Moving to Electronic Social Security Payments: Impact on the Unbanked

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Abstract: Social Security payments must be delivered electronically starting in March 2013. This mandate lowers administrative costs, but may impose transition costs on payees, especially "unbanked" people without checking or savings accounts at banks, as they adapt to new transactional financial products. To evaluate policy impacts, we link survey reports on bank account use to administrative records of Social Security payments. In contrast with previous studies, we do not find payment recipients to be unbanked at a higher rate than the rest of the population. Further, we find that among payment recipients, the majority of the unbanked (as measured by self-report) already receive their payments electronically (as measured by administrative records). Therefore the mandate only requires a transition for a small subset of payees, albeit one with disproportionately low income and a high number of work-preventing health impairments. Our study highlights the complications of measuring financial inclusion.

1. Introduction

An important, but often overlooked aspect of the federal safety net is the set of financial instruments by which payments are delivered. The federal government would prefer inexpensive electronic transfers into the accounts of recipients over mailing paper checks. For consumers, bank accounts obviate the high transaction costs of alternatives like check-cashing and money orders, while safeguarding funds in insured accounts.[1] However there are costs to managing a bank account, including the risks of overdrafts, low-balance charges, and other fees. We study how households redeem government payments, including people who report not having a bank account, known the "unbanked."

The well-being of the unbanked population is of policy concern for a few reasons. First, economically vulnerable subgroups are overrepresented among the unbanked, including people who are young, poor, in female-headed households, or belong to ethnic or racial minorities

[1] We use the term "bank" to include credit unions, thrifts, and other regulated depository financial institutions.

(Bricker et al. 2012, Bucks et al. 2006, Bucks et al. 2009). Second, being unbanked itself could add to economic distress. Unbanked people may use a high portion of their income for transaction fees, be unable to save, lack access to credit, and be hindered in their ability to find employment (Barr 2002, 2004, Rhine et al. 2006). Causation is murky, however, because the modal reason given in surveys for being unbanked is "not enough money" to make banking cost-effective (Bucks et al. 2006, Bucks et al. 2009, FDIC 2009). Third, and a key focus of our study, people with disabilities are more likely to be unbanked. A work-limiting impairment may make a person eligible for government support, while at the same time may introduce physical or cognitive impediments to accessing banking services.

Concern for the unbanked has slowed the implementation of a government transition to electronic payments (Prescott and Tatar 1999, Rhine et al. 2006, Federal Register 2010). After resolving to do so as part of the Debt Collection Improvement Act of 1996, the US Department of the Treasury finally began shifting all nontax payments from paper checks to direct electronic deposits in March 2011 and will complete the shift by March 2013. The mandate is predicted to save over $100 million per year in administrative costs (Federal Register 2010). While discontinuing the paper check option, the government is introducing an intermediate option, a low-cost prepaid debit card called Direct Express®. The new choice could help some consumers move toward conventional banking, even while constraining other consumers who prefer paper checks.

We focus on Social Security Administration (SSA) payments for Old-Age and Survivors Insurance (OASI), Disability Insurance (DI), and Supplemental Security Income (SSI), which account for around 90 percent of nontax federal cash payments (US General Accounting Office 2002). Social Security payments support 18 percent of Americans in our sample. The vast majority are OASI retirement beneficiaries who often have other assets and sources of income. DI beneficiaries qualify for benefits on the basis of a substantial and recent work history curtailed by a long-term health condition. They may receive income from other sources, such as family members or drawing down assets. By contrast, SSI recipients, who can be adults or children with disabilities, aged, or blind, do not need a work history but are subject to a means test. Thus they have very low levels of income, assets, and help from family members.

We link administrative data on SSA payments to a nationally representative Current Population Survey (CPS) supplement on the use of bank accounts conducted in January 2009,

before the phase-in of mandated electronic payments. Our unique data allow for cross-comparisons of survey responses about bank account access and administrative records of payment methods used. Unlike previous studies using different methodologies, we find Social Security payees to be unbanked at the same rate as the general population. We find nearly 92 percent of self-reported banked recipients redeemed their January 2009 payment electronically. Surprising, we find 69 percent of self-reported unbanked recipients also redeemed their January 2009 payment electronically. This suggests payment recipients have more access to banking services than their household heads report. We cannot explain the discrepancy with representative payees outside the household or with prepaid card membership. Therefore these households are likely misreporting banking status. Misreporting is more common in households receiving disability payments, complicating the analysis of their financial well-being.

Survey estimates of the unbanked population in our study and previous studies clearly suffer from measurement error. Our comparison to administrative records of payment delivery method is one solution to this problem. Bound et al. (2001) review measurement error in survey reports of a host of economic variables, including earnings, assets, transfer income, health status, employment, and even savings account ownership. We add the first administrative validation of survey evidence on transaction accounts more broadly defined.

Even if bank account use is measured perfectly, the unbanked group is often moving in and out of mainstream banking for many different reasons. We return to survey measures to describe unbanked payment recipients' preferences, fitting preferences into the environment payees will eventually face after the shift to electronic payments. Using self-reported preferences, we can sort 23 percent of unbanked Social Security payees into a group most likely to be helped by Direct Express ® versus their old choice set, while just 11 percent fall into a group most likely to be harmed by the move to electronic payments.

We conclude that the portion of Social Security payees affected by this policy change is small. The unbanked who are currently receiving paper checks face the largest behavioral change, as they will have to open a transaction account of some kind. These people are also vulnerable in other ways: poverty, disability, and lack of financial access. Thus we analyze subgroups by age, earnings, location, education, disability, and use of representative payees to handle government payments.

2. Measuring banking and Social Security payment receipt

Direct survey measures of banking ask respondents whether they possess a transaction account. This is the approach taken by Federal Deposit Insurance Corporation (FDIC) National Survey of Unbanked and Underbanked Households, a nationally representative but underutilized survey that asks Current Population Survey (CPS) respondents if anyone in their household currently had a checking or savings account at a bank. Just 7.7 percent of households were unbanked in 2009, which grew to 8.2 percent in 2011 (FDIC 2009, 2011). Similar figures appear in research that uses the Survey of Consumer Finances (SCF), which asks at the level of the family. In the SCF, 8.7 percent of families were unbanked in 2001, which gradually fell to 7.5 percent in 2010 (Bucks et al. 2006, Bucks et al. 2009, Bricker et al. 2012). Adding banking questions to a well-established, broad survey has the benefit of a national representative sample, but may suffer from misreporting by a household or family head on behalf of other members.

When studying Social Security payments to unbanked households, we wish to know about the characteristics of payment recipients. The heterogeneity of payment recipients leads to difficulties both in identifying them in household surveys and in measuring their financial characteristics. US General Accounting Office (2002) uses survey reports of positive values in checking or savings accounts to indicate the existence of a bank account. Using the Survey of Income and Program Participation (SIPP), they estimate that 23 percent of DI and 67 percent of SSI payment recipients were unbanked. This strategy involves two sources of measurement error: underreporting of asset holdings and underreporting of payments from SSA (Czajka, Jacobsen, and Cody, 2003, Huynh, Rupp, and Sears 2002). The first leads to overestimates of the proportion unbanked and the second leads to errors in identifying the recipient population.

One strategy to eliminate errors in identifying the recipient population is to draw a sample from SSA's payment records. Several studies of the vulnerable subgroup receiving paper checks have drawn samples of recipients known to be receiving paper checks (Booz, Allen & Hamilton 1997, Dove Associates, Inc. 1999, Federal Reserve Bank of St. Louis 2004, KRC Research 2007). As seen in Figure 1, the ranges of estimates for unbanked status among paper check recipients of DI (20 to 30 percent) and SSI (55 to 70 percent) encompass the US General Accounting Office estimates. The scale of these studies, however, is small. After low response rates, they use realized sample sizes of two thousand or less. These small and self-selected samples may not be representative of the recipient population.

Taken together, previous studies indicate that a meaningful proportion of recipients are unbanked, particularly recipients of SSI payments. In comparison to population estimates based on the FDIC or SCF data, the clear conclusion is that the proportion unbanked is notably higher for the recipient population. Looking ahead, our results contrast sharply with this conclusion.

We improve on previous studies by employing a unique combination of data. We address underreporting of asset holdings by using the FDIC survey that directly asks about possession of accounts rather than asset amounts, and we address underreporting of payments by using administrative data. We can also contrast self-reports of banking with administrative records of payment delivery mode.

3. Data and sample

Since both Social Security payment recipients and the unbanked are small subgroups of the population, and we intend to study their intersection, we require a large-sample data set with information on government payments and financial services use. We link the 2009 FDIC National Survey of Unbanked and Underbanked Households data to SSA records of payments and earnings.[2] Besides identifying unbanked households, the FDIC survey asks about reasons for not using bank accounts or having closed bank accounts. The payment data include the incidence of payment and the type of Social Security payment with very low measurement error. We directly observe the method of payment (electronic or paper check) and the use of representative payees (a third party who receives the payment from the government on behalf of the beneficiary). Linking these two data sets creates a unique opportunity to examine both the form of payments from SSA as well as the preferences of the population who receive them.

The first FDIC National Survey of Unbanked and Underbanked Households was fielded as a supplement to the January 2009 Current Population Survey (CPS), and administrative data from SSA were matched to the March 2009 CPS. The CPS provides monthly labor market statistics backed with demographic data. To do this, the CPS creates a nationally representative sample of American households by surveying a rolling panel of physical home locations. The

[2] The matched data were accessed on a restricted basis at a secure data site. The authors obtained sworn status from the Census Bureau and approval for the project subject to the terms of an interagency agreement between the Census Bureau and SSA. All estimates were approved by SSA's Title 13 Disclosure Review Board prior to distribution.

rolling design of the CPS means that half of the homes in the CPS sample during January 2009 are also in the CPS sample during March 2009. We take advantage of this overlap to link FDIC, SSA, and CPS data to obtain a national sample roughly half the size of the monthly CPS sample.

We link the FDIC supplement to the March CPS using a modification of the algorithm provided by Madrian and Lefgren (1999). Some matches from January to March are lost to migration, since homes rather than households are tracked month-to-month. Other matches are lost to mortality, nonresponse, and recording errors. The rate of successful matches from the January CPS to the March CPS is 80.3 percent. We then link to SSA's administrative records. The Bureau of the Census provides this link based on address, earnings, and demographic information from tax returns and other administrative sources. Within the group eligible to match, some CPS respondents opted out of administrative data linkage. The administrative data match to 89.1 percent of the observations from our January-March CPS sample. Our resulting sample consists of 47,781 people, weighted according to the January 2009 CPS sample design. FDIC surveys were fielded at the household level, to the most knowledgeable respondent, but we disaggregate to the individual level for most analyses in this paper. SSA data are retrospective, allowing us to observe January 2009 payments, delivered at the same time as banking questions were fielded.[3]

The proportion of people unbanked is lower in our analysis sample than in the full FDIC sample, at 6.6 percent versus 8.4 percent. Households that moved between the January and March CPS, or moved between the March CPS and filing their tax returns, do not appear in our data set. It could be that unbanked households are more mobile and thus fail to match. Related, households may be more likely to be temporarily unbanked during moves. As a result, the size of the unbanked population presented in this paper should be viewed as a lower bound. Nonetheless, our survey measure comes close to the FDIC and SCF measures which provide the industry standards.

4. Survey measures of banking

Table 1 characterizes the average banked and unbanked person, as defined by self-reports, by displaying conditional proportions of banked and unbanked people that meet criteria in the

[3] Our data contain only payments that were paid during January 2009, not retroactive payments for that monththat were delivered later.

first column. Nearly all banked-unbanked differences are statistically significant at conventional confidence levels, which we denote with an asterisk. Table 1 shows that the average unbanked person is younger and much less educated than his average banked counterpart. These characteristics suggest that a lack of financial knowledge or lack of access to banks could be driving unbankedness, but survey responses discussed later in this paper reveal that the main driver of unbankedness is lack of enough money to make banking cost-effective. Indeed, people unbanked in January 2009 experienced lower and more volatile earnings during the late 2000s. To see this, we sum administrative earnings from all household members and calculate a less noisy measure of pre-recession earnings by averaging earnings over the immediate pre-recession years of 2005-2007. The average household earnings among the unbanked are less than $16,000 a year, compared to $59,000 a year among the banked.[4] Because these households are 3.7 people on average, the average household would be below the official poverty threshold if the household were evaluated as a family. To identify the households hit hardest by the Great Recession, we measure each household's percent change from averaged 2005-2007 earnings to earnings in 2008. The distribution of earnings changes in Table 1 illustrates that unbanked households tended to experience both larger percent increases and larger percent decreases.

Table 1 continues with Social Security payment status. In the month of January 2009, 18.2 percent of Americans received a payment from SSA. Eighty-seven percent of Social Security payments, going to 15.9 percent of the population, are for OASDI. In order to focus on an administrative measure of disability, we disaggregate DI from the rest of OASDI and define disability payments as receipt of DI or SSI (possibly concurrently with OASI or one another). Disability payments make up 21 percent of Social Security payments, going to 3.9 percent of the population. While unbanked individuals are just as likely to receive a Social Security payment in January 2009 as their banked counterparts, they are much more likely to receive a disability payment, 10.1 percent to 3.4 percent. Disability payments account for a majority of the Social Security payments received by the unbanked.

We add to a series of estimates of bank account use among Social Security payment recipients. Since we measure banking and payment receipt for a large, national sample, our approach improves on earlier work. When we base estimates of banking on the FDIC survey

[4] Administrative earnings are not top-coded. All dollar amounts are indexed to 2009 using the Consumer Price Index (CPI).

matched to SSA administrative records, 6.3 percent of the administratively identified recipient population are unbanked (shown in Table 3), with no statistical difference between proportions unbanked among recipients and non-recipients. The large differences between our estimates and previous studies are consistent with reduced underreporting of transaction accounts.

For paper check recipients (comparable to the small-sample studies), our estimates appear in Table 2. Like previous studies, we disaggregate by OASDI and SSI to find SSI recipients much more likely to be unbanked. These estimates of proportion unbanked are still much lower than comparable estimates in previous literature. For example, our estimate of 34.9 percent unbanked among SSI paper check recipients is below the 55 to 70 percent range in previous studies. We attribute the differences to our unprecedented ability to measure payment receipt with very little error in a nationally representative sample.

5. Administrative measures of Social Security payment methods

Turning to our administrative data, we next examine the ways government payments are redeemed. Ours is the first study to observe both self-reports of being unbanked and an administrative measure of financial services use in the same households. Whereas survey responses tell us how the respondent believes payments could be received in his or her household, the administrative data tell us how an actual payment was delivered at the time of the survey. Table 3 provides a snapshot for the payments that were delivered in January 2009. Each row conditions on a particular characteristic in the leftmost column, and displays how payments are delivered: by direct deposit versus paper check, and to a representative in or out of the recipient's household versus to the recipient. The last column displays the self-report of bank access in the recipients' household.

Paper checks go to 9.6 percent of payment recipients on average. We hypothesized that among self-reported unbanked recipients, the incidence of paper checks would be near 100 percent. However our administrative measure of bank account use clashes with our survey measure. While self-reported unbanked are much more likely to choose paper checks than their banked counterparts, a majority of them, 69.1 percent, actually use direct deposit. The population responding to the FDIC survey on behalf of their households had to confirm that they were either the lone adult, shared finances with the other adults, or, if adults handled finances separately, that they had at least some knowledge of the other members' finances. It is puzzling that so many

householders living with payment recipients were unaware that the recipient was able to redeem electronic payments. This discrepancy could arise from representative payees outside the household with access to bank accounts, the fact that not all electronic payment instruments would be seen as bank accounts, or from inaccurate reporting by household heads. Regardless, this discrepancy suggests upward bias in survey measures of the proportion of unbanked consumers, at least in this segment of the unbanked population, which represents about 17 percent (see Table 1). We return to this issue in more detail in Section 6.

Whether or not their payment is delivered by direct deposit, benefit recipients can legally appoint a representative payee to handle their transactions with SSA. Of our sample of payment recipients in January 2009, 12.8 percent uses a representative payee. We sort representative payees into in-household and out-of-household using CPS identification of household relationships and administrative classifications of beneficiaries' relationships to their representative payees. A large majority of child recipients, about 85 percent, uses a representative payee. For unbanked adults, representative payees could serve to expand financial capacity and decrease transaction costs on behalf of their constituent benefit recipients. On the contrary, our data show that a large majority of representative payees live in the same household as the beneficiary. This means that by our survey measure of bank account use, in unbanked households these financial representatives are unbanked as well. Recipients using representative payees are also much more likely than average to choose paper checks, doing so over in 20 percent of cases. This trend also appears in US General Accounting Office (2002).

6. Inaccurate reporting of bank access

There are several possible explanations for the fact that the majority of payees in self-reported unbanked households actually receive a payment by direct deposit. We assess some of the more important ones in this section, before concluding that the main problem is misreporting. We then model misreporting of banking status among electronic payment recipients.

One explanation we cannot directly measure is the use of prepaid debit cards to receive direct deposits. These would not be considered checking or savings accounts, so there would be no contradiction in using these products while being unbanked by the FDIC survey definition. Though we cannot directly observe which account received the SSA payment, we can use administrative data from the Treasury to ascertain that only a few of the payments in our January

2009 sample could be going to Direct Express ® cards, far less than 69 percent of the self-reported unbanked recipient population. Figure 2 shows that new enrollments into Direct Express ® were stable at around 20,000 per month over the course of 2009. Extrapolating this trend back to June 2008 when the Direct Express ® program was introduced and assuming new enrollees stayed in the program, a rough estimate of the stock of Direct Express ® users in January 2009 would be around 140,000. Our weighted population receiving direct deposits of Social Security payments, but self-reporting being unbanked, is around 2.4 million. We cannot rule out use of other prepaid cards. But Direct Express ®, though new, was likely the most convenient and cost-effective alternative to bank accounts for direct deposit of January 2009 payments.

We know that the FDIC supplement goes to the respondent in each household who is most knowledgeable about household finances. The survey screens each respondent with questions about participation in financial decision making. Affirmative answers to these financial knowledge questions could be true in general while being less true about the finances of the Social Security recipient in the household. For example, the most knowledgeable respondent could still be unaware how a recipient of a different generation redeems their payment. Alternately, the respondent could have a different operational definition of who is in the household than is used by the CPS, or a different definition of whether the SSA payment is part of household finances. Finally, the respondent may not be able to distinguish whether financial services used in the household are associated with banks or similar financial institutions. We proxy for this sort of knowledge in a sample of household respondents with an indicator whether the respondent is also the payee.

Representative payees outside the recipient's household could receive electronic payments while the householder correctly reports being unbanked. To place representative payees in or out of the household, we use administrative indicators of the relation of the representative (parent, spouse, etc.) and compared them to the relations present in the household using CPS identifiers of relations to the household reference person. This distinction cannot fully explain the discrepancy, since most representative payees reside within the household and thus share the household's banked status (see Table 3). We exclude representative payees who are outside the household from analyses in this section because the administrative data for these cases reveal no information about the household.

Conditioning on these possibilities and on demographics, we predict reporting a lack of a traditional bank account in households that receive at least one payment by direct deposit. The dependent variable indicates whether the respondent reports that the household is unbanked. We restrict the analysis sample to household heads who answered banking questions. We consider the characteristics of the head doing the reporting as well as the characteristics of the payment. The results of our logit estimation appear in Table 4. Odds ratios greater than one for an independent variable indicate that higher positive values of that characteristic are associated with more misreporting of being unbanked. Odds ratios less than one are associated with less misreporting.

Conditional on our set of included variables, whether the respondent is the recipient does not significantly predict misreporting of unbanked status. Whether the recipient uses a representative payee (only within the household) is positively associated with misreporting and large in magnitude. This could indicate problems with our method of assigning representative payees to in-household family members. Perhaps many of the representative payees here are actually outside of the household receiving direct deposits, allowing the unbanked report to be accurate. However, the majority of representative payees are coded as a parent of a child recipient. This relationship is easy to identify within households using CPS data, and it is unlikely that many children use out-of-household parents to redeem their payments when a parent was present in the household.

We find that the vulnerable subgroups that are overrepresented among the unbanked population are also more likely to misreport their banked status. Most prominently, households receiving disability payments are more likely to misreport. The estimated ratio is large in magnitude and statistically significant. Also, respondents with lower incomes, or who are older, male, white or hold a high school degree or equivalent are less likely to misreport, as indicated by odds ratios below one. Therefore their counterparts who are poorer, younger, female, non-white, or with less than a high school degree are more likely to misreport. Non-metropolitan status is not statistically significant.

Overall these results show systematic inaccuracy in reporting. The effects of disability and representative payees (highly correlated with child SSI recipients) are large, suggesting self-reported banking status among these populations likely underestimates actual bank access. This has important implications for future research and survey designs, as well as the shift to

electronic payments. One way to improve survey questions would be to ask how people in the household receive most of their payments, and how they pay for most of their purchases. The list of financial instruments from which to choose the answer could include direct deposits to accounts at banks, credit unions, prepaid cards, or other accounts, as well as paper checks, money orders, and cash. In our study, evaluating the welfare of disability recipients will be difficult, because they are the most likely to misreport being unbanked, as well as the most likely to be truly unbanked and receiving paper checks, as shown in Table 2.

Given the situation in early 2009 described here, the phase-in and eventual complete mandate of electronic payments will cause a change in behavior for a small but highly vulnerable segment of the population. In order to more fully evaluate the possible effects of the policy on these households, we describe the policy change further and explore survey responses revealing banking preferences.

7. Impacts of moving to electronic payments

Social Security benefits are typically paid once a month. Prior to 2011, federal payment recipients had the choice to receive payments via direct electronic deposit into an existing bank account or into an Electronic Transfer Account (ETA), or to receive checks in the mail. ETAs are simple prepaid debit accounts into which federal payments can be electronically deposited. They have limited features and low fees. Roughly 85 percent of the Treasury's nontax payments were disbursed electronically in fiscal year 2010 (Federal Register 2010). Take-up rates for ETAs are very low, so nearly all electronic payments went to other types of accounts (Office of the Inspector General 2010).

Effective February 22, 2011, the Treasury, which delivers payments on behalf of SSA, passed an amendment to Rule 31 CFR Part 208 requiring that all federal nontax payments be made electronically starting March 1, 2013, with a phase-in period of two years. New enrollees after March 1, 2011 are automatically required to receive electronic payments, while ongoing paper check recipients are encouraged to switch to an electronic method of payment. After soliciting and meticulously documenting feedback from the public, the Treasury decided the Direct Express ® card could improve on ETAs and serve the needs of unbanked payment recipients (Federal Register 2010). Direct Express ® is a low-cost prepaid debit card. Unlike most transaction accounts at banks, the card has no minimum balance requirement and is

available to people with poor credit histories. Federal payments can be redeemed without charge, and the card can be used for many other transactions.

The Treasury predicts savings of $117 million avoiding printing and mailing checks each year, which will increase as more baby boomers enter the system and as costs to mailing rise (Federal Register 2010). Not included in this figure are costs to banks to cash checks or costs to federal agencies to resolve problems with checks, though in the case of electronic benefits transfer taking the place of physical food stamps, reduction in fraud was a key positive outcome (US General Accountability Office 2008, Federal Register 2010). Paperless federal payments tie in with a larger proposed initiative predicted to save $500 million over five years. The initiative includes plans to go paperless for savings bonds, tax filing, and within Treasury administration (Office of Management and Budget 2011).

While the administrative benefits are clear, the transition costs to payees are unclear. For the banked population receiving deposits electronically, no change is mandated. For the banked currently choosing a paper check, the inconvenience of the mandated change is minimal, as accepting electronic payments does not require using any new financial products beyond the account they currently use. Unbanked paper check recipients, and some new unbanked enrollees, will have to make a possibly sizeable behavioral shift to Direct Express ®, an ETA, a private prepaid card, or a bank account. A few exemptions are available for those born in 1921 or earlier, for geographically remote recipients unable to tap in to the Direct Express ® card network, and for those with cognitive impairments that prevent the use of the card. It remains to be seen how difficult it will be to take up these exemptions.

The Direct Express ® program could increase access to low-cost transaction services among both marginally banked and unbanked recipients. However the debit cards will be an unwelcome imposition on the population who prefer not to use electronic payments or any form of transaction account. Overall, the transaction costs are low, and the level of complexity that must be navigated to avoid fees is moderate. Federal Register (2010) lays out five scenarios in which a payee spends from $0 to $18.48 per month on transactions, predicting the lower-cost scenarios will prevail with “expanded cardholder education.” By contrast, KRC Research (2007) reports that the average fee for cashing a paper check from SSA is around $6.

Treasury began offering the Direct Express ® card in June 2008, and beginning in July 2009, Treasury encouraged migration to electronic payments through its Go Direct ® campaign

(see www.godirect.org and Federal Register 2010). Figure 2 shows take-up of Direct Express ® by Social Security Administration program, starting in January 2009 (the earliest data available). New enrollments slowly but steadily rose over two years, then sharply rose in March 2011, when the Direct Express ® card became mandatory for new payees without pre-existing electronic deposit accounts.

Therefore our January 2009 paper check sample had access to Direct Express ® and ETAs, but had not yet faced a mandate or felt the influence of the outreach campaign. Research on similar financial choices with potential long-term savings, but short-term hassle costs, has shown inertia to be a powerful force (Madrian and Shea 2000). Given these two facts, we do not accept the payment method choices in January 2009 as necessarily revealing the outcome of an individual cost-benefit analysis. Therefore the mandate, with proper information, may actually be beneficial to some paper check recipients.

The FDIC survey disaggregated the unbanked by their motivations for being unbanked using a battery of questions. Building on Hogarth et al (2004, 2005), we divide the unbanked into three groups based on their "main reason" for being unbanked. Our focus is on redeeming government payments, so our grouping process is informed by each person's likely reaction to being offered benefits on a prepaid debit card. See Table 5 for a list of reasons in each group, and proportions citing each reason.

The group most likely to resist the move to electronic payments expresses distaste for banking not likely to be addressed by the Direct Express ® card. Reasons for being unbanked include lack of trust and comfort when dealing with banks. This group is averse to banking and will likely be displeased by debit card use, even if it may save them money. This group most averse to banking comprises 11 percent of unbanked payment recipients.

On the contrary, another group expresses problems with banking that can surely be solved by the Direct Express ® card. They include bad credit or loss of bank accounts, inability to maintain minimum balances, being poorly served by bank locations and hours, or being in immediate transition between bank accounts. This group is likely to benefit from the card, as it expands the set of financial products available to them. This group possibly helped by the push toward electronic payments comprises 23 percent of unbanked payment recipients.

The reasons expressed by a third and final group do not clearly suggest resistance to electronic payments, nor are they problems that can necessarily be solved by a low-cost prepaid

debit card. Inability to manage an account, the vague but very common "not enough money," as well as a host of write-in and "none of the above" responses indicate general problems with using banks. While the Direct Express ® card is friendlier toward low balances, it obviously does not change the amount of money recipients have. Direct Express ® requires management much like a checking account, but could represent an intermediate step between dealing in cash, which can be costly and risky, and opening a bank account with the possibility of high fees. This ambiguous group comprises 66 percent of unbanked payment recipients. Therefore the upper bound of those who could be resistant to electronic payments is 77 percent (the most averse group plus the ambiguous group). The lower bound of those who could be resistant to electronic payments is just 11 percent (the most averse group only).

8. Conclusion

We employ a novel matched data set to study the way social security payments are redeemed in unbanked households. One caveat of our method is that when combining multiple data sets, we compound the scarcity of the most vulnerable and hard-to-measure households with sample loss. However our sample roughly represents recent national statistics on financial services use. Most prior work on the unbanked uses self-reports to identify financial services access and use. We compare self-reports with administrative records of Social Security payments. Within our sample of Social Security recipients, we find that 69.1 percent of the people we usually call "unbanked" can and do receive electronic cash payments from the government. Future work on these topics should take into account the fact that self-reports of unbanked status can be misleading.

Like disabilities, unbanked status is not always easy to define. People with disabilities or without bank accounts constitute diverse populations, shaped by macroeconomic trends, social expectations of work behavior and financial management, as well as government rules and programs. The overlap between Social Security benefit recipients and households reporting being unbanked is one percent of the U.S. population, but deserves attention, as both being unbanked and receiving disability payments are often signs of serious economic stress. Furthermore, the policy change we study will impact this particular population.

The Treasury shift to electronic payments was not primarily designed to promote a switch to transactional banking products, but has effectively created incentives for use of electronic

payment services. To the extent accounts help people organize their finances and avoid costly alternative transaction services, this will be beneficial. There will be further gains to the extent that insured accounts help people save, or afford credit. The cost of fees or penalties for mismanaging accounts remains a key issue.

FDIC data reinforce prior evidence that when people forgo bank accounts, they do so far more often because their financial situation limits the usefulness of a bank account, as opposed to their abilities or tastes limiting their choices. As a result, a portion of unbanked Social Security payment recipients in early 2009 stand to gain from use of a low-cost, simple instrument like Direct Express ®. Our estimates place this portion between a substantial minority and a large majority.

The mandate to use electronic deposits may also cause shifts over time in the use of representative payees. Without the task of managing paper checks, recipients may have less desire for a third party to receive their payments. Of course the added complexity of accounts and cards relative to cash could also have the opposite effect, pushing more people to need to use a representative payee. This issue will require monitoring as the new procedures are phased in.

Throughout our study, SSI recipients stand out as most disconnected from mainstream financial choices. They are particularly likely to choose paper checks and to receive their payment via a representative payee. Representative payees may offer greater ability to access and interact with an account, yet we find these agents are typically also part of the unbanked household. Direct Express ® debit cards also might overcome some barriers to access and reduce the demands of servicing an account, although some recipients may still prefer cash for daily transactions. The population of SSI recipients reporting being unbanked (and whose payment redemption method does not contradict their report) is around 500,000 people. Working-age SSI recipients with disabilities face the dual impediments of economic barriers to a bank account and access barriers which limit the utility of an account. A small number may qualify for and take up exemptions from the Treasury rule change, but the rest are likely to require help as they transition to new financial behaviors. Policies need to consider comprehensive approaches combining products with supportive services, especially for special populations such as people with disabilities.

Our study highlights that to maximize the net social benefit of transfer payments, policymakers must draw on reliable measures of consumer behavior and preferences, often from

multiple sources. To provide a more nuanced measure of financial inclusion, future survey designs should account for the intricacies of different household members receiving specific payments through an array of traditional and alternative transaction methods. And whenever possible, survey measures should be verified against administrative records.

References

Barr, Michael S., Prepared Statement, United States Senate Hearing before the Committee on Banking, Housing, and Urban Affairs: Bringing more Unbanked Americans into the Financial Mainstream, May 2, 2002.

Barr, Michael S. Banking the Poor, Yale Journal on Regulation, 2004, Vol. 21: 121-237.

Booz, Allen & Hamilton. Mandatory EFT Demographic Study, OMB #1510-00-68. Washington: U.S. Department of the Treasury, September 15, 1997. Retrieved from: http://www.fms.treas.gov/eft/reports/demographics.pdf.

Bound, John, Charles Brown, and Nancy Mathiowetz. Chapter 59: Measurement error in survey data. Handbook of Econometrics, Volume 5, 2001, pp. 3705-3843.

Bricker, Jesse, Arthur B. Kennickell, Kevin B. Moore and John Sabelhaus, Changes in U.S. Family Finances from 2007 to 2010: Evidence from the Survey of Consumer Finances, Federal Reserve Bulletin, 2012, vol. 98, pp 1-80.

Bucks, Brian K., Arthur B. Kennickell, Traci L. Mach, and Kevin B. Moore. Changes in U.S. Family Finances from 2004 to 2007: Evidence from the Survey of Consumer Finances, Federal Reserve Bulletin, 2009, vol. 95, pp. A1-55.

Bucks, Brian K., Arthur B. Kennickell, and Kevin B. Moore. Recent Changes in U.S. Family Finances: Evidence from the 2001 and 2004 Survey of Consumer Finances, Federal Reserve Bulletin, 2006, vol. 92, pp. A1-38.

Czajka, John L., Jonathan E. Jacobson, and Scott Cody. Survey Estimates of Wealth: A Comparative Analysis and Review of the Survey of Income and Program Participation, Washington, DC: Mathematica Policy Research, Inc., August 2003.

Dove Associates, Inc. ETA Conjoint Research: Final Report and Market Model, Unbanked Federal Check Recipients, OMB #1510-00-71, May 26, 1999. Retrieved from: http://www.fms.treas.gov/eta/reports/conjoint.pdf.

FDIC National Survey of Unbanked and Underbanked Households, 2009. Accessed at: http://www.fdic.gov/householdsurvey/2009/full_report.pdf.

FDIC National Survey of Unbanked and Underbanked Households, 2011. Accessed at: http://www.fdic.gov/householdsurvey/2012_unbankedreport.pdf.

Federal Register Volume 75, Number 245. Wednesday, December 22, 2010.

Federal Reserve Bank of St. Louis. Understanding the Dependence on Paper Checks: A Study of Federal Benefit Check Recipients and the Barriers to Boosting Direct Deposit. Washington, DC: United States Treasury, 2004.

Hogarth, Jeanne M., Christoslav E. Anguelov, and Jinkook Lee (2004). “Why Don't Households Have a Checking Account?" Journal of Consumer Affairs, v. 38, iss. 1, pp. 1-34.

Hogarth, Jeanne M., Christoslav E. Anguelov, and Jinkook Lee (2005). "Who has a Bank Account? Exploring Changes Over Time, 1989-2001," Journal of Family and Economic Issues, vol. 26, no. 2, pp. 295.

Huynh, Minh, Kalman Rupp and James Sears. The Assessment of Survey of Income and Program Participation Benefit Data Using Longitudinal Administrative Records, of Survey of Income and Program Participation, Working Paper No. 238, 2002.

KRC Research. Go Direct SSA & SSI Survey. November 2007.

Madrian, Brigitte C. and Lars J. Lefgren. A Note on Longitudinally Matching Current Population Survey Respondents. NBER Working Paper T0247, 1999.

Madrian, Brigitte C. and Dennis F. Shea. “The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior,” NBER Working Paper No. W7682, 2000.

Office of the Inspector General, Social Security Administration. Evaluation Report on the Social Security Administration’s Informing Beneficiaries of Domestic Electronic Banking Options, November 2010.

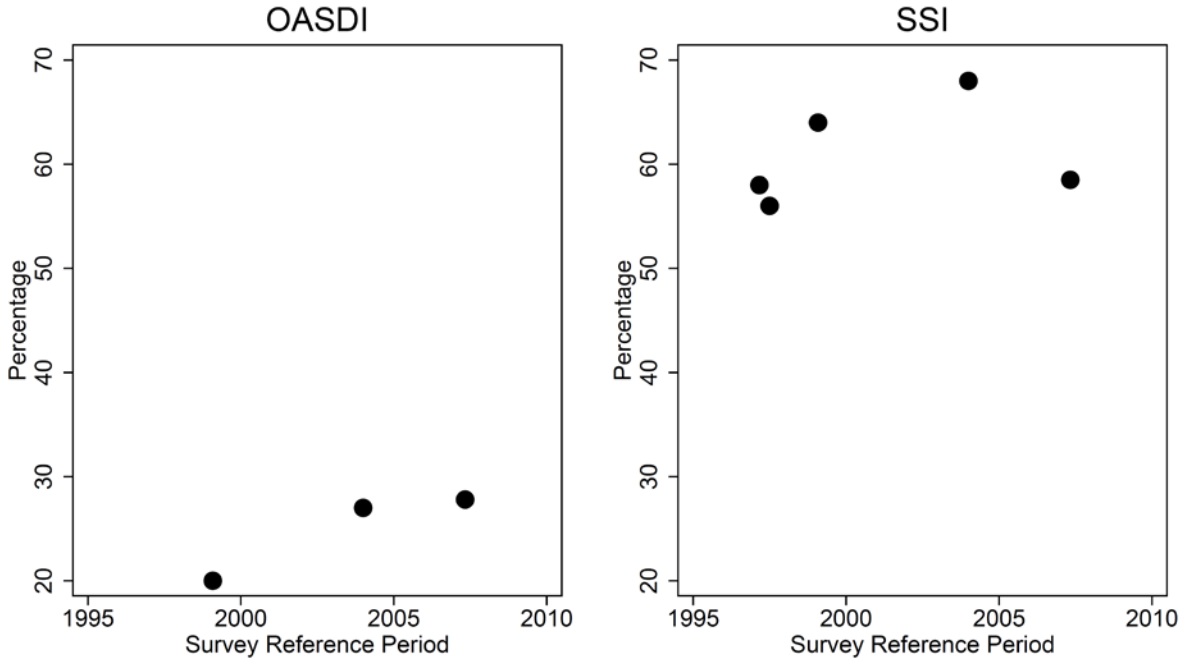
Prescott, Edward S., and Daniel D. Tatar. “Means of Payment, the Unbanked, and EFT ‘99.” Federal Reserve Bank of Richmond Economic Quarterly, 1999, vol. 85/4, 49-70.

Rhine, Sherrie L. W., William H. Greene, and Maude Toussaint-Comeau. “The Importance of Check-Cashing Businesses to the Unbanked: Racial/Ethnic Differences.” The Review of Economics and Statistics, 2006, 88 (1): 73-84.

US General Accountability Office, “Many Programs Electronically Disburse Federal Benefits, and More Outreach Could Increase Use.” Washington, DC, GAO-08-645, 2008.

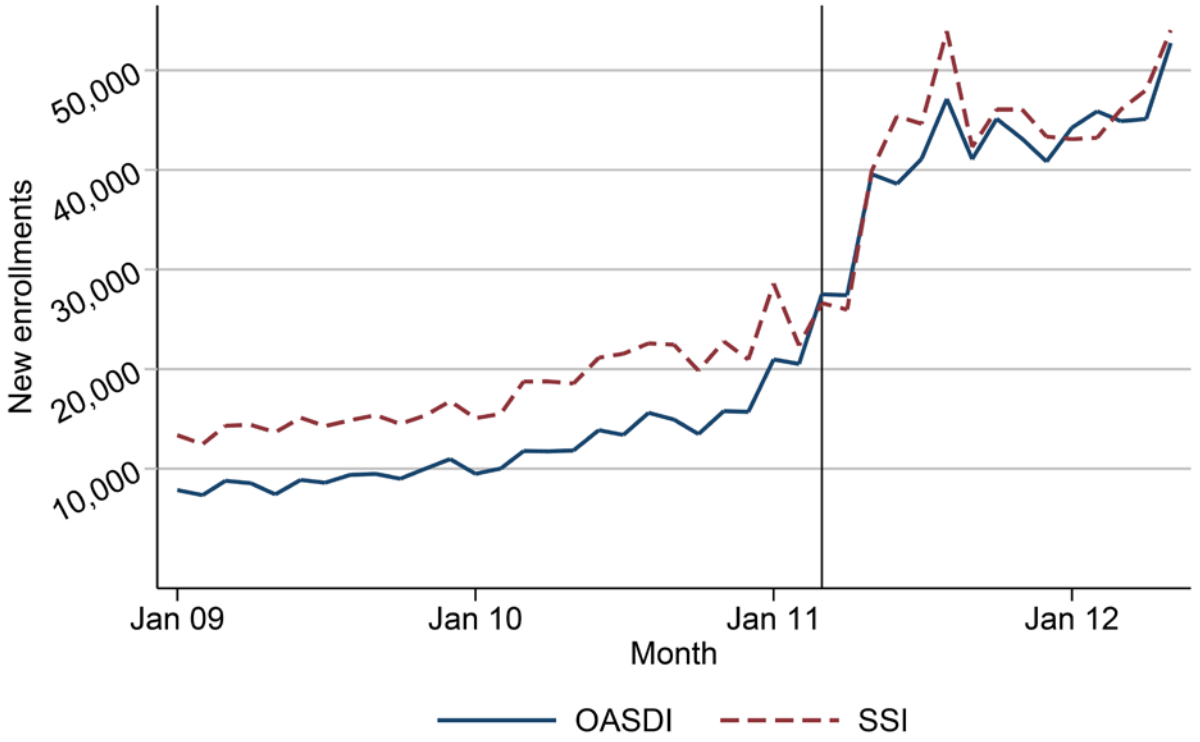
US General Accounting Office. “Electronic Transfers: Use by Federal Payment Recipients Has Increased but Obstacles to Greater Participation Remain.” Washington, DC: GAO-02-913, 2002.

Figure 1: Percentage of Paper Check Recipients that are Unbanked, Previous Studies



Note: Estimates from: Booz, Allen & Hamilton (1997, two SSI estimates), Dove Associates (1999), Federal Reserve Bank of St. Louis (2004) and KRC Research (2007).

Figure 2. Direct Express ® Enrollments



Note: data from US Dept. of the Treasury Financial Mgmt. Service. Phase-in began Mar 2011.

Table 1. Description of Banked and Unbanked Groups

Variable	All People	Banked	Unbanked	Diff.
Number of observations	47,781	45,092	2,689	
Age				
0-17	23.6%	22.6%	37.6%	*
18-64	62.9%	63.4%	56.6%	*
65 and over	13.5%	14.0%	5.8%	*
Total	100.0%	100.0%	100.0%	
Household size	3.30	3.27	3.70	*
Head completed high school or GED	88.36%	90.30%	60.88%	*
Non-metropolitan	16.18%	15.93%	19.47%	
Pre-recession household income (2009$ not top-coded)	$56,274.87	$59,135.27	$15,718.94	*
Recession income change				
90th percentile	77.0%	73.3%	192.2%	-
75th percentile	29.0%	28.5%	46.3%	-
Median	10.3%	10.3%	5.8%	-
25th percentile	-6.8%	-5.5%	-42.2%	-
10th percentile	-55.9%	-51.6%	-99.3%	-
Social Security program				
OASDI	15.87%	16.41%	8.25%	*
SSI	1.55%	1.22%	6.18%	*
Concurrent	0.76%	0.61%	2.90%	*
Total	18.18%	18.24%	17.32%	
Type of Social Security payment				
Disability payment	3.86%	3.42%	10.08%	*
All other payments	14.31%	14.81%	7.25%	*
Total	18.18%	18.24%	17.32%	

Source: CPS matched to SSA administrative records.
* indicates significant banked-unbanked difference at the 5 percent level.
Note: percentages denote weighted proportions within banked/unbanked groups (columns).

Table 2. Proportion of Payment Recipients Banked

Variable	Number of observations	Unbanked
All paper check recipients	763	20.21%
OASDI	516	11.95%
SSI	195	34.88%
Concurrent	52	43.17%

Source: CPS matched to SSA administrative records. CPS person weights used.

Table 3. Social Security Payment Methods

Variable	Number of observations	Electronic payment	Representative payee		Unbanked
			In household	Outside household	
All payment recipients	8,309	90.41%	9.35%	3.49%	6.28%
OASDI	7,377	92.72%	6.84%	2.03%	3.42%
SSI	615	69.53%	32.68%	13.86%	26.26%
Concurrent	317	84.90%	14.26%	12.99%	25.24%
Disability payment	1,693	83.01%	21.51%	10.68%	17.18%
All other payments	6,616	92.41%	6.07%	1.55%	3.34%
Unbanked	466	69.14%	18.06%	16.88%	100.00%
Banked	7,843	91.84%	8.77%	2.59%	0.00%
Age					
0-17	600	72.77%	77.90%	9.94%	12.62%
18-64	2,114	86.05%	11.13%	7.60%	12.80%
65 and over	5,595	94.18%	0.69%	1.13%	2.98%
Head did not complete HS or GED	1,592	89.51%	5.95%	4.90%	10.33%
Head completed HS or GED	6,717	91.08%	11.85%	2.45%	3.31%
Non-metropolitan	2,183	87.22%	10.92%	3.02%	7.25%
Metropolitan	6,126	91.26%	8.94%	3.61%	6.02%
Receive own payment	7,296	92.09%	0.00%	0.00%	4.69%
Rep. payee in household	726	79.94%	100.00%	0.00%	12.12%
Rep. payee outside household	287	76.67%	0.00%	100.00%	30.36%

Source: CPS matched to SSA administrative records.
Note: percentages denote weighted proportion within demographic groups (rows).

Table 4. Logit estimates

Self-reporting unbanked status when payee receives direct deposit
Dependent variable: reporting unbanked, mean 0.05

Variable	Odds ratio	Rep. std. error	P-value	
Disability payment in household	2.4533	0.5049	0.000	*
Representative payee in household	2.5314	0.5634	0.000	*
Respondent is the recipient	1.1973	0.3545	0.543	
Age of respondent	0.9788	0.0074	0.004	*
Respondent is male	0.7415	0.1241	0.074	
Respondent is white	0.2451	0.0423	0.000	*
Household is non-metropolitan	1.2577	0.2667	0.280	
Respondent is high school graduate	0.3139	0.0695	0.000	*
Log of pre-recession average hhld. earnings	0.9311	0.0201	0.001	*
Constant	0.5600	0.3288	0.323	

N = 5,423

Source: CPS matched to SSA administrative records. CPS person weights used.
* indicates significance at the 5 percent level.
Note: Sample excludes households with a rep. payee outside the household.

Table 5. Payment Recipients' Main Reasons for Being Unbanked

Total unbanked observations	466
Policy change likely to work against preferences	10.53%
Do not see the value of having a bank account	
Do not trust banks	
Banks do not feel comfortable or welcoming	
Ambiguous	66.68%
Do not have enough money to need a bank account	
Don't know/refused/nonresponse	
Write-in other response	
None of the reasons listed	
Service charges of bank accounts are too high	
Bounced too many checks or had too many overdrafts	
There are language barriers at banks	
Do not write enough checks to need a bank account	
Could not manage or balance a bank account	
Couldn't pick just one main reason	
Do not know how to open a bank account	
Policy change likely to expand choice set	22.79%
In process of opening an account within two weeks	
The bank closed my account	
Minimum balance requirement at banks is too high	
There is no bank near home or work	
Banks have inconvenient hours	
Do not have the proper documents to open a bank account	
Credit problems	
Banks do not offer needed services like check cashing	
Banks take too long to clear checks	
Total	100.00%

Source: CPS matched to SSA administrative records. CPS person weights used. Responses within categories are ranked by descending frequency.