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## **Debt Holding and Burden by Family Structure in 1989-2007**

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**Abstract:** Financial deregulation starting in the 1980s provided families both economic opportunities and risks. Rapidly increased mortgage, credit card and other debts are out of control among many families, which arguably caused the recent great recession. The purpose of this study is to describe patterns and trends of debts held by American families through analyzing data from 1989-2007 Surveys of Consumer Finances. Eight family structure types were formed in terms of marital status, gender, and child status. Holding patterns and trends of five types of debts (mortgage, credit card, vehicle, education, and purchase loan) and three debt burden measures were examined. For all family types, the holding rate of credit card debt increased but that of the purchase loan decreased in the last two decades. Compared with the average, married with children families were more likely to hold mortgage, credit card, and vehicle loans. In terms of debt burdens, married with children families had the highest debt payment to income ratio, cohabiting couples with children and single females with children had the highest rate of heavy debt to income ratio (over 40%) and of debt delinquency.

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**Keywords:** Debt holding, debt trend, debt type, family structure, Survey of Consumer Finance.

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# **Debt Holding and Burden by Family Structure in 1989-2007**

## **Introduction**

Deregulation of the financial services and credit market started in the 1980s and led to financial innovations that provided families broader access to credit. Financial innovations increased consumer access to credit and enlarged consumer choices of financial products but also demanded higher level of financial literacy and risk management skills for consumers (Ryan, Trumbull and Tufano, 2010). Being concerned of the unparalleled explosion in consumer debts, economists at the Federal Deposit Insurance Corporation declared a consumer lending revolution in 2003 and a consumer mortgage lending revolution in 2006 to draw public attention (Lander, 2008).

Debt plays a unique role in family economic well-being. If managed well, debt can be used to leverage the life cycle consumption as predicted by economic theories. For example, by utilizing mortgage, families with limited current income could afford to purchase a house that may be impossible if the mortgage market is underdeveloped, as in many developing countries. Student loans make higher education affordable to many families. Families use consumer credit to finance their current consumption. However, if out of control, debt could disrupt one's economic life and cause economic and psychological distresses. Further, mass delinquencies and defaults of consumer debts would affect the health of the whole economy. The recent great recession is a salient example that resulted partially from unrestrained debts of many families. Failures in the subprime mortgage market in 2008 caused the tightening of credit markets and triggered the most severe economic crisis only next to the Great Depression. The economic well-being of many families was worsened. Some scholars argued that the

aforementioned financial innovations were responsible for the large scale defaults of debts in recent years and the current economic crisis (Dynan, 2009; Lander, 2008), and greater access to credit mainly hurt family economic well-being (Dynan, 2009).

In order to provide helpful information for policy makers and family professionals, a better understanding of family debt behaviors is necessary. The purpose of this study is to describe patterns and trends of debt holdings of American families in the past two decades. Specifically, differences in debt ownership of eight types of families are examined. The criteria for categorizing family types included the head's marital status, gender, and presence of dependent children in the family.

National statistics of family debts are usually reported by researchers in the Federal Reserve Board using data from various years of the Survey of Consumer Finances (SCF), a triennial national survey started in 1983 (see Bucks, Kennickell, Mach and Moore, 2009 for the latest example of such reports). Other researchers also use the SCF data to describe trends and patterns of family debts (see Dynan, 2009 for a recent example). Compared with previous studies, this study used a unique definition of family structure that distinguished between cohabiting and married couples, and between single-male- and single-female-headed families. Using more refined family structures is responding to new demographic trends in the last two decades, in which cohabiting and single headed families have increased substantially. In 2006-08, 58% of women aged 19-44 had ever cohabited, compared with only 33% in 1987 who did so (National Center for Family and Marriage Research, 2010). Single headed families are also more common compared with the situation several decades ago. For example, in 1969, the most common family type was married couples with children (67% of the family population).

However, in 2006, the percentage decreased to 46%. During the same time period, single females increased from 4% to 9%, single mothers with children increased from 8% to 13%, single males increased from 3% to 8%, and single fathers with children increased from 2% to 4% (Cancian and Reed, 2009).

Since 1989, SCF started to treat cohabitation as a separate marital status. In this research, seven SCF datasets from 1989 to 2007 were combined to examine debt holding patterns and trends of American families in the last two decades. The refined family structure definition allowed us to observe debt behaviors in different family structures and provide valuable information for policy makers and family professionals.

#### Previous Research

##### *Family Debt by Family Structure*

Consumer debt has increased greatly in recent years. Using data from U.S. Flow of Funds Accounts and National Income and Product Accounts, Dynan and Kohn (2007) show that the ratio of total family debt to aggregate personal income rose from 0.6 to 1.0 during 1980-2006. They also discuss potential factors associated with borrowing behavior of families. Changes in tastes, interest rates, and families' expected incomes do not increase family borrowing, but demographic shifts can explain part of the debt increase. Consumer debt dynamics may be more complicated than aggregate patterns. For example, during 1983-89, the aggregate debt pattern is going up, but a detailed total debt quintile analysis shows that more higher quintiles moved down than the number of lower quintiles that moved up during the same time period (Godwin, 1997). Johnson (2005) documents recent changes in the credit card market by using data from Surveys of Consumer Finances. Because of improvements in credit-scoring

technology and risk-based pricing of credit card debt, the share of families, particularly lower-income families, holding a credit card has increased.

Economists believe borrowing is rational to smooth life cycle consumption. Dynan (2009) discusses advantages and disadvantages of consumer debts. Based on her research, although debt has positive and negative aspects, greater access to credit mainly hurts family economic well-being in the last three decades. Lyons (2003) estimates trends of credit access of U.S. families using 1983-1998 Surveys of Consumer Finances. According to her research, the ability of all families to obtain their desired debt levels increased after 1983 and more dramatically between 1992 and 1998. Those experiencing the greatest gains in credit access were black families and families with low permanent earnings. Debt may also affect family relations. Dew (2008) studies the relationship between debt and marital satisfaction using data from the National Survey of Families and Households and finds that changes in consumer debt predict changes in the marital satisfaction of married couples.

Research on family debts by family structures is limited. Family debt holding patterns and trends are reported in Federal Reserve Board staff papers (Aizcorbe, Kennickell, and Moore, 2003; Bucks, Kennickell, and Moore, 2006; Bucks et al, 2009). In these studies, five types of family structures constructed by marital status, age and presence of children are used to examine several major debts but they are not used to examine debt burdens. In other research studies, only family structure related variables such as marital status, gender, and presence of children are used separately to examine some types of family debts. Marital status may be associated with debt status. Compared with the married couples and unmarried females, unmarried males are more likely to hold debt. In addition, unmarried females tend to have

lower level of debt than unmarried males (Lyons, 2003). In a trend analysis of consumer debts between 1983-89, married families are more likely than unmarried families to decrease in debt quintiles, suggesting more married families lowered their debt levels than their unmarried counterparts during that time period (Godwin, 1998). Delinquent debt behavior may be associated with demographic variables such as marital status, age, number of children, and race (Canner and Lockett, 1990).

Mortgage related financial distress may be associated with family structure. Stafford and Gouskova (2010) utilize data from the Panel Study of Income Dynamics during 1999–2009 to study factors and borrowing decisions which were related to the run-up and then to see how these diverse positions in owner-occupied housing related to the subsequent difficulties and mortgage distress as of 2009. Their research shows that much of the rise and subsequent difficulties are concentrated among younger and less educated homeowners, and that the difficulties are also concentrated in selected real estate markets where home owners are allocating a substantial share of their income to debt service and other home related outlays such as taxes, utilities, and insurance. Female headed families and families with a larger size are more likely than others to fall behind the mortgage.

Installment loan and credit card debts are associated with family structure and related variables. Compared with young singles, empty nests, solitary families, and single parents are more likely to borrow installment loans. In addition, single parents tend to borrow more than all other life-cycle stages except for the newly married. In addition, overspending is associated with both the status of having installment loans and the amount of installment loans (Baek and Hong, 2004). Compared with young singles, solitary families and single parents are less likely

and childless middle-aged couples are more likely to keep credit card balances, while only solitary families are more likely than young singles to owe more credit card debts (Baek and Hong, 2004). Married families tend to have higher level of installment loan and credit card debt than unmarried families (Chien and DeVaney, 2001).

#### *Family Finance by Family Structure*

Research on family finance by family structures is limited too. Evidence indicates married families fare better than the unmarried. Hirschl, Altobelli, and Rank (2003) estimate the life course incidence and age pattern of affluence among American couples in comparison to unmarried, never married, and formerly married men and women with data from the Panel Study of Income Dynamics. Results confirm the notion that marriage enhances the lifetime probability of affluence, and that this advantage varies sharply by gender and by race. Using data from the 1993 Panel Study of Income Dynamics, Zhan and Pandey (2004) find that controlling for the effects of education and other factors, single fathers fare better than single mothers.

Several studies research financial issues of cohabiting families. A qualitative study on the process of entering into cohabiting unions finds that primary reasons for cohabiting included finances, convenience, and housing needs (Sassler, 2004). Drawing on data from 115 in-depth interviews with cohabitants from the working and lower middle classes, Smock, Manning, and Porter (2005) explore how economics shape marital decision making. They find that cohabitants typically perceive financial issues as important for marriage. Their findings suggest that cohabitants believe marriage should occur once something has already changed—in this case, their financial status. Kenney (2004) uses data on couples' money management and expense

division from the Fragile Families and Child Wellbeing Study to examine household availability of cohabiting fathers' income. The results suggest that cohabiting parents do generally pool resources and then the income of both parents should be considered in setting family tax policies.

Several studies compare cohabiting families with married ones. Using data from the Consumer Expenditure Survey, Deleire and Kalil (2005) compare the expenditure patterns of cohabiting-parent, married-parent, divorced single-parent, and never-married single-parent families. They find that cohabiting-parent families, compared with married-parent families, spend a greater amount on two adult goods (alcohol and tobacco) and a smaller amount on education. Cohabiting-parent families also differ in their spending patterns from divorced single-parent families and from never-married single-parent families. Using 1994 International Social Survey Program data, Heimdal and Houseknecht (2003) examine the effect that cohabitation versus marriage has on couples' income organization approaches in Sweden and the United States. They find that controlling for other factors, cohabitants are 2.4 times more likely than the married to keep money separate in Sweden, and 3.6 times more likely to keep money separate in the United States. Using data from the 1998 Consumer Expenditure Survey, Treas and Ruijter (2008) find differences between cohabitation and marriage regarding housework outsourcing. For example, the earnings of married men are more strongly linked to expenditures on female tasks than are the earnings of cohabiting men.

#### Summary of Previous Research

The literature review indicates existent research on debt holding by family type is limited in three aspects. First, research on family finance, especially family debt, by family

structure is limited and incomplete in content. Most previous studies examined only selected types of debts. Second, family structure types used in previous research are incomprehensive and many previous studies do not include this composite variable. Third, only limited research by Federal Reserve Board staff (e.g., Bucks et al, 2009) has examined all types of debts such as mortgage, installment loan, and credit card debt together but the family structure types they used are not comprehensive, excluding cohabiting, single male and single female headed families. Different family types may have different needs for different types of debts. They may also face different degrees of financial difficulties because of debts. This study attempts to fill out this research gap by examining patterns and trends of five types of debts by eight family structures. The focus of this study is to describe debt holding patterns and trends by family structures in the last two decades. The findings should be informative for policy makers and family professionals who care about family economic well-being and also for researchers to conduct further research on this important topic.

## Method

### *Data*

This study combined seven datasets, the 1989, 1992, 1995, 1998, 2001, 2004, and 2007 Surveys of Consumer Finances, to analyze patterns and trends of debt holdings and burdens of eight family structure types. The SCF is a triennial survey supported by the Federal Reserve Board in cooperation with the Statistics of Income Division of the Internal Revenue Service. The survey provides information on family financial situations such as income, pension, assets, and debts. This survey also includes information about family demographic characteristics and their perceptions (Bucks et al, 2009).

In the SCF, the "head" of the family was designated to be either the male in a mixed-sex couple family or the older individual in a same-sex couple family, regardless of who was the respondent. When the respondent was someone other than the head, all data for these two individuals were swapped so that demographic, employment, and perception variables always represent information of the head of the family.

The total numbers of families interviewed were 3,143 in 1989, 3,906 in 1992, 4,299 in 1995, 4,305 in 1998, 4,442 in 2001, 4,519 in 2004, and 4,418 in 2007. Therefore, the total sample size of this study was 29,032 families.

We constructed eight family types in terms of marital status, gender, and child status. Among these types, there were 29.7% married couples with children under 18, 22.8% married couples without children, 2.8% cohabiting couples with children, 3.4% cohabiting couples without children, 1.8% unmarried males with children, 12.3% unmarried males without children, 9.8% unmarried females with children, and 17.5% unmarried females without children.

#### *Data Analysis*

A cross-tabulation of debt by family type was conducted to observe the percent distribution of debt for each of these family groups. To represent families with assets that are highly concentrated, relatively wealthy families were oversampled in the SCF data collection. Due to this oversampling, the recommended weight (X42001) was used in the descriptive analyses to obtain unbiased estimates for the entire sample families (see Kennickell, 1999 for a detailed discussion on the weight).

The survey contains a substantial missing or incomplete information, the patterns of which are highly heterogeneous (Kennickell, 1998). Starting in 1989, a multiple imputation

method (Kennickell, 1991) was used in the SCF to impute missing values in order to reduce the nonresponse bias and produce the best possible estimate, variance estimate, and test statistics for variables with missing data (Lindamood, Hanna, and Bi, 2007; Montalto and Sung, 1996). Three basic types of imputations were performed: continuous variables, multinomial variables, and binary variables. Five imputations were made for every missing value. Such imputation resulted in five complete data sets for each year, called the “implicates” (Kennickell, 1998). The study pools all five implicates from each survey year from 1989 to 2007.

Since this study combined seven SCF datasets that represent multiple survey years, all dollar amounts for debt and income were adjusted to 2007 dollars, using the Consumer Price Index for all urban consumers for each survey year. Also for each survey year, families were categorized into five quintile groups according to the relative size of their total debt balance. The first quintile consisted 20% of the total families with the lowest amount of debt and the fifth quintile included the 20% that borrowed the most. For trend analyses, the following formula was used:

$$\Delta\% = \sum(\%_n - \%_{n-1}) / 6$$

Where  $\Delta\%$  refers to the percentage point change triennially,  $\sum$  is the sum of six differences between current and previous survey percentages.

## Results

### *Debts by Family Types*

*All debts.* Holding debt is a norm among American families. Debt holding rates were found to vary by family types (Table 1). In 1989-2007, on average, 91.7% of married couples with children held debt but only 56.4% of childless female singles did so. Changes in debt

holding rates in the last two decades also differed by family structures. Debt holding rates for some family types increased while those for other types decreased. For example, debt holding rate for cohabiting with children families increased by 2.4 percentage points triennially. Other family types with increasing rates between 1.3-1.7 percentage points were married couples without children, unmarried males without children, and unmarried females with or without children.

Total debt amounts were different among different family types and married families had substantially higher level debt than other types of families (Table 2). In 2007, among families with any debts, married families with children had the highest median total debt amount, \$129,000. Married families without children had the second highest debt level, \$78,400. The median debt level for all other family types was below the median of total families: \$22,490 for cohabiting couples with children, \$31,500 for cohabiting couples without children, \$50,000 for single males with children, \$20,400 for single males without children, \$27,000 for single females with children, and \$25,000 for single females without children.

*Debt quintile analyses.* Table 3 shows the percent distribution of debt holdings in quintiles for each type of families. Married couples with children were more likely to borrow a high level of debt. Of these families, 37.2% were in the 5<sup>th</sup> quintile, 28.3% were in the 4<sup>th</sup> quintile, and only 6.6% were found to be in the first quintile. The percent distribution of married couples without children was more even, with about one-fifth in each of the last three quintiles and 23.4% in the first quintile. An overwhelming proportion of unmarried individuals without children belonged to the lowest two quintiles, indicating their lower likelihood to borrow a high level of debt. This pattern of debt ownership was also true for unmarried

females with children living in the family. Most unmarried males with children had a fair amount of debt since 52.5% of them fitted in the 3<sup>rd</sup> and the 4<sup>th</sup> quintiles.

*Mortgage.* Mortgage was an important debt for families. Having a mortgage implies home ownership, a symbol of the realization of the American dream. Married families (with or without children) were more likely than other family types to have mortgage debt. In 1989-2007, on average, 68.8% of married couples with children had mortgage debt (Table 1). The percentages of other types of families with mortgage debt were all below 50%. For example, 21.4% of unmarried females without children had mortgage debt. For the debt holding trend, among eight family types, mortgage holding rates increased in six types, in which married couples without children had the largest rate of increase (on average, an increase of 3 percentage points every three years). Other five family types' increase rates ranged from 1.5 to 1.9 percentage points.

*Credit card debt.* Holding credit card debt was common across family types. Credit card debt is considered as bad debt by consumer economists since interest rates on credit card debts are usually high and holding credit card debts does not receive tax or investment benefits. In 1989-2007, average percentages of holding credit card debt ranged from 33.9% for unmarried males without children to 56.6% for married couples with children (Table 1). Credit card debt holding rates increased in all family types in the last two decades. Cohabiting couples with children had the highest increase rate (3.2 percentage points triennially). Other family types with a high increased credit card holding rate included married couples without children (1.9 percentage points) and unmarried females with children (1.8 percentage points) and without children (1.7 percentage points).

*Vehicle loans.* Installment loans reflect family borrowing for consumption. These loans include vehicle loans, education loans, and purchase loans (Bucks et al, 2009). Married and cohabiting couples with children were more likely to have vehicle loans. In 1989-2007, 49.4% of married couples with children and 42.4% of cohabiting couples without children had vehicle loans (Table 1). Singles without children were least likely to have vehicle loans (18.1% of single females and 22.1% of single males). Holding of vehicle loans for cohabiting couples who had children increased 2.3 percentage points triennially, while the rate for cohabiting couples without children decreased 4.9 percentage points triennially.

*Education loans.* About 7-22% of families had education loans in 1989-2007 on average (Table 1). Cohabiting couples without children were the most likely to own education loans (22.4%). Married couples and single females without children were the least likely to own education loans (7.4% and 7.7%, respectively). In the last two decades, families with the fastest growing rate of education loan ownership were cohabiting couples with children, married couples with children, and cohabiting couples without children (triennial growth rates were 4.2, 1.8, and 1.0 percentage points, respectively).

*Purchase loans.* Purchase loans were used for purchasing furniture, appliances, and other big ticket items. In 1989-2007, on average, 14.2% of families had purchase loans (Table 1). Cohabiting couples with and without children were the most likely to hold purchase loans (24.4% and 19.3%, respectively), while married couples without children and single females without children were the least likely to have these loans (9.7% and 10.4%, respectively). In the past 20 years, all family types decreased their holding of purchase loans. Purchase loan holding

decreased the most for cohabiting couples without children (4.3 percentage points triennially) and married couples with children (3.0 percentage points triennially).

#### *Debt Burdens by Family Types*

Since debt can enhance or reduce family economic well-being and the same amount of debt influences different families differently, a more direct approach to analyze the effect of debt on family economic well-being is to use debt burden measures in such analyses. Common measures of debt burden include the debt payment to income ratio and delinquent debt payment behavior (Bucks et al, 2009).

*Debt payment to income ratio.* Note that all results presented in this section are based on families with debt. In 1989-2007, the median debt to income ratio for all families with debt was 17.0% (Table 4). Three family types had the higher than average ratio: married with children (19.4%), single male with children (18.0%), and single female with children (18.0%). In the past two decades, the debt to income ratio among single males with children and single females without children increased the most (1.2 and 1.1 percentage points triennially, respectively), while such ratio for cohabiting couples with children decreased the most (-1.3 percentage points).

*Proportion of debt to income ratio over 40%.* The debt payment to income ratio being 40% or higher is an indicator of financial difficulty. In 1989-2007, 12.2% of all families with debt were in financial difficulty based on this measure (Table 5). Two types of families had the highest rate of this debt burden measure: single females with children (19.1%) and cohabiting couples with children (16.6%). In the past 20 years, this rate increased the most for married couples with and without children (1.1 and 1.0 percentage points triennially, respectively).

*Debt payment 60+ days past due.* Another measure of financial difficulty is having a debt payment past due 60 days or longer. In 1989-2007, the average rate of this measure among all families with debt was 7.4%. Three family types had the highest rates in this measure: cohabiting couples with children, single females with children, and single males with children (16.2%, 14.6%, and 10.9%, respectively) (Table 6). In the past two decades, this measure changed little (the triennial percentage change points were under 1 percentage point for all family types).

#### *Family Debt Profiles by Family Structures*

Table 7 presents debt profiles by family structures based on the findings. Compared with other family types, married with children families seem more likely to hold mortgage, credit card, and vehicle loan debts. In addition, their holding rates of mortgage and education loan debts have increased more than average in the last two decades. They also tend to have more debt burdens measured by the debt payment to income ratio. Another debt burden measure (rate of debt to income ratio over 40%) also has an increasing tendency in the long term among these families. This family type is the majority among all family types and their debt problems should be paid attention.

Married without families are less likely than other types to hold any debts and to have heavy debt burdens. However, the long term trends show that the holding rates of mortgage and credit card debts are increasing faster than other types and its rate of debt to income ratio over 40% is also increasing in the last 20 years. They may have potential debt problems if the trends continue.

The proportion of cohabiting families among the population is growing in recent decades that draws attentions by policy makers and family professionals (National Center for Family and Marriage Research, 2010). Our findings suggest that cohabiting with children families are more likely to hold purchase loan compared with other family types. Also the trends show that their holding rates of credit card, vehicle and education loans have increased faster than average. In addition, they may experience financial difficulties, evidenced by having higher than average rates in two out of three debt burden measures.

Childless cohabiting couples are more likely than other types to owe vehicle and education loan debts and their holding rates of mortgage and education debts have been growing faster than average in the last two decades. One relevant policy issue related to cohabiting families is income tax. Legally, cohabiting families cannot file joint return but research suggests that cohabiting families use pooled incomes that should be considered by law makers in reforming tax return policies (Kenney, 2004). Our research suggests that debt holding patterns of cohabiting families may have tax implications different from married families.

Single headed families, especially single mothers, are more likely than married families to be in poverty (Cancian and Reed, 2009). Singles can be divided into two broad categories, those with children and those without children. Our research shows that single males and females are less likely to hold all types of debts. However, both of the two types have higher than average increasing rate to hold mortgage and credit card debt in the past 20 years. This trend may be caused by financial deregulations and innovations before the great recession. It is interesting to see if this trend will continue in the future, which can be answered some way when the 2010 Survey of Consumer Finances data is available.

Single males with children are also less likely to hold all types of debts but their credit card debt holding rate has increased at a faster than average rate in the last two decades. In addition, their debt to income ratio has also gone up at a faster rate. Comparatively, single females with children show financial difficulties in two out of three debt burden measures. This type of family is more likely to live on poverty and needs to be specially considered in policy making and family assistance programs since their debt problems are not only relevant to the well-being of these singles themselves but also their children.

Presence of children seems positively associated with debt holdings. In terms of total debt and all five types of debt holdings, families with children usually have larger holding rates than their childless counterparts except for cohabiting couples. Cohabiting couples without children are more likely to hold any and four types of debts except for purchase loan. Families with children may have resource deficiencies to meet current consumption and need to borrow from the future to maintain a living standard similar to their childless counterparts. In addition, our findings show that families with children experience more financial distress measured by three debt related measures than their childless counterparts. When public policies are considered to improve family economic well-being, special needs of families with children should be taken into account.

In the last two decades, nontraditional families, such as cohabiting couples, single mothers and single fathers, have become common. Nontraditional families have contributed to overall debt holding to some degree based on our findings. During the time period between 1989 and 2007, the overall debt holding rate increased .8 percentage points triennially, while the comparable increasing rates for cohabiting couples with children and single mothers

increased 2.4 and 1.3, respectively. The increase rates of credit card holding for cohabiting couples with children and single mothers are higher than the population average. Cohabiting couples with children have substantially higher increasing holding rates of vehicle loans (2.3 vs. 0 percentage points) and education loans (4.2 vs. 1.1 percentage points) than the population averages. Some evidence indicates that nontraditional families contribute to the trend of family financial distress measured by debt related measures. The increasing rate of single father families' income to debt ratio doubles the population average (1.2 vs. .6 percentage points). The increasing rates of debt delinquency ratios for cohabiting with children and single father families are substantially higher than the population average (.8 and .5 vs. 0 percentage points).

#### Conclusion and Implications

This study used data from the 1989-2007 Surveys of Consumer Finances to describe patterns and trends of debt holdings by an innovative definition of family structure that includes cohabiting couples, single female, and single male headed families. In this study, we have examined differences in holdings and trends of the total debt, five types of debts, and debt burdens by family structures.

In 1989-2007, credit card debt holdings have increased and purchase loan holdings have decreased among all types of families examined in this study. Mortgage holding rates have increased among six out of eight family types. During this time period, all family types have increased holdings of at least one type of debt at higher than average rate. Most noticeable debts with high increase rates among many family types are mortgage and credit card debts that may be associated with financial deregulations and innovations. During this time period, on average, the median debt payment to income ratio among families with debt is 17% with a

triennial increasing rate of .6%. The proportion of families with heavy (over 40%) debt to income ratio is 12.2% with a triennial growth rate of .8%. The rate of debt delinquency (debt payment late on 60 or more days) among debtors is 7.4% with little change in the past two decades.

During 1989-2007, debt holding and burden patterns differ across family structures. In terms of debt holding rates, married couples with children families are most likely to hold mortgage, credit card and vehicle loans; cohabiting couples without children are the most likely to hold vehicle and education loans; and cohabiting couples with children were the most likely to have purchase loans. Regarding debt burdens, in 1989-2007 married couples with children have the highest debt to income ratio; cohabiting couples with children and single females with children have the highest rates in the debt to income over 40% and in the 60-day late payment.

These findings are informative for policy makers. When policy makers consider consumer policies, they need to consider differences in debt possessions and debt-related financial difficulties among different types of families. For example, according to current income tax law, married couples and cohabiting couples receive different treatments regarding income tax obligations. Also, when consumer credit protection laws are considered, certain family structures with greater risks of debt delinquency should be paid special attention such as married couples with children, cohabiting couples with children and single mothers with children.

Also, policy makers need to encourage consumer education to improve knowledge about debts, skills to manage debts, and responsibilities to keep debts under control and tailor education programs to meet various needs of different family types. For example, married

couples with children may need more knowledge about mortgage, credit card and vehicle loans.

Cohabiting couples without children may need to be educated about vehicle and education loans. Information about purchase loans may be provided for cohabiting couples with children.

Education programs emphasizing debt management and delinquency prevention may be provided for married couples with children, cohabiting couples with children, and unmarried mothers with children.

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Table 1: Debt Ownership by Family Type

	2007	2004	2001	1998	1995	1992	1989	Mean	Trend
<b>Family type</b>	<b>Any debt</b>								
Married with children	92.2%	91.9%	91.0%	91.9%	90.2%	92.0%	92.6%	91.7%	-0.1%
Married without children	75.2%	73.9%	71.0%	69.5%	71.0%	68.0%	65.2%	70.5%	1.7%
Cohab with children	82.8%	75.5%	85.0%	81.3%	78.1%	68.7%	68.2%	77.1%	2.4%
Cohab without children	80.5%	76.7%	84.6%	84.9%	76.6%	85.0%	88.2%	82.3%	-1.3%
Unmarried male with children	83.5%	87.8%	75.8%	87.7%	87.2%	84.7%	87.0%	84.8%	-0.6%
Unmarried male without children	66.2%	64.7%	67.2%	65.6%	68.2%	60.9%	58.4%	64.5%	1.3%
Unmarried female with children	76.9%	75.6%	73.1%	67.4%	72.0%	74.2%	69.0%	72.6%	1.3%
Unmarried female without children	59.2%	62.2%	56.7%	54.2%	57.0%	54.0%	51.4%	56.4%	1.3%
All families	77.0%	76.4%	75.1%	74.0%	74.5%	73.2%	72.3%	74.6%	0.8%
<b>Family type</b>	<b>Mortgage</b>								
Married with children	73.4%	72.6%	69.9%	69.3%	66.3%	65.4%	64.6%	68.8%	1.5%
Married without children	54.0%	50.5%	45.8%	45.4%	43.2%	36.5%	36.2%	44.5%	3.0%
Cohab with children	34.8%	33.7%	46.9%	43.1%	33.4%	28.2%	36.3%	36.6%	-0.2%
Cohab without children	36.5%	35.7%	38.8%	32.0%	24.3%	21.7%	26.0%	30.7%	1.7%
Unmarried male with children	47.9%	56.2%	45.6%	51.2%	44.4%	29.3%	59.9%	47.8%	-2.0%
Unmarried male without children	29.9%	29.5%	27.6%	23.3%	22.2%	19.1%	18.8%	24.3%	1.9%
Unmarried female with children	36.5%	40.6%	34.0%	24.9%	30.0%	28.8%	27.3%	31.7%	1.5%
Unmarried female without children	27.1%	26.4%	19.2%	21.0%	19.2%	20.7%	16.3%	21.4%	1.8%
All families	48.7%	47.9%	44.6%	43.1%	41.0%	39.1%	39.5%	43.4%	1.5%
<b>Family type</b>	<b>Credit Card</b>								
Married with children	55.8%	57.8%	52.8%	56.9%	61.5%	56.4%	55.1%	56.6%	0.1%
Married without children	46.0%	41.2%	37.8%	40.4%	43.2%	39.5%	34.6%	40.4%	1.9%
Cohab with children	46.0%	47.3%	48.6%	44.2%	54.6%	45.0%	26.6%	44.6%	3.2%
Cohab without children	50.9%	45.6%	55.3%	55.1%	43.6%	53.8%	47.7%	50.3%	0.5%
Unmarried male with children	38.3%	52.3%	50.9%	32.5%	45.6%	38.9%	32.3%	41.5%	1.0%
Unmarried male without children	33.4%	32.8%	38.3%	34.5%	39.3%	32.5%	26.6%	33.9%	1.1%
Unmarried female with children	46.6%	47.6%	47.5%	38.9%	43.6%	44.1%	36.0%	43.5%	1.8%
Unmarried female without children	38.4%	41.8%	38.0%	35.6%	36.4%	34.1%	28.2%	36.1%	1.7%
All families	46.1%	46.2%	44.4%	44.1%	47.3%	43.7%	39.7%	44.5%	1.1%
<b>Family type</b>	<b>Vehicle loan</b>								
Married with children	51.4%	53.5%	51.4%	44.9%	48.7%	44.5%	51.7%	49.4%	0.0%
Married without children	35.4%	34.7%	29.5%	31.1%	30.0%	29.0%	31.5%	31.6%	0.7%
Cohab with children	43.5%	32.0%	44.7%	36.4%	35.3%	33.5%	29.6%	36.4%	2.3%
Cohab without children	34.9%	44.6%	46.5%	38.7%	31.7%	36.0%	64.0%	42.4%	-4.9%
Unmarried male with children	23.7%	30.7%	50.6%	36.3%	25.1%	29.0%	22.9%	31.2%	0.1%
Unmarried male without children	22.3%	21.0%	24.8%	23.3%	23.3%	17.9%	21.8%	22.1%	0.1%
Unmarried female with children	29.3%	31.2%	31.6%	25.0%	23.8%	24.3%	27.4%	27.5%	0.3%

Unmarried female without children	18.8%	20.0%	17.8%	15.5%	16.3%	15.9%	18.1%	17.5%	0.1%
All families	34.9%	35.6%	34.9%	31.4%	31.7%	29.8%	34.7%	33.3%	0.0%
<b>Family type</b>	<b>Education loan</b>								
Married with children	20.1%	18.4%	14.3%	14.7%	17.7%	13.4%	9.3%	15.4%	1.8%
Married without children	10.0%	8.7%	6.9%	6.9%	6.8%	7.2%	5.0%	7.4%	0.8%
Cohab with children	25.4%	12.7%	17.5%	10.3%	13.6%	14.6%	0.0%	13.4%	4.2%
Cohab without children	26.0%	20.7%	27.0%	22.6%	21.2%	19.1%	20.1%	22.4%	1.0%
Unmarried male with children	16.9%	13.0%	8.7%	8.5%	11.6%	17.6%	13.8%	12.9%	0.5%
Unmarried male without children	9.9%	12.7%	10.4%	10.2%	9.2%	12.0%	11.2%	10.8%	-0.2%
Unmarried female with children	20.8%	14.7%	14.9%	14.4%	14.1%	14.7%	17.3%	15.9%	0.6%
Unmarried female without children	9.3%	9.5%	7.6%	8.1%	7.6%	5.3%	6.5%	7.7%	0.5%
All families	15.2%	13.4%	11.5%	11.3%	11.9%	10.7%	8.9%	11.8%	1.1%
<b>Family type</b>	<b>Purchase loan</b>								
Married with children	12.2%	9.0%	13.3%	17.6%	21.3%	22.9%	30.3%	18.1%	-3.0%
Married without children	6.0%	5.7%	7.5%	8.9%	10.9%	13.3%	15.6%	9.7%	-1.6%
Cohab with children	18.9%	13.3%	24.1%	21.7%	20.8%	32.9%	32.5%	23.4%	-2.3%
Cohab without children	9.8%	10.1%	12.8%	16.9%	16.8%	33.1%	35.7%	19.3%	-4.3%
Unmarried male with children	9.2%	6.7%	11.9%	22.1%	22.4%	29.2%	19.3%	17.3%	-1.7%
Unmarried male without children	10.7%	8.7%	11.3%	9.8%	16.7%	17.1%	16.2%	12.9%	-0.9%
Unmarried female with children	14.4%	8.6%	13.2%	11.2%	19.4%	27.0%	25.9%	17.1%	-1.9%
Unmarried female without children	8.7%	10.5%	8.7%	7.6%	10.2%	13.3%	13.7%	10.4%	-0.8%
All families	10.3%	8.6%	11.1%	12.5%	16.0%	19.1%	22.0%	14.2%	-2.0%

Table 2: Median Total Debt Level by Family Type

Family type	2007	2004	2001	1998	1995	1992	1989
Married w/ children	\$ 129,000	\$ 116,308	\$ 97,100	\$ 82,757	\$ 68,946	\$ 55,350	\$ 47,975
Married w/o children	\$ 78,400	\$ 65,897	\$ 45,848	\$ 47,044	\$ 32,445	\$ 26,047	\$ 24,148
Cohab w/ children	\$ 22,490	\$ 21,966	\$ 37,988	\$ 35,904	\$ 13,519	\$ 29,158	\$ 44,755
Cohab w/o children	\$ 31,500	\$ 36,024	\$ 35,322	\$ 33,103	\$ 18,710	\$ 20,693	\$ 17,709
Unmarried male w/ children	\$ 50,000	\$ 48,654	\$ 42,655	\$ 35,904	\$ 21,495	\$ 18,595	\$ 14,489
Unmarried male w/o children	\$ 20,400	\$ 31,081	\$ 19,298	\$ 16,551	\$ 15,695	\$ 11,215	\$ 11,269
Unmarried female w/ children	\$ 27,000	\$ 32,948	\$ 18,129	\$ 10,771	\$ 14,600	\$ 9,261	\$ 9,820
Unmarried female w/o children	\$ 25,000	\$ 16,913	\$ 13,684	\$ 13,699	\$ 9,639	\$ 8,306	\$ 6,440
All families w/ debt	\$ 67,300	\$ 60,735	\$ 45,263	\$ 41,251	\$ 29,336	\$ 24,976	\$ 24,148

Table 3: Debt Quintile Analysis

Family type	1st	2nd	3rd	4th	5th
Married with children	6.6%	10.3%	17.6%	28.3%	37.2%
Married without children	23.4%	17.3%	19.7%	19.8%	19.8%
Cohab with children	17.3%	26.2%	21.3%	22.0%	13.3%
Cohab without children	16.4%	22.4%	24.3%	20.4%	16.5%
Unmarried male with children	12.9%	18.7%	28.4%	24.1%	15.9%
Unmarried male without children	27.8%	25.4%	23.5%	13.7%	9.6%
Unmarried female with children	20.8%	30.2%	22.5%	16.4%	10.1%
Unmarried female without children	34.1%	29.2%	18.7%	11.9%	6.1%
All families	20.0%	20.0%	20.0%	20.0%	20.0%

Table 4: Median Debt Payment to Income Ratio

	2007	2004	2001	1998	1995	1992	1989	Mean	Trend
Married with children	21.8%	20.0%	18.9%	19.8%	19.7%	18.3%	17.7%	19.4%	0.7%
Married without children	18.0%	15.6%	14.3%	18.2%	14.2%	14.8%	13.7%	15.6%	0.7%
Cohab with children	12.6%	13.5%	17.7%	20.5%	15.1%	16.0%	20.6%	15.7%	-1.3%
Cohab without children	14.7%	13.7%	13.9%	14.5%	12.3%	10.5%	14.7%	13.7%	0.0%
Unmarried male with children	20.3%	21.2%	21.8%	15.9%	15.7%	13.0%	13.3%	18.0%	1.2%
Unmarried male without children	13.5%	17.6%	15.0%	14.3%	12.7%	11.2%	14.3%	14.0%	-0.1%
Unmarried female with children	18.0%	21.8%	19.8%	16.9%	17.9%	17.1%	14.3%	18.0%	0.6%
Unmarried female without children	18.2%	14.9%	13.8%	15.0%	13.1%	14.4%	11.5%	14.5%	1.1%
All families with debt	18.6%	18.0%	16.7%	17.9%	16.3%	15.9%	15.3%	17.0%	0.6%

Table 5: Debt to Income Ratio over 40% by Family Type

	2007	2004	2001	1998	1995	1992	1989	Mean	Trend
Married with children	14.7%	11.6%	11.2%	10.8%	11.0%	10.8%	8.3%	11.2%	1.1%
Married without children	12.5%	8.3%	8.5%	15.2%	8.0%	10.3%	6.7%	9.9%	1.0%
Cohab with children	13.6%	12.4%	17.2%	26.1%	16.6%	10.6%	19.6%	16.6%	-1.0%
Cohab without children	15.9%	10.3%	7.0%	12.0%	10.4%	4.2%	21.1%	11.6%	-0.9%
Unmarried male with children	22.8%	12.1%	14.5%	11.1%	15.2%	6.3%	19.0%	14.4%	0.6%
Unmarried male without children	12.6%	12.5%	12.1%	12.5%	13.0%	12.7%	12.2%	12.5%	0.1%
Unmarried female with children	17.8%	22.5%	22.2%	18.2%	19.0%	18.5%	15.5%	19.1%	0.4%
Unmarried female without children	15.8%	13.3%	11.0%	16.2%	12.3%	10.7%	11.6%	13.0%	0.7%
All families with debt	14.6%	12.3%	11.7%	13.8%	11.7%	11.4%	10.0%	12.2%	0.8%

Table 6: 60-Day Late Debt Payment by Family Type

	2007	2004	2001	1998	1995	1992	1989	Mean	Trend
Married with children	5.7%	7.2%	7.1%	7.2%	7.3%	5.6%	7.2%	6.8%	-0.3%
Married without children	3.4%	3.7%	2.4%	3.9%	2.8%	4.1%	1.9%	3.2%	0.2%
Cohab with children	18.2%	18.2%	17.9%	17.6%	13.4%	14.6%	13.2%	16.2%	0.8%
Cohab without children	6.7%	12.9%	7.9%	7.1%	7.3%	6.1%	6.7%	7.8%	0.0%
Unmarried male with children	14.6%	6.6%	9.6%	11.8%	11.6%	10.6%	11.5%	10.9%	0.5%
Unmarried male without children	11.2%	10.8%	7.5%	12.4%	6.5%	7.3%	6.9%	9.0%	0.7%
Unmarried female with children	12.8%	20.8%	15.4%	15.9%	12.3%	10.7%	14.5%	14.6%	-0.3%
Unmarried female without children	5.1%	8.3%	5.1%	6.1%	8.2%	4.2%	9.0%	6.6%	-0.6%
All families with debt	7.1%	8.9%	7.0%	8.1%	7.1%	6.0%	7.3%	7.4%	0.0%

Table 7: Debt Patterns by Family Types

	<b>Debt holding<sup>a</sup></b>	<b>Debt holding trend<sup>b</sup></b>	<b>Debt burden<sup>c</sup></b>	<b>Debt burden trend<sup>d</sup></b>
Married with children	any debt mortgage credit card vehicle	mortgage ↑ student ↑	D/I ratio	40% D/I ratio ↑
Married without children		any debt ↑ mortgage ↑ credit card ↑		40% D/I ratio ↑
Cohab with children	purchase	any debt ↑ credit card ↑ vehicle ↑ student ↑	40% D/I ratio 60-day late	
Cohab without children	vehicle student	mortgage ↑ student ↑		
Unmarried male with children		credit card ↑		D/I ratio ↑
Unmarried male without children		any debt ↑ mortgage ↑ credit card ↑		
Unmarried female with children		any debt ↑ mortgage ↑ credit card ↑	40% D/I ratio 60-day late	
Unmarried female without children		any debt ↑ mortgage ↑ credit card ↑		D/I ratio ↑

Notes:

<sup>a</sup> If the mean holding rate in 1989-2007 is greater than the average for more than one standard deviation, it is considered more likely than average to hold the debt. Calculated based on mean holding rates among family types, standard deviations were for any debt, mortgage, credit card, vehicle, education, and purchase loans are 11.4%, 15.3%, 7.4%, 10.4%, 4.7%, and 4.9%, respectively.

<sup>b</sup> ↑ indicates that the holding rate increased over one percentage point triennially during 1989-2007.

<sup>c</sup> If the rate is one standard deviation greater than the average in 1989-2007, it is considered more likely to have financial difficulty based on this measure. D/I ratio=median debt to income ratio; 40% D/I ratio=debt to income ratio 40% or higher; 60-day late=debt payment past due for 60 or more days. Standard deviations for these three measures are 2.1%, 3.0%, and 4.3%, respectively.

<sup>d</sup> ↑ indicates the ratio or proportion increased over one percentage point triennially during 1989-2007.