

Using Technology to Improve Direct Benefit Transfer in India

Researchers:

Eric Dodge

Charity Troyer Moore

Yusuf Neggars

Rohini Pande

Sector(s): Political Economy and Governance, Social Protection

Sample: 73 districts in the two states of Madhya Pradesh and Jharkhand

Target group: Civil servants

Outcome of interest: Social service delivery Transparency and accountability Corruption and Leverages

Intervention type: Digital and mobile Community monitoring

AEA RCT registration number: AEARCTR-0001292

Partner organization(s): Madhya Pradesh State Employment Guarantee Council

Can using technological innovations for monitoring improve the administrative implementation of social protection programs? In partnership with the Ministry of Rural Development in two states in India, researchers conducted a randomized evaluation of a new internet- and mobile-based management and monitoring platform, PayDash, to improve the administration of MGNREGS, a large workfare program in India. Platform access significantly reduced wage payment delays in areas with worse baseline performance and its use was higher when senior officials were also provided access.

Policy issue

Increasingly, governments use social protection programs to redistribute gains from economic growth and protect poor households from downturns. Yet, public administrations face challenges in ensuring that benefits are provided in a timely fashion, often to the detriment of the most vulnerable beneficiaries. In the absence of easily accessible information, government officials may be limited in their ability to monitor social protection payment implementation, including correctly identifying the sources of payment delays and determining who to hold accountable. Can easier access to monitoring information across different levels of the administration help social protection programs reach their intended beneficiaries on time?

Context of the evaluation

India is an important example of an emerging economy that has expanded its use of social protection programs but struggles with program implementation. The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGS) is a key piece of India's social protection system. The program provides each rural household with up to one hundred days of annual unskilled labor employment. Between 2016 and 2017, nearly 49 million rural households benefited from the program. Multiple studies document MGNREGS's positive impact on rural households' well-being¹.

However, payment delays have been a challenge for the program. Program participants in 2016-17 in the states of Madhya Pradesh and Jharkhand received payments 27 days after completing the work on average, higher than the fifteen-day limit set by the government. These delays occurred despite MGNREGS's recent transition to electronic payments and its supervisory system dedicated to monitoring and decreasing payment delays. Payment delays are recognized as a critical challenge to the program and directly affect poor rural households' finances.

Details of the intervention

In partnership with the Ministry of Rural Development, researchers conducted a randomized evaluation of PayDash, a new internet- and mobile-based management and monitoring platform for MGNREGS wage payments. It tracks when each step in the payment process occurs and generates real-time information on delayed payments linked to information on employees responsible for each administrative step. While information relevant to payment delays is accessible through the MGNREGS website, PayDash presents this information in a more accessible and actionable format to government officials who are trained to use it.

The administration of MGNREGS is carried out by three increasing levels of bureaucratic hierarchy:

- Local-level officials who verify the work and request wage payments
- Block-level officials who manage local officials and release wage payments
- District-level officials who have an overarching administrative role

The evaluation took place in 73 districts in two states, Madhya Pradesh and Jharkhand. Each district was randomly assigned to be in one of four groups where PayDash is provided to:

- Only block-level officials
- Only district-level officials
- Both block- and district-level officials
- No officials, representing the comparison group

To measure the impact of PayDash on the timing and reliability of MGNREGS payments and program participation, researchers used web application programming interfaces (APIs) and an internal monitoring dashboard to collect real-time data on PayDash usage. In addition, researchers collected wage payment data at the block level from the MGNREGS public website and implemented surveys to collect additional information on the officials, including demographics, personality traits, work and management practices, and more.

Results and policy lessons

Overall, PayDash significantly reduced MGNREGS wage payment delays in areas with the longest delays prior to the intervention, when provided to either block- or district-level officials.

Payment delays: Providing PayDash to block-level officials reduced wage payment delays by 2 days on average, representing a 28 percent reduction in delays over the comparison group. Impacts were driven by the relatively worse performing areas. In the districts with longer payment delays before the intervention, PayDash reduced average delays for all of the groups that were provided the platform, from 18 to 37 percent relative to the comparison group. Conversely, PayDash had no significant effect on the districts with shorter payment delays before the intervention.

PayDash usage: Overall, lower-ranking officials opened two to three PayDash sessions per month on average and used the platform more often than their superiors. The share of block-level officials using the platform each month increased by 7 percentage points (14 percent) when district-level officials also had access to PayDash. In addition, researchers found that higher use of PayDash among block-level and district-level officers was associated with faster completion of the administrative tasks involved to process wage payments. Taken together, these results suggest that there are benefits in extending the platform access to senior officials.

More generally, the study shows the importance of easing of access to monitoring data, especially for the agents who are in the best position to act upon this information. Researchers will continue their research by examining the long-term impacts of PayDash on payment processing and the performance of MGNREGS.

1. Muralidharan, Karthik, Paul Niehaus, and Sandip Sukhtankar. "Building State Capacity: Evidence from Biometric Smartcards in India." Working Paper, February 2016., and Banerjee, Abhijit, Esther Duflo, Clement Imbert, Santhosh Mathew, and Rohini Pande. "E-governance, Accountability, and Leakage in Public Programs: Experimental Evidence from a Financial Management Reform in India." Working Paper, October 2016.