The Demography of Credit: How does Doubling Up Affect a Household?

Abstract

The Great Recession had a profound effect on household structure in the United States, in particular by reducing the number of net new households formed. A portion of the decline in net new households formed was related to individuals consolidating households, or "doubling up." Using a large administrative panel dataset with quarterly observations in three states, we examine the effect of the trend towards more individuals moving into an existing household on the financial well-being of the original residents from 1999-2014. We find that each additional adult added to the household is associated with increased credit delinquency and reduced credit scores amongst the original household members. However, the negative impact of doubling up on the primary or original residents' credit score and delinquency appears to dissipate within two quarters of the additional household member moving out. Moreover, local unemployment rates appear to moderate the effect of added household members on primary residents' credit status.

Introduction

The composition of households is strongly associated with a wide range of life events, including marriage, divorce, births and adoption, adult children returning home, and families sharing a residence. Across disciplines, scholars have studied the effects of shifts in household structure on myriad of outcomes, including income and assets, health, parenting and child well-being, to name a few. The Great Recession (December 2007- June 2009) had a particularly profound effect on household structures, as the declines in employment and stagnant wages appears to be related to reduced household formation (Paciorek 2013) and reduced marriage rates (Schaller 2013). The unemployment and mortgage foreclosures in this period resulted in many individuals "doubling up" to ease financial hardship (Mykyta and Macartney 2011, Wiemers 2014). While some research has examined the effect of "doubling up" on the financial well-being of individuals who move in to existing households (Dettling and Hsu 2014), few researchers have studied the effect of changing a household's structure on the financial well-being of the original household members.

The Census Bureau classifies doubling up as "those households that include at least one 'additional' adult – in other words, a person 18 or older who is not enrolled in school and is not the householder, spouse or cohabiting partner of the householder." Doubling up has long been viewed as a means of resource sharing and weathering financial shocks, particularly among low-income households (Haider and McGarry 2005, Newburger and Kim 1991, Pilkauskas, Garfinkel, and McLanahan 2014). The widespread financial hardship caused by the Great Recession substantially increased the rate of doubling up, and more than halved the number of net new households formed (Paciorek 2013, Mykyta and Macartney 2011).

During the Great Recession, the number of doubled up households increased by almost 11 percent, going from 19.7 million household in 2007 to 21.8 million in 2011 (Johnson 2011). The increase was even more pronounced among young adults, with the number of 25 to 34 year olds living with their parents going from 4.7 million to 5.9 million (Johnson 2011). The 26 percent increase in the number of young adults living with their parents in this period prompted Dettling and Hsu (2014) to examine the effect of adult children moving back in with their parents on credit outcomes. They find that financial shocks experienced by young adults, as measured by debt burden, credit scores, and credit delinquency, predict subsequent moves in with parents. The adult children then appear to use the time co-residing with their parents to improve their credit profile, becoming current on payments and increasing their credit scores.

However, young adults are not the only group doubling up. A study by real estate transaction database provider Zillow finds that nearly half of adults appeared to double up on housing in Los Angeles (Logan 2014). Individuals experiencing job loss or changes in housing prices may be acting prudently by doubling up. A 2010 NPR article, for example, describes even middle aged adults doubling up (NPR 2010). One couple featured in the article reported that they squeezed seven adults along with two young children into five bedrooms and two bathrooms in

Minneapolis, sharing a $1,800 monthly mortgage. The article also described less rosy situations and mounting stress levels. As one family member is quoted saying, "we love our family but we don't like living with them…It's like one big holiday dinner that won't end" (NPR 2010).

This study uses a unique data source to better describe how additional members being added to a household are related to changes in the credit status of the original, primary residents. For example, if a husband and wife (the primary residents) take in a sibling who lost a job, they may also help the sibling to reconcile debts and manage shared expenses. This may harm the primary residents' ability to manage cash flow, and result in increased use of debt, missed bill payments, and ultimately decreases in credit quality as measured in credit scores. Conversely, having an additional individual in the household who can potentially contribute to paying the bills may support the financial well-being of the primary residents in times of economic distress, boosting credit status.

While economists and sociologists often use panel survey to study changing households, this study uses administrative data from credit depositories to understand changes in household composition and individual credit outcomes. The data used in this study—the Federal Reserve Bank of New York/Equifax Consumer Credit Panel (CCP)—has a unique structure, which includes credit information for all members of a given household updated every quarter. By using a large, relatively high frequency dataset, we are able to analyze how even brief spells of doubling up affect credit outcomes. Specifically, we analyze the effect of another adult joining a household on the credit score and probability of default on any credit account of the original or primary residents.

Our results suggest that the addition of another household member is generally detrimental to the financial well-being of the primary residents, associated with an increase in delinquency and a reduction in credit scores. Moreover, having more than one person move into the household compounds these adverse associations. However, the decline in credit scores and increase in credit delinquency appears to largely dissipate within one to two quarters once the additional household member moves out. We also find some support for the hypothesis that, under certain circumstances of heightened economic distress, having an additional household member could be beneficial: In periods of high unemployment, the adverse effect of the additional household members on credit outcomes is reduced, completely eliminated, or even has a positive effect on the primary residents' credit depending on the severity of local unemployment.

Theory

In this study, we outline three potential ways in which a family can experience doubling up depending on the age of the adults added to the household. First, we consider adult children who

either stay in the household after the age of 18[1] or move back to their parent's house after a period away from home. Second, we consider elderly individuals who move in with younger primary householders. Third, we consider other adults, which may consist of siblings, friends, neighbors, or anyone in the close vicinity of the primary resident's age. We next outline potential mechanisms for the ways in which pooling resources could affect the primary household member's credit for each type of doubling up.

First, we think about two different types of adult children: "failure to launch" children, who never left home but aged into adulthood, and "boomerang" children, who left the household and then later returned. Ex ante, one may think that an adult child in the household may simply be another mouth to feed, increasing the total costs of the household. However, it could be the case that this individual contributes to the household by assisting with the care of younger siblings, performing household chores, and potentially even aiding with the household finances. This would then free up time and resources for the primary member of the household to complete other tasks, allowing him/her to work more hours and improve their finances.

Second, elderly people, just like adult children, can be considered either a cost or a benefit to the primary household members in the sense that they could also contribute to household production and finances. For example, the primary household member's parent might enter the household in order to aid with childcare, especially for younger children. This could free up resources for the heads of household and improve their finances. The elderly person is also likely to have some financial resources that can be used to cover household expenses. However, an elderly individual could move into the household when they themselves are in need of care. If this is the case, when this elder moves in, the family may help bear the cost of medical needs in addition to time costs associated with caregiving. This could damage the primary household member's finances by limiting the time they can devote to earning income or adding expenses that they cannot readily afford.

Third, more proximate age adults may move into the household, again creating an ambiguous effect of household entry/expansion on the primary family's credit. It could be the case that the new household members move in due to a strain on personal finances (job loss, foreclosure, bankruptcy, etc.). If this is the case, it is likely that these people are unable to contribute financially to the household and may increase the cost of the household. However, if the extended family member contributes to home production (caregiving, preparing meals, completing chores, etc.), this could free up the main household members' time to work more hours.

Another possibility is that the choice to double up is preventative. For example, if both the primary household members and the new members are struggling financially, this could be a way

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[1] They must also obtain a credit file at this point to be in our dataset.

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to reduce costs on housing and pool resources. This may be more evident when unemployment rates are high and general economic prospects are weak.

Data and the Sample

Consumer Credit Panel

This study draws from the Federal Reserve Bank of New York/Equifax Consumer Credit Panel (CCP) data. These data contain a 5 percent random sample of active credit files for individuals across the U.S. drawn from the credit bureau Equifax. These data on "primary household members" are then supplemented with all of the credit information for each individual with a credit file living at the same address as the primary household member. For the remainder of the study, we will call this person the primary household member, though we are not asserting that this person is the head of the household. It is simply a term we use for ease of exposition. The CCP data contains approximately 40 million credit files with data on each individual updated quarterly from 1999-present, with ongoing re-balancing for the national composition of credit files.[2] While most studies can complete their analyses using a random sample from the credit file data to make computation manageable, this study requires us to start with the full sample. This is because we aim to study the composition of a household, which requires us to link individuals within the household, and follow the primary household member as more people enter the household.

Since we cannot take a random sample and preserve the household characteristics we require for this study and the data are too large to perform a nation-wide analysis, we choose to focus on Arizona, Florida, and New Mexico for this analysis. We choose these three states for two reasons. First, each of these states was hit hard by the housing crisis, creating variation in the need to double up over our analysis period (1999-2014). Second, two of these states are more likely to have residents in single family homes (21% in Arizona, 30% in Florida, 15% in New Mexico, compared to 26% nationally). Multi-family dwellings complicate this analysis, since these residences will appear as a single household. We drop individuals in any remaining multi-family units for this analysis. In addition, we drop traditional "college towns" from the analysis, as students doubling up is not the focus of this study.[3]

The CCP data contain information on birthdate and any financial information that would appear in a credit file, such as delinquencies, loan amounts, and credit limits. These data contain no information on the relationship status of individuals across the household. For this reason, we will not be able to separate extended family members doubling up from marriage or cohabitation in each period. Thus, we only keep observations for which the primary household member has one cohabiting partner within 12 years of his/her age (Dokko and Li 2014). For ease of

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[2] See Lee and van der Klaauw (2010) for more on the CCP data.
[3] We obtain information on the zip codes of college towns from the Integrated Postsecondary Education Data System (IPEDS).

exposition, we refer to this person as a spouse, though we acknowledge that this individual could be a cohabiting partner or even a sibling or friend who has lived with the primary responder over a long period of time. We further acknowledge that this reduces our sample to people who stayed together, including in the face of potentially hard financial times. We understand that this does not allow us to make any inference regarding the fragility of relationships, and limits our understanding to only one type of household.

We restrict our primary household member sample to people between the ages of 25 and 55 throughout the sample period. We only include households who started with two individuals in the first quarter they are observed and subsequently increased to more than two individuals in the household in a later period. We are concerned that households that choose to double up are not similar to those who only include two members the entire sample period. The latter may include people who are more frugal in general, do not have children, or do not have a large extended network. Instead, we compare individuals to themselves before and after doubling up, as well across other individuals who add more or different types of individuals and do so across time periods.

We outline how we define each of our doubling up measures based on relative ages of the individuals in the credit data. Returning young adults are defined as being at least 18 years of age and under age 30. We also require that they are at least 16 years younger than the youngest primary household member. Elderly entrants to the primary household are defined as being at least 65 years of age and that they are at least 16 years older than the primary householder. Finally, returning middle age adults make up the remainder, with all defined as being within 12 years of one of the primary residents' ages. We also include older children (30 and over) in this category.

The final sample consists of a panel of 4 million quarterly observations of more than 50,000 primary household members in the three focal states of Arizona, New Mexico and Florida. Each observation includes information on the total number of household members in the credit record at that address in each quarter, each of those household members' ages, credit scores, and loan repayment records. If any individual at the address has a mortgage or a home equity loan, we label this householder as a homeowner. We also merge in local level data on housing values for the quarter using the Zillow housing price index (HPI) by ZIP code, as well as decennial Census zip-code level demographic information such as income and householder race.

Empirical Methods

We estimated a series of regressions to describe patterns in credit behavior, the determinants of doubling up, and how economic factors as associated with households doubling up.

Summary Statistics

Figure 1 plots the average credit score of all two resident and more than two resident households in our sample by quarter. From 1999-2007, the average credit score in two resident households is higher than in household with more members, by 2008 they converge, and in 2011, the trend flips with larger households now having higher average credit scores. These differences, however, are not large in magnitude, especially in more recent periods.

We see similar trends in 30 day and 90 plus default rates in Figures 2 and 3, respectively. Specifically, Figure 2 shows that at the start of the sample period households with more than two residents had a higher probability of default than those that start with only two residents. However, by 2006 the rates of default converge. In Figure 3, we see the same reversal trend from Figure 1, where two resident households are less likely to have a severe delinquency on an account from 1999 to 2006, the two groups converge from 2006-2010, and then two resident households are more likely to default by 2014. Given the correlation between these trends and the overall economy and unemployment rate, they suggest that the effect of doubling up on household finances may differ over the business cycle. For example, those who double up in periods where there is an economic shock (e.g. 2008) may be pooling resources in a way to protect their finances from financial shocks such as foreclosure or job loss. However, those that double up in periods without an economic shock may be more likely to have a health shock that requires caregiving or result from poor job prospects.

Next, we document the differences in demographic characteristics by the number of residents in the credit record in the household in Table 1. We show that the number of people added to the household is independent of the primary householder's age and homeowner status. While 30 and 90 plus day default rates do not vary substantially across all household sizes, there seem to be minimal differences between 2 and 3 person households, and larger differences between 2 and 3 person households and 4-7 person households. The same pattern of differences across household size exists for credit scores.

Empirical Specification

All models are least squares regressions (OLS) that include quarter by year fixed effects to control for differences across time in the instantaneous probability of default. The dependent variables of interest are delinquency behavior and credit score of the primary household member.

$$Y_{\{i,s,t\}} = \alpha_0 + \alpha_1 3_{\{i,s,t\}} + \alpha_2 4_{\{i,s,t\}} + \alpha_3 5_{\{i,s,t\}} + \delta_t + \gamma_s + \epsilon_{\{i,s,t\}} \qquad (1)$$

In Equation (1), $3_{\{i,s,t\}}$ is a dummy variable that equals one if the household contained three adults in period t in household i and state s and equals zero otherwise. The following two variables $4_{\{i,s,t\}}$ and $5_{\{i,s,t\}}$ are composed the same way, except $5_{\{i,s,t\}}$ also contains 6 and 7 person households. We include quarter by year and state fixed effects, δ_t, γ_s, respectively. Robust standard errors clustered at the state level are used to control for correlation within states over time in state-level policies that are accelerated at times that individuals are most likely to

double up. We alternate $Y_{\{i,s,t\}}$ to equal the primary's credit score, whether or not he was 30 days behind on any account in the given quarter, and whether or not he was severely delinquent (90 or more days behind) on any account in the given quarter.

$$Y_{\{i,s,t\}} = \alpha_0 + \alpha_1 3_{\{i,s,t\}} + \alpha_2 4_{\{i,s,t\}} + \alpha_3 5_{\{i,s,t\}} + \alpha_4 3_{\{i,s,t-1\}} + \alpha_5 4_{\{i,s,t-1\}} + \alpha_6 5_{\{i,s,t-1\}} + \delta_t + \gamma_s + \epsilon_{\{i,s,t\}} \tag{2}$$

We provide alternate specifications that also control for the lagged discrete number of residents in the household, where again the excluded group are two-resident households (Eqn. (2)). We then introduce the possibility that different types of individuals (elders, young adults, and middle aged) may differentially affect the primary's financial well-being. This is documented in Eqn. (3), where $Elder_{\{i,s,t\}}$, $Child_{\{i,s,t\}}$, and $Extended_{\{i,s,t\}}$, are each dummy variables equal to one if someone from the given group enters household i in period t and state s. It could be the case that at one period in time, a two resident household has a parent, sibling, and child move into the household, where all three would be equal to one.

$$Y_{\{i,s,t\}} = \alpha_0 + \alpha_1 Elder_{\{i,s,t\}} + \alpha_2 Child_{\{i,s,t\}} + \alpha_3 Extended_{\{i,s,t\}} + \delta_t + \gamma_s + \epsilon_{\{i,s,t\}} \tag{3}$$

We estimate each of these equations to determine how doubling up affects the primary household member's credit. The following section walks through these results.

Results

Table 2 reports the results of adding an additional person to the household to the primary household member's credit score. Column (1) shows the estimates from Equation (1), where going from two to three residents modestly decreases credit scores (by 2 points). However, going from three to four household members decreases the primary resident's credit score by 13 points on average. Additional residents beyond four do not seem to be increasingly detrimental to the primary resident's credit score. It appears that diminishing returns set in after the second additional household member is added.

We next seek to estimate whether or not having additional residents in the household in the previous quarter affects the resident's current credit score; the specific regression estimated is Equation (2) and presented in Column (2) in Table 3. Having three people in the household last quarter increases the primary's credit score in the next period by 5.5 points, but having three people in the household decreases credit scores by 7.7 points on average. Thus, if there were one additional person in the household both last quarter and in the present quarter, the average effect would be the sum of the two coefficients, which equals the effect from three residents in Column (1).

On average, adding the fourth and fifth residents last period results in an increased credit score for the primary resident of 13.6 and 24.7 points, respectively. This can be interpreted as the marginal effect of the fourth and fifth resident if they were in the household last period and left the current period. However, if they stay in the household this period, the average effect will again be the sum of the coefficients, leaving the primary household member worse off in both cases, by 14 and 13 points for 4 person and 5 plus-person households, respectively.

Next, we separate the effect by the type of person entering the household, as is shown in Equation (3). Column (3) shows that bringing an elder relative to the household decreases the primary's credit score by approximately 16 points. This suggests potentially higher frequencies of caregiving for the elderly resident than elders assisting with household duties. Young adults in the household improve credit scores roughly 24 points on average, showing that they are likely to contribute to the household financial stability. Middle aged entering household members have a minimal contemporaneous effect on the primary household member's credit score, decreasing credit scores by 1.6 points on average.

We add an interaction between the number of individuals and the household and the types of individuals in the household to determine if the effect of adding another person depends on what type of household member is added. Specifically, we estimate Equation (4), and are interested in α_4, the average effect of adding an additional member, as well as α_5 - α_7, the average effect of adding an additional person by type. These results are reported in Column (5) of Table 1.

The effect of adding an additional person, α_4, is -4.1, meaning that adding one more person to the household reduces the primary's credit score by 4 points on average. Conditional on adding one more person to the household, adding an young adult or middle aged member is harmful to the primary householder's credit score, whereas adding an elder is helpful. These effects are all small in magnitude, ranging from 1 to 6.6 points.

We now replicate each of these exercises for the 30-day delinquent dependent variable and present the results in Table 4. Many of the same trends in Table 3 continue to persist for the 30-day delinquency outcome. In Column (1) of Table 3, we see that adding an addition household member increases the probability of default by 0.8 percent. Adding a second household member with a credit file increases the primary member's probability of default by 2 percent, and this effect size is comparable when you add more than two people as well. Column (2) shows that once we control for the number of household members last quarter, the contemporaneous effect of adding additional household members is no longer statistically significant. However, if the primary had three or more adults with credit files in the household last period, this makes the primary 3 percent more likely to default in the current period. If the primary had four or five individuals in the household last period, the primary becomes 4 or 6 percent more likely to default, respectively. On average, elders increase the probability of default by 2 percent, young adults reduce the probability of default by 1.5 percent, and extended family members increase the probability of default by 0.5 percent (shown in Column (3)). Column (4) shows that having

an elder in the household last period increases the probability of default this period by 2.5 percent, though there is no longer a contemporaneous effect of hosting an elder. Having an extended family member in the household last quarter increases the probability of default by roughly 2.5 percent in the current quarter. If that family member still lives with the primary householder in the current quarter, this decreases the probability of default by 1.9 percent.

Table 5 reports the same results with a new dependent variable: the existence of at least one severe delinquency (greater than 90 days) on any account. Overall, the trends mimic those of the 30-day delinquency results. The distinction between the two is in the magnitude of the coefficient estimates. In Column (1), adding an additional member to the household increases the probability of being severely delinquent on an account by 0.5 percent; adding a second adult to the household increases this probability to 2.5 percent. After adding three or more adults to the initial two person household, the effect decreases slightly, increasing the probability that the primary member is 90 or more days behind on an account by 1.8 percent. In Column (2), we see that having three or four adults in the household last quarter increases the probability the primary householder is at least three months behind on an account today by 2.8 percent. Adding only one member to the household reduces the probability the primary defaults in the current period, whereas adding two adults to the household does not have a statistically significant effect on the primary householder's credit delinquency. If there were 5 or more adults in the household last quarter, the primary householder is 6 percent more likely to be severely delinquent on an account—an effect more than double the size of having three or four individuals in the household.

In Table 5 we also find that elders added to the household increase the probability of severe delinquencies (90-days behind) and young adults added reduce the probability, though each of these effects are small in magnitude (roughly 3 percent). These results remain consistent in Column (4), where young adults increase the probability of severe delinquency by 6 percent if they move in this quarter and reduce the probability of default by nearly 9 percent if they moved in last quarter. Columns (3)-(5) show that middle aged added members have little to no effect on the primary householder's credit delinquency.

Table 6 interacts the number of members in the household with the local unemployment rate (measured at the MSA level) to help further explain the trends we found in Figures 1-3. We find that an increase in the local unemployment rate increases the probability that individuals default by 0.2 percent and 0.7 percent for 30 and 90 or more day defaults, respectively. Also, a one-percentage point increase in the local unemployment rate decreases credit scores by 1.5 points on average. Once we interact the number of people in the household with the unemployment rate, adding one or two additional adults to the household mitigates the unemployment shock completely in 30-day delinquencies (Column (1)). Adding one or two more adults reduces the effect of increases in the unemployment rate on 90 or more day delinquencies by a half or a quarter for one or two additional adults, respectively (Column (2)). With both delinquency measures, adding three or more adults to the household no longer mitigates the unemployment

effect. Regardless of the number of people introduced to the household, doubling up nearly erases the average effect of an increase in the unemployment rate on the primary householder's credit score. Thus, it appears that individuals who choose to double up during tough economic times are doing so to prevent future financial hardship.

Discussion

There are several assumptions we must make in order for our results to be valid. First, we assume that both the number of adults who enter the household and the type of individual who enters the household is exogenous to credit outcomes. For example, we assume more affluent families are not more likely to take in boomerang young adults after they graduate from college. If this were the case, these are likely to be the students who are high-performers and helping at home while holding a job, upwardly biasing our estimates. More affluent families are also likely to have good credit and would upward bias our estimates on the effect of returning adult children on credit outcomes. While we acknowledge the potential endogeneity of the number of additional adults on the primary household's credit, we argue that many instances of doubling up are driven by economic and health factors that are exogenous to the primary household themselves. Second, we assume that measurement error is not reducing the validity of our independent variable of interest: the number of adults in the household. For example, if lower income individuals tend to have more individuals without credit files in the household, this will result in a lower value of the number in the household and understate the effect of adding another adult to the household on the primary's credit.[4] We are observing changes within households over a relatively long time period, and using a relatively large sample. The extent that households are taking in members who lack credit records, especially young and low-income members who lack a credit record, this could downwardly bias these estimates. Finally, these estimates are based on residents of three focal states. While these are large and reasonably representative areas, we are cautious to generalize these results to all states, or even into different forms of economic shocks. For example, the forms of doubling up experienced after a natural disaster may not follow the same patterns represented in this study.

Conclusion

Changing household structures have complex effects on household well-being. This study suggests that the effect of doubling up on a household's financial well-being varies depending on the age of person added to the household and the economic conditions under which the additional member is added. However, households that double up during times of economic distress may, in some cases, mitigate the adverse credit effects of financial shocks.

Doubling up appears to be a widely used mechanism used by families and households to get by when economic hardships occur. Doubling up represents a large, albeit largely informal, private

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[4] A 2015 CFPB report estimates 11% of people lack a credit report, with the majority from low income and younger households. http://files.consumerfinance.gov/f/201505_cfpb_data-point-credit-invisibles.pdf

safety net that people rely on at all points in the economic cycle, but especially in spells of unemployment. Policymakers may often fail to consider how taking in non-dependents, provides the ability to absorb shocks.

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Figure 1: Credit Scores by Two Resident Households
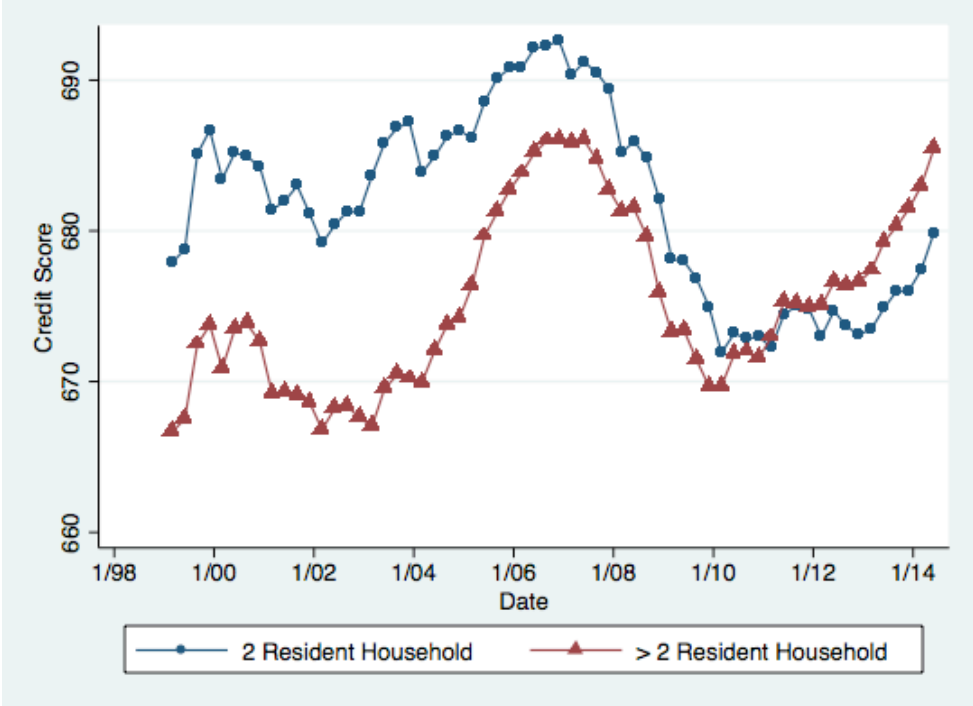
Source: Author's tabulations of CCP dataset for AZ, FL and NM.

Figure 2: 30 Day Default Rates by Two Resident Households
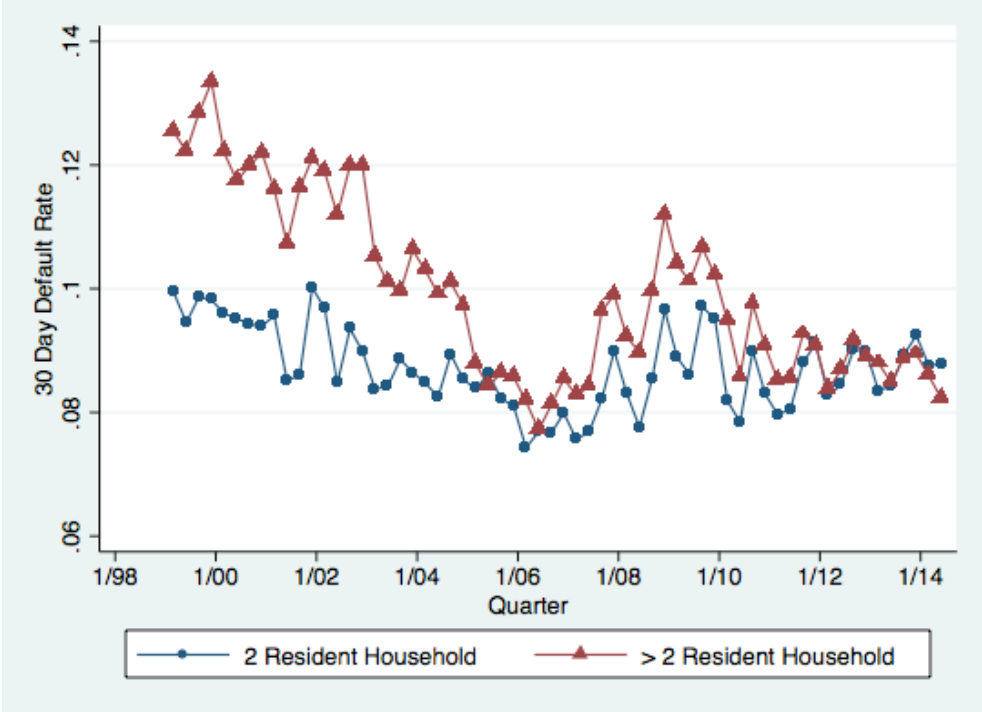
Source: Author's tabulations of CCP dataset for AZ, FL and NM.

Figure 3: 90 + Day Default Rates by Two Resident Households
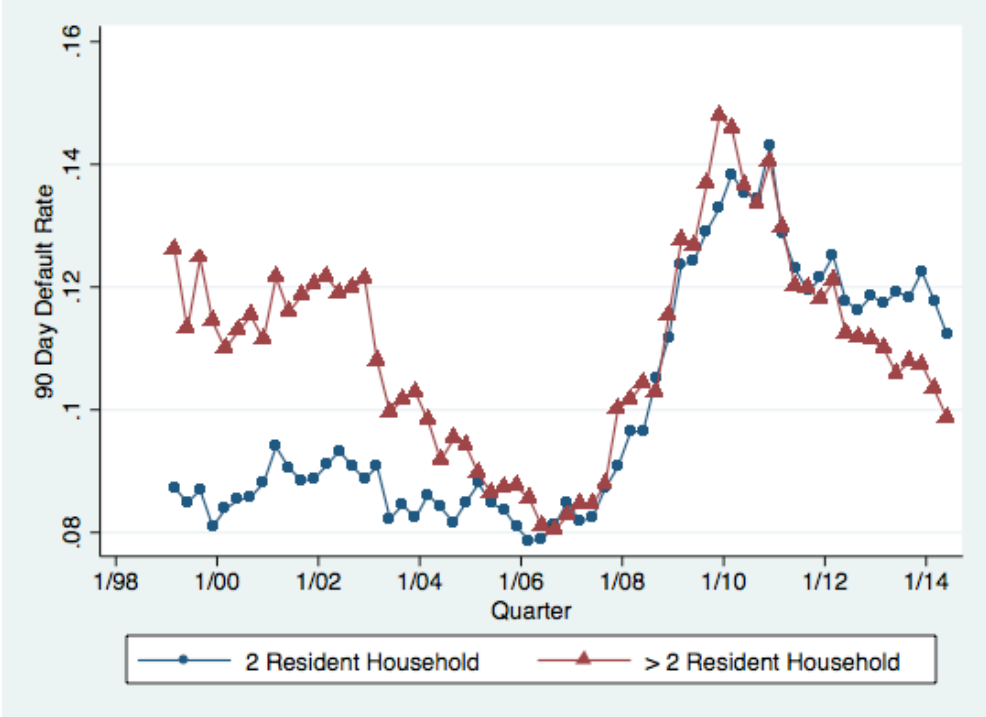
Source: Author's tabulations of CCP dataset for AZ, FL and NM.

Table 1: Characteristics by Number of Household Members: Means (Std. Dev.)

	2 Members	3 Members	4 Members	5 Members	6 Members	7 Members	ALL
Homeowner	0.4486	0.4519	0.4270	0.44	0.4168	0.5686	0.4472
	(0.497)	(0.4977)	(0.4946)	(0.50)	(0.4930)	(0.4954)	(0.4972)
Age	39.97	40.14	40.25	40.17	41.73	43.13	40.09
	(9.34)	(7.66)	(7.44)	(7.30)	(6.96)	(6.25)	(8.41)
Credit Score	667.17	665.79	654.10	655.97	653.55	657.16	664.75
	(105.36)	(105.61)	(106.23)	(104.623)	(103.18)	(107.25)	(105.63)
30 Default	0.1050	0.1094	0.1221	0.1205	0.1077	0.1334	0.1092
	(0.3066)	(0.3121)	(0.3274)	(0.3256)	(0.3100)	(0.3401)	(0.3119)
90+ Default	0.1209	0.1259	0.1452	0.1393	0.1246	0.1490	0.1263
	(0.3260)	(0.3317)	(0.3523)	(0.3462)	(0.3303)	(0.3562)	(0.3321)
Observations	1,882,087	1,779,102	502,276	101,105	13,294	1,889	4,279,753

Source: Author's tabulations of CCP dataset for AZ, FL and NM. Standard deviations in parenthesis.

Table 2: Doubling up and Credit Scores

	(1)	(2)	(3)	(4)	(5)
3 Adults	-2.048**	-7.664***			
	(0.867)	(2.818)			
4 Adults	-13.42***	-27.37***			
	(0.859)	(3.661)			
5+ Adults	-12.10***	-37.21***			
	(0.848)	(6.337)			
3 Adults Lag		5.461*			
		(3.040)			
4 Adults Lag		13.56***			
		(3.922)			
5+ Adults Lag		24.69***			
		(6.632)			
Elder Parent			-16.33***	-27.69***	-33.18***
			(0.617)	(2.694)	(1.296)
Adult Child			24.26***	-29.12***	35.21***
			(0.729)	(7.574)	(3.035)
Extended Family			-1.637*	-7.607**	19.89***
			(0.925)	(2.921)	(1.498)
Elder Parent Lag				11.00***	
				(2.739)	
Adult Child Lag				53.88***	
				7.632	
Extended Family Lag				5.743*	
				(3.169)	
No. Adult Children					-1.117*
					(0.657)
No. Elderly Parents					6.610***
					(0.236)
No. Extended Family					-5.063***
					(0.260)
N					-4.103***
					(0.245)
Observations	4279753	4114764	4279753	4114764	4279753

*Source: Author's tabulations of CCP dataset for AZ, FL, NM. Note: Dependent Variable=Primary's Credit Score in the Given Period OLS model Robust standard errors clustered at the individual level in parentheses.*p<0.10 **p<0.05 ***p<0.01*

Table 3: Doubling up and 30 Day Defaults

	(1)	(2)	(3)	(4)	(5)
3 Adults	0.00797***	-0.0172**			
	(0.00173)	(0.00758)			
4 Adults	0.0201***	-0.0239			
	(0.00146)	(0.0173)			
5+ Adults	0.0178***	-0.0420			
	(0.00136)	(0.0293)			
3 Adults Lag		0.0253***			
		(0.00786)			
4 Adults Lag		0.0443**			
		(0.0176)			
5+ Adults Lag		0.0603**			
		(0.0294)			
Elder Parent			0.0228***	-0.00195	0.0769***
			(0.000734)	(0.00934)	(0.00580)
Adult Child			-0.0150***	0.0293	-0.0656***
			(0.00196)	(0.0274)	(0.00830)
Extended Family			0.00551***	-0.0189**	-0.00533**
			(0.00191)	(0.00774)	(0.00259)
Elder Parent Lag				0.0250***	
				(0.00920)	
Adult Child Lag				-0.0464	
				(0.0280)	
Extended Family Lag				0.0246***	
				(0.00802)	
No. Adult Children					0.00983***
					(0.00209)
No. Elderly Parents					-0.0210***
					(0.00150)
No. Extended Family					-0.00195***
					(0.000502)
N					0.0150***
					(0.000691)
Observations	4,130,145	3,968,212	4,130,145	3,968,212	4,130,145

*Source: Author's tabulations of CCP dataset for AZ, FL, NM. Note: OLS LPM. Dependent Variable=1 if any of Primary's Accounts 30 Days Behind. Robust standard errors clustered at the individual level in parentheses.*p<0.10 **p<0.05 ***p<0.01*

Table 4: Doubling up and 90+ Day Defaults

	(1)	(2)	(3)	(4)	(5)
3 Adults	0.00530**	-0.0224**			
	(0.00227)	(0.0101)			
4 Adults	0.0245***	-0.0188			
	(0.00172)	(0.0188)			
5+ Adults	0.0185***	-0.0447			
	(0.00182)	(0.0325)			
3 Adults Lag		0.0278**			
		(0.0105)			
4 Adults Lag		0.0278**			
		(0.0105)			
5+ Adults Lag		0.0635*			
		(0.0326			
Elder Parent			0.0324***	0.0240*	0.0964***
			(0.000829)	(0.0140)	(0.00634)
Adult Child			-0.0293***	0.0614**	-0.0803***
			(0.00166)	(0.0256)	(0.00736)
Extended Family			0.00152	-0.0246**	-0.0207***
			(0.00240)	(0.0105)	(0.00338)
Elder Parent Lag				0.00882	
				(0.0140)	
Adult Child Lag				-0.0933***	
				(0.0254)	
Extended Family Lag				0.0262**	
				(0.0109)	
No. Adult Children					0.00912***
					(0.00193)
No. Elderly Parents					-0.0245***
					(0.00155)
No. Extended Family					0.00100*
					(0.000557)
N					0.0165***
					(0.000897)
Observations	4,130,145	3,968,212	4,130,145	3,968,212	4,130,145

Source: Author's tabulations of CCP dataset for AZ, FL, NM. Note: OLS LPM. Dependent Variable=1 if any of Primary's Accounts are 90+ Behind Robust standard errors clustered at the state level in parentheses.*p<0.10 **p<0.05 ***p<0.01

Table 5: Doubling up and Unemployment

	(1) Account 30 Days Behind	(2) Account 90+ Days Behind	(3) Credit Score
3 Adults	0.0266***	0.0311***	-12.26***
	(0.00408)	(0.00512)	(1.453)
4 Adults	0.0332***	0.0345***	-22.95***
	(0.00341)	(0.00422)	(1.407)
5+ Adults	0.0169***	0.0157***	-20.36***
	(0.00267)	(0.00399)	(1.554)
Unemployment rate	0.00192***	0.00732***	-1.532***
	(0.000657)	(0.000937)	(0.198)
3 Adults x Unemployment rate	-0.00286***	-0.00395***	1.563***
	(0.000476)	(0.000614)	(0.183)
4 Adults x Unemployment rate	-0.00203***	-0.00158***	1.467***
	(0.000405)	(0.000510)	(0.183)
5 Adults x Unemployment rate	0.0000971	0.000384	1.283***
	(0.000385)	(0.000488)	(0.218)
Observations	4,130,145	4,130,145	4,279,753

*Source: Author's tabulations of CCP dataset for AZ, FL, NM. Note: OLS LPM for (1) and (2), OLS for (3). Dependent Variables in column header. Robust standard errors clustered at the state level in parentheses.*p<0.10 **p<0.05 ***p<0.01*