

How Do People Pay Rent?

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Abstract:

Using data from the 2014 Boston Fed Bill Payment Experiment and the 2014 Survey of Consumer Payment Choice (SCPC), we investigate how households pay their rent. We find that the dominant methods for paying rent are cash (22 percent), check (42 percent), and money order (16 percent). Electronic methods are still rarely used, at 8 percent for bank account number payment and 7 percent for online banking bill payment, and less than 2 percent for debit and credit cards. Compared with other large bill payments of more than \$200, rental payments are much more likely to be made with paper-based methods than with electronic methods and are much less likely to be automatic, despite the recent attempts by start-ups to make it easier for landlords to accept electronic payments. Check and electronic methods are more frequently used for higher-valued transactions and by those with higher income and education.

Keywords: payment instrument choice, rental payment, rent

JEL Classifications: D10, D19

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For many households, rent is their largest monthly expenditure. Therefore, it is important for a well-functioning payment system to serve renters' payment needs. This report explores how households pay rent. Despite a growing prevalence of electronic payment methods in recent years,¹ we find that only 16 percent of households pay rent with electronic methods linked to their checking accounts, including bank account transfers, online bill payment, and debit cards. Most households still pay rent via paper methods, including cash (22 percent), money order (16 percent), and checks (42 percent).

We look at how demographic factors, including income and education, are correlated with how people pay rent. A multivariate regression that controls for income, education, age, marital status, and financial distress finds that income and education are significantly correlated with rental-payment behavior. The effects can also be seen from summary statistics. In particular, households with less than \$25k in income pay rent mostly via cash (41 percent) and money order (28 percent), with checks as the third most frequent choice (22 percent). On the other hand, people with over \$100k in household income tend to pay rent with checks (66 percent) and electronic methods related to checking accounts (23 percent), and rarely with cash (3 percent) or money order (2 percent).

A similar pattern emerges with education. Households with respondents having high school or less education tend to pay mainly with cash (36 percent), checks (30 percent), money order (23 percent), and electronic payments from a checking account (7 percent). On other hand, households with respondents having postgraduate education pay mainly with checks (55 percent) and electronic payments from a checking account (33 percent), and less with cash (6 percent) or money order (2 percent).

We also look at how the rental-payment decision is correlated with payment decisions in other aspects of a respondent's life. We find that those who frequently use cash for point-of-sale payments are also more likely to pay rent with cash, and that this pattern holds even controlling

¹ People can now pay rent via online bank account transfers, Venmo, PayPal, and debit and credit cards through third-party services like onradpad.com and rentpayment.com, and by deduction from paychecks through providers like NPS Rent Assurance.

for checking account ownership. Similarly, we find that those who frequently use card or electronic methods for paying bills are also more likely to pay rent with bank account number payments and online banking bill payment methods. This suggests some degree of homogeneity in how people pay, which may reflect the preferences of the payees.

One reason why rental payments are interesting to study is that different payment methods incur different costs and have different characteristics. In particular, cash is associated with withdrawal costs, which may vary by banking status: money orders cost between \$1.25 and \$1.65, checks need to be purchased, and cards are costly to accept due to merchant fees.² The payment methods also differ in their speed, security, and convenience of use for both the payee and the payer. How people pay rent therefore has consequences both for revenues of different payment platforms and for the efficiency of the payment system.

Furthermore, rental payments are a form of bill payment, and the way people pay their bills may influence their consumption and savings decisions. In particular, Sexton (2015) finds that a switch to automatic electricity bill payments increases electricity consumption, which he suggests is because consumers pay less attention to automatic bills. Along similar lines, the way people pay their rental bills (whether automatic or non-automatic, electronic or on paper) may influence much attention they pay to their rental payments, which could lead to different consumption/budgeting decisions. We find that rental payments are much less likely to be automatic than other bill payments of \$200 or more (used by 9.9 percent of households for rental payments versus 59.7 percent for other bills).

Literature

Our work is related to the empirical literature on consumer payment choice. Klee (2008) finds that consumers at grocery stores tend to use cash for smaller transactions, and payment cards or checks for larger transactions. Wang and Wolman (2014) find similar patterns in the context of a discount chain. We also find a correlation between transaction value and method of

² <https://www.usps.com/shop/money-orders.htm>.

rental payment: households are more likely to use cash to pay rent when the rental payment amount is small, and are more likely to use checks for higher-value rental payments, although, in our context, landlord acceptance may play a larger role than when the payee is a discount chain.

Payment-instrument choice is a joint decision involving both the way the consumer wishes to pay (which may be influenced by, for example, convenience and card rewards) and the method the merchant or landlord will accept (which may be influenced by setup costs and transaction costs). This feature of the market, together with its implications for the market for payments, is studied from a theoretical viewpoint in Rochet and Tirole (2003, 2011) and Edelman and Wright (2015), and from an empirical viewpoint in Arango, Hyunh, and Sabetti (2015).

Therefore, our observation that paper methods are frequently used for paying rent may reflect either (i) the tendency of landlords to accept only paper methods of payment or (ii) the tendency of renters to stick with paper instruments. A landlord's decision on what payment instruments to accept may be influenced by factors such as speed, cost, and settlement risk. In particular, card payments generally involve merchant fees, whereas cash, checks, and money orders cost less to accept. Shy and Wang (2011) studies why card networks tend to charge high proportional fees to merchants. On the other hand, cards and checks may expose the landlord to higher settlement risk (checks may bounce or the transaction may be reversed), so landlords who are averse to these risks may choose to accept only cash and money orders. Greene et al. (2014) describes the costs and benefits of building faster payments systems, which may have lower fees and settlement risks.

Services like onradpad.com and rentpayment.com try to mitigate the acceptance issue by sending paper checks to landlords and accepting electronic methods from tenants. Both services are free if the tenant chooses to use debit instead of credit cards. Nevertheless, as these services are not yet universally known, we cannot distinguish between the landlord acceptance and consumer preference effects on rental-payment choice. Rather, we provide descriptive evidence on how consumers pay for rent.

In terms of preferences, Cohen and Rysman (2013) and Shy (2013) analyze the tendency of some consumers to use a single payment instrument for most of their transactions. One explanation for this could be preferences or gains from “single-homing,” as this practice is known in the literature. Related to this finding, we find that consumers who mainly use cash for point-of-sale purchases are also more likely to pay rent with cash.

Schuh and Stavins (2012) and Connolly and Stavins (2015) find that demographic factors such as age, education, and income are correlated with payment-instrument adoption and use. Similarly, we find that income and education are strongly correlated with how consumers pay rent.

Other papers that empirically investigate payment-instrument choice include Ching and Hayashi (2010), which studies the impact of credit card rewards on payment-instrument choice, and Koulayev et al. (forthcoming), which looks at consumer-payment choice in adoption and use stages. Consumer rental-payment decisions may be similarly influenced by rewards and adoption costs. Sexton (2015) finds that consumers pay less attention to automatic payments, and the lack of attention may influence consumption decisions. Similarly, how consumers pay rent may have implications for the salience of rental payments and consumption decisions.

Data

Our main data source for how consumers pay rent is the 2014 Boston Fed Bill Payment Experiment, in which we specifically asked each respondent how his or her household pays its bills. The experiment was implemented as a module within the Financial Crisis Surveys started by Hurd and Rohwedder. It was first conducted in October of 2014, with seven bill categories (mortgage, rent, electricity, telephone/cable/internet, car payments, vehicle insurance, health insurance), and then in December of 2014 for 25 additional bill categories. The Financial Crises Surveys was started in 2008 to provide panel data on how household finances evolved over time in the aftermath of the financial crises. It is fielded every two months, and is described in Hurd and Rohwedder (2010). The Boston Fed Bill Payment Experiment gives us a sample of 615

households who pay at least \$200 rent on their primary residence, out of a total of 2,775 surveyed.

We link data from the first Boston Fed Bill Payment Experiment to the 2014 Survey of Consumer Payment Choice (SCPC), which was also fielded in October of 2014. The SCPC provides additional information about payment-instrument use. We were able to match 299 renters and 1,443 respondents including non-renters. Schuh and Stavins (2015) describes the 2014 SCPC dataset, which is publicly available, in more detail. We also collect information about rental payments in the 2012 and 2015 Diaries of Consumer Payment Choice (DCPC), but the sample sizes in those datasets are too small to make meaningful inference because most renters pay rent only once a month and the vast majority of respondents do not pay rent during their diary days.

One of the questions in the Financial Crisis Surveys asks respondents to describe their living arrangements. We focus on households who (i) “rent their primary residence” and (ii) “are responsible for paying rent.” We find that this makes up of 25 percent households in the United States. On the other hand, homeowners make up 59 percent of households. The remaining respondents either live with friends or family (9 percent), with roommates who pay rent on their behalf (2 percent), or indicate “other” for their living arrangement (5 percent). The focus on households who are responsible for paying their rent allows us to study landlord-tenant relationships.

To further understand our sample, we compare the demographics of those who rent their primary residence with those who own their primary residence. We describe our results in Table 1. According to Table 1, consumers in renter households are more likely to be younger (40 percent of renters are below the age of 35 versus 16 percent of homeowners), lower-income (62 percent of renters have a family income that is below \$50,000 versus 34 percent of homeowners), and non-white (37 percent of renters are non-white versus 11 percent of homeowners). We also look at the share of renters versus owners who answered “yes, a lot” to a question asking whether they had been affected by financial problems including “large drops in the housing market, large swings in the stock market, and high rates of foreclosures and unemployment,”

and we find that renters are more likely to be affected by financial problems than homeowners (12.6 percent versus 9.0 p).

We also eliminate 15 observations for which the payment instrument used for paying rent was not reported. This left 600 observations for our main analysis.

How do households pay rent?

Figure 1 shows how U.S. households pay rent. The single most common way of paying rent is via check, at 42 percent. Cash is next at 22 percent, followed by money order at 16 percent. Electronic payments from checking accounts make up about 15 percent of rental payments, including 8 percent via bank account number payment, 7 percent via online banking bill payment, and 1 percent via debit cards. Credit cards represent 0.5 percent of rental payments. Figure 1 also contrasts how renters pay their rent with how the same renters pay their other bill payments greater than \$200. We find that consumers are much less likely to use paper methods (cash, checks, and especially money order) for their other bill payments than for their rental payments.

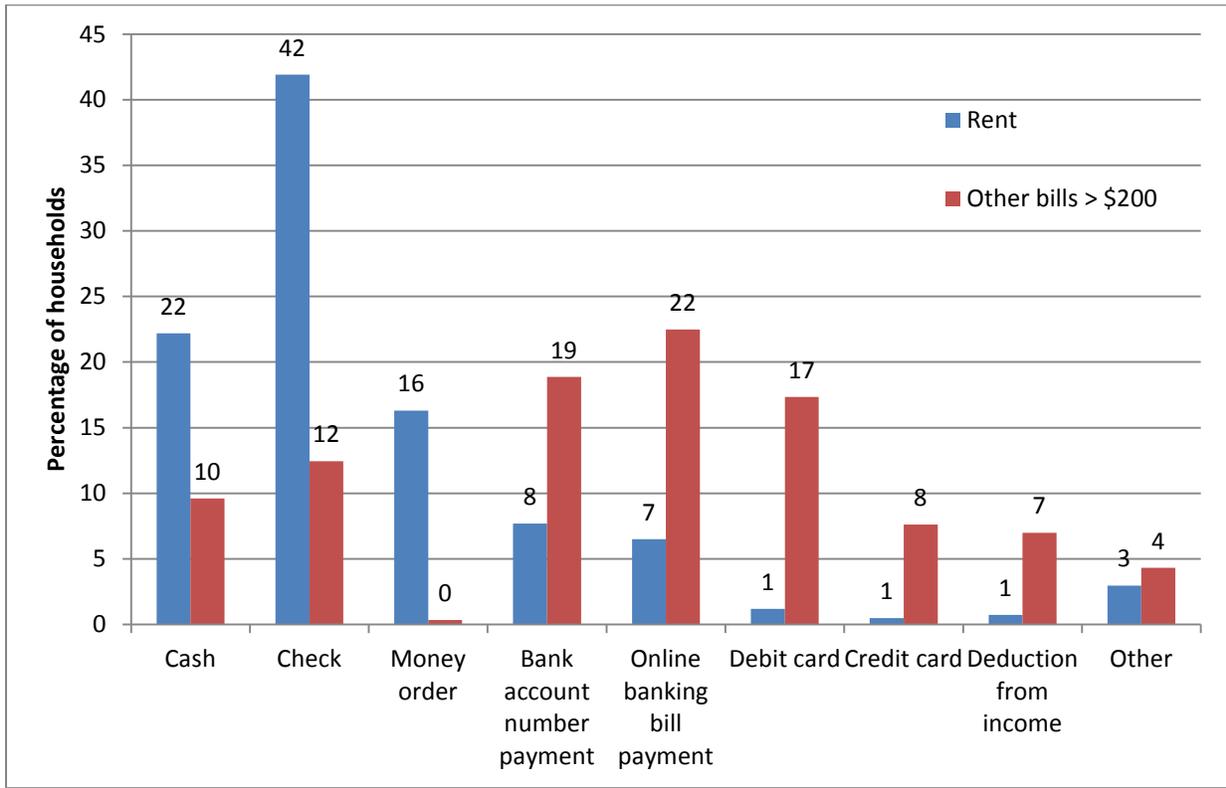
Table 1
Demographics: Gender, Age, Race, Education, and Income

Percentage of group	Renters	Owners	Difference
Gender			
Male.....	44.6	45.9	-1.3
Female.....	55.4	54.1	1.3
Age			
18–24.....	3.8	0.5	3.3 ^{***}
25–34.....	37.6	15.0	22.6 ^{***}
35–44.....	21.4	14.1	7.3 ^{***}
45–54.....	15.6	22.2	-6.6 ^{***}
55–64.....	12.5	21.5	-9.0 ^{***}
65 and older.....	9.1	26.7	-17.6 ^{***}
Race			
White.....	64.7	88.7	-24.0 ^{***}
Black.....	19.3	4.7	14.6 ^{***}
Asian.....	2.5	1.9	0.6
Other.....	13.4	4.8	8.6 ^{***}
Ethnicity			
Hispanic or Latino.....	22.6	12.1	10.5 ^{***}
Education			
No high school diploma.....	10.2	4.0	6.2 ^{***}
High school.....	28.8	30.1	-1.3
Some college.....	20.6	19.6	1.0
College.....	26.7	30.4	-3.7
Post-graduate study.....	13.7	15.8	-2.1
Household Income			
Less than \$25,000.....	30.0	11.0	19.0 ^{***}
\$25,000 to \$49,999.....	28.7	22.9	5.8 ^{**}
\$50,000 to \$74,999.....	16.6	17.3	-0.7
\$75,000 to \$99,999.....	14.1	19.1	-5.0 ^{**}
\$100,000 to \$124,999.....	5.7	14.9	-9.2 ^{***}
\$125,000 to \$199,999.....	4.2	10.8	-6.6 ^{***}
Greater than \$200,000.....	0.7	3.9	-3.2 ^{***}
Affected by financial problems	12.6	9.0	3.6 ^{**}
Percentage of population	22.2	59.3	-37.1 ^{***}
<i>N</i>	615	1,758	

Source: Author’s calculations using data from the 2014 Boston Fed Bill Payment Experiment, a module within the Financial Crisis Surveys described in Hurd and Rohwedder (2010).

Note: Significance is * at the 10% level, ** at the 5% level, and *** at the 1% level in a two-tailed weighted *t*-test.

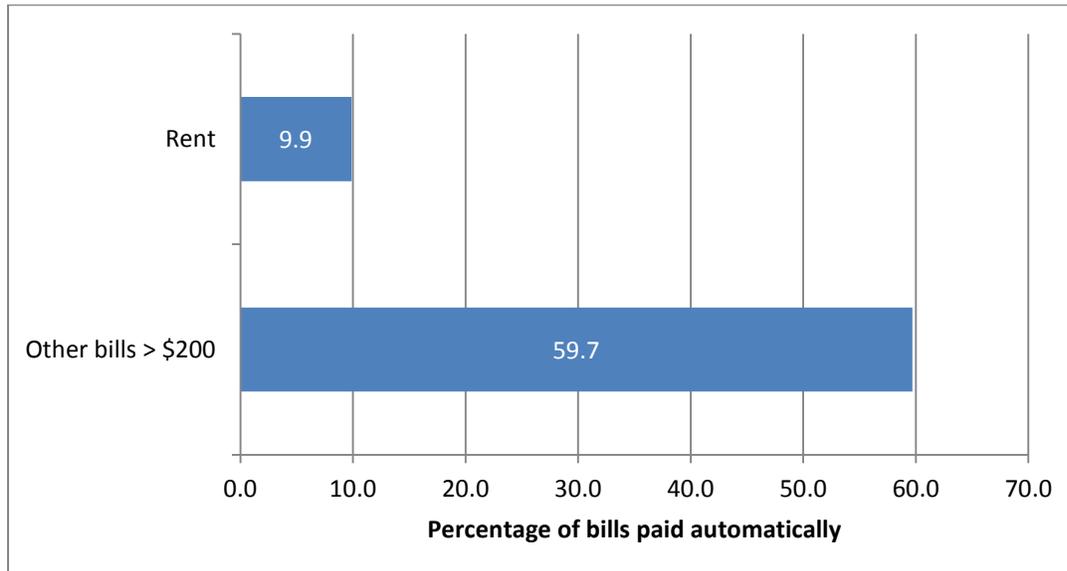
Figure 1: How U.S. households pay rent



Source: Author’s calculations using data from the 2014 Boston Fed Bill Payment Experiment, a module within the Financial Crisis Surveys described in Hurd and Rohwedder (2010).

We also find that rental payments are much less likely to be paid automatically than payments for the same respondent’s other bills. This result is illustrated in Figure 2, which shows that only 10 percent of rental payments are paid automatically, compared with 60 percent of other bills.

Figure 2: Percentage of automatic bill payments

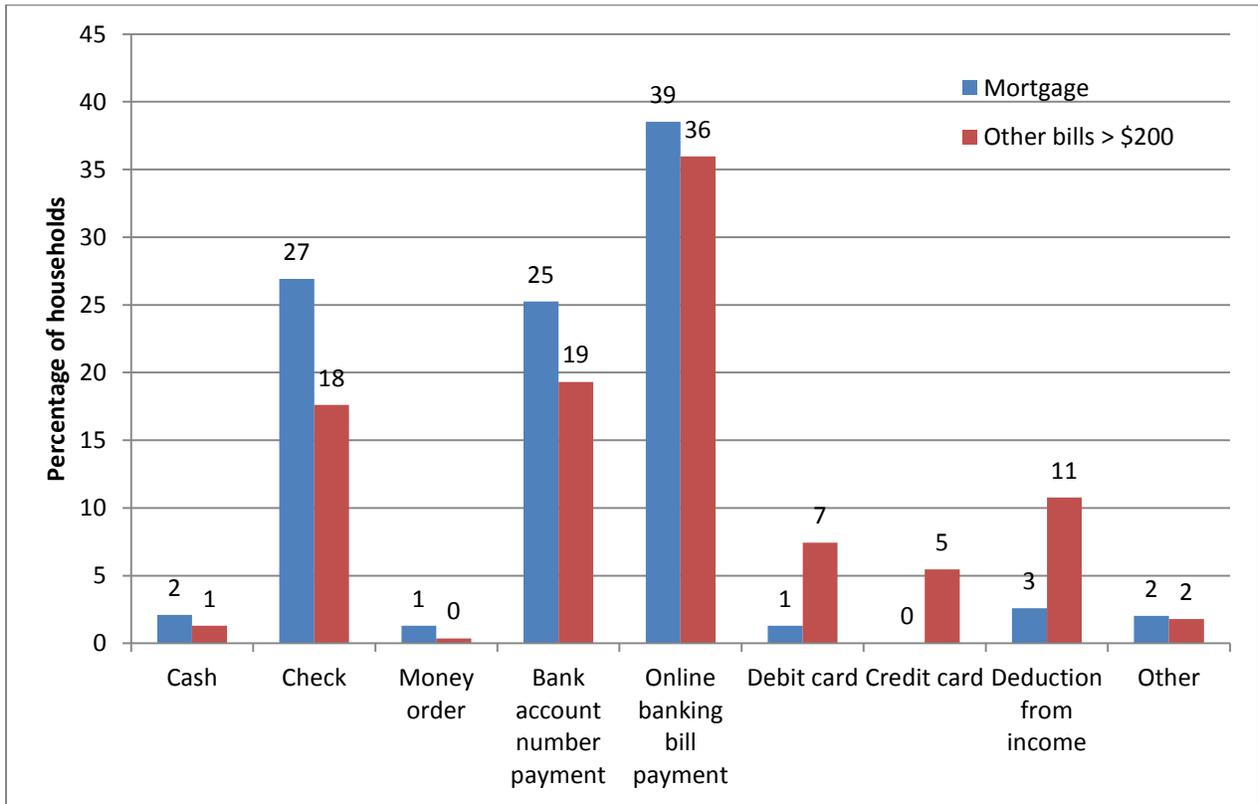


Source: Author's calculations using data from the 2014 Boston Fed Bill Payment Experiment, a module within the Financial Crisis Surveys described in Hurd and Rohwedder (2010).

Mortgage and other bills

Figure 3 looks at how U.S. households make mortgage payments and how the same (mortgage-paying) households pay their other bills. In contrast to Figure 1, Figure 3 shows that mortgage payments are fairly comparable with other bill payments, except that they are less likely to be paid using debit/credit cards and income deduction and more likely to be paid using checks, bank account number payment, and online banking bill payment. This may be because banks are more likely than other creditors to accept checks and ACH-based methods (bank account number payment and online banking bill payment). Furthermore, a comparison between Figure 1 and Figure 3 shows that rental payments are paid in a more distinct manner than mortgages, which might reflect a general difference in landlord acceptance preferences from merchant acceptance preferences.

Figure 3: How U.S. households pay their mortgages



Source: Author’s calculations using data from the 2014 Boston Fed Bill Payment Experiment, a module within the Financial Crisis Surveys described in Hurd and Rohwedder (2010).

How else can the rental-payment method decision be explained?

In this section, we look at how the rental-payment method varies by (i) transaction value and (ii) demographic factors, including income, education, and age.

To check whether potential correlation between these variables is not driving all the results, we ran a multinomial logit regression (results shown in Table 2) which shows that transaction value, income, and education are all significant (at the 0.1 percent level) predictors of payment-instrument choice for paying rent with cash. This suggests that transaction value, income, and education separately help to explain rental-payment choice.

Table 2: Regression of payment instrument choice on rental amount and demographics, average marginal effects of a multinomial logit

	Cash	Check	MO	Debit	Credit	BANP	OBBP	Income	Other
Rent amount									
\$200 - \$500	0	0	0	0	0	0	0	0	0
\$500 - \$1000	-0.119***	0.0802	-0.0235	0.00551	0.00681	0.0589***	-0.00825	-0.00477	0.00433
> \$1000	-0.138***	0.122*	-0.0438	-0.00345	0.00406	0.0934***	0.00291	-0.0139	-0.0230
Household Income									
< \$25k	0	0	0	0	0	0	0	0	0
\$25k - \$50k	-0.0693*	0.0971*	-0.0892**	-0.0198	-0.0143	0.0302	0.0387	-0.00454	0.0311*
\$50k - \$100k	-0.116**	0.120**	-0.130***	-0.0136	-0.00989	0.0121	0.0941***	0.0194	0.0230
>\$100k	-0.168***	0.289***	-0.168***	-0.0274	-0.000195	-0.0110	0.0502	0.0174	0.0180
Respondent's Education									
Less than high school	0	0	0	0	0	0	0	0	0
Some college	-0.0967**	0.0454	-0.0193	0.00621	0.00455	0.0198	0.0419*	-0.00602	0.00416
College	-0.175***	0.148**	-0.0890*	0.00628	0.00711	0.0282	0.0755***	-0.00249	0.00141
Post-graduate studies	-0.137**	0.148*	-0.144***	0.0139	0.00759	0.0226	0.0965***	-0.00468	-0.00303
Respondent's Age									
18-30	0	0	0	0	0	0	0	0	0
30-40	-0.0949*	-0.0644	0.0982**	0.0207	0.00115	0.0408	-0.00380	0.00257	-0.000331
40-50	-0.0984*	-0.0347	0.130**	-0.000267	-0.0132	-0.0579*	0.0301	0.0000536	0.0441
50-60	-0.0560	0.127*	0.00659	-0.00394	-0.0132	-0.0572*	0.000932	-0.0106	0.00675
>60	-0.116**	0.164**	-0.00852	-0.0117	-0.0132	-0.0297	0.0231	-0.00259	-0.00485
Living situation									
Single	-0.113***	0.148**	-0.0412	-0.0163	-0.0148	0.00939	0.055	-0.00704	-0.0201
Household members	0.0331***	-0.0163	0.0112	-0.00539	-0.00150	-0.0204*	0.00146	-0.00166	-0.000403
Financial Distress	0.108	0.0449	-0.0135	-0.159	0.0113	0.0505	0.0495	-0.131	0.0389
Observations	599	599	599	599	599	599	599	599	599
Pseudo R-squared	0.163	0.163	0.163	0.163	0.163	0.163	0.163	0.163	0.163
Marginal effects									
* p<0.10 ** p<0.05 *** p<0.01									

Source: Author's calculations using data from the 2014 Boston Fed Bill Payment Experiment, a module within the Financial Crisis Surveys described in Hurd and Rohwedder (2010).

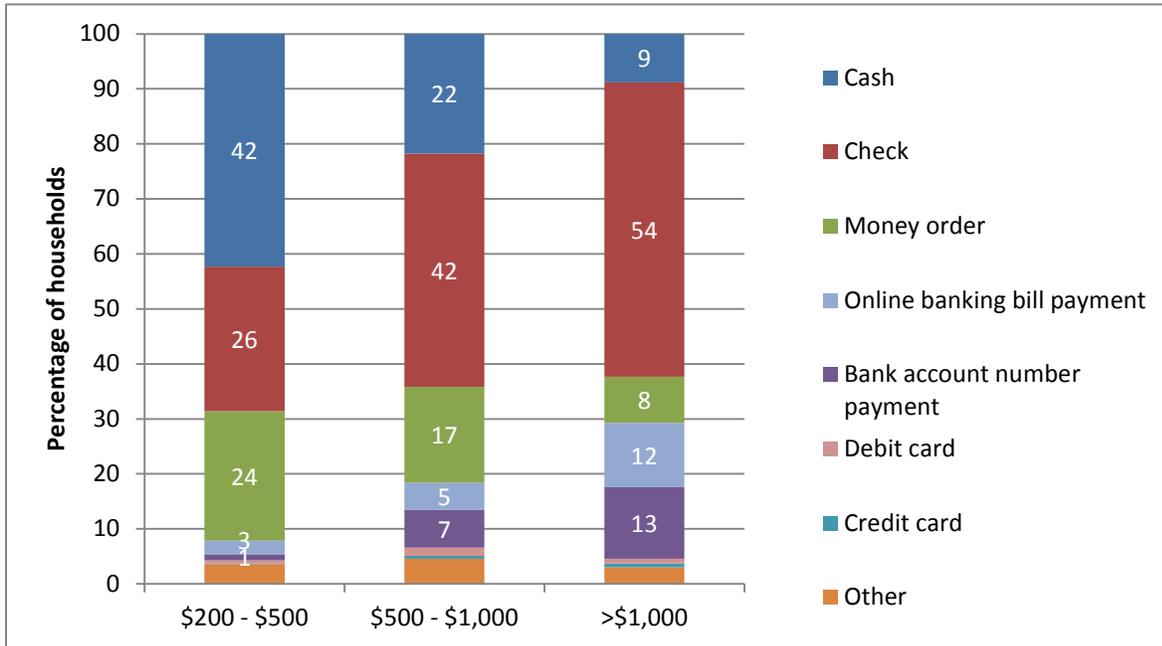
For this set of analysis, while we could condition on various combinations of checking account and payment-instrument adoption, doing so would reduce the available sample size because of the need to use the Boston Fed Bill Payment Experiment and SCPC matched sample rather than the Boston Fed Bill Payment Experiment sample alone. Therefore, we present payment-instrument use unconditional on adoption, and caution that adoption might explain some of these patterns.³

³ <https://www.usps.com/shop/money-orders.htm>

i. *Transaction value*

Figure 4 shows a strong correlation between the amount of rent paid and the value of the rental payment. In particular, cash and money order use declines with transaction value, while the use of checks and electronic methods increases with transaction value.

Figure 4: Rental payment methods and transaction value



Source: Author's calculations using data from the 2014 Boston Fed Bill Payment Experiment, a module within the Financial Crisis Surveys described in Hurd and Rohwedder (2010).

One possible interpretation of this result is that the costs of obtaining cash and money orders are higher with a higher transaction value. A possible explanation is that the expected loss from the theft of cash may be higher when large amounts of cash are involved. Moreover, the cost of money orders may rise with the rental-payment amount (for example, USPS money orders cost \$1.2 up to \$500, then \$1.6 from \$500 to 1000, and are not available in denominations greater than \$1000, so multiple money orders may be needed).⁴ Similarly, many ATMs have cash withdrawal limits, making it more costly to obtain large amounts of cash.

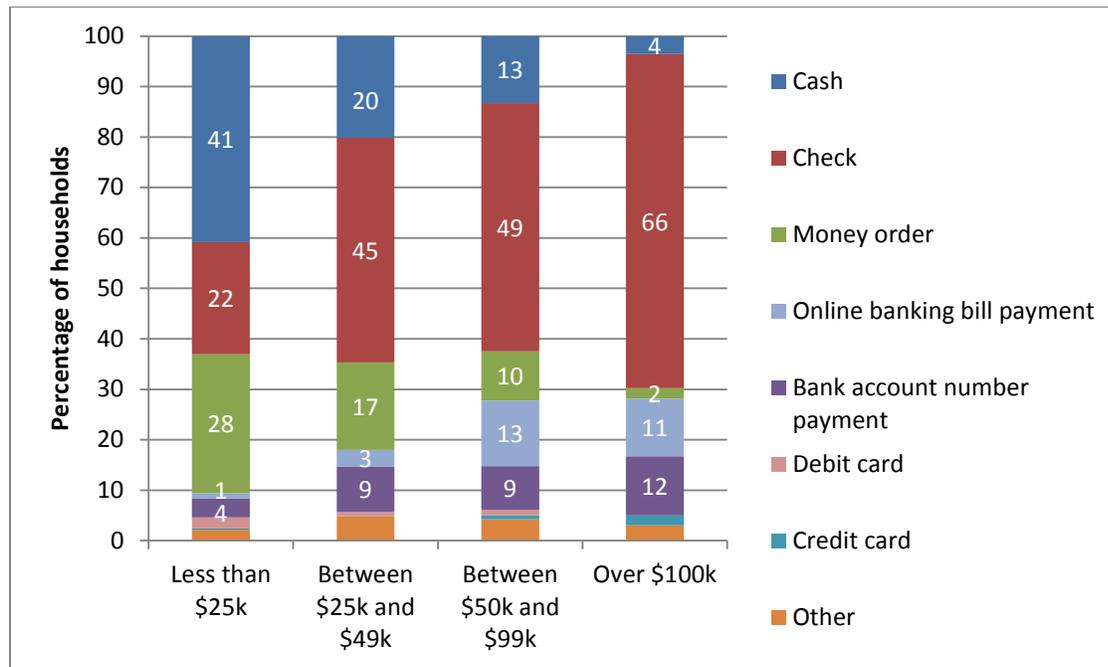
⁴ <https://www.usps.com/shop/money-orders.htm/>

ii. *Demographics: income and education*

We next investigate how the rental-payment decision varies by household income and education. For household income, we divide respondents into four categories: those earning less than \$25k ($N=190$), those earning between \$25k and \$49k ($N=180$), those earning between \$50k and \$99k ($N=172$), and those earning more than \$100k ($N=58$).

We find that rental-payment decisions are significantly correlated with household income. In particular, consumers with less than \$25k in family income frequently pay rent with cash (41 percent) and money order (28 percent). On the other hand, households with \$100k in family income are unlikely to pay rent with cash (4 percent) or money order (2 percent), instead paying mostly via check (66 percent) and electronic payments from bank account (23 percent).

Figure 5: Rental payment method by respondent household income

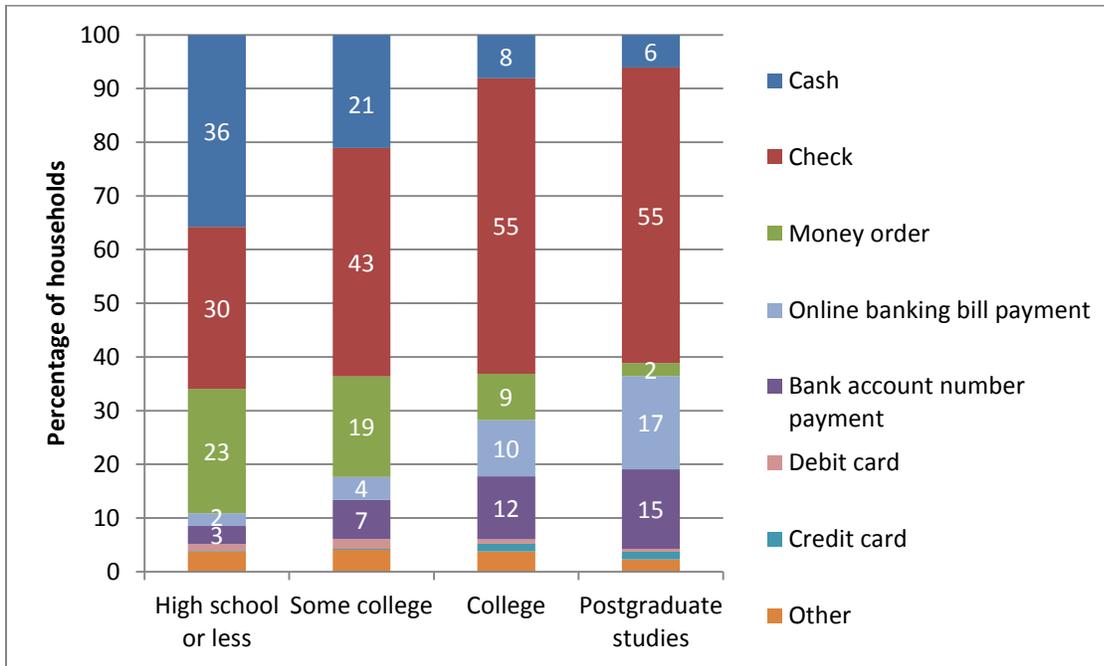


Source: Author's calculations using data from the 2014 Boston Fed Bill Payment Experiment, a module within the Financial Crisis Surveys described in Hurd and Rohwedder (2010).

To study the effect of education level, we divide our sample into four groups: (i) high school or less ($N=120$), (ii) some college ($N=234$), (iii) college ($N=157$), and (iv) postgraduate

studies ($N=89$). Figure 5 shows the results. We find that cash and money order are more common among consumers with a high school or less than a high school education (36 percent and 23 percent, respectively), whereas they are much less common among those with postgraduate education (6 percent and 2 percent, respectively).

Figure 6: Rental payment method by respondent education level



Source: Author’s calculations using data from the 2014 Boston Fed Bill Payment Experiment, a module within the Financial Crisis Surveys described in Hurd and Rohwedder (2010).

In addition to household income and education, we also find that households with more members are more likely to pay with cash (based on our regression, shown in Table 2). This might reflect roommates deciding to pool their rental payment using cash rather than checks, but we lack the data to confirm this possible explanation.

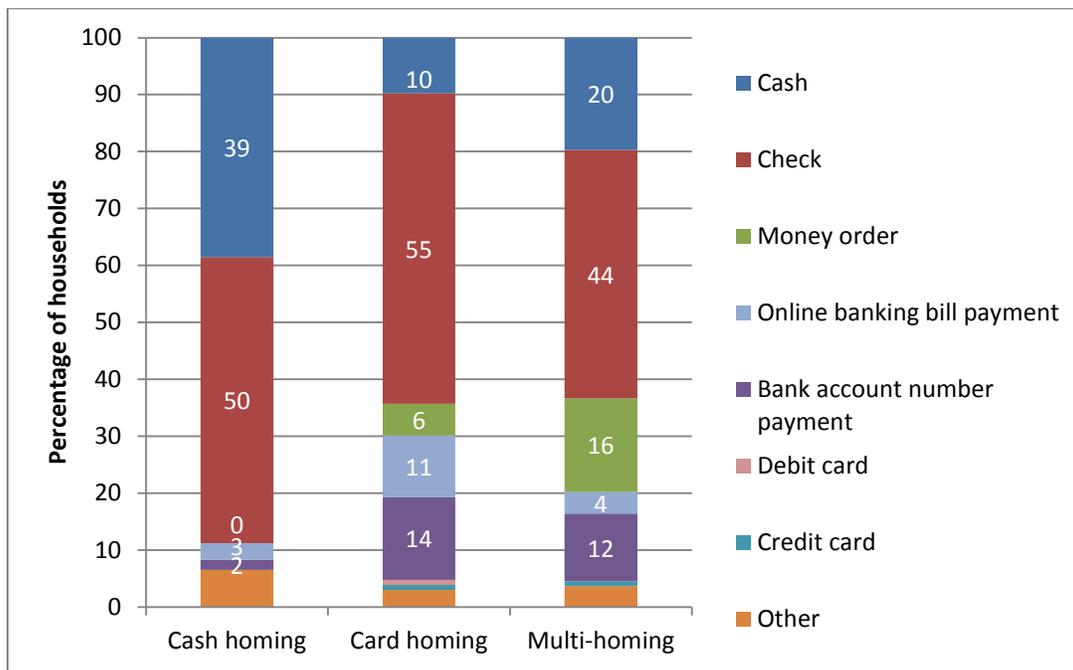
Rental payments and other payment behavior

Figure 7 shows that the way households pay rent is correlated with the way respondents pay for their point-of-sale payments, which they report in the Survey of Consumer Payment Choice (SCPC). In particular, we compute “homing” behavior in a similar manner to Bringlevics,

Schuh, and Zhang (2016) and define a respondent as “cash homing” if he/she uses cash for at least 80 percent of his/her point-of-sale payments, “card homing” if he/she uses a card for at least 80 percent of his/her point-of-sale payments, and “multi-homing” otherwise. We do not separate out debit versus credit cards due to sample-size constraints, although economically those who home on the two instruments may be significantly different.

We find that cash-homing respondents are more likely than card-homing respondents to use cash, even conditional on checking account ownership. This might indicate that, in addition to recipient acceptance, consumers’ preferences have a role in payment-instrument choice.

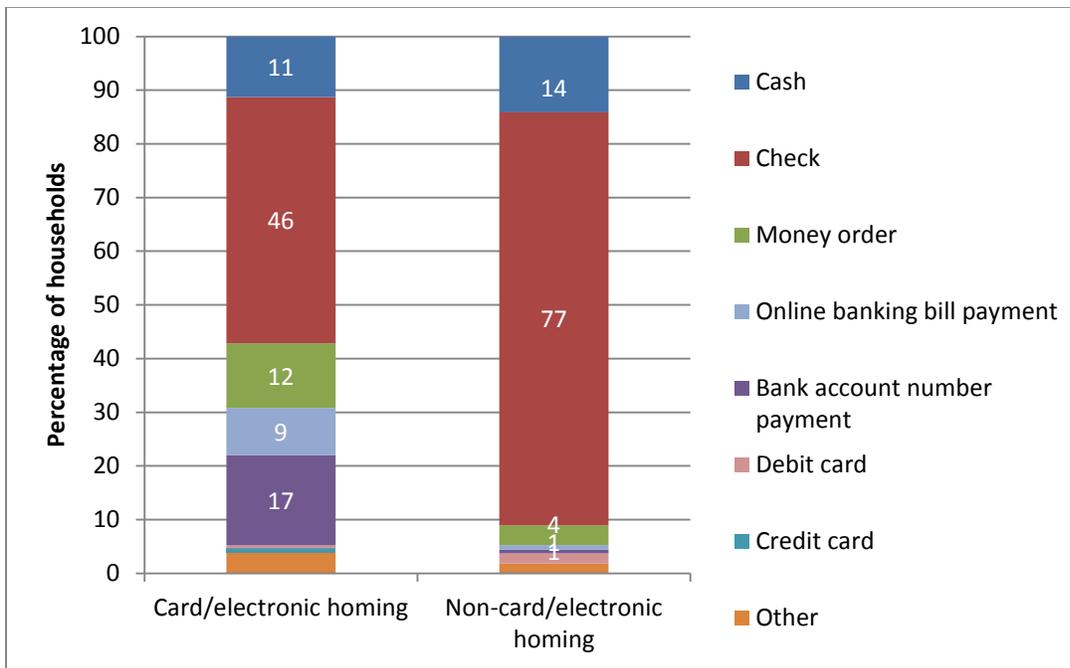
Figure 7: Respondents’ homing behavior for point-of-sale payments and rental-payment method, conditional on checking account ownership



Source: Author’s calculations using data from the 2014 Survey of Consumer Payment Choice (SCPC) and the 2014 Boston Fed Bill Payment Experiment. The 2014 Boston Fed Bill Payment Experiment is a module within the Financial Crisis Surveys described in Hurd and Rohwedder (2010).

Figure 8 repeats the same exercise for bill payments, which may be more closely related to rent (a bill) for some respondents. While very few respondents “home” on cash or checks for bills, we compare those who primarily use card or electronic methods to pay their bills (more than 80 percent) with those who do not. We find that those who primarily use card or electronic methods to pay their bills are significantly more likely to use electronic methods (online banking bill payment and bank account number payment) to pay their rent. They are also somewhat more likely to use money order to pay the rent. This further suggests some degree of correlation between respondents’ rental-payment behavior and their other bill-payment behavior.

Figure 8: Respondents’ homing behavior for bill payments and rental-payment method, conditional on checking account ownership



Source: Author’s calculations using data from the 2014 Survey of Consumer Payment Choice (SCPC) and the 2014 Boston Fed Bill Payment Experiment. The 2014 Boston Fed Bill Payment Experiment is a module within the Financial Crisis Surveys described in Hurd and Rohwedder (2010).

Discussion and Conclusion

We find that households still pay rent primarily with paper methods, even though electronic methods are featured more prominently among high-income, high-education, and high-rent households. These patterns may be explained either by the lack of landlord acceptance of electronic methods or by the unwillingness of tenants to pay using these methods.

The observation that rental payments are slow to move to electronic methods may be puzzling, in light of recent attempts by start-ups and banks to smooth the acceptance of electronic methods. Issues like bounced checks (settlement risk), speed, and records (to keep track of late rental payments) may be significant concerns for landlords considering electronic payment methods. If this is the case, then rental payments may be a potential use case for faster payments services, which would provide a fast and secure (in terms of settlement risk) way to make payments.⁵

As the payment landscape continues to transform, it would be interesting to study the landlord acceptance issue in more detail in order to better understand whether there is room for improvement in the rental-payment system.

⁵ [Greene et al. \(2014\)](#).

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