four years later. They interpret this as a return on the extra eighteen months' worth of investments these early-treated households had, compared to the later-treated households.

How should this sort of investment be valued from a welfare perspective? Consider the Gertler, Martinez, and Rubio-Codina (2012) case. One approach is to assume households are optimizing to begin with, and value a transfer of $1 at $1, regardless of whether it leads to future income gains or not. However, if households are credit-constrained today, and the transfer alleviates this credit constraint, one cannot make this argument. Instead, if one also counts the value of the future income, the value of the transfer would actually become $1.8 (see Banerjee, Hanna, et al. 2022 for the calculations).

In short, this becomes important to note for two reasons. First, in evaluating these programs, $1 given may be more than $1 in some sense, if it allows for investment that can have productive flows in the future. This is important as we think about conducting cost-benefit analyses of these programs, as it is not just subsidizing households today but potentially increasing future incomes. Second, depending on the types of investments a household can make, and the level of credit constraint, it suggests that getting the size and form of the transfer "right" can help alleviate these constraints if the goal is to help households better invest. Importantly, this idea also forms the basis of many graduation programs, which we discuss in below in Section 2.1.5, that provide large transfers to households to "catalyze" the households out of poverty.

Box 1, below, examines the evidence on different types of social assistance programs and their impact on beneficiaries' earnings ability and work.

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[4] Oportunidades is a conditional cash transfer, as are several other papers that we discuss in this section. Here, we discuss aspects of these programs related to just the cash transfer component; we discuss conditionality below.

BOX 1: SOCIAL ASSISTANCE AND EARNINGS ABILITY

Social assistance programs can improve beneficiaries' earnings ability by, for example, facilitating human capital investments and reducing credit constraints.

Conditional cash transfers (CCTs) have been associated with improvements in employment-related outcomes. Gerard, Naritomi, and Silva (2021) find that Brazil's Bolsa Familia program has a positive impact on formal employment. While the CCT caused a reduction in the formal labor supply of beneficiaries, the expansion of the program led to an overall increase in formal employment, particularly among lower-skill occupations, in areas where transfers increased the most. In Mexico, Gertler, Martinez, and Rubio-Codina (2012) show that poor and rural households who received an additional eighteen months of Oportunidades transfers increased their agricultural incomes by investing part of the transfers into productive assets.

CCTs have also led to sustained improvements in female earnings. In Mexico, female cash transfer recipients had a significantly higher labor force participation rate than non-beneficiaries (Parker and Vogl 2018). This led to a long-run increase in labor earnings of approximately 40 percent, on average, for female beneficiaries. In Nicaragua, Barham, Macours, and Maluccio (2018b) associate higher female earnings with employment gained from temporary migration.

Lump-sum transfer programs can also improve earnings ability. For example, a long-run study of a graduation program in India found lasting impacts of the program on income (Banerjee et al. 2016).

Maternity leave may be used to improve female labor outcomes. This type of program is relatively understudied in low- and middle-income countries, but a recent study by Vu and Glewwe (2022) shows that in Vietnam, an increase in duration of mandatory maternity leave shifted potentially eligible women from informal to formal work, in particular to public sector jobs.

Free or subsidized childcare has been positively associated with women's earnings ability. Calderón (2014) in Mexico shows that access to childcare reduced the likelihood of women earning no income. Bjorvatn et al. (2022) find significant gains in family income from childcare in Uganda, which they attributed to an increase in productivity (rather than hours worked).

But with all programs, design matters: For example, in Argentina, a CCT targeted to informal sector households reduced beneficiaries' likelihood of working in the formal sector to maintain their program eligibility (Garganta and Gasparini 2015). Therefore, it is very important in designing the programs to think about what kinds of incentives people will face due to the program and to monitor and measure for impacts.

Spillovers. Cash transfers have been shown to have several important types of spillovers on other, non-recipient households, which are important to include when considering the net benefits of these programs. These happen through several different mechanisms.

Informal insurance: One type of spillover effect is through informal insurance arrangements in the spirit of Townsend (1994) and Ligon, Thomas, and Worrall (2002). If households are implicitly insuring one another, this could mean that if one household receives a transfer, but another household does not, they may share the proceeds of the transfer to some extent. Angelucci and De Giorgi (2009), for example, document these kinds of spillover effects in Mexico's Progresa program. Of course this does not always take place—Evans and Kosec (2020), by contrast, show that in Tanzania's CCT, while beneficiary households were more likely to have someone with a personal problem turn to them for assistance, they were no more likely to actually provide assistance to other households. We discuss interactions with informal insurance more generally below.

Prices: A second channel through which cash transfer programs can affect welfare of non-beneficiaries is through price changes. However, since those receiving benefits tend to spend the benefits on a wide variety of different items, the demand shock for any given item is likely to be small. This, combined with the fact that supply of those items may be at least sometimes elastic, suggests that in practice price effects for pure cash transfers may be small. Indeed, several studies, such as Cunha, De Giorgi, and Jayachandran (2019) and Egger et al. (2019) find either zero or economically very small impacts of generalized cash transfers on prices.[5]

One important counter-example is Filmer et al. (forthcoming) in the Philippines who studies a cash transfer program in which many, but not all, households in treated areas received benefits—on average 65 percent of households were treated. As a result of this high saturation, the program raised aggregate incomes in treated villages by about 15 percent. They show this led to price increases for protein-rich perishable foods (e.g., eggs, fish) by 6-8 percent, with effects concentrated in villages where the share treated was high and in remote areas where supply is less elastic. They then show that ineligible children in treated villages demonstrated increased rates of stunting, which they argue is consistent with declines in protein consumption for non-beneficiaries associated with the higher prices.

Demand effects: A third source of spillovers is through *Keynesian-type demand multipliers.* That is, transfers may be spent locally, boosting incomes of those who provide goods or services to those who received the transfers, who then spend some of their income locally, and so on.

Egger et al. (2019) use the fact that the transfer program they study was randomized at the village level to estimate a village-level "fiscal multiplier" of this sort. They find that each dollar transferred leads to 2.5-2.8 dollar total increase in local incomes in those villages due to this local multiplier effect. This suggests that these types of demand-side spillovers may be important in local economies, at least in the context of the large, one-time transfers (USD 1,000) that they study. Note, however, that since transfers are paid for externally, this estimate does not capture the total "multiplier" impacts if one was to impose such a

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[5] By contrast, Cunha, De Giorgi, and Jayachandran (2019) and Banerjee et al (2021) do find price impacts of in-kind transfers, which are a much larger supply shock to a small set of commodities, see Section 2.1.3 below.

policy nationally. That is, if the transfers were paid for by increased taxes, the taxes *also* could have multiplier effects. Understanding the full general equilibrium implications of these types of tax-and-transfer schemes in low- and middle-income country settings is an important area for future work.

Gerard, Naritomi, and Silva (2021) examine related questions in their study of the labor market effects of a large-scale expansion of a conditional cash transfer program in Brazil (Bolsa Familia). Unlike other programs, Bolsa Familia is explicitly means-tested (i.e., those with formal sector income above a certain level are ineligible), so one may be particularly concerned about labor market effects of such a program. However, consistent with the presence of Keynesian multipliers, they find that expansions in Bolsa Familia substantially increased labor market participation, including among workers who were never part of the program. Since they do not observe consumption or everyone's income, they do not formally estimate a Keynesian multiplier, but the results are consistent with cash transfer programs having strong local multipliers.

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In addition to these above effects, unconditional cash transfer programs may have important effects within households, e.g., on education and health of children (which may, or may not, be fully counted in a household's utility function, depending on whether parents are completely altruistic towards their children), and on the relative bargaining weights and outcomes among spouses. We come back to these issues below.

2.1.2: Conditional Cash Transfers and Intergenerational Investments

Conditional cash transfer programs (CCTs) have spread rapidly around the world over the past 30 years. These programs provide a regular stream of cash transfer as in many UCTs, but then *condition* the transfer on the household fulfilling a set of criteria, usually related to human capital investments for children. In Online Appendix Table 1 of our companion paper, we present the conditions of 67 CCTs from 45 countries. The most common conditions are: school enrollment and attendance (52 CCTs), health checkups (38), complete vaccination schedule (22), and attendance of training sessions or workshops (20).

CCTs were pioneered in in the 1990s, with Brazil's Bolsa Familia, Mexico's Progresa, and Bangladesh's Female Secondary School Assistance Project being early examples. Since then, over 60 countries have started their own CCTs (World Bank 2018a). Figure 2 shows the percentage of countries with CCT programs covering at least 1 percent of the population by income level. CCTs went from being essentially non-existent in 1980, to 10-35 percent of countries in the bottom four GDP per capita quintiles having CCTs by 2020. Unlike with UCTs shown in Figure 1, however, these programs are less common in the wealthiest countries.

FIGURE 2: PERCENTAGE OF COUNTRIES THAT ENACTED CCTS COVERING AT LEAST 1% OF THE POPULATION BY INCOME CLASSIFICATION, OVER TIME
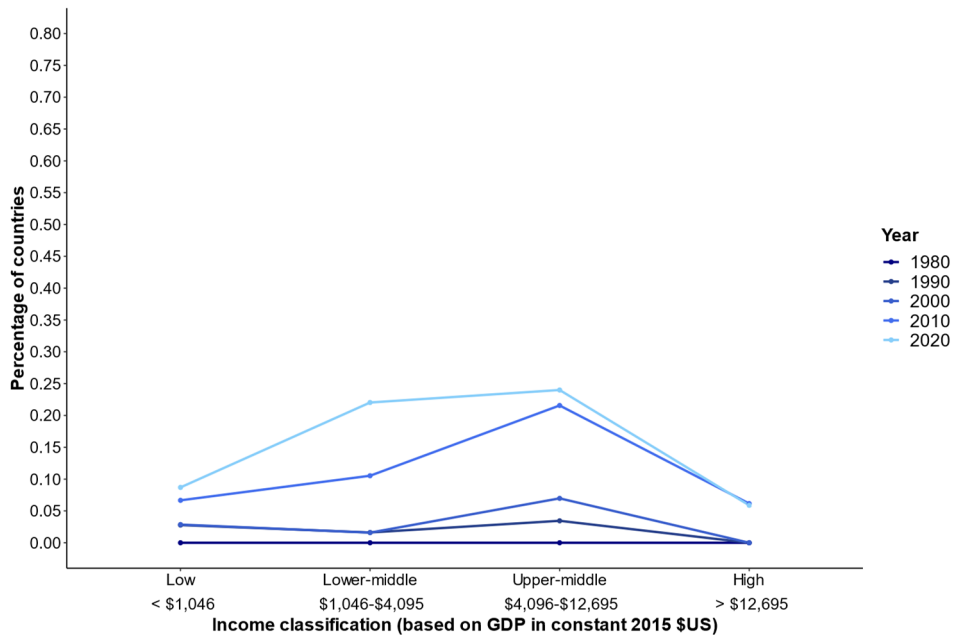
Notes: This figure plots the percentage of countries that enacted CCTs covering at least 1% of the population, by each year considered (1980, 1990, 2000, 2010 and 2020) against income classification, following the World Bank's 2021 income classification thresholds, as measured by GDP per capita (in constant 2015 $US). We define CCT as a government-implemented, large-scale program that enforces health or education-related conditions on recipients. *Source:* GDP per capita and population data from the World Bank (2021a; 2021b). See Appendix Table 2 for the exact figures plotted in this chart.

The theory behind these programs is that the cash transfers provide assistance to the current generation, while a combination of cash and the requirements for human capital investments aim to break the inter-generational cycle of poverty.[6] Implicit in these requirements is also a statement about welfare: that the government values the child human capital investments at a greater weight than the household decision maker would absent the conditionality (if not, then there would be no need for explicit conditionality). Thus, from the perspective outlined above, evaluating these programs requires not only measuring the immediate cash transfer value to the household, but also separately valuing the impacts from the human capital investments.

Mexico's Progresa program was evaluated using a phase-in design. Surveys were conducted in 320 treated municipalities as well as 186 control ones, which received the program about eighteen months later (Skoufias 2005). This phase-in design allows researchers to understand if a CCT led to human capital investments in health (Gertler 2004), education (Schultz 2004), and other outcomes (Skoufias 2005). When CCTs were instituted in other countries, a number of them were experimentally evaluated during early stages. There are now randomized evaluations of CCT programs in Colombia (Barrera-Osorio, Linden, and Saavedra 2019), Honduras (Benedetti, Ibarrarán, and McEwan 2016; Galiani and

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[6] Santiago Levy, who helped create the CCT model with the Mexican Progresa program, argued, "clearly achieving good health is a cumulative process, and temporary investments in nutrition are of little help. The same is true of education: children must be supported year after year…. [Progresa's] central effects will gradually occur through the accumulation of human capital" (Levy 2006).

McEwan 2013; Glewwe and Olinto 2004; Morris et al. 2004), Indonesia (Alatas 2011; Cahyadi et al. 2020), Nicaragua (Barham and Maluccio 2009; Macours, Schady, and Vakis 2012; Macours and Vakis 2014), the Philippines (Filmer et al. forthcoming; Kandpal et al. 2016), and Tanzania (Evans et al. 2014; Evans, Holtemeyer, and Kosec 2019). Moreover, many CCTs are targeted using proxy-means tests with strict cutoffs, which also enables impact evaluation using regression discontinuity (RD) methods (e.g., Buddelmeyer and Skoufias 2004).

These evaluations often find impacts of CCTs on child health and schooling, compared to control groups who do not receive a CCT. In the short run, there is evidence that these programs led to an increase in height and a reduction in stunting (Gertler 2004; Attanasio et al. 2005; Kandpal et al. 2016); increases in elementary school enrollment (Schultz 2004; Todd and Winters 2011; Baird et al. 2014); and cognitive outcomes for children (Macours, Schady, and Vakis 2012).[7] They also show reductions in child labor (Barrera-Osorio et al. 2011; Schady and Araujo 2006; Benedetti, Ibarrarán, and McEwan 2016).

Long-run impacts of conditional cash transfers. Several studies, using a variety of empirical approaches, suggest that these human capital benefits may persist. Note, however, many of these studies compare CCT recipients to a pure control group, so these impacts could be due to the cash transfer (rather than the conditions). Two studies, for example, examine experimental variation. Cahyadi et al. (2020) measure the impacts of a CCT program in Indonesia after six years, finding persistent human capital gains: six years after the start of the program, truancy and child labor fell by half, and stunting—which requires cumulative investments in health—fell by 23 percent. Similarly, Molina Millán et al. (2020) examine the CCT in Honduras, which ran for five years in treatment municipalities, but the program was never run in the control ones. Eight years after the program ended, they find large increases in education—particularly secondary and university enrollment—for non-indigenous groups, but more muted effects for indigenous groups. They also find that the CCT increased international migration for men who experienced the program as older cohorts. They find little robust evidence on wages.

A second empirical strategy uses the fact that some programs started earlier in some places than others. Behrman, Parker, and Todd (2011) use this strategy, comparing those who received an "extra" eighteen months of Mexico's Progresa program, after 5.5 years of exposure in treatment areas, as well as comparing these areas to additional never-treated areas using a matching design. They find increases in schooling attainment for those who received the program earlier.[8]

Barham, Macours, and Maluccio (2013; 2018a; 2018b) use a related design in Nicaragua, using a randomized design and comparing early treatment locations with late treatment locations. In Barham, Macours, and Maluccio (2013), they focus on boys, and compare the impact of being exposed to a CCT in utero through age 2 with being exposed at ages 2-5. They find that boys exposed early in life had better cognitive outcomes, with no impacts on stunting. In Barham, Macours, and Maluccio (2018b), they compare girls treated at ages 9-12 with those treated at ages 11-14, and examine outcomes when they were 19-22 years old. They find girls with early exposure to the program had higher educational attainment, higher earnings, and lower fertility compared to late treatment girls. In Barham, Macours,

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[7] Parker and Todd (2017) provide an in-depth discussion of the many studies of the Progresa program.

[8] Using the same identification strategy, Gertler, Martinez, and Rubio-Codina (2012) find that the Progresa early treatment groups have higher consumption than those that were treated later.

and Maluccio (2018a), they examine similar aged boys and find similar education and labor market effects.

More recently, Araujo and Macours (2021) use this same design to follow the experimental Progresa cohorts *about 20 years later* and find that educational attainment increases. For the children who were older when the program started (i.e., are now of age to work), labor income is higher, particularly for the top of the income distribution. Those in the early treatment group were more likely to migrate, particularly to the U.S., which could in part account for the higher incomes.

A third empirical strategy is to use the general phase-in of programs, coupled with the differential ages of children when the CCT expands to their municipality. The variation in when the CCT enters generates a difference-in-difference in total exposure to the CCT, while controlling for age.[9] Parker and Vogl (2018) use this strategy to analyze Progresa. They find that exposure to Mexico's Progresa in primary school leads to higher educational attainment, greater labor force participation, more migration, and higher earnings for women. They also find modest impacts on education and migration for men, though the labor market results are less robust.

Does the conditionality itself matter? Can it be a two-edged sword?
These human capital improvements provide evidence that CCTs change household behavior. But, perhaps poor households, when faced with an infusion of cash, would have increased investments in human capital due to income effects, even without the conditions. Do the conditions themselves matter? Or would the same effects have occurred even without the explicit conditionality?

Several studies have found evidence that households respond to conditionality on the targeted outcomes. Studying random variation in the warnings for violating Brazil's Bolsa Familia's conditions on school attendance, Brollo, Kaufmann, and La Ferrara (2017) find that child attendance increases in response to the threat of penalties. Similarly, in Nicaragua, Macours, Schady, and Vakis (2012) argue that a treatment arm that gave additional cash over the basic CCT did not lead to additional improvements in child outcomes; the authors suggest that therefore the conditions drove the effects in the basic treatment.

The CCT conditions could also help those children who are more disadvantaged within families: Akresh, de Walque, and Kazianga (2013) conduct a randomized trial in Burkina Faso, where villages were randomized into a typical UCT or CCT. For boys and older children, who tend to be prioritized by parents, both programs led to increases in enrollments. However, they find that the CCT led to large increases in enrollments for girls and younger children, whom they identify as more "marginal" for education, while the UCT had no impacts on enrollment for these groups.

But, could there be downsides to conditionality? First, adding conditions adds the costs and complexity of imposing, monitoring, and enforcing conditions (which may or may not yield additional gains for these costs). Second, there can be complex ethical issues surrounding which conditions the government will impose if these conditions are not universally accepted. Third, having conditions implies that one will remove benefits from those who do not (or cannot) comply, and doing so can have real implications

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[9] Kugler and Rojas (2018) use a similar strategy but focused more narrowly on the ~500 villages in the early vs. late Progresa impact evaluation sample.

because it means removing assistance from a subset of people who could otherwise benefit from it.

For example, Baird, McIntosh, and Özler (2011) study the third issue above, and randomize communities in Malawi to a UCT, a CCT (based on school attendance), or a control group. The results show that conditionality matters, but also entails risks of its own. On the one hand, the CCT's conditions improved targeted indicators. While both the UCT and CCT led to a reduction in dropout rates for the adolescent girls, the reduction was more than twice as large in the CCT. Likewise, the CCT led to increases in reading comprehension, while the UCT did not. On the other hand, those in the UCT arm experienced larger impacts in terms of delaying marriage and reducing pregnancy rates, particularly among adolescent girls who drop out of school. This suggests that the success of the conditionality could come at the cost of denying cash transfers to non-compliers who could benefit from the program. Ultimately, how one balances these tradeoffs in choosing the program design depends on the policy objective the policymakers wish to achieve.

Combined, these studies suggest that conditions may matter for child human capital outcomes, but that there may be a downside from cutting off assistance to non-compliers. This presents the intriguing possibility that a *labeled* transfer program (LCT) could achieve the child impact results that could come from conditions, without the downsides. There are two types of LCTs: one where households are told that there are conditions, but they are not rigorously enforced; and another where cash transfers are accompanied by nudges, such as messaging that encourages behavioral change. Such an approach could also save extra monitoring costs. Benhassine et al. (2015) suggests this may be the case: in Morocco, they compare the second type of LCT described above with a CCT and find that the labeled transfer substantially reduced the drop-out rate and increased school enrollment among those who had dropped out at baseline, whereas the traditional CCT had smaller positive effects. More research is needed on labelling to better understand when it works, how long it persists, and how to structure the labels.

2.1.3: In-Kind vs. Cash Transfers

Conceptual Issues. An alternative approach to delivering assistance is to provide households with goods or services directly, rather than cash. There are good reasons why cash could be preferred to in-kind transfers—after all, households can choose to use the cash to purchase whatever will increase their utility the most. Moreover, for households that would anyways purchase more of the in-kind good than is provided by the transfer, providing in-kind goods should be the same as cash, since households can just reallocate their cash elsewhere.

However, theory provides some reasons why policymakers may prefer in-kind. First, if the government cares explicitly about certain types of outcomes, such as nutrition or health care, rather than just household income or consumption, they may explicitly want to influence the beneficiaries' consumption basket. When households are constrained—so they are given more of the in-kind good than they would consume otherwise, and cannot easily resell it—in-kind transfers can encourage consumption of these types of goods. That would also work if households are constrained in different ways or use mental accounting, in which case in-kind transfers may affect consumption (Hastings and Shapiro 2018).

A second reason has to do with how these programs interact with prices. There are two issues. First, in-kind transfers often represent a positive supply shock of the good in question (unless the government is sourcing it all locally). This means that, if supply is fixed, prices for the subsidized goods may be lower in

an in-kind program than in a cash program (Coate, Johnson, and Zeckhauser 1994; Basu 1996). Second, governments typically set in-kind benefits in terms of quantities (i.e., 5 kg of rice per month), whereas they typically set vouchers in terms of prices (i.e., 500 Rupees per month). Setting benefits in terms of quantities rather than prices can provide implicit price insurance to beneficiaries (Gadenne et al. 2021; Hirvonen and Hoddinott 2021). While in principle the government could adjust the quantity of in-kind benefits based on prices to hold value constant, or conversely adjust the value of vouchers to keep their real value constant, these adjustments may not happen.

Third, in-kind transfers could potentially improve self-targeting if they increase the cost of participation more for the wealthy (Nichols and Zeckhauser 1982). For example, if the government provides poor quality, subsidized bread, richer households will not bother consuming it.

Finally, there are administrative differences between these programs. The infrastructure required to deliver millions of tons of goods is different than the infrastructure required to run a voucher system using electronic debit cards (Banerjee, Hanna, et al. 2021), and these administrative differences may lead to important differences in low state capacity settings.

Experimental comparisons of in-kind, voucher, and cash programs. Several studies examine these issues by experimentally allocating areas into cash, voucher, or in-kind distribution programs. In Mexico, for example, the government ran an RCT that randomized villages into receiving in-kind food transfers, approximately equivalent cash transfers, or a control group. Several studies have examined this experiment. Overall, Skoufias, Unar, and Cossío (2008) find that both types of transfers have similar effects on food consumption, total consumption, male labor supply, and poverty outcomes; Cunha (2014) also finds similar consumption effects of in-kind and cash programs.

The experiment, however, shows two potential important differences between cash and in-kind programs. First, Leroy et al. (2010) find, and Cunha (2014) also confirms, that the in-kind program leads to increases in both total calories consumed and in micro-nutrients, through stickiness in terms of consumption choices. Second, Cunha, De Giorgi, and Jayachandran (2019) find evidence that in-kind transfers cause price declines in remote areas, by about 5 percent. They argue that, in remote locations, in-kind rather than cash increases the real value of transfer provided by 14 percent (much larger than the 5 percent price decline), because it reduces prices on all purchases of affected goods by everyone in these locations, not just those financed by the transfer program or made by recipient households. They find no changes of prices in more developed locations.[10]

A second experiment comparing cash, in-kind food, and voucher food programs was done by Hidrobo et al. (2014) in Ecuador. They also use a randomized design to compare the impact and cost-effectiveness of the three alternatives in urban areas with well-functioning markets. They find similar effects of the three programs on both food and non-food consumption, but they find differences in food composition: relative to the in-kind program, the voucher program—which had a much wider range of products—leads to higher dietary diversity. For example, voucher households consumed more

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[10] This is consistent with Michelson et al. (2012), who argue that rural villages have difficulty responding to cash transfers stemming from less market access and less competition among suppliers, and Jiménez-Hernández and Seira (2022) who show that direct provision by government introduces competition, and hence is effective when there is local market power in the provision of goods.

vegetables, eggs, and milk and dairy than those that received the in-kind transfer. The in-kind program is also more than twice as expensive (in terms of costs per outcome achieved) than either the cash or voucher.

Third, Banerjee et al. (2021) examine an experiment in Indonesia that compared an in-kind rice program with an electronic voucher program that allowed recipient households to purchase an approximately equivalent value of rice and eggs from private providers. Importantly, the Banerjee et al. (2021) study is an at-scale experiment: 105 districts, with a combined 3.4 million beneficiary households, were included, with both programs implemented by the government bureaucracy as usual. They find a dramatic difference: e-voucher programs delivered concentrated assistance among targeted households, whereas in-kind aid was spread around much more widely. As a result, targeted households received 45 percent more assistance in voucher districts than in in-kind areas. For households in the bottom 15 percent at baseline, poverty fell by 20 percent. The results suggest an important additional dimension, namely that voucher programs may be more reliably administered in low state capacity settings, ensuring that the program on the ground looks like it was conceived in theory.

These studies, together, present a nuanced understanding of the relative costs and benefits of in-kind, voucher, and food programs. Cash remains an important benchmark, since households can choose to spend it on what they prefer the most. To the extent that policymakers believe that households are privately not optimizing their nutrition choices or otherwise prefer food programs, the evidence suggests that food vouchers can have impacts on the set of foods that households consume. In-kind programs are costlier to administer, and harder to administer faithfully, but may be useful particularly in very rural, isolated areas where supply is inelastic or non-competitive.

2.1.4: Public Works Programs

In public works programs, the government provides public employment, typically at a low wage, for those who want it. These programs were quite common in the United States during the New Deal era (e.g., the Civilian Conservation Corps and Works Progress Administration), but are also common today. For example, India's Mahatma Gandhi National Rural Employment Act (MGNREGA) provides 100 days of work at the official minimum wage for anyone in rural India who wants it—providing jobs to over 88 million people per year. These programs have the advantage that that in many cases enrollment is unrestricted and hence in theory available for anyone who wants the work; instead of targeting by excluding certain people as ineligible, they seek to target through the fact that those who have other preferable work options will choose to do that instead rather than participate in the government-run work.[11]

The fact that the government is directly intervening in the labor market has several implications beyond that of other transfer programs. First, in addition to differences in workers' preferences (i.e., how much they prefer a workfare job compared to their alternative private sector job), one also needs to consider the productivity of the work in evaluating the program, because workers are choosing to do this work

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[11] The idea that there are no restrictions is true in principle in MGNREGA as work is set up as a right, but it may not always be true in practice if projects are not readily available. More generally, public works programs may have budget constraints, in which case they may be oversubscribed. Who gets the program in this case may be a combination of self-selection plus however the program manages oversubscription; studying this is an important direction for future work.

instead of whatever else they would be doing with their time. If the work is socially productive (i.e., building public infrastructure with the same efficiency as laborers working for private contractors), this type of program can be efficient; if the work is unproductive (e.g., slowly building "bridges to nowhere"), then the loss to society also needs to be accounted for in any cost-benefit analysis. Second, there may be important spillovers through labor market effects on wages, or they may affect migration.

Several studies have examined these issues, largely in the context of MGNREGA. MGNREGA was rolled out at the district level in three waves from 2006-2008, so several papers use this strategy to identify its impact. Imbert and Papp (2015), for example, use this strategy to examine the impacts of MGNREGA on the labor market. Because MGNREGA pays the statutory minimum wage, the MGNREGA wage is above the prevailing wage in many cases. One on hand, perhaps as a result, they find substantial crowd-out of private employment. On the other hand, consistent with MGNREGA paying a higher wage, and this having overall equilibrium labor market impacts, Imbert and Papp (2015) find that private-market dry season wages increase by 4.7 percent.[12] As a result, between 22 percent and 42 percent of the total welfare gains from the program for the three poorest quintiles come from the average market wage effect, rather than direct program effects. Bertrand et al. (2021) experimentally examine related questions in the context of a public works program in urban Cote d'Ivoire, and also find substantial evidence of crowd-out.

Muralidharan, Niehaus, and Sukhtankar (2020) study the equilibrium market effects of the MGNREGA program using a different source of variation: a randomized experiment at the sub-district level that improved the program administration (biometric smartcards, which reduced leakage, reduced payment delays, and generally made the program function better). They find private sector wages increased. As a result, while the reform raised the income of low-income households by 13 percent, 90 percent of the gain came from the equilibrium effects on the private market. They find, perhaps surprisingly, that this also led to an increase in private sector employment, consistent with monopsony in local labor markets.

Similarly, Franklin et al. (2021) studies a comparable work-related program that was randomly phased in across neighborhoods in Addis Ababa, Ethiopia. The program provided an hourly wage that was about 64 percent higher than the private market, which led households to shift to public employment. As in India, the program led to an increase in private market wages that accounted for most of the increase in welfare of program beneficiaries. Moreover, Franklin et al. (2021) also experimentally show that the introduction of the work program increased the amenities in treated neighborhoods, suggesting that the investments they study were productive. On net, a common theme across these studies is that, particularly when the wage is high, the equilibrium impacts of workfare on the labor market may be larger than the direct effects of the program.

2.1.5: Poverty Traps and Lumpy Transfers

An important decision when designing a transfer program is the transfer size and frequency. Thinking about this question in the low- and middle-income context is important given that extreme poverty together with savings constraints may be more likely to create poverty traps. Specifically, economic theory suggests if people need a discrete amount of money to make an investment—say, to buy a

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[12] Berg et al. (2018) and Azam (2012) use similar identification strategies, also finding impacts on wages.

productive asset such as a sewing machine, motorbike, or livestock—and they have challenges saving, a series of small transfers may never allow them to buy the asset. But if they get a single, large, "lumpy" transfer, it may be enough to get them over the barrier and purchase the asset. This new asset in turn generates more income, so they can remain at a new, higher income than before, having escaped the "poverty trap". To the extent this is true, it suggests a role for lumpy transfers for some types of people (for example, entrepreneurs) rather than streams of payments to spur investments.

One prediction of these models is that there is a "threshold" level of capital, so that a transfer beyond this threshold can "tip" households out of the poverty trap and into a higher steady-state level of income. In an RCT in Bangladesh that provided assets to a subset of poor households, Balboni et al. (2022) shows the existence of poverty traps: not only does the transfer temporarily increase incomes in the short run, but for some, it can tip them into a substantially higher steady state.[13]

More generally, a number of studies have examined big-push "graduation" programs. Big-push programs usually consist of a lumpy productive asset—in the form of livestock—bundled with skills training, savings, health education, coaching, and cash payments for a period of time. The goal is to alleviate a household's capital constraints, as well as their skills constraints, to "push" them out of poverty. These types of programs were pioneered by BRAC in Bangladesh and are now present in over 40 countries and make transfers to over 3 million poor households (Banerjee, Duflo, and Sharma 2021). Many of these programs explicitly target women or households that include at least one female member. Several studies have found substantial results, including Bandiera et al. (2017) in Bangladesh; Banerjee et al. (2015) in Ethiopia, Ghana, India, Pakistan, and Peru; and Bedoya et al. (2019) in Afghanistan. In the short run (3- to 4-year follow-up, or 1 to 2 years after the program ends), there is an improvement in consumption, food security, asset holding, and savings. In the medium run (7-year follow-up and 5 years after the program ends), both individual and household outcomes remain higher (Banerjee et al. 2016; Bandiera et al. 2017). In the long run (10-year follow up), there appears to be no additional growth, but still persistent effects for those who received the program (Banerjee, Duflo, and Sharma 2021). While the programs show substantial long-run effects, they are also expensive. Thus, whether the returns are large enough justify the costs depends on the discount rate assumed. In India and Bangladesh, the program costs are low (i.e., the cost of the asset is not large, program implementation costs are not high), and the impacts are large, so that the net effect is positive for most plausible discount rates, but this may not be true in the other countries (i.e., if larger assets are needed to start a business, or program staff costs are high), where the discount rate matters.

Two questions that come from these programs are: (1) can the government implement these programs? and (2) to make the programs cheaper and more cost effective, can you scale down some components of the program? Recent experimental evidence from Botea et al. (2021) in Zambia answers yes, to both questions. First, they show that governments can run the programs: they show increases in consumption, assets, and mental health as a result of the full government-run package. But, importantly, they show similar results between a complete graduation treatment and the group that received the asset (and a savings tool) but no training.

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[13] Lybbert et al. (2004), Carter and Lybbert (2012), and Banerjee, et al. (2019) also provide evidence of the existence of poverty traps.

In Ghana, however, Banerjee et al. (2022) find that neither just giving people assets nor just the savings tool have a positive long-run impact, while the whole package does. The Zambia and Ghana papers' results are consistent if both the asset and the savings tool are important for the success of the program but the training is not. While the Zambia results suggest that perhaps some of training can be stripped off these graduation programs, reducing the cost, the Ghana results suggest that further testing may be useful in unbundling these programs.

Blattman, Fiala, and Martinez (2014; 2020) study a different type of lump-sum transfer program—upon submitting a business plan, young adults form groups in Uganda and receive a one-time grant. The authors find substantial increases in investment, work, and income four years later. However, in the nine year long-run follow up (Blattman, Fiala, and Martinez 2020) they see the gains dissipate, mostly due to the fact that the control group catches up with them. Although both groups converge in employment, earnings, and consumption levels, those who get the grants have a lasting impact on durable asset stocks and skilled work.

These evaluations suggest that lumpy transfers can have long-run effects. But is it the lumpiness per se that matters (as suggested by economic theory), or the other complementary investments that go along with it? To test this, Haushofer and Shapiro (2016; 2018) experimentally compare the effects of a lump sum cash transfer ($404 in PPP terms) to an equivalent cash payment in nine monthly installments. At nine months, the monthly transfers increased food security, while lump-sum transfers increased assets. Three years after the transfers, there are no differences between the lumpy and monthly transfer groups. It is important to note that the monthly payments were only spread over nine months and thus may understate differences when compared to a longer-run transfer program. Understanding this question, and whether even larger lump sums could matter, is an important direction for future work.

2.2: SOCIAL ASSISTANCE PROGRAMS TO ADDRESS LIFE-CYCLE CHALLENGES

In this section, we discuss social assistance programs that are specifically designed for particular parts of the **life-cycle**, addressing issues specific to different lifecycle stages as well as providing income support. We discuss a variety of these programs, in rough chronological order—programs that provide assistance to children (Section 2.2.1), pregnant mothers and new parents (Section 2.2.2), the elderly (Section 2.2.3 on pensions), as well as social care for the elderly (Section 2.2.4).

Before we begin discussing each of these issues, we highlight two cross-cutting themes: the question of who within a given category should be eligible for programs, and how these program designs interact with stigma. We return to these themes in Section 4 below.

Cross-cutting eligibility issues. It is important to note that these programs can have categorical eligibility—i.e., a program can be structured such that every child or every new mother is eligible—or there can be income or other targeting criteria to more narrowly focus assistance on those with fewer resources. Even within categorical programs with universal eligibility, one may also want to explore and test mechanisms with which to redistribute to ensure that they are not regressive. For example, many countries (as we discuss below) have a contributory pension program for the elderly. But, if poor households cannot contribute as much, they may not receive a sufficient pension to meet even minimum living needs. Thus, one may want to consider including redistribution goals by topping up benefits further for poor

households even within a categorical program. For example, the Social Security system in the U.S. and Australia does this to some degree in the benefits formula (though it is complicated by the fact that the poor tend not to live as long, so do not get as much from the annuity perspective of Social Security). When and how to do this for low- and middle-income counties is thus an important research area.

Interaction with stigma issues. A second common theme is that categorical programs may help reduce stigma compared to poverty-targeted programs (Sen 1995). For example, if stigma is a real concern, and one targeted school meals to poor children, other children could taunt them and potentially undermine their mental health and confidence. If the school meals program is targeted to all children, regardless of income, it may alleviate the stigma of receiving this kind of help from the government. Sluchynsky (2009) argues that it is therefore very important to understand the cultural and political landscape, and how it interacts with perceptions of stigma, when designing these kinds of programs. Understanding the design of programs and how one determines and communicates the categories may be important in reducing stigma and improving take-up and access; this is therefore a central research area to be funded under the Initiative.

2.2.1: Child Benefits

One very important set of programs are those that provide support to families with children. These programs have a variety of aims, such as improving current economic conditions, improving educational outcomes, improving child mental health and well-being, and reducing intergenerational poverty.

Child benefit programs often take the form of cash transfer or in-kind transfer programs (food, clothing, waived school fees) that we discussed earlier in Section 2.1. These programs can have positive effects on children. For example, there is evidence that CCT programs—one common child benefits program which has been extensively studied—lead to an increase in height and a reduction in stunting (Gertler 2004; Attanasio et al. 2005; Kandpal et al. 2016); increases in elementary school enrollment (Schultz 2004; Todd and Winters 2011; Baird et al. 2014); cognitive outcomes for children (Macours, Schady, and Vakis 2012); and reductions in child labor (Barrera-Osorio et al. 2011; Schady and Araujo 2006; Benedetti, Ibarrarán, and McEwan 2016). As we discus in Section 2.1.2 there is also growing evidence that these programs have long-run effects on the educational outcomes, economic outcomes, and opportunities of children. We have comparatively less research on unconditional cash support programs aimed at children; this is an important area for future research.

There are also many decisions involved in designing these programs. First, one key design decision is how long children should stay on the program—should the program cover the period when the mother is pregnant, the first year or two of life, or should it persist through later years? Emerging evidence suggests that programs that last longer could move different outcome indicators. For example, Cahyadi et al. (2020) study the medium-run impact of a CCT program six years after parents were enrolled. They show that large stunting effects at the 6-year mark, but not at the 2-year mark. This suggests that if the government is targeting outcomes that require cumulative investments (e.g., stunting), programs need to last more years. However, more research on how the length of time one is enrolled in a child benefit program affects outcomes is an important area of future research.

A second design decision is whether to condition benefit receipt on behaviors that could improve child outcomes (e.g., requiring doctor's appointments, vaccinations, attendance at school). As we discuss more

in depth in Section 2.1.2 on conditional cash transfer programs, there are tradeoffs. There is emerging evidence that certain conditions matter and improve outcomes, particularly for those who are more vulnerable (for example, see Akresh, de Walque, and Kazianga (2013), Macours, Schady, and Vakis (2012)). On the other hand, the conditions could be costly to administer, could potentially have complex ethical issues, and could be harder for poorer or more vulnerable families to achieve, resulting in a loss of benefits for the very people that one is most trying to reach (see, for example, see Baird, McIntosh, and Özler (2011)). It remains an open research question that if one wants to impose conditions, what is the degree to which these conditions should be tied to large incentives or small nudges, and what are the right conditions to impose? Should one impose fewer, softer conditions, or are the gains from imposing more strenuous conditions on child outcomes large enough? Would alternative types of program designs—labelled transfers, nudges on transfer use, complementary social worker visits to help families make budgeting decisions, etc.—achieve the same goals as conditions in more cost-effective ways?

A third design decision is how best to deliver child benefits. For example, if one wants to increase nutrition and reduce food insecurity for children, is it best to provide in-kind benefits to parents directly or provide food through school meals programs? Future research that aims to address these kinds of questions is important.

2.2.2: Parental Benefits
Parental benefits are designed to help insure families against income loss associated with pregnancy and the early period of a child's life, when parents reduce labor supply to care for the newborn child, as well as to provide employment protection to protect against being fired or demoted/not promoted during this period of life. Parental benefits are also designed to allow parents the time and scope to make investments in children in early life, to improve health, nutrition, and educational investments in a child.

One common type of parental benefit provides a mechanism in which workers can take **time off** around pregnancy and a child's birth, by mandating allowed paid time off and/or subsidizing firms for the worker's time off. A second parental benefit takes the form of **subsidizing child-care** to allow parents to re-enter or stay in the workforce. We discuss both below.

While virtually all countries, except seven, have some sort of maternity leave policy on the books (World Bank 2018b), the benefit levels in low- and middle-income countries are often very low for mothers, paternity leave is often nonexistent, and many of those in the large informal sector do not necessarily have access to any of these formal benefits.

In contrast to the extensive literature on these policies in high-income countries, there is relatively little micro-empirical research on paid maternity or paternity leave in low- and middle-income countries.[14] One recent exception is Vu and Glewwe (2022), which shows that in Vietnam, a more generous maternity leave shifted more women who are potentially eligible away from informal work to formal work, and in particular public sector jobs where they can access the benefits. The lack of research in this area—both on women's work and parental leave on child outcomes—may be, in part, due to more limited enforcement of these types of policies, particularly in lower-income countries where many workers are in

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[14] For cross-country difference-in-difference analysis, see Fallon, Mazar, and Swiss (2017).

the informal sector. More research needs to be done to understand both how pregnancy affects consumption smoothing around the time of birth, the career trajectory of women, and impacts on children; and how to design effective leave policies given the presence of these informal labor markets.

In contrast, free or subsidized child-care has become increasingly common in many countries, particularly middle-income countries, and a number of studies have tried to examine impacts. For example, Calderón (2014) in Mexico shows that access to childcare increased the likelihood of working for women and reduced the likelihood of earning zero income. Similarly, Halim, Johnson, and Perova (2022) examined public pre-school expansions on women's work in Indonesia, and find positive effects on women's work, but it is driven by increases in unpaid family work. They argue that limited day care hours made it unlikely that women could find jobs outside.

Recent experimental studies (Barros et al. 2011; Martínez and Perticará 2017; Clark et al. 2019) have also studied access to childcare in Brazil, Chile, and Kenya, respectively, with all three finding positive impacts of childcare access on women's work. In fact, Bjorvatn et al. (2022) find that the income gains from childcare lead to at least as large a gain as an equivalent cash transfer, while also improving child development. Interestingly, they find that the earnings increase comes from higher productivity, largely in self-employment, rather than longer hours.

Gaps remain in the literature on the care economy, which is predominantly made up of women. In the open questions part of this section, we propose directions for future research on this issue, drawing particular attention to how social protection may interact with women's provision of care.

2.2.3: Income Support for the Elderly

Old age is often associated with poverty. Health typically falters as people age, so the elderly are much less able to work; this is particularly true for those whose work often entails substantial physical labor. Saving (or saving enough) may be difficult, particularly for those outside the formal sector, which include many of the world's poor. And even for those who do save, ageing entails risk: in particular, the risk that one will outlive one's savings. This is particularly relevant to elderly women, who on average live longer than men, but are less likely to be covered by contributory pensions (Camilletti 2020). Traditionally, these challenges were borne by family members (e.g., children caring for parents), but these networks may be incomplete, and may break down with urbanization.

Accordingly, many governments around the world have public pension programs, with a mix of systems (Online Appendix Table 2 of our companion paper shows that 181 have contributory pension systems, 102 have non-contributory systems, and 96 have both systems in place). These programs typically have three, related goals: a) to help individuals to save for their old-age, either individually or through a taxes-and-transfer scheme, b) to provide annuities that insure against the risk of living too long as compared to one's savings, and c) to provide some amount of redistribution so that even those with low incomes are not too poor in their old age.

As seen in Figure 3, governments often develop these systems as incomes rise, perhaps coincident with the rise of the more modern economies and increased life expectancies. That said, Figure 3 also reveals that even conditional on real GDP per capita, these programs are becoming more prominent in middle-income and low-income countries.

FIGURE 3: PERCENTAGE OF COUNTRIES THAT ENACTED NON-CONTRIBUTORY PENSION SYSTEMS BY INCOME CLASSIFICATION, OVER TIME
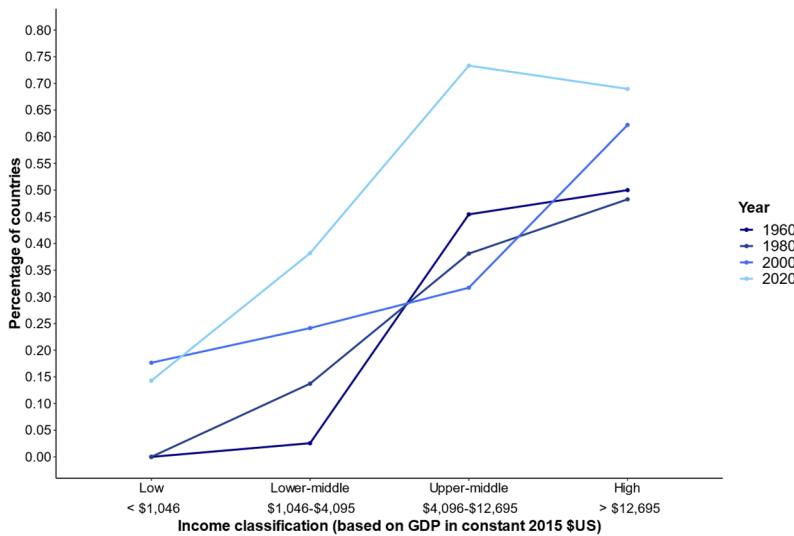
Notes: This figure plots the percentage of countries that enacted non-contributory pension systems by each year considered (1960, 1980, 2000 and 2020)against income classification, following the World Bank's 2021 income classification thresholds, as measured by GDP per capita (in constant 2015 $US).. *Source:* GDP per capita data is from the World Bank (2021a). See Appendix Table 3 for the exact figures plotted in this chart.

A substantial literature has studied the effects of pension transfers on recipient households, primarily from the perspective of labor supply and consumption choices. There is less of a literature on the *design* of these programs. We review these each in turn.

Effects on consumption, well-being, and mental health. One strain of research is focused on understanding the impact of pensions on the well-being of beneficiaries. For example, examining the roll-out of China's New Rural Pension Scheme, Huang and Zhang (2021) find that the program increased beneficiary incomes, while also reducing mortality. Schemes that can promote greater dignity and autonomy for the elderly may reduce depression and improve mental health and decision making of older persons within households (Merttens et al. 2016). Galiani, Gertler, and Bando (2016) evaluate the impact of Mexico's Adultos Mayores Program, a non-contributory cash transfer provided to the elderly, and find increases in consumption and reductions in depression. Similarly, Bando, Galiani, and Gertler (2020) and Bando, Galiani, and Gertler (2021) study the impact of non-contributory old-age pensions in Peru and Paraguay, and find improvements in subjective well-being and consumption among beneficiaries.

Consumption effects need not be limited to pensioners themselves, as consumption resources will be shared within the household. Duflo (2003), for example, shows that pensions received by older women in South Africa improve the anthropometrics of female children in the household.[15] Edmonds (2006), studying the same program, finds increases in schooling and declines in child labor for boys, as well as declines in domestic labor for girls, when men in the household become eligible. de Carvalho Filho

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[15] Case and Deaton (1998) provide a rich description of the South Africa's non-contributory pension program.

(2012) studies an unexpected pension reform in Brazil, and also shows that pension eligibility leads to an increase in school enrollment for girls. Combined, these papers suggest important inter-generational spillovers within the household from pension receipt.

This set of papers focuses on what happens when the incomes start flowing. Bau (2021), however, looks at ex-ante child investments. She argues, using data from both Indonesia and Ghana, that the introductions of public pensions may make parents less likely to invest in the education of children, since they no longer need to rely on their children for their old-age support. On the other hand, Jensen and Miller (2017) suggest that parents may under-invest in education in order to reduce the chance that a child migrates away and is unable to provide old-age support. That argument implies that pensions could lead to increased education. We regard these interactions as an important area for future study.

Labor supply effects. A second set of papers tries to understand the impact of pension receipt on labor supply and/or retirement decisions. To the extent that these are income effects (as opposed to price effects induced by quirks in the benefit formula), labor supply reductions associated with pension receipt are likely to be welfare-improving, as people appear to have been working longer than they otherwise would have in the absence of a pension.

Several papers find that pensions reduce labor supply. de Carvalho Filho (2008) studies the reform to the Brazilian Social Security System discussed above and shows that these reforms reduced the retirement age of rural men. This is an example of a pure income effect, as the transfer was not means- or retirement-tested. Galiani, Gertler, and Bando's (2016) study of Mexico's Adultos Mayores Program also finds that paid work declines, but that those who stop doing paid work switch to family businesses. Huang and Zhang (2021)'s study in China shows that labor supply decreased for rural people older than 60 (i.e., the eligible), particularly for farm-work.[16]

Program design. There is comparatively less work, however, on program design questions in middle-income countries, but we highlight several papers that suggest some ways in which middle-income contexts may be somewhat different from higher-income contexts.

One important question is about contributions: do firms actually report the correct social security contributions, and pay tax accordingly, or do they under-report? Kumler, Verhoogen, and Frías (2020) show that the design of the system may matter: they show that when the pension system switched from one in which pensions became largely a function of contributions, payments for younger workers (who had more of an incentive to ensure their wages were reported accurately) increased.

A second question is about investment choices. Some contributory systems allow individuals choice in how their assets are invested. Hastings, Hortaçsu, and Syverson (2017) document very little attention to fees among plan participants in Mexico, so that fees charged were extremely high. Combined, these fees meant that a 100-peso deposit that earned a 5 percent annual return would be worth only 95.4 pesos

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[16] The income effects from a pension could also affect the labor supply decisions of other members. Studying South Africa's pension program Bertrand, Mullainathan, and Miller (2003) find a sharp drop in the working hours of prime age men in the household, particularly when the pensioner is a women. Posel, Fairburn, and Lund (2006) argue that the pensions also drive migration among the prime age workers. Including the migrants in the analysis, Ardington, Case, and Hosegood (2009) find small positive increases in work among prime-age adults.

after five years. They document that a key constraint is that workers are not particularly price sensitive, and so firms compete on other non-price attributes rather than price. This suggests that it can be challenging to structure market incentives so that competition can lead to low prices in these markets, and care must be paid in structuring private management of individual account systems.

Third, there are questions about the interactions of program design with savings incentives. An individual contributory system encourages private savings but is less redistributive than a funded system. A country may therefore want to add a substantial component to cover the informal systems, i.e., a minimum pension floor, but the challenge is to do this without discouraging savings. Attanasio, Meghir, and Otero (2011), for example, document these tradeoffs in the context of Chile's 2008 reform which introduced a minimum pension floor.

Fourth, there are questions of take-up, and many pension programs suffer from take-up challenges (described below in Section 4.2). Gupta (2017) experimentally shows how the administrative challenges hinder take-up of a widow's pension program in India, and that improving this process can increase the provision of benefits.

These challenges, however, are only the tip of the iceberg, and we suggest there is substantially more to be done in this area. Specific questions are listed in Section 2.3 below.

2.2.4: Social Care for the Elderly

As low- and middle-income countries age, and urbanization leads to fewer multi-generational households, an important policy area is the impact of social care programs for the elderly. For example, with many elderly people living alone, there is potentially an increased risk of depression, an increased risk of falling, or lapses in nutrition or health care receipt. Social care—within one's home or in an assisted facility—may help alleviate some of these challenges, but could also bring new ones (e.g., loss of agency, increased spread of communicable disease within facilities, etc.).

In terms of studies, the literature is underdeveloped relative to its importance. In high-income countries, Resnick et al. (2021) experimentally study the impact of function-focused care at assisted living facilities in the United States. This study finds that care is associated with a lower prevalence of falling among the elderly recipients.

There are limited studies on social care in low- and middle-income countries. One qualitative study of Brazil's Programa Maior Cuidado (Older Adult Care Program) finds that participants and stakeholders have a strongly favorable opinion of the program (Aredes et al. 2021). However, more research is needed to determine the impact of this program on key outcomes for the elderly (e.g., economic, physical health, mental health), and such similar programs.

2.3: OPEN QUESTIONS

The literature reviewed above has provided some very clear insights. For example, cash transfers—at least of the type and scope in many countries—do not reduce work. There is also extensive evidence on conditional cash transfers.

However, there are many debates and research questions remaining, as we have discussed above, and many key areas needed for research. We outline some important research questions below.[17] Note that this list is suggestive, and other topics beyond the list (justified as providing new insights in policy relevant questions that we have missed) would also be considered.

- *Transfer design and impacts:*

    - How does society value redistribution in low and middle-income countries?

    - What are the tradeoffs between tiered-based programs, with different amounts of benefits going to different income levels, compared with binary models of assistance? Are these feasible and effective in low- and middle-income settings?

    - What are the general equilibrium effects of unconditional cash transfer programs?[†]

    - While there has been some research on transfer size and frequency, this is still quite limited. What are the right transfer size, frequency, timing, and duration to reduce food insecurity, improve education, and enhance livelihoods?[††]

    - How can social assistance promote social cohesion/the social contract and connect low-income households to state institutions?[††]

    - What are impacts of social assistance on small businesses creation and expansion? Does it vary by type of transfer program (e.g., cash, in-kind)? Does social protection allow entrepreneurs to take more risks knowing that they will have some level of protection if their businesses are not successful?[††]

    - Can you add conditions (e.g., health and education of children) to other types of programs, such as public works? Would this be successful and improve outcomes?

    - What are the additional costs and complexities of imposing conditions in transfer programs, and how do they trade-off against any incremental benefits of enforcing them?

- *Public works programs:*

    - How can public works programs be best designed given that many of these programs have caps on the number of beneficiaries?[†]

    - These programs are currently being redesigned for urban settings. What needs to change in the urban settings? Are there ways to ease transitions to work for youth through these programs (e.g., certain types of experiences or internships) to ease access to employment?[†]

    - Do these programs impact migration, either domestically or internationally?[†]

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[17] Funding for research under the J-PAL-EPoD Social Protection Initiative (SPI) will come from multiple donors, including but not limited to the Australian Government Department for Foreign Affairs and Trade (DFAT) and the Livelihood Impact Fund. DFAT has designated certain research questions as high priority (marked as ††) and DFAT-eligible (†). Questions that are not marked with a cross are still eligible for SPI funding but only through other donors. SPI is open to other important research questions under the broad themes identified in this paper.

- Are there differential impacts of public works programs between men and women, given the wage labor differentials in the rural labor market? How does this affect the private labor market?[†]

- *Graduation programs* have been shown in several settings to be important in improving long-run livelihoods. How can they be improved further?[†]

  - How can graduation programs best address the needs, risks, and vulnerabilities that different people face?[†]

  - How can we best predict which types of people benefit the most from graduation programs? What other programs need to be in place alongside graduation programs for those for whom they are not the best option?

  - Can graduation programs be implemented at-scale by governments? What factors support the sustainability of graduation programs?[†]

  - What would graduation programs look like in urban areas?

  - In order to make graduation programs less expensive and easier to implement in settings with weaker institutions, can certain elements of the program be scaled down further? How effective are individual components of the graduation approach?[†]

  - What role can women-led, disability-led organizations and other civil society actors play in graduation programs compared to government or other actors?[†]

  - How do graduation programs support beneficiary well-being? Are households better off, even when one takes the increased labor they put in into account? How do they affect intangible aspects like resilience, confidence, and sense of position in society? How does this link to broader impacts?[†]

- *Comparing program types:* Many evaluations often evaluate one program. However, what is often important for policy is to compare program types.

  - How do transfers compare against policies like wage subsidies or public works programs?

  - How does the impact of a graduation program compare to the impact of long-lasting, steady cash transfer programs?

  - How does the long-run impact of a CCT compare to that of a UCT?

- *Beneficiary preferences:*

  - Often programs are designed with a top-down approach and are not necessarily inclusive of different people's needs. How can one better include beneficiary preferences into the design of programs, and even potentially provide more choices on programs for beneficiaries so that different programs can better fit different people's needs?[††]

- *Customization:*

  - Different programs may be appropriate for different types of people. For example, conditional cash transfers may work well if households are near the margin of take up

for the incentivized behavior; for households far from the threshold, imposing conditions that they cannot comply with could make them worse off by denying them program access (Baird, McIntosh, and Özler 2011). Analogously, some households near the poverty trap threshold can experience transformative effects from a big-push program (Balboni et al. 2022), but for households further from the threshold, or who just want a steady job rather than a small business, or do not know how to manage an animal or other asset well, other programs may work better. Figuring out how to assign the right programs to the right people is an important area of work.

- *Promoting behavioral change:*
  - When should policymakers use "labeled" transfers, rather than imposing conditions? How should the labels be structured, and for how long do the impacts of labels persist?

  - How can social assistance promote behavior change beyond conditions? How can innovative solutions for behavior change nudge beneficiaries toward certain outcomes? Are these "soft nudges" effective, and if so, which types of nudges are most effective?[††]

  - What are the impacts of "cash-plus" approaches and wrap-around services that reduce friction for people to access other services? Which "cash plus" approaches and wrap-around services can support improved outcomes for women, adolescents, and people with disability? How long do these cash plus approaches need to be implemented to achieve improved/desired outcomes?[††]

  - How can social protection programs change social norms? What impact does this have on access to and benefits from social protection?[††]

- *Interaction of social* assistance *with labor markets:* Programs that provide low-wage work, such as MGNREGA in India, are one approach that links work to social protection goals. But one can think more broadly about how labor market interventions are part of the social protection system, such as a minimum wage, job training, job matching programs, etc. Would these impacts differ in different contexts (i.e., areas with high versus low unemployment, high versus low informality, etc.)? While a full review of these types of labor market policies is outside the scope of this review, understanding these issues in low- and middle-income countries is an important area for research.
  - There are often barriers to informal workers' access to social assistance programs. What exactly are these barriers, and how can they be overcome to expand access to social assistance?[††]

  - Which social protection programs (and combinations of programs) support women's participation in the workforce and income-earning opportunities?[††]

- *Parental benefits*
  - How should parental benefits be paid and who should pay for them?

  - Should parental benefits be universal or dependent on labor status, especially in countries where the level of informal firms may make it hard to mandate benefits?[††]

- How should countries think about provision of childcare as larger extended family networks, which often provided this type of childcare, break down?[††]

- What is the provision of parental leave for fathers? How to encourage father's take up of parental leave? Does this vary by cultural context?[††]

- What are the tradeoffs between parental benefits for mothers vs. fathers? How should we design parental benefits given the presence of non-nuclear or non-Western family structures?

- More broadly, what are the fertility impacts of changing parental support, particularly as many of these countries are undergoing demographic transitions with rapidly falling fertility rates?

- *Pensions and annuities*

  - How does the presence of the large informal sector interact with the decision of whether pension systems should be contributory or non-contributory?[††]

  - How do contributory vs. non-contributory pensions affect savings and job mobility?[††]

  - As these systems grow over time, what will the implications be for the host of other economic decisions—marriage, investments in children, savings—that are related to how people plan for their old age?[††]

  - What are the impacts of pension programs on retirement decisions and on formality?[††]

  - How should we think about gender differences given longer life expectancy of women? What about women's different labor market experiences (e.g., lower incomes, unpaid work in the care economy, informal work, etc.)? What do we know about what works for providing income security to women in old age? [††]

  - How should pension programs be designed to provide insurance to spouses?[††]

  - What is the poverty reduction impact of social pensions, including on the broader household over time? [††]

- *Social care*

  - The potential impact of social care has not yet been empirically studied, despite a growing number of low- and middle-income countries expressing interest in developing such policies for the elderly (Asian Development Bank 2022). How should social care systems be designed in these contexts? How should we think about the tradeoffs of home-based vs. facility-based case?

  - What is the role of a government-provided aged care system in contexts with strong cultural norms around care for parents? How can social care programs be extended to those with disabilities?

  - The impact of social care on women remains a gap in the literature (Perera et al. 2022). One important type of social care for women that has been understudied is pre- and

post-natal services for women. How do these services impact women's health and well-being? Do they help with consumption smoothing around the time of birth?

3. SOCIAL INSURANCE

Poverty is not a static concept: someone may belong to the middle class one day, but a bad health shock leading to a loss of income or large hospital bill, or the loss of a job, or a single bad harvest may suddenly create real challenges and push someone into poverty. In addition to social assistance programs, governments worldwide often also step in directly to provide social insurance programs, through both contributory and non-contributory mechanisms, to help people manage these kinds of risks, providing assistance when people are in need. They do so in part because private insurance markets are often incomplete, so even if individuals wanted to insure against these risks on the private market, doing so is often difficult or expensive. Moreover, for whatever reason, even at fair prices, insurance demand can be quite limited, particularly in low- and middle-income countries, so people may end up with many risks uninsured that ex-post can cause them serious challenges.

These problems, of course, are not limited to low- and middle-income countries, but they end up in many ways more severe in them, as for many, life in low- and middle-income countries is particularly risky—for example, 78 percent of poor people reside in rural areas and mostly subsist on agriculture (World Bank 2014), so they face much more income risk than employees. And there is, on net, much less insurance against these shocks, so households end up taking much more severe actions to smooth shocks (see, for example, Chetty and Looney 2007).

In this section, we review the current state of knowledge on social insurance schemes designed to address two key kinds of shocks in low- and middle-income countries. In Section 3.1, we examine those that insure against *income* shocks, e.g., unemployment insurance and insurance against agriculture loss. In Section 3.2, we discuss those that help cushion *expenditure* shocks, e.g., health insurance and property insurance, as they may require different types of programs. We then discuss interactions with existing informal insurance in Section 3.3.

Note that the focus in this section is on programs that are explicitly designed to address risks. But risk interacts with social protection systems in other ways. For example, social assistance programs, by providing support to those who fall into poverty because they are hit with a shock, also help with risk. We explore the inter-relationships across these types of programs, and how they can work together in an integrated social protection system, in Section 5 below.

3.1: INSURANCE AGAINST INCOME LOSS

This section covers risks of income loss; Section 3.2 below covers expenditure risks. Before we discuss various programs (both on income loss but also expenditure loss), it is worth noting that we are reviewing the available evidence on the typical programs that countries implement, and not advocating one particular policy or program over another. For example, some programs may be more appropriate to middle-income countries than low-income countries given context and institutions; others may be more may be more appropriate to those with large agricultural sectors than those with large and growing urban sectors.

3.1.1: Insurance against Involuntary Job Loss

Unemployment insurance (UI) is designed to help people smooth consumption between jobs. However, a key challenge is that unemployment benefits typically continue until the worker resumes work. There is an extensive literature on the degree to which this conditioning of benefits on future employment discourages job search in high-income countries, focusing on (1) the tradeoffs between the welfare gains from the insurance component of these programs against these potential disincentive effects, and whether the different policy design choices made within these programs (i.e., the level and duration of benefits) can improve welfare, and (2) whether the benefits allow for better job matching (e.g., Chetty 2006; Nekoei and Weber 2017; Farooq, Kugler, and Muratori 2020). Examples of papers estimating these tradeoffs in low- and middle-income countries include Cunningham (2000), van Ours and Vodopivec (2008), Huneeus, Leiva, and Micco (2012), and Gonzalez-Rozada and Ruffo (2022).[18]

In many low- and middle-income countries, these same policy questions exist, but it is further complicated by the large informal sector, where the government cannot monitor job entry and exit. This has two important implications. First, the government cannot provide benefits that start conditional on unemployment for those in the informal sector, and so informal workers may not actually be covered by UI. Second, the government also has challenges conditioning benefits on re-employment (since it only observes formal employment), and thus workers receiving UI could choose to seek employment in the informal sector in order to continue receiving their benefits. There is therefore also a worry that these kinds of programs may also disincentivize formalization, which has consequences for productivity, taxation, workplace safety, and so on.

Gerard and Gonzaga (2021) examine the relationship between informality and unemployment insurance in Brazil. They find, perhaps counterintuitively, that the presence of a large informal sector *reduces* the efficiency consequences of moral hazard in UI, and indeed, they estimate that the efficiency costs of UI are 5 times lower in Brazil than in the United States. This is because the presence of the informal sector allows workers to keep working (albeit informally) while retaining UI benefits, so while workers do lose formal protections from getting an informal job, this reduces the overall efficiency consequences of the UI tax on re-employment. Of course, this comes at a cost, because informal jobs have lower earnings than formal jobs, a finding echoed in Liepmann and Pignatti (2021)'s study in Mauritius. These papers suggest that further understanding optimal UI design in the presence of a large informal sector is important for future research.

Alternatives to Unemployment Insurance
Given these challenges, one often observes alternative policies to UI to help to insure workers against job loss. A common policy is **mandated severance pay**; that is, a lump-sum payment upon termination of a labor relationship, when termination is initiated by the firm. This payment is not conditioned on future employment, and thus does not distort future employment decisions.

Severance programs are not without challenges. First, someone needs to adjudicate that the worker was, indeed, working, and was terminated. If firms are supposed to pay directly, the government needs to

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[18] A number of recent papers also examine the spillover effects of unemployment insurance on domestic violence (Bhalotra et al. 2021) and crime (Britto, Pinotti, and Sampaio forthcoming).

ensure that they do; if the government collects taxes and pays severance, it needs to collect the taxes to do so. Weak institutions may exacerbate the enforcement challenges. For example, Sadka, Seira, and Woodruff (2018) examine this in the context of Mexico, where despite a strong severance policy on the books, many workers do not receive their full entitlement, and delays and misinformation abound in the court system. They show improving institutional quality could help: providing information about likely court outcomes substantially shortens settlement times, improving the food security of workers.

Severance payments have other challenges: the need to pay large severance payments in the event of a termination may serve as a disincentive for firms to hire in the first place, and a single lump-sum means that the worker bears the risk of being unemployed longer than average. Moreover, studying data from São Paulo, Brazil, Gerard, Naritomi, and Silva (2021) show that workers appear to over-spend from the lump-sum severance payment relative to their optimal consumption profile. They suggest that a stream of payments (which could, of course, also be unconditional) may provide better consumption smoothing than a lump-sum; research on these policies could be an important future direction.

A different alternative (first proposed, to our knowledge, by Feldstein and Altman 1998) is to create **unemployment savings accounts**, where workers have an individual account that they can access in case of job loss. The accounts can be funded through mandatory contributions by workers and/or firms. The idea is that individual accounts help align incentives and reduce the scope for moral hazard. However, they do not have the risk pooling features of traditional insurance, although, in cases where the individual account does not have any money, or has too little, the government could supplement the funds, guaranteeing a minimum. Countries such as Colombia, Chile, Indonesia, and Mexico have implemented forms of this type of system. Kugler (2005) and Nagler (2013) examine the impacts of the shift from severance to these types of linked accounts in Colombia and Chile, respectively, on wages and job duration.

In short, the challenges of the large informal sector mean that the design of insurance programs for unemployment in low- and middle-income countries may need to be fundamentally different than those in high-income ones. It also suggests avenues for future research, particularly on policies that are not conditioned on re-employment (e.g., time-limited benefits, individual unemployment-triggered savings accounts, severance, lump-sum unemployment insurance paid by the government). Moreover, given the information constraints, countries are also designing self-targeting techniques that condition benefits on costly (but potentially productive) activities—e.g., Indonesia requires job training to receive benefits, many countries are designing public works programs. Understanding their impacts on both insurance, and ultimately labor market activities, is important.

3.1.2: Insurance against Disability and Death

Disability insurance is designed to help insure workers against accidents or illnesses that may either temporarily or permanently remove them from the labor market. However, similar to UI, the large informal sector hinders governments from providing universal disability coverage or workplace accident insurance through employers.

Therefore, one often observes alternative policies to provide financial assistance to people with disability. This is important because of the additional costs associated with living with a disability (for example, on

health and transportation).[19] For example, many cash transfer programs, such as Argentina's Programa de Ciudadanía Porteña, Chile's Subsidio Unico Familiar, Indonesia's Program Keluarga Harapa, and Tanzania's Productive Social Safety Net give additional weight to having a household member with a disability in the eligibility criteria. Covering disability only through general anti-poverty programs, however, has two challenges: (1) this only provides insurance for those near the threshold of poverty (and not the middle class) and (2) if targeting is done infrequently, the sign-up period may not align with when people need assistance.

Another option, instead, is to provide programs that directly provide assistance to people with disability. We suggest that providing more evidence on the design and effectiveness of these programs is an important area for additional research.

A related issue is **workplace accident insurance**. This is often separate from disability insurance, in part because of an attempt to link the risks back to the employers. While some middle-income countries are trying to provide this type of insurance at least to those workers in the formal sector, this remains an area that is comparatively underexplored in the economics literature. Understanding the demand for, the impacts of (on consumption smoothing, but also the types of risks people take), and the design features to provide better quality workplace accident insurance is incredibly important in understanding how to provide greater workplace protections to workers.

Finally, we touch briefly on **life insurance**. The death of a primary income earner is a substantial income loss, and indeed, throughout many countries, widowhood is often closely associated with poverty. Formal life insurance markets tend to be much smaller (as a share of GDP) in low- and middle-income countries compared to high-income countries, suggesting that indeed much more of this risk remains uninsured ("Life Insurance Volume - Country Rankings" 2019). Moreover, the relative paucity of formal pensions—which in high-income countries, often come with survivors' benefits that help insure spouses against the income loss of their primary earner—further leaves more of this risk uninsured. As with disability, widow status is often considered in proxy-means test (PMT) formulas, but similarly, this only provides insurance to the extent that households are near the poverty threshold. Understanding how to better insure the spouses and children of the deceased is an important area for additional research.

3.1.3: Insurance against Agricultural Loss

Agriculture plays a large role in low- and middle-income countries—in fact, agriculture is the main source of income and employment for about 60 percent of the population who live in low-income countries (ILOSTAT 2019). And agriculture is risky: crops can fail, and prices are volatile, so those engaged in agriculture as their primary occupation face much more income risk than those who work in manufacturing or other sectors, and these risks are not covered by traditional unemployment insurance schemes. As we discuss below, as extreme weather events become more common due to climate change, insurance against agricultural loss becomes even more important.

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[19] Mitra et al. (2017) review the evidence on disability costs in high and low- and middle-income countries. They find significant costs associated with living with a disability, and that these costs increase with the severity of the disability and decline with household size. Costs fluctuate across the life cycle, with elderly people incurring the highest costs.

For these reasons, there has been a big push among governments to develop programs that help farmers manage agricultural risks. Some of this involves providing technologies that help ensure more stable yield and prevent crop loss, be it investments in irrigation or weather resistant seeds. Other policies revolve around providing agricultural insurance to help farmers smooth consumption during periods of crop loss. There are a number of excellent reviews on these topics and so we refer the interested reader to Cole and Xiong (2017), Ali, Abdulai, and Mishra (2020), and Nshakira-Rukundo, Kamau, and Baumüller (2021).

3.2: INSURANCE AGAINST EXPENDITURE LOSS

The other type of risk is expenditure risk—i.e., risk of unexpected large outlays. One example is a large hospital bill; a second example is property damage or loss. In this section, we outline common social insurance programs that aim to alleviate these types of risks and the open research questions in this area.

3.2.1: Health Insurance

Government-led health insurance systems are increasingly becoming common in many low- and middle-income countries, as governments aim to increase health care utilization, improve health outcomes, and help households manage income and consumption risks that may arise from a health shock. Nearly 190 countries have some sort of public health insurance system.[20]

The literature on health insurance tends to fall into two common buckets. The first bucket examines the impact of health insurance on households who have this insurance, including the ability to smooth out the economic consequences that may arise from health shocks as well as impacts on health utilization and, potentially, health. The second bucket then explores the challenges in provision and design of insurance, particularly around how to design and fund public insurance systems given the constraints coming from informal employment, adverse selection, moral hazard, information failures, and trust.

Impacts of Health Insurance
We start with the first bucket, reviewing the studies that aim to measure health insurance impacts. Before beginning, it is worth noting, conceptually, that the primary outcome one would expect health insurance to affect is consumption smoothing. That is, health insurance is primarily a *financial* product, that provides payments in the event of an expenditure shock, and so should make the financial consequences of bad health less severe (Finkelstein and McKnight 2008). Health insurance can also affect health care consumption; since health insurance typically reduces the marginal cost of health care utilization (as opposed to, say, giving people a lump-sum cash transfer when they are diagnosed with illness, which would help with the financial consequences without changing prices on the margin), one would expect utilization to increase. This increased health care utilization could, in turn, potentially affect health, but only if the resulting care has a measurable effect on health.

Health insurance and financial shocks. A number of papers from low- and middle-income countries suggest that health insurance does indeed provide meaningful financial insurance, and can help households

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[20] 188 countries in the WHO's Global Health Expenditure database report positive, non-zero spending on government health schemes in 2019 (World Health Organization 2019). These schemes are defined as non-contributory, publicly-funded spending arrangements (World Health Organization 2021).

manage financial shocks from health events (King et al. 2009; Gruber, Lin, and Yi 2021; Levine, Polimeni, and Ramage 2016). del Valle (2021) argues that health insurance also provides another economic benefit: they show that by reducing the severity of health shocks, Seguro Popular in Mexico reduced the degree to which other household members needed to drop out of the labor force to directly provide care. There is also suggestive evidence that health insurance may also reduce financial stress above and beyond its impact on finances per se (Haushofer et al. 2020).

Health care utilization and health. Health insurance also has the potential to change health care utilization, since it typically reduces the price of health care, which could in turn generate health impacts. In some contexts, one may actually be concerned that this leads to *over* consumption of health care since consumers do not face the true marginal cost of the care, and indeed, in some high-income countries, alternative health insurance schemes with high deductibles have been developed in an attempt to provide financial insurance while ensuring that households face the correct price of care on the margin. On the flip side, if households are liquidity constrained (as we believe many low-income households are), households may under-consume health care without insurance. Understanding how to help households achieve their optimal, distortion-free level of health consumption remains an important challenge.

Does health insurance change health consumption, and health, in low- and middle-income countries? The experimental evidence on the impact of health care utilization and health is mixed, though one big challenge may be that some of the experimental studies on this may not be sufficiently powered to detect economically meaningful, but small effects (King et al. 2009; Haushofer et al. 2020). A recent study by Malani et al. (2021) highlighted another important policy issue: in their experiment, while they find some increases in households using insurance for payment, they found that many of the beneficiaries had challenges in using their insurance—e.g., having problems with cards, not knowing how to use them, forgetting the cards—and thus perhaps unsurprisingly, they observe no health effects. In short, most of the experimental studies to date find little overall impact of health insurance on health outcomes.

Given the need for large samples sizes to measure impact, a number of other studies focus on quasi-experimental variation from large-scale public health insurance reforms, and then use large administrative datasets on mortality and national samples.[21] For example, Gruber, Lin, and Yi (2021) examines the roll-out of China's public health insurance for rural households, which covered as many as 800 million people. They find a significant decline in aggregate mortality, which they argue could explain 78 percent of the entire increase in life expectancy in China during this period. Using survey data, they find large effects on health care utilization and a host of other health outcomes.

Gruber, Hendren, and Townsend (2014) study an alternative method of health insurance: the expansion of free or heavily subsidized care at public facilities. They examine Thailand's 2001 health care reform, known as the "30 Baht" program. Prior to this reform, the poor, young, and old were given free public health care, but the system was seen as chronically underfunded. The reform changed the system in two ways. First, it provided universal access to public facilities at a co-pay of 30 Baht (or $0.75) per visit. Since the co-pay was already waived for the poor, in practice this reform largely led to reduced health access costs for the informal, non-poor. Second, the reform provided hospitals with a universal

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[21] See Gruber, Lin, and Yi (2021), who provide a nice overview of the literature.

capitation payment based on population in the province; this on net moved to more generous government financing. Using administrative morality records, they show that prior to the reform, the infant mortality rate was related to how rich the province was; after the reform, resources were equalized across provinces leading to this correlation disappearing.

Importantly, both Gruber, Lin, and Yi (2021) and Gruber, Hendren, and Townsend (2014) argue that part of why large health effects were seen is that the insurance reforms, by increasing financing by the government for health, increased the supply of health services, as has been shown in high-income countries (e.g., Finkelstein 2007). This suggests that in evaluating health insurance systems experimentally, it may be important to randomize across a hospital catchment area or health market, rather than an individual level or village, in order to estimate the full general equilibrium impacts that could arise due to an insurance expansion or enhancement.

Challenges with Health Insurance Design
The second bucket of work on health insurance centers around how to design and fund health insurance systems. For example, many countries choose not to universally cover health insurance premiums through the government budget, and instead set up national health insurance programs where the poor are covered directly and everyone else has to pay a mandatory contribution. Contributions are often collected for formal workers through payroll taxes remitted by employers.

A common challenge with these systems, however, is what to do about informal workers (for whom premia cannot be collected from employers). There are, broadly speaking, three options. First, there is the option of no health insurance for non-poor, informal workers. This, of course, would mean that these workers remain vulnerable to the economic impacts of a health emergency. Moreover, if firms want to evade paying benefits to formal workers and/or workers do not fully value the insurance, mandating insurance benefits for formal workers could increase informality.

A second policy option—which is quite common—is to mandate that non-poor, informal workers contribute to insurance. This is difficult to enforce, however, particularly in countries with limited administrative capacity, and many people do not comply. With imperfect compliance, in addition to worries about increases in informality described above, this can also lead to adverse selection problems (i.e., only signing up when sick) that can financially strain the insurance system.

Finally, the third option is to decide that it is too difficult to collect contributions from informal workers, and extend free insurance to most, if not all, informal workers. Once again, concerns about encouraging informality arise in this case, as well as concerns about the cost.

Below, we first discuss the evidence on the interplay between health insurance and informality. We then discuss the evidence on the adverse selection, as well as some of the policy tools that have been used to try to mitigate it.

Health Insurance and Informality
Ex-ante, the effect of employer provided (or subsidized) health insurance is ambiguous. If a) workers value the insurance and b) there is a cost-savings (from the workers' perspective) of gaining it by becoming a formal employee as opposed to paying an individual premium, this could increase

formalization. But, if workers do not value the insurance at cost or if alternative health care arrangements are cheaper, it could increase informality.

A number of papers examine these concepts. For example, Bergolo and Cruces (2014) examine a large-scale policy reform in Uruguay's social insurance administration (SIA) that both increased benefits and contributions for formal workers, and find evidence of both effects. The reform extended the SIA's coverage for dependent children, making the program more attractive. At the same time, the reform also increased the payroll tax contribution deducted from employees' salaried earnings, which could cause an increase in underreporting of wages for formal employees. The authors find both effects: the greater benefits drew people into the system, but there was also an increase in misreporting wages. On net, the fiscal revenue gain from higher levels of formal employees was much larger than the loss of revenue due to under reporting.

Camacho, Conover, and Hoyos (2014) examine the introduction of subsidized insurance for informal workers on labor market choices in Colombia. A reform was instituted that made workers who were below a Poverty Index Score eligible for non-contributory health insurance, but those who were formally employed were ineligible regardless of their score (and needed to contribute through their employers)—creating an incentive to become informal. They find the reform increased informal employment by about 3-4 percentage points.

Finally, a number of papers have examined Mexico's Seguro Popular on formalization. Prior to the rollout, insurance used to be tied to payroll contributions, and so many people were uncovered; Seguro Popular aimed to provide universal coverage. Analyzing the staggered roll-out of the program and survey data, Aterido, Hallward-Driemeier, and Pagés (2011) and del Valle (2021), among others, find small effects on formalization, while Azuara and Marinescu (2013) find no effect on average, but small effects for unskilled workers. More recently, examining the roll-out with social security data, Bosch and Campos-Vazquez (2014) showed that it slowed the registration of employers and employees in small and medium firms (up to 50 employees) into social security, reducing revenues paid into the social security system but also VAT taxes.

In sum, the evidence suggests that the informality margin can respond to requirements that formal sector workers obtain health insurance.

Adverse Selection, Information, and Trust with Imperfectly Enforced Mandates
As discussed above, many countries have tried to mandate that non-formal, non-poor workers purchase insurance, but limited enforceability remains a challenge. Several studies have examined what can be done to mitigate this issue.

Subsidies. Can time-limited subsidies substitute for unenforceable mandates? In Ghana's health insurance scheme, Asuming (2013) and subsequently Asuming, Kim, and Sim (2021) randomize partial and full subsidies of premiums for one year, and track the results for three years. Subsidies increase take-up, an effect that persists even after the subsidies are done.

Banerjee et al. (2021) also study this in the context of the Indonesian national health insurance, randomizing offers of partial and full subsidies of premiums for one year (and a control), and tracking

results for twenty months. Larger subsidies bring in healthier individuals into the health care system, consistent with this undoing adverse selection; they also document a pattern of dynamic selection, where those who enroll in the no-subsidy condition are much more likely to immediately file large claims. Since the subsidies attract healthier individuals who then also pay premia in the post-subsidy period, they allow the government to cover more people at the same total cost. Fischer, Frölich, and Landmann (2018) in Pakistan also experimentally vary premia and find that adverse selection is higher when premia are higher. In short, while by no means a panacea, subsidies can help ameliorate adverse selection to some degree.[22]

Bundling. A second approach to reduce adverse selection is bundling: by tying the purchase of health insurance to that of another product, or bundling insurance purchases for a household together, one can potentially limit the ability of households to buy insurance only for the sick. For example, in their study with an NGO in Pakistan, Fischer, Frölich, and Landmann (2018) experimentally investigate whether people can choose to enroll individuals, or whether they must enroll the entire household, under the idea that households will have to enroll all members, not the sickly. They also examine a community bundled contract, where at least fifty percent of the community must sign up in order to activate the insurance. These bundled contracts reduce "expected costs" among those who sign up (where expected costs are claims predicted from baseline covariates), suggesting that this type of group insurance may be effective. In many high-income countries, workplaces are the "group" for health insurance purposes; this study suggests other groups as an alternative in countries with high levels of informality.

The downside of bunding, however, is that if demand for insurance is low, it can reduce demand for the other, bundled product. For example, Banerjee, Duflo, and Hornbeck (2018) find that a substantial fraction of people were apparently willing to forgo renewing their microcredit just so that they did not have to purchase required bundled health insurance.

Information and Trust. Lack of information (or mis-information) about the benefits of insurance and limited trust in the system may be another reason for low insurance demand. Starting with information, the evidence is mixed: Giles et al. (2021) experimentally find that information on health insurance benefits and processes for enrolling in health insurance leads to an increase in enrollment by those that do not have a contract (i.e., those who likely did not have health insurance). Similarly, Asuming (2013) also finds impacts of similar information on enrollment in public health insurance in Ghana. In contrast, Banerjee, Finkelstein, et al. (2021) does not find impacts of information experiments designed to explain the benefits of public health insurance or the waiting period constraints to citizens in Indonesia. Moreover, Dercon, Gunning, and Zeitlin (2019) explore a composite health insurance product for tea farmers in Kenya, and find little impact on financial training of the insurance product (beyond the basic marketing of insurance) on take-up.

Dercon, Gunning, and Zeitlin (2019) examine issues of trust. They measure trust using a trust game at baseline, and then offer the composite health insurance to individuals with varying subsidies. They find that low generalized trust is negatively associated with insurance demand, and that the purchase decisions of individuals with low trust are significantly more sensitive to price.

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[22] Two other important papers on subsidies are Thornton et al. (2010) and Wagstaff et al. (2016).

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In sum, despite the benefits of health insurance for risk smoothing, health insurance provision in low- and middle-incomes countries remains a challenge: the combination of lack of demand for insurance, adverse selection, a large informal sector, and the relative challenges of enforcing a mandate to purchase insurance, means that it is challenging to ensure widespread health insurance coverage.

Many countries, faced with this, run a public-sector system with low prices, with those who want better coverage opting out at their own expense. However, doing so still leads to substantial uninsured risk, and working out how to move towards more comprehensive coverage remains an important direction for future research. Open questions for future research related to health insurance are listed below in Section 3.4.

3.2.2: Property Insurance and Insurance against Climate-Related Shocks

Risk from property damages poses a challenge, whether it be from flooding, fire, crime, or other perils. In wealthy countries, private insurance tends to cover many of these idiosyncratic risks: in the U.S., for example, over 90 percent of homeowners have property insurance (Insurance Information Institute 2020) though for certain types of perils where there are aggregate shocks—floods, for example— coverage remains low. Yet, the fraction of people in low- and middle-income countries who insure these risks is tiny, and these shocks can have important effects (Anttila-Hughes and Hsiang 2013). This issue may become even more severe in the future with global climate change increasing extreme weather events.

Idiosyncratic shocks. It is important to distinguish between idiosyncratic perils (e.g., fire) and aggregate perils (e.g., floods, earthquakes). For idiosyncratic perils, private insurance markets should work well in principle. However, in low- and middle-income contexts, where information is worse, adverse selection and moral hazard may be a challenge. For example, in the United States, private property insurers maintain the "CLUE" database of claims, so that insurers can price idiosyncratic risk into future premia. We are not aware of similar systems in most low- and middle-income countries.[23] Moreover, like other forms of insurance, low demand often prevails due to trust in the institutions to pay out (Reynaud, Nguyen, and Aubert 2018). Understanding the limits of this market is an important question for future research.

Aggregate shocks. For aggregate shocks, such as floods, earthquakes, and hurricanes, the issues are a bit different. Governments ex-post tend to intervene and provide some amounts of emergency relief to households, though the degree to which they do so varies. For example, Gignoux and Menéndez (2016) study earthquakes in Indonesia, and find that households have negative effects from the shocks, but that these dissipate after 2-5 years. They find substantial government aid flows following earthquakes, which may help mitigate the shocks' effects.

However, given that there is some chance that governments may come in, ex-post, to provide assistance (as it is difficult to stand by and do nothing), households may be reluctant to purchase insurance themselves. If governments anticipate they will need to bail out households ex-post, governments may

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[23] With the exception of TransUnion South Africa's similar *Insurance Claims and Policy* database.

be interested in formalizing this commitment so that households can rely on it, and perhaps so that governments can recoup some of the costs via mandatory premiums. One of the few examples we know of in middle-income countries is the Turkish compulsory earthquake insurance scheme, established in 2000 (Natural Disaster Insurance Institution 2022).

There is some limited evidence that these types of government-run insurance schemes can make an important difference. del Valle, de Janvry, and Sadoulet (2020) study Mexico's Fonden, which the authors claim is the only indexed disaster relief fund worldwide. Fonden provides transfers to a municipality if rainfall exceeds a pre-specified threshold. Using a regression discontinuity design based on the rainfall cutoff, they show that the insurance payments lead to substantially more economic activity, as measured by night-lights.

Open questions for future research related to property insurance and insurance against climate-related shocks are listed below in Section 3.4.

3.2.3: Funeral Insurance

Funerals are often a large, not always foreseen, cost that can devastate households, particularly at bad times. For example, analyzing data from South Africa, Case et al. (2013) finds that households spend about a year's income for an adult funeral. Funeral insurance can help manage these risks, whether through community associations or burial clubs (Dercon et al. 2006; Case et al. 2013; Berg 2018), religious institutions (Auriol et al. 2020), or private insurance companies (Berg 2018). For example, in the South Africa case, about 28 percent of their sample of deaths had some form of funeral insurance (either through burial clubs, funeral parlors, or private insurance). However, many more needed to rely on savings, and/or borrow (about a quarter) to help cover the costs.

As Dercon et al. (2006) discusses, many of these informal insurance or burial clubs have sets of rules and institutions to promote fairness. Nonetheless, a question is whether certain types of households can be excluded through networks, and whether there is a role for government-provided funeral insurance to complement many of these informal structures.

3.3: INTERACTIONS WITH INFORMAL INSURANCE

An important aspect to consider for formal insurance provision in low- and middle-income countries, compared to the high-income ones, is how it interacts with complex pre-existing, informal insurance arrangements. Many poor households in low- and middle-income countries, while not formally insured, engage in various forms of risk-sharing arrangements. Indeed, villagers are better at smoothing idiosyncratic consumption shocks than one may have expected given the absent formal insurance markets (Townsend 1994). But, from the perspective of a potential social insurance designer, it is important to note that just because informal insurance exists does not mean that there is not a need for formal insurance schemes.

One key concern with relying on informal insurance mechanisms is that they are sustained in relatively closed networks (Ligon, Thomas, and Worrall 2002). As villages become more interconnected, or as the population increasingly lives in urban environments, these systems may become less effective over time

(Townsend 1995), suggesting that the need for more formal insurance products may increase with development. Moreover, a potential downside of informal insurance systems is that they can "trap" people in areas where they may have fewer opportunities. For example, there may be inefficiencies if households need to remain in rural areas in order to take advantage of these informal networks (Banerjee and Newman 1998).

Even when informal insurance exists, it does not necessarily provide the level of coverage that households need, since income shocks have a strong spatial correlation, especially in agricultural areas. Ideally, risk-pooling would be done across villages where shocks are independent, but these arrangements are difficult in practice since monitoring costs to prevent moral hazard are too high.[24] These spatially correlated shocks may be a particular challenge with natural disasters or conflict, necessitating large scope disaster relief programs.

All of these arguments suggest that some forms of formal insurance are likely to be very useful even where informal mechanisms are present and working. This then makes it necessary to think through the potential interactions between (formal) social insurance and informal insurance, especially as there is evidence that even as economies experience growth, many households keep relying on informal networks. In particular, does offering social insurance crowd out informal insurance?

The evidence on crowd-out is mixed (Strupat and Klohn 2018; Takahashi, Barrett, and Ikegami 2019). The level of crowd-out may vary by characteristics of the types of insurance: for example, Huang and Zhang (2021) finds no crowd-out of private transfers in the context of China's rural pension scheme, in contrast to Jensen (2004), which finds large crowd out effects of South Africa's public pension. Huang and Zhang argue that that they find less crowd-out in China than South Africa since the pension benefits are much smaller.

Conversely, formal insurance may have positive effects if people take costly actions to maintain access to informal networks, and if they no longer need to do so given improved formal insurance. If, for example, people do not migrate to cities (which is productive) in order to maintain access to rural informal insurance networks, the provision of formal insurance could allow them to make these more productive migration decisions (Banerjee and Newman 1998; Munshi and Rosenzweig 2016).

3.4: OPEN QUESTIONS

As previously mentioned, note that the list of open questions below is suggestive, and other topics beyond the list (justified as providing new insights in policy relevant questions that we have missed) would also be considered.

In the area of insurance against income loss, there are many open questions for future research. These include:

- *Insurance against involuntary job loss*

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[24] One way to reduce this problem is marriage across villages (Rosenzweig and Stark 1989).

- What is the optimal design for UI in the presence of a large informal sector? Does informality impose high efficiency costs?[††]

- How can UI be designed so that insurance is extended to informal workers? And how can these programs be designed so that take-up of vulnerable population groups, such as women and people with disability, are encouraged?[††]

- What alternative policies to UI that are not conditional on re-employment would be appropriate for a low- and middle-income setting? Policies like time-limited benefits, individual unemployment-triggered savings accounts, mandated severance pay, and lump-sum unemployment insurance paid by the government are avenues for future research.[††]

- What are the impacts on insurance of self-targeting techniques that condition benefits on costly activities (e.g., job training to receive benefits, public works programs)?[††]

- *Insurance against disability and death*

  - What is the demand for, the impact of, and the design required to provide better quality workplace accident insurance in low- and middle-income countries?[††]

  - How can governments better insure spouses and children of the deceased in low- and middle-income settings?[††]

  - How can programs insure against disability of other family members?[†]

  - What are the effects of disability insurance on caregivers' labor force participation?[†]

In the area of insurance against expenditure loss, there are many open questions for future research. These include:

- *Health insurance*

  - How can governments most effectively universal health insurance coverage or more generally extend health insurance coverage, whether to the informal sector or more broadly?[††]

  - What are the relative tradeoffs of direct public provision of subsidized health care vs. public provision of health insurance vs. public provision of health care directly?[††]

  - What are the impacts of health insurance provision on supply of health care?[††]

  - Is health insurance a good mechanism for covering women's access to health care? Does it support access to sexual and reproductive health services, family planning, and maternal health?[††]

  - When seeking health care through social insurance, do marginalized groups experience the same service as non-marginalized groups?[††]

- *Property insurance and insurance against climate-related shocks*

- What are demand- and supply-side explanations for the low prevalence of idiosyncratic property insurance in low- and middle-income countries? What are the limits of this market?

- What is the value of creating "property insurance registries" for the facilitation of private property insurance markets?

- What is the optimal design of "triggers" for aggregate natural disaster insurance?

- What are the impacts of natural hazard insurance on households and businesses?[††]

- How should governments design payout schemes for natural hazard insurance? For example, how should governments determine who should be paid, how much they should be paid, and whether the reimbursement should be paid in a lump sum?[††]

- What are the impacts of natural hazard insurance on mitigation strategies (i.e., risk of moral hazard)?[††]

- How can social insurance help individuals cope with risks related to climate change?[††]

- *Funeral insurance*

  - Is there a role for government-provided funeral insurance to complement the existing informal structures?

The subject of interactions with informal insurance is also an important area for future research:

- Does offering social insurance crowd out informal insurance?[††]

4. CROSS-CUTTING DESIGN AND IMPLEMENTATION ISSUES

This section discusses a number of important issues that are applicable to a wide variety of social assistance and social insurance programs. Section 4.1 discusses how to identify beneficiary populations, including various poverty targeting strategies. Section 4.2 discusses incomplete take-up challenges. Section 4.3 discusses the challenge of making sure assistance is delivered to the eligible beneficiaries. Section 4.4 addresses gender issues and gender-responsive social protection. Section 4.5 addresses refugee populations, and Section 4.6 addresses climate change. Section 4.7 discusses thinking about outcomes.

4.1: IDENTIFYING BENEFICIARY POPULATIONS IN PRACTICE

4.1.1: Using Observable Characteristics to Identify Beneficiaries

Geographic Targeting

The simplest version of poverty targeting on observable characteristics is **geographic targeting**, i.e., channeling programs to everyone within poorer regions. Its main attraction is its simplicity in selecting regions and the administrative ease of implementing it—since one does not need individual data, one can actually do the entire exercise (prediction and targeting) with a single, representative dataset (Baker and Grosh 1994; Elbers et al. 2007). To improve prediction, one can combine survey sample data with census data to predict the poverty status of smaller geographical areas (Elbers, Lanjouw, and Lanjouw 2003), or use newer remote-sensed satellite or administration datasets that help predict smaller regions (e.g. Jean et al. 2016; Blumenstock, Cadamuro, and On 2015). The literature thus far suggests that this approach produces less accurate estimates than individual poverty targeting, but it is much less data intensive, which may have some appeal when the environment for collecting data is weaker or in areas where individual targeting may be political infeasible.

Targeting Using Proxy-Means Tests.

A second form of poverty targeting is the **proxy-means test** (PMT). The implementation of a PMT is based on two datasets. First, a training dataset that includes measures of what the government is actually trying to target (e.g., per-capita household consumption, income, etc.), as well as the characteristics (X')—usually demographics and assets—that will be used for targeting. This training dataset is usually a nationally representative household survey that is collected for research or general statistical purposes; as such, households typically have no reason to lie about their actual consumption or income. Using these data, one then estimates a model that relates income to each of the targeted characteristics (of the form $y_i = X'\beta + \epsilon_i$).

To identify beneficiaries, one then needs a much larger dataset of the X_i on the entire relevant population—i.e., a census of the entire country, or a "social register" that contains information from anyone who may plausibly be eligible. This is the step where there is often some self-selection—for example, in some cases, the government will collect the characteristics X_i only for those who apply, and hence only applicants may be deemed eligible; in other cases, the government attempts to collect the X_i for almost everyone by having census enumerators go door-to-door throughout the country. Using this

much larger dataset, one calculates a predicted poverty score, $\hat{y}_i$, using the characteristics X_i and the estimates of $\hat{\beta}$, for each individual i that is then used for poverty targeting.

This type of proxy-means testing was first used in the early 1980s in Chile for the targeting of its Ficha CAS program, and has become quite common (Coady, Grosh, and Hoddinott 2004). Examples of proxy-means tests include the SISBEN in Colombia, SISFOH in Peru, Listahanan in the Philippines, BISP in Pakistan, and Takaful and Karama in Egypt.

The way that proxy-means tests are implemented comes with some policy challenges. First, the predicted poverty scores are imperfect predictors of poverty, i.e., they measure income status with error. To illustrate this, Hanna and Olken (2018) simulate this type of individual targeting for two countries—Indonesia and Peru—using household survey data and a set of assets and household characteristics typically used in proxy-means tests (see Figure 4). They show that the prediction equation has substantial predictive power—the R^2 is between 0.53 and 0.66—but it nonetheless has errors of both inclusion and exclusion.

Other papers show similar very findings: for example, Brown, Ravallion, and van de Walle (2018) show, using data from nine African countries, that standard PMTs help filter out non-poor households, but in the process exclude some poor households as well.

FIGURE 4: PREDICTED VS. ACTUAL PER-CAPITA CONSUMPTION IN TEST SET DATA, FROM HANNA AND OLKEN (2018)
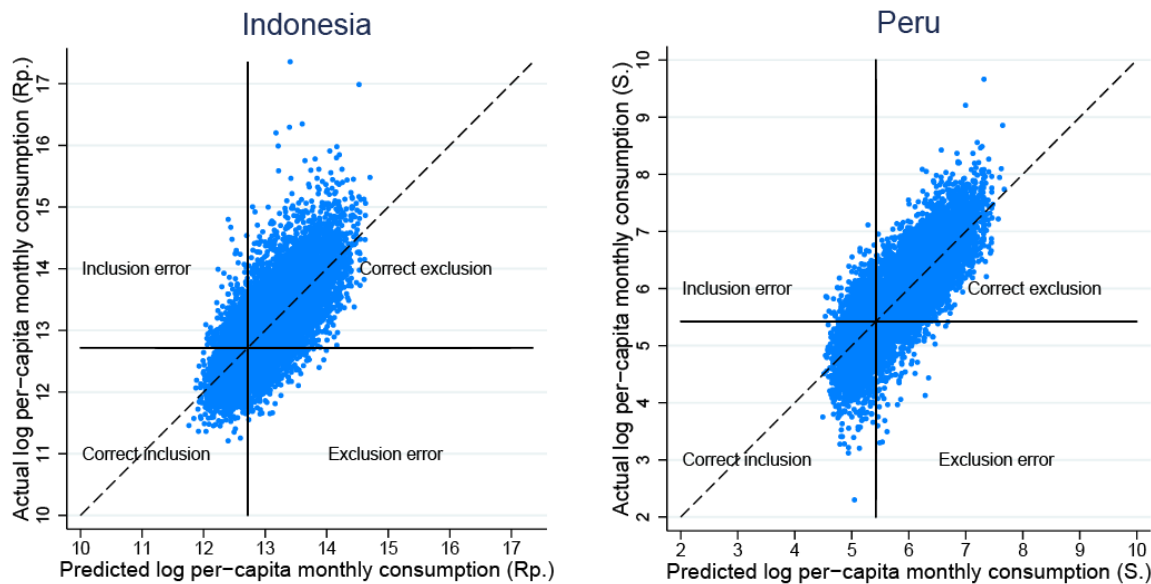
Notes: The figures above plot actual log per-capita monthly consumption against predicted log per-capital monthly, where the prediction is based on a set of household assets and characteristics typically used in proxy-means tests. See Hanna and Olken (2018) for more information.

In addition to error in the formulas, there are some systematic reasons why proxy-means approaches will not perfectly predict incomes. For example, there is no reason to think that the relationship between

underlying income and the types of assets used in the PMT algorithm is the same for everyone. The model used to predict PMT scores also makes no allowance for differences in preferences in consumption. Someone might end up in a bigger house than what would normally correspond with their income because, for example, they feel obligated to provide temporary housing to their extended family. These differences in preferences drive noise in the link between true income and PMT-predicted incomes, which is a major challenge in targeting algorithms.

Recent advances have sought to reduce noise in PMTs in two ways, with varying levels of success. First, one can replace the OLS prediction equation with more sophisticated machine-learning prediction algorithms. However, most papers find little to no improvements using these techniques relative to the common methods currently used (e.g., McBride and Nichols 2018; Baez, Kshirsagar, and Skoufias 2020; Areias and Wai-Poi 2022).

Second, one can use new types of administrative data rather than collecting a door-to-door census, which allows more frequent, and hence up-to-date, data to be used. For example, Blumenstock, Cadamuro, and On (2015) use anonymized data from mobile phone networks to predict the socioeconomic status of individual subscribers; similarly Abelson, Varshney, and Sun (2014) use remote sensing to differentiate between thatched and metal roofs in Kenya's GiveDirectly program. Using data from Togo, Aiken et al. (2022) find that using mobile phone metadata for targeting has substantive predictive power, though it is not as accurate as a more traditional full PMT. The fact that administrative data such as this is continually and automatically updated suggests that targeting using these types of data may be more responsive to shocks, and may help policymakers more easily move people on and off beneficiary lists depending on people's current needs.[25] In fact, some countries, from Pakistan to Togo, used this approach to target assistance during the 2020 Covid-19 crisis (Gentilini et al. 2020). Understanding whether these kinds of administrative data are effective in capturing more timely measures of economic need is an important area of ongoing and future work.

Does PMT cause people to change their consumption?
A further challenge is that many characteristics used in this type of targeting are, themselves, choice variables, and this introduces an additional potential source of inefficiency, since households need to distort their consumption to remain eligible. For example, after England imposed a "window tax" in 1696—a tax levied on the number of windows a house had, which proxied for wealth—people built new houses with very few windows, leading to many dark houses (Oates and Schwab 2015). This may have real implications, especially if households do not invest in productive assets (e.g., blenders or labor-saving tools in household, motorcycles) that are included in the PMT.

It is worth noting that even geography is not an immutable characteristic: households could choose where to live in response to geographic targeting incentives. But, in practice, are these distortions substantial in modern contexts?

To investigate these issues with individual-level targeting in a modern proxy-means test, Banerjee et al. (2020) conducted a nationwide randomized experiment, in cooperation with the Indonesian

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[25] Others (e.g. Baez, Kshirsagar, and Skoufias 2020; del Ninno and Mills 2015) suggest augmenting PMT targeting system with remote sensed and/or administrative data of this sort to help capture shocks.

Government's Central Bureau of Statistics, which administers the census used for actual PMT targeting. To test for these types of distortions, the statistics bureau randomly added questions on flat-screen televisions and/or the number of cell phone SIM cards owned to the targeting census in some randomly selected provinces, but not in others. While self-reports of television ownership fell in treated provinces six months later, that effect quickly died out, and more importantly, there were no changes in actual television purchases or active SIM cards in treated areas.

One potential reason why real-world distortions from proxy-means tests are small is that that there are many different variables, interacting in complex ways in the PMT formula, which means that households have limited control over the outcome and therefore the returns to manipulation are small. In fact, governments typically keep the formulas secret for this reason: studying the proxy-means test in Colombia, Camacho and Conover (2011) find that local politicians were only able to manipulate the data after the formula became public in order sign up more of their constituents for federal government transfers.[26] Of course, doing so comes at a cost of reduced transparency; exploring the tradeoffs involved in transparency around these formulas is an interesting open question.

Finally, in contrast to PMTs, there is some evidence that geographic targeting can lead to real distortions that may affect people's livelihoods. In particular, place-based policies—which in contrast to PMTs are easy to understand—can induce migration to areas with generous transfer programs and/or prevent out-migration from these areas. For example, Imbert and Papp (2020) show that India's public works program, the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)—which was geographically targeted to rural areas—reduced seasonal migration to urban areas. Given that geographic programs are very common, it would be important for future research to understand if this happens in other types of programs and contexts, and if there are ways to mitigate it. For example, is it possible to use newer digital technologies to let people keep their benefits even if they engage in seasonal migration?

4.1.2: Self-Selection Mechanisms

Another approach to identifying beneficiaries is a **self-selection mechanism**. The idea is to pair benefits with an action, where the required action is relatively less costly for the targeted population than for the rest (Nichols and Zeckhauser 1982). If so, the selection rule allows the government to make an inference about people's income (though perhaps not always perfectly) from their self-chosen actions. The required action can include buying low-quality food, work requirements, and administrative ordeals (e.g., standing in line, filling out lengthy paperwork, or having to go through an interview process). The disadvantage of this approach is that it imposes costs on the poor—i.e., lower quality food than they would prefer, or time wasted standing in pointless lines. The key question is whether the benefits of this method, which might allow governments to deliver more aid to the poor, outweigh these additional costs, so that both the poor individuals themselves and society are nevertheless better off even once these costs are taken into consideration.

Public Works Programs. One of the most common self-selection mechanisms are public works programs— i.e., requiring beneficiaries to work in exchange for payments. These programs have a long history, dating

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[26] Though there is limited evidence so far of actual manipulation of consumption, one could imagine cases in which it may be. If so, recent theoretical advances suggest that it is possible to improve poverty targeting by anticipating these problems and taking them into account (Björkegren, Blumenstock, and Knight 2020; Ball 2022).

back at least to the 19th century in England, where transfers were granted through residence in a workhouse (Besley and Coate 1992), and to the United States' Civilian Conservation Corps and Works Progress Administration in the 1930s (Aizer et al. 2020).

They are a classic example of what is referred to in the economics literature as an "ordeal mechanism" (i.e., a required action meant to separate rich and poor) because work takes time. If the wages for the public works job are low, or the tasks unpleasant or difficult, this will generate self-selection: those who can get a more attractive job will select out (Ravallion 1991; Besley and Coate 1992). But, if the wage is set too high, the program runs the risk of *crowding out* more productive private sector work. The net efficiency consequences also depend on whether the work being done is productive. Using public works to build roads may have little efficiency loss; having workfare labor dig ditches no one needs would also generate self-selection, but at much larger social efficiency costs.

Perhaps the largest such program in the world is India's Mahatma Gandhi National Rural Employment Guarantee Act (also known as MGNREGA), which offers 100 days of paid employment per year to anyone in rural areas who is willing to do casual manual labor. MGNREGA's wage rate is tied to the official state minimum wage, which may be above the de facto wage available to rural agricultural laborers, given the large informal economy. Nevertheless, Dutta et al. (2014) find substantial self-selection in program take-up.

Given that public works programs, by their nature, crowd out other work, estimating the efficiency costs are challenging.

- Murgai, Ravallion, and van de Walle (2016) investigate this in the Indian state of Bihar by asking workfare participants their best estimate of what their earnings would have been in the absence of a public works program. They find that those who joined MGNREGA gave up income equivalent to about 30-35 percent of the workfare income received. They suggest that a simple cash transfer would result in modestly higher poverty reductions than the MGNREGA, given both the government's costs to run the program and these forgone wages.

- Bertrand et al. (2021) experimentally examine related questions in the context of a youth public works program in urban Cote d'Ivoire. They find that while the program led to earnings gains, earning gains are only 53 percent of the transfer due to the crowd-out of private employment.

Note that both of these programs set the public works wage at the formal minimum wage, which—unlike in many high-income country settings—may be *above* the prevailing market wage, given the large informal sector. This suggests that public works programs may have more effective targeting properties in places where the formal minimum wage is more in line with the informal market wage and/or where there is less informal employment.

Self-selection with small costs. One challenge with ordeal mechanisms such as a public works program is that they impose very large costs on beneficiaries—e.g., working a full day of hard labor under the hot sun. Is it possible to get the gains from self-selection without imposing such large costs?

One possible selection mechanism is to make people apply for a program, rather than be automatically

enrolled. Upon application, programs often add additional screening mechanisms, such as a PMT.[27] This can affect selection in two ways. First, to the extent that prospective beneficiaries understand the screening mechanism, those who know they will not be eligible may choose not to apply. This saves the government the cost of verifying these applicants. Second, beneficiaries will use their own estimate of their likelihood of passing the screening when deciding whether to apply. This estimate will be a mix of the information used in the screening mechanisms, *plus* their private information about their true income level. Thus, if people have imperfect information or beliefs about the screening mechanism, asking them to decide to apply may induce them to reveal some of this private information to the government.

Alatas et al. (2016) develop a model that captures this idea, and then experimentally test a self-targeting mechanism (application with verification done by PMT) against automatic enrollment based on a PMT done by census enumerators within the context of the expansion of the government's conditional cash transfer program. They found that self-targeting led to dramatically poorer beneficiaries, by reducing inclusion error. Surprisingly, this approach *also* reduces exclusion error compared to the PMT—while the government makes its best efforts to include all relevant people in the automatic enrollment system, some of the very poor, who live more on the margins of society, can be missed; in the self-targeting group, these individuals apply. This suggests that self-selection at the application stage can allow for the revelation of important information, potentially decreasing both inclusion and exclusion error over automatic enrollment approaches.

Self-declaration with unverified means tests. A third type of self-selection involves self-declared means tests. For example, in Brazil's Bolsa Familia program, eligibility is based on self-reported income. For most workers in the informal sector, this cannot be directly verified—but nevertheless, this procedure may result in those who are not poor choosing not to enroll in the program. Understanding the degree to which these self-declared processes do or not serve as an effective self-targeting system is an important open question.

More generally, understanding how to improve these self-selection systems further is important for research, especially if they allow households the flexibility of when to apply for a program so that they can do so when they are most in need of assistance. One important question for future research programs is how communications strategies need to be done to ensure that more of the poor are aware that they can apply and feel comfortable applying. For example, do communication methods need to be tailored across different populations to maximize their reach? Further, while self-selection can have many positive benefits, if it is too hard to apply (as we discuss more below), it may have the potential to also screen out the poor. For example, requiring lots of paperwork to apply may be limiting if many of the people you want to reach have limited literacy. Thus, understanding how to reduce paperwork and verification burdens, but also generate self-selection, is another area of needed research that could be considered under this Initiative.

Finally, with new technologies (e.g., cell phones, web-based systems), one could introduce different forms of application systems that could potentially increase access. On one hand, these systems may increase applications by the poor by reducing transport costs, especially if enrollment locations tend to

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[27] For example, in the United States, one applies for food stamps but then one's income is verified.

be in places that are costly for the poor to reach (e.g., a state or district capital may be too far away and costly to reach for the rural poor). On the other hand, they raise another set of potential barriers if there is incomplete internet coverage (particularly in poor neighborhoods), the systems are too hard to use, etc. Understanding how to best harness these technologies for more inclusiveness of the poor in social assistance programs is thus another important area for research.

4.1.3: Using Community-Information to Identify Beneficiaries

An alternative approach seeks to leverage the information about people's poverty status embedded in communities (Alderman 2002; Galasso and Ravallion 2005). If governments try to use this information for **community-based** targeting, is the outcome better than a proxy-means test-based approach in terms of reaching the poor—potentially defined differently by local communities—and in terms of social cohesion?

To examine this, Alatas et al. (2012) experimentally compared proxy-means test-based targeting to community-based targeting. The results suggest that the optimal approach may depend on the government's goals and metrics of success. On the one hand, the authors found that the proxy-means test did somewhat better at identifying households based on per-capita consumption, although the households whose identification switched were sufficiently close to the poverty line that both approaches would perform similarly in terms of most metrics of need. However, community targeting did substantially better in terms of identifying households who self-identify as poor. Perhaps as a result, citizens in villages randomized to community targeting reported higher satisfaction with both the targeting process and the targeting outcomes than in those with PMT-based targeting.[28]

These results suggest that community-based targeting can work. However, there are often concerns about elite capture in community-based targeting. That is, local leaders might disproportionately choose themselves, family members, or others who are not necessarily the most in-need. There is therefore a potential theoretical tradeoff between the superior local information and greater capture of these programs by local elites (e.g., Bardhan and Mookherjee 2000).

Empirically, however, elite capture seems to be small, at least in comparison to other sources of targeting failures. In a field experiment in Indonesia, while Alatas et al. (2019) find some evidence of elite preference in some programs, it is small in magnitude, so that the gains one would achieve by reducing elite capture entirely are dwarfed by the gains one could make by improving the quality of PMT data. Similarly, Basurto, Dupas, and Robinson (2020) find similar results around targeting of subsidies for both agricultural inputs and food in Malawi: while they find that nepotism exists, the welfare consequences are small, again because those who receive preferential treatment are also relatively poor; plus there are potential gains as chiefs use their local knowledge to target those recently hit by shocks, and in the case of agricultural inputs, to target them to those with higher returns.

While these studies suggest that community targeting has potential, especially when assessed against local measures of well-being (such as self-assessed welfare) or to fill in the gaps in PMT (e.g., detecting shocks,

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[28] The gain in legitimacy from community targeting may be quite important for these programs. For example, Cameron and Shah (2014) show that mistargeting in cash transfer programs in Indonesia increased crime.

finding productive households), it does not strictly dominate PMT, and it may not be appropriate in all settings. Indeed, several studies find results that confirm that PMTs tend to do at least a somewhat better job at identifying households with lower objective per-capita consumption, and there is some heterogeneity in the extent to which community-based targeting does better on other metrics, such as self-assessed welfare.[29]

These papers suggest several important directions for future research. First, are there ways to make community selection more effective? For example, Alatas et al. (2012) found that households that were randomized to be ranked early in the process are ranked more accurately than those ranked later, suggesting that the community finds the process tiring. This suggests that the micro-structure of the algorithm used to elicit the community ranking can affect the accuracy of the overall community ranking, and understanding this better can help improve how to collect community information. Second, does the efficacy of community targeting differ systematically? For example, Alatas et al. (2016) finds that the community targeting treatment was more effective at identifying households in areas with more diffusive inter-personal network structures (i.e., communities where information spreads more rapidly across people). More generally, being able to predict in which types of locations community-based targeting is likely to be most effective is an important research direction.

A third important research question is whether and how community-based targeting can be compatible with cross-community targeting. That is, one can allocate a fixed number of slots to a community (for example, based on geographic targeting, a past census, or another PMT approach), and ask the community to choose *which* households should receive those slots. But if a community is asked to identify who is poor on an absolute level, it has little incentive not to list many people as poor in order to maximize transfers from a higher level of government. Designing incentive-compatible procedures for community-based targeting that reveal the level of poverty, not just who is poor, is an important mechanism design problem for future research.

4.1.4: Targeting on Productive Use

The discussion thus far has focused primarily on identifying the poor and assigning programs to those people. Implicit in this view is that anti-poverty programs are more effective at increasing well-being when the household is poorer, and the outcome in question is improving income (or consumption).

Targeting is more complicated, however, when different people may derive different benefits from a program, and you care about channeling resources beyond just the poverty metric. Imagine that you have an irrigation subsidy program for farmers: it is not clear that you want to target the poorest farmers (i.e., their farms may be too small to benefit from an expensive irrigation system). Instead, you may want to target those who would benefit the most from access to irrigation systems. Or imagine, you have a subsidized program for bednets—you may want to target them to people who have the highest malaria

[29] See for example, Premand and Schnitzer (2021), which finds that a community-based approach does worse than PMT in targeting poverty, but does a better job matching self-assessed welfare status and the perceptions of others, though the difference is not large, and at identifying households with recent shocks. Several other studies also find that community-based targeting does worse than proxy-means tests when the desired outcome is per-capita consumption, though these studies do not typically assess their comparative effectiveness vis-a-vis self-assessed welfare (Stoeffler, Mills, and del Ninno 2016 in Cameroon; Beaman et al. 2021 in urban Monrovia, Liberia; Dupas, Fafchamps, and Houeix 2022 in urban Cote D'Ivoire). Other studies suggest the efficacy of community targeting compared to a PMT depends on the variables included in the PMT (e.g., Sabates-Wheeler, Hurrell, and Devereux 2015).

risk, but who will also actively use the nets (and not keep them in a box in the closet going unused).

This is a harder problem, because generally speaking, the outcome you often care about is unobserved. However, there are still several options. One option is to predict who will best benefit based on observable covariates, for example, from a randomized trial. Bhattacharya and Dupas (2012), for example, consider this approach in the context of subsidies for anti-malarial bednets, where they account for the probability of use of the bednets. More generally, recent work has shown how to use machine learning to do so (e.g., Wager and Athey 2018; Chernozhukov et al. 2018). Several papers have used these techniques to show how they can identify how to best improve the targeting of immunizations (Chernozhukov et al. 2018), public works programs (Bertrand et al. 2021), and cash transfers (Haushofer et al. 2022). Caria et al. (2021) combine this approach with a dynamic experimental design to both simultaneously learn which treatments work best optimally, and which work best for which types of respondents, for job training programs for Syrian refugees in Jordan.

A second option is to encourage self-selection on the basis of treatment effects. Dupas et al. (2016), for example, investigate a program that provides free chlorine in Kenya, where there are concerns that some may not use the chlorine. They compare free distribution of chlorine vs. distribution of vouchers redeemable at nearby shops for free chlorine. Redeeming a voucher is a screening mechanism—in general, only those who intend to use the chlorine will choose to redeem the voucher. Indeed, they find similar rates of chlorine in water in the two groups, yet the vouchers saved 60 percent of the cost by not distributing chlorine to those who would not bother to use it.

These examples illustrate the potential to apply these approaches to social protection more broadly. For example, the Graduation approach (discussed above) may be appropriate for some types of households and not others; can one identify them based on ex-ante characteristics? Or find a way for people to self-select in? On the flip side, for social insurance products, one does not want to encourage either adverse selection or so-called "selection on moral hazard" (Einav et al. 2013). For example, making enrollment to health insurance easier could potentially encourage the healthier to enroll (Banerjee et al. 2021). We regard this area as an important dimension for future research.

4.1.5: Universal and Categorical Eligibility vs. Targeted Programs

As we discussed above, all of the targeting methods discussed thus far suffer from exclusion errors (see, for example, Brown, Ravallion, and van de Walle 2018). Given these challenges, another option is to make social assistance programs accessible for all and not poverty-targeted. In the context of cash transfers, for example, some have proposed a universal basic income (UBI) program or a universal in-kind program, where each individual receives a fixed amount of money or goods—regardless of income—which is financed through proportional or progressive taxation. In the context of life-cycle transfers, some transfers are open to all who meet categorical eligibility (e.g., all children, all elderly) without any income restrictions.

Universal transfers have several advantages. First, in principle, they have no exclusion error. Note, however, in practice take-up may be far from universal even for a program with universal eligibility. For example, while there is universal access, some programs have an application process to apply. People may not know of their benefits and not try to receive them. Also, if government budgets for the program are limited, despite being nominally a universal program, many people may be put on waitlists or be

arbitrarily turned down. Nevertheless, since many more people receive the program, they avoid horizontal inequality and fairness problems (i.e., the challenge that similar people may not receive like benefits).

Second, universal programs also have the potential to reduce administrative costs by not needing to collect data on households. As a practical matter, however, these costs are usually very small compared to the benefits being given out.

Third, as benefits do not rely on earned income, one may be less likely to work less to keep one's benefits, and thus we would expect fewer labor supply effects than from targeted programs. There could still be income effects (as in targeted transfers as well), where people work less since they have additional income from the benefits. However, this may be less relevant for many of the middle- and low-income countries where these income effects have been shown to be more limited in magnitude, at least for the types of transfers sizes that are more common. Thus, on net, we would expect few labor supply distortions.

Fourth, universal programs, by eliminating targeting, may reduce the scope for abuse of power (Banerjee, Niehaus, and Suri 2019).

But perhaps the largest arguments for and against universal programs come down to budgets. For example, let's start with a simple case where the budget is fixed: in this case, one would mechanically divide what one gives out as a transfer by more people. Thus, more universal programs typically transfer substantially less resources to each beneficiary than targeted programs. A second case would be to increase the budget to cover the cost of providing transfers to all, but this means that solving the exclusion error problem in this way can be quite expensive (Hoynes and Rothstein 2019). While this is true everywhere, this tradeoff is particularly severe in low- and middle-income countries. In high-income countries, one might increase the tax rate on the wealthy to reduce the net transfer. However, in low- and middle-income countries, it is not easy to tax back given the large share of the informal economy and tax collection rates remain generally weak. As a result, universal programs end up giving the same *net* transfer quite high up the income distribution in low- and middle-income countries (Hanna and Olken 2018). This makes universal programs particularly expensive relative to targeted programs.

Note, however, the budget constraint may not be fixed: for example, if the relationship between the total budget and the number of beneficiaries increases, universal transfers may become more attractive politically (Klasen and Lange 2016; Moene and Wallerstein 2001; Pritchett 2005). Indeed, many have argued that the durability of some social protection programs like Social Security and Medicare in the United States comes from their universal eligibility, which makes them politically popular. For example, Kidd (2015) provides several examples of social protection programs—from poor relief programs in Europe to pension programs in low- and middle-income countries—that show how the funding and endurance of programs can be related to how inclusive the programs are. Understanding the political response to targeted as opposed to universal programs, or programs (like Social Security) which are both universal and progressive, and providing more rigorous evidence on this tradeoff is an important dimension for future work.

Deciding which type of program is preferable (targeted vs. universal eligibility or universal categorical

eligibility) ultimately depends on the government's goals, the information environment and feasibility of tools to conduct poverty targeting, the political climate around poverty targeting, and particularly on the relative importance the government gives to inclusion error, exclusion error, and per-capita benefits. Hanna and Olken (2018) calibrate these benefits using standard CRRA utility functions and find that for Indonesia and Peru, assuming the budget is fixed and targeted using standard proxy-means tests, targeting cash transfers substantially outperform a universal cash transfer because they transfer substantially more resources to the poor. But, targeted transfers do entail more horizontal inequity, which may also have political ramifications that we discuss above, so ultimately the tradeoff comes down to how much one values increasing welfare of the poor on average vs. reducing more exclusion error and eliminating horizontal inequity. Universal programs may look more attractive to the extent that universal eligibility expands the budget envelope through political economy considerations.

4.2: INCOMPLETE TAKE-UP CHALLENGES

In practice, even those who are allowed to enroll often do not do so—and in fact, this incomplete take-up among the eligible can in many cases be an equally large determinant of who actually ends up enrolling in programs, even universal programs. How do we think about this lack of take-up? Does this reflect a rational cost-benefit calculus, information or other optimization frictions, behavioral constraints (e.g., procrastination), stigma, or something else?

4.2.1: How Prevalent Are Take-Up Challenges?

The fact that not *everyone* takes up programs is not, per se, surprising. Costs of enrolling in a program vary across people—for example, finding appropriate childcare in order to spend an afternoon signing up for a program might be more difficult for some.

However, the *magnitude* of incomplete take-up in social assistance programs suggests that the problem is important: for example, a survey by the World Bank in 2014 in India (Bhattacharya et al. 2015) found that two-thirds of women eligible for a non-contributory social pension for life are not enrolled in the program. The generosity of the pension (the equivalent of 70 percent of median per-capita consumption across urban areas) makes it unlikely that this could be rationalized by a cost-benefit calculation. Also in India, Demirguc-Kunt, Klapper, and Prasad (2017) find that only 40 percent of citizens apply for the goods and services they report needing from the government.

4.2.2: Application Costs and Information Barriers

There are a number of experiments in low- and middle-income countries that examine how much of the take-up challenge can be attributed to hassles of applying for programs (either perceived hassles or real hassles). These studies examine this by providing enhanced take-up assistance to targeted households. Overall, these studies typically find that while take-up assistance can meaningfully increase program take-up compared to not having assistance, it does not close the majority of the take-up gap.

For example, Carneiro, Galasso, and Ginja (2019) study a program known as Chile Solidario that targeted extremely poor households that were not enrolled in government assistance programs. They provided extensive home visits by a social worker over a two-year period, including guidance on how to apply for government programs, as well as a financial stipend. The program itself had imperfect take-

up—only about 20 percent of those eligible for Chile Solidario enrolled. For those who availed themselves of Chile Solidario assistance, four years later take-up of a separate government family child allowance program ("SUF") had increased by 17 percentage points, from a base of 53 percent. The intensive take-up assistance of Chile Solidario made a difference, but it only closed about one-third of the take-up gap.

In a second example, Gupta (2017) looks at widows and divorcees in Delhi, India, and investigates why they fail to enroll in the pension programs to which they are entitled. The bureaucracy around application is a substantial hassle: widows must fill out forms, provide supporting documentation (proof of marital status, unique ID card, proof of five-year residency in Delhi, and bank account information), get a local politician's signature, and submit all this to the local district government. Intensive assistance also helped in this case, but it did not substantially close the take-up gap: 22 percent of eligible women receiving intensive mediation successfully obtain the pension, compared to 15 percent of control households. Viewed one way, this is a 47 percent increase; but viewed another way, it still leaves behind 80 percent of eligible women.

Banerjee et al. (2021) examine related questions in Indonesia in the context of the government's national health insurance scheme. Universal health insurance was launched in 2014 and by 2015, the contributory portion of the program, known as JKN Mandiri, had enrolled less than 20 percent of the intended population despite being officially mandatory. Banerjee et al. (2021) focused on the uninsured and examined the role of intensive application assistance, as well as subsidies. They found that while application assistance increased *attempted* enrollments substantially—by 16 percentage points for those who did not receive any financial subsidy, compared to just 1.8 percent in the control group—the vast majority of those who attempted to enroll did not successfully do so. As a result, the assistance alone only increased enrollment by 2.4 percentage points. This means that over 85 percent of those induced to apply by the application assistance did not successfully do so.

A common theme among these papers is that the take-up problem is not easily solved by just helping households apply. Instead, the fact that there is any paperwork may itself be an important barrier. This suggests that programs may want to radically simplify the application requirements—say by pre-filling the forms using administrative data may be helpful. However this only works if the underlying state systems are accurate—many of the problems Indonesian households encountered in Banerjee et al. (2021) came about because the government's underlying family records were inaccurate, a problem that could only be fixed by a costly trip to a government office. Improving this underlying administrative capacity to allow for simpler enrollment procedures may be challenging, but important.

4.2.3: Stigma

A common refrain in high-income countries is that low take-up reflects low demand for government services due to the stigma associated with receiving benefits (Moffitt 1983). In fact, the U.S. welfare system reforms in the 1990s reflected the idea that assistance programs led to high levels of social stigma. While there is comparatively little work investigating stigma in low- and middle-income countries, the research that there is suggests less concern about stigma. For example, Osman and Speer (2020) conduct a series of experiments in Egypt to recruit young people to labor market assistance programs, varying the message associated with recruiting to distinguish the effects of different types of stigma. Several messages designed to reduce "professional" or "social stigma" actually seemed to have primed

respondents to be more alert to these concerns. However, an explicit "welfare stigma" framing—i.e., focusing on the idea that the cost of the job training program was subsidized "to help those in financial hardship"—had no effect whatsoever on program take-up.

Nevertheless, understanding the role of stigma in more detail may be an important direction for future research. One set of questions revolves around the type of stigma and how public or private information is. For example, while the Osman and Speer (2020) study above discussed stigma as it relates to an individual person's internal belief system, another form of stigma that is understudied is whether people will not take up needed programs if they believe information about who is on the program is publicly available.

Another set of questions focuses on the type of program: in the Osman and Speer (2020) case, the program under consideration was a labor market assistance program. One reason for why they did not observe stigma is that this may be seen as "empowering," but perhaps there would be more stigma around food assistance programs. Moreover, conditional on the same program, the messaging around program goals may also matter: one could imagine a cash transfer that is given to the household may have different levels of stigma if it is described as welfare for poor families versus help for working families to invest in their children. In short, research to understand whether the type of program and messaging around programs discourage people from benefiting from social programs remains an important area for research.

4.3: MAKING SURE BENEFITS GET DELIVERED

A crucial challenge that low- and middle-income countries face when it comes to social assistance is governance, i.e., making sure that the benefits get delivered to the eligible individuals. In many countries, particularly in fragile contexts with unstable institutions, this is a non-trivial problem (Hanna 2020). In India's MGNREGA public works program, for example, Muralidharan, Niehaus, and Sukhtankar (2016) find a 30.7 percent leakage rate in Andhra Pradesh in 2012. In Indonesia's subsidized rice program, Banerjee et al. (2018) calculate that eligible households only receive a third of the intended subsidy. Camacho and Conover (2011) find cheating on the PMT formulas, and Niehaus et al. (2013) estimate that 70 percent of ineligible households in India have below-poverty line cards, and many households report paying small bribes. Of course, these are particular examples, and researchers often study leakage where it is thought to be high, so one should not take these as unbiased estimates of the overall leakage rates. Also, much of the leakage does go to other households who are nevertheless still near poor. However, these facts do suggest that meaningful improvements to programs can be made by improving the efficacy of service delivery.

Importantly, governance can also affect quality of services, and in turn the provision of low-quality services can reduce the effectiveness of social assistance. For instance, studies reviewed by Perera et al. (2022) find that social assistance improves demand for health services, but not health outcomes in settings with low quality of care.

Corruption risk can also distort program choices, as people may prefer programs with a lower risk of corruption. For example, in an Indonesian study, Kyle (2018) shows that in general, low-income people tend to prefer targeted social assistance programs to broad-based energy subsidies, for which the benefits

accrue more to the middle class. But, in districts where local politicians are corrupt, low-income citizens tend to support fuel subsidies, for which local corruption matters less.

A traditional approach to improving governance often focuses on monitoring and audits (Olken 2007). However, more recent evidence suggests that reforms to payment systems, private sector involvement, improvements in bureaucratic quality, and information provision can also help. We will discuss the existing evidence of these four approaches in the social assistance context.

Digital payment systems. In many low- and middle-income countries, the authentication of beneficiaries and payments systems are manual: there is a list of beneficiaries, and some local official needs to verify who receives benefits, and cash is given. This makes it hard for the central government to monitor whether beneficiaries get their full payment, or get a payment at all.

Several studies have examined the implications of digitizing this process. Muralidharan, Niehaus, and Sukhtankar (2016) examines the randomized rollout of "Smartcards"—biometrically authenticated payments—for receiving benefits from India's public works program (MGNREGA) and pension programs (SSP) in Andhra Pradesh, India. The Smartcards worked: they reduced payment delays, reduced leakage by 41 percent, and, quite importantly, increased program take-up by poor households. A second study, Banerjee et al. (2021) (described in more detail above) studied the conversion of an Indonesian food subsidy program from an in-kind program administered by local officials to digital vouchers (a debit card) redeemable at a network of bank agents. The digital vouchers led targeted households to receive substantially more benefits, which in turn bumped many poor households over the poverty line. These effects occurred even without biometric identification, suggesting that the digital card, rather than the biometrics, may be important in this case. A third study indicates that digital vouchers could affect the relative well-being of women within the households, not just the household as a whole: Aker et al. (2016) shows that in Niger, delivering cash transfers through mobile money increased women's bargaining power within the household, by making the transfer less observable to household members.

A word of caution though: Muralidharan, Niehaus, and Sukhtankar (2020) showed that reform in Jharkhand, India, that began to require biometric authentication for the subsidized food program had the unfortunate side effect of dropping many poor people from the system who had not linked their biometric information to their food benefits account. Banerjee et al. (2021) similarly finds that many people could not enroll in Indonesia's health insurance because of errors in the underlying identification data systems. In a report targeted to policy-makers, Zimmerman et al. (2020) caution that women may be disproportionately excluded from digital cash transfers because they are less likely to have official IDs and mobile phones. These findings emphasize the need for universal access and robust administrative data before attempting these types of reforms.

Finally, it is worth noting that the degree to which people prefer digital systems may depend on the overall level of adoption of those systems in the country more broadly. Berkouwer et al. (2021) show that during the Covid-19 crisis, people in Kenya—where there is high mobile money adoption—preferred mobile money over electricity subsidies, but it was the opposite in Ghana where mobile money is less widespread: here, nearly half of recipients preferred electricity transfers and many are willing to forgo high levels of subsidy in order to receive electricity instead of mobile money.

Back-end payment systems. A related type of reform is linking the back-end payment systems to delivery accounts. Banerjee et al. (2020) study this in the case of MGNREGA in Bihar, which simplified the payment process between the central government and the local one, and also showed important reduction in leakages: the changes reduced program expenditure by 24 percent while maintaining the same payments to workers. However, it is worth noting that these programs must also be done with care. For example, the reform studied by Banerjee et al. (2020) also delayed payments to beneficiaries. Similarly, Muralidharan, Niehaus, and Sukhtankar (2020) note in their study of Jharkhand that when the government transitioned to a system where payments were only made against biometrically authenticated payments, it ended up underpaying in some areas where there was not enough of a historical record. While these payment systems are important, such transitions must therefore be managed with care.

Information provision. If "leakages" arise from local officials not following the national government's rules, one fix is to provide information directly to beneficiaries so that they can potentially demand their full benefits from the local officials. Banerjee et al. (2018) experimentally test this hypothesis, in the form of identification cards for a food transfer program in Indonesia, and find that simply mailing out identification cards dramatically increases the subsidy eligible households receive. They find additional benefits from posting information publicly, creating "common knowledge" and thus increasing accountability of local official's actions.

Outsourcing delivery. While social programs are typically run by the government, there is also scope for private sector involvement. Theoretically, there can be efficiency gains from involving the private sector since the government may be able to provide stronger incentives to contractors than its own staff. Nonetheless, if there is little competition in the tenders, then the private sector may provide lower quality services than the government. Empirically, Banerjee et al. (2019) examine what happens when they randomly allow some villages to outsource the last mile delivery for Indonesia's rice subsidy program. Privatization of delivery leads to increased efficiency with no drop in quality, though the effects are small compared to the information provision process. It is worth noting, however, that this study was about privatization to various small-scale local vendors, not large companies; larger-scale privatizations remain an open question for further study.

Improvements in bureaucratic quality. He and Wang (2017) study what happens when villages in China receive college graduate village officials, who are more educated than typical village officials and supposedly free from local interest groups. Using the staggered timing of the assignment of these officials to local villages, they show that in villages with these college graduate officials, more households are registered as poor, more are registered as having disabilities and, most importantly, more poor households benefit from subsidies targeted to the poor.

4.4: GENDER AND SOCIAL PROTECTION

Gender-responsive social protection is an ongoing active area of policy innovation and research. The idea of gender-responsive social protection is to "explicitly respond to the differentiated needs of women and girls, alongside those of men and boys, to tackle the root causes of gender inequality, including discriminatory gender norms and practices."(Gavrilovic et al. 2022) We discuss a few specific issues in this area that have received some research to-date, and discuss open questions in this area below.

4.4.1: Does It Matter Who Receives Assistance?

Much analysis of social protection programs implicitly focuses on the "household" as a unit. But of course, "households" are composed of individuals, and different household members may have different preferences and needs.

If a household behaved as a single unitary unit (i.e., the "household" took budget decisions jointly taking everyone's views into account) then which household member should receive the program assistance would be irrelevant: no matter who received the income, the money would be spent in the same way.

However, there are many reasons to think that who the recipient is matters (see, for example, Browning and Chiappori 1998; Robinson 2012). If money is spent differently in the household depending on who receives it, then who is the recipient matters for policy. The empirical evidence on the degree to which this matters in a real-world policy context, however, is mixed.

A number of studies explicitly randomize whether transfers are given to men or women in low- and middle-income countries, finding little effects overall.[30] For example, Akresh, de Walque, and Kazianga (2016) randomize whether the transfer is given to mothers or fathers in Burkina Faso. They find no differences in child health or education outcomes on average. That said, they do find that giving transfers to mothers leads to lower levels of child labor. They also find some evidence that giving money to fathers improves outcomes in poor rainfall years, and leads to more household investment in livestock, cash crops, and housing.[31]

Likewise, Haushofer and Shapiro (2016), in their study of unconditional cash transfers in Kenya, randomize the recipient to be men or women, and again find few differences on average. They do, however, find that giving transfers to women leads to higher reported psychological well-being and greater scores on an index of female empowerment measures, though they find no differences on many other dimensions mentioned (e.g., food security, health, education). Note, however, that the size of UCTs in Kenya also affected women's empowerment: larger monthly transfers totaling US$1,525 led to more empowerment than smaller monthly transfers that added up to US$404. On the other hand, varying the timing of transfers in the same setting (lump-sum vs. monthly) made no difference for women's empowerment.

A number of recent studies have shown how targeting social assistance directly to women can affect women's empowerment and choices. For example, recent evidence from Field et al. (2021) show how female empowerment that stems from control over one's money in the form of bank accounts could have real effects: studying the government public works program in India discussed above (MGNREGA), they experimentally show that women who were set up to receive direct deposits of their transfers into their own accounts (rather than their husbands'), as well as training on account use, worked more in both the public sector program, as well as in private sector jobs. Three years later, this

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[30] These studies build on Lundberg, Pollak, and Wales's (1997) quasi-experimental study in the United Kingdom. Other important non-randomized studies include Duflo (2003)'s study of pensions, discussed in Section 2.

[31] Benhassine et al. (2015) also randomize the gender of the recipient of a transfer and find little difference on average.

even shifted community norms of female employment.

Similarly, Aker et al. (2016) show that in Niger, delivering cash transfers through mobile money increased women's bargaining power within the household, by making the transfer less observable to household members.

4.4.2: Impacts of Social Assistance Programs for Women's Outcomes

A number of evaluated social assistance programs have been shown to have particular benefits for women. For example, Baird, McIntosh, and Özler (2011) show that UCTs were particularly effective in reducing teenage pregnancy and marriage rates in Malawi. In Nicaragua, girls who were exposed to a CCT program for three more years were more likely to be economically active and have higher earnings ten years later (Barham, Macours, and Maluccio 2018a). Similarly, childhood exposure to Mexico's Progresa improved women's educational attainment, mobility, labor market outcomes, and household living standards (Parker and Vogl 2018).

However, one less well-studied issue worth noting is the impact of CCTs on women's domestic workloads. The burden of fulfilling conditions may disproportionately fall on women, which would place additional workload and stress on them (Perera et al. 2022).

Programs beyond cash transfers are also showing promising results: cash-plus and graduation programs have increased women's empowerment in multiple settings. In Bangladesh, (cash or food) transfers combined with group-based training on nutrition increased women's control over resources and their probability of working (Roy et al. 2019). Graduation interventions targeting low-income women have also increased women's empowerment and/or employment in Afghanistan, Bangladesh, and the Democratic Republic of Congo (Bedoya et al. 2019; Bandiera et al. 2017; Angelucci, Heath, and Noble 2022). However, Blattman et al. (2016) show that a graduation program had limited to no impact on women's autonomy in Uganda—if anything, women reported an increase in the degree of control their spouse asserted over their finances and freedom.

Similarly, public works programs were shown to increase female labor force participation in Sierra Leone (Rosas and Sabarwal 2016). In India, Azam (2012) finds that NREGA led to meaningful increases in female labor force participation and women's wages, though Imbert and Papp (2015) evaluated the same program and found no impact on women's wages. Bertrand et al. (2021) evaluated a public works program in Côte d'Ivoire and found that women were overrepresented in the population that benefited the most from earnings increases during the program.

Finally, it is important to note that while women can receive many benefits of these programs, there is a fear that those who are less empowered and potentially those with a lot to gain may be precisely those who are excluded from the system. Extra assistance and outreach may be needed for these groups. For example, Gupta (2017) show that women with lower levels of autonomy were more likely to complete their applications to for a widows pension scheme when they received application assistance and accompaniment to the enrollment facilities (a 110 percent increase).

4.4.3: Gender-Based Violence

Given the importance of the policy issue, as well as the large and increasing literature on gender-based violence (GBV) in social assistance programs, we provide a special section to review this topic. GBV is defined by UN Women (n.d.) to be "harmful acts directed at an individual or a group of individuals based on their gender".

Social assistance programs could affect GBV in different ways. For instance, by ensuring financial security to households, they may reduce poverty-related stress in the household and thereby decrease GBV. This effect may be reinforced if lower levels of stress reduce the adoption of coping mechanisms that are also associated with GBV, such as alcohol consumption. Further, social assistance transfers may increase women's bargaining power within the household, discouraging men from engaging in intimate-partner violence (IPV), a form of GBV. On the other hand, if household members disagree about the optimal allocation of the transfers or if spouses feel threatened by their wives' higher levels of economic empowerment, one worries that violence could increase.

The evidence on social assistance effects on GBV is mixed. CCTs, UCTs, vouchers, in-kind transfers, a cash-plus intervention, and a public works program have decreased or attenuated GBV in Colombia, Ecuador, Ghana, Kenya, Mexico, South Africa, and Bangladesh (Perova 2010; Hidrobo, Peterman, and Heise 2016; Haushofer et al. 2019; Peterman, Valli, and Palermo 2022; Bobonis, González-Brenes, and Castro 2013; Kilburn et al. 2018; Roy et al. 2019).[32] By contrast, CCTs, multi-faceted economic inclusion interventions, and a public works program had limited to no impact on GBV in the Philippines, Uganda, and Laos (Dervisevic, Perova, and Sahay 2022; Perova et al. 2021). Some studies even found that social assistance programs increased GBV for all or specific groups of women (Amaral, Bandyopadhyay, and Sensarma 2015; Angelucci, Heath, and Noble 2022; Hidrobo and Fernald 2013).

Given these mixed results, understanding the heterogeneity in these effects—i.e., how to effectively design programs to reduce GBV—is therefore an important area for future research. A number of studies have begun to explore which dimensions of program design may be important to ensuring that these programs can work to decrease GBV.

For example, Hidrobo, Peterman, and Heise (2016) shed light on whether the mode of transfer affects GBV differently. In an experiment in Ecuador, the authors found that cash, vouchers, and in-kind transfers had comparable effects on physical and/or sexual violence (a 19-30 percent decrease). They interpret this result as suggestive evidence that violence was not used to forcefully extract resources—had that been the case, cash recipients, whose spending options were less restricted and who were therefore more exposed to conflict over use of the transfer, would have experienced more violence.

Several studies suggest that coupling transfers with increased community-level interactions may help reduce IPV. In Bangladesh, Roy et al. (2019) found that cash and food transfers also led to similar effects on emotional and physical IPV: there were no impacts when cash or in-kind transfers were provided alone, but physical violence reduced by 6-7 percentage points if the transfers were combined with an intensive group-based training on best practices to improve nutrition (a 26 percent decrease relative to

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[32] A review by Buller et al. (2018) reviews fourteen quantitative and eight qualitative studies and find little evidence, however, that transfers drive IPV. In fact, they find that most of the studies demonstrated evidence of decreased IPV, with only two studies showing overall mixed or adverse impacts.

the comparison group). The authors present evidence that coupling transfers with training sessions may have reduced IPV by increasing social interactions outside the household, which could have contributed to empower women in myriad ways. Along the same lines, evidence from Nigeria (Cullen et al. 2020) shows that combining cash transfers with a community-level livelihoods program decreased sexual IPV, whereas transfers alone increased sexual IPV.

When transfers are offered in the form of public works programs, one more aspect must be considered: does the work requirement reinforce the backlash mechanism, with husbands responding to their wives' employment with more violence? Or does it reduce violence by increasing women's bargaining power[33] or limiting time spent with partners? In India, Amaral, Bandyopadhyay, and Sensarma (2015) found that the MGNREGA program increased violence within and outside the home, with the latter being a result of exposure to risks in commuting and unsafe workplaces. Sarma (2022), on the other hand, estimated that the same program mitigated the pernicious effects of droughts on domestic violence by attenuating economic stress, which is a potential trigger for domestic abuse. In Laos, a workfare program increased women's income but did not affect GBV (Perova et al. 2021).

Other features of the program may matter. First, the size of the transfer may matter: Angelucci (2008) shows that small CCT transfers given to women reduced IPV by 37 percent for all households, but large transfers sparked aggressive behavior among less-educated husbands. Second, who receives the program may also matter: Haushofer et al. (2019) studied the relevance of the recipient's gender in the context of rural Kenya, where they found that physical IPV decreased more when transfers were offered to women rather than men, but sexual IPV only fell when the recipients were women.

Heterogeneous impacts by education level were further identified in Ecuador, by Hidrobo and Fernald (2013). In that context, the effects of a cash transfer offered to mothers on IPV varied with women's education and their education relative to their partners'. Participants with above primary school education saw a decrease in psychological IPV, while participants with primary school education or less experienced more emotional IPV if they had the same or higher levels of education than their partners. Angelucci, Heath, and Noble (2022) also found heterogeneous effects of a graduation program on IPV in the Democratic Republic of Congo in terms of initial exposure to violence: women at high risk of violence experienced less IPV and women at low risk experienced more IPV.

4.5: REFUGEES

Administering social protection programs for refugees may be more challenging than for the general population. There are many important questions about how to deliver these programs. For example, utilizing existing programs may not be suitable for refugees, as their needs to maintain a basic standard of living may be different. On the other hand, separate programs—outside the normal systems—may not always be politically feasible. Social protection delivery to refugees within fragile states may pose additional challenges, as fragile states tend to have weaker and less stable institutions (Hanna 2020).

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[33] Beyond increasing women's earning ability, which can affect women's bargaining power, the employment component could also give them more access to social networks and information, which may affect their propensity to report violence and the negotiations that happen within the household.

A number of papers try to explore the impact of programs aimed at helping refugee or displaced populations. For example, Özler et al. (2021) evaluate Turkey's cash transfer for refugees, the largest cash transfer program for international refugees in the world. They find improvements in food consumption and lower levels of indebtedness among beneficiaries, and an increase in school enrollment in more vulnerable households. Salti et al. (2022) quasi-experimentally study the impact of varying cash transfer durations to Syrian refugees in Lebanon by exploiting changes in the program's eligibility criteria. They find that households that received cash transfers for over 12 months had significantly better outcomes (for instance, household and food expenditure and access to housing) than those who received cash transfers for less than a year. Moussa et al. (2022) study the same program in Lebanon, using a similar empirical strategy, and find that cash transfers to refugees are associated with increased formal schooling, better child health outcomes, and lower levels child labor and early marriages for teenage girls.

Hidrobo et al. (2012) use an RCT to compare the impact of cash transfers, food vouchers, and in-kind food transfers on Colombian refugees and poor Ecuadorian households in Ecuador, finding that all programs led to improvements in beneficiaries' food security (measured by value of food consumption, caloric intake, and dietary diversity). Food vouchers had the greatest impact on dietary diversity, and food transfers were associated with the biggest increase in caloric intake.

However, given the importance of this topic, many question remain—from what are the kinds of needs refugees have, to how should these programs be delivered, to the politics around these programs.

4.6: CLIMATE CHANGE

Social protection also has a role to play vis-à-vis climate change, both in terms of helping cope with climate-induced shocks and with regard to reducing climate-damaging behaviors. We do not review this literature entirely here—we refer interested readers to Tenzing (2020) for a nice review—but we touch on a few themes.

First, an increase in extreme weather events due to climate change will lead to increased mortality risk, agricultural loss, flooding, and so forth. Many households risk large shocks to income, shocks to health, changing opportunities for work, loss of land and/or housing loss, and displacement. For instance, Burgess et al. (2017) study the impact of climate change in India, and find that hot days increase mortality in rural areas and are associated with declines in agricultural productivity and incomes. Many of the social protection programs that we discuss throughout this review aim to address these challenges by helping households reduce risk, improve health resiliency, and so forth. As examples, agricultural insurance that addresses climate risks may be increasingly important as extreme weather shocks increase and property insurance may be important as people are displaced. Programs may need to be specially designed to deal with particularly large or aggregate shocks, and it is possible that new types of programs may need to be designed specifically for climate-related risks not covered by other programs (e.g., due to heat).

Second, there can be a role for social protection programs in helping encourage behavior that can reduce climate-change related activities. For example, conditioning cash transfers on good environmental behaviors is increasingly common under the rationale of compensating households for loss of livelihoods by, for example, not clearing trees on their land. For example, Jayachandran et al. (2017) experimentally

evaluates this type of cash transfer in Uganda and finds that it reduces deforestation. Arriagada et al. (2012) finds similarly positive results in Costa Rica. Providing asset transfers or jobs training to transition households away from work that affects the ecosystem (i.e., overfishing, etc.) is also increasingly common. A note of caution that cash transfers may worsen environmental outcomes by increasing demand for harmful goods (Greenstone and Jack 2015). Alix-Garcia et al. (2013) and Gertler et al. (2013) associate Mexico's Oportunidades CCT with higher consumption of land-intensive goods (e.g., beef) and energy-intensive goods (e.g., refrigerators), respectively. When designing social protection programs, it is important to consider potential unintended consequences and try to address them—how to do so remains an important question for research.

As a J-PAL initiative focuses explicitly on these topics (K-CAI), we also refer project teams that focus on climate mitigation to K-CAI (https://www.povertyactionlab.org/initiative/king-climate-action-initiative).

4.7: MEASURING OUTCOMES

Research on social protection needs to address the varying goals of social protection programs. Some programs aim to address one outcome in particular, but most programs are multifaceted and, therefore, address a range of different economic, social, and political outcomes. Research designs need to take these varying outcomes into account.

The first set of key outcomes that governments often care about in enacting social protection programs are economic. For example, redistributive programs often aim to "help the least fortunate" and so poverty relief is often a key outcome of these programs. Poverty relief is measured in a variety of ways, including indicators such as income or consumption among the poor, the overall poverty rate, poverty gap, poverty rate squared, etc. A second tranche of outcomes (particularly for social insurance programs) are related to risk—for example, consumption smoothing or food security. All of the programs that we discuss—social assistance and social insurance—can aim to address these economic outcomes (depending on design).

In practice, governments increasingly have a broader range of objectives beyond the pure economic indicators, such as increasing the dignity of older persons, supporting participation of persons with disability, improving gender equality, increasing labor market participation of women, reducing intergenerational poverty, avoiding civil unrest, improving political stability of programs, and so on. The design details of different programs may make a real difference in achieving these social outcomes—for example, whether to provide transfers to the household as a whole or an individual within the household, whether programs should have conditions explicit to achieve these aims or not, what kind of complementary information and trainings should be provided, and so forth.

For the Initiative funding competitions, we expect proposals to clearly lay out both the theory of change that their studied innovations aim to achieve and the specific measurement tools that will be used to measure these outcomes. Moreover, we expect a discussion of who within the household will accrue the benefits—the household as a whole, or certain groups (e.g., children, women).

4.8: OPEN QUESTIONS

In this section, we summarize some of the open questions that we have highlighted above and provide additional questions for research that the Initiative aims to help generate new RCT research on. As previously mentioned, note that this list is suggestive, and other topics beyond the list (justified as providing new insights in policy relevant questions that we have missed) would also be considered.

- *Leveraging big data:* How can policymakers leverage new types of administrative data (e.g., mobile phone metadata) for identifying beneficiaries? Are these kinds of administrative data effective in capturing more timely measures of economic need? How can policymakers use administrative data to identify individuals who are affected by shocks? What kind of data is needed to identify individuals affected different types of shocks (e.g., weather shocks vs. economic shocks)?[†]

- *Place-based policies*: Many social programs are place-based, either due to geographic targeting, due to the political economy, or because the underlying data and payments systems require being verified or receiving benefits close to home. Does this lead to reduced migration and opportunities? Are there ways to introduce flexibility in these systems to ensure that those who take advantage of migration opportunities do not lose their benefits? To what extent can technology overcome constraints to expanding place-based policies, in rural and urban settings?[†]

- *Targeting using means-testing and proxy-means testing:*
    - To what extent does means-testing work well in contexts where income is not verifiable?
    - What are the trade-offs between transparency and a black-box approach for proxy-means testing?
    - How can a PMT be made compatible with grievance mechanisms?
    - How does transparency of PMT formulas affect outcomes?[†]

- *Incorporating more measures of vulnerability into our metrics:*
    - How can flexible, context-specific notions of vulnerability be incorporated into how we think about beneficiary identification? Relatedly, how can vulnerabilities experienced by different population groups (e.g., people with disability) be incorporated into beneficiary identification?[†]
    - Could administrative data—from both government and private sector entities—be used to better predict vulnerability?

- *Identifying beneficiaries in categorical programs:*
    - How can systems be designed to identify beneficiaries of categorical programs in context with imperfect administrative records?[††]

- *Application systems*:
    - What types of communication are needed for different populations to best access social protection? Do different types of techniques work better to help make certain populations feel comfortable applying for benefits?[†]

- Are particular communication strategies required to help ensure take-up of marginalized or low-income populations, given stigma, challenges accessing government, or other concerns?

- How can policymakers reduce paperwork and verification burdens while still generating self-selection? How can these policies be more effective?[†]

- Do unverified means tests work as an effective self-targeting system?[†]

- How can policymakers best harness new technologies in application systems to include more eligible people in social assistance programs? And how can policymakers make sure that groups with differential access and use of technologies, such as women and older people, are included in these systems?[†]

- Are there different effects of self-selection systems by gender? And if programs are targeted to households rather than individuals, are women less likely to take-up? Does this differ particularly in areas where women have less mobility?[†]

- *Community-information identification of beneficiaries:*

  - How do we best understand the preferences of communities for who should be eligible for programs, and how this may different from what higher levels of government may decide? How can what communities are doing and the implicit value judgements communities are making inform more data-based approaches?

  - How can policymakers predict in which locations community-based approaches are likely to be most effective? What is the maximum size of the community in which one could conduct community-based targeting? How do these approaches work in urban contexts? Or those with active political clientelist systems?

  - How can community-based approaches be made compatible with cross-community targeting? How can policymakers design incentive-compatible procedures for community-based targeting that reveal the level of poverty, not just who is poor?

- *Targeting on productive use:*

  - How can policymakers identify the people who will benefit most from the program, in the case of certain subsidies (i.e., irrigation services for those who can benefit, health subsidies for those who are at risk for certain diseases, etc.)?

  - How can policymakers design policies so that they are taken up by those will benefit from them the most?

  - If there are multiple social assistance programs (i.e., a cash or public works or entrepreneurship program), how can policymakers design programs to best match the right programs to the right people? How to best design communication strategies so that people choose the right programs for them?

- *Categorical targeting:*

  - In which settings does categorical targeting work best?

- Do categorical programs have more or less stigma than poverty-targeted programs, and when?

- Do these programs incentivize behaviors to meet particular categories? Are categories manipulable?

- *Comparing universal vs. poverty-targeted programs:* More research in this area is needed to understand the fairness beliefs and political considerations of targeted programs versus universal programs, such as:

  - Do people view universal programs as fairer, or do they value redistributive properties of poverty targeted programs?[††]

  - Does universal access, either for the whole population for a specified category of eligibility, increase the budget available for programs, or allow for the long-run sustainability of these programs? Does a higher degree of inclusion induce higher real values of transfer over time?[††]

  - How does the political response of targeted programs compare to that of universal programs? Does it translate to different voting patterns, and different preferences for the level of taxation or budgetary allocations to social assistance programs?[††]

  - Does the quality of services stay the same if the program is targeted or a universal? Do transfers retain their real value better in universal or poverty-targeted programs?[††]

  - Do universal programs create "social cohesion"? Support for democracy? Do they increase willingness to pay taxes as part of the "social contract"? Is there a difference in these effects between universal programs and targeted programs?[††]

  - Do the political support implications of universal programs differ if the amounts that people receive in universal programs are tilted in favor of the poor?[††]

- *Affluence testing:*

  - How can governments use affluence testing in high-poverty environments, especially those where a poverty-targeting approach may struggle to identify the poorest people within a very low-income population? [†]

- *Incomplete take-up:*

  - What are strategies for reducing exclusion error in social protection programs? What types of grievance mechanisms are most effective for those excluded?[†]

  - What is the role of stigma and social norms in incomplete take-up of social assistance programs? Does it matter whether participation in social assistance is public or private information?[†]

  - How can social protection programs be designed or communicated to reduce stigma?[††]

  - Does take-up vary by the type of program? How can program design features be changed to increase take-up? [†]

  - What is the role of different eligibility requirements of social programs on take-up? [†]

- Would enrolling in one program make one ineligible for a different program later on that may be a better fit?

- *Disability:*

  - How can social assistance programs be designed to meet the needs of/be inclusive of people with disability?[††]

  - Do disability programs need to be designed differently based on gender?[††]

  - Are special programs for people with disability needed, or can they be appropriately supported within general-purpose social assistance programs? Do these additional programs create additional stigma relative to supporting people with disability through general-purpose social assistance?

  - How can program enrollment processes be improved to ensure that people with disability access the programs they are eligible for?[††]

  - What is the impact of special work subsidies, quotas, and training for people with disability?[††]

- *Gender:*

  - How can we best understand which types of programs are most effective in improving women's outcomes?

  - How do gender and social norms affect uptake of, and benefits from, social protection for women and girls across the life cycle?[††]

  - Are there important differences between men and women informal workers and their access to social assistance?[††]

  - How can social assistance programs address the specific nutritional needs of adolescent girls and pregnant and breastfeeding women?[††]

  - Does the burden of fulfilling conditions for CCTs disproportionately place more work and stress on women?

  - The impact of social protection on women's time and provision of care is under-researched. How does social protection interact with women's participation in the care economy? How might different types of social protection programs support the social care work force (predominantly women)? How do care and domestic responsibilities affect women's participation in social protection programs?[††]

- *Social assistance delivery:*

  - What works in low-capacity contexts for integrating digital technology and mobile payments into social assistance delivery?[††]

  - What is the impact of a larger-scale privatization or public-private partnerships on the delivery of government assistance?[†]

- Are there important differences in uptake of social assistance programs between men and women?[††]

- *Long-run consequences:*

  - Many of the programs we discuss here have only been evaluated for a short period of time. What are the medium- and long-run impacts of these programs?[††]

- *Refugees:*

  - What do the needs of refugees look like?

  - Should refugees be covered under regular social protection programs or have specific programs geared towards them?[††]

  - How do voters perceive programs targeted to refugees?[†]

- *Climate change:*

  - How can social insurance help individuals cope with risks related to climate change?[††]

  - How can social protection support women and girls' resilience in the context of climate change and climate shocks?[††]

5. INTERLINKAGES ACROSS PROGRAMS

In this section, we take a step back and think about the interaction of various social protection programs into a coherent system, and as part of this, how the different types of programs combined can also be used to help improve incomes, mitigate risk, and achieve broader social goals. While we discuss many of the programs in this section (and indeed, in earlier sections as well) individually for ease of exposition, the goals and challenges of many of these programs overlap and relate to one another. Moreover, governments are often implementing a range of these programs, as they are providing help for different needs, aiming to impact different outcomes, or affecting individuals at different parts of the life cycle. Thus, it is important to think through how these programs interact in practice, and how these different tiers and layers of social protection support can combine to provide an adequate level of support. Throughout, we also talk about the scope for research to help provide guidance in generating policy and systems more broadly that better meet the varying needs of citizens.

Life in low- and middle-income countries is risky. Even in high-income countries, adverse selection and moral hazard mean that there is an important justification for government involvement to help households smooth risk, and these countries have substantial policies and programs that provide transfers, subsidies, and social insurance. However, the additional challenges highlighted above—low insurance demand, low trust, liquidity constraints, challenges of state verification, and informality—mean that even if individuals were offered contracts priced fairly for the entire population, take-up may be low. Understanding how to solve these issues—and to what degree appropriate government policy may be effective—remains an important direction for future work.

Moreover, the fact that there are these substantial uninsured risks has broader implications for the design of social protection systems as a whole. Recall the poverty traps example discussed in Section 2.1.5. A further implication of the poverty trap idea is that for a household in the "good" equilibrium, an uninsured negative shock can push them across the threshold and into the bad equilibrium, where they may spiral down into further poverty. This implies that solving the insurance challenges discussed here may have spillover effects, reducing the number of people who need social assistance programs to ensure basic livelihoods. Indeed, Ikegami et al. (2018) and Janzen, Carter, and Ikegami (2021) argue that, for this reason, in a dynamic sense governments may be better off diverting some of their standard targeted social protection funds to providing additional social insurance. Even to the extent these programs do not solve the entire financial shock, the conditionalities in some of these programs can direct households to smooth them in ways that are less socially costly, i.e., by encouraging them to keep children in school (de Janvry et al. 2006). This can have similar inter-generational protective effects, preventing a shock in one generation from creating a long-run cycle of poverty.

Conversely, to the extent that households are receiving social assistance, this may provide an income floor such that a given income shock does push them as close to extreme poverty. This only works, however, to the degree that the relevant households are receiving social assistance, either through universal or categorically-eligible programs or having been found to be eligible previous in a poverty-targeted program.

The previous discussion suggests several ways in which existing social protection programs can become even more shock responsive. At the individual level, to the extent that governments can use targeting it can be more **responsive**. For example, by using some combination of high-frequency administrative data such as electricity and mobile phone usage, on-demand applications, and community-driven approaches to verify shocks, the same programs that provide assistance to those who need income support can *also* provide assistance to those who have experienced shocks, and hence can help fill some of the gaps in insurance highlighted in this section. As described above, this works to the extent the government wants to help people who fall into poverty or near-poverty due to shocks; this approach does not work for middle classes households who experience negative shocks that make them much worse off, but still remain middle class.

At the aggregate level, governments can use the types of programs discussed in Section 2 to respond to aggregate shocks by **changing the eligibility thresholds to include more people**, or by **increasing transfer amounts**. For example, the government of Kenya explicitly relaxes eligibility rules for its food security program in time of drought to make it more responsive (Gardner et al. 2017). All households in the four counties covered by the Hunger Safety Net Program were registered during the expansion of this program, regardless of eligibility status, to facilitate efforts to rapidly scale up the transfer during emergencies. This has allowed 50 to 75 percent of the population in these counties to receive cash transfers during droughts.

During the Covid-19 crisis, when this was an extreme issue, many countries responded in creative ways to adapt their existing programs, many of which were of the type discussed in Section 2, to address these issues. Indonesia, for example, both relaxed the eligibility rules and expanded the amount of transfers in its food voucher program, as well as created a new community-targeted cash transfer program in all rural villages. Pakistan, for example, built on its flagship cash transfer program for women, expanding eligibility and using cell-phone metadata to help determine eligibility (Lone et al. 2021). These examples were forged rapidly in a crisis. Presumably, with advance planning, governments can do much more to make their existing redistribution programs also function to smooth shocks, and indeed, can consider making these adjustments automatic. We regard making these programs more responsive as an important area for future research.

5.1: OPEN QUESTIONS

Open questions for future research related to these broader implications for social protection system design are listed below. As previously mentioned, note that the list of open questions below is suggestive, and other topics beyond the list (justified as providing new insights in policy relevant questions that we have missed) would also be considered.

- How can governments design programs to deal with both aggregate and idiosyncratic shocks?[††]

- Making social assistance programs more dynamic*:*

    - How can existing social assistance programs and program designs be adapted dynamically to help address individual shocks, particularly for marginalized and vulnerable populations?

- How can existing social assistance programs and program designs be adapted dynamically to help address systemic shocks?[††]

- What are the relative merits of developing ex-ante interventions to protect against risk vs. ex-post programs that support recovery?[††]

- What is the role of social protection in reducing vulnerability in the face of shocks?[††]

- Where can social insurance policy be effective in overcoming challenges that inhibit private insurance markets in low- and middle-income countries (e.g., low insurance demand, low trust, liquidity constraints, verification challenges, informality)?[††]

- How effective were social insurance schemes in protecting individuals against the risks related to Covid-19?[††]

6. THE POLITICS OF SOCIAL PROTECTION PROGRAMS

To run a social protection system or program, one cannot abstract away from the politics. Politics affects different aspects of how programs operate in practice, as voters make decisions about the overall level of redistribution they want and the form of it. Differences in who has political power, voice, and access may further determine how programs are designed and who ultimately benefits from them. And, as with any government program, there are interesting dynamics in how politicians think about these programs—do they design platforms on social protection to address voters' views and needs (as well as which voters' needs)? Or, do incumbents manipulate the programs by, for example, changing programs to shore up support with certain groups prior to elections?

While we cannot comprehensively review the entire politics literature on this topic here due to lack of space, we highlight a few of the issues below, particularly how it relates to the Initiative funding competitions. For a broader view, we also refer the interested reader to the review by Golden and Min (2013) for a discussion of related issues from the political science perspective.

6.1: VOTERS

The existence or receipt of social protection programs may affect voter behavior—either positively or negatively. For example, some voters may reward parties or politicians that introduce or improve these programs due to a stated preference towards greater redistribution—regardless of whether they actually receive benefits. Moreover, voters who receive these programs may reward the parties that implement them either because they are happy with the services and help that they are receiving from the government, or because they are dependent on the help and would want the programs to continue. On the other hand, others may vote against those that implement these programs, either due to an inherent preference against redistribution, because they are not benefiting directly from these programs, or because they believe that the quality of the programs is poor and they are not reaching the right people.

A number of studies have looked at whether the introduction or expansions of social protection can induce political participation and/or change voting patterns. This is empirically hard to disentangle, as voting may induce the introduction of social protection as well. A number of different empirical strategies have been used to understand these issues.[34]

Several studies use regression discontinuity designs that compare those who are just above the poverty eligibility cutoff with those just below to understand the impact of receiving a transfer versus missing out. These papers have typically concluded that *directly receiving benefits* leads to increased political engagement and political support for those who designed or implemented the program. One such study is Manacorda, Miguel, and Vigorito (2011), which studies PANES, a large targeted temporary cash

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[34] One conceptual issue which plagues all of these studies is that there is a tension between empirical identification and what one would expect from rational voters. In order to generate causal identification of the impact of a policy on electoral outcomes, one needs random or quasi-random allocation of programs to some areas or people and not to others. But, if voters understood this, they would know that the only reason that a treatment area or person received the program and a control did not was due to random chance; that is, it was *not* due to any action of the politician. So, a rational voter, even one who would reward politicians who help them, should not reward a politician for having been randomly allocated to a treatment group.

program in Uruguay. Using survey data on voting outcomes, the authors find that beneficiaries were more likely to favor the government that implemented PANES. This was true even after the program itself ended, suggesting that it was less about people voting based on their current receipt of benefits but perhaps due to a change in belief about the party's beliefs on redistribution.

A second study employing these methods was Pop-Eleches and Pop-Eleches (2012) that studied a 200 Euro coupon to poor families for the purchase of a computer in Romania. They also found that beneficiaries were more likely to support the incumbent government coalition, driven by both high mobilization and also party-switching. But, interestingly, the higher trust was only to the local government officials who administered the program, but not the central government that designed and funded the program. A final example is from Colombia's CCT program, Familias en Acción. Conover et al. (2020) explored discontinuities in program eligibility and variation in program enrollment across voting booths and find that the program increased the beneficiaries' probability to register to vote, especially for women, who were the direct recipients of the program.

A series of other papers examined experimental variation in the roll-out of transfers programs to look at their effect on political outcomes of everyone, *regardless of whether they received the program*. The results are mixed. For example, Labonne (2013) shows that a CCT program in the Philippines also led to increased vote share for the incumbent, but this effect was only evident in municipalities where there were high levels of political competition. Blattman, Emeriau, and Fiala (2018), however, examine a randomized allocation of grants to youth to fund entrepreneurship activities in Uganda, and find no effects on support for the ruling party.[35] Likewise, Imai, King, and Velasco Rivera (2020) find no electoral impact of a large-scale randomized trial in Mexico which randomized health insurance to selected areas (discussed above).

Brollo, Kaufmann, and La Ferrara (2020) show that beneficiaries may react to specific program features, not only the program as a whole. Using random variation in the timing of when beneficiaries learned about penalties for noncompliance with Bolsa Familia's conditionalities around the 2008 municipal elections, they find a lower vote share for candidates aligned with the president in areas where more beneficiaries received penalties shortly before (as opposed to shortly after) the elections.

6.2: POLITICIANS

A key question is how politicians develop social protection programs and policies based on political incentives. The best case, but overly simplistic, scenario is that voters have preferences for redistribution and the design of such policies and programs, they make their voices heard through activism and voting, and politicians respond by providing the types of programs that citizens need. However, there are many challenges here—as citizen voices are not always aggregated perfectly through the voting booth, with those who may be most vulnerable often excluded from the systems. To gain support with particular

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[35] There is also a literature examining the electoral consequences of Progresa in Mexico. The challenge in doing so, as pointed out by Green (2006) and discussed in our discussion of Progresa above, is that Progresa treated the control areas too, and so the randomized trial compares areas that received Progresa for ~30 months prior to the election to areas that received it 6 months prior. Imai, King, and Velasco Rivera (2020) show that once data errors in the original De La O (2013) study of the electoral consequences of the Progresa RCT are corrected, there is no effect of Progresa on electoral vote share. Imai, King, and Velasco Rivera (2020) also use an alternative, discontinuity-based design and again find no impact of Progresa on vote shares.

voters or groups, politicians may also change spending patterns or manipulate rules or programs to confer benefits to certain groups.

A number of papers aim to understand whether politicians strategically time spending around elections, which could have implications for general macroeconomic conditions (e.g., too much spending in good times, and thus limitations in available budget to increase spending in recessions), following on the work of Nordhaus (1975). For example, Khemani (2004) found that, in India, public investment increased more before scheduled investments, but then contracted in other times to keep the net balance unchanged. Composition of spending changed too, as Khemani (2004) found that resources shifted to narrow interest groups (e.g., tax breaks provided to small groups of producers) rather than broad-based consumption spending. Drazen and Eslava (2010) also found, for Colombia, that the composition of spending changed before elections, particularly around targeted expenditures.

In addition to changing spending patterns, politicians can also adjust the rules or implementation of existing programs to target particular groups and voters. For example, Camacho and Conover (2011), discussed above, finds evidence of manipulation of the targeting rules before elections, while Brollo, Kaufmann, and La Ferrara (2020), also discussed above, finds that enforcement of CCT rules becomes more lax before elections in municipalities where the incumbent associated with the program could run for reelection.

Given the political context, can improving representation and voice improve incentives for politicians? Can it shift policies and programs towards the previously unrepresented groups? A number of papers implies that it can. For example, Pande (2003) and Chattopadhyay and Duflo (2004) find that improving representation of minorities and women in India through political reservations led to spending allocations that better mirrored citizens' preferences. Similarly, Fujiwara (2015) found that increasing the enfranchisement of less educated citizens through electronic voting led to increased spending towards health care, which benefits low-income populations.

Note, however, that spending decisions—even if they align well with voters—may come at a cost in terms of other human capital investments. For example, Bursztyn (2016) found that governments invested less in public education because lower-income decisive voters preferred them to allocate resources mostly toward redistributive programs, such as cash transfers. This could potentially be welfare enhancing if, for example, public systems are poor and households decide how to invest in their child's education through private systems that improve education. However, it could also come at a cost if parents do not fully take into account the full benefits of education for their children and underinvest in schooling, or if other challenges—pressure from other family members for funds, other immediate spending needs—also lead to an underinvestment in education. It also suggests that social protection spending needs to be examined through the overall budget lens, and not just through individual components in making decisions on overall human capital investment needs.

6.3: OPEN QUESTIONS

In terms of political economy, there are a number of important open questions. As previously mentioned, note that the list of open questions below is suggestive, and other topics beyond the list (justified as providing new insights in policy relevant questions that we have missed) would also be considered.

- *Voting decisions, and implications on policy:*

  - Do voters prefer universal or more targeted programs? Does this differ between redistributive programs and risk-mitigation programs? Does this translate into different policy prescriptions and different budget support?

  - How do voters trade off different types of social protection programs? Do they reward politicians more for particular forms of programs?[††]

  - How do voters trade-off broad-based energy subsidies versus cash transfers?

  - Could political bargains be found whereby the most distortionary policies (e.g., free electricity for farmers) are replaced by broad-based transfers? In general, how might voters be convinced to give up patronage-based policies for better overall governance?[††]

  - With high inequality, some have argued that social protection safeguards democracy by smoothing out the income distribution. Is this true?[††]

  - Are social protection programs less popular if a larger share of beneficiaries are marginalized groups?[††]

- *Political cycles:*

  - How is the timing and choice of social protection programs related to political cycles?[††]

7. CONCLUSIONS

Social protection programs are becoming increasingly prominent in low- and middle-income countries worldwide. This is partly due to the fact that countries are becoming richer, and so countries that were recently quite poor are now middle-income, and with substantially larger tax bases are able to fund more sophisticated systems. But, it also reflects the fact that, conditional on a country's income level, countries are more likely to have systems in place that provide assistance to the poor, and social insurance of a variety of types, than they were fifty or even twenty years ago.

But the fundamental nature of some of these countries' economies—such as the large informal sector, and the deep absolute poverty level of the poor—means that the way these programs are designed differs in fundamental ways from the way they are designed in high-income countries. This also highlights the need for research that is specific to these contexts, and that is designed to meet the policy challenges that low- and middle- income countries are actually facing. Given the significant heterogeneity in low- and middle-income countries, it is important that future research evaluates policy challenges in a variety of contexts, with different degrees of poverty and informality. This piece sets out to review the existing literature, and also highlight the research gaps that the J-PAL-EPoD Social Protection Initiative aims to help fill.

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APPENDIX

TABLE 1: PERCENTAGE OF COUNTRIES THAT ENACTED UCTS COVERING AT LEAST 1% OF THE POPULATION BY INCOME CLASSIFICATION, OVER TIME

Income classification	Year				
	1980	1990	2000	2010	2020
Low < $1,046	0.036	0.028	0.086	0.200	0.261
Lower-middle $1,046-$4,095	0.019	0.097	0.111	0.263	0.305
Upper-middle $4,096-$12,695	0.048	0.034	0.256	0.333	0.340
High > $12,695	0.156	0.154	0.176	0.200	0.250

Notes: This table shows the percentage of countries that enacted UCTs covering at least 1% of the population, by each year considered against income classification, following the World Bank's 2021 income classification thresholds, as measured by GDP per capita (in constant 2015 $US). These figures are plotted in Figure 2. We define UCT as a government-implemented, large-scale program that enforces no conditions on recipients and is means-tested. *Source:* GDP per capita and population data from the World Bank (2021a; 2021b).

TABLE 2: PERCENTAGE OF COUNTRIES THAT ENACTED CCTS COVERING AT LEAST 1% OF THE POPULATION BY INCOME CLASSIFICATION, OVER TIME

Income classification	Year				
	1980	1990	2000	2010	2020
Low < $1,046	0.000	0.028	0.029	0.067	0.087
Lower-middle $1,046-$4,095	0.000	0.016	0.016	0.105	0.220
Upper-middle $4,096-$12,695	0.000	0.034	0.070	0.216	0.240
High > $12,695	0.000	0.000	0.000	0.062	0.059

Notes: This table shows the percentage of countries that enacted CCTs covering at least 1% of the population, by each year considered (1980, 1990, 2000, 2010 and 2020) against income classification, following the World Bank's 2021 income classification thresholds, as measured by GDP per capita (in constant 2015 $US). These figures are plotted in Figure 3. We define CCT as a government-implemented, large-scale program that enforces health or education-related conditions on recipients. *Source:* GDP per capita and population data from the World Bank (2021a; 2021b).

TABLE 3: PERCENTAGE OF COUNTRIES THAT ENACTED NON-CONTRIBUTORY PENSION SYSTEMS BY INCOME CLASSIFICATION, OVER TIME

Income classification	Year			
	1960	1980	2000	2020
Low **< $1,046**	0.000	0.000	0.176	0.143
Lower-middle **$1,046-$4,095**	0.026	0.137	0.241	0.382
Upper-middle **$4,096-$12,695**	0.455	0.381	0.317	0.733
High **> $12,695**	0.500	0.483	0.622	0.690

Notes: This figure plots the percentage of countries that enacted non-contributory pension systems by each year considered (1960, 1980, 2000 and 2020) against income classification, following the World Bank's 2021 income classification thresholds, as measured by GDP per capita (in constant 2015 $US). These figures are plotted in Figure 4. *Source:* GDP per capita data is from the World Bank (2021a).