

Monitoring Digital Financial Payments of Cash Transfers in the Philippines[§]

EXECUTIVE SUMMARY

Digital government-to-person (G2P) payments have emerged as an efficient and safe way to disburse social assistance at scale as countries expand cash transfers to provide economic relief to households affected by COVID-19. The Philippine Department of Social Welfare and Development (DSWD), after experiencing delays and inefficiency during the first tranche of its COVID-19 Social Amelioration Program (SAP) with paper forms, manual processes, and physical cash delivery, moved quickly to digital cash transfers for the second tranche of SAP (SAP 2). It partnered with six financial service providers (FSPs) and provided cash transfers digitally to a significant share of 14 million SAP 2 beneficiaries.

This study, carried out by the Innovations for Poverty Action (IPA) and the World Bank, in collaboration with DSWD, aims to understand beneficiaries' experience in receiving digital G2P payments and identify key areas for further strengthening. The study is based on a survey conducted among sampled beneficiaries who received SAP 2 benefits through digital channels.

[§] The note was prepared by a research team comprising Kate Glynn-Broderick and Rebecca Rouse (IPA), Yoonyoung Cho (World Bank), Cesi Cruz (University of California Los Angeles and World Bank), and Julien Labonne (University of Oxford and World Bank). Nassreena Sampaco-Baddir, Ma Isabel Fernandez, Yuna Liang, and Karisha Anne Cruz (IPA) led the policy dialogue and data collection activities. The team thanks Joep Roest at the Consultative Group to Assist the Poor (CGAP) and Georgina Marin at the World Bank for their valuable feedback and comments. Support from the Department of Social Welfare and Development and Bangko Sentral ng Pilipinas is greatly appreciated. This research benefitted from the generous support of the G2Px Initiative funded by the Bill and Melinda Gates Foundation. Krisha Lim and the team comprising Paige Rumelt, Beatriz Rivera, Yahe Li, Priya Rai, Anoushka Chandarana, and Zerah Lamonera (University of British Columbia) provided excellent research assistance.



The findings show that digital G2P payments have a significant promise for delivery efficiency together with high beneficiary satisfaction. FSPs, in collaboration with DSWD, facilitated opening of accounts (i.e., restricted transaction accounts) for beneficiaries so that they can receive funds digitally. Respondents expressed a high level of satisfaction when withdrawing from their accounts. The overall time costs (i.e., travel, wait, and processing time) were significantly reduced and financial costs (i.e., withdrawal and travel fees) were modest compared with alternative delivery approaches.

Some important challenges remain. Few respondents were aware that the newly-opened accounts existed, and even fewer used the available financial services and transactions available to these accounts. The restricted transaction accounts can be converted into regular ones through a simple Know-Your-Customer verification, but few beneficiaries used this conversion option. Various reasons are at play, including inconsistent beneficiary data (e.g., unverifiable phone number) and low level of customer awareness. Moreover, the gain for beneficiary travel, waiting time for service provision, as well as service costs and fees were uneven and varied widely across FSPs, indicating room for cross-learning and quality enhancement.

Based on these findings, the study proposes the following recommendations:

- A shift to disbursing social assistance payments through digital channels to improve delivery efficiency and beneficiaries' experience at scale, although non-digital modes of payments would still be necessary for individuals that have limited access to mobile phones and connectivity, especially during the transition period
- Continued collaboration with FSPs, with beneficiaries given the option to choose their FSP based on convenience of access, and extra attention paid to standardizing the onboarding and account opening processes, developing communication strategies that support awareness and account usage, and supporting efforts to improve digital financial literacy
- Enhancement of the quality of beneficiary data and information, which is crucial in the implementation of digital G2P payments
- Implementation of gender-sensitive strategies, which can be beneficial for G2P funds disbursements and financial inclusion.

1. Introduction

On March 15, 2020, the Philippine government imposed strict quarantine measures to mitigate the spread of COVID-19, which brought the country to an economic standstill. The pandemic has had a devastating socio-economic impact, with unemployment reaching a record high of 17.7 percent in April 2020 (Philippine Statistics Authority, 2020). These losses to employment and livelihood were expected to push an additional 2.7 million Filipinos into poverty (World Bank, 2020a).

To provide immediate economic relief to millions of families affected by lockdown measures, the government introduced an emergency cash transfer called the Social Amelioration Program (SAP) to be implemented by the Department of Social Welfare and Development (DSWD), prioritizing vulnerable households including those with displaced informal workers.¹ The first tranche provided 18 million eligible households (out of a total 23 million households in the Philippines) with cash subsidies of between Php 5,000 and 8,000 (US\$100 to US\$160).² Beneficiaries from the country's flagship safety net program, the Pantawid Pamilyang Pilipino Program (4Ps), became automatically eligible for SAP and received their top-up benefits immediately through an existing digital channel.³ However, the administration of SAP beyond 4Ps beneficiaries involved paper-based, manual application processes given the lack of up-to-date social registry and foundational ID systems⁴ that are commonly used for beneficiary identification and verification. Moreover, cash transfers were disbursed in-person through local government units (LGUs), often with long queue times and overcrowding, thus raising concerns about health and safety as well as efficiency.⁵

The extended period of community quarantine in certain localities prompted the government to expand the potential pool of beneficiaries while prioritizing those in quarantine areas for a second tranche support (SAP 2). More than Php 80 billion (about US\$ 1.6 billion) in aid needed to be immediately disbursed to 14 million households. To expedite the transfers and address the payment delivery issues encountered in the first tranche (SAP 1), DSWD partnered with six financial service providers (FSPs) with the support from the *Bangko Sentral ng Pilipinas* (BSP), in disbursing the emergency cash aid through digital channels. These FSPs were composed of three banks (Rizal Commercial Banking Corporation or RCBC, Robinsons Bank, and Union Bank) and three e-money issuers (GCash, PayMaya, and StarPay).

This partnership was an important milestone for the Philippines in several ways. It was the first time that the government partnered with multiple private sector FSPs in large scale government-to-person (G2P) payments. Partnering with multiple FSPs takes advantage of the country's financial service infrastructure

¹ This was enabled by the Bayanihan to Heal as One Act, which allocated resources to implement SAP.

² Eligible beneficiaries under SAP were low-income households with members working in informal or vulnerable sectors that were assessed by their LGUs to have been most negatively affected by COVID-19. Households that were currently part of 4Ps, the government's conditional cash transfer program, were prioritized.

³ Over 90 percent of 4Ps beneficiaries receive their benefits through a single purpose cash card issued by LBP.

⁴ When SAP was introduced, the national targeting system, *Listahanan*, contained outdated information, with the latest data from 2015-16, and the national foundational ID, PhilSys, was at a nascent stage.

⁵ See World Bank (2020b) for discussions of challenges during the initial period of SAP delivery; Cho et al. (2020a) for discussions of the timely delivery of social assistance in mitigating the impact of the COVID-19 shock. Lalu (2020) also illustrates the delivery challenges of SAP 1

and ecosystems,⁶ in contrast to 4Ps where most beneficiaries withdraw their cash grants from only one bank, the Land Bank of the Philippines (LBP). By partnering with both banks and e-money issuers (EMIs) and utilizing their agent networks,⁷ digital payments through these FSPs were anticipated to improve beneficiaries' experience by increasing access points. It was also an opportunity for the government to make significant progress in promoting financial inclusion, especially because the formal financial account ownership was low at 28.6 percent (BSP, 2019). Finally, it was expected to pave the way for scaling up digital G2P payments beyond 4Ps and making social assistance disbursement, especially emergency relief support, more timely.

Despite these potential benefits of digital G2P payments, SAP 2's last-mile delivery was of concern. FSPs were assigned to certain localities instead of the beneficiaries being given the option to choose an FSP based on convenience of access. Moreover, whether beneficiaries could receive G2P transfers digitally without experiencing difficulties was of question because many of them were new to digital financial services, mobile phones were not universally available, and a mobile phone number was required in most cases.⁸

This study, carried out by Innovations for Poverty Action (IPA) and the World Bank, in collaboration with DSWD, investigates beneficiary experience with digital G2P payments of SAP 2. A survey was fielded between February and April 2021 among a sample of beneficiaries who received SAP 2 payments digitally. It probed into beneficiary awareness and satisfaction during each stage of the payment process. Further, the survey investigated beneficiaries' overall level of financial literacy, use of financial services and products outside of the G2P payments, and prospects for future use of digital financial transactions. This complements a qualitative study that investigated the process of SAP 2 implementation from the perspective of DSWD, BSP, and FSPs (see Cho et al. 2021).

The findings show a high degree of beneficiary satisfaction and ease of access. Overall, beneficiaries reported satisfaction with cash out experiences. The survey also found that time costs for traveling and waiting for services were significantly lower compared with SAP 1, though with large variations across FSPs. However, awareness of the newly opened accounts for G2P payments was low, indicating a huge challenge in taking full advantage of the account beyond receiving SAP benefits. Inconsistent and inaccurate beneficiary data also made it difficult for FSPs to make digital payments and help beneficiaries use the account. This indicates that raising financial literacy and awareness, as well as improving digital G2P payments with robust beneficiary data, would be important for future digital G2P transfers.

⁶ The financial service infrastructure and ecosystems include ATM consortia such as BancNet and Automated Clearing House (ACH) such as InstaPay and PESONet, under the central bank's National Retail Payment System. They enable safe, affordable, and quick transactions across different financial institutions.

⁷ EMIs use agent networks for cash in and cash out points. Agents such as local *sari-sari* or variety stores, remittance centers, malls, and convenience stores bring financial services close to clients.

⁸ All FSPs, except RCBC, required a mobile phone number. In case households did not have access to mobile phones, DSWD provided an alternative way for receiving funds. As a first step, a member of the household would need to go to the LGU or closest DSWD office to obtain a unique Beneficiary Reference Number. Once eligibility is verified, the member would be directed to RCBC, the assigned bank for non-mobile users, to obtain the payment.

2. Data collection strategy

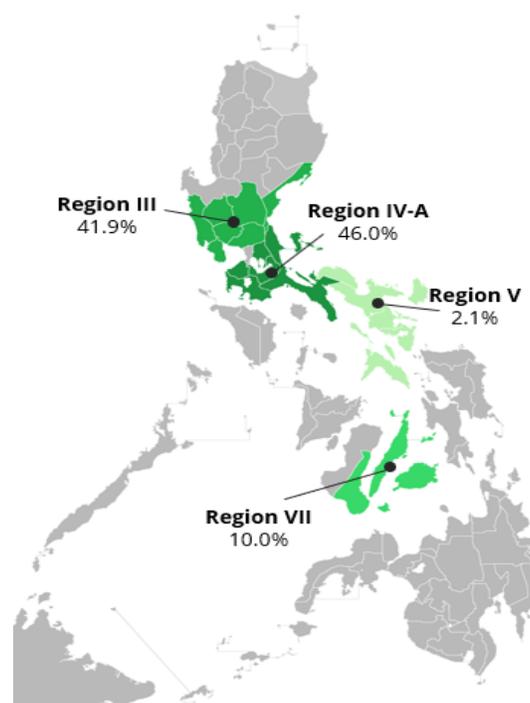
2.1 ADMINISTRATIVE DATA

There are two administrative databases in DSWD that are used in SAP 2. The first one, managed by DSWD's Information and Communication Technology Management Service (ICTMS), contains the beneficiaries' socio-demographic data. The information was taken from the paper forms (Social Amelioration Card or SAC) filled out by beneficiaries and encoded by DSWD field officers and LGU staff during the initial period of SAP 1 (Cho et al., 2021). The other database, managed by DSWD's Financial Management Service (FMS), contains the records of beneficiaries of digital G2Ps payments for SAP 2 and information about FSPs and their disbursement status. Both databases were needed for the study, with the first one providing beneficiaries' information including their phone numbers and the second database providing FSP and disbursement information.

SAP 2 was intended mostly for areas that were still under enhanced community quarantine (ECQ) by May 2020, along with families waitlisted for SAP 1.⁹ To reduce recall bias, regions that implemented SAP 2 close to the start of the survey were included. The research team received two administrative datasets, respectively from ICTMS and FMS for beneficiaries from Regions III, IV-A, V, and VII.

Cleaning and merging these data highlighted significant operational challenges related to beneficiary data quality. Administrative data on beneficiaries and FSPs regarding disbursement status could not be readily matched without a unique identifier. Formats of names, dates, and addresses, for instance, were not consistent for straightforward matching. Multiple (seemingly different) individuals often had the same phone number. After cleaning and merging the datasets using a fuzzy matching technique,¹⁰ the research team randomly sampled about 11,000 individuals, stratifying by region, date of payment and FSPs. Out of these, a final sample of 5,090 individuals or about 43 percent completed the phone survey interview (see Figure 1 for the geographic locations of the sample population).¹¹ Non-response was due to a combination of phone numbers that were no longer active and unanswered

Figure 1. Regional distribution of sample



⁹ There were 21 provinces mostly in the National Capital Region (NCR), surrounding regions, and especially urban areas, that were still under ECQ, which were eligible for SAP 2.

¹⁰ IPA performed a fuzzy merge as the datasets did not share a unique identifying variable to allow for a perfect merge between observations. The matching rate varied by region, from 62 percent in Region IV-A to 92 percent in Region V. For more details about the data cleaning process, see Annex 1.

¹¹ The response rate is similar to other large scale phone surveys such as the World Bank's High Frequency Monitoring Survey or is certainly higher than the ones done by random digit dial surveys (<https://www.poverty-action.org/sites/default/files/Anatomy-of-a-Response-Rate.pdf>).

calls.¹² The survey was translated and conducted in six languages local to the regions: Bisaya, Bicolano, Hiligaynon, Kapampangan, Pangasinense, and Tagalog.

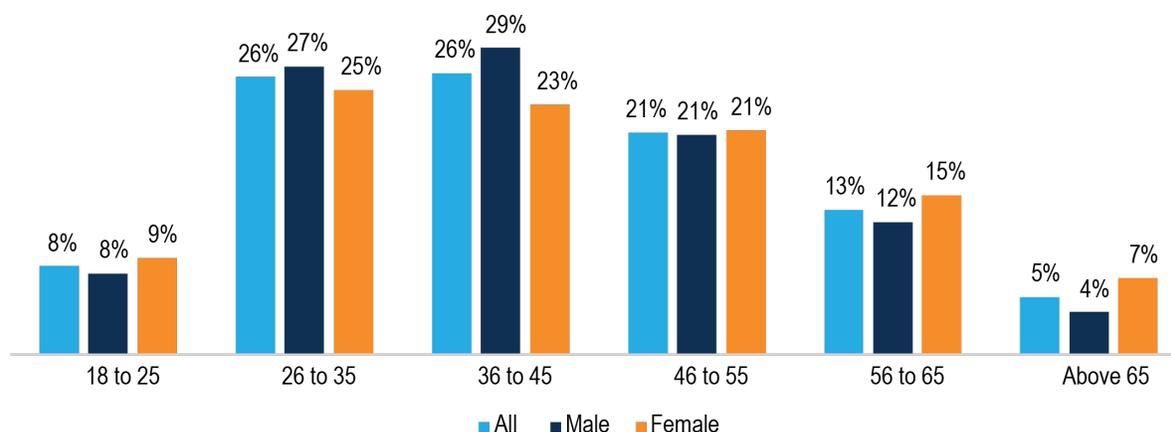
2.2 PROFILE OF RESPONDENTS

The sample represents beneficiaries in the selected locations who received SAP 2 payments digitally, though not representative of all beneficiaries of SAP. Almost all of the respondents in the survey confirmed receiving SAP 1 through physical cash delivery and SAP 2 digitally.

Overall Demographics

The average respondent was 41.5 years old from a 4.5-member household with 2.6 children. Over half of the respondents were between 26 and 45 years old (Figure 2). About 55 percent of the respondents were male, and 62 percent of the respondents reported having completed at least secondary education with no significant difference by gender.

Figure 2. Age distribution of respondents by gender

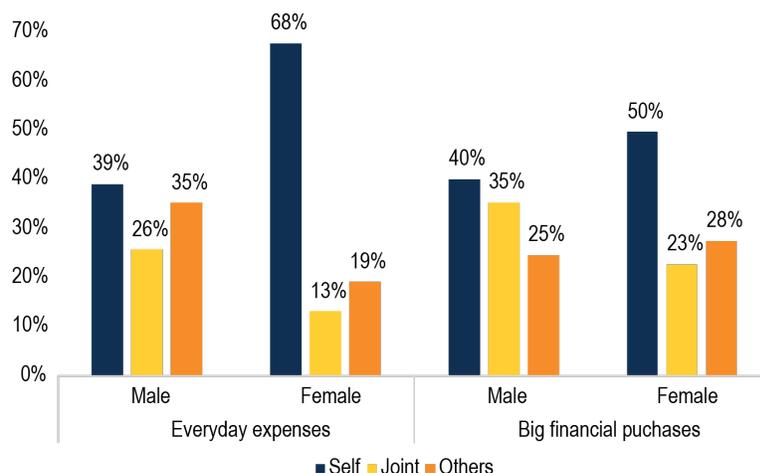


The majority of male respondents (70 percent) reported that they were the breadwinner, whereas 41 percent of female respondents identified themselves as the main income earner. Nonetheless, the female spouse was often reported to be the main household decision-maker for everyday purchases (45 percent) and large purchases (31 percent). Female respondents were more likely to identify themselves as sole decision makers for purchases, but even among male respondents, the share of joint decision or reporting the other spouse making purchase decisions was quite high as shown in Figure 3.¹³ This indicates that facilitating financial inclusion could particularly benefit women who are more active in making financial transactions, and that gender sensitive intervention and strategies could be useful in increasing the use of financial services.

¹² Reasons for non-response are disaggregated by region and gender in Annex 2.

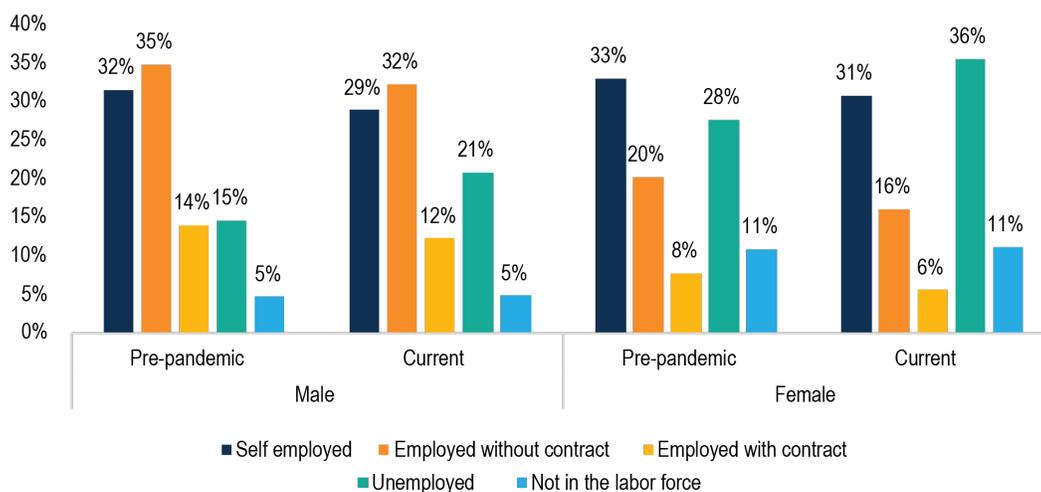
¹³ Female respondents are more likely to report that they make decisions on their own than male respondents (68% for women versus 39% for men).

Figure 3. Main household decision-maker across respondents



Not surprisingly, respondents reported significant changes in their employment status due to the pandemic. Increases in unemployment and reductions in wage employment (with or without a contract) are in line with nationwide findings on labor market conditions (World Bank, 2020b). Further, an increasing gender disparity in the labor market outcomes is also observed and widely discussed in the pandemic literature. The share of women reporting to be unemployed at the time of the survey was 36 percent, 8 percentage points higher than pre-pandemic level; whereas the share of unemployed men was 21 percent, 6 percentage points higher than pre-pandemic level as shown in Figure 4.

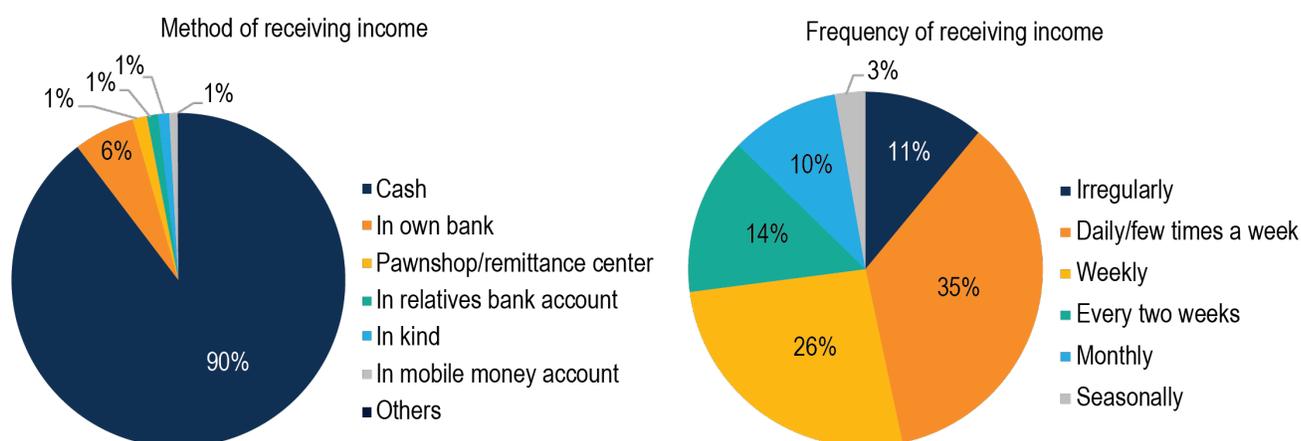
Figure 4. Employment status by gender before and after lockdown in March 2020



Regardless of the individuals' employment status, when it comes to household incomes, it is clear that the majority relied on physical cash rather than digital payments (Figure 5). About 90 percent of respondents mentioned that households' incomes were received in cash whereas only a small share reported receiving funds through bank or mobile money accounts. The payments from employment were often irregular and piecemeal, and only about half of the respondents reported regular payments of

incomes. This reflects the Philippine economy being largely cash based, which was quite challenging during the pandemic, and labor market being informal when it comes to payments.

Figure 5. Method and frequency of receiving household income



Access to Financial Services

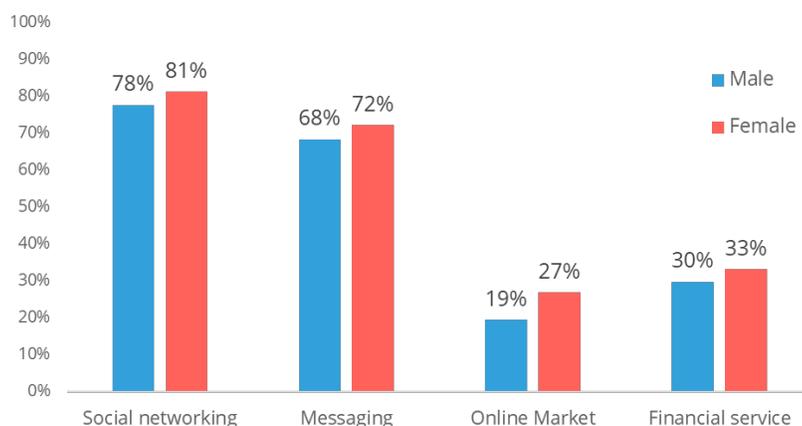
FSPs have a varying share of beneficiaries. In this study’s sample, StarPay and GCash served the largest share of beneficiaries (60 percent), followed by Union Bank (18 percent) and RCBC (16 percent). The share of respondents served by PayMaya and Robinsons was quite small. This does not reflect the overall market share of the FSPs. For instance, GCash and PayMaya, the two leading EMIs in the country, have been expanding massively during the pandemic and reported 33 million and 28 million users by end of 2020, respectively.¹⁴

The beneficiaries’ access to a mobile phone can determine their access to financial services. While RCBC can serve those without a mobile phone, and GCash and Robinsons can also serve those with a feature phone, all other services require that beneficiaries have access to a smartphone with an active phone number. The survey found that over 80 percent of respondents owned a phone, and among them, about 70 percent owned a smartphone. Phone ownership varies by gender (84 percent of women versus 79 percent of men own a phone), but there is no significant gender difference in access to a smartphone among those who owned a phone. The survey also found that 72 percent of phone owners reported that they used their phones every day. Most respondents that owned a phone knew how to use its basic functions such as answering or ending calls (97 percent), making calls (94 percent), and sending or reading text messages (95 percent), which indicates decent mobile phone penetration and usage. While the majority of respondents that owned a phone had a personal account on social media applications (79 percent) such as Facebook, only a third had an account in applications that offer financial services (31 percent) such as mobile wallets. It is noted that women are generally more likely to use mobile

¹⁴ According to the Philippine News Agency, there were 33 million users for GCash and 28 million users for PayMaya by end of 2020. <https://www.pna.gov.ph/articles/1130710>

applications than their male counterparts, especially when making online market purchases. Phone ownership is significantly higher among younger individuals than older ones, and so is the use of mobile applications.

Figure 6. Ownership of accounts across different types of mobile applications among those who own a phone



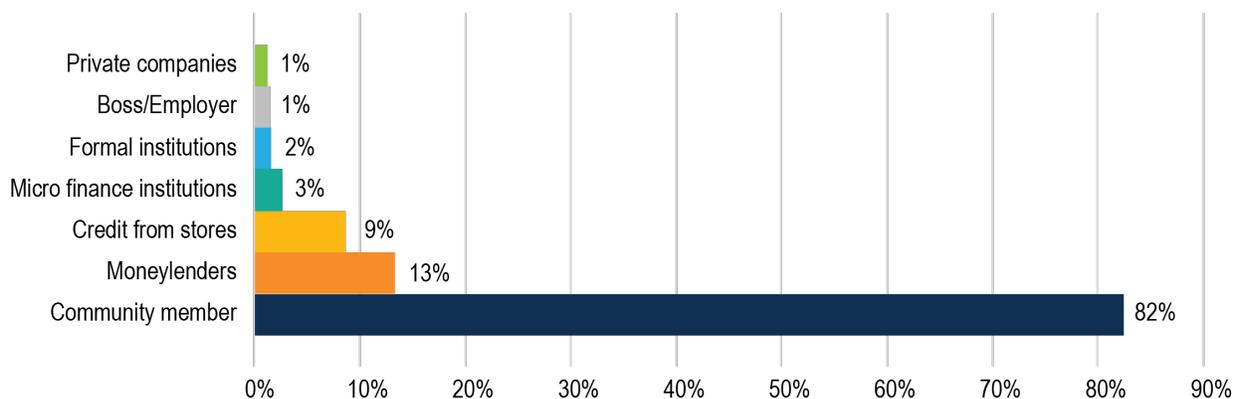
Financial Awareness, Capability, and Health

Most respondents appear to be inexperienced with formal financial services. While 82 percent of respondents knew where the nearest bank was located, only 9 percent had an active bank account. This confirms the observation that majority of respondents received their wages and commissions from labor market activities in cash rather than through financial institutions. This is also consistent with the BSP’s findings about the low level of bank account ownership in the country.

Self-reported financial health indicates the households’ vulnerability to shocks and the need for savings and insurance mechanisms to manage risks. Over two-thirds of respondents reported spending all earnings without leaving much resources for savings. Almost all monthly expenses were spent on daily necessities such as food and utilities. When asked whether they could source funds to pay off an emergency expense of Php 10,000 (US\$200) within the next 30 days, 26 percent reported that they would not be able to come up with the funds at all. Even if they could, it would be very difficult (79 percent) and many of them would rely on families and relatives for emergency expenses.

A large share of respondents (71 percent) reported having outstanding loans, probably aggravated by the pandemic shock. The average amount of the loan was approximately Php 14,000 (US\$280), equivalent to about two to three months of subsistence income for a household.¹⁵ The loans were spent mostly on daily necessities and they were informal, financed by community members (82 percent), moneylenders (13 percent) and store credit (9 percent). Only 3 percent of respondents took out their loans from formal financial institutions or private companies, highlighting the limited use of formal financial services (Figure 7).

Figure 7. Source of loans among those with outstanding loans



¹⁵ The daily minimum wage in the regions is approximately PHP 300 to 420 (US\$6 to 8.4) as of August 2021.

3. Survey Results

3.1 AWARENESS OF THE SOCIAL AMELIORATION PROGRAM

Respondents reported a high level of familiarity with the SAP’s key aspects. All respondents knew that SAP was a government aid program in response to the pandemic, and 66 percent of respondents were able to name DSWD as the implementing agency, because the program was highly publicized as the government’s key pandemic response. Almost all respondents understood that they were entitled to receive a cash payment of about Php 5,000 to 8,000. A large majority (89 percent) cited poverty or low income as a basis for eligibility to receive SAP. A portion of respondents knew how to raise questions or grievances related to the program by reaching out to the local barangay offices (50 percent) or contacting DSWD (37 percent). However, 24 percent of respondents reported that there was no one to contact if they had any complaints or concerns. The study found no significant difference in the responses by gender.

3.2 AWARENESS OF FINANCIAL SERVICE PROVIDERS

In contrast to high awareness of the program, awareness of FSPs and the accounts designed for them to access funds and financial services, was low. Moreover, respondent’s awareness of the account varied significantly across FSPs (see Table 1).¹⁶ Overall, only 31 percent could correctly recall which FSP disbursed their SAP payments. Recall was highest for well-established EMIs that have a large membership in the country. However, other FSPs fared significantly lower at a range of 0-10 percent. Particularly for brick-and-mortar banks, respondents would report either “a bank” in general or provided the name of another bank. Respondents who withdrew their benefits in-person through third-party payout agents tended to name the agents such as pawnshops, Bayad Centers (i.e., remittances centers), and sari-sari stores rather than FSPs. The differences across FSPs in terms of respondents’ awareness can also be attributed to different marketing campaigns and cash-out procedures, which may have contributed to a greater brand recall for certain FSPs.

Table 1. Cross-reference between FSPs according to administrative data and survey data

	FSP 1	FSP 2	FSP 3	FSP 4	FSP 5	FSP 6	Total
Correctly named FSP	77%	10%	3%	0%	2%	66%	31%
Named a pawnshop or Bayad Center	17%	70%	47%	33%	0%	19%	40%
Named a different bank	3%	14%	32%	56%	82%	2%	21%
Named a different mobile wallet	1%	2%	3%	3%	0%	11%	3%
Named a payment solution (e.g., Dragon Pay)	0%	0%	12%	0%	0%	0%	2%

¹⁶ The researchers were requested to mask the identity of the FSPs in the presentation of survey results.

	FSP 1	FSP 2	FSP 3	FSP 4	FSP 5	FSP 6	Total
Named barangay or LGU	1%	2%	1%	3%	8%	1%	1%
Named others	0%	0%	0%	1%	0%	1%	0%
<i>Does not know</i>	0%	2%	2%	2%	8%	1%	2%
Total	100%	100%	100%	100%	100%	100%	100%
N	1,575	292	809	51	1,446	917	5,090

*Column headers represent the FSP according to the FMS administrative data submitted by the FSPs.

More concerning than the general level of awareness of FSPs, however, is the lack of knowledge among respondents of the temporary restricted account opened for them during SAP 2 disbursement. To receive SAP 2, beneficiaries were provided with a restricted transaction account, which can be converted into a regular basic deposit account once the Know-Your-Customer (KYC) requirements as mandated by law are met.¹⁷ Restricted accounts tend to have limitations in accessing certain financial services and products, and they can be closed when dormant (typically after 12 months). Once converted to regular accounts, they can be used to access various financial services and products. However, only 16 percent of respondents reported having an account for their SAP payment, indicating that the majority were not aware of the account opened for them (Table 2). The awareness of account ownership was far greater among those receiving funds from well-established EMIs and did not vary by gender.

Of those who knew that they had an account, close to 40 percent reported that it was only for SAP. Even among those who reported that the account was for broader purposes beyond receiving SAP benefits such as sending and receiving remittances and purchasing, the share of those actually using the account for the reported purposes fell short. This suggests that lack of awareness and conversion of beneficiary accounts opened by FSPs to regular ones appears to be a major barrier to financial inclusion.

¹⁷ On June 30, 2020, DSWD signed a multilateral Memorandum of Agreement (MOA) with the Land Bank of the Philippines and the six FSPs to digitally distribute SAP 2. The MOA specifies each party's responsibility, funds flows, service standards, reporting requirements, as well as key performance indicators. The MOA allowed DSWD to register beneficiaries in batches for "restricted" transaction accounts that could be later converted to regular transaction accounts upon KYC verification; provided customer service channels to beneficiaries both through DSWD and FSPs; provided limited cash-out fees of Php 50 (US\$ 1) to be paid by the beneficiaries; made data privacy provisions; and required FSPs to ensure that their cash-out partners could manage liquidity requirements for payments (see Cho et al., 2021).

Table 2. Awareness of FSP account and account features, N=5,080

Account and its features	No. of respondents who were aware			
Has an account opened for SAP	N=789	16% of total respondents		
The account is only for SAP	N=304	39% of those aware of their account		
The account is for broader purposes	Can use account to...		Have used account to...	
	N	% among those with an account	N	% among those with an account
Receive remittances	302	38.3%	183	23.2%
Pay bills	187	23.7%	92	11.7%
Send remittances	174	22.0%	97	12.3%
Purchase	150	19.0%	98	12.4%
Save / Deposit	99	12.5%	43	5.4%
Purchase load	21	2.7%	12	1.5%
Take loans	17	2.2%	1	0%
Take insurance	4	0.5%	0	0%

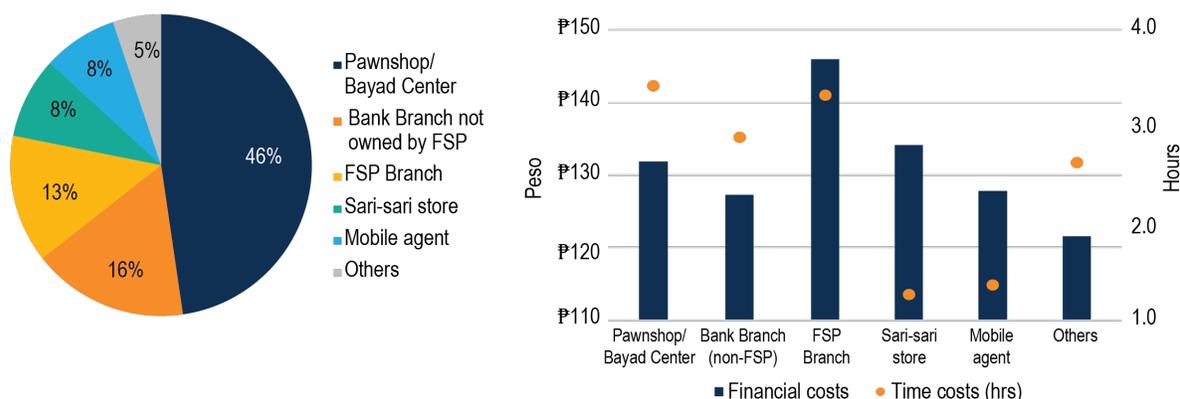
3.3 DIGITAL G2P EXPERIENCE

The survey confirms the business process that beneficiaries had followed to receive SAP benefits. Upon the announcement of the program, beneficiaries reported submitting their application (i.e., SAC) physically to their barangay (71 percent) and/or to DSWD (32 percent) to register for SAP during the 1st tranche period. In the 2nd SAP implementation, respondents were notified of the payments through SMS (48 percent) or through an announcement at their barangay (50 percent).¹⁸ They were informed of payout points where they could withdraw the funds. Almost all beneficiaries withdrew the entire SAP benefits, and 93 percent did so in one transaction, likely due to pressing financial needs and the cost associated with cash outs. About three quarters of the beneficiaries reported that they had to travel outside their barangay in order to access the funds.

With respect to payout points, pawnshops and Bayad Centers were the most widely visited for cash outs as they tend to partner with multiple EMIs (Figure 8). Bank branches were also frequently used beyond the designated FSPs given that the financial infrastructure in the country enables inter-operable cash outs. Use of sari-sari store and mobile agents (e.g., Smart Padala), which serve as fee-based cash in and cash out points, was also noticeable. Convenience stores, schools, and barangay offices were part of other cash out points. Financial costs (i.e., fees for withdrawal and expenses for transportation) and time costs (i.e., travel, waiting, and processing time) vary by type of cash out points. Sari-sari stores and mobile agents, which have widespread local presence, were best accessible to beneficiaries with the least time costs. Visiting the designated FSPs was most costly in both financial and time costs.

¹⁸ As extensive in previous studies, the manual and paper-based process of application came with significant delays and notifications through SMS after a time lag were often met with suspicions of scams (see Cho et al., 2021).

Figure 8. Access points for payout (withdrawal) and costs by payout points



Time and financial costs of withdrawal also vary significantly across FSPs (see Tables 3 and 4). For example, the mean total time costs range widely from 1.87 hours to 4.25 hours. The largest share of time costs can be attributed to queuing, and the mean queue time varies from approximately 70 minutes to 200 minutes depending on the FSP. For a comparison, the waiting time for 4Ps beneficiaries who withdrew payments typically from the LBP ATMs was on average 100 minutes (which did not change over the pandemic period), and of SAP 1 beneficiaries who received physical cash delivery was on average 170 minutes (Cho et al., 2020b). FSPs that were not ready for large scale withdrawals had liquidity issues especially in their ATMs or cash out agents, and that contributed to long wait time.

Table 3. Reported time spent in withdrawing SAP allowance

		FSP 1	FSP 2	FSP 3	FSP 4	FSP 5	FSP 6	Overall
N		1,575	1,446	917	809	292	51	5,090
Travel time in mins (one way)	Mean	17.14	24.40	22.45	19.82	20.86	19.62	20.85
	Median	10.00	20.00	20.00	15.00	15.00	15.00	15.00
Queue time in mins	Mean	69.53	194.69	127.77	127.25	69.74	180.96	126.56
	Median	20.00	120.00	60.00	90.00	30.00	120.00	60.00
Time at desk in mins	Mean	9.78	10.43	9.27	8.88	9.04	12.04	9.71
	Median	5.00	5.00	5.00	5.00	5.00	10.00	5.00
Total time cost in hours*	Mean	1.87	4.25	3.01	2.93	1.99	3.87	2.96
	Median	1.08	3.12	2.18	2.25	1.33	3.17	2.00

*The time cost is the average of the sum of the queue time, time at payment desk, and twice the travel time.

The mean withdrawal fees range from Php 49 to 97 (Table 4). The MOA between DSWD and FSPs specifies the fees to be no greater than Php 50. FSP 1 whose median fee is two times higher than others reportedly charged a greater amount with a rebate or credit on subsequent uses, which may not have been fully

communicated to customers. The average withdrawal fee is generally higher in payout locations such as convenience stores, sari-sari stores, and other mobile agents. Since some beneficiaries needed to travel by car to get to the payment point, financial costs for travel were also investigated. On average beneficiaries had to pay about Php 30 (US\$ 0.6) to travel one way. Total financial costs for receiving benefits were on average Php 132 (US\$ 2.6) with relatively small variations.

Table 4. Reported fees spent in withdrawing SAP benefits

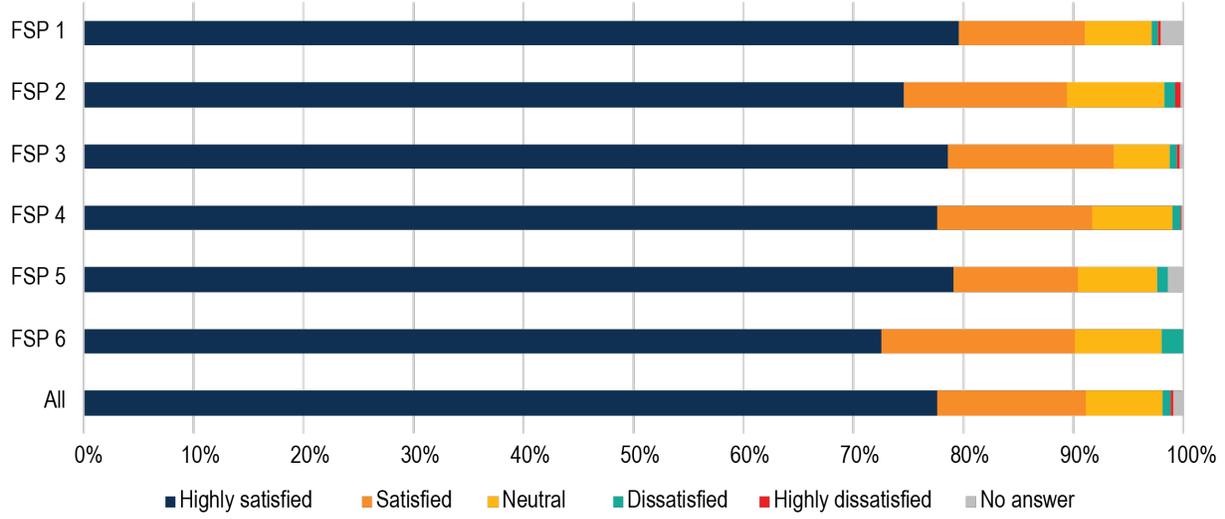
		FSP 1	FSP 2	FSP 3	FSP 4	FSP 5	FSP 6	Overall
N		1,575	1,446	917	809	292	51	5,090
Withdrawal fee (Php)	Mean	96.54	57.22	52.70	50.82	79.03	49.35	68.05
	Median	100.00	50.00	50.00	50.00	50.00	50.00	50.00
Travel fee (one way)	Mean	21.61	41.15	34.06	38.67	25.23	39.02	32.58
	Median	0.00	25.00	20.00	25.00	0.00	30.00	20.00
Total financial cost* (Php)	Mean	136.69	138.08	120.29	128.45	134.86	114.19	132.44
	Median	110.00	100.00	90.00	110.00	100.00	100.00	100.00

*The financial cost is the average of the sum of the withdrawal fee and twice the travel fee.

All of these suggest that digital payments have a great potential for reducing costs by allowing people to withdraw funds at access points for their convenience. Allowing beneficiaries to choose an FSP that is easily accessible (without having to travel long distance) and informing them of various access points such as third-party agent networks can further enhance the convenience and reduce the time and travel costs. In fact, about 26 percent and 23 percent of female and male respondents, respectively, expressed that they would like to switch FSPs if allowed. The higher share among women is probably because more of them already have an account.

Almost all (96 percent) respondents reported that they were required to show proof of their identity during withdrawals, such as a government issued ID (88 percent) and other supporting documents such as the SAC form (53 percent). However, this did not add any difficulties in withdrawing funds. SAP 2 beneficiaries were generally satisfied with the digital payments, with over 90 percent of reported satisfaction for withdrawal experiences, although the rates of high satisfaction differ across FSPs (see Figure 9). The reason for dissatisfaction is largely associated with the queue time. In addition, individuals with higher levels of education and individuals that experienced problems with withdrawals tended to be less satisfied, but there is no gender difference in the satisfaction rate.

Figure 9. Reported satisfaction with SAP withdrawal across FSPs, N=5,090



4. Policy Recommendations and Discussions

It is relatively well known that digital payments of social assistance enable quick disbursements and help timely and adaptive support. Less well known was beneficiary experience related to digital payments, especially when beneficiaries tend to be poor and vulnerable with limited access and knowledge of digital financial services. This study shows that digital payments are promising for enhancing the experience of social assistance beneficiaries. The survey results corroborate the findings from other studies that have examined the delivery of SAP in the Philippines. Key policy recommendations to inform decisions on future cash transfer programming and implementation are as follows:

Shift to disbursing social assistance programs through digital channels to bring efficiency and convenience at scale

Reported satisfaction was high among respondents who received funds digitally, and costs of withdrawal were kept at a minimum. Receiving payments through cash-out points that were convenient and easy to access significantly reduced time costs compared with SAP 1 delivery.

Currently, the Philippine's regular social assistance programs except for 4Ps provide payments through physical cash delivery. When mainstreamed to other social assistance programs—both regular and emergency operations—digital G2P payments can bring great returns at scale. This could contribute to overall financial inclusion and transition from a cash-based economy to a digital economy.

In doing so, however, given that not everyone owns a smartphone and phone ownership and usage are skewed towards younger beneficiaries, it is also recommended that systems to allow beneficiaries to receive funds in-person are kept in place. In addition, given the very low level of knowledge and awareness, efforts to raise awareness, enhance financial literacy, and encourage account usage should be combined with digital payments.

Continued collaboration with FSPs, with beneficiaries given the option to choose their FSPs, to help achieve the full benefits of digital G2P payments

The study found three key challenges faced by SAP 2 beneficiaries in using the financial services provided through their new digital accounts. First, most beneficiaries were inexperienced with formal financial transactions and services despite high reported ownership of smartphones and prevalent usage of mobile applications. Second, beneficiaries lack awareness about the account created for their SAP payments and its financial services. Third, beneficiaries still had to travel to reach the designated FSPs' location, which incurs costs.

To overcome these challenges, there is a need to ensure that these financial accounts from the FSPs as well as their numerous benefits are properly communicated to beneficiaries. The government can further collaborate with the FSPs not only in delivering payments but also in adjusting the design of cash transfer programs to better meet financial inclusion goals. Some actions in support of these goals are as follows:

- Empowering beneficiaries to choose their FSPs and utilize the FSPs' services
- Standardizing and facilitating the account opening and conversion process
- Developing communication strategies to support FSP usage
- Supporting efforts to improve digital financial literacy

Improving the quality and integrity of the data framework to support the overall digitalized social assistance delivery process

The shift to digital payments for SAP 2 was challenging due to incorrect, duplicative, or often non-standardized beneficiary data and information. Relevant information about beneficiaries and disbursements were collected by different offices without using a unique identifying variable. Individuals also applied for SAP multiple times, creating duplicates in the system that had to be manually corrected. Thus, tracking and validating payments became difficult and time-consuming for implementers. All of these were reflected in administrative dataset based on which the study was conducted. The situation highlights the need to ensure and maintain a high-quality beneficiary database as an integral component in the shift to digital delivery of government services, including digital G2P payments. High quality data open many possibilities for government, from beneficiary targeting to evidence-based decision-making. This study recommends improving the quality and integrity of the administrative data framework in line with the digital social protection delivery agenda (World Bank, 2020a).

Implementation of gender-sensitive strategies, which can be beneficial for G2P funds disbursements and financial inclusion

The data show that women experienced more job losses than their male counterparts due to the COVID-19 pandemic. As the pandemic disrupted in-person education and strained medical resources, women might have taken on additional caregiving responsibilities. Longer wait times for in-person withdrawals constrain women's already scarce time, and the costs associated with leaving home to withdraw funds from FSP pose a hardship to many women.

Meanwhile, higher access to mobile phones and financial accounts as well as a more active role in financial purchases and transactions among women, indicate that a gender sensitive approach can enhance overall effectiveness of digital payments. A regular and temporary aid disbursement plan can prioritize women, for instance. FSPs can also provide active information on financial transactions such as payments and purchase of food and other necessities, given that women are more likely to be a decision maker of household purchases.

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Annex 1. Administrative Data Cleaning Process

The sharing, cleaning, and processing of the administrative data were strictly guided by the Memorandum of Understanding (MOU) between the Department of Social Welfare and Development (DSWD) and Innovations for Poverty Actions (IPA), which adheres to Republic Act (RA) No. 10173 or the Data Privacy Act of 2012. Only a limited number of designated personnel and researchers specified in the MOU accessed the data for cleaning and processing, based on which a sample for the survey was drawn.

With support from the Policy Development and Planning Bureau (PDPB) at DSWD, IPA coordinated with two DSWD offices to obtain relevant administrative data in January 2021 – one from the Financial Management Service (FMS) and the other from the Information and Communication Technology Management Service (ICTMS). The FMS data provide information about the disbursement of SAP via the financial service providers and the ICTMS data provide further information about the household demographics and characteristics from the Social Amelioration Card.

However, there were several issues that had to be resolved before the administrative data could be used as a basis for sampling. The major issue was that the databases did not share a unique household ID or identifying variable for the beneficiary households. This presented two difficulties: (i) matching the households between the two databases; and (ii) deduplicating within each database. Moreover, the name, birth date and location of household beneficiaries were most often not encoded uniformly across millions of household records.

The best alternative was to merge selected imperfect string variables together using records linkage methods, also called a fuzzy merge. A fuzzy merge is a heavy algorithm that produces a matching score based on how similar one observation is to another against all other possible matches. The *reclink* command in Stata, a statistical software, carries out this task using record linkage methods.

Process of fuzzy merging using Stata

1. Prepare both datasets for fuzzy match by removing special characters, ensuring consistent date format, and trimming string variables
2. Run an initial fuzzy merge
3. Check matches if name and birthdate are the same on matches that scored below 95%
4. Retain reasonable matches with slight variations (e.g., Jr vs. Junior, 01/01/1987 vs. 11/01/1987, Ma. vs. Maria)
5. Repeat steps 2-4 for incorrect or unsuccessful matches twice



The entire process of fuzzy merging the administrative data took four weeks, with each iteration across 500,000 observations taking approximately 48 hours to complete. IPA was able to clean and merge 65 percent of the data for Regions III, IV-A, V and VII. Following are the reasons why the level of matching is where it is:

- The datasets required extensive cleaning; in particular, the FMS data were provided in the form of hundreds of Excel files with varying formats.
- Encoding data was often not uniform. Variables such as dates, name extensions, and middle names were often encoded differently within and between datasets.
- There were people listed in the finance data that had no match with anyone from the Social Amelioration Card data – which may indicate that information in the SAC data was not updated.
- There were a number of duplicate entries within each database, although it is difficult to discern whether each entry represents a different payment and transaction.

Annex 2. Response Rate – Status of Last Call with Respondents

Table A1. Status of last call with respondents by region

	REGION III		REGION IV-A		REGION V		REGION VII	
	N	%	N	%	N	%	N	%
Completed interview	2,145	14%	2,357	16%	105	5%	511	15%
Deceased	5	0%	4	0%	0	0%	1	0%
Incomplete - No SAP payments	7	0%	0	0%	1	0%	1	0%
Incomplete - No digital payment	360	2%	154	1%	147	7%	55	2%
Incomplete - Not a beneficiary	48	0%	21	0%	10	0%	6	0%
Incomplete - Refused to continue	41	0%	46	0%	1	0%	7	0%
Indefinitely unavailable	5,672	37%	5,857	40%	1,263	61%	1,577	45%
No one picked up	5,399	35%	4,767	32%	347	17%	938	27%
Number is not working	592	4%	423	3%	84	4%	135	4%
Refused	240	2%	195	1%	17	1%	55	2%
Rescheduled	814	5%	807	5%	76	4%	196	6%
Wrong number	128	1%	95	1%	7	0%	24	1%
Total	15,451	100%	14,726	100%	2,058	100%	3,506	100%

Table A2. Status of last call with respondents by gender

	Male		Female	
	N	%	N	%
Completed interview	2,814	86%	2,276	86%
Incomplete - No SAP payments	4	0%	5	0%
Incomplete - No digital payment	394	12%	322	12%
Incomplete - Refused to continue	46	1%	47	2%
Total	3,258	100%	2,650	100%