

GROWTH IN HOUSEHOLD DEBT: AN ANALYSIS OF SAVING AND SPENDING IN UTAH AND THE U.S.

HIGHLIGHTS

- The U.S. personal saving rate has been steadily falling since the early 1980s. This decrease is largely due to significant increases in personal consumption expenditures and household debt accumulation.
- Personal consumption expenditures as a percent of GDP increased from 62% in 1981 to 70.4% in 2008. This level of consumption had not been seen since 1940.
- In terms of household debt loads, Utah does not appear to be worse than the rest of the nation; however, Utah did follow the same trend of accumulating significant debts during the recent economic expansion, making Utah households vulnerable to the economic recession.
- Between 1980 and 2007, the average amount of non-revolving debt per household in Utah increased by \$4,300. Average revolving debt, however, increased from \$1,600 to \$7,700—more than quadrupling its initial amount. Most of the growth in revolving debt occurred between 1993 and 1996, the same time Utah experienced a boom in home price appreciation.
- Utah has the 19th highest median mortgage debt per borrower in the nation. When this statistic is compared to median household income, however, Utah's ranking increases even further to 11th highest in the nation.

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As the economic recession deepens, many households are taking a closer look at their current financial situation. Saving rates, consumption habits, and debt levels are being reevaluated and changed. National statistics show the saving rate is up and consumption expenditures are down. While growth in debt accumulation has slowed, the amount of debt incurred by U.S. households over the last 20 years will become increasingly difficult to payoff as the economy tightens. This creates financial instability for households and can result in increased personal bankruptcies and widespread economic difficulty.

The purpose of this report is to examine how Utah compares to the nation in terms of its consumption expenditures and growth in debt levels. This analysis will in turn provide insight into the financial stability of Utah households and how financially prepared they are for the economic recession. Results from the analysis show that Utah does not appear to be worse than the rest of the nation in terms of household debt loads; however, Utah did follow the same trend of accumulating significant debts during the recent economic expansion and housing bubble, which will make Utah households vulnerable to the economic recession.

The report is divided into two sections; the first section examines trends in national saving rates, consumption expenditures, and debt levels. The second section focuses on Utah specific data and evaluates how Utah compares to these national trends.

NATIONAL FINANCIAL TRENDS

High levels of consumption promote economic growth, but can also lead to personal financial instability. This is especially true when consumption is fueled by asset appreciation and low levels of personal saving, a scenario which occurred in the United States starting in the early 1980s. Although high consumption levels were considered the principal strength of the U.S. economy during the 2001 recession, many now believe these levels were achieved through structural and behavioral instabilities which allowed, and even encouraged, households to finance consumption by accumulating unsustainable levels of consumer debt.¹ The following section analyzes national saving rates, consumption expenditures, and debt levels, as well as presents several reasons as to why personal savings

decreased and personal consumption expenditures increased so dramatically over the past few decades.

Personal Savings

The National Income and Product Accounts (NIPA) measure of the U.S. personal saving rate has been steadily falling since the early 1980s, even declining to negative numbers, on a monthly basis, in both October 2001 and August 2005. A negative saving rate means that, as a whole, consumers are either borrowing or liquidating savings to finance current consumption. Of course, some consumers continued to save during these periods, but their savings were smaller than the amounts borrowed or withdrawn from savings by other consumers. Since records have been kept, the annual U.S. saving rate has been negative only twice—in 1932 and 1933. A low personal saving rate could be expected in these years, however, due to the historic number of business failures and job layoffs experienced during the Great Depression.

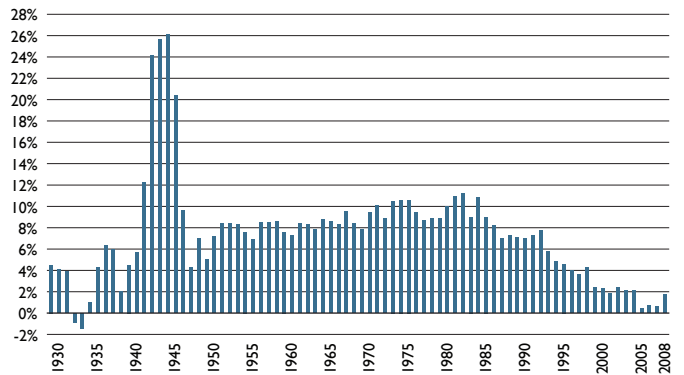
Figure 1 shows the annual U.S. personal saving rate from 1929 to 2008 as well as the monthly U.S. personal saving rate from 1980 to 2008. The annual saving rate averaged around 8% during the fifties and sixties and 9% during the seventies and eighties. During the nineties the average rate fell to 5% and since 2000, the annual national saving rate has only reached a high of 2.4%. Starting in the mid 1980s the saving rate began to steadily decline, falling from 10.8% in 1984 to a low of 0.4% in 2005. Unlike the decrease during the Great Depression, however, in which savings fell in response to an economic collapse, this recent decline occurred during a time of relative economic prosperity. The National Bureau of Economic Research (NBER) shows there were only two recessions between 1984 and 2007, both of which lasted eight months.²

The second graph in Figure 1 shows a more recent snapshot of the U.S. monthly saving rate. The monthly saving rate is more volatile than the annual rate, but the same downward trend is apparent. However, data show this trend may be reversing; in December 2008, the U.S. monthly saving rate increased to 3.6%. While recent increases in the saving rate have exceeded this level, none were permanent upward movements that lasted more than one month. For instance, in May 2008 the saving rate increased to 4.8%, driven by the Economic Stimulus Act of 2008. Most stimulus checks were received between May 2 and May 16, 2008 and many recipients either saved this money or used it to pay down debt, significantly increasing the saving rate in this month. In December 2004, the saving rate increased to 4.5%, driven by the large yearly dividend paid to Microsoft investors, and in September 2001 the saving rate increased to 4.2%, driven by fears about the economy after the 9-11 attacks.³ As the recession continues to deepen, many Americans are using their discretionary income to pay down debt or increase savings as a way to protect themselves against current losses in their retirement accounts and the possibility of future job loss.

NIPA, computed by the Bureau of Economic Analysis (BEA), defines personal savings as disposable personal income less personal outlays.⁴ Personal outlays include personal consumption expenditures, personal interest payments (any nonmortgage interest paid by households), and personal current transfer payments (transfer payments made to the government and the rest of the world).⁵ The saving rate is calculated by dividing personal savings by disposable income.

Figure 1: U.S. Personal Saving Rate

Annual U.S. Personal Saving Rate, 1929-2008



Monthly U.S. Personal Saving Rate, Jan 1980-Dec 2008



Saving rate is U.S. Personal Savings as a Percent of Disposable Income.
Source: Bureau of Economic Analysis (BEA).

While NIPA is the most commonly cited saving rate, there are some criticisms concerning how it is measured. For instance, personal consumption expenditures (PCE), which make up about 96% of personal outlays, measure the purchases of consumer durables as one-time expenditures rather than as service flows from the stock of durables.⁶ The result is high levels of consumption in the year consumers purchase durables and zero consumption of such durables in following years. It is argued that because consumption of consumer durables actually occurs over the lifetime of the good, a cost equal to the rental value of the good should be reflected each year until the good is fully depreciated.

Another criticism of NIPA is that its measure of income and savings excludes the sale of or changes in the market value of existing assets, such as stocks or houses. NIPA also excludes unrealized capital gains and losses, meaning any volatility in the stock market will not be reflected in personal savings. It does, however, include dividend and interest income to persons earned from financial assets.⁷ Other criticisms focus on how NIPA treats personal expenditures on education and training as consumption, even though these categories are often considered lifetime investments. All of these factors combined can understate income (especially when capital gains are realized), making consumption appear to be a larger proportion of income. It is also important to note that NIPA releases annual revisions of its aggregate estimates, which in the past has changed initial results of the saving rate by almost a full percentage point.⁸

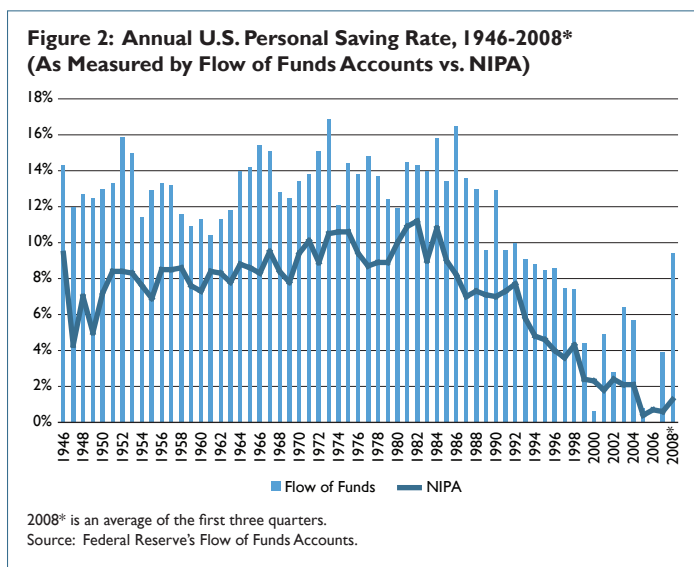
Alternative Measures of Saving

An alternative measure of the saving rate that attempts to correct some of these biases is available in the Federal Reserve's Flow of Funds accounts. The Flow of Funds accounts provide estimates of the personal sector's assets and liabilities, as well as estimates of holding gains and losses for assets such as real estate and corporate equities, including assets held indirectly through mutual funds, pension funds, and life insurance contracts.⁹ It also considers the consumption of durable goods as part of gross private investment, depreciating the costs of those goods over several years. This smoothes the effects of large consumption purchases over a longer period of time and increases the saving rate. The Flow of Funds accounts define the personal saving rate as the ratio between the change in the net wealth of U.S. households and their disposable income.

Figure 2 compares the U.S. personal saving rate calculated by NIPA with the rate calculated by the Flow of Funds accounts from 1946 to 2008. The two alternative measures provide fairly different averages of the saving rate over the sample period; the Flow of Funds personal saving rate averages 11.3% between 1946 and 2008, while NIPA averages 7%. Although the Flow of Funds rate is much higher, it is interesting that the two measures follow similar longitudinal trends. Both show significant decreases in the saving rate starting in the mid 1980s, with the Flow of Funds saving rate falling to a low of 0% in 2006 and NIPA falling to a low of 0.4% in 2005. It is clear that the saving rate of U.S. household reached lows in the mid 2000s that had not been seen since the Great Depression.

The recent rise in the saving rate calculated by the Flow of Funds is even more dramatic than the increase measured by NIPA. The Flow of Funds shows the saving rate increasing to 9.4% in 2008, a high not seen since 1992. The main driver of this increase came from significant declines in home mortgages liability, which fell to record lows in 2008—presumably from the high rate of foreclosures. Households also experienced a slight decline in consumer credit debt in 2008, which positively affected the saving rate.

Another measure of consumption that can be used in calculating saving rates is the Consumer Expenditure Survey (CEX) conducted by the Bureau of Labor Statistics (BLS). CEX is a household survey given through personal interviews and paper-and-pencil diaries



that tracks expenditures made by consumer units representing the civilian, non-institutional population of the United States.¹⁰ While data from the CEX show consumption has increased since the start of the survey, growth in the survey's consumption expenditures have been much slower than growth in its after-tax income. The average annual growth rate of real after-tax income is 1.8%, which is more than double the 0.8% growth rate of consumption expenditures. NIPA accounts also show increasing personal disposable income over time, but growth in this statistic is less than the growth in its measure of personal consumption expenditures (PCE). The slow growth in CEX consumption expenditures yields an increasing personal saving rate, a trend opposite of those measured by NIPA and the Flow of Funds accounts.

Since the start of the ongoing CEX in 1980, a significant body of research has been devoted to reconciling the difference between NIPA's PCE and BLS's CEX.¹¹ Most of the disparity between these two statistics can be explained by differences in survey methodology, population, and categorical definitions. For instance, PCE is based on sales or residuals related to sales and CEX is based on direct purchases.¹² As such, CEX only factors in out-of-pocket spending and does not include imputations for housing and financial services, employment-related contributions, and expenditures financed through government programs.¹³ PCE, on the other hand, includes expenditures made by third parties, such as employer-paid health benefits and expenditures financed under government programs.¹⁴ Including third-party payments increases both the level and growth rate of total consumption. For example, medical care expenditures, which are largely paid for by third parties and have shown to be a rapidly growing portion of GDP, increased from 3.1% of PCE in 1929 to 17.7% in 2008.¹⁵ Medical care had the fastest average annual growth rate out of all the spending categories included in PCE. This growth has likely crowded out some savings and other types of consumption.

Another difference is CEX does not include private and public sector employees working abroad, while PCE includes U.S. military personnel abroad, U.S. businesses employees working abroad for one year or less, and U.S. government civilian personnel stationed abroad.¹⁶ CEX also includes person-to-person transactions, such as the sale of used vehicles, whereas PCE excludes these transactions in deriving its estimates.¹⁷ Housing expenditures are measured differently as well. PCE defines owner-occupied housing expenditures as a service flow and imputes a space rent value using rent-to-property-value ratios. All rents are exclusive of the costs of utilities, major appliances, furniture, and furnishings. In contrast, expenditures for owner-occupied housing in CEX are defined to include spending for mortgage interest and charges, property taxes, maintenance, and repairs.¹⁸ Unlike the PCE, no adjustment is made to subtract the implicit rental value of appliances that are currently in the housing units.¹⁹

One of the more significant differences between CEX and PCE estimates of consumption is that PCE includes expenditures by nonprofit institutions serving households, whereas CEX only includes expenditures made explicitly by households.²⁰ In his article "Are Our Data Relevant to the Theory?" Daniel T. Slesnick argues the commodity groups most affected by the inclusion of nonprofit expenditures are medical care, personal business, recreation, private education and research, and religious and welfare activities. Slesnick

found that these categories represented about 10.6% of total PCE, 12.1% of PCE nondurables and services, and 18.6% of PCE services.²¹ Due to these differences and others, Slesnick believes CEX underestimates true consumption almost 30%.²²

The discrepancy between CEX and NIPA measures of after-tax income may be the result of measurement error that arises from survey sampling. Because CEX primarily focuses on estimating expenditures and not incomes, its income estimates are likely to be more affected by nonrandom measurement error.²³ While the factors mentioned above explain most of the disparity between CEX and PCE, researchers admit differences remain even after controlling for as many discrepancies in the two data sources as possible. For this reason, BLS staff continues to examine the issue of CEX and PCE comparability.

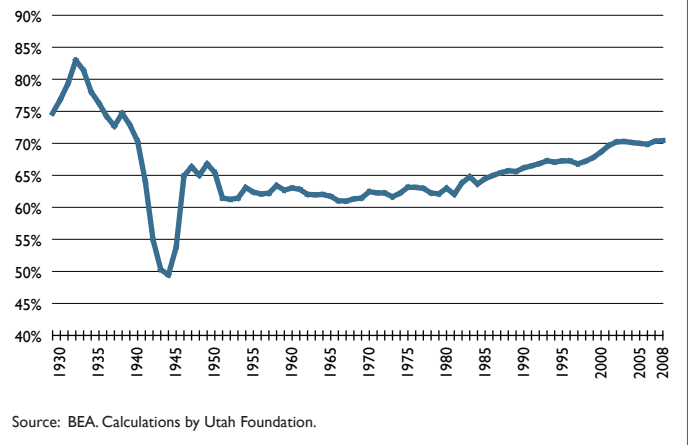
Because CEX and NIPA are not directly comparable, CEX is not often used to calculate a national saving rate; however a review of the literature shows that it can be useful in calculating the saving rate for a particular demographic.²⁴ In the paper “The Effects of Population Aging on the Relationship between Aggregate Consumption, Saving, and Income,” Karen Dynan et al. use CEX to show the saving of different aged cohorts over time.²⁵ The authors compute savings as the difference between after-tax income and consumption, and calculate the saving rate as the ratio of this difference to consumption in order to reduce the occurrence of outliers. In the paper “Saving Rate Estimates for Single Persons by Income, Age, and Gender,” Ralph Brown uses CEX to calculate saving rates for single-person family units.²⁶ Brown calculates savings as after-tax income minus total expenditures plus 0.08 multiplied by select consumer durables. Like NIPA, CEX measures the purchases of consumer durable as one-time expenditures rather than as service flows from the stock of durables. Brown corrects for this bias by estimating about 8% of consumer durable purchases remain in the consumer’s estate each year in the form of equity.

Increasing Consumption

Despite the inconsistency between the saving rates calculated from NIPA, Flow of Funds, and CEX, all three accounts confirm that consumption expenditures have increased significantly over time. Figure 3 shows NIPA national personal consumption expenditures as a percent of GDP from 1929 to 2008. While there was significant volatility in both consumption and GDP during the depression and World War II, the percentage stabilizes around 1950 and consumption remains between 61% and 63% for the next three decades. Beginning in the early 1980s, consumption as a percent of GDP steadily increased more than eight percentage points from 62% in 1981 to 70.4% in 2008. This level of consumption had not been seen since 1940.

There are several theories as to why consumption increased so dramatically between 1980 and 2008. One explanation is tied to the “Great Moderation.” Since the mid 1980s, the volatility of aggregate economic activity has fallen dramatically in most of the industrialized world.²⁷ The variability of quarterly growth in real output (as measured by its standard deviation) declined by half and the variability of quarterly inflation declined by about two thirds.²⁸ This period of decreased volatility is now commonly referred to as the “Great Moderation.” While the exact reason for the increased economic stability is unknown, the most common explanations

Figure 3: U.S. Personal Consumption Expenditures as a Percent of GDP, 1929-2008



include good luck, better monetary policy, and improved business practices and inventory management due to structural changes in computation and communication.²⁹

Whatever the explanation, however, lower volatility essentially smoothed the effects of the business cycle, producing stable employment and reducing economic uncertainty facing households and firms.³⁰ As mentioned above, only two short recessions occurred between 1984 and 2007. During the 1960s and 1970s, the economy fell into recession about every five years and recessions lasted an average of 10 months. The lack of severe economic recessions in recent decades created positive expectations about secure future earnings, which led households to increase consumption and reduce savings. This is apparent in Figure 3; between 1951 and 1981 growth in personal consumption expenditures and GDP were about the same, which held the percentage relatively constant. After 1981, however, consumption grew faster than GDP which led to an increasing percentage.

Another reason for the increase in personal consumption expenditures is the “wealth effect,” in which increases in the real value of assets stimulate consumption.³¹ Appreciation of the stock market and home prices led to dramatic increases in the real value of household assets. With equity portfolios and homes appreciating in value, many consumers felt comfortable increasing consumption and lowering their personal saving rates, believing their asset appreciation would cover the difference. Peter Schiff, President of Euro Pacific Capital, feels many consumers and economists confused legitimate wealth creation with the paper appreciation of stocks and real estate during this period.³² In his view, real wealth creation comes from additions made to the capital stock or improvements made to land, such as constructing homes, building factories, and laying new infrastructure. Schiff argues that society is not wealthier simply because a house appraises for twice its value of five years ago or because stock prices rose as a result of multiple expansions. Schiff has recently received acclaim for predicting the bursting of the “bubbles” in home and stock values and the resulting economic difficulties.

The effects of the stock market and housing bubble on the consumer psyche were compounded as well, since the two occurred sequentially. The stock market’s steep decline in the early 2000s was offset by quickly rising home prices during the same period. This allowed households to continue to increase their consumption expenditures for a longer period of time, rather than fall back to earlier levels.

Stephen Roach, chairman of Morgan Stanley Asia, believes the current recession is a necessary correction of the asset-dependent spending and saving strategies consumers engaged in during the last two decades.³³ Roach points out that since the mid 1990s, consumption fueled by asset appreciation and the ability of homeowners to take out home equity loans has grown much more quickly than household income. This led to the steady decline in personal savings and pushed consumer spending in the United States up to more than 70% of GDP in 2007 and 2008, “a record for any large economy in the modern history of the world.”³⁴ Unfortunately, these record levels of consumption led to unsustainable levels of economic growth. Roach argues that consumption growth, which averaged close to 4% annually over the last 14 years, could slow to 1% to 2% per year for the next three to five years, leading to a deep recession of the U.S. economy because of the reliance on consumption to stimulate economic growth.

A third reason for the increase in personal consumption expenditures is the rise in labor productivity in the late 1990s.³⁵ Increased labor productivity is generally associated with increased labor income as workers are compensated for their increased output. If households perceived the increased productivity would continue into the future, then their expectation of future income would increase as well, decreasing the need for current savings.

A fourth reason is that financial innovation and decreased financial regulation during the 1980s increased households’ access to credit markets. Having access to credit markets relaxes household liquidity constraints; it allows people to increase consumption and reduces their need for current savings.³⁶ When credit markets were restricted, consumers had to save money for large purchases, which positively influenced the national saving rate.

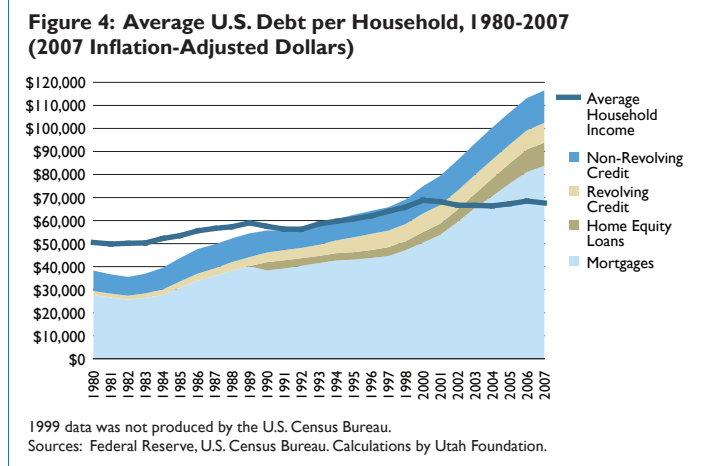
Household Debt Levels

This final reason is consistent with the dramatic increase in household debt levels which occurred over the last three decades. Figure 4 shows 2007 inflation-adjusted levels of household debt from 1980 to 2007. In 1980, the average debt level per household was about \$38,300. This represents a \$26,000 increase from the average debt level 30 years before, which was \$12,300 in 1950 (in 2007 inflation-adjusted dollars). Between 1980 and 2007, average debt levels increased more than \$78,000 to \$116,500 per household. As one can see in Figure 4, a large part of this increase in debt is due to recent increases in home equity loans and mortgage debt. Also shown in Figure 4 is average U.S. household income. Since the early 1980s, household debt has grown at a faster pace than income, with a strong surge in debt accumulation after the late 1990s. By 2007, the average debt per household was more than two-thirds higher than average income.

Non-revolving credit is credit that has a fixed number of payments. It includes automobile loans, student loans, and all other non-mortgage loans not included in revolving credit, such as loans for mobile homes, boats, trailers, or vacations. These loans may be secured or unsecured. As seen in Figure 4, the amount of non-revolving debt per household has remained relatively constant since 1980, only growing at an average rate of 1.7% each year.

Revolving credit primarily consists of credit card debt, but includes any line of credit arrangement that allows the customer to borrow

up to their credit limit and pay interest on the amount borrowed as it is repaid. Even though credit cards have been in existence since 1914, usury laws limited the volume of credit card lending until the late 1970s when the Supreme Court changed the interpretation of usury laws to allow a lender to charge the highest interest rate in the lender’s home state, regardless of a lower rate limitation in the customer’s state of residence.³⁷ After this change, many state governments began to liberalize state usury ceilings and deregulate banking functions in order to attract banks and other consumer lenders to their state. By 1982, most leading banking states had relaxed their interest rate ceilings, and credit card interest rates were effectively deregulated.³⁸ As seen in Figure 4, the amount of credit card debt per household has considerably increased since 1980, rising from an average of \$1,700 per household to \$8,600. However, the rapid rate of this increase was primarily influenced by growth in the mid 1980s and 1990s. Since 2002, just before the recent housing bubble, revolving credit has only grown by an average rate of 0.9% per year.



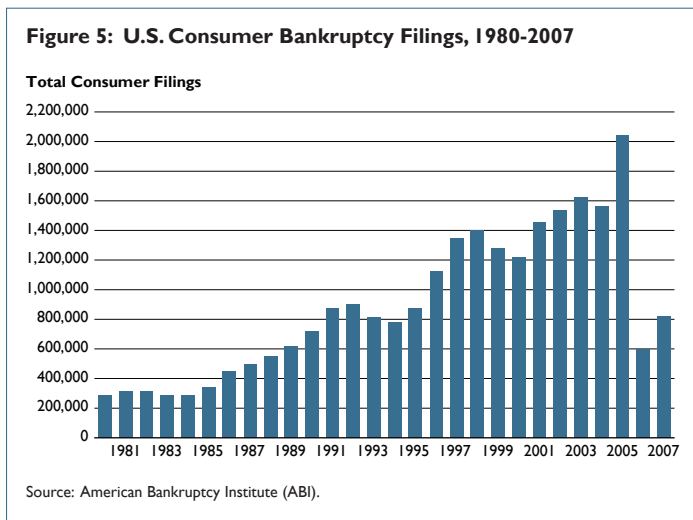
Mortgage debt has also increased significantly since 1980. Mortgage debt includes mortgages on 1-to-4 family homes, as well as mortgages on farm houses. Most of the increase in mortgage debt results from the latest national housing bubble which led to considerable levels of home price appreciation around the nation. This home price appreciation caused average mortgage debt per household to increase from \$59,400 in 2002 to \$83,700 in 2007, an increase of more than 40%. Between 2002 and 2007, mortgage debt grew at an average rate of 7.1% per year.

Home equity loan debt has increased at the fastest average annual rate of all four debt categories since its inclusion in the Flow of Funds accounts in 1990. Home equity debt, which includes loans made under home equity lines of credit and home equity loans secured by junior liens, has increased at an average rate of 13.3% per year since 2002. This amounts to an average of \$10,000 of additional debt for each household in 2007. It is estimated that nearly one quarter of American households with first mortgages have home equity loans.³⁹ These loans have become an extremely popular source of money for homeowners who may otherwise be strapped for cash. Although it is suggested that home equity loans be used for home remodeling or other purchases that improve the value of the house, they can be used for anything from consolidating loans, paying for vacations, or purchasing consumer durables.

Personal Bankruptcy

Increases in personal bankruptcies closely followed the dramatic growth in average household debt that occurred after 1980 and the deregulation of the U.S. banking system. In a deregulated banking environment, lenders not only extended additional lines of credit to their normal customers, but found it was profitable to grant credit to low-income and high-risk individuals who had previously been shut out of the market.⁴⁰ Deregulation also meant lenders could increase the average credit card interest rate to compensate for high-risk loans. While this trend started in the credit card industry, it quickly expanded into other credit markets, such as mortgage and home equity loans. This put households at further risk of not being able to pay back their debt and going into bankruptcy.

Figure 5 shows total U.S. consumer bankruptcy filings from 1980 to 2007. Starting in 1984, personal bankruptcy filings began to increase at an average rate of 10% each year. The Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 reduced the number of personal filings by implementing a number of new regulations, such as requiring applicants meet means tested eligibility standards, show proof of their income by providing federal tax returns, and undergo credit counseling and financial management education in government-approved programs. Since the decrease in 2006, however, personal bankruptcies have continued to climb, a trend that is exacerbated by the current economic climate.



A SNAPSHOT OF UTAH'S FINANCIAL SECURITY

Debt levels have a direct effect on people's ability to both consume and save. As the current economic recession continues to deepen, households are becoming more aware of the importance of increasing personal savings and decreasing debt levels. Unfortunately, high levels of debt may prevent households from saving the amount needed to get through the recession, especially considering the recent number of job losses and increases in the unemployment rate. As the effects of the national recession begin to impact Utah, the question remains as to how prepared Utah's households are for the economic downturn. The remainder of this report focuses on Utah's financial security and how it compares to the rest of the nation in terms of consumption, debt levels, and personal bankruptcies.

Utah's Consumption

NIPA, Flow of Funds, and CEX track consumption expenditures at the national level, but not at the state level. Unfortunately, there are no measures of consumption spending by households recorded at the state level. Using retail sales as proxy for consumption expenditures can provide a consistent and objective measurement of changes in spending over time—even though retail sales are much smaller than overall personal consumption expenditures. A study by Karl Case, John Quigley, and Robert Shiller found that retail sales account for roughly half of total consumer expenditures.⁴¹ However, because retail sales are systematically different from consumption spending, due to spending on housing, utilities, services and other non-retail consumption, it is important to note that this statistic is not meant to show actual levels of consumption in Utah, but rather trends in purchasing behavior over time.

Figure 6 shows the annual percent change in Utah's quarterly retail sales. Also plotted in Figure 6 is Utah's growth in home price appreciation. It is interesting how closely changes in Utah's retail sales mirror changes in home price appreciation. This trend may indicate that many Utah homeowners were using home equity loans and second mortgages, made possible by appreciation in home values, to fuel their consumption expenditures during periods of rapid growth in home price appreciation. This correlation of retail sales with home price appreciation is probably also influenced by a surge in purchases of building supplies, home furnishings, and equipment related to the increase in home construction and new home sales during those years.

Utah's Bankruptcy Rates

High levels of debt fueled by overconsumption can lead to personal bankruptcy. Historically, Utah has had one of the highest bankruptcy rates in the nation.⁴² Figure 7 shows that between 2000 and 2004, Utah's bankruptcy rates ranked between first and third in the nation and between 1983 and 2005, Utah consistently ranked in the top ten states with the highest bankruptcy levels. Utah's high bankruptcy rate is an indication of personal financial instability that may result from low personal saving rates.

Notably, there is an almost direct inverse correlation between the growth in home price appreciation and the rise in personal

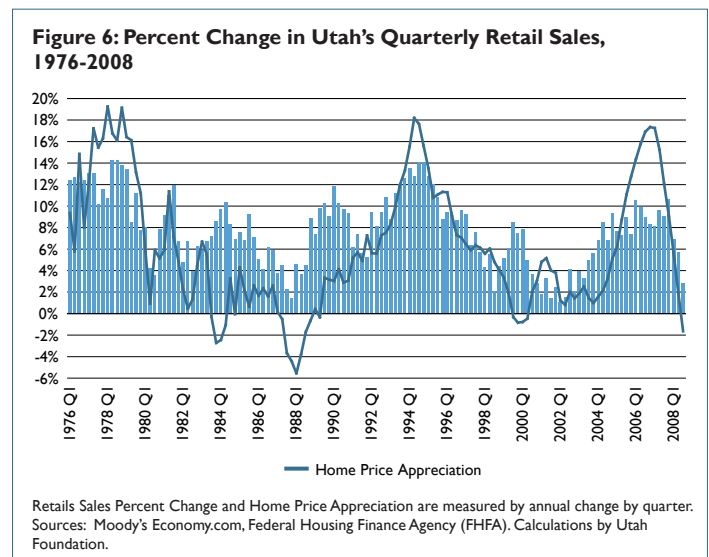
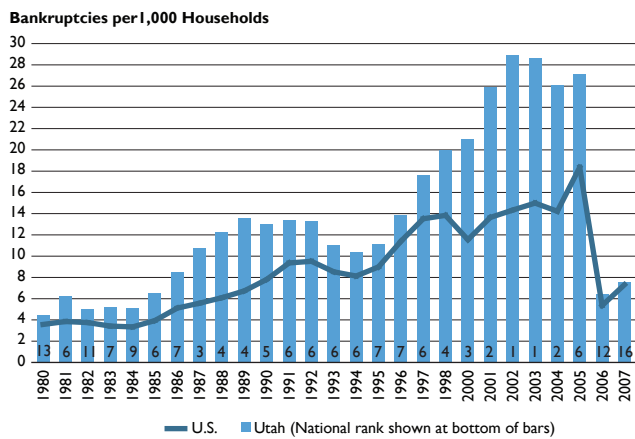


Figure 7: Consumer Bankruptcy Filings in U.S. and Utah, 1980-2007



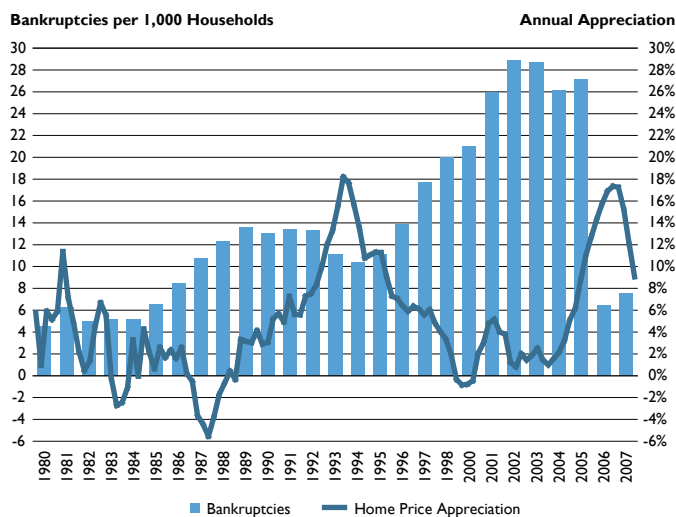
Utah's ranking is at base of columns. 1999 data was not produced by the U.S. Census Bureau. Sources: Census, ABI. Calculations by Utah Foundation.

bankruptcies. For instance, the rapid growth in home prices in the early 1990s is accompanied by a falling rate of bankruptcies, but when growth in home price appreciation slows in the late 1990s, bankruptcies rise significantly (Figure 8). While this may suggest that the dramatic increase in bankruptcies starting in the late 1990s was partially due to the elevated purchasing levels that occurred in the early to mid 1990s, it is also the result of homeowners delaying bankruptcies during periods of home price appreciation because they feel the increase in their home's value will help offset their debt levels. The decrease in 2006 was primarily due to the Bankruptcy Abuse Prevention and Consumer Protection Act of 2005; since its implementation, Utah's bankruptcy filings have been much closer to the national average.

Utah's Personal and Household Debt Levels

If Utah homeowners were using credit to increase consumption expenditures during the 1990s and mid 2000s, then this would have an effect on their overall debt levels. Figure 9 shows the median

Figure 8: Consumer Bankruptcy Filings in Utah Compared to Home Price Appreciation, 1980-2007



1999 data was not produced by the U.S. Census Bureau. Sources: Census, ABI, FHFA. Calculations by Utah Foundation.

credit card, installment, and mortgage debt per borrower for each state in 2006. Credit card debt includes all debt from credit cards, private label cards, and other similar lines of credit. Installment debt includes debt which is repaid in installments (car loans, student loans, etc.), excluding mortgage debt. Mortgage debt includes mortgage and home equity debt. Amounts in each type of debt represent the median amount of debt per borrower.

Utah ranks relatively low in both credit card and installment debt when compared to the rest of the nation. Figure 9 shows Utah ranks 36th highest in terms of median credit card debt per borrower and 39th highest in terms of installment debt per borrower. Utah's low installment debt is likely affected by the low amount of student loan debt incurred in the state. Data from Peterson's Undergraduate Financial Aid and Undergraduate Databases show the average debt for 2007 graduates from Utah's four-year institutions is \$13,266, ranking Utah first in the nation in terms of lowest student debt levels.⁴³ The data also show Utah ranks third lowest in the nation in terms of the proportion of students with debt (42%).

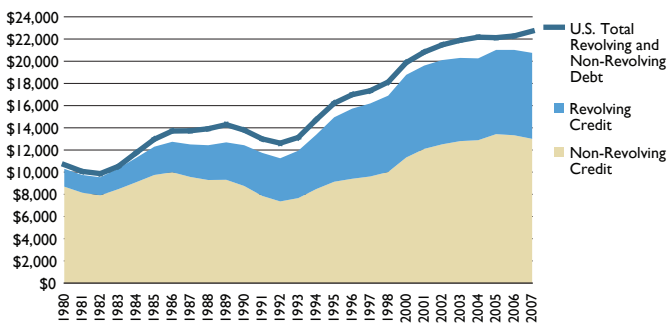
Utah's median mortgage debt per borrower, however, is higher than average, compared to the rest of the nation, ranking 19th highest out of the fifty states and Washington D.C. Not surprisingly,

Figure 9: Median Debt per Borrower, 2006

State	Credit Card Debt		Installment Debt		Mortgage Debt		Total Debt	
	Median	Rank	Median	Rank	Median	Rank	Median	Rank
Alabama	\$1,462	40	\$14,539	22	\$86,465	43	\$102,466	43
Alaska	3,384	1	17,111	1	146,304	13	166,799	11
Arizona	1,833	14	16,228	5	144,930	14	162,991	14
Arkansas	1,313	45	15,123	11	73,671	49	90,107	49
California	1,657	23	14,553	21	247,194	1	263,404	1
Colorado	2,030	5	15,180	9	167,761	8	184,971	7
Connecticut	2,094	3	13,834	34	151,914	10	167,842	10
Delaware	1,960	8	15,912	6	135,044	18	152,916	17
District of Columbia	1,630	25	16,316	4	223,547	2	241,493	2
Florida	1,758	19	14,941	13	126,101	21	142,800	21
Georgia	1,904	11	14,841	14	122,251	23	138,996	23
Hawaii	1,623	27	14,108	28	205,983	3	221,714	3
Idaho	1,501	37	14,716	17	105,580	26	121,797	26
Illinois	1,782	18	13,384	44	127,773	20	142,939	20
Indiana	1,690	21	13,332	46	88,708	42	103,730	42
Iowa	1,135	50	14,086	29	84,224	44	99,445	44
Kansas	1,483	38	13,847	33	90,155	41	105,485	41
Kentucky	1,357	44	12,512	50	82,176	46	96,045	46
Louisiana	1,285	47	14,708	18	83,049	45	99,042	45
Maine	1,651	24	12,592	49	92,658	37	106,901	37
Maryland	2,042	4	15,592	7	172,405	6	190,039	6
Massachusetts	1,937	10	13,483	43	176,255	5	191,675	5
Michigan	1,851	13	11,625	51	109,137	24	122,613	24
Minnesota	1,786	17	13,735	40	137,205	17	152,726	18
Mississippi	1,098	51	14,305	26	69,784	50	85,187	50
Missouri	1,538	35	13,614	41	95,818	33	110,970	35
Montana	1,473	39	14,486	23	101,898	30	117,857	30
Nebraska	1,388	42	13,790	36	91,648	38	106,826	38
Nevada	1,994	6	16,341	3	184,408	4	202,743	4
New Hampshire	2,109	2	14,687	19	140,109	16	156,905	16
New Jersey	1,899	12	13,864	32	168,146	7	183,909	8
New Mexico	1,579	30	14,802	16	105,504	27	121,885	25
New York	1,683	22	13,578	42	124,519	22	139,780	22
North Carolina	1,789	16	14,303	27	104,924	28	121,016	27
North Dakota	1,258	48	13,362	45	75,663	48	90,283	48
Ohio	1,736	20	12,988	47	97,616	31	112,340	31
Oklahoma	1,364	43	13,828	35	76,870	47	92,062	47
Oregon	1,543	34	15,094	12	143,205	15	159,842	15
Pennsylvania	1,574	31	14,569	20	94,750	36	110,893	36
Rhode Island	1,827	15	13,764	37	148,569	12	164,160	13
South Carolina	1,571	32	13,935	31	95,502	34	111,008	34
South Dakota	1,304	46	14,479	24	90,641	40	106,424	40
Tennessee	1,424	41	13,761	38	91,415	39	106,600	39
Texas	1,611	29	15,137	10	95,024	35	111,772	33
Utah	1,536	36	13,736	39	131,811	19	147,083	19
Vermont	1,619	28	14,320	25	95,921	32	111,860	32
Virginia	1,983	7	14,824	15	149,574	11	166,381	12
Washington	1,941	9	15,369	8	157,854	9	175,164	9
West Virginia	1,237	49	13,986	30	62,742	51	77,965	51
Wisconsin	1,627	26	12,681	48	106,293	25	120,601	28
Wyoming	1,553	33	16,514	2	102,393	29	120,460	29

Source: TransUnion. Data available from CFED's 2007-2008 Assets and Opportunity Scorecard.

Figure 10: Average Utah Revolving and Non-Revolving Debt per Household, 1980-2007 (2007 Inflation-Adjusted Dollars)



1999 data was not produced by the U.S. Census Bureau. Numbers in Figure 10 differ from those in Figure 9 due to different data sources and methods of calculation.
Sources: Moody's Economy.com, Census. Calculations by Utah Foundation.

California, Washington D.C., and Hawaii rank first, second, third, with median mortgage debt levels of more than \$200,000 per borrower. Utah's high mortgage debt has a strong influence on how the state compares to other states in terms of total debt; Utah ranks 19th with a median total debt of \$147,083 per borrower.

In terms of growth in debt accumulation, estimates from Moody's Economy.com show the average amount of outstanding revolving (credit card) and non-revolving (installment) debt per Utah household has grown significantly since 1980 (Figure 10).⁴⁴ While average non-revolving debt only increased from \$8,700 to \$13,000 over this 27 year period, average revolving debt increased from \$1,600 to \$7,700—more than quadrupling its initial amount. A large part of this growth occurred between 1993 and 1996, the same time Utah experienced a boom in home price appreciation. As in other states, Utah's accumulation of revolving and non-revolving debt slowed in the 2000s. However, national data show that mortgage and home equity debt surged during that same period, and there is some evidence that Utahns followed that surge into deeper housing-related debt.

Utah's Mortgage Debt

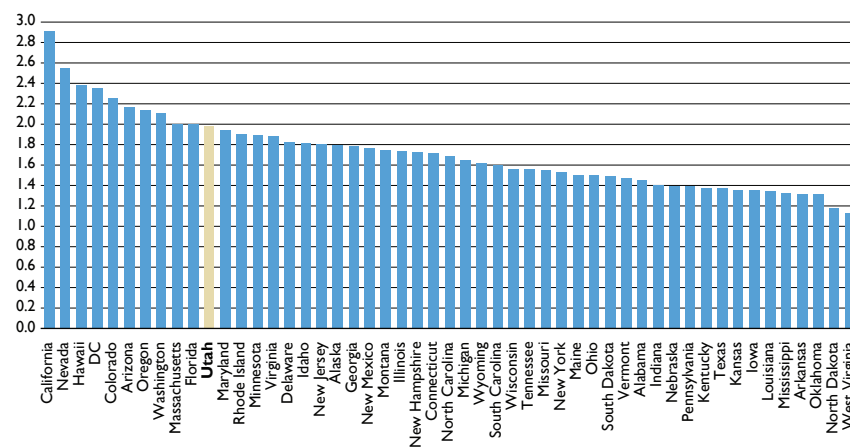
Utah ranks 19th highest in terms of median mortgage debt, but when this statistic is compared to median household income, Utah's ranking increases even further. In 2006, Utah's ratio of median mortgage debt to median household income (for households with a mortgage) was 1.98, ranking Utah 11th highest in the nation. This ranking suggests homeowners in Utah are taking on more mortgage debt relative to their income than residents in 40 other states.

Because the above statistic is influenced by the state's average ranking of median income for

homeowners with a mortgage, it is necessary to examine other aspects of Utah's housing market to gain a better understanding as to whether Utah homeowners are taking on unusually high amounts of mortgage debt.⁴⁵ The first aspect to examine is how Utah compares to the rest of the nation in terms of median home value. Home value is the estimated amount of how much the property, including both house and lot, would sell for in the current market. Figure 12 shows median home values by state for both properties with a mortgage and properties without a mortgage. In terms of properties with a mortgage, the 2007 median home value in Utah was \$224,300 which ranked 21st highest and above the national average of \$216,400.

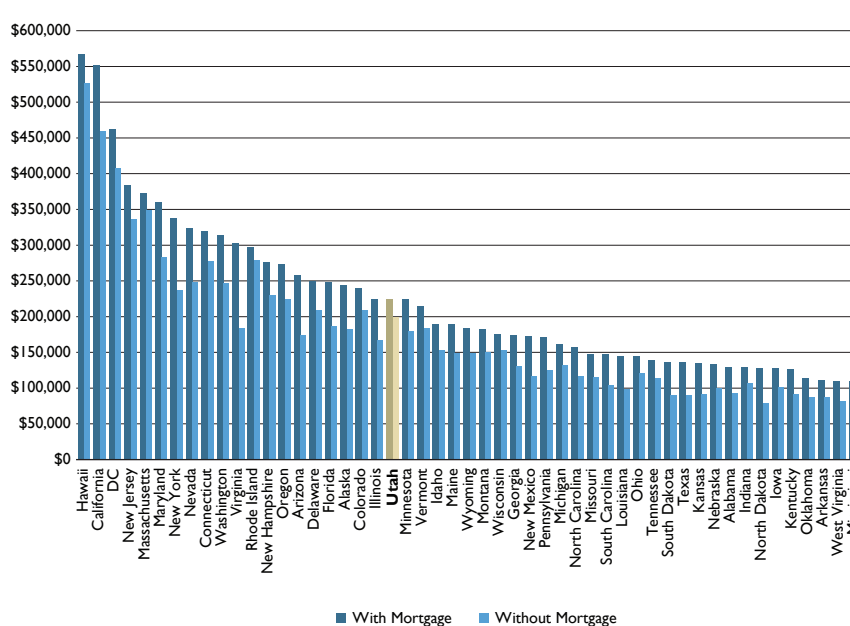
It is important to note, however, that the inclusion of older homes may lower these statistics. Data from the U.S. Census Bureau show that in terms of new homes, the 2007 median home price in Utah was \$335,300 which ranked 11th highest in the nation.⁴⁶ The purchase of these expensive new homes could be one of the main factors

Figure 11: Ratio of Median Mortgage Debt to Median Household Income, 2006



Median Mortgage Debt is mortgage debt per mortgage borrower. Median Household Income is for households with a mortgage.
Sources: Census, TransUnion. Calculations by Utah Foundation.

Figure 12: Median Home Value, 2007

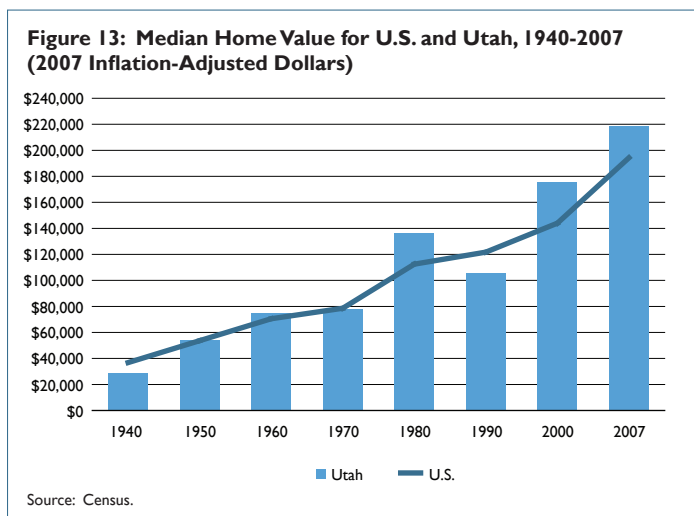


Source: Census.

influencing Utah's above-average ranking in median mortgage debt. Data from the Bureau of Economic and Business Research at the University of Utah show new home construction in Utah reached a high of 28,300 units in 2005.⁴⁷

More recent data show house prices in Utah are falling in response to the current economic climate. Home prices fell 0.2% in 2008 and are expected to fall another 8% in 2009.⁴⁸ The Annual Demographia International Housing Affordability Survey shows that in third quarter 2008 the median home price in Salt Lake City was \$230,200. This represents a 7% decline from one year earlier when the median home price was \$246,700. In 2007, the median home price in Salt Lake was considered seriously unaffordable with a ratio of median home price to median income of 4.3. In 2008, this ratio fell to 3.8, dropping into the moderately unaffordable range.⁴⁹

Figure 13 shows the median home value for homes in Utah and the United States from 1940 to 2007. In terms of growth in home value, data from the Census Bureau show Utah had the 17th fastest annual growth rate in nation over this period. In 1940, the median home value in Utah was just below \$30,000 (in 2007 inflation-adjusted



dollars). By 2007, this amount had increased to over \$218,000, growing at an average rate of 3% per year. Most of the growth in home values occurred because of Utah's 1978, 1994, and 2006 booms in home price appreciation which raised Utah's home prices above the national average.

Another aspect of Utah's housing market that can be useful to examine when determining whether Utah homeowners have an unusually high amount of mortgage debt is the state's average loan-to-value ratio. A loan-to-value ratio represents the amount of total mortgage debt outstanding to total property value of all homes with a mortgage. Figure 14 shows the average loan-to-value ratio for the United States and western states. Utah's average loan-to-value ratio is just below the national average and slightly lower than the western states average. However, because this data include mortgage debt outstanding on all mortgages and not just new loans, this ratio may be quite different for homes bought during this decade.

While aggregate debt levels are important to consider, financial assessments are more commonly based on a consumer's debt-to-income ratio and not on total debt. A debt-to-income ratio is the

percentage of a consumer's monthly gross income that goes toward paying debts.⁵⁰ Most financial experts agree that a good debt-to-income ratio is one that is less than 36%, meaning the total amount a consumer pays in debt-related expenses, including mortgage, car loan payments, credit card bills, student loans payments and other debt, does not exceed 36% of their income.

Figure 14: Average Loan-to-Value Ratio for U.S., Utah, and Western States, *Third Quarter 2008

State	Loan-to-Value Ratio
U.S.	66%
Nevada	89%
Arizona	76%
Colorado	72%
California	69%
Utah	65%
Idaho	65%
New Mexico	61%
Oregon	61%
Washington	59%
Montana	56%

*Insufficient data were available from Wyoming to produce a ratio.
Source: First American CoreLogic.

Beginning in 2000, the U.S. Census Bureau began tracking monthly owner costs as a percent of household income in order to measure housing affordability and excessive shelter costs. Monthly owner costs include mortgage payments, real estate taxes, various insurances, utilities, fuels, and any other homeowner costs or fees. According to the Census Bureau's definition, excessive owner costs are those that exceed 30% of household income.

Figure 15 shows Utah's median monthly homeowner costs as a percent of median income for households with a mortgage from 2000 to 2007. In 2007, median homeowner costs were equal to 24.4% of household income, ranking Utah 23rd highest in the nation. Only California's median homeowner costs exceed 30% of its household income, but five states (California, Florida, Nevada, New Jersey, and Hawaii) have median homeowner costs that exceed 28% of the state's household income. States like these, which have high median owner costs, pull up the national average. The percent of mortgaged homeowners with monthly owner costs that exceed 30% in Utah has also grown between 2000 and 2007, increasing from 30.5% in 2000 to 33.5% in 2007. The 2007 percent ranks Utah 28th highest in the nation. California ranked first, with more than half of its homeowners paying excessive owners costs.

Negative Equity and Foreclosures

While data from the Census Bureau indicate Utah's median homeowner costs are not in the excessive range, homeowner costs as a percent of household income have been growing since 2000.

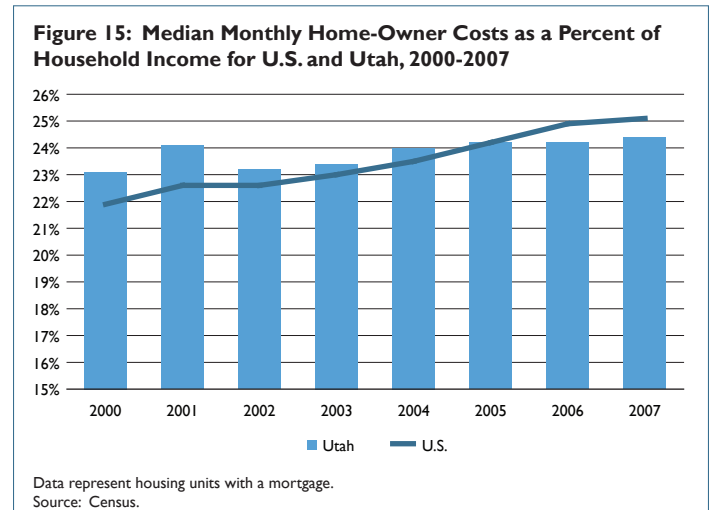
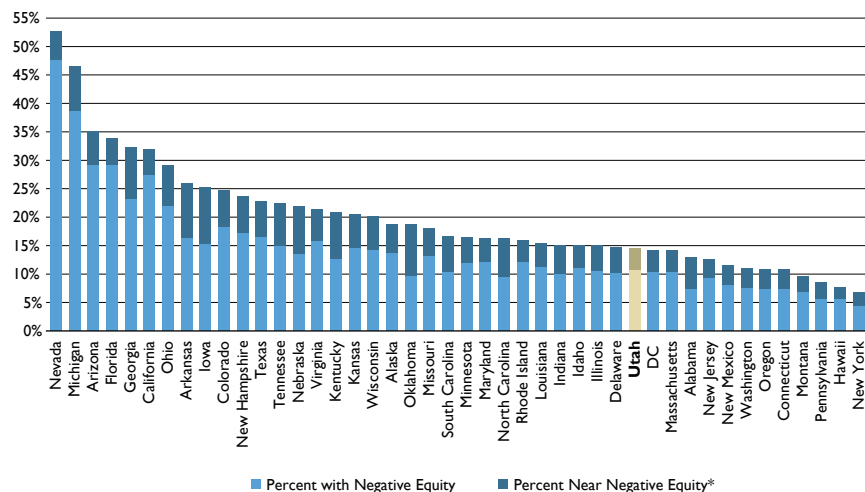


Figure 16: Percent of Negative Equity and Near Negative Equity Mortgages, Third Quarter 2008

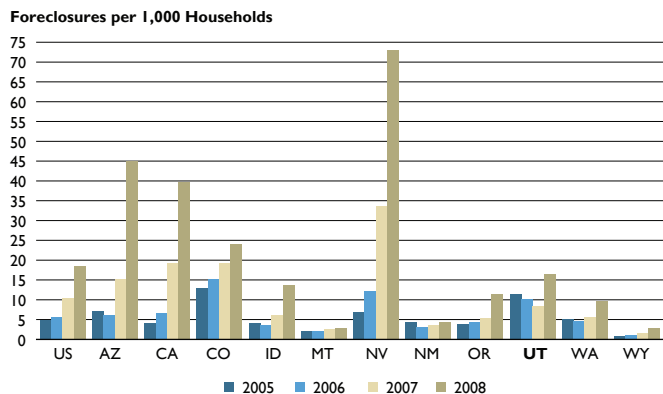


*Defined as properties within 5% of being in a negative equity position, but not currently in a negative equity position. Source: First American CoreLogic. Calculations by Utah Foundation.

Increasing mortgage debt and owner costs increase the risk of homes having negative equity or even going into foreclosure. Negative equity occurs when the value of a home is below the value of the debt owed on the home. Negative equity often results in foreclosure, especially during periods of home price depreciation. Near negative equity homes are properties that are within 5% of being in a negative equity position, but not currently in a negative equity position. Figure 16 shows the percent of negative equity and near negative equity mortgages for each state in third quarter 2008. Utah has the 32nd-highest percent of negative equity and near negative equity homes in the nation. The state's low percentage may be influenced by Utah's lag in home price depreciation compared to many states.

At the national level, growth in home prices began to rapidly increase in third quarter 2003 and peaked mid 2005. Growth in Utah's home prices began appreciating fourth quarter 2003, but didn't peak until the end of 2006. The effects of Utah's lag in home price appreciation are seen in Figure 17 which shows the number of foreclosures per 1,000 households for the United States, Utah, and western states. While most states experienced an increase in foreclosures beginning

Figure 17: Foreclosures in U.S., Utah, and Western States, 2005-2008



Sources: RealtyTrac, Census. Calculations by Utah Foundation.

in 2005, Utah's foreclosure rate was actually declining until 2008. In 2008, the rate almost doubled, increasing from 8.5 foreclosures per 1,000 households in 2007 to 16.5 in 2008.

Like most other states, Utah's housing market was detrimentally affected by the issuance of subprime loans. In third quarter 2006, near the peak of Utah's housing bubble, 14.3% of all loans serviced were subprime loans. Of the total subprime loans, 8.8% had installment payments past due and 2.2% went into foreclosure that year. Two years later, in third quarter 2008, only 10.3% of all loans serviced were subprime loans, but 15.3% of all subprime loans had payments past due and 7.3% went into foreclosure.⁵¹

Mark Zandi, chief economist at Moody's Economy.com, classifies the increasing national foreclosure rate into three separate waves: the 2006 increase was caused by those who flipped homes to make a profit, the 2007 increase was a result of the increase and overvalue of subprime loans, and the 2008 increase was caused by increasing negative equity combined with increased unemployment. It seems as though Utah has experienced each of these waves with a one-year lag, meaning the wave in 2008 was likely due to the effects of the increase and overvalue of subprime loans. This also means that as the current recession deepens and more Utah residents are unemployed, it is expected the percent of homes in negative equity and the rate of foreclosures in Utah will continue to increase, perhaps even after other states' housing markets begin to recover.

Figure 18: Levels and Growth Rates of Debt for U.S. and Utah

	Utah		U.S.	
	Level 2007	Growth Rate 2002-2007	Level 2007	Growth Rate 2002-2007
Average Credit Card Debt per Household	\$7,738.54	0.4%	\$8,628.00	0.9%
Average Installment Debt per Household	\$13,010.40	0.8%	\$14,080.14	1.3%
Median Monthly Owner Costs for Housing Units with a Mortgage	\$1,358.00	3.3%	\$1,464.00	4.6%
Median Monthly Owner Costs as a Percentage of Household Income	24.4%	1.0%	25.1%	2.1%

Growth Rate is average annual growth rate. Sources: Moody's Economy.com, Census. Calculations by Utah Foundation.

CONCLUSION

Based on this analysis, Utah households appear to have moderate financial stability, with some areas of personal finance being more vulnerable to the economic recession than others. Compared to the rest of the nation, Utah ranks high in terms of median outstanding mortgage debt relative to income, but below average in terms of median credit card debt and installment debt per borrower. Utah also ranks near the national average in terms of monthly homeowner costs and home values. Utah's high ranking of median mortgage debt relative to income is cause for concern because it could lead to greater financial distress and foreclosure rates as job losses mount in this recession.

Another cause for concern is Utah's consumption trends. The purchasing peaks experienced in the 1980s and 1990s eventually led to increases in personal bankruptcies, which indicate these consumption

expenditures may have been financed by overextended home equity loans. This increases Utah's total debt levels and creates financial instability, especially during periods of economic downturn. Based on this pattern, it could be expected that Utah will experience another wave of bankruptcies in response to the increased consumption that occurred during the 2005-2007 housing price bubble.

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