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Household Spending and Consumer Debt in Canada: Empirical Evidence from the 2005-2009 Surveys of Household Spending

A Research Study submitted to the Office of the Superintendent of Bankruptcy Canada for the OSB Insolvency Research Projects Initiative

By

Anindya Sen, Associate Professor, Department of Economics, University of Waterloo, 200 University Avenue West, Waterloo, Ontario N2L 3G1, Phone: (519) 888 4567 ext. 32123, Fax: (519) 725 – 0530, Email: asen@uwaterloo.ca.

Abstract

There have been considerable concerns raised by policymakers on the amount of debt being accumulated by Canadian households. One possible consequence is that an increase in interest rates might adversely affect the ability of households to pay their debt and push them to bankruptcy, thus initiating a return to recession.

In order to assess this possibility, it is important to understand the extent to which households spend more than what they earn and what items form a majority of expenditures. In this regard, there is very limited empirical research. This study attempts to fill this gap by employing the 2005 to 2009 waves of the Surveys of Household Spending.

Based on these data, this paper offers the following stylized facts.

- A significant portion of the population – between 35% to 39% - spend 105% more than what they earn. On the other hand, there has been a drop in such 'spender households' – from 39% in 2005 to roughly 35% in 2009.

- In 2005 the vast majority of spender households - roughly 65% - were those with income less than $50,000. But in 2009, the proportion of such households dropped to 60%. In contrast, the proportion of 'spender households' with income between $50,000 and $100,000 increased from roughly 27% to 32%.

- 'Spender households' are also an important constituent of all households within specific income groups. Specifically, a significant portion of *all* households *that earn* less than $50,000 – roughly 45%-55% - spend 110% more than what they earn. However, the proportion of more well off households that spend more than 110% of income is non-trivial. The proportion of in debt households earning from $50,000 to $75,000 is either at or a bit less than 30%, while the corresponding figure for households earning from $75,000 to $100,000 ranges from 30% to 25%. The point is that while overspending declines with increases in household income – it still exists at higher income levels.

- There has been a noticeable increase in average debt levels over time, ranging from $15,000 to $23,000. These amounts are rather sizable given that the vast majority of in debt households earn less than $50,000.

- While a loss in asset value is correlated with spending more than household income, a significant portion of households that spend more than income experience very little change in asset value over the same time period.

- Sample means across time demonstrate that households that spend more income than they report – constituting more than 30% of the population - spend a greater portion of their expenditures on mortgage and rent, recreation expenditures and private transport relative to other households. They also allocate a proportionately smaller amount on pension and insurance payments as well as personal taxes relative to households which spend what they earn.

- Consistent with simple summary statistics, OLS regression estimates confirm that household income is the most significant predictor of whether a household is in debt. Household size is also important – from a statistical perspective. Interestingly, neither marital nor household type dummy variables are consistently significant.

- OLS estimates are sensitive to household income. The regression results suggest the paradox that less spending on core items is correlated with a higher likelihood of spending more than income. It is possible that an increase in spending on core items might leave less budgetary room for other non-core items and therefore reduce the likelihood of spending exceeding consumption. On the other hand, it is also possible that a preference for non-core items crowds out spending on core-items and increases the probability of being in debt.

I.   Introduction

There is a surprising paucity of empirical research and specifically, multivariate regression type analyses that has attempted to isolate the socio-economic determinants that contribute to excessive spending and insolvency among consumers. Evaluating the relative impacts of different potential causal factors is extremely important for contemporary policy. Canada is recovering from one of its most severe recessions and consumer confidence and spending is a key factor in stimulating and revitalizing the economy. However, policymakers repeatedly point to particularly worrisome features on household spending and debt that have the potential of pushing the economy back to a recession.

The Bank of Canada has emphasized the need to closely monitor household debt, and the need for consumers to access and use loan financing responsibly. [1] These concerns are certainly valid, as a recent study by the Vanier Institute of the Family, finds that Canadian average household debt has hit the six-figure mark for the first time. Their data suggests that the average household debt figure at the end of 2010 was a bit above $100,000, with a debt-to-income ratio at roughly 150 per cent. Mortgages account for almost two-thirds of that debt, with the remainder consisting of personal loans and credit card debt.[2] Data from the Bank of Canada also suggest high debt levels. Specifically, 6.5 per cent of households have debt payments and interest equivalent to 40 per cent or more relative to their disposable incomes.[3]

While these studies are certainly informative, many questions remain unanswered. For example, what are the key socio-economic characteristics that define which households consume goods and services far in excess of their income, increasing the likelihood of accessing the insolvency system? Specifically, what are the marginal effects of age, education, income level, and family structure? Related to this, what are differences in debt levels across age, education, income level, and family structure? And perhaps most important – what goods and services are the main outlays of expenditure for households in severe debt?

Answering these questions are of obvious policy relevance and have multidisciplinary dimensions with respect to economics, sociology, and appropriate legal structure.

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[1] For further details please see 'High Household Debt A Threat To Canada's Recovery: Central Bank.' Available at http://www.citytv.com/toronto/citynews/news/national/article/107160--high-household-debt-a-threat-to-canada-s-recovery-central-bank.

[2] This report is available at http://www.vifamily.ca/node/783.

[3] Details are available at http://www.theglobeandmail.com/globe-investor/personal-finance/household-finances/household-debt-surpasses-six-figure-mark/article1911236/. Data on high debt payments are from Bank of Canada (2010) Financial System Review, December 2010. http://www.bankofcanada.ca/en/fsr/2010/fsr_1210.pdf

However, to the best of our knowledge, we are unaware of any recent empirical study that has used household level data to address these questions. This is partly because most studies have relied on aggregated data at the national level. Our analysis will address these issues through the use of household level data from the *Surveys of Household Spending* collected by Statistics Canada. These surveys contain extremely detailed information on household specific spending comprehensively broken down by item. The only widely cited and comparable study that we have found is Burbidge and Davies (1994) who employ survey data from the Family Expenditure Surveys, Survey of Consumer Finances, and Labor Force Surveys from 1978-1990.[4] But they do not investigate the allocation of consumer expenditure in the item specific detail that we propose to study. We will estimate the effects of a variety of socio-demographic factors and indicators of family structure on debt and debt-to-income ratios in order to evaluate the predictive power of such characteristics on the likelihood of possessing a high debt load.

II.   Literature Review

It would first be useful to contextualize broad macroeconomic trends in household spending and debt. A study by Statistics Canada (January 2007) uses aggregate data between 1980 and 2005 to compare trends in household debt, debt-to-income ratios, personal debt, and savings between Canada and the United States. The analysis suggests that debt has assumed a much larger profile in both countries, over the past thirty years. In 1980 Canadians spent a bit over 80% of their disposable income while Americans spent roughly 88%. In 2005 Canadians and Americans spent almost 95% of their disposable income, leaving very little for savings. However, it seems that increased consumption is not only being met by more spending, but by much greater debt. In 1980, Canadians and Americans spent less than 70 cents for each dollar of disposable income. By 2005, Canadians owed $1.16 for each dollar of disposable income and Americans owed $1.24. In terms of aggregates in their respective currencies, household debt rose in Canada from $134 billion in 1980 to $916 billion by 2005 (6.8 times), and in the U.S. from $1.3 trillion to 11.2 trillion (8.6 times). Analogously, consumer spending and disposable income increased less in Canada. Consumer spending rose from $168 billion to $760 billion in Canada and from $1.8 trillion to $8.7 trillion in the U.S.

We have been unable to locate any studies on Canadian household debt and saving that have been published in peer reviewed academic journals. As a result the discussion is focused on working papers. In this respect, Chawla and Wannell (2005) is one the few papers that study trends in Canadian household debt and spending. Specifically, they study differences in patterns of saving and spending between 1982 and 2001, and employ

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[4] John Burbidge and James B. Davies (1994), "Household Saving in Canada" in International Comparisons of Household Saving, edited by James Poterba, University of Chicago Press, available at http://www.nber.org/chapters/c8870.

summary statistics analysis in evaluating differences in the characteristics and spending patterns of saving versus spending households. Households are classified as those whose total expenditure exceeds income as 'spenders', and those whose expenditure equals or is less than income as 'savers'. As they note, the objectives of their research are to evaluate the relative impacts of both macro and micro factors that have contributed to the declining savings rate, and to provide some evidence on the financial vulnerability of spending households. Their analyses are based on the 1982 Family Expenditure Survey (FAMEX), conducted in February-March 1983, and the 2001 Survey of Household Spending (SHS) of January-March 2002. Hence, they evaluate the differences in consumption and saving between these two time periods.

The authors find similarities in total expenditures of saving versus spending households over time. Despite possessing roughly 28% less income, spenders actually spent slightly more than savers in 1982. In 2001, saving households spent about $3,000 more than spending households as the income gap expanded to 35%. Perhaps of greater interest is the fact that "..in 1982, 57% of all households with incomes under $20,000 were spenders compared with 16% of those with incomes of $100,000 and over. By 2001, the proportions had risen to 66% and 23% respectively."

In terms of the composition of spending, in 1982, the breakdown of expenditure among spenders for each dollar was: 80.7 cents to current personal consumption; 12.8 to personal taxes; 3.6 to security; and 2.9 to gifts and contributions. In contrast, the corresponding division for savers was 71.4, 20.6, 4.9, and 3.1. In 2001, spenders spent 74 cents on consumption and 25 cents on taxes and security, compared with the savers' 57 and 43 cents. Hence, both groups were spending less on consumption and more on taxes and security

But what is intriguing is that in absolute dollars, spenders allocate more resources to current consumption relative to savers – a trend that is visible from 1982 as well as 2001 data. Chawla and Wannell (2005) find that, on average, in 1982 spenders consumed $39,000 in goods and services, which was 15% more than the $33,900 spent by savers. In 2001, spenders continued to incur higher expenditure on current consumption, as they spent $41,700 (10% more) compared to $37,900 spent by savers.

Which items were responsible for these discrepancies between the two groups? One was car purchases. Specifically, spenders (savers) incurred average car purchases of $9,900 ($6,400) in 1982 and $15,200 ($9,000) in 2001. While there was some gap in absolute amounts spent on shelter (with spenders allocating more) in 1982, this gap disappeared by 2001.

The most relevant finding is that while the mean pre-tax income of Canadian households grew from $51,400 to $56,800 (11%), per-capita debt doubled over the two decades. For

example, the proportion of households spending more than their income increased from 39% in 1982 to 47% in 2001.

Chawla and Warnell (2005) offer a unique picture of Canadian household debt, spending, and the composition of such spending. However, their reliance on average household debt is from one aspect, unsatisfactory. Specifically, household debt does not take into consideration household income.

In another Statistics Canada study, Hurst (2011) proposes the use of: (1) the debt-to-household income ratio, which measures how much a household owes compared to how much it earns; (2) the total debt service ratio, which measures the ability of a household to cover or pay off their debt[5]; and (3) the debt-to-asset ratio, which shows the value of a household's debts compared to the value of its assets. A high debt-to-asset ratio can indicate that debts are not adequately backed by assets.

Consistent with Chawla and Wannell (2005), Hurst finds a significant increase in average household debt over the sample period. Between 1984 and 2009, he finds that real average household debt for Canadians more than doubled from $46,000 to $110,000, the main contributor being mortgage debt. Data from the first Canadian Financial Capability Survey (CFCS), conducted in 2009, reveals that 76% of Canadians had household debt and that the total debt was equivalent to 148% of income. In contrast, in 2008 and 2009 the debt-to-asset ratio was 19.6%, the highest ever recorded. In terms of socio-economic characteristics, younger families had the highest income to debt ratio while lone parent families had the highest debt to asset ratio and were also more likely to have a total debt service ratio of 40% or more. Further, people born in Canada had 60% lower odds of having a high total debt service ratio compared to immigrants after controlling for the effects of income, education, geographic location and homeownership.

Faruqui (2008) also studies trends in the debt to service ratio among Canadian households, using the 1999-2007 waves of the Canadian Financial Monitor (CFM) survey. The paper suggests that while household debt-to-income ratio has increased since the late 1990s, households are comfortably positioned to manage the rise in debt levels.

Chawla (2011) uses data from the 2008 wave of the SHS to examine demographic features and spending patterns among households with a mortgage, without a mortgage, as well as households with under 10%, from 10%-19%, and possessing 20% and more mortgage liability ratios.[6] Spending patterns with respect to most categories (in terms of percentage of total disposable income) - including food, household operation, household furnishings

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[5] This ratio is the total interest and principal repayment of debts over a certain period as a proportion of the total income for that period. A household that has a high total debt service ratio is experiencing a high debt load—indicating that their debt may not be affordable

[6] Mortgage-liability ratio is mortgage payment expressed as a percentage of disposable income

and equipment, clothing, transportation, health, personal care, recreation, reading material and other printed matter, education and tobacco products and alcoholic beverages – are remarkably comparable across classifications. The one exception, unsurprisingly, is that households without mortgage have lower shelter costs and save more relative to households with mortgages.

The only relevant peer reviewed study I could find is Ekici and Dunn (2006), who use U.S. household level data on consumption and credit card debt from the Consumer Expenditure Survey (CEX) and the Ohio Economic Survey (OES) during the late 1990s and early 2000s. Their results suggest that credit card debt has a significant and negative impact on total household consumption growth. Specifically, a one-thousand dollar increase in credit card debt is correlated with as decrease of almost two percent in total household consumption growth. This negative relationship holds for durables as well as non-durables.

Mian and Sufi (2011) use also U.S. data, but at the county level. They split 238 counties that have at least 100,000 residents into deciles based on the increase in the household debt-to-income ratio from 2002 to 2006 and focus on the counties in the highest and lowest decile and refer to the top decile counties as high household debt counties and to the bottom decile as low household debt counties. Their analysis reveals that auto sales began to decline in high household debt counties as early as 2006, long before sales began falling in low household debt counties (Mian and Sufi 2010). While all counties experienced a sharp drop in auto sales during the most severe part of the recession, low household debt counties experienced a more robust recovery of auto sales relative to high household debt counties. The authors also looked at residential fixed investment and employment growth. Overall, they find that weak credit demand can be attributed to overleveraged households. The policy implication is that if poor business sales are due to depressed consumer demand from heavy household debt – then investment tax subsidies and lower interest rates may have a limited effect on business investment and employment growth. They conclude by stating that – "Our view is that the depth and length of the current recession relative to previous recessions is closely linked to the tremendous rise in household debt that preceded it. This view is supported by survey evidence that the main worry of businesses is sales, not financing."

The above review clearly delineates our proposed contribution. Very few studies – and in particular, no published peer reviewed study – has focused on item specific expenditures by high debt households. The Surveys of Household Spending (SHS) contain data on item specific expenditures and household income, which allow us to calculate approximate debt load as well us study differences in consumption patterns between 'spender' and 'saver' households. We extend the study conducted by Chawla and Wannell (2005) with more recent waves from the SHS – specifically with data from 2005 onwards, which will yield more contemporary information that should be relevant to policymakers.

Using these surveys allow us to determine which socio-economic characteristics may predict household consumption of goods and services far in excess of income as well as the marginal effects of age, education, income level, and family structure. We will also study differences in debt levels across age, education, income level, and family structure and by province. Finally, we will also determine the goods and services that form the main expenditures for households in severe debt.

III. Methodology

The Surveys of Household Spending

As noted on the SHS 2010 home page, the Surveys of Household Spending collects detailed information on household specific expenditures, annual income of household members (from administrative data files), demographic characteristics of the household, certain dwelling characteristics (e.g., type, age and tenure) and certain information on household equipment (e.g., electronics and communications equipment).[7] The survey is conducted annually in the 10 provinces and usually every other year in the territories and offers available data from 1997 onwards. However, the data are not based on a panel of the same households over time.

The surveys do not cover the following groups: those living on Indian reserves and crown lands (with the exception of the territories);

- official representatives of foreign countries living in Canada and their families;

- members of religious and other communal colonies;

- members of the Canadian Forces living in military camps; and

- persons living full time in institutions: for example, inmates of penal institutions and chronic care patients living in hospitals and nursing homes.

However, even with these exclusions, the population coverage in most years is more than 95%. The Survey of Household Spending sample is a stratified, multi-stage sample selected from the Labour Force Survey (LFS) sampling frame. Households are first selected based on the selection of clusters (small geographic areas) from the LFS frame. Specific households are then identified within these selected clusters.

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[7] http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=3508&lang=en&db=imdb&adm=8&dis=2.

The data are based on voluntary responses, and the collection occurs through 12 monthly collection cycles within the year. Responses are collected through personal interviews using a questionnaire on a laptop and a household specific diary that contains information on daily expenditures over a two week period.

From the perspective of this study, the main disadvantage of relying on these data is the absence of specific household assets and liabilities that would definitely offer more motivation for observed trends in household spending.

Distribution of Households by Overall Spending

Before we move onto more sophisticated statistical and empirical analysis, it is necessary to obtain an idea of the broad trends and how households exactly spend their money. For this purpose we present summary statistics, which capture item specific mean household expenditures as a percent of total household expenditure. We first use broad cuts of the data. First, we offer summary statistics for: (1) households with consumption = income (with a 5% margin of error); (2) households with consumption lower than income by 5% or more and thus spend 95% or less of income; and (3) households with consumption equal to 105% or more of income.

Second, we break up these analyses further. Specifically, summary statistics are calculated for: (1) households whose consumption is 80% or less than income; and (2) households whose consumption is 50% less than income. The motivation is to study differences in consumption between households who do not spend a significant amount of their income. Similarly, we construct summary statistics for: (1) households spending more than 110% of their income; (2) households spending more than 120% of income; and (3) households spending 150% or more of their income. Analogously, the objective is to see if there are substantial discrepancies in consumption patterns between households who spend significantly more than their income.

This approach is different from the one employed by Chawla (2011) who uses data from the 2008 wave of the SHS to examine demographic features and spending patterns among households with a mortgage, without a mortgage, as well as households with under 10%, from 10%-19%, and possessing 20% and more mortgage liability ratios.[8] But we feel that our strategy is equally plausible.

Figures 1 to 5 present the distribution of households in each survey wave (2005 to 2009) corresponding to the above classifications

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[8] Mortgage-liability ratio is mortgage payment expressed as a percentage of disposable income.
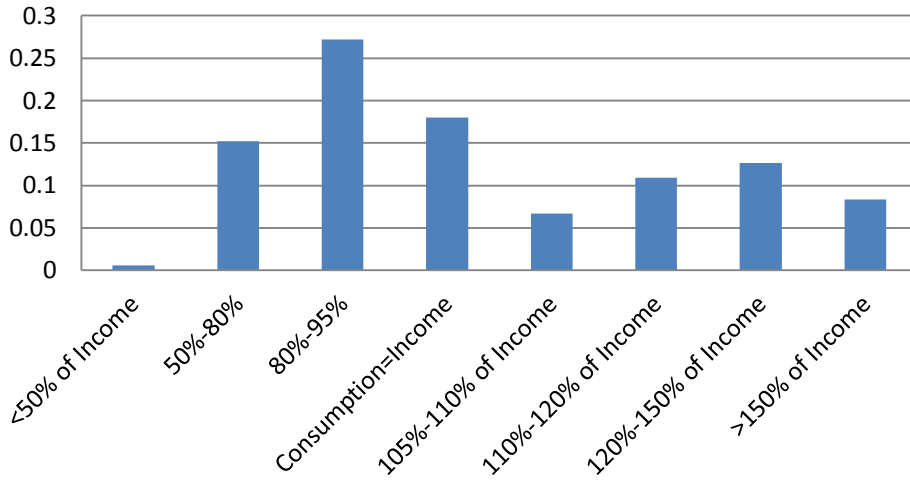
Figure 1: Distribution of Households by Spending 2005
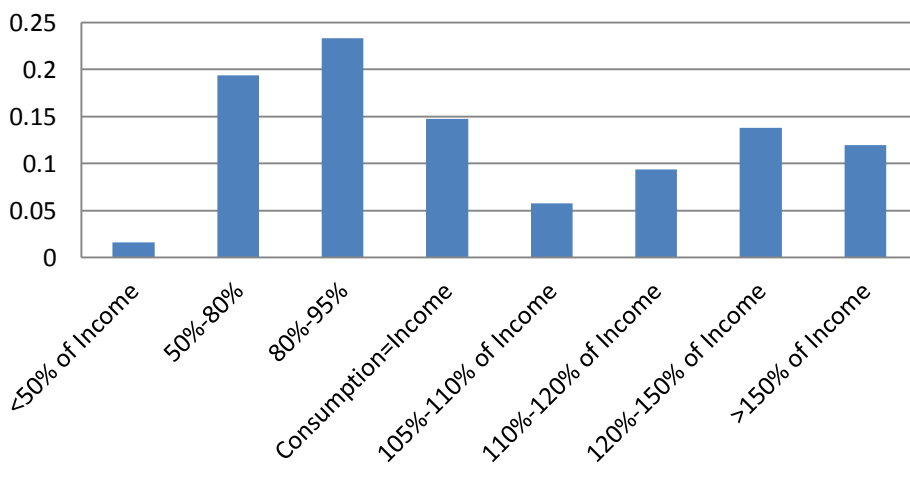

Figure 2: Distribution of Households by Spending 2006

Figure 3: Distribution of Households by Spending 2007
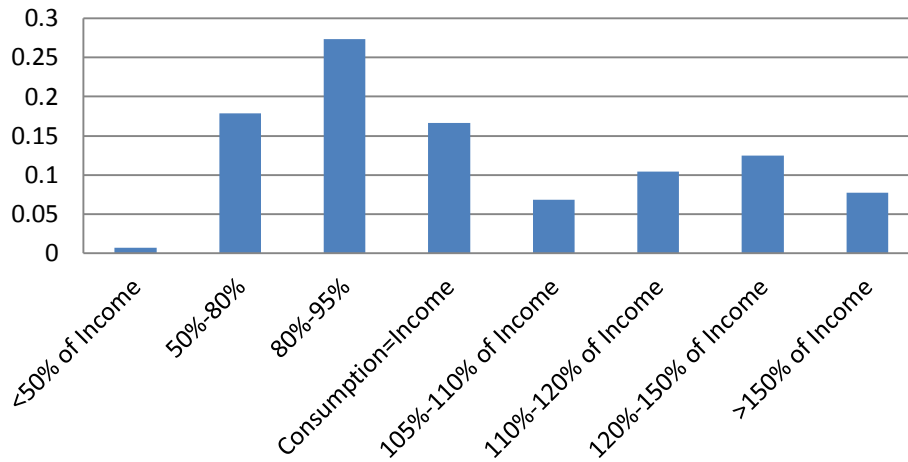
Figure 4: Distribution of Households by Spending 2008

Figure 5:Distribution of Households by Spending 2009
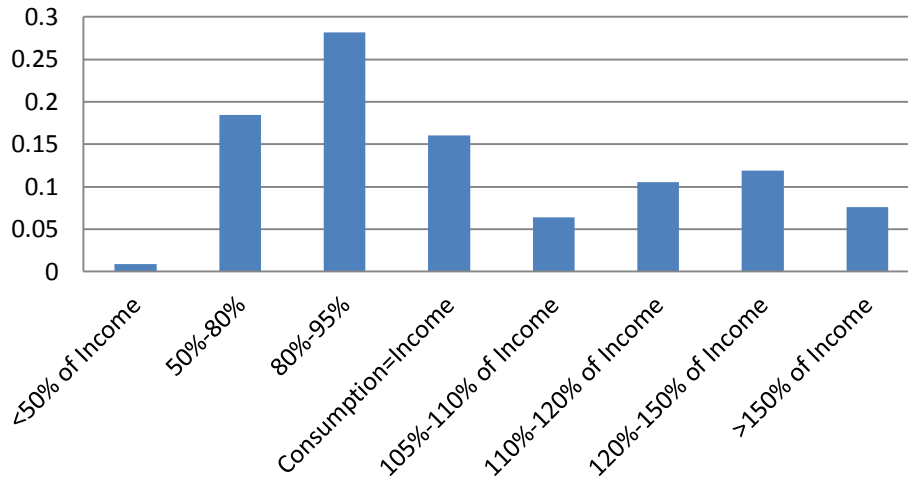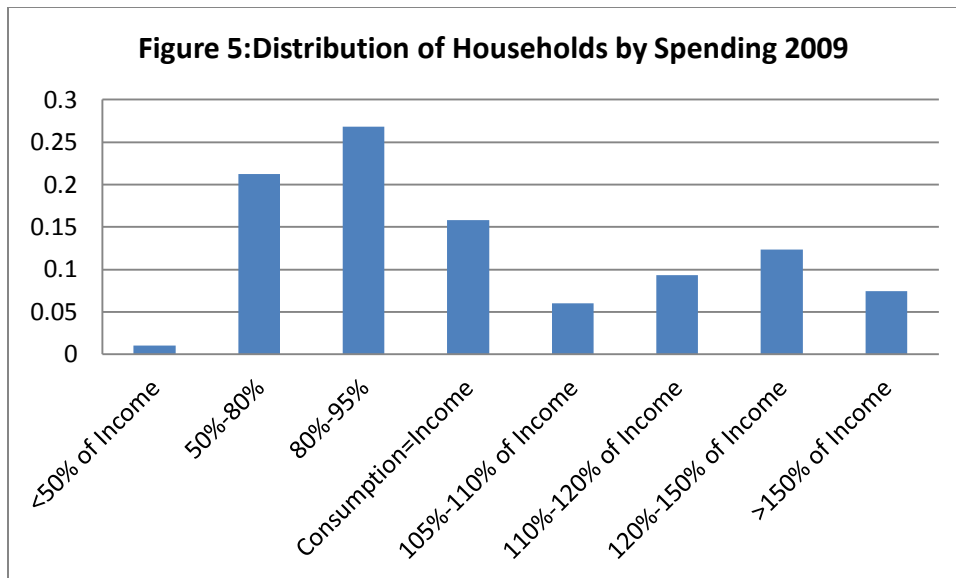
The key result is that the proportion of households spending more than their income declined over the sample period. This corresponds with an increase in households spending less than household income. In most years between 35%-38% of households spend 105% more than their income. In 2006, the proportion was more than 40%. More than half of this amount is attributable to households who spend more than 120% of income, as this proportion ranges from 19%-25% (of the total sample) in each year. In contrast the proportion of households who spend more than 150% of income ranges from 6% to 10% of the sample – which is non-trivial. However, it is also important to note that the proportion of households spending more than income dropped from roughly 38% in 2005 to 35% in 2009.

The proportion of households whose income=expenditures remains quite close to 15% for most years. The decline in the proportion of households spending more than income seems to be coming at the expense of an increase in households that save. Specifically, the proportion of households spending less than 95% of income increased from roughly 42% to 48% over the sample period. In all years, the proportion of households spending less than 50% of income is extremely low. The rise in the proportion of households which save – seem to be exclusively driven by the corresponding increase in the proportion of households that spend 80% or less than income.

Understanding the relative effects of different socio-economic factors on the probability of falling into spender or saver categories is of key policy importance. Table 1 gives the sample means of key variables for various categories of spending and for the sample end points of 2005 and 2009. Sample means are very similar across categories. Individuals with less than university education (college, high school, no high school) form the majority.

The proportion of spender households increases with age and starts dropping at the age of 50-59 as retirement begins. Households with less than $50,000 of income spend significantly more than income. Less than 30% of spender households own a dwelling with no mortgage while from 30%-36% possess a dwelling with mortgage. Most families live in either a detached home or apartment.

Table 1. Sample means of Spender Households

NAME	Cons>105% of Income 2005	Cons>105% of Income 2009	Cons> 110% of Income 2005	Cons >110% of Income 2009	Cons> 120% of Income 2005	Cons>120% of Income 2009
No High School	0.212	0.213	0.212	0.209	0.200	0.208
At least High School	0.265	0.26165	0.26345	0.26296	0.27221	0.27115
At least College	0.30453	0.28165	0.30179	0.2849	0.30088	0.27256
At least University	0.159	0.17584	0.16162	0.17361	0.16761	0.17719
Post Graduate	5.95E-02	6.79E-02	6.14E-02	6.90E-02	5.89E-02	7.11E-02
20 to 29 years	0.15	0.14	0.16	0.14	0.17	0.14
30 to 39 years	0.17757	0.17847	0.17398	0.17711	0.16226	0.17111
40 to 49 years	0.22001	0.19874	0.21336	0.19523	0.21078	0.1842
50 to 59 years	0.19052	0.17926	0.18965	0.17297	0.18872	0.16924
60 to 69 years	0.1348	0.16425	0.13729	0.16948	0.14272	0.17859
70 years and up	0.12491	0.14399	0.12389	0.14436	0.12224	0.15241
Household income less than $30,000	0.40798	0.36773	0.42878	0.37997	0.4729	0.42496
Household income from $30,000 to $50,000	0.2408	0.23243	0.23995	0.23879	0.2344	0.24357
Household income from $50,000 to $75,000	0.17451	0.19531	0.17275	0.193	0.16163	0.17204
Household income from $75,000 to $100,000	0.10361	0.11635	9.38E-02	0.11002	7.91E-02	9.21E-02
Household income from $100,000 to $150,000	5.47E-02	5.95E-02	5.01E-02	5.41E-02	4.06E-02	4.68E-02
Household income from $150,000 to $200,000	1.23E-02	2.05E-02	9.07E-03	1.69E-02	7.56E-03	1.40E-02
Household income greater than $200,000	6.14E-03	8.16E-03	5.57E-03	7.31E-03	3.78E-03	6.55E-03
Own dwelling with no mortgage	0.28102	0.27718	0.27747	0.27599	0.29332	0.29687
Own dwelling with mortgage	0.3681	0.32877	0.36302	0.32401	0.35444	0.30528
rent dwelling	0.35089	0.39405	0.35951	0.4	0.35224	0.39785
Detached House	0.59492	0.56699	0.5871	0.56566	0.58538	0.55774
Semi Detached House	3.02E-02	4.21E-02	2.97E-02	4.13E-02	2.93E-02	3.83E-02
Row, Terrace House	5.45E-02	5.74E-02	5.40E-02	5.47E-02	5.45E-02	5.24E-02
Duplex	4.64E-02	4.50E-02	4.84E-02	4.55E-02	4.57E-02	4.72E-02

Apartment	0.23773	0.2577	0.24325	0.26296	0.24701	0.27349
Mobile	3.63E-02	3.08E-02	3.75E-02	2.99E-02	3.81E-02	3.09E-02
Debt Amount or Savings	16314		17166	18769	22189	23653

Table 2 reveals some differences between spender and saver households, with respect to socio-economic profiles. Interestingly, education profiles are similar relative to spender households. However, the proportion of households aged 20-29 is much higher. The proportion of households that own their dwelling and have no mortgage, increases quite significantly with the magnitude of savings, while the proportion of households that own a dwelling with a mortgage correspondingly declines. Similarly, the proportion that live in apartments declines with the amount of savings.

Table 2. Sample means of Saver Households

	Income= Consumption 2005	Income= Consumption 2009	Consumption < 95% of Income 2005	Consumption < 95% of Income 2009	Consumption < 80% of Income 2005	Consumption < 80% of Income 2009
No High School	0.223	0.235	0.217	0.219	0.202	0.213
At least High School	0.26316	0.23623	0.23579	0.22767	0.22376	0.20457
At least College	0.29323	0.28722	0.28227	0.26291	0.27729	0.26362
At least University	0.15646	0.16706	0.18519	0.19714	0.20284	0.20956
Post Graduate	6.34E-02	7.39E-02	8.02E-02	9.35E-02	9.41E-02	0.10894
20 to 29 years	0.253	0..251	0.262	0.258	0.269	0.266
30 to 39 years	0.18045	0.17702	0.16308	0.15002	0.14513	0.1264
40 to 49 years	0.24705	0.23916	0.22329	0.20147	0.20703	0.17464
50 to 59 years	0.2005	0.18875	0.22055	0.22126	0.23839	0.24823
60 to 69 years	0.11887	0.1442	0.13153	0.16962	0.14053	0.18462
70 years and up	0.14071	0.14478	0.18229	0.16698	0.20744	0.1896
Household income less than $30,000	0.3029	0.26905	0.19906	0.14681	0.13216	0.1106
Household income from $30,000 to $50,000	0.22091	0.20633	0.19479	0.17998	0.18068	0.16133
Household income from $50,000 to $75,000	0.20695	0.19637	0.20302	0.20788	0.18611	0.21289
Household income from $75,000 to $100,000	0.14501	0.15592	0.17756	0.18093	0.18946	0.16798
Household income from $100,000 to $150,000	9.31E-02	0.11958	0.13839	0.16547	0.179	0.18753
Household income from $150,000 to $200,000	1.72E-02	3.17E-02	5.08E-02	6.62E-02	6.90E-02	8.19E-02

Household income greater than $200,000	1.40E-02	2.11E-02	3.64E-02	5.28E-02	6.36E-02	7.78E-02
Own dwelling with no mortgage	0.29825	0.26905	0.43439	0.41783	0.55291	0.51227
Own dwelling with mortgage	0.36914	0.35756	0.32419	0.31021	0.27687	0.26445
rent dwelling	0.33262	0.37339	0.24143	0.27196	0.17022	0.22328
Detached House	0.61976	0.60961	0.67124	0.67414	0.72355	0.70644
Semi Detached House	2.97E-02	3.46E-02	3.55E-02	3.79E-02	3.39E-02	3.28E-02
Row, Terrace House	4.83E-02	6.98E-02	4.60E-02	5.22E-02	3.93E-02	4.49E-02
Duplex	5.05E-02	4.10E-02	3.84E-02	3.34E-02	3.47E-02	2.79E-02
Apartment	0.22127	0.2163	0.17665	0.17697	0.1376	0.16299
Mobile	3.04E-02	2.87E-02	3.22E-02	2.54E-02	3.09E-02	2.49E-02
Debt Amount or Savings			16509	20704	30372	33730

Distribution of Debt Households by Income

Empirical results are quite similar across different classifications of debt. The majority of in debt households are those with less than $50,000 in income. However, the proportion of in debt households with less than $30,000 in income has declined over time, with an increase in the proportion of such households with income from $50,000-$75,000 and $75,000-$100,000.

Figure 6: Households Spending >105% of Income

Figure 7: Household Spending > 110% of Income

Figure 8: Household Spending > 120% of Income
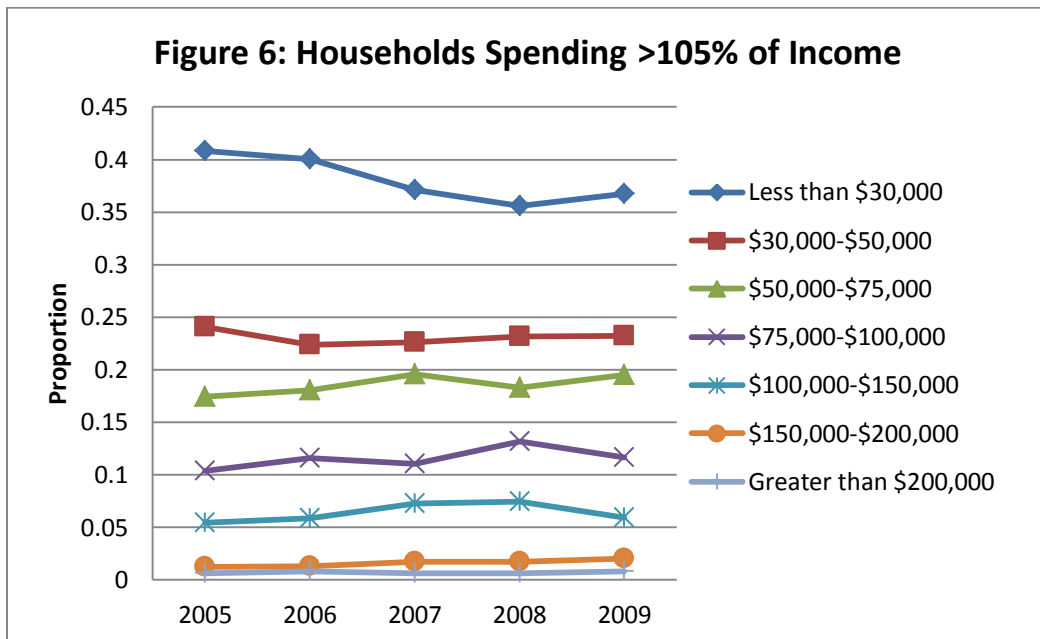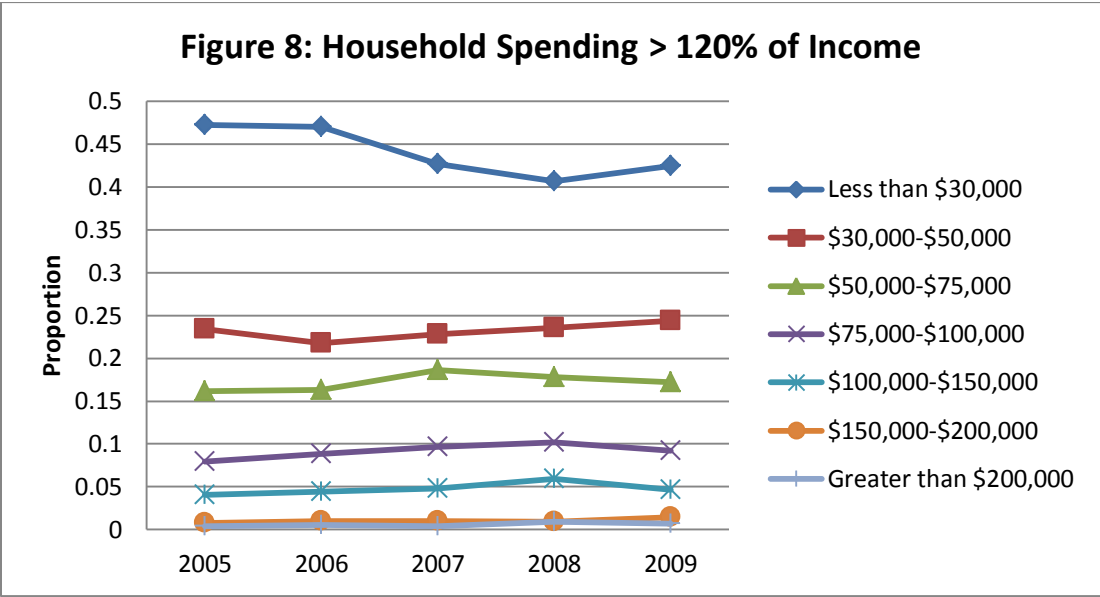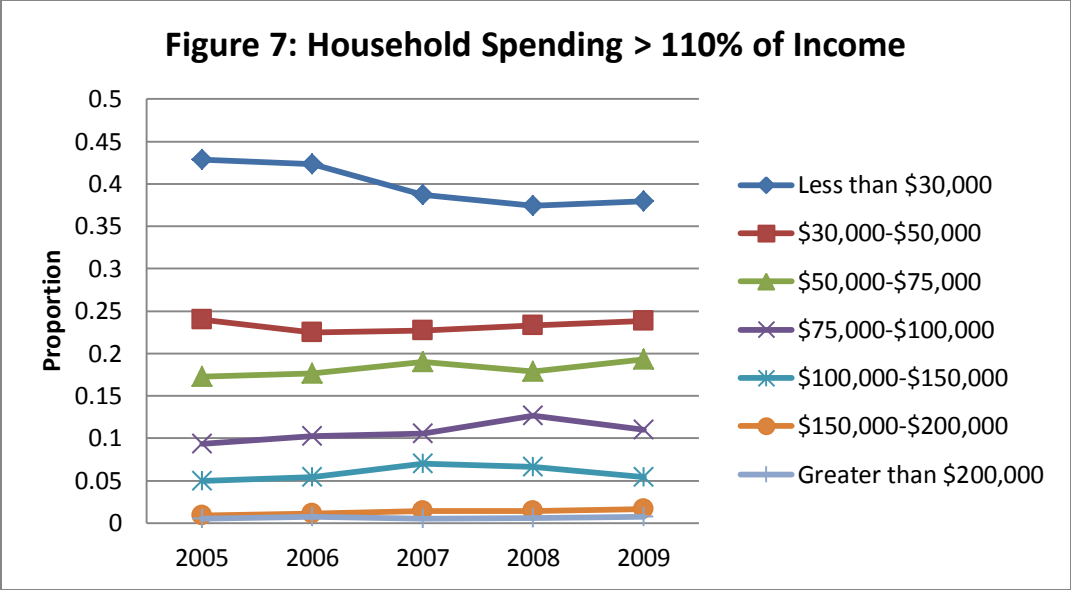
Proportion of Households in Debt by Income Level

The below figures give the proportion of in debt households by various income levels. A significant portion of households earning less than $50,000 in annual income spend more than what they earn. There are limited differences between 2005 and 2009 figures.

Figure 9: Less than $30,000 in Income

Figure 10: Between $30,000 to $50,000 in Income
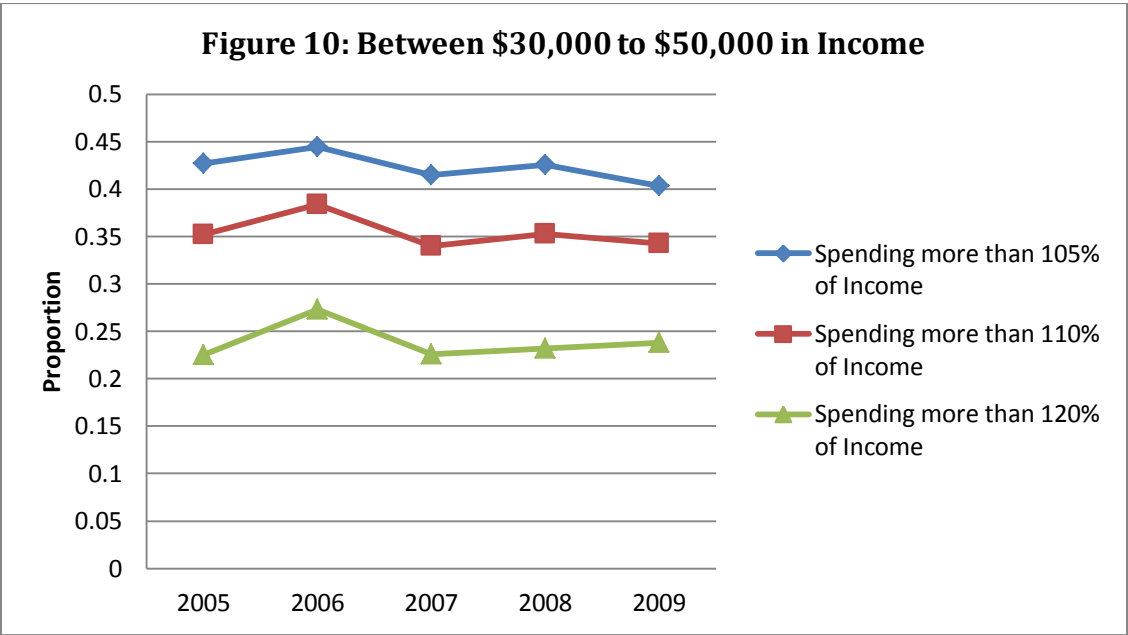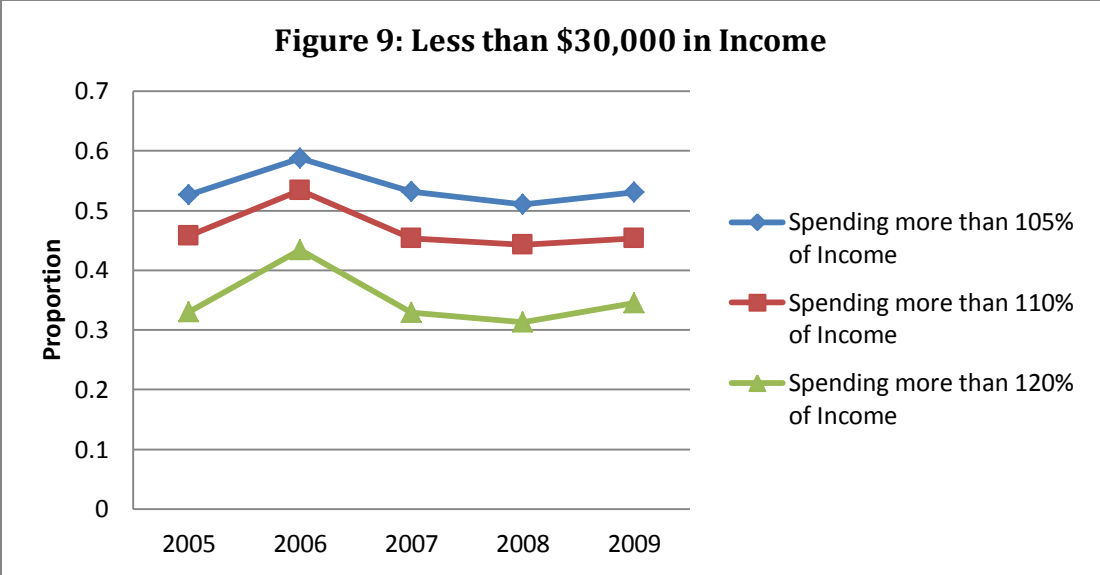
However, as the below figures indicate, the proportion of more well off households that spend more than 110% of their income is certainly not trivial. The proportion of households earning from $50,000 to $75,000 is either at or a bit less than 30%, while the corresponding statistic for households earning from $75,000 to $100,000 ranges from 30% to 25%.

Figure 11: Between $50,000 to $75,000 in Income

Figure 12: Between $75,000 to $100,000 in Income
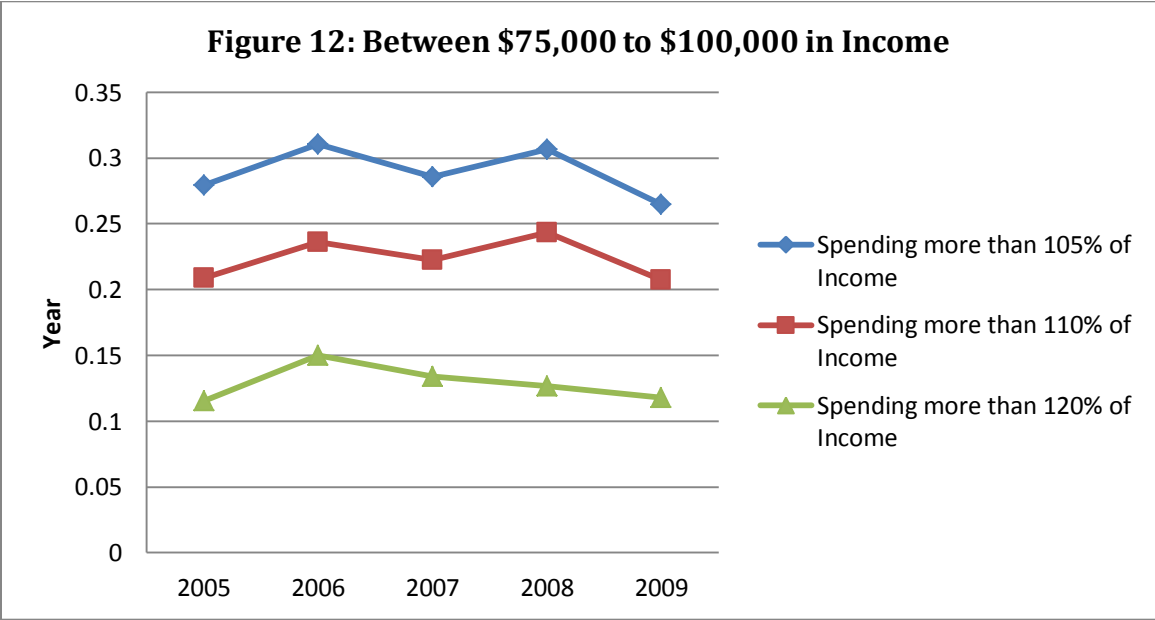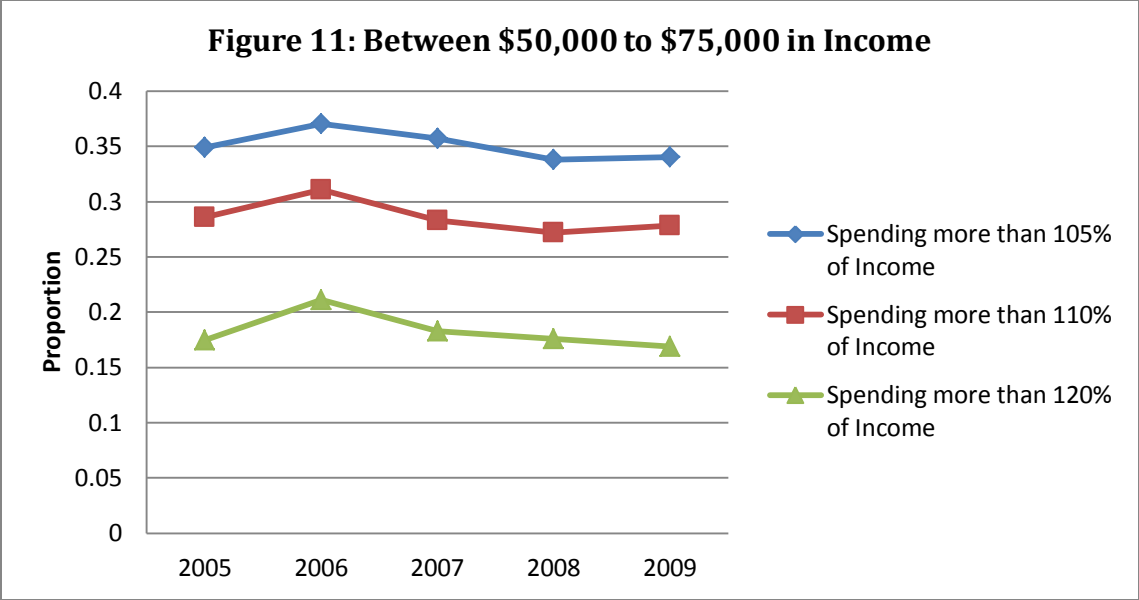
The corresponding proportion of households that earn more than $100,000 in income and spend more than 110% of income is lower, but non-trivial. The proportion of such households that earn between $100,000 to $150,000, ranges from 13% to 18%, while the corresponding range for households earning more than $150,000 in income is 9%-12%.

Figure 13: Between $100,000 to $150,000 in Income

- Spending more than 105% of Income
- Spending more than 110% of Income
- Spending more than 120% of Income

Figure 14: Greater than $150,000 in Income

- Spending more than 105% of Income
- Spending more than 110% of Income
- Spending more than 120% of Income

Average Debt Levels
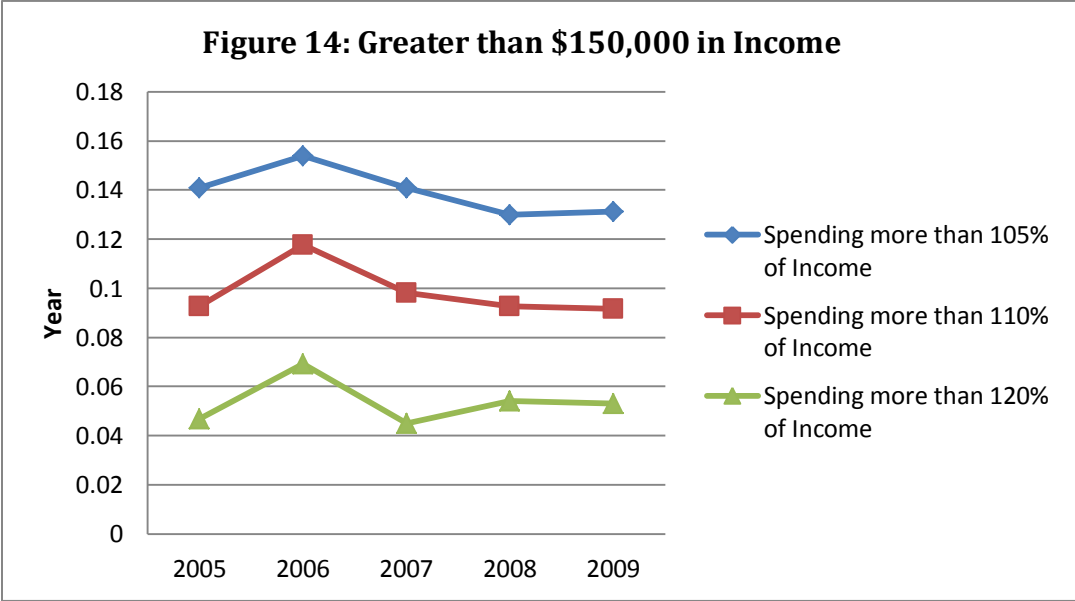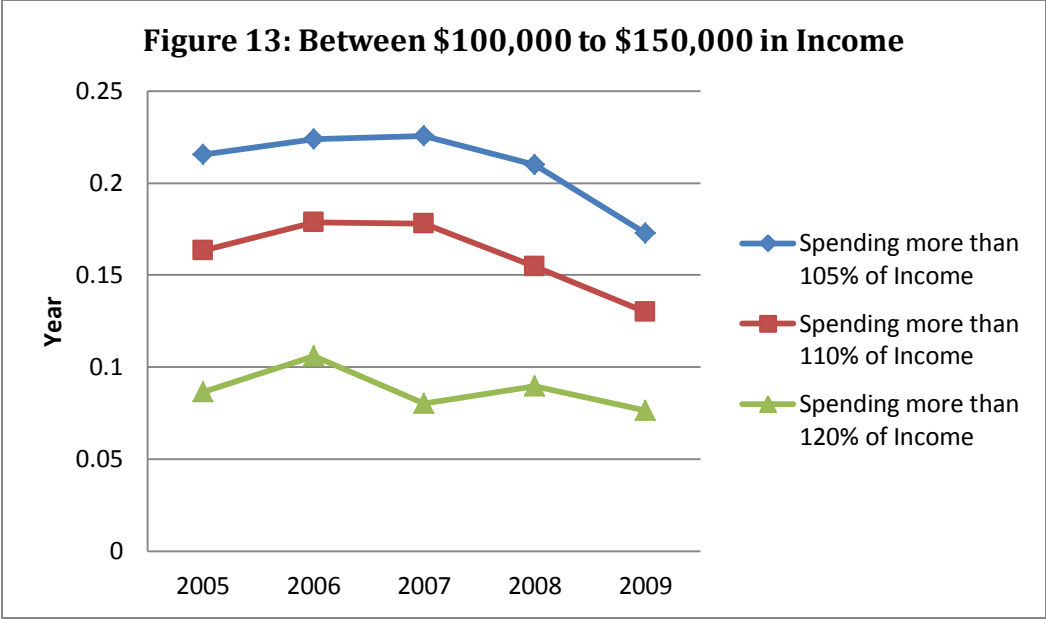
Figure 15: Average Debt Levels
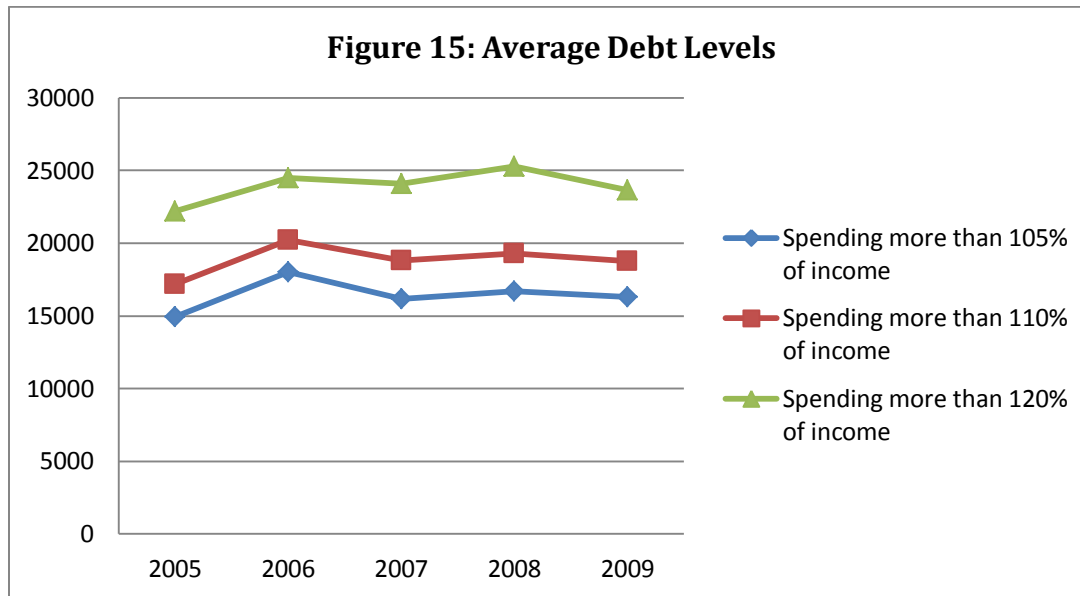
The above figure documents average debt levels among households who report spending in excess of income – calculated from the Surveys of Household Spending. We define debt as consisting of the difference between total household spending and income. There has been a noticeable increase in average debt levels over time, ranging from $15,000 to $23,000. It is important to note that these amounts are rather sizable given that the vast majority of in debt households earn less than $50,000.

Changes to Nominal Income over time

Certainly, spending trends among lower income households might be attributable to changes in income among these specific households over time. To evaluate this hypothesis, figures 16 and 17 chart movements in the composition of households within specific income brackets and average income over time. While there has been a drop in the proportion of households earning $30,000, the decline is not very large and sees spread out among the proportion of other upper income households. Further, as detailed in figure 17 there has not been a significant increase in average income (within income groups) over time.

Figure 16: Distribution of Income
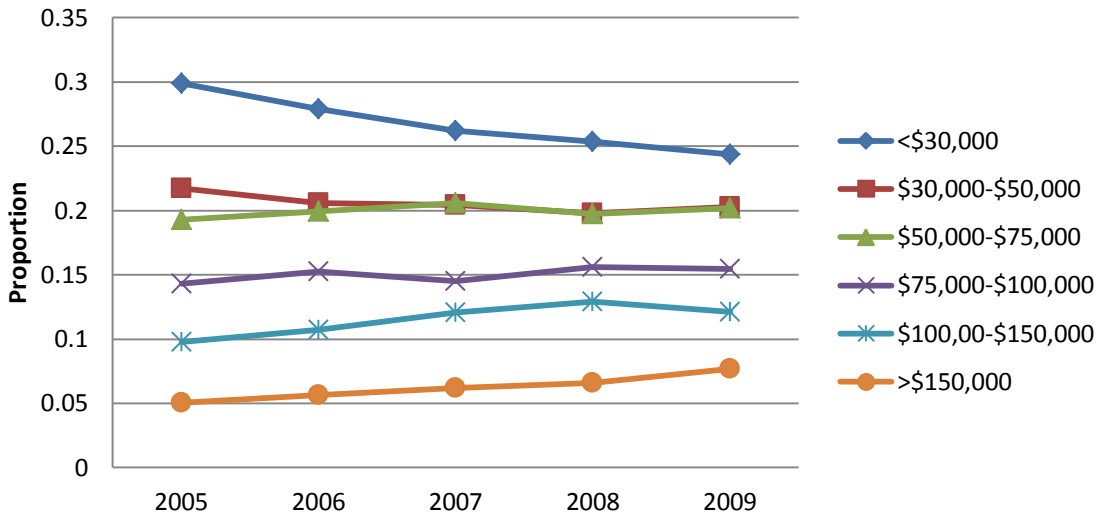
Figure 17: Average Household Income
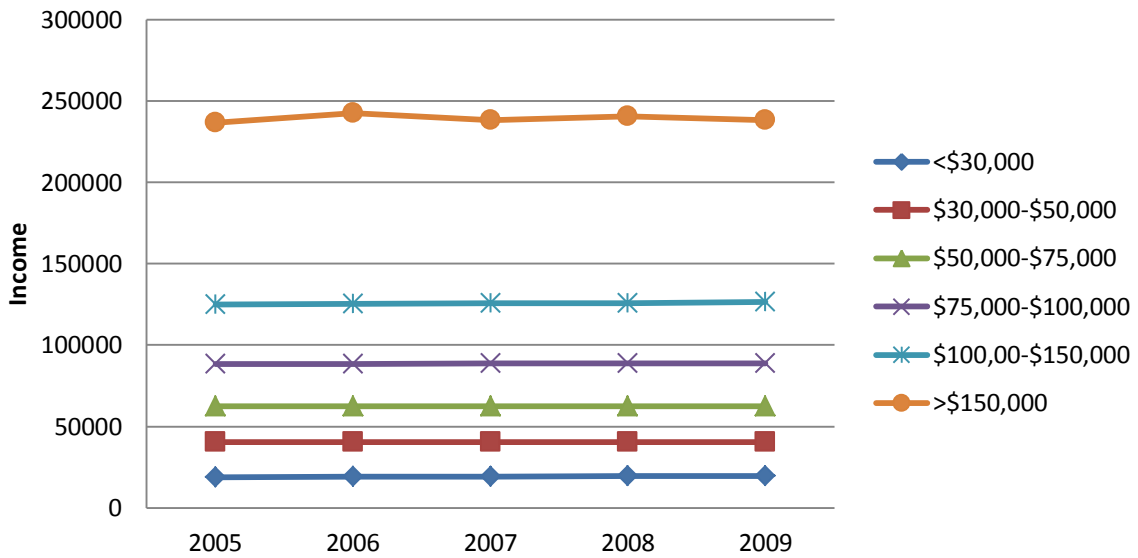
Trends in Specific Items 2005- 2009

The broad items that we study are: Household Operations (H001), Education (M301), Food (F001), Shelter (G001), Clothing (J001), Household Furnishings & Equipment (I001), Transport (K001), Health Expenditures (L101), Recreational (M101), Tobacco and Alcohol (N101), Personal Taxes (O201), and Personal Insurance & Pension (O301). Almost all households report positive expenditures with respect to these items.[9]

We also analyze summary statistics with respect to a variety of sub-items. For example, we study trends in food expenditures in stores versus restaurants. Total household operations cover a wide array of sub-items and we specifically analyze trends in an important policy oriented item – child care. With respect to shelter, we investigate movements in mortgage and rent payments. Similarly, we report key constituents of total transport expenditures – specifically expenditures on gasoline and operation of owned and leased vehicles. Operation of owned and leased vehicles consist of spending on accessories, maintenance of used/lease vehicles, vehicle insurance premiums, and gasoline expenditures.

The data on personal taxes captures: "….income taxes paid in the reference year for that year and on income from previous years if applicable. Also included are other personal taxes (e.g., gift taxes) minus income tax refunds received in the reference year, except for federal Child Tax Benefits, Goods and Services Tax Credits and provincial tax credits. These tax credits are included in "average household income before taxes".

Expenditures on insurance and pension funds payments include: "…payments for life insurance, annuities, employment insurance, public and private pension plans, and similar items." We break up the expenditures of this category in order to assess the magnitude of contributions to pension.

Tuition fee expenditures are also studied in isolation from other education items.

Finally, in order to obtain the proportion of money spent on each item, the specific amount of expenditure was divided by total expenditures (TOTEXPEN from the survey) which includes expenses incurred during the survey year for food (F001), shelter (G001), household operations (H001), household furnishings and equipment (I001), clothing (J001), transportation (K001), health care (L101), personal care (L201), recreation (M101), reading materials (M201), education (M301), tobacco products and alcoholic beverages (N101), games of chance (N201), and a miscellaneous group of items (O101), personal taxes (O201), personal insurance payments and pension contributions (O301), and gifts of money and contributions (O401) to persons outside the household.

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[9] The identifiers in the parentheses are the actual codes from the Surveys of Household Spending.

The figures below give summary means for expenditures on our broad categories by sample wave.

Figure 18: Distribution of Spending 2005

Figure 19: Distribution of Spending 2006

Figure 20: Distribution of Spending 2007

Figure 21: Distribution of Spending 2008

Figure 22: Distribution of Spending 2009
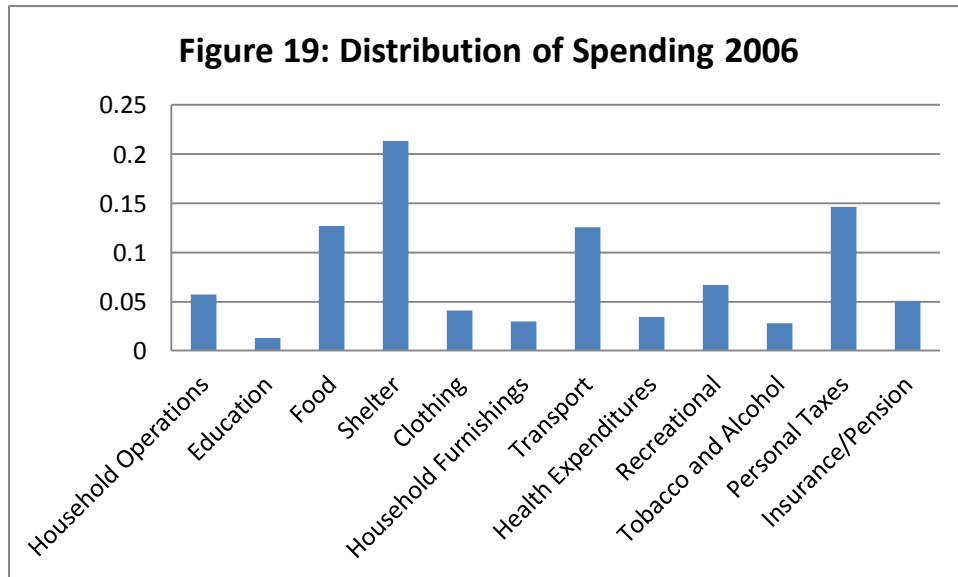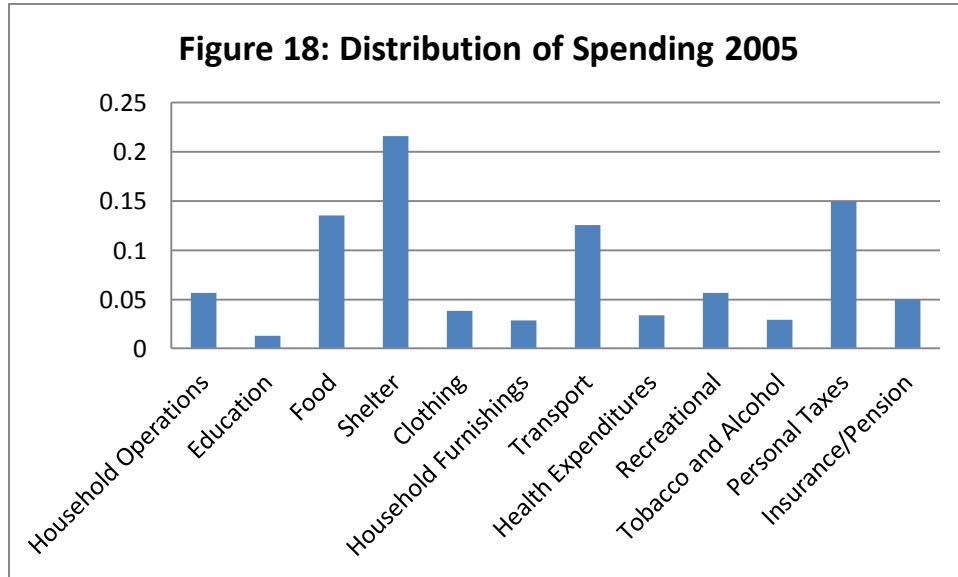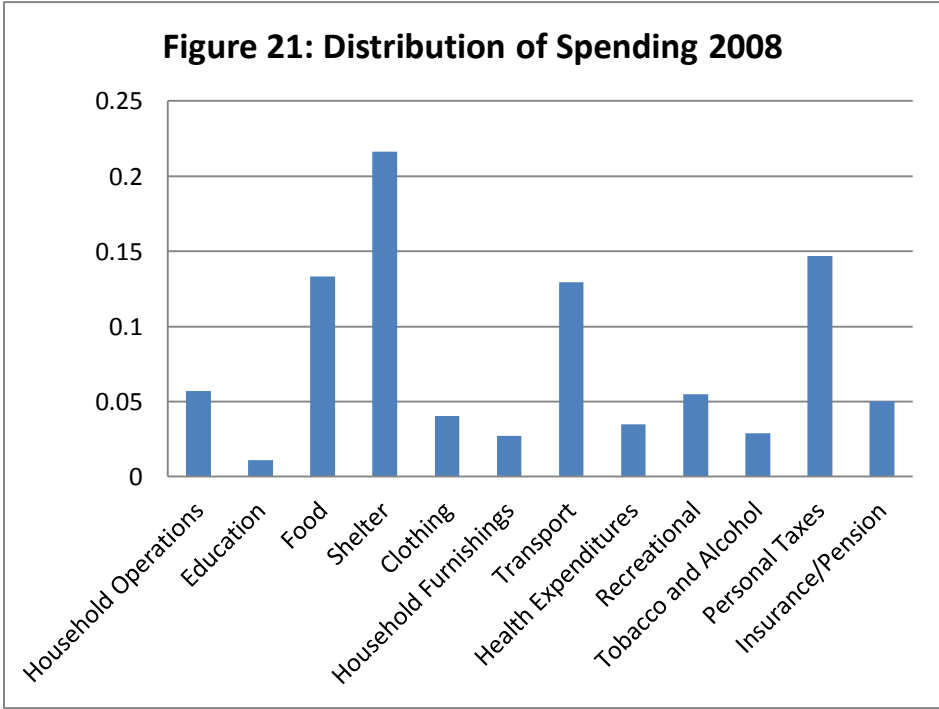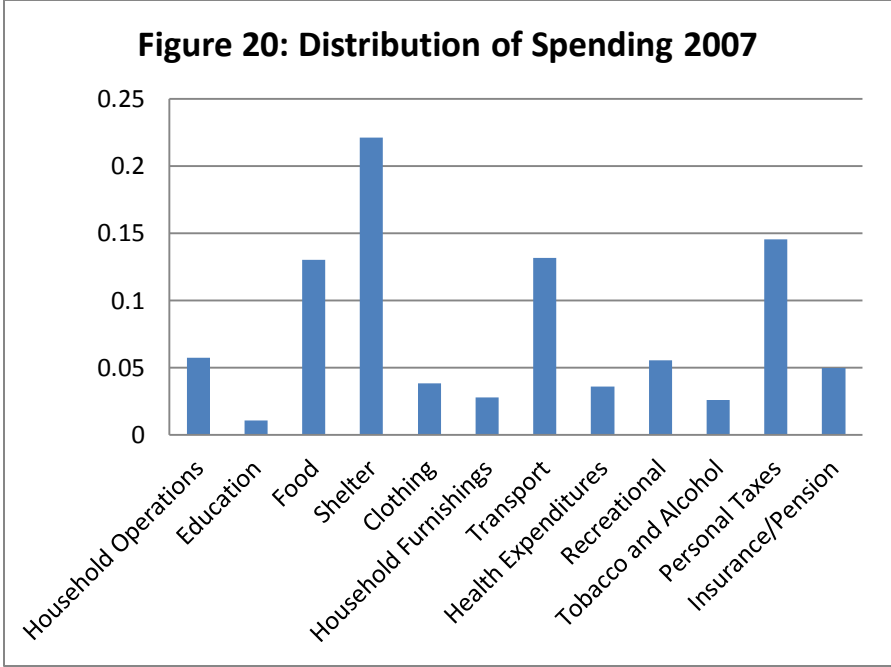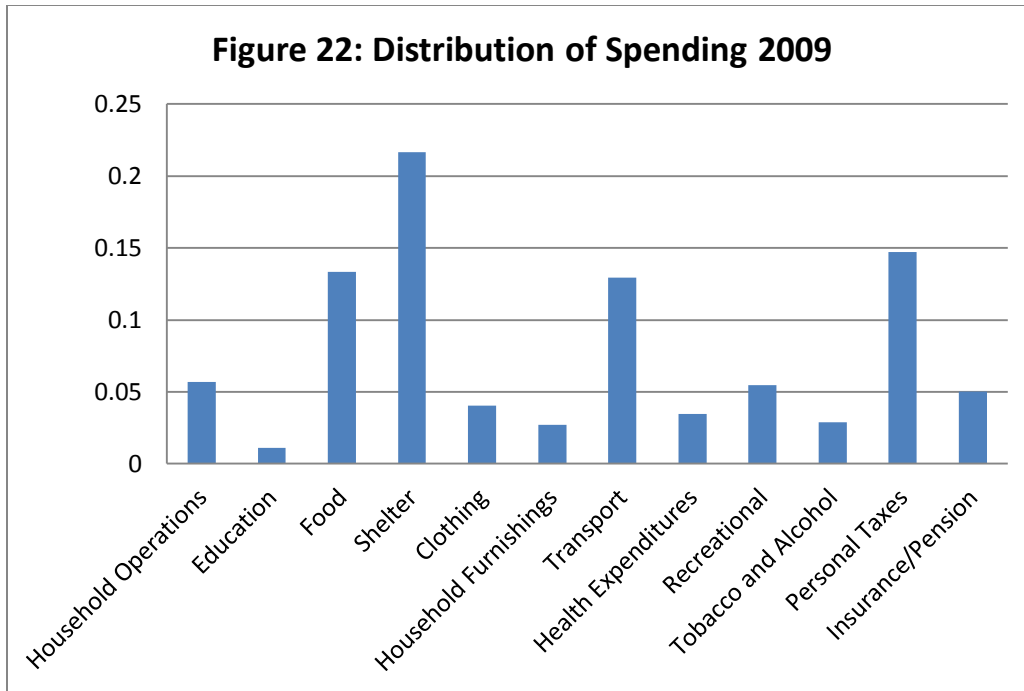
The above figures demonstrate that from a broad level, there has been little change in the distribution of spending, across all households. In almost each year the bulk of spending (a little above 60%) goes to food, shelter, transport, and personal taxes.

Trends in Item Specific Expenditures by Spending Category 2005-2009

We now present evidence on trends in item specific expenditures over the sample period. In order to appreciate differences across households, each chart presents the time-series of expenditures for each category of household spending. Households are categorized as income = consumption, savers (households spending less than 80% or less than 95% of income), and spenders (households spending more than 105%, 110%, or more than 120% of income).

Figure 23 offers trends in Household Operations, which constitute between 5% anf 7% of expenditures across all households. Household operations consist of expenditures on communications, child care, and cleaning supplies. The steepest increase is visible for households who spend what they earn. However, households that spend more than what they earn also have increased their expenditures on Household Operations over time. In contrast, corresponding expenditures by "saver" households are more flat.

Figure 23: Household Operations
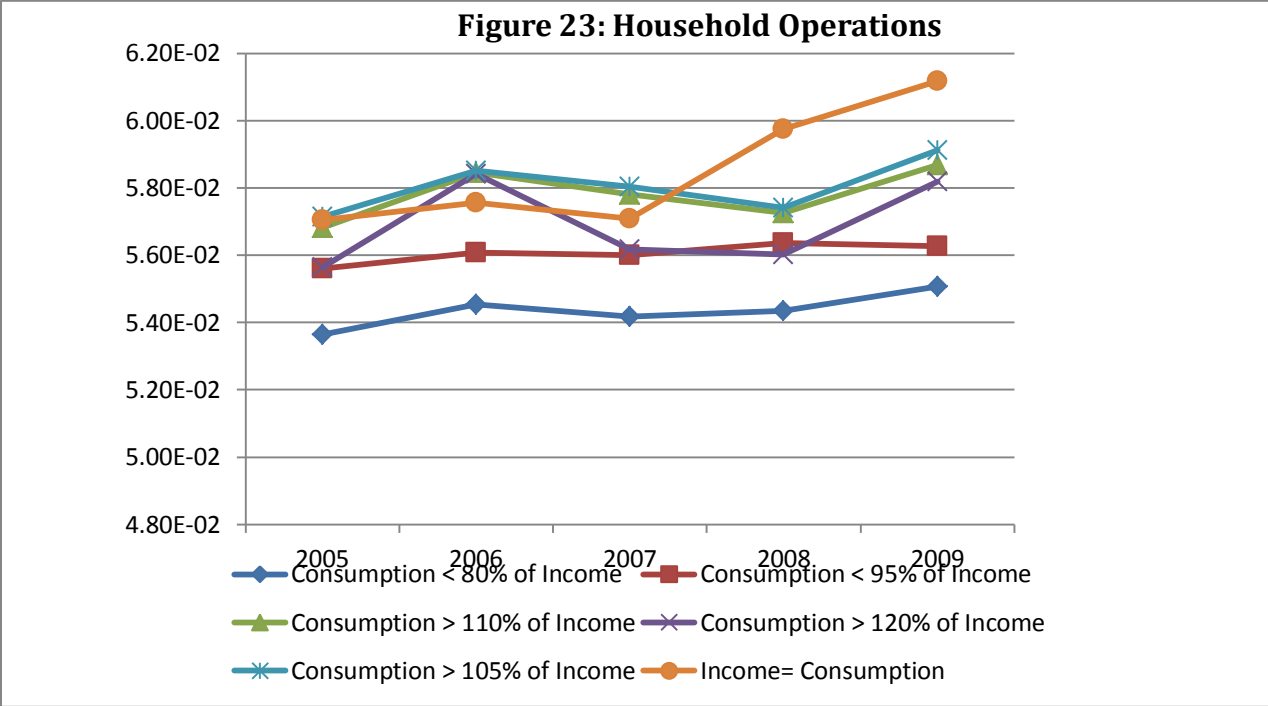
The natural question is then – what items are driving these trends? As a test, figure 24 (below) details trends in child care expenditures. The mean proportion of expenditure is relatively low – ranging from 0.3% to 0.5% Households that spend less than what they earn (spend less than 95% or 80% of their income) spend a lower proportion of their income on child care, relative to households that spend more than what they earn. Clearly, child care expenditures are not responsible for the observed movements in household operations. Other types of household operations expenditures are expenses related to the purchase, installation, and operation of all telephone and internet services, on-line services (for example, subscriptions to Internet-based stock trading), postal services, pet expenses, household cleaning supplies, paper and plastic supplies, and garden supplies and services.

Figure 24: Child Care

Legend: Consumption < 80% of Income; Consumption < 95% of Income; Consumption > 110% of Income; Consumption > 120% of Income; Consumption > 105% of Income; Income= Consumption

Figure 25: Education
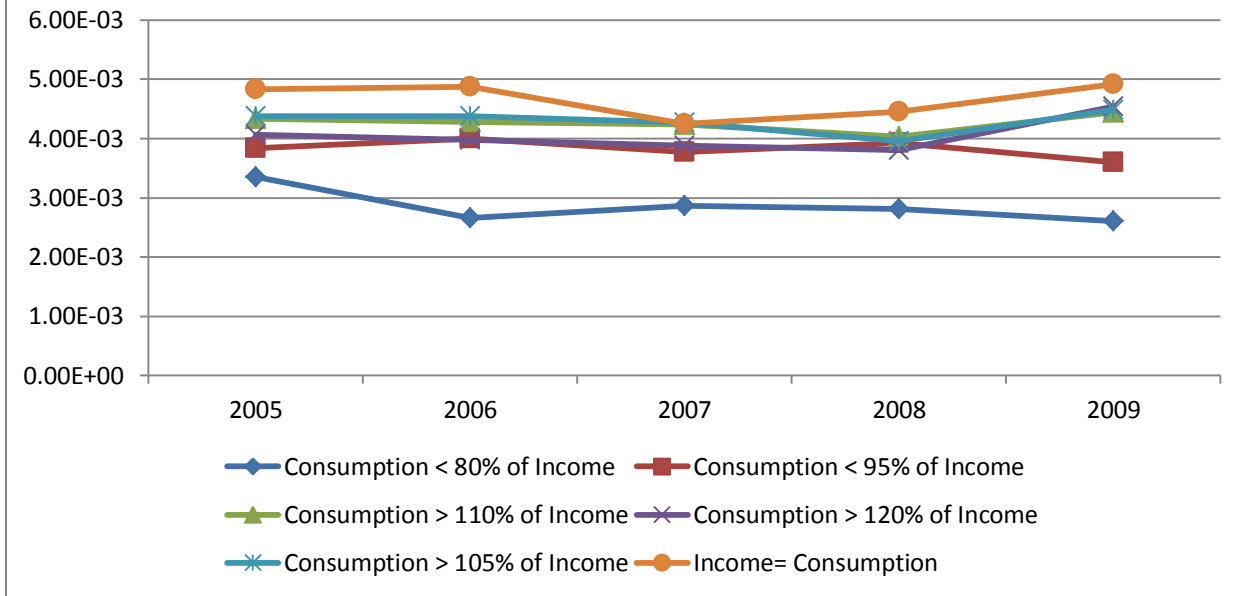
Legend: Consumption < 80% of Income; Consumption < 95% of Income; Consumption > 110% of Income; Consumption > 120% of Income; Consumption > 105% of Income; Income= Consumption
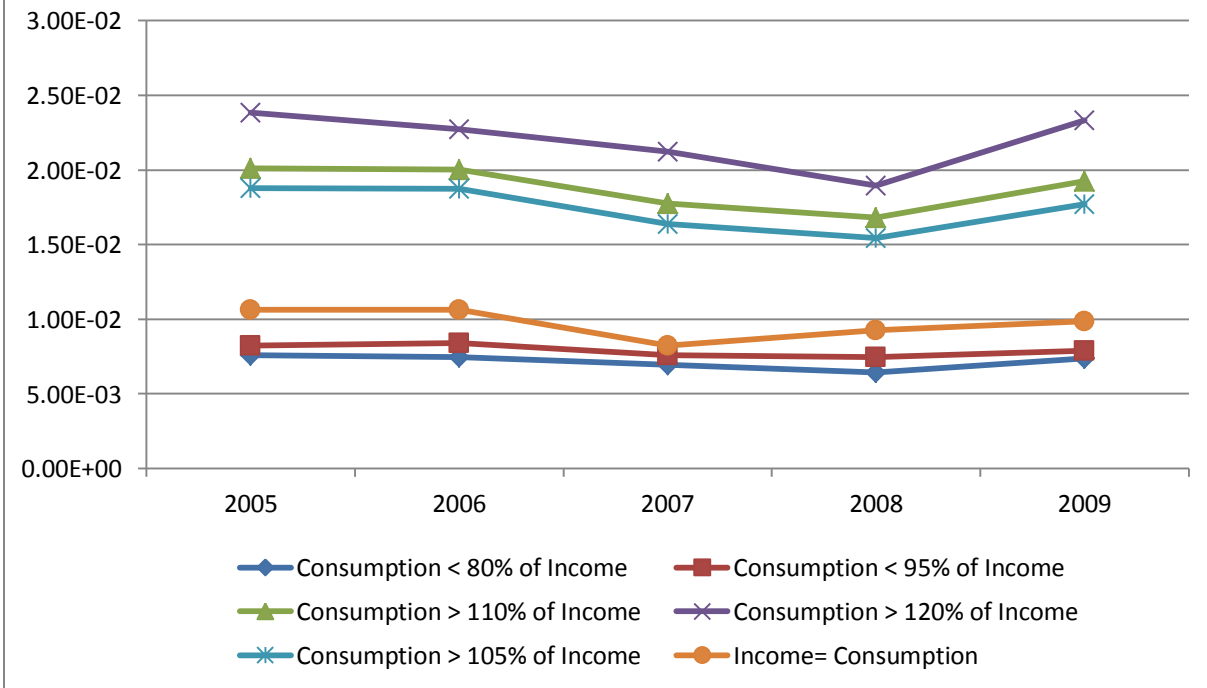
Expenditures on education in figure 25 (above) are relatively low for most households, and lowest for saver households. Figure 26 (below) suggests that the primary driver is tuition fees.

Figure 26: Tuition

Consumption < 80% of Income — Consumption < 95% of Income
Consumption > 110% of Income — Consumption > 120% of Income
Consumption > 105% of Income — Income= Consumption

Figure 27: Food

Consumption < 80% of Income — Consumption < 95% of Income
Consumption > 110% of Income — Consumption > 120% of Income
Consumption > 105% of Income — Income= Consumption
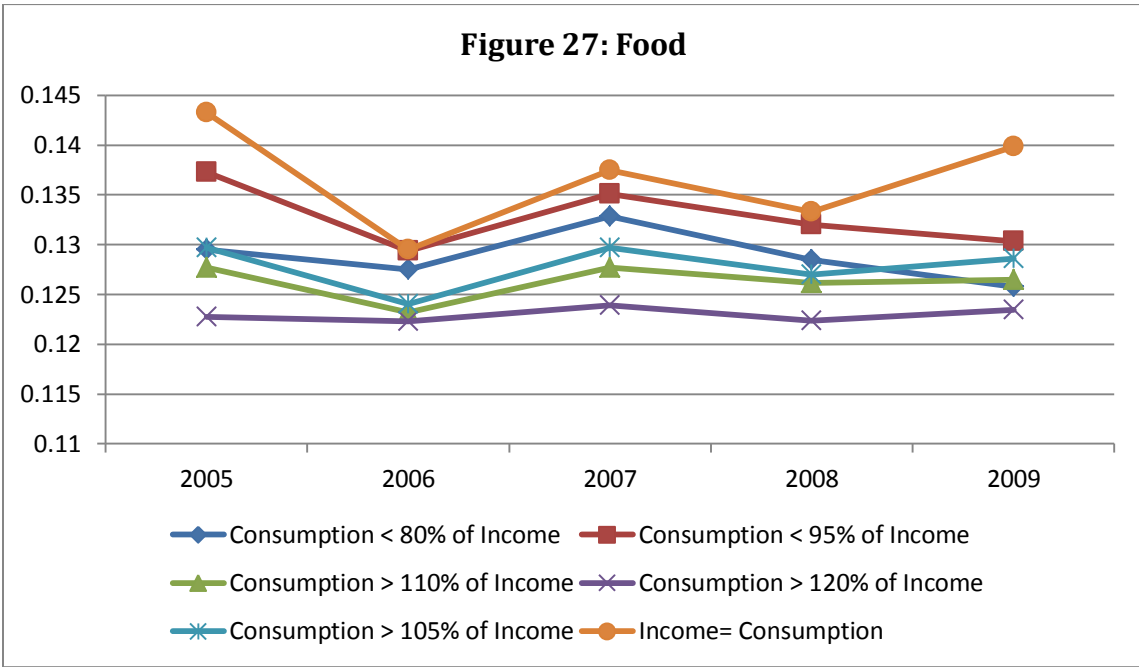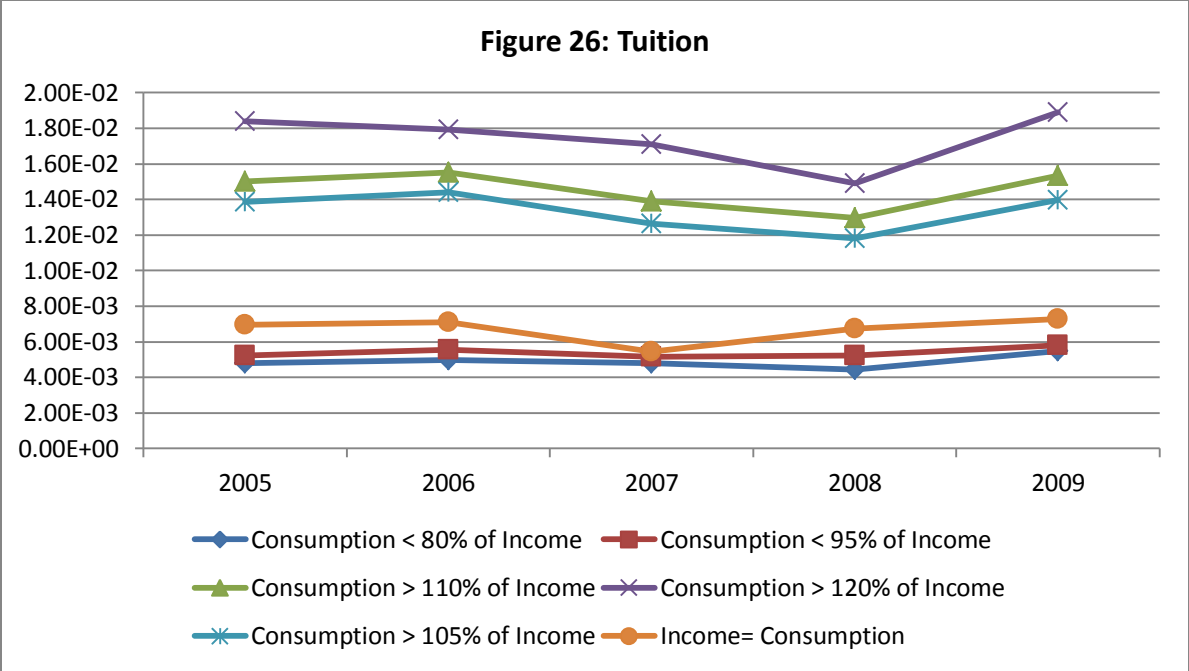
Figure 27 demonstrates that food expenditures are unsurprisingly a significant portion of spending for all households, ranging from 12% to 15%. Interestingly, the saver households spend a greater portion of their income on food then spender households. In fact, the lowest amount of proportionate spending is by the households who spend more than 120%

of income. Figure 28 shows that the most important component of food expenditures is food from stores. However, a bit of the volatility in overall food expenditures may be due to food purchased from restaurants (figure 29).

Figure 28: Food-Stores

Figure 29: Food -Restaurants
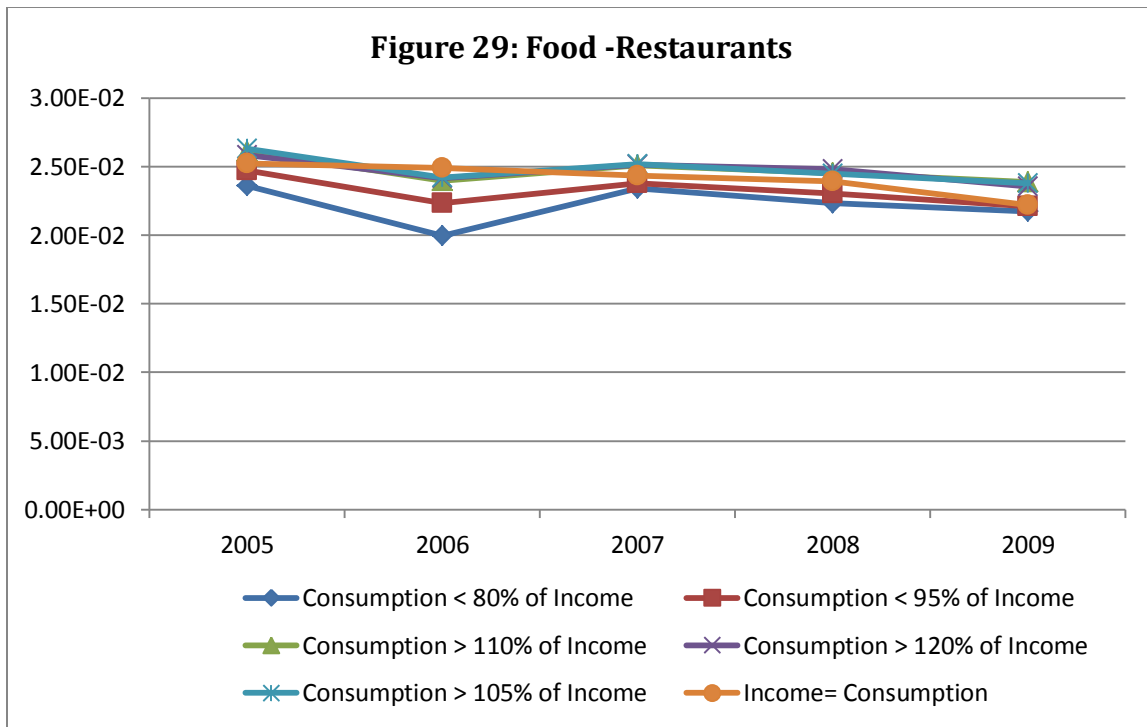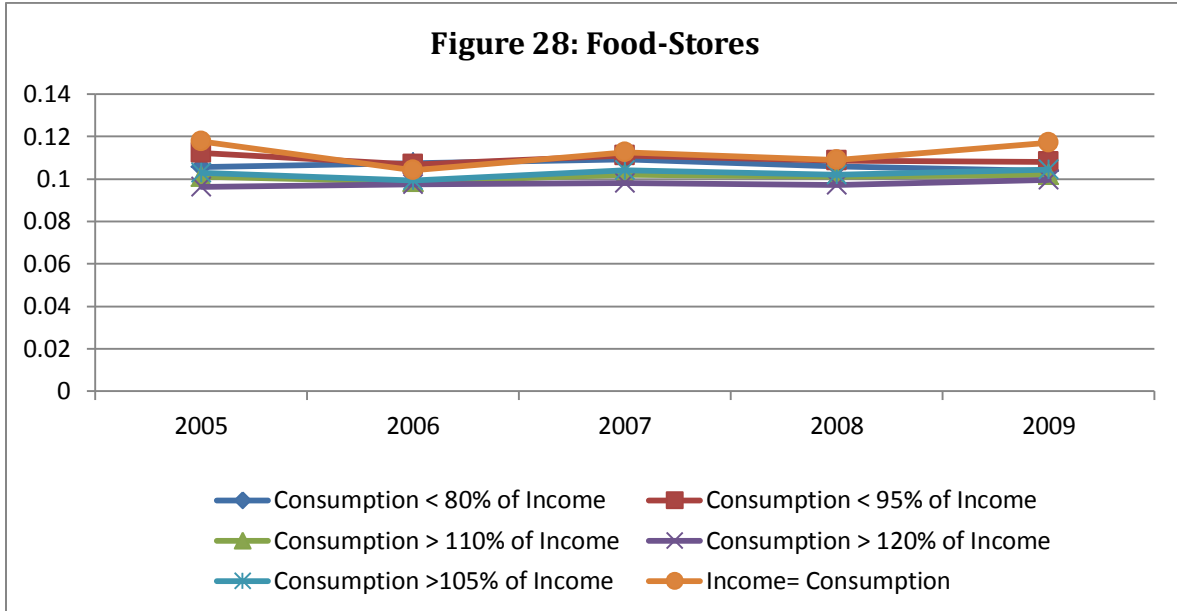
Figure 30 shows that expenditures on clothing are quite clustered together for all households, ranging from 3.5% to 4.5%. The saver households spend somewhat less on clothes than spender households.

Figure 30: Clothing
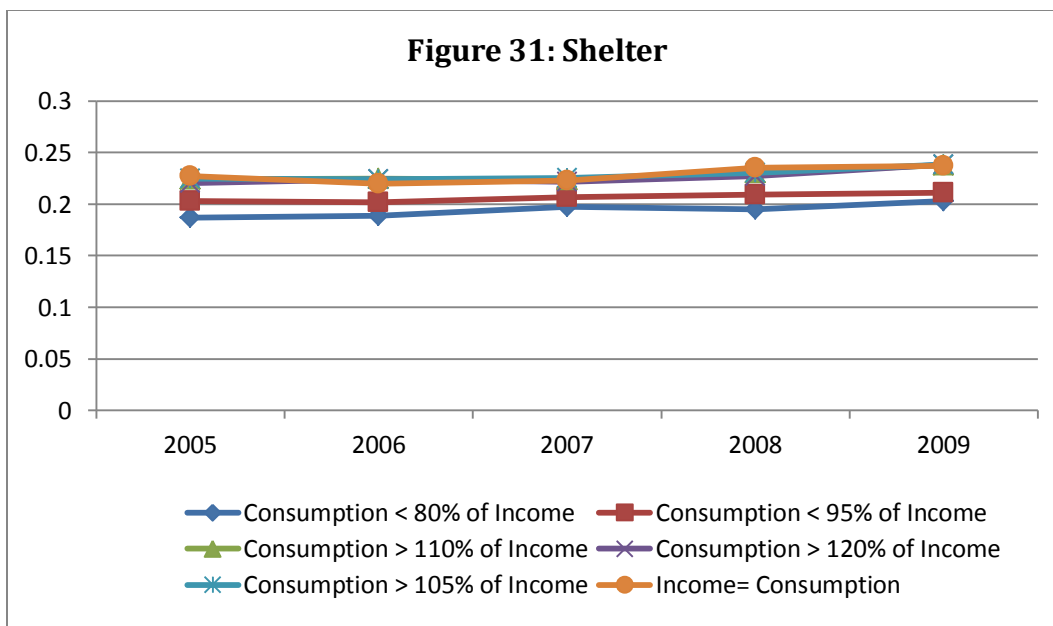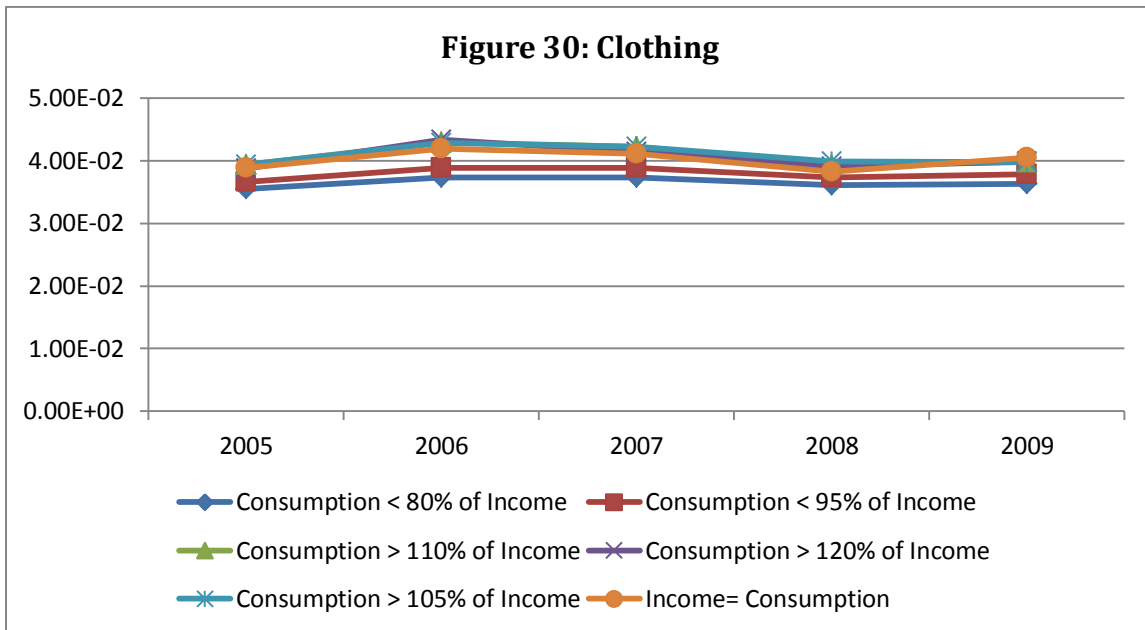
Spending on shelter is significant for all households. Unsurprisingly, the proportion of expenditure by saver households is less than spender households. Spender household

Figure 31: Shelter

allocate more than 20% of their expenditures on shelter while saver households spend less than 20%. Figure 32 confirms that a significant portion of shelter expenditures consists mortgage and rent payments. Other constituents of shelter related expenditures include repairs and maintenance, condominium charges and property taxes, homeowner insurance premiums, and water, fuel, and electricity, and traveller accommodation.

Figure 32: Mortgage or Rent

Figure 33: Household Furnishings
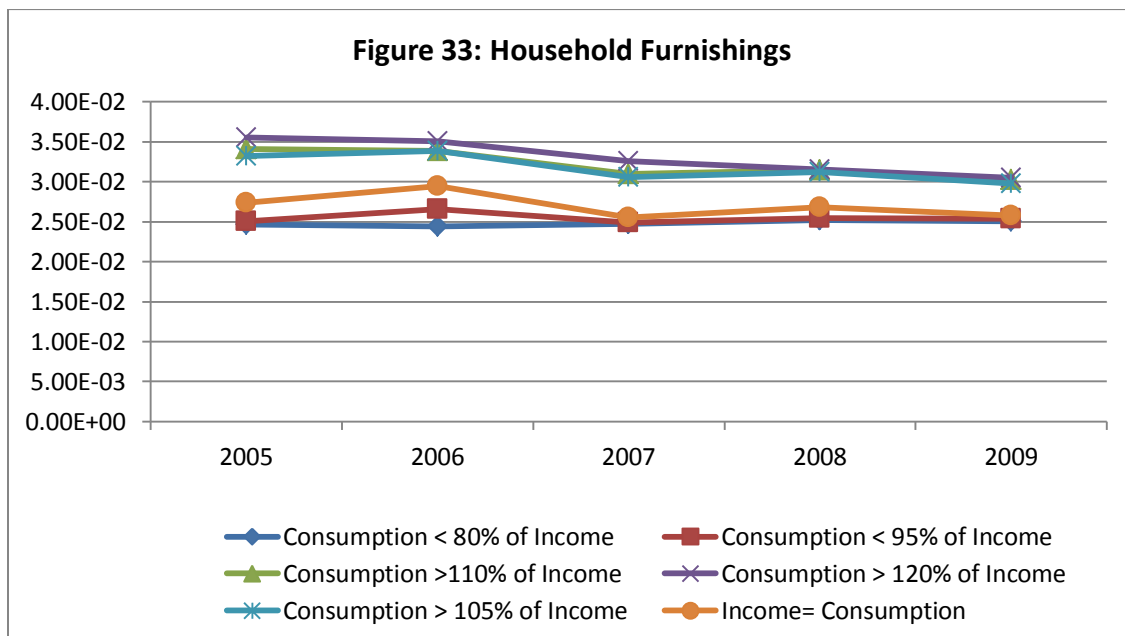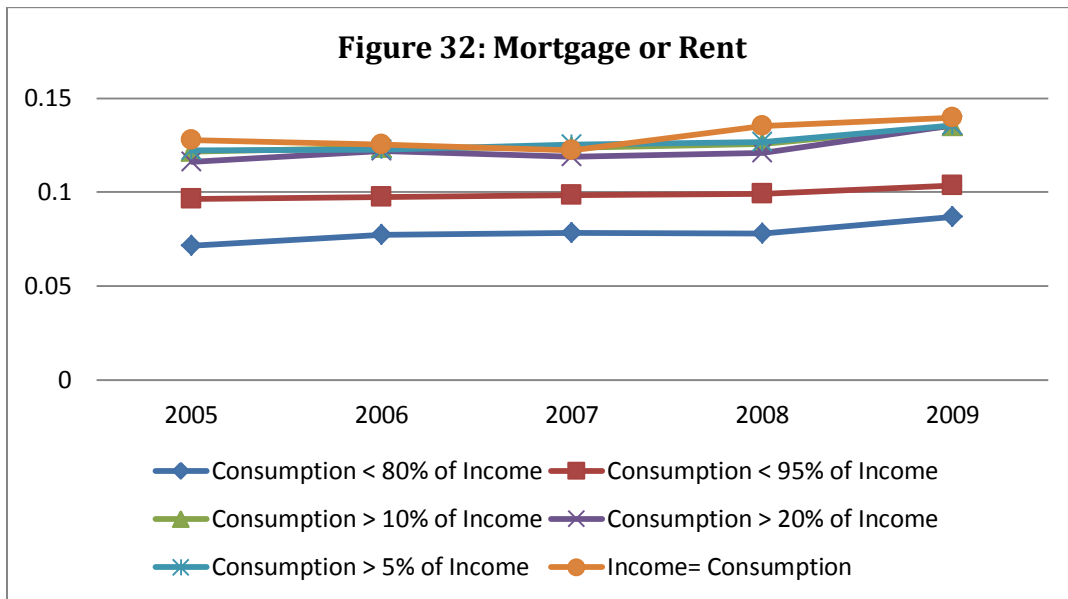
Household Furnishings (above), which consist of all indoor and outdoor furniture and furnishings and household appliances - are a relatively limited component of overall expenditures and especially small for saver households. On the other hand, transport expenditures (figure 34) are high and are between 15% and 19% for spender households and from 9% to 13% for saver households. Further, figure 35 confirms that most of these differences are attributable to corresponding differences in private transport expenditures – consisting of car operation and gasoline expenditures. Expenditures on private transport are significant for all households, but especially so for spender households, ranging from 14% to 17% of total spending. Spending by saver households is lower, but still non-trivial (between 7% and 11% of total expenditures). Figures 36 and 37 offer a further breakup of private transport costs in the form of car operations and gas expenditures.

Figure 34: Transport

Figure 35: Private Transport

Legend:
- Consumption < 80% of Income
- Consumption < 95% of Income
- Consumption > 110% of Income
- Consumption > 120% of Income
- Consumption > 105% of Income
- Income= Consumption

Figure 36: Car Operations

Legend:
- Consumption < 80% of Income
- Consumption < 95% of Income
- Consumption > 110% of Income
- Consumption > 120% of Income
- Consumption > 105% of Income
- Income= Consumption

Figure 37: Gas

Legend:
- Consumption < 80% of Income
- Consumption < 95% of Income
- Consumption > 110% of Income
- Consumption > 120% of Income
- Consumption > 105% of Income
- Income= Consumption

Figure 38 (below) graphs health expenditures over time. Again, on average, health expenditures are a limited portion of total expenditures. However, it is interesting to note the slight upward trend over time. Health expenditures include household expenses on supplies such as first aid kits, bandages, hearing aids, thermometers, wheelchairs and other appliances, medicinal and pharmaceutical products, prescription medicines, physicians' care, eye-care goods and services, dental services, hospital care, health insurance premiums, and personal care.

Figure 38: Health Expenditures

	2005	2006	2007	2008	2009
3.90E-02					
3.80E-02					
3.70E-02					
3.60E-02					
3.50E-02					
3.40E-02					
3.30E-02					
3.20E-02					
3.10E-02					
3.00E-02					

Legend:
- Consumption < 80% of Income
- Consumption < 95% of Income
- Consumption > 110% of Income
- Consumption > 120% of Income
- Consumption > 105% of Income
- Income= Consumption
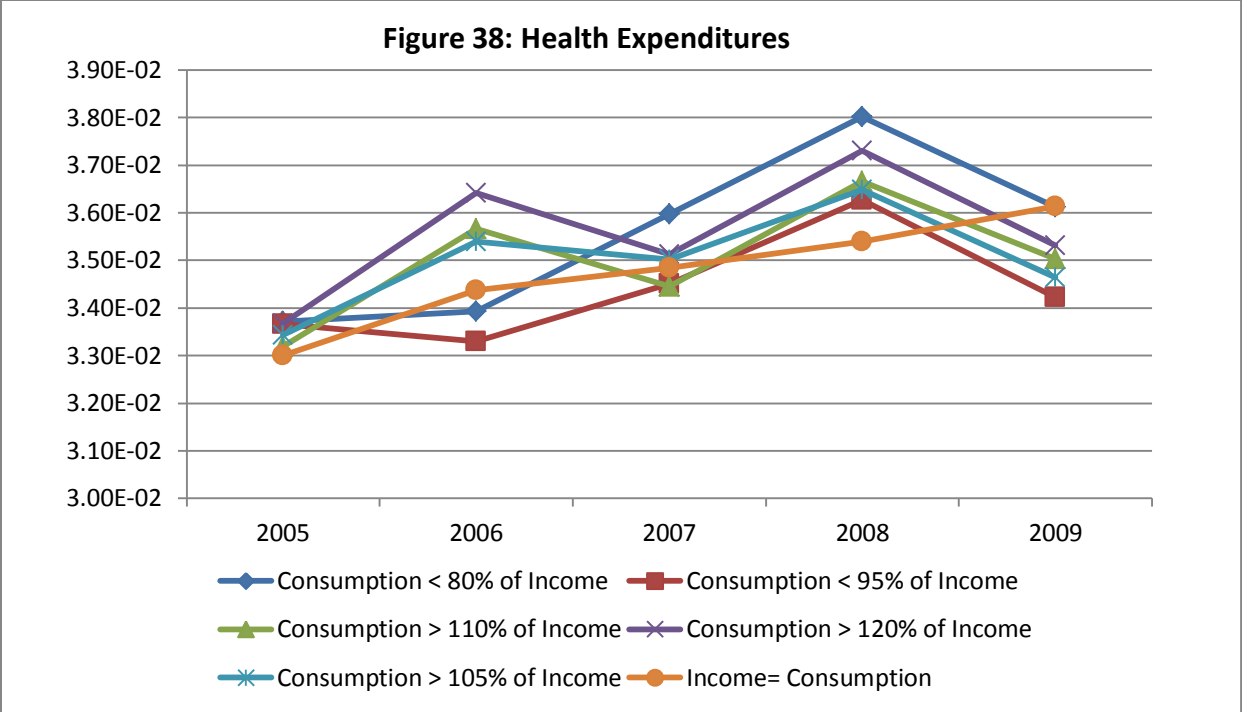
Recreational expenditures is a wide spanning category and includes spending on sports equipment, toys and electronic games, computer equipment and supplies, photographic goods and services, recreational vehicles (such as bicycles), home entertainment equipment and services, admission to movies, live sports events, live arts, cablevision and satellite services, sports activities and children's camps, and reading materials. Such expenditures range from 6% to a bit above 10% for saver households (figure 39). Corresponding expenditures by saver households range from 4% to a bit above 6%.

Figure 39: Recreational
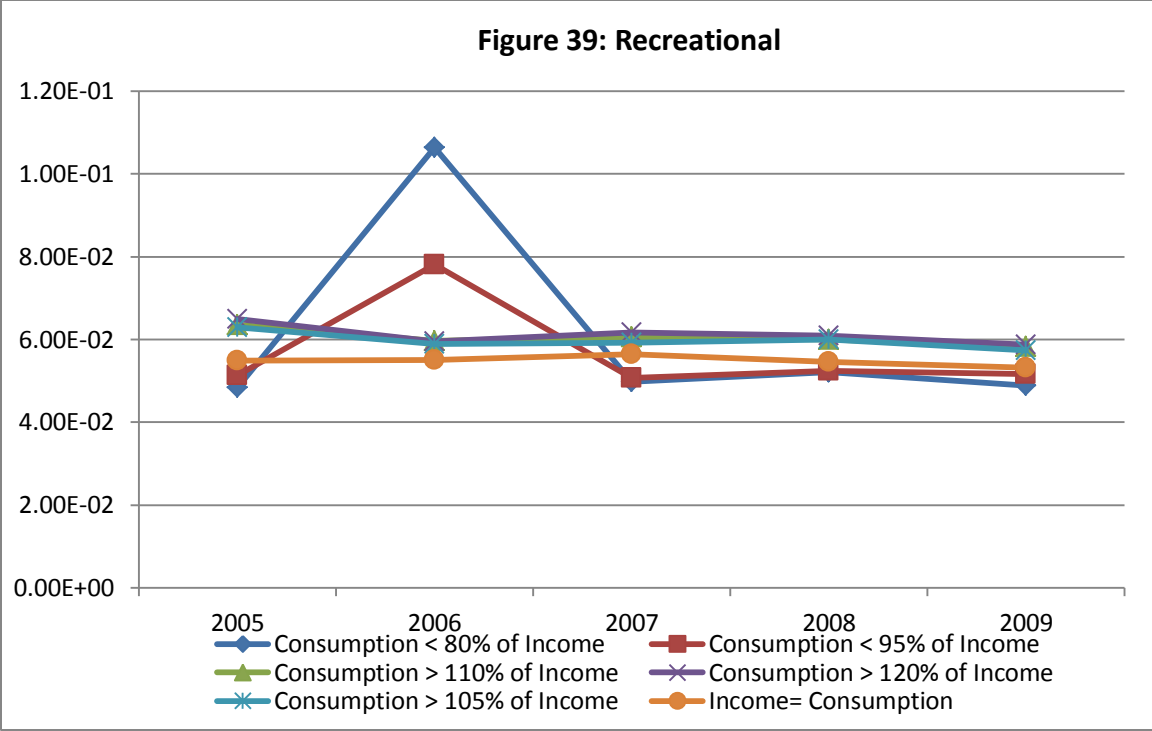
Expenditures on tobacco and alcohol constitute from 2% to 3.6% of total expenditures. Spender households incur a slightly higher proportion than saver households.

Figure 40: Tobacco and Alcohol

Figure 41: Personal Taxes
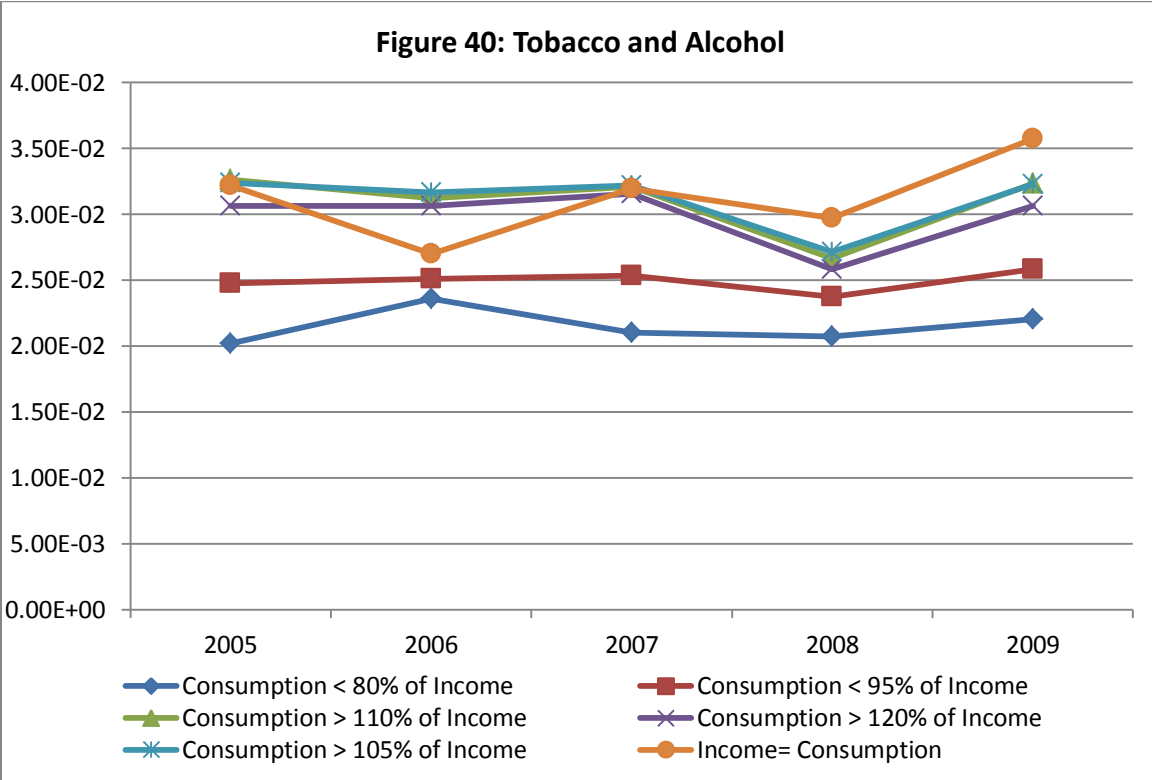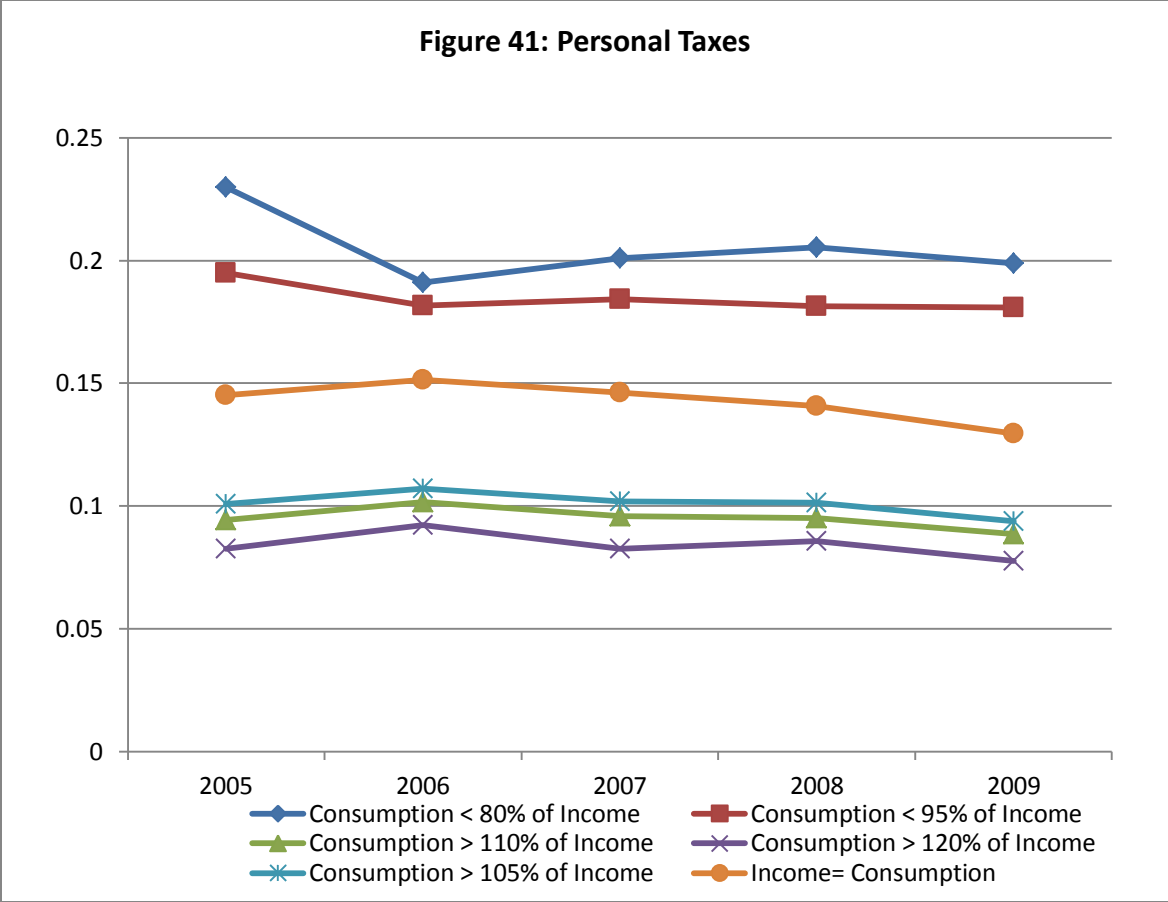
Figure 41 demonstrates that personal taxes are significant for saver households – between 17% and 23% of all expenditures. Tax expenditures are much lower for spender households. Similarly, pension contributions and insurance payments are higher for saver relative to spender households (figure 42).

 To summarize, spending patterns with respect to some categories are in a sense, similar across households. Food, shelter (net of mortgage and rent), mortgage and rent, private transport, and personal taxes and insurance constitute the majority of household spending. However, there are some subtleties. Households that spend more income than they report – constituting more than 30% of the population - spend a greater portion of their expenditures on mortgage and rent, recreation expenditures and private transport relative to other households. They also spend a proportionately smaller amount on pension and insurance payments as well as personal taxes relative to households with consumption = income, and saver households.

Figure 42: Personal Insurance & Pension

Legend:
- Consumption < 80% of Income
- Consumption < 95% of Income
- Consumption > 110% of Income
- Consumption > 120% of Income
- Consumption > 105% of Income
- Income= Consumption
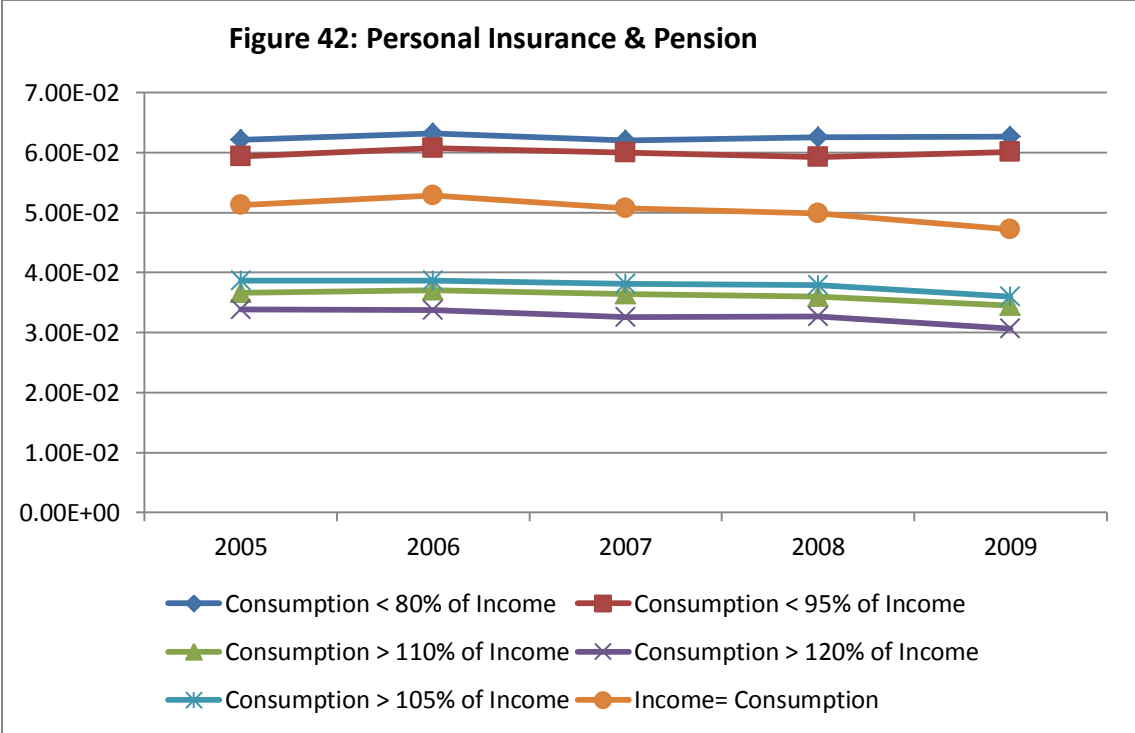
IV.   Econometric Estimates

We now focus our attention to households who are in debt – in other words, households whose consumption is 105% or more of income. The next step of our research is to identify relevant socio-economic characteristics can that can meaningfully predict the likelihood by which an individual household will spend more than its income. But we first study differences in the distribution of households by income, within each category. In this respect, we present summary statistics for 2005 and 2009.

Figure 43: Expenditures > 105% of income
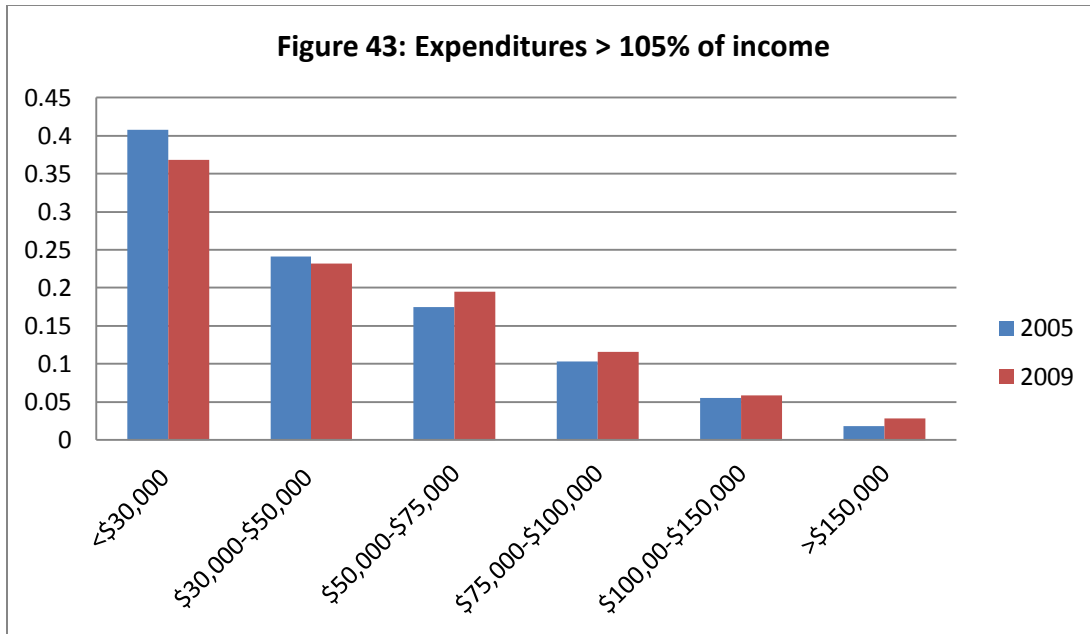
Unsurprisingly, the above figure shows that vast majority of spender households (roughly 65%) in 2005 were those with income less than $50,000. Only 17% of spender households earned more than $75,000. However, this distribution changed in 2009. The proportion of households in debt and with income below $50,000 dropped to 60%. In contrast the proportion of spender households with income between $50,000 and $100,000 increased from roughly 27% to 32%.

Figure 44: Expenditures > 120% of income
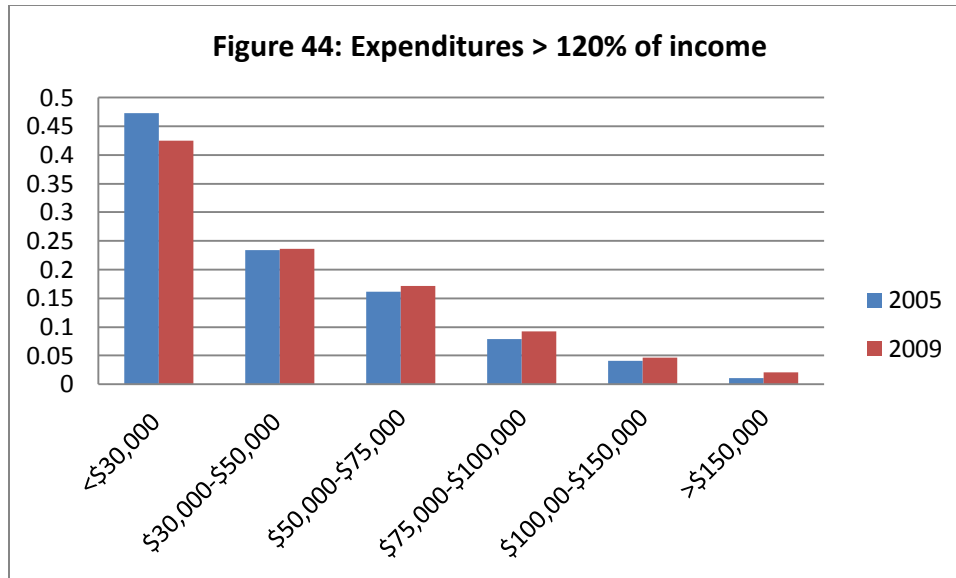
Figure 44 present summary statistics (for 2005 and 2009) with respect to the distribution of households that spend more than 120% of income. Roughly 70% of such households in 2005 earned less than $50,000 in income. This number dropped to 66% in 2009. However, there was also a corresponding increase in the proportion of households earning from $50,000 to $100,000 – from 24% in 2005 to 26% in 2009

Econometric Model

We employ the following simple empirical specification to evaluate the relative effects of various socio-economic factors on the probability of whether a household is spending more than it earns. We focus on the impacts of marital status, household size, household income, and the education level of the respondent.

If a household is spending more than its income$_i$ = β_0+ β_1 Respondent is married$_i$ +

β_2 house hold size: 1-2 $_i$ + β_3 house hold size: 3-4 $_i$ + β_4 house hold size: 5 or more $_i$ + β_5

house hold income: $30,000-$50.000$_i$ + β_6 house hold income: $50,000-$75.000 $_i$ + β_7

house hold Income from $75,000-$100,000 $_i$ + β_8 house hold income from $100,000-

$150,000_i + \beta_9$ house hold income from $150,000-$200,000$_i$ + \beta_{10}$ house hold income:

greater than $200,000$_i$ + \beta_{11}$ highschool grad$_i$+ β_{12} college grad$_i$ + B_{13} university grad$_i$ + B_{14}

post grad degree$_i$ + β_{15} sp highschool grad$_i$ + β_{16} sp college grad$_i$ + B_{17} sp university grad$_i$ +

B_{18} sp post grad degree$_i$ + β_{19} weeks worked-resp$_i$ + B_{20} weeks worked-sp$_i$ +Age Dummy

Variables + Dwelling dummy Variables + Kids Dummy Variables + Household Size

Dummies + Type of House Dummies+ Province Dummy Variables + e_i (1)

The above specification is a multivariate regression model and we use Ordinary Least Squares (OLS) to estimate it. The dependent and all independent variables have the subscript 'i' which refers to the ith observation in the survey data. Most of these variables are 1-0 indicators, or "dummy variables". We note that marginal estimates derived from probit estimates were extremely similar.

The dependent variable is 1 if the household's consumption exceeds income by a certain amount and is 0 otherwise. The marriage variable is 1 if the individual is legally married or in a common law relationship and is 0 otherwise. The dummy variables house hold size: 1-2$_i$, house hold size: 3-4$_i$, and house hold size: 5 or more$_i$ take a value of 1 for households that consist of 1-2 members, 3-4 members, and 5 or more members, respectively, and are 0 otherwise. The dummy variables house hold income less than $30,000$_i$, house hold income from $30,000-$50.000$_i$, house hold income from $50,000-$75,000$_i$, house hold income from $75,000-$100,000$_i$, house hold income from $100,000-$150,000$_i$, house hold income from $150,000-$200,000$_i$, and house hold income greater than $200,000$_i$ take a value of 1 for corresponding levels of household income and are 0 otherwise. highschool grad$_i$, college grad$_i$, university grad$_i$, and post grad degree$_i$ represent dummy variables that indicate the highest level of academic achievement of the survey respondent – specifically, high school, college, university, or a post graduate degree. Similarly, sp highschool grad$_i$, sp college

grad$_i$, sp university grad$_i$, and sp post grad degree$_i$ represent dummy variables that indicate the highest level of academic achievement of the spouse of the survey respondent. Age dummy variables represent the age of the respondent and take a value of 1 if the respondent falls in the following brackets: 30 to 39 years; 40 to 49 years; 50 to 59 years; 60 to 69 years; and 70 years and up. The children dummy variables take a value of 1 if a family has one child aged 0-4 or two or more children aged 0-4. The Household Size Dummies capture households with 2, 3, 4, 5, and 6 or more members. Type of House Dummy Variables take a value of 1 according to the following categories: Detached House; Semi Detached House; Row or Terrace House; Duplex; or Apartment. The omitted category are families with mobile homes. We also employ a dummy variable to capture families who own a dwelling but have no mortgage. Weeks worked-resp$_i$ and weeks worked-sp$_i$ are the number of weeks worked by the respondent and his/her spouse. Finally, we use province specific dummy variables to control for unobserved heterogeneity at the province level. Standard errors are clustered by province.

We also use a similar strategy to evaluate the effects of different factors and the composition of household spending on the likelihood of consumption exceeding income. Further, we segregate households by income level in order to understand differential effects by income. The key difference with respect to equation (1) is the addition of proportions of different types of household expenditures as separate covariates. The different items of household expenditure that we estimate the separate effects of are: food purchased from stores; food purchased from restaurants; shelter (net of mortgage and rent); mortgage and rent payments; household operations; household furnishing and equipment; clothing; car operations; gas expenditures; reading materials; tuition fees; other education expenses; tobacco products and alcoholic beverages; personal taxes; and personal insurance payments and contributions.

The Effects of Household Income on Spending

Tables 3, 4, and 5 contain OLS estimates of the effects of different socio-economic factors on the probability of consumption exceeding household income by at least 5%, 10% or more , and 20% or more. Empirical estimates of being married are similar across surveys and also robust to how the dependent variables are defined. In almost all regressions, being married is not significantly associated with consumption exceeding household income.

In contrast, the key driver of whether a household spends more than what it earns seems to be income. The household income dummies are al statistically significant and possess negative signs because they are defined relative to the omitted category, which is households with less than $30,000 in income. As expected the highest income level (greater than $200,000) is less likely to spend more than their income relative to households that

earn less than $30,000. Specifically, the marginal effects range from 0.4 to 0.6 for households that spend 105% or more, 110% or more, and 120% or more of their income.

Consistent with ex-ante intuition the marginal effects of household income drop in magnitude as household income decreases. Having household income from $30,000-50,000, $50,000-$75,000, from $75,000-$100,000, $100,000-$150,000, and from $150,000-$200,000 is negatively associated with between a 0.13-0.17, 0.22-0.27, 0.3-0.37, 0.36-0.47, and 0.4-0.5 increase in a household spending 105% or more, 110% or more, or 120% or more of income.

In comparison, while coefficient estimates of respondent and spousal educational attainment are somewhat significant, the marginal effects are smaller. Further, the signs are positive, implying that individuals with higher education levels (relative to individuals who did not graduate from high school) are more likely to spend more than household income. This in some sense, contradicts our findings with respect to household income and might be because of an inability to control for the confounding effects of other unobserved factors.

The number of weeks worked by both respondent and spouse are significantly and negatively associated with a likelihood of spending exceeding income - across all columns in tables 1-3. The coefficient estimates of the age dummy variables should be interpreted relative to those under thirty years of age. The marginal effects are negative, implying that older individuals are less likely than those under thirty, to be in debt. The coefficient estimates range from 0.1 to 0.9, with a significant increase in magnitude for those aged 70 and over. This is probably due to the poverty alleviation effects of the Canada Pension Plan, Old Age Security (OAS), and Guaranteed Income Supplements (GIS).

In terms of other family characteristics, it is interesting that the children covariates negative and statistically significant – implying that families with young children are less likely to be in debt relative than families without kids. On the other hand, the coefficient estimates of the household size dummies are statistically significant and increase with the size of the household. In contrast, coefficient estimates of the household type dummies are not consistently significant.

The Effects of The Composition of Household Spending – By Income

We now discuss the impacts of item specific spending on the probability of spending exceeding household income, across different income levels. Tables 6, 7, and 8 contain specific estimates for households with less than $30,000 in income, based on the 2005, 2007, and 2009 waves, and with respect to households spending 105% of or more than

income, 110% of or more than income, and 120% of or more than income. We note that we do not include all the covariates that were employed in previous specifications. This is in order to avoid issues of collinearity as some of the variables are quite highly correlated. Further, our discussion is focused on item specific expenditures rather than family and economic characteristics.

Results are quite similar across the 2005, 2007, and 2009 waves and also with how we define the magnitude by consumption exceeds household income. The common finding is the negative sign on the proportion of expenditures on food, shelter net of mortgage and rent, and mortgage and rent, and the household operations covariates. The negative signs imply that a decrease in expenditures on these items is associated with an increased likelihood of consumption exceeding household income. This could be because reduced expenditures on these core items is associated with a substitution effect, resulting in more spending on other non-essential items. The coefficient estimates are statistically significant at the 1% or 5% levels. Coefficient estimates of food purchased at stores are much larger (from 1.5 to 2 times) than food purchased at restaurants. Personal taxes and personal insurance payments and contributions also possess large marginal effects and are negatively correlated with the likelihood of spending exceeding income. Again, these findings could be because an increase in spending on these items leaves less room for other types of household expenditures.

While car operations, tobacco and alcohol, and health expenditures are also negative, the specific covariates are not consistently significant nor are the magnitude of coefficient estimates as large as the above variables. Expenditures on clothes and car operations are also negative but only significantly associated with the likelihood of spending exceeding 120% of income.

Expenditures on child care are not significant in the 2005 wave, but positive and significant for 2007 and 2009. Expenditure on household equipment and furnishings are also significantly correlated with a household spending more than its income with marginal effects ranging from 0.4 to 1.7. Education (net of tuition fees) is also positively and significantly correlated with consumption exceeding income – with stronger impacts for household spending more than 120% of income. Tuition fees themselves are statistically insignificant in most specifications.

In summary, spending on core items – food purchased at stores, mortgage and rent, household operations, tax, and pension and insurance possess the largest coefficients – and are all negatively associated with consumption exceeding income.

Tables 9, 10, and 11 contain results with respect to households earning between $30,000 and $50,000. As was the case with households with income less than $30,000, coefficient estimates with respect to the key items – food purchased at stores, shelter net of mortgage,

mortgage and rent payments, household operations, pension and insurance, and taxes - are quite large in magnitude and statistically significant across waves. However, there are other items that are as statistically significant and with rather large coefficient estimates. Specifically, the marginal effects of car operations range from -1 to -2.

There are other items that are also significant and negatively associated with the likelihood of consumption exceeding income. As was the case households with less than $30,000 in income, tobacco and alcohol expenditures possess negative signs. Another item is clothes, which was not consistently significant with respect to households earning less than $30,000. Expenditures on health and recreation are also consistently negative and statistically significant. In terms of positive impacts, child care expenses are significantly correlated with consumption in excess of income for the 2007 and 2009 waves.

Tables 12, 13, and 14 consist of corresponding results with respect to households earning between $50,000 and $100,000. The overall patterns are similar to estimates with respect to households who earn between $30,000 to $50,000 and coefficient estimates for food purchased at stores, shelter net of mortgage, mortgage and rent payments, household operations, pension and insurance, and taxes - are quite large in magnitude and statistically significant across waves – but there are subtle differences relative to findings for lower income households. Specifically, with respect to most waves, coefficient estimates with respect to shelter net of mortgages are roughly equal to 1, as are estimates with respect to rent and mortgage payments. The magnitude of these coefficient estimates are slightly larger, relative to household with income from $30,000-$50,000, and definitely larger than results for households with income less than $30,000.

In a similar vein, while coefficient estimates of expenditures on recreation, tobacco and alcohol, car operations, and clothes are also negative – as was the case with households with $30,000-$50,000 in income- the magnitude of the coefficient estimates are definitely larger. Recall that coefficient estimates of recreational, car operations, and clothes expenditures were generally insignificant with respect to households with less than $30,000 in income. In contrast, child care expenditures remain positively correlated with the likelihood of spending in excess of income.

Tables 15, 16, and 17 contain estimates with respect to households with income between $100,000-$150,000. Coefficient estimates for food purchased at stores, food purchased at restaurants, shelter net of mortgage, mortgage and rent payments, household operations, pension and insurance, and taxes are again negative and statistically significant across most waves. Unlike the earlier results, expenditures on clothes, child care, recreation, and health expenditures are no longer consistently significant. This is also the case with respect to households with income exceeding $150,000 (tables 18, 19, and 20).

Correlation between Change in Assets and the Difference between Household Consumption and Income – 2005 and 2009 Surveys of Household Spending

I was able to locate data on changes in assets.[10] The objective of using data on assets is to understand why households spend more than what they earn. Is it because of unexpected negative asset shocks? Or is it because such households simply spend more than what they earn?

Figures 45 and 46 offer the mean income and spending for households that experince a loss in total assets equal to 25% or more of household income. For a bit more than half of such households (figure 45), there is a clear connection between the amount of excess spending and a reduction in assets. On the other hand, there is another half (figure 46) that are in debt and without any significant change in assets. The question is – why?

Figure 45: Income, Spending, and Change in Assets for Households losing Assets equal to 25% or more of Income - Most in Debt (1912 obs - 2005,1241 obs - 2009)

Legend:
- 2005 Household Income
- 2005 Household Expenditure
- 2005 Change in Assets
- 2009 Household Income
- 2009 Household Expenditure
- 2009 Change in Assets

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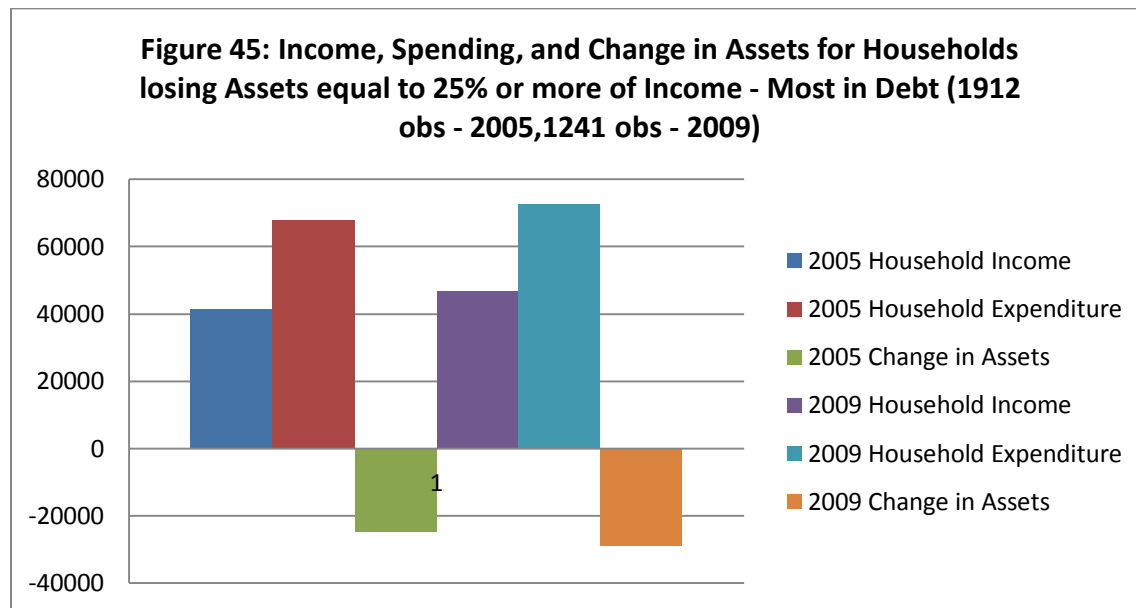
[10] Note that the SHS does not contain specific details on total assets. Therefore, these results should be treated with caution.

Figure 46: Income, Spending, and Change in Assets for Households that spend more than income - but with no change in assets (1401 obs - 2005, 1098 obs - 2009)
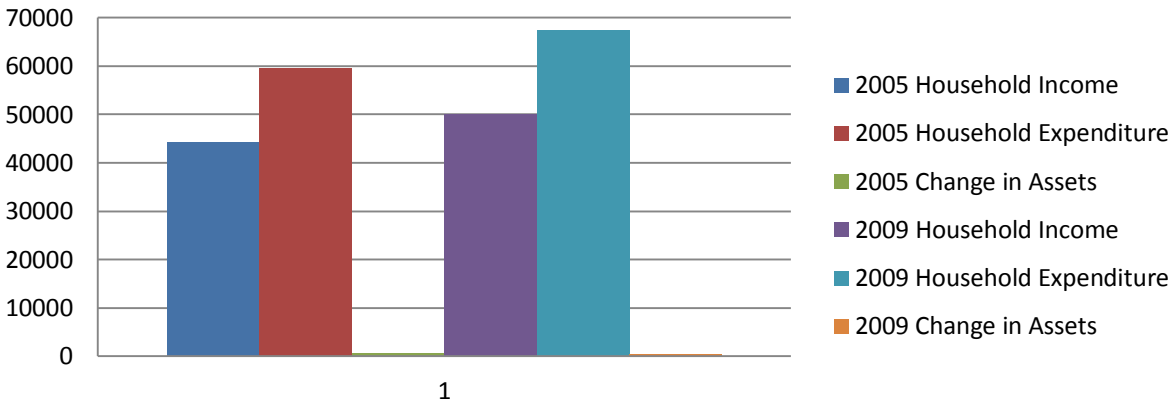
Figure 47: Change in Income, Spending, and Assets for Households gaining Assets equal to 25% or more of Income -
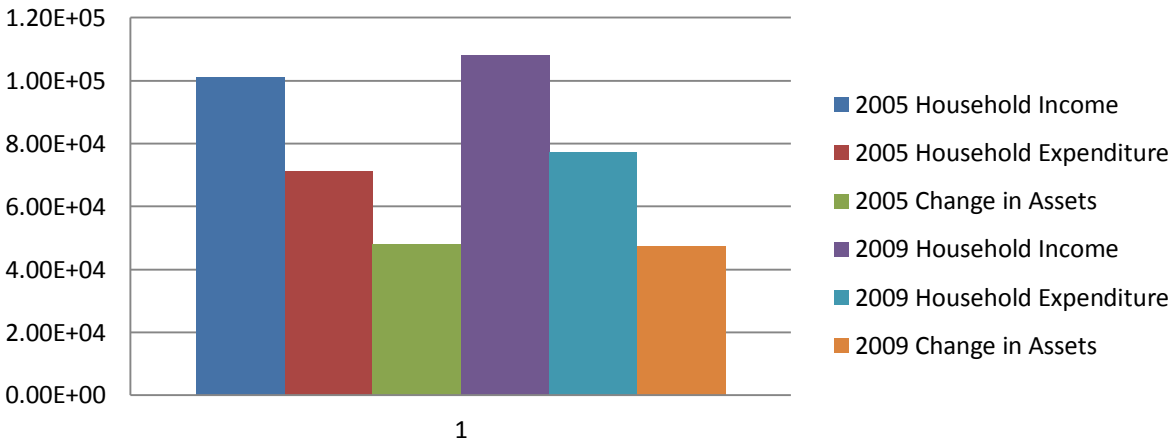
In order to understand these differences, I computed summary statistics for these separate samples. As the table 21 reveals, households that are in debt with no significant changes in assets spend more of income on mortagge and rent and pay higher taxes. Further, households with a significant increase in assets do not necessarily spend more than income

Results from the 2008 Canadian Financial Capabilities Survey

I was unable to conduct extensive analysis with these data because specific household income and debt levels are not publicly available and are simply reported in grouped values. However, I report the results for some broad analysis , as there are data on household debt and liabilities, which is a useful supplement to the majority of our analysis that is focused on difference between spending and income.

As detailed in the below figures, about 58% of Households with income less than $25,000 have no debt. Most households have debt less than $50,000, which is less than half of mean asset value. Intrigungly, about 67% of households with income from $25,000 to $50,000 have debt.

Even a greater portion of households with $50,000-$100,000 and $100,000-$150,000 in income are in debt – at 85% and 86%. And the debt levels increase with income. For example, while roughly 35% of households with $50,000-$100,000 have less than $50,000 in debt, 12% have debt between $50,000-$99,999 and 10% have debt from $100,000 to $150,000. The corresponding figures for households with $100,000-$150,000 in income are 27%, 14%, and 10%. Interestingly, of these households, 10% have debt from $200,00-$250,000 and 15% have debt of $250,000 or more.

For households with income greater than $150,000, about 26% have debt of $250,000 or more. There seems to be a correlation between higher asset values and debt. But without actual values- it is not possible to confirm this.

Figure 48: Households with less than $25,000 (1361 obs-18% of sample, Mean assets=$132,530)
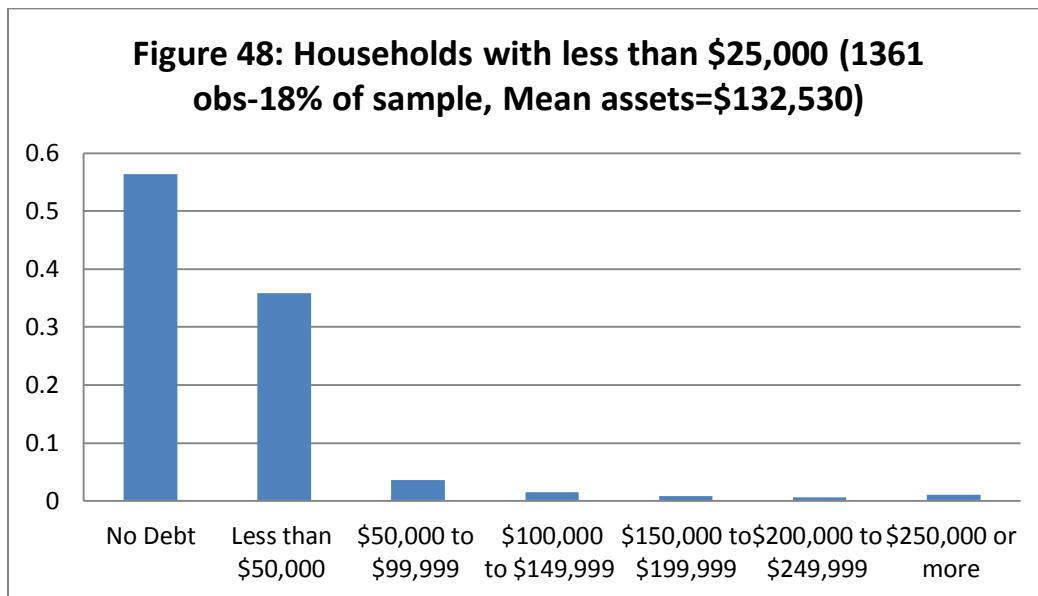
Figure 49: Households with $25,000 to $50,000 (1677 obs-22% of sample, Mean assets=$354,560)
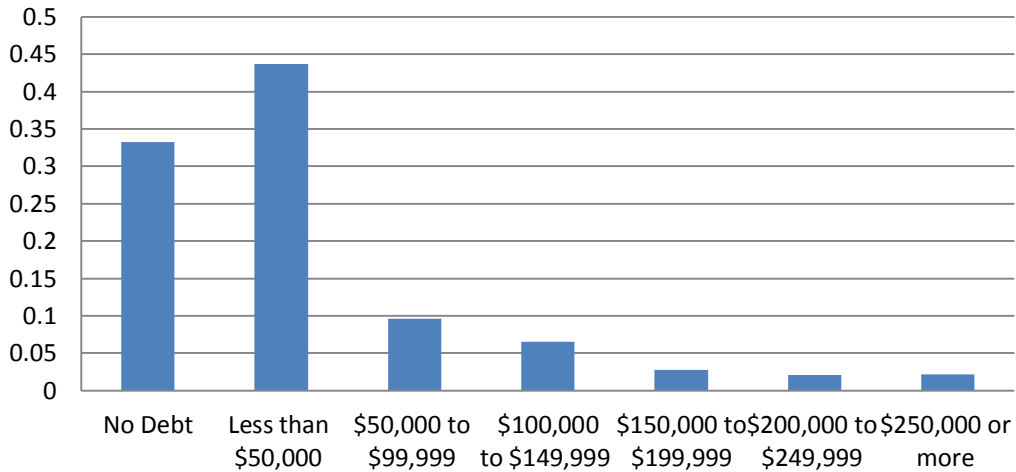
Figure 50: Households with $50,000 to less than $100,000 (32% of sample, Mean assets -$550,030)

Figure 51: Households with $100,000 to less than $150,000 (16% of sample, Mean assets -$868,180)

Category	Value
No Debt	0.145
Less than $50,000	0.275
$50,000 to $99,999	0.135
$100,000 to $149,999	0.107
$150,000 to $199,999	0.091
$200,000 to $249,999	0.100
$250,000 or more	0.149

Figure 52: Households with greater than $150,000 (10% of sample, Mean assets -$1,571,500)

Category	Value
No Debt	0.189
Less than $50,000	0.202
$50,000 to $99,999	0.091
$100,000 to $149,999	0.092
$150,000 to $199,999	0.070
$200,000 to $249,999	0.095
$250,000 or more	0.262

V.   Summary

There is a remarkable alignment between the summary statistics and regression estimates. First, results from the Survey of Household Spending suggest that a non-trivial portion of the population – between 35% to 39% of the population -spend 105% more than what they earn. Roughly 20% of the population spend more than 120% of household income.

However, there has been a drop in spender households (spending more than 105% of income) – from 39% in 2005 to roughly 35%

However, the above figures mask an important trend. Specifically, there has been a shift in spender households from those with lower to higher income. Specifically, in 2005 the vast majority of spender households - roughly 65% - were those with income less than $50,000. But in 2009 the proportion of households in debt and with income below $50,000 dropped to 60%. In contrast, the proportion of spender households with income between $50,000 and $100,000 increased from roughly 27% to 32%.

From another perspective, it is important to emphasize that not only do a significant majority of in debt households come from those earning less than $50,000, but a significant portion of households *that earn* less than $50,000 – roughly 45%-55% - spend 110% more than what they earn. However, the proportion of more well off households that spend more than 110% of income is not to be dismissed. The proportion of in debt households earning from $50,000 to $75,000 is either at or a bit less than 30%, while the corresponding figure for households earning from $75,000 to $100,000 ranges from 30% to 25%.

Our analysis reveals that there has been a noticeable increase in average debt levels over time, ranging from $15,000 to $23,000. These amounts are rather sizable given that the vast majority of in debt households earn less than $50,000.

A relevant point is whether these trends are a result of an increase in average income among lower incoem households over time. However, we do not find a significant change in the compostion of households by income groups or any change in average household income within these groups, over time.

In terms of item specific expenditures through time, food (purchased at stores), shelter (net of mortgage and rent), mortgage and rent, private transport, and personal taxes and insurance constitute the majority of household spending. However, there are some subtleties. Households that spend more income than they report – constituting more than 30% of the population - spend a greater portion of their expenditures on mortgage and rent, recreation expenditures and private transport relative to other households. For example, Saver households spend 10% or less than 10% on mortgage or rent payments. Spender households spend 12%-14% of their total expenditures. Similarly, spender households devote from 14% to 17% of consumption to private transport. Saver households spend between 7% to 10% of income.

Spender households also expend a proportionately smaller amount on pension and insurance payments as well as personal taxes relative to households with consumption = income, and saver households. On average, spender households spend an amount less than or equal to 10% on personal taxes. Saver households spend from 17% to 22%.

The regression estimates confirm that household income is the most significant predictor of whether a household is in debt. Household size is also important – from a statistical perspective. Interestingly, neither marital nor household type dummy variables are consistently significant.

Corresponding to the summary means, coefficient estimates of the proportion of expenditures on food, shelter net of mortgage and rent, mortgage and rent, household operations, and personal taxes and insurance and pension covariates are statistically significant across most specifications. However, they all possess negative signs. Spending on tobacco and alcohol are also negatively associated with the probability of spending exceeding income – but the magnitude of coefficient estimates are smaller than the above items. One explanation might be that increased spending on necessities decreases the proportion of household budget on non-essential items and thus decreases the likelihood of being in debt. On the other hand, these results might also be capturing the fact that insolvent households spend less on these core items. But that contradicts the results from the summary statistics.

There are differences across households. Coefficient estimates of education expenditures (net of tuition) and child care are positive and statistically significant for households with less than $30,000 in income. Spending on clothes and car operations are significant and have negative coefficients – but only for households who spend more than 120% of income. On the other hand, coefficient estimates of car operations remain negative and become consistently significant for household with between $30,000 and $50,000 in income – with rather large coefficient estimates. Child care expenditures remain positive and significant and expenditures on clothes become more consistent while retaining negative signs. Recreational expenditures are also negative and statistically significant.

With respect to households earning between $50,000 to $100,000 in income – coefficient estimates of food purchased at stores, shelter net of mortgage, mortgage and rent payments, household operations, pension and insurance, and taxes - are statistically significant across waves. However, the magnitude of coefficient estimates for shelter and mortgage and rent payments are larger relative to households with lower income. This is also the case with coefficient estimates of expenditures on recreation, tobacco and alcohol, and car operations. In most instances, spending on childcare remains positive and statistically significant.

Empirical estimates between households earning from $100,000-$150,000 and greater than $150,000 are comparable. Coefficient estimates of expenditures on food, shelter net of mortgage and rent, mortgage and rent, household operations, and personal taxes and insurance and pension covariates remain statistically significant across most specifications. However, expenditures on clothes, child care, and recreation are no longer significant.

In summary, the regression results strongly suggest the paradox that less spending on core items is correlated with a higher likelihood of spending more than income. It is quite possible that these results are an artefact of our inability to control for unobserved factors. However, there are also different possible motivating factors for these results. First, as noted above, an increase in spending on core items might leave less budgetary room for other non-core items and therefore reduce the likelihood of spending exceeding consumption. On the other hand, it is also possible that a preference for non-core items crowds out spending on core-items and increases the probability of being in debt.

In order to explore further these possibilities - we investigated some further summary statistics for spending on core items (food, shelter, household operations, transport, health, personal taxes, and insurance payments and pension contributions) by households that spend more and less than 110% of income. As can be seen from table 22, the summary statistics are aligned with the regression results. Households that spend more than income also allocate *less* of their budget to core items. Future research will focus on disentangling the causal pathways between consumption, debt, and household income.

Table 3: All Households – 2005 Wave (*, **, *** - significance at the 10%, 5%, and 1% levels)

VARIABLE	Dep Var 1 if Cons> 105% ESTIMATED COEFF	Mean = 0.39 T-RATIO	Dep Var 1 if Cons> 110% ESTIMATED COEFF	Mean = 0.32 T-RATIO	Dep Var 1 if Cons> 120% ESTIMATED COEFF	Mean = 0.21 T-RATIO
Married	1.06E-02	0.6301	9.66E-03	0.597	1.03E-02	0.7033
Male	7.06E-03	0.8791	1.42E-02	1.842*	9.95E-03	1.462
Household income from $30,000 to $50,000	-0.15496	-12.93***	-0.15781	-13.46***	-0.15644	-14.6***
Household income from $50,000 to $75,000	-0.2742	-20.23***	-0.26292	-19.96***	-0.23852	-20***
Household income from $75,000 to $100,000	-0.3682	-23.73***	-0.36151	-24.3***	-0.31718	-23.92***
Household income from $100,000 to $150,000	-0.44951	-25.47***	-0.42467	-25.19***	-0.36063	-24.36***
Household income from $150,000 to $200,000	-0.50986	-22.11***	-0.49533	-24.14***	-0.40152	-23.02***
Household income greater than $200,000	-0.57981	-24.07***	-0.53103	-24.23***	-0.43634	-24.04***
Own Weeks Worked	-7.69E-04	-3.74***	-8.25E-04	-4.151***	-7.74E-04	-4.385***
Spouse Weeks Worked	-1.24E-03	-5.319***	-1.20E-03	-5.382***	-8.81E-04	-4.581***
30 to 39 years	-7.02E-02	-4.663***	-8.06E-02	-5.476***	-7.52E-02	-5.648***
40 to 49 years	-6.83E-02	-4.572***	-7.98E-02	-5.432***	-6.28E-02	-4.675***
50 to 59 years	-6.65E-02	-4.357***	-7.58E-02	-5.062***	-6.60E-02	-4.801***
60 to 69 years	-8.80E-02	-5.024***	-9.82E-02	-5.713***	-8.64E-02	-5.473***
70 years and up	-0.22608	-12.58***	-0.22717	-12.96***	-0.19086	-11.9***
One child aged 0-4	-2.88E-02	-1.823*	-3.53E-02	-2.329**	-2.67E-02	-1.984**
Two or more children aged 0-4	-7.85E-02	-3.062***	-6.70E-02	-2.743***	-6.09E-02	-2.853***
Household size 2	9.83E-03	0.6909	1.31E-02	0.9443	3.58E-02	2.816***
Household size 3	4.96E-02	2.984***	4.63E-02	2.884***	4.95E-02	3.414***
Household size 4	8.61E-02	4.683***	7.10E-02	4.011***	7.47E-02	4.727***
Household size 5	0.11874	5.376***	8.52E-02	4.046***	8.32E-02	4.463***
Household size 6 or more	0.14544	4.713***	0.11278	3.869***	8.98E-02	3.511***
Detached House	2.72E-02	1.255	1.94E-02	0.9248	2.19E-02	1.156
Semi Detached House	-4.50E-02	-1.536	-4.59E-02	-1.627	-2.28E-02	-0.9078
Row, Terrace House	-2.35E-02	-0.8608	-3.65E-02	-1.386	-2.08E-02	-0.8828
Duplex	-6.05E-02	-2.151**	-4.86E-02	-1.788*	-4.46E-02	-1.852*
Apartment	-7.38E-02	-3.174***	-7.56E-02	-3.357***	-5.39E-02	-2.651**
Own dwelling with no mortgage	-9.86E-02	-10.45***	-8.64E-02	-9.636***	-3.91E-02	-4.98***
At least High School	6.76E-02	5.556***	6.10E-02	5.182***	7.13E-02	6.808***
At least College	9.10E-02	7.492***	8.38E-02	7.121***	8.75E-02	8.295***
At least University	1.00E-01	7.099***	0.10617	7.79***	0.11949	9.769***
Post Graduate	0.13179	7.213***	0.14551	8.292***	0.13719	8.877***
Spouse At least High School	3.43E-02	2.293**	3.88E-02	2.709***	3.07E-02	2.439**

Spouse At least College	3.06E-02	2.039**	4.10E-02	2.864***	2.77E-02	2.214**
Spouse At least University	4.21E-02	2.392**	0.452E-01	2.100**	0.19662E-01	1.37
Spouse Post Graduate	5.73E-02	2.5**	-8.92E-02	-6.05***	2.72E-02	1.482
Adj R Square	0.1088		0.10688		0.0963	
Obs	15,222		15,222		15,222	

Table 4: All Households 2007 Wave (*, **, *** - significance at the 10%, 5%, and 1% levels)

	Dep Var 1 if Cons> 105%	Mean = 0.38	Dep Var 1 if Cons> 110%	Mean = 0.31	Dep Var 1 if Cons> 120%	Mean = 0.21
VARIABLE	ESTIMATED COEFF	T-RATIO	ESTIMATED COEFF	T-RATIO	ESTIMATED COEFF	T-RATIO
Married	6.66E-02	4.036***	5.10E-02	3.207***	2.98E-02	2.128**
Male	2.27E-02	2.792***	2.52E-02	3.238***	2.50E-02	3.675***
Household income from $30,000 to $50,000	-0.1733	-13.38***	-0.16724	-13.13***	-0.15097	-12.87***
Household income from $50,000 to $75,000	-0.27741	-19.76***	-0.26609	-19.4***	-0.2273	-18.13***
Household income from $75,000 to $100,000	-0.37455	-23.6***	-0.34835	-22.58***	-0.29469	-20.99***
Household income from $100,000 to $150,000	-0.45354	-26.28***	-0.40983	-24.57***	-0.36332	-24.91***
Household income from $150,000 to $200,000	-0.52794	-23.79***	-0.48661	-23.5***	-0.41035	-23.88***
Household income greater than $200,000	-0.59608	-26.34***	-0.53608	-25.89***	-0.42854	-24.07***
Own Weeks Worked	-1.25E-03	-5.801***	-1.25E-03	-6.049***	-1.20E-03	-6.61***
30 to 39 years	-9.76E-03	-0.5832	-2.16E-02	-1.319	-3.07E-02	-2.112**
40 to 49 years	-2.20E-02	-1.322	-3.31E-02	-2.05**	-3.92E-02	-2.71***
50 to 59 years	-4.61E-02	-2.793***	-5.49E-02	-3.432***	-4.89E-02	-3.4***
60 to 69 years	-7.73E-02	-4.303***	-7.72E-02	-4.435***	-7.16E-02	-4.568***
70 years and up	-0.17566	-9.282***	-0.18326	-10.03***	-0.15724	-9.53***
One child aged 0-4	-4.58E-02	-2.652**	-3.95E-02	-2.35**	-6.22E-02	-4.327***
Two or more children aged 0-4	-7.99E-02	-2.572**	-5.45E-02	-1.786*	-3.67E-02	-1.345
Household size 2	7.35E-02	5.074***	5.91E-02	4.198***	4.64E-02	3.654***
Household size 3	0.10358	6.069***	0.10056	6.058***	7.55E-02	5.083***
Household size 4	0.14222	7.519***	0.11613	6.345***	9.77E-02	5.985***
Household size 5	0.14309	6.063***	0.1404	6.169***	9.12E-02	4.716***
Household size 6 or more	0.15399	5.012**	0.13441	4.559***	0.10026	3.968***
Detached House	3.86E-02	1.69*	3.94E-02	1.79*	1.59E-02	0.7942
Semi Detached House	-9.68E-03	-0.3257	-3.70E-04	-1.29E-02	2.18E-03	8.42E-02
Row, Terrace House	-9.94E-03	-0.3463	8.85E-03	0.3187	2.97E-03	0.1175
Duplex	1.48E-02	0.492	4.52E-03	0.1546	-1.91E-02	-0.7295
Apartment	-4.02E-02	-1.635	-2.96E-02	-1.251	-4.13E-02	-1.928*
Own dwelling with no mortgage	-9.54E-02	-9.874***	-6.38E-02	-6.956***	-2.24E-02	-2.79**
At least High School	5.88E-02	4.746***	6.85E-02	5.709***	7.43E-02	6.985***
At least College	7.80E-02	6.184***	8.27E-02	6.788***	9.35E-02	8.678***
At least University	8.43E-02	5.907***	9.13E-02	6.658***	0.10225	8.494***
Post Graduate	8.63E-02	4.734***	9.87E-02	5.708***	0.11768	7.772***
Spouse At least High School	4.87E-02	3.173***	3.67E-02	2.508**	1.53E-02	1.204
Spouse At least College	2.23E-02	1.443	8.05E-03	0.5471	5.07E-03	0.3975

Spouse At least University	4.53E-02	2.534**	1.91E-02	1.127	4.60E-03	0.3184
Spouse Post Graduate	2.81E-02	1.225	1.20E-02	0.5531	-3.15E-03	-0.1738
Adjusted R Square	0.1049		0.0959		0.0882	
Obs	13939		13939		13939	

Table 5: All Households 2009 Wave (*, **, *** - significance at the 10%, 5%, and 1% levels)

VARIABLE	Dep Var 1 if Cons> 105% ESTIMATED COEFF	Mean = 0.35 T-RATIO	Dep Var 1 if Cons> 110% ESTIMATED COEFF	Mean = 0.29 T-RATIO	Dep Var 1 if Cons> 120% ESTIMATED COEFF	Mean = 0.2 T-RATIO
Married	1.69E-03	0.8742	-2.57E-03	-0.1393	-9.21E-03	-0.561
Male	1.34E-02	1.439	1.06E-02	1.198	1.22E-02	1.556
Household income from $30,000 to $50,000	-0.16269	-10.9***	-0.1489	-10.19***	-0.13904	-10.22***
Household income from $50,000 to $75,000	-0.25486	-15.79***	-0.24155	-15.39***	-0.22833	-16***
Household income from $75,000 to $100,000	-0.36044	-20.04***	-0.34018	-19.67***	-0.30021	-19.32***
Household income from $100,000 to $150,000	-0.47013	-23.86***	-0.43389	-23.08***	-0.35461	-20.87***
Household income from $150,000 to $200,000	-0.49318	-19.51***	-0.46577	-20.05***	-0.3796	-19.15***
Household income greater than $200,000	-0.58035	-22.96***	-0.52532	-22.17***	-0.41852	-20.32***
Own Weeks Worked	-1.36E-03	-5.603***	-1.09E-03	-4.738***	-1.09E-03	-5.332***
Spouse Weeks Worked	-4.69E-04	-1.76*	-6.22E-04	-2.476**	-5.11E-04	-2.351**
30 to 39 years	-1.78E-02	-0.9957	-3.06E-02	-1.766*	-3.01E-02	-1.945*
40 to 49 years	-3.04E-02	-1.712*	-4.20E-02	-2.447**	-3.97E-02	-2.608***
50 to 59 years	-2.79E-02	-1.552	-4.10E-02	-2.358**	-3.66E-02	-2.376***
60 to 69 years	-6.09E-02	-3.095***	-5.47E-02	-2.87***	-4.72E-02	-2.766***
70 years and up	-0.16004	-7.519***	-0.14921	-7.249***	-0.12622	-6.78***
One child aged 0-4	-4.43E-02	-2.358**	-3.53E-02	-1.943**	-2.50E-02	-1.568
Two or more children aged 0-4	-1.87E-03	-0.6335	-1.94E-02	-0.689	1.34E-02	0.5123
Household size 2	8.10E-03	0.5078	1.42E-02	0.9212	1.11E-02	0.8057
Household size 3	4.25E-02	2.232**	4.99E-02	2.718***	5.03E-02	3.05***
Household size 4	7.26E-02	3.44***	7.48E-02	3.705***	5.93E-02	3.33***
Household size 5	0.11986	4.467***	0.1237	4.788***	9.05E-02	3.925***
Household size 6 or more	0.136	3.842***	0.14583	4.303***	8.93E-02	3.059***
Detached House	3.15E-02	1.132	4.61E-02	1.71*	3.14E-02	1.302
Semi Detached House	2.45E-02	0.6899	3.17E-02	0.9256	8.21E-03	0.2704
Row, Terrace House	-3.60E-02	-1.1	-3.03E-02	-0.9603	-2.99E-02	-1.069
Duplex	2.86E-03	0.8041	1.82E-02	0.5253	2.00E-02	0.6429
Apartment	-2.63E-02	-0.8994	-4.58E-03	-0.1612	-9.47E-04	-0.3733
Own dwelling with no mortgage	-8.47E-02	-7.769	-7.19E-02	-6.933***	-2.76E-02	-3.017***
At least High School	9.04E-02	6.412***	8.80E-02	6.516***	8.19E-02	6.776***
At least College	0.11517	8.176***	0.11543	8.514***	9.50E-02	7.8***
At least University	0.13628	8.597***	0.12983	8.543***	0.12244	8.957***
Post Graduate	0.14278	7.139***	0.14499	7.559***	0.13638	8.012***

Spouse At least High School	1.22E-02	0.688	1.56E-02	0.9244	1.20E-02	0.8034
Spouse At least College	5.99E-03	0.3369	9.50E-03	0.5649	1.28E-03	0.8623
Spouse At least University	3.54E-03	0.18	3.75E-03	0.2022	2.29E-03	0.1402
Spouse Post Graduate	3.56E-02	1.382	4.06E-02	1.682*	1.69E-02	0.8141
Adjusted R Square	0.1152		0.1068		0.937	
Obs	10811		10811		10811	

Table 6: Less than $30,000 in Household Income – 2005 (*, **, *** - significance at the 10%, 5%, and 1% levels)

VARIABLE	Dep Var 1 if Cons> 105% ESTIMATED COEFF	Mean= 0.527 T-RATIO	Dep Var 1 if Cons> 110% ESTIMATED COEFF	Mean= 0.458 T-RATIO	Dep Var 1 if Cons> 120% ESTIMATED COEFF	Mean= 0.33 T-RATIO
Married	1.60E-02	0.9276	1.76E-02	1.033	1.94E-03	0.1217
Male	8.60E-03	0.5805	1.71E-02	1.161	1.69E-02	1.231
Own Weeks Worked	-2.25E-04	-0.4238	-2.68E-04	-0.4958	-5.39E-04	-1.019
Spouse Weeks Worked	4.08E-04	0.4671	7.26E-04	0.8382	1.15E-03	1.367
30 to 39 years	-3.46E-02	-1.282	-3.46E-02	-1.267	-4.35E-02	-1.644*
40 to 49 years	4.15E-02	1.505	1.30E-02	0.4597	2.18E-02	0.7947
50 to 59 years	-2.80E-03	-0.1015	-8.59E-03	-0.3077	-5.74E-02	-2.141**
60 to 69 years	-0.1048	-3.509*	-0.11988	-3.995***	-0.12882	-4.519***
70 years and up	-0.24592	-8.155***	-0.24292	-8.01***	-0.2361	-8.167***
One child aged 0-4	5.43E-02	1.611	2.09E-02	0.6017	1.04E-02	0.3054
Two or more children aged 0-4	-2.03E-02	-0.3364	-5.42E-02	-0.8969	-9.63E-02	-1.667*
At least High School	3.64E-02	2.05**	2.63E-02	1.518	5.20E-02	3.31***
At least College	6.98E-02	3.677***	6.14E-02	3.263***	7.11E-02	4.095***
At least University	7.88E-02	2.92***	8.13E-02	3.006***	9.22E-02	3.444***
Post Graduate	0.11511	2.629**	0.12232	2.608**	0.10717	2.081**
Shelter net mortgage	-0.57539	-4.511***	-0.66543	-4.716***	-0.65906	-4.32***
Rent and Mortgage	-0.74611	-6.637***	-0.82948	-6.551***	-0.94435	-6.799***
Food on Stores	-1.6541	-16.35***	-1.725	-16.27***	-1.7243	-15.99***
Food on Restaurants	-0.65796	-3.01***	-0.95763	-4.397***	-1.1497	-5.682***
Household Operations	-1.013	-4.989***	-1.2094	-5.778***	-1.505	-7.268***
Childcare	0.48729	1.001	0.93811	1.957***	0.56728	1.192
Household Furnishings	0.36252	2.02**	0.37799	2.011**	0.11803	0.6179
Clothes	-9.93E-02	-0.3836	-0.23539	-0.8909	-0.70807	-2.792***
Car Operations	-0.32297	-1.511	-0.25504	-1.193	-0.54224	-2.68***
Gas Expenses	-0.12234	-0.258	-0.2416	-0.4772	0.25058	0.4776
Health	-0.22247	-1.365	-0.34773	-2.066**	-0.38859	-2.307**
Recreation	-8.81E-02	-0.4209	-0.13827	-0.6433	-0.22032	-1.023
Education net Tuition	1.8247	3.011***	1.8984	2.665**	1.9236	2.77***
Tuition	-5.91E-02	-0.4222	4.72E-03	3.01E-01	0.22687	1.362
Tobacco & Alcohol	-0.40491	-2.846***	-0.45562	-3.113***	-0.83513	-5.989***
Tax	-1.192	-9.197***	-1.261	-9.303***	-1.4034	-10.16***
Pension & Insurance	-1.8359	-4.626***	-1.9144	-4.628***	-1.8674	-4.462***
Adjusted R Square	0.1903		0.2054		0.2391	
Obs	4546		4546		4546	

Table 7: Less than $30,000 in Household Income 2007(*, **, *** - significance at the 10%, 5%, and 1% levels)

	Dep Var 1 if Cons> 105%	Mean= 0.53	Dep Var 1 if Cons> 110%	Mean= 0.45	Dep Var 1 if Cons> 120%	Mean= 0.33
VARIABLE	ESTIMATED COEFF	T-RATIO	ESTIMATED COEFF	T-RATIO	ESTIMATED COEFF	T-RATIO
Married	-2.55E-02	-1.303	-2.20E-02	-1.126	-1.35E-02	-0.7422
Male	-1.06E-02	-0.6191	-6.25E-03	-0.3658	4.47E-05	2.83E-03
Own Weeks Worked	-1.27E-03	-2.075**	-1.37E-03	-2.207**	-1.83E-03	-3.078***
30 to 39 years	6.38E-02	1.876*	2.77E-02	0.7993	-8.10E-03	-0.2472
40 to 49 years	0.10508	3.056***	7.00E-02	1.971**	2.15E-02	0.631
50 to 59 years	4.45E-02	1.278	2.73E-02	0.7808	1.35E-02	0.4005
60 to 69 years	-6.51E-02	-1.805*	-5.52E-02	-1.519	-6.76E-02	-1.947*
70 years and up	-0.20862	-5.756***	-0.20949	-5.738***	-0.2101	-6.029***
One child aged 0-4	3.38E-02	0.8013	2.24E-03	5.05E-02	-5.00E-02	-1.215
Two or more children aged 0-4	-7.25E-02	-0.9912	-9.58E-02	-1.281	-3.17E-02	-0.4163
At least High School	4.31E-02	2.146**	4.91E-02	2.461**	5.48E-02	3.004***
At least College	4.43E-02	1.939*	6.78E-02	2.95***	7.93E-02	3.704***
At least University	6.81E-02	2.194**	9.46E-02	2.996***	0.1112	3.619***
Post Graduate	0.10408	1.946*	0.15391	2.89***	0.18598	3.364***
Shelter net mortgage	-0.617	-6.607***	-0.68361	-7.425***	-0.75255	-8.476***
Rent and Mortgage	-0.60958	-8.476***	-0.75831	-10.66***	-0.93709	-13.71***
Food on Stores	-1.3827	-14.86***	-1.4507	-15.9***	-1.5212	-17.86***
Food on Restaurants	-0.48163	-1.968***	-0.57693	-2.421**	-0.74304	-3.355***
Household Operations	-1.2324	-5.939***	-1.3685	-6.626***	-1.7876	-9.016***
Childcare	2.3648	4.422**	2.1598	3.2***	1.5514	2.356**
Household Furnishings	0.4721	2.494**	0.42231	2.225**	0.58618	3.14***
Clothes	0.21199	0.8763	-4.21E-02	-0.1743	-0.49776	-2.117**
Car Operations	-0.11878	-0.4718	-0.29178	-1.146	-0.61009	-2.499**
Gas Expenses	-0.33335	-0.7706	-0.21131	-0.4847	8.78E-02	0.2118
Health	-0.27422	-1.402	-0.54966	-2.82***	-0.69093	-3.608***
Recreation	8.05E-02	0.5353	-3.98E-03	-2.50E-02	-0.28382	-1.764*
Education net Tuition	1.9544	2.228**	2.5668	2.713***	2.0746	2.163***
Tuition	0.10618	0.8158	6.64E-02	0.4811	0.25609	1.709*
Tobacco & Alcohol	-0.21294	-1.535	-0.36732	-2.681***	-0.56696	-4.344***
Tax	-0.66872	-5.103***	-0.80884	-6.524***	-0.96963	-7.749***
Pension & Insurance	-1.7702	-4.74***	-1.8415	-4.768***	-1.8205	-4.857***
Adjusted R Square	0.1615		0.1720		0.2142	
Obs	3652		3652		3652	

Table 8: Less than $30,000 in Household Income 2009(*, **, *** - significance at the 10%, 5%, and 1% levels)

VARIABLE	Dep Var 1 if Cons> 105% ESTIMATED COEFF	Mean= 0.53 T-RATIO	Dep Var 1 if Cons> 110% ESTIMATED COEFF	Mean= 0.45 T-RATIO	Dep Var 1 if Cons> 120% ESTIMATED COEFF	Mean= 0.34 T-RATIO
Married	4.69E-02	1.942*	1.91E-02	0.8001	3.57E-03	0.1595
Male	2.28E-03	0.1133	4.75E-04	0.2380	-5.18E-03	-0.2765
Own Weeks Worked	-2.36E-04	-0.3149	-4.12E-04	-0.5308	-1.02E-03	-1.349
Spouse Weeks Worked	1.70E-03	1.091	5.61E-04	0.3792	1.49E-03	1.006
30 to 39 years	4.97E-02	1.276	5.62E-02	1.422	3.12E-02	0.8223
40 to 49 years	7.56E-02	1.933*	7.54E-02	1.903*	2.92E-02	0.7796
50 to 59 years	6.05E-02	1.447	6.94E-02	1.667*	5.41E-02	1.376
60 to 69 years	-1.28E-02	-0.3111	6.07E-03	0.1483	1.44E-03	0.3712
70 years and up	-0.16681	-4***	-0.14324	-3.474***	-0.13637	-3.491***
One child aged 0-4	-1.27E-02	-0.2829	-2.72E-03	-0.5811E-	-9.51E-03	-0.2126
Two or more children aged 0-4	3.81E-02	0.5309	8.54E-02	1.138	0.10094	1.409
At least High School	6.96E-02	2.917***	6.33E-02	2.706***	6.92E-02	3.161***
At least College	0.11489	4.451***	0.10375	3.998***	8.77E-02	3.562***
At least University	0.16819	4.71***	0.18359	4.965***	0.18324	4.945***
Post Graduate	0.10853	1.698*	0.10146	1.531	8.70E-02	1.302
Shelter net mortgage	-0.58541	-5.575***	-0.68405	-6.462***	-0.71218	-6.845***
Rent and Mortgage	-0.69117	-8.582***	-0.76704	-9.273***	-0.86689	-10.76***
Food on Stores	-1.53	-14.16***	-1.6071	-15.05***	-1.6538	-16.61***
Food on Restaurants	-0.49524	-1.606	-0.43875	-1.397	-0.67397	-2.253**
Household Operations	-1.1545	-4.816***	-1.2588	-5.018***	-1.5108	-5.904***
Childcare	1.357	1.893*	1.106	1.416	1.6485	2.272**
Household Furnishings	0.51286	2.381**	0.28709	1.135	7.65E-02	0.3133
Clothes	-0.50514	-1.923*	-0.40955	-1.543	-0.4915	-1.848*
Car Operations	-0.75554	-2.67**	-0.46208	-1.638	-0.73106	-2.693***
Gas Expenses	0.76446	1.508	6.67E-02	0.1329	0.43931	0.901
Health	-0.66652	-3.242***	-0.65104	-3.19***	-0.83753	-4.425
Recreation	-0.36798	-1.839*	-0.28458	-1.398	-0.26231	-1.296
Education net Tuition	1.1308	1.554	1.017	1.235	1.9764	2.355**
Tuition	8.53E-03	0.5680E-	0.2095	1.277	0.24094	1.342
Tobacco & Alcohol	-0.51355	-3.545***	-0.51429	-3.516***	-0.80293	-6.162***
Tax	-0.83019	-5.935***	-0.82527	-5.902***	-0.93074	-6.876***
Pension & Insurance	-2.2068	-5.448***	-2.2605	-5.502***	-2.2347	-5.372***
Adjusted R Square	0.1602		0.1677		0.1945	
Obs	2635		2635		2635	

Table 9: Between $30,000 - $50,000 in Household Income 2005 Wave(*, **, *** - significance at the 10%, 5%, and 1% levels)

VARIABLE	Dep Var 1 if Cons> 105% ESTIMATED COEFF	Mean = 0.427 T-RATIO	Dep Var 1 if Cons> 110% ESTIMATED COEFF	Mean = 0.352 T-RATIO	Dep Var 1 if Cons> 120% ESTIMATED COEFF	Mean = 0.225 T-RATIO
Married	-5.66E-02	-2.651***	-5.15E-02	-2.495**	-4.79E-02	-2.581**
Male	-4.08E-03	-0.2458	1.88E-05	1.19E-01	-6.04E-03	-0.4374
Own Weeks Worked	6.14E-04	1.272	6.78E-04	1.441	5.05E-04	1.21
Spouse Weeks Worked	1.82E-04	0.358	4.20E-04	0.8543	4.65E-04	1.042
30 to 39 years	4.73E-02	1.648*	2.50E-02	0.89	1.96E-02	0.8
40 to 49 years	6.99E-02	2.415**	3.02E-02	1.074	5.29E-02	2.124**
50 to 59 years	3.66E-02	1.203	2.50E-03	8.46E-01	3.28E-02	1.236
60 to 69 years	-9.29E-03	-0.2586	-3.34E-02	-0.9685	-1.14E-02	-0.3713
70 years and up	-0.20861	-5.264***	-0.22008	-5.81***	-0.15128	-4.56***
One child aged 0-4	6.06E-02	1.812*	2.95E-02	0.9162	1.35E-02	0.4788
Two or more children aged 0-4	7.41E-02	1.382	9.04E-02	1.658*	8.91E-02	1.635*
At least High School	1.29E-02	0.5882	1.38E-02	0.67	2.50E-02	1.417
At least College	5.98E-02	2.733***	4.02E-02	1.946**	5.63E-02	3.155***
At least University	4.30E-02	1.548	5.90E-02	2.194**	6.23E-02	2.635**
Post Graduate	9.95E-02	2.238**	0.1373	3.103***	0.12324	2.944***
Shelter net mortgage	-0.86538	-6.601***	-0.90479	-6.993***	-0.99885	-8.45***
Rent and Mortgage	-1.0446	-10.63***	-1.1436	-12.25***	-1.3184	-15.37***
Food on Stores	-2.6103	-15.36***	-2.5794	-16.69***	-2.2347	-17.6***
Food on Restaurants	-1.0304	-3.569***	-1.0915	-4.004***	-1.2195	-5.015***
Household Operations	-1.8622	-5.187***	-1.99	-5.325***	-2.0029	-7.252***
Childcare	0.73521	1.126	1.1118	1.709*	1.4466	2.616**
Household Furnishings	-0.15306	-0.6256	-0.26437	-1.125	-0.43948	-1.949**
Clothes	-0.69938	-2.381**	-0.65868	-2.305**	-1.137	-4.372***
Car Operations	-1.7477	-5.753***	-1.4812	-5.099***	-1.7306	-6.756***
Gas Expenses	0.72315	1.455	0.25035	0.5323	0.60575	1.465
Health	-1.394	-6.561***	-1.4201	-6.867***	-1.371	-7.594***
Recreation	-0.50261	-2.896***	-0.69358	-4.081***	-0.74205	-4.546***
Education net Tuition	1.0766	0.9009	1.2866	1.084	0.78972	0.7827
Tuition	0.21283	0.7778	-2.93E-02	-0.1033	-0.15887	-0.5754
Tobacco & Alcohol	-0.48275	-2.784***	-0.60833	-3.629***	-1.0158	-7.087***
Tax	-1.8425	-15.85***	-1.9051	-16.97***	-1.7934	-18.03***
Pension & Insurance	-2.1566	-6.053***	-2.2497	-6.215***	-1.9371	-5.816***
Adjusted R Square	0.2225		0.2382		0.2467	
Obs	3308		3308		3308	

Table 10: Between $30,000 - $50,000 in Household Income 2007 Wave (*, **, *** - significance at the 10%, 5%, and 1% levels)

	Dep Var 1 if Cons> 105%	Mean= 0.42	Dep Var 1 if Cons> 110%	Mean= 0.34	Dep Var 1 if Cons> 120%	Mean= 0.23
VARIABLE	ESTIMATED COEFF	T-RATIO	ESTIMATED COEFF	T-RATIO	ESTIMATED COEFF	T-RATIO
Married	-6.11E-02	-3.051***	-5.36E-02	-2.827***	-4.41E-02	-2.604**
Male	-4.62E-03	-0.259	1.57E-02	0.9249	1.63E-02	1.099
Own Weeks Worked	-1.18E-04	-0.2355	-7.48E-04	-1.557	-6.28E-04	-1.47
30 to 39 years	0.10787	3.259***	9.43E-02	2.903***	5.20E-02	1.823*
40 to 49 years	7.45E-02	2.193**	6.54E-02	1.986**	6.96E-02	2.379**
50 to 59 years	1.32E-03	3.79E-02	5.33E-03	0.1602	1.41E-02	0.4883
60 to 69 years	-8.14E-02	-2.18**	-7.85E-02	-2.218**	-6.39E-02	-2.09**
70 years and up	-0.19193	-4.719***	-0.18918	-4.964***	-0.13906	-4.218***
One child aged 0-4	-4.01E-02	-1.04	-4.07E-03	-0.1074	-3.79E-02	-1.193
Two or more children aged 0-4	0.10067	1.609	0.11952	1.98**	9.47E-02	1.733*
At least High School	2.42E-02	1.043	2.90E-02	1.344	1.77E-02	0.9621
At least College	3.05E-02	1.311	1.97E-02	0.901	3.09E-02	1.649*
At least University	1.20E-02	0.3997	1.96E-02	0.6815	8.25E-03	0.3368
Post Graduate	-1.59E-02	-0.3156	-1.31E-02	-0.2806	-3.98E-03	-9.69E-02
Shelter net mortgage	-0.82052	-6.122***	-0.90302	-6.83***	-0.79402	-6.268***
Rent and Mortgage	-1.0712	-10.42***	-1.1899	-11.78***	-1.1937	-12.66***
Food on Stores	-2.6387	-18.36***	-2.6962	-20.12***	-2.423	-21.2***
Food on Restaurants	-0.89277	-3.062***	-1.0857	-3.918***	-1.4151	-5.972***
Household Operations	-2.0649	-6.516***	-2.0087	-6.243***	-2.1184	-7.201***
Childcare	2.0549	3.158***	1.5722	2.358**	1.7361	2.897***
Household Furnishings	-0.1244	-0.4943	-0.40884	-1.671*	-0.41346	-1.833*
Clothes	-0.41422	-1.425	-0.61605	-2.016**	-1.182	-4.399****
Car Operations	-1.873	-5.684***	-1.8903	-6.101***	-2.0308	-7.781***
Gas Expenses	1.3201	2.566**	1.1456	2.423***	1.2764	3.133***
Health	-0.89732	-3.949***	-1.2503	-6.249***	-1.5108	-8.605***
Recreation	-0.36795	-2.034**	-0.32047	-1.787*	-0.45353	-2.615**
Education net Tuition	4.2464	3.921***	3.8737	3.379***	2.5558	2.253**
Tuition	-0.37007	-1.076	-0.44918	-1.213	-0.47705	-1.339
Tobacco & Alcohol	-0.49775	-2.551***	-0.78753	-4.224***	-1.0694	-6.509***
Tax	-1.4372	-12.96***	-1.5731	-14.7***	-1.6505	-16.6***
Pension & Insurance	-2.3725	-10.08***	-2.2268	-9.78***	-2.1655	-10.53***
Adjusted R Square	0.1943		0.2151		0.2396	
Obs	2848		2848		2848	

Table 11: Between $30,000 - $50,000 in Household Income 2009 Wave (*, **, *** - significance at the 10%, 5%, and 1% levels)

VARIABLE	Dep Var 1 if Cons> 105% ESTIMATED COEFF	Mean= 0.40 T-RATIO	Dep Var 1 if Cons> 110% ESTIMATED COEFF	Mean= 0.34 T-RATIO	Dep Var 1 if Cons> 120% ESTIMATED COEFF	Mean= 0.24 T-RATIO
Married	-7.79E-02	-3.162***	-7.57E-02	-3.201***	-5.79E-02	-2.761***
Male	-1.54E-02	-0.7747	-1.94E-02	-1.005	-1.27E-02	-0.743
Own Weeks Worked	7.64E-06	0.1331	6.67E-04	1.208	7.17E-04	1.439
Spouse Weeks Worked	-3.79E-04	-0.5336	-8.52E-05	-0.1234	-1.06E-04	-0.1715
30 to 39 years	3.02E-02	0.8001	2.81E-03	0.757	1.64E-02	0.4983
40 to 49 years	3.92E-02	1.038	8.27E-03	0.2248	3.27E-02	1.032
50 to 59 years	6.21E-02	1.584	3.05E-02	0.7857	5.45E-02	1.591
60 to 69 years	-4.63E-02	-1.103	-5.92E-02	-1.46	-1.43E-02	-0.4091
70 years and up	-0.21763	-4.736***	-0.20872	-4.698***	-0.13375	-3.478***
One child aged 0-4	-4.86E-02	-1.059	-1.82E-02	-0.4068	3.48E-02	0.8735
Two or more children aged 0-4	8.73E-02	1.254	7.58E-02	1.208	0.11188	1.913*
At least High School	5.05E-02	1.912*	4.07E-02	1.604	1.65E-02	0.7568
At least College	6.76E-02	2.549**	6.09E-02	2.394**	3.86E-02	1.714*
At least University	8.71E-02	2.729***	8.05E-02	2.615**	3.95E-02	1.408
Post Graduate	6.23E-02	1.213	9.90E-02	1.959**	8.25E-02	1.749*
Shelter net mortgage	-1.0177	-7.12***	-1.0382	-7.563***	-0.89995	-7.098***
Rent and Mortgage	-1.0107	-9.814***	-1.0003	-9.878***	-1.0354	-10.97***
Food on Stores	-2.3353	-14.55***	-2.3183	-15.78***	-2.2105	-17.55***
Food on Restaurants	-0.69593	-1.82*	-1.0092	-2.753***	-1.2424	-4.006***
Household Operations	-2.1516	-6.725***	-2.5123	-8.123***	-2.4615	-9.665***
Childcare	3.1624	3.82***	2.8859	3.613***	2.4566	3.708***
Household Furnishings	-0.56638	-1.943*	-0.47681	-1.685*	-0.57726	-2.175**
Clothes	-0.58786	-1.708*	-0.76253	-2.287**	-0.81247	-2.666**
Car Operations	-1.85	-5.304***	-1.7156	-5.083***	-1.8565	-6.335***
Gas Expenses	0.92957	1.636	1.0528	1.92*	1.1838	2.5**
Health	-0.918	-3.874***	-0.82821	-3.592***	-0.94275	-4.415***
Recreation	-0.22505	-1.243	-0.21592	-1.216	-0.50353	-2.974***
Education net Tuition	-0.39083	-0.316	0.88211	0.7893	1.6628	1.55
Tuition	8.31E-02	0.2506	-0.244	-0.7178	-0.24002	-0.6703
Tobacco & Alcohol	-0.82127	-3.925***	-0.84421	-4.306***	-0.93763	-5.404***
Tax	-1.2651	-10.56***	-1.337	-11.85***	-1.2597	-12.12***
Pension & Insurance	-3.0668	-10.38***	-3.0057	-11.12***	-2.7904	-11.41***
Adjusted R Square	0.2113		0.228		0.2365	
Obs	2,190		2,190		2,190	

Table 12: Between $50,000 - $100,000 in Household Income 2005 Wave (*, **, *** - significance at the 10%, 5%, and 1% levels)

	Dep Var 1 if Cons> 105%	Mean = 0.32	Dep Var 1 if Cons> 110%	Mean = 0.252	Dep Var 1 if Cons> 120%	Mean = 0.149
VARIABLE	ESTIMATED COEFF	T-RATIO	ESTIMATED COEFF	T-RATIO	ESTIMATED COEFF	T-RATIO
Married	-2.13E-02	-1.124	-2.89E-02	-1.622	-2.02E-02	-1.341
Male	-1.94E-02	-1.604	-5.19E-03	-0.4592	-1.37E-02	-1.437
Own Weeks Worked	6.17E-04	1.828*	5.20E-04	1.631	1.33E-04	0.4823
Spouse Weeks Worked	-1.34E-04	-0.3923	-3.35E-04	-1.03	-2.88E-04	-1.036
30 to 39 years	1.23E-02	0.5668	-9.52E-03	-0.459	-1.14E-02	-0.6463
40 to 49 years	-5.97E-03	-0.2683	-1.04E-02	-0.4965	7.43E-03	0.4165
50 to 59 years	-4.61E-02	-1.972**	-3.71E-02	-1.679*	-1.00E-02	-0.5306
60 to 69 years	-0.11082	-3.908***	-8.45E-02	-3.141***	-5.94E-02	-2.576**
70 years and up	-0.2221	-6.094***	-0.20354	-5.977***	-0.1656	-5.908***
One child aged 0-4	5.51E-04	2.51E-01	1.28E-03	6.19E-01	2.44E-02	1.356
Two or more children aged 0-4	5.59E-03	0.1782	1.44E-02	0.4781	-1.01E-02	-0.4318
At least High School	4.65E-02	2.249**	4.28E-02	2.227**	9.76E-03	0.5837
At least College	3.16E-02	1.594	3.44E-02	1.867*	7.98E-05	4.94E-01
At least University	1.18E-02	0.5528	1.41E-02	0.7074	4.40E-03	0.2492
Post Graduate	2.08E-02	0.7743	3.78E-02	1.491	-5.50E-03	-0.2507
Shelter net mortgage	-0.54593	-4.266***	-0.57114	-4.566***	-0.52221	-4.535***
Rent and Mortgage	-1.0922	-11.49***	-1.1055	-12.11***	-1.0062	-12.9***
Food on Stores	-2.7354	-16.38***	-2.5305	-16.66***	-1.9782	-16.43***
Food on Restaurants	-1.2438	-4.958***	-1.311	-5.696***	-1.126	-6.146***
Household Operations	-2.484	-8.589***	-2.1844	-8.07***	-1.6639	-6.995***
Childcare	1.6878	3.945***	1.3953	3.496***	0.79551	2.413**
Household Furnishings	0.10811	0.5181	0.17245	0.8585	0.15704	0.8721
Clothes	-1.2174	-4.637***	-1.2354	-5.021***	-1.106	-5.432***
Car Operations	-2.3207	-8.473***	-2.1661	-8.347***	-1.6943	-7.548***
Gas Expenses	0.78904	1.885*	0.76639	1.958**	0.5742	1.737*
Health	-1.3246	-5.563***	-1.4906	-6.896***	-1.3909	-7.905***
Recreation	-0.62	-3.521***	-0.5815	-3.352***	-0.54292	-4.875***
Education net Tuition	0.84462	1.171	0.82603	1.198	-1.1958	-2.384**
Tuition	6.27E-02	0.2124	-6.39E-02	-0.2224	-5.49E-02	-0.2159
Tobacco & Alcohol	-0.80311	-4.142***	-0.82574	-4.566***	-0.78771	-5.303***
Tax	-2.3016	-28.83***	-2.1197	-27.35***	-1.6412	-23.15***
Pension & Insurance	-2.8282	-10.34***	-2.6254	-10.03***	-1.915	-8.437***
	0.2661		0.2608		0.2229	
	5,112		5,112		5,112	

Table 13: Between $50,000 - $100,000 in Household Income 2007 Wave(*, **, *** - significance at the 10%, 5%, and 1% levels)

	Dep Var 1 if Cons> 105%	Mean= 0.33	Dep Var 1 if Cons> 110%	Mean= 0.26	Dep Var 1 if Cons> 120%	Mean=0.16
VARIABLE	ESTIMATED COEFF	T-RATIO	ESTIMATED COEFF	T-RATIO	ESTIMATED COEFF	T-RATIO
Married	-1.81E-02	-1.207	-1.10E-02	-0.7969	-3.28E-03	-0.2751
Male	3.27E-03	0.2574	-8.86E-03	-0.7465	-5.15E-03	-0.5122
Own Weeks Worked	-1.87E-04	-0.5532	-4.10E-05	-0.1288	-1.58E-04	-0.5749
30 to 39 years	6.38E-02	2.676**	5.12E-02	2.246**	4.17E-02	2.155**
40 to 49 years	5.90E-02	2.501**	5.27E-02	2.357**	3.58E-02	1.892*
50 to 59 years	2.18E-02	0.9096	1.72E-02	0.7629	1.54E-02	0.789
60 to 69 years	-6.22E-02	-2.208**	-4.85E-02	-1.834*	-4.40E-02	-1.962**
70 years and up	-0.19478	-5.808***	-0.19997	-6.496***	-0.16522	-6.269***
One child aged 0-4	5.01E-02	2.142**	5.02E-02	2.238**	9.90E-03	0.5228
Two or more children aged 0-4	1.48E-02	0.3398	4.78E-02	1.12	-5.23E-03	-0.1462
At least High School	2.51E-03	0.126	2.98E-03	0.1617	1.77E-02	1.148
At least College	4.29E-03	0.2164	-7.29E-03	-0.3972	6.83E-03	0.4444
At least University	-1.17E-02	-0.5392	-2.87E-02	-1.44	-5.67E-03	-0.336
Post Graduate	-2.75E-02	-0.9811	-2.86E-02	-1.1	9.22E-03	0.4136
Shelter net mortgage	-1.17	-9.359***	-1.1298	-9.203***	-0.78716	-6.782***
Rent and Mortgage	-0.90517	-9.881***	-0.97557	-11.24***	-0.95174	-12.32***
Food on Stores	-2.7066	-17.6***	-2.5229	-18.85***	-1.9841	-17.23***
Food on Restaurants	-1.5565	-6.228***	-1.7203	-7.768***	-1.2471	-6.742***
Household Operations	-1.7315	-5.699***	-1.5914	-5.491***	-1.81	-7.929***
Childcare	0.50386	1.06	0.42232	0.9354	0.8545	2.381**
Household Furnishings	0.19468	0.8676	-0.11309	-0.5237	-0.15364	-0.8051
Clothes	-0.97702	-4.034***	-0.9563	-4.382***	-0.92085	-4.745***
Car Operations	-2.0002	-6.925***	-1.6618	-6.191***	-1.2985	-5.584***
Gas Expenses	1.3149	2.969***	0.56509	1.405	0.17709	0.5228
Health	-1.356	-6.394***	-1.4268	-7.779	-1.0333	-6.053***
Recreation	-0.40738	-3.147***	-0.32617	-2.557**	-0.31049	-2.625**
Education net Tuition	0.25399	0.2809	-0.28789	-0.348	-1.4873	-2.332**
Tuition	0.29655	0.9891	6.95E-02	0.2402	-0.27109	-1.041
Tobacco & Alcohol	-1.1655	-6.033***	-1.088	-5.968***	-0.94616	-5.964***
Tax	-1.7391	-23.3***	-1.6849	-23.45***	-1.4641	-22.1***
Pension & Insurance	-3.0193	-13.1***	-2.7859	-13.04***	-2.1116	-11.3***
Adjusted R Square	0.2149		0.2345		0.2305	
Obs	4894		4894		4894	

Table 14: Between $50,000 - $100,000 in Household Income 2009 Wave(*, **, *** - significance at the 10%, 5%, and 1% levels)

	Dep Var 1 if Cons> 105%	Mean= 0.31	Dep Var 1 if Cons> 110%	Mean= 0.25	Dep Var 1 if Cons> 120%	Mean= 0.15
VARIABLE	ESTIMATED COEFF	T-RATIO	ESTIMATED COEFF	T-RATIO	ESTIMATED COEFF	T-RATIO
Married	-1.74E-02	-0.8437	-2.69E-02	-1.398	-1.87E-02	-1.142
Male	-9.26E-03	-0.6353	-1.03E-02	-0.7543	-2.06E-03	-0.1788
Own Weeks Worked	-9.03E-04	-2.222**	-8.02E-04	-2.078**	-9.23E-04	-2.772***
Spouse Weeks Worked	-2.13E-04	-0.5175	-4.19E-04	-1.082	-2.51E-04	-0.751
30 to 39 years	5.52E-02	2.174**	3.44E-02	1.435	2.41E-02	1.186
40 to 49 years	1.04E-02	0.4084	7.87E-03	0.3264	2.17E-02	1.056
50 to 59 years	-2.26E-02	-0.8572	-3.72E-02	-1.494	-2.36E-02	-1.141
60 to 69 years	-0.12418	-4.19***	-9.42E-02	-3.364***	-6.34E-02	-2.714***
70 years and up	-0.21844	-5.536***	-0.1899	-5.155***	-0.1344	-4.246***
One child aged 0-4	3.21E-02	1.111	3.51E-02	1.275	2.93E-02	1.23
Two or more children aged 0-4	0.1045	2.471**	7.49E-02	1.787*	7.23E-02	1.918*
At least High School	1.95E-02	0.8943	2.32E-02	1.123	1.49E-02	0.8583
At least College	1.96E-02	0.9283	2.71E-02	1.349	-4.46E-04	-0.2663
At least University	-5.02E-03	-0.2141	-1.42E-02	-0.6418	-1.46E-02	-0.7783
Post Graduate	1.61E-03	0.5302	-2.15E-03	-0.7512	8.85E-04	0.3637
Shelter net mortgage	-1.1569	-8.355***	-1.01	-7.463***	-0.63064	-5.087***
Rent and Mortgage	-1.0387	-10.86***	-0.96987	-10.54***	-0.77888	-9.389***
Food on Stores	-2.1824	-13.75***	-2.0862	-13.84***	-1.5064	-11.91***
Food on Restaurants	-1.0345	-3.054***	-1.0131	-3.218***	-0.97866	-3.836***
Household Operations	-2.0625	-5.309***	-1.7767	-4.854***	-1.1721	-3.6***
Childcare	1.0384	1.846*	1.1234	2.112**	0.78326	1.68*
Household Furnishings	9.59E-02	0.405	0.18636	0.8186	-0.12711	-0.6225
Clothes	-1.2074	-4.43***	-1.2368	-4.9***	-0.9005	-4.258***
Car Operations	-2.0603	-6.544***	-1.9716	-6.819***	-1.3144	-5.349***
Gas Expenses	0.50322	1.066	0.40907	0.9745	0.16709	0.4657
Health	-1.2554	-5.441***	-1.1894	-5.972***	-0.87337	-4.929***
Recreation	-0.59424	-5.196***	-0.51718	-4.227***	-0.36286	-3.305***
Education net Tuition	2.6539	2.086**	2.1906	1.81*	0.29259	0.2765
Tuition	-0.40743	-1.167	-0.22115	-0.6452	0.33488	1.022
Tobacco & Alcohol	-0.96139	-4.718***	-0.93492	-5.032***	-0.70126	-4.769***
Tax	-1.6347	-19.35***	-1.5117	-18.5***	-1.1394	-14.86***
Pension & Insurance	-2.3991	-7.227***	-2.1472	-6.805***	-1.4832	-5.413***
Adjusted R Square	0.1965		0.1913		0.1502	
Obs	3848		3848		3848	

Table 15: Between $100,000 - $150,000 in Household Income 2005 Wave(*, **, *** - significance at the 10%, 5%, and 1% levels)

	Dep Var 1 if Cons> 105%	Mean = 0.216	Dep Var 1 if Cons> 110%	Mean = 0.163	Dep Var 1 if Cons> 120%	Mean = 0.0866
VARIABLE	ESTIMATED COEFF	T-RATIO	ESTIMATED COEFF	T-RATIO	ESTIMATED COEFF	T-RATIO
Married	-0.1253	-3.171***	-7.74E-02	-2.106**	-6.94E-03	-0.2204
Male	2.28E-03	0.1064	-5.62E-03	-0.292	-9.32E-03	-0.6068
Own Weeks Worked	7.50E-04	1.399	3.92E-04	0.7927	4.28E-05	0.1058
Spouse Weeks Worked	4.43E-05	7.81E-01	-6.97E-06	-1.35E-01	1.05E-05	2.63E-01
30 to 39 years	2.65E-02	0.5924	1.92E-02	0.465	4.46E-02	1.472
40 to 49 years	4.47E-02	0.9999	4.45E-02	1.07	4.88E-02	1.646*
50 to 59 years	6.62E-02	1.42	4.52E-02	1.057	6.44E-02	2.062**
60 to 69 years	3.20E-02	0.5476	1.29E-02	0.2436	6.69E-02	1.591
70 years and up	-4.38E-02	-0.5594	-6.19E-02	-0.844	-6.90E-02	-1.269
One child aged 0-4	7.56E-02	2.002**	7.46E-02	2.169**	-1.42E-02	-0.5327
Two or more children aged 0-4	0.1137	1.698*	6.70E-02	1.139	8.93E-02	1.677*
At least High School	2.82E-02	0.6473	-1.94E-02	-0.4883	-2.35E-02	-0.7158
At least College	2.64E-02	0.6201	8.85E-03	0.2253	-1.86E-02	-0.5722
At least University	2.29E-02	0.5309	2.15E-02	0.5387	1.12E-02	0.3393
Post Graduate	2.62E-02	0.5564	-6.20E-03	-0.1456	-2.48E-03	-7.12E-01
Shelter net mortgage	-0.84048	-3.233***	-0.90761	-3.622***	-0.66758	-3.504***
Rent and Mortgage	-0.98989	-5.509***	-1.0803	-6.728***	-0.77715	-5.736***
Food on Stores	-2.6539	-9.874***	-2.2709	-9.197***	-1.588	-8.053***
Food on Restaurants	-1.4015	-2.834**	-1.638	-3.844***	-1.2043	-3.873***
Household Operations	-3.007	-5.515***	-2.2756	-4.627***	-1.3642	-3.563***
Childcare	2.8065	3.492***	1.4134	1.971	1.4087	2.415**
Household Furnishings	0.16431	0.398	-0.14303	-0.3787	9.07E-02	0.2779
Clothes	-0.3426	-0.6919	-0.18657	-0.3982	-0.66522	-1.965**
Car Operations	-0.68357	-1.366	-0.72933	-1.614	-0.70818	-1.853*
Gas Expenses	-1.8178	-2.246	-1.5717	-2.188**	-1.1623	-1.993**
Health	-0.4309	-0.8541	-1.0682	-2.654**	-0.72381	-2.305**
Recreation	2.21E-02	0.1091	-0.10773	-0.5408	0.10814	0.569
Education net Tuition	1.393	1.233	0.25883	0.2776	-0.11335	-0.1934
Tuition	-4.89E-02	-0.1023	-0.16321	-0.3742	-0.18864	-0.5458
Tobacco & Alcohol	-0.91343	-2.238**	-1.2063	-3.339***	-0.54392	-1.983**
Tax	-1.6671	-11.02***	-1.5252	-10.61***	-1.0185	-9.083***
Pension & Insurance	-2.6736	-9.869***	-2.4776	-10.88***	-1.4746	-8.029***
Adjusted R Square	0.2320		0.2280		0.1925	
Obs	1,489		1,489		1,489	

Table 16: Between $100,000 - $150,000 in Household Income 2007 Wave(*, **, *** - significance at the 10%, 5%, and 1% levels)

VARIABLE	Dep Var 1 if Cons> 105%	Mean= 0.23	Dep Var 1 if Cons> 110%	Mean= 0.18	Dep Var 1 if Cons> 120%	Mean= 0.08
	ESTIMATED COEFF	T-RATIO	ESTIMATED COEFF	T-RATIO	ESTIMATED COEFF	T-RATIO
Married	-4.62E-02	-1.529	-2.64E-02	-0.9399	-3.96E-02	-2.041**
Male	-1.31E-02	-0.6626	-6.01E-03	-0.33	3.09E-03	0.2371
Own Weeks Worked	3.63E-04	0.6895	4.00E-04	0.8455	3.71E-04	1.092
30 to 39 years	-3.23E-02	-0.6998	-2.96E-02	-0.6799	-3.21E-02	-0.8992
40 to 49 years	8.38E-03	0.181	1.87E-02	0.4304	-2.25E-02	-0.64
50 to 59 years	-1.99E-02	-0.4312	-1.27E-02	-0.2916	-2.70E-02	-0.7534
60 to 69 years	-7.63E-02	-1.473	-6.71E-02	-1.384	-7.28E-02	-1.898*
70 years and up	1.15E-02	0.1467	3.41E-02	0.4768	-4.62E-02	-0.8383
One child aged 0-4	3.92E-02	1.023	5.01E-02	1.348	-9.44E-03	-0.3944
Two or more children aged 0-4	-8.68E-03	-0.1612	6.96E-04	1.44E-02	3.47E-02	0.8157
At least High School	1.04E-02	0.2773	2.49E-02	0.7294	1.07E-02	0.4274
At least College	1.17E-02	0.3231	3.11E-03	9.47E-02	-6.29E-05	-2.61E-03
At least University	4.10E-02	1.092	3.75E-02	1.092	9.75E-03	0.3917
Post Graduate	3.56E-02	0.8506	2.38E-02	0.6299	-1.70E-03	-6.39E-02
Shelter net mortgage	-1.3895	-5.475***	-1.1965	-5.08***	-0.62911	-3.404
Rent and Mortgage	-0.94373	-5.603***	-0.92562	-5.879***	-0.89415	-7.885***
Food on Stores	-2.6511	-9.78***	-2.4062	-9.589***	-1.5364	-8.445***
Food on Restaurants	-1.1219	-2.082**	-1.2631	-2.648**	-0.9994	-2.809***
Household Operations	-1.6327	-3.8010***	-1.6331	-4.093***	-0.73833	-2.464**
Childcare	0.3718	0.5676	0.79396	1.288	-2.20E-02	-5.82E-02
Household Furnishings	-0.22902	-0.5697	-7.48E-04	-1.92E-03	-0.7283	-3.069***
Clothes	-0.22529	-0.5182	-0.37749	-0.9277	-0.24653	-0.7777
Car Operations	-2.373	-4.268***	-2.0068	-3.805***	-1.8978	-6.511***
Gas Expenses	0.965	1.131	0.48987	0.6097	0.66763	1.534
Health	-2.3004	-6.324***	-2.0579	-6.249***	-1.3729	-5.654***
Recreation	-0.39433	-1.85*	-0.32362	-1.605	-0.23646	-1.381
Education net Tuition	-0.29925	-0.2304	-0.41206	-0.3777	-0.62928	-0.7222
Tuition	-0.57082	-1.144	-0.31376	-0.6698	-0.13707	-0.3847
Tobacco & Alcohol	-0.65958	-1.551	-0.48417	-1.217	-0.25278	-0.7486
Tax	-1.7283	-14.61***	-1.5653	-14.07***	-1.0598	-10.94***
Pension & Insurance	-2.8253	-11.95***	-2.4644	-10.85***	-1.7906	-10.76***
Adjusted R Square	0.2004		0.2117		0.1895	
Obs	1679		1679		1679	

Table 17: Between $100,000 - $150,000 in Household Income 2009 Wave(*, **, *** - significance at the 10%, 5%, and 1% levels)

VARIABLE	Dep Var 1 if Cons> 105% ESTIMATED COEFF	Mean= 0.17 T-RATIO	Dep Var 1 if Cons> 110% ESTIMATED COEFF	Mean= 0.13 T-RATIO	Dep Var 1 if Cons> 120% ESTIMATED COEFF	Mean= 0.076 T-RATIO
Married	8.59E-02	2.319**	4.34E-02	1.271	4.47E-02	1.514
Male	2.55E-02	1.204	-5.90E-03	-0.3151	1.16E-02	0.816
Own Weeks Worked	5.32E-04	1.007	6.65E-04	1.414	-6.27E-05	-0.1582
Spouse Weeks Worked	2.07E-03	3.908***	9.38E-04	1.922*	3.69E-04	0.9948
30 to 39 years	-1.22E-02	-0.3024	-8.76E-03	-0.2386	3.02E-02	0.9912
40 to 49 years	4.92E-02	1.203	3.71E-02	0.991	1.07E-02	0.3619
50 to 59 years	4.83E-02	1.132	2.07E-02	0.5284	4.82E-03	0.1565
60 to 69 years	-5.01E-02	-1.023	-5.21E-02	-1.151	-6.65E-02	-1.944*
70 years and up	-7.79E-02	-0.9154	-5.81E-02	-0.6989	-4.05E-02	-0.5476
One child aged 0-4	6.84E-02	1.723*	6.57E-02	1.794*	-1.03E-02	-0.409
Two or more children aged 0-4	0.13121	2.091**	6.80E-02	1.257	3.38E-02	0.672
At least High School	-2.45E-02	-0.5655	-3.10E-02	-0.7826	-3.96E-02	-1.2
At least College	3.38E-03	0.7921E-	-1.81E-03	-0.464-	-3.24E-02	-1.01
At least University	-1.67E-02	-0.3916	-3.20E-02	-0.8438	-3.02E-02	-0.9465
Post Graduate	5.16E-03	0.1043	1.02E-02	0.2276	1.90E-03	0.5002E-
Shelter net mortgage	-0.46692	-1.828*	-0.3884	-1.543	-0.12401	-0.5283
Rent and Mortgage	-0.57152	-3.133***	-0.54694	-3.277***	-0.53471	-4.153***
Food on Stores	-1.6925	-4.316***	-1.3682	-3.712***	-0.88253	-2.842***
Food on Restaurants	-0.6239	-1.037	-0.65868	-1.25	-0.35072	-0.7637
Household Operations	-1.5361	-2.712***	-0.93175	-1.756*	-0.48811	-1.061
Childcare	0.80334	1.055	-0.16498	-0.2418	0.2422	0.4027
Household Furnishings	0.49171	1.156	0.25913	0.695	0.17353	0.5608
Clothes	-0.37586	-0.8876	-0.28352	-0.7124	-5.34E-02	-0.1634
Car Operations	-1.0419	-1.788	-1.3828	-2.672**	-1.3141	-3.556***
Gas Expenses	0.36451	0.391	1.1115	1.314	0.91193	1.61
Health	-0.18435	-0.3876	-0.32436	-0.7267	-0.44203	-1.456
Recreation	-0.24459	-1.159	-0.22937	-1.195	-0.20613	-1.353
Education net Tuition	0.88838	0.6177	-0.64676	-0.4964	-0.48019	-0.3987
Tuition	-0.47305	-0.9879	2.66E-03	0.5708	0.43459	0.9697
Tobacco & Alcohol	-1.1613	-2.345**	-0.80269	-1.754*	-0.39015	-0.9623
Tax	-1.099	-8.079***	-0.98018	-7.677***	-0.63203	-6.004***
Pension & Insurance	-2.4172	-8.777***	-1.8044	-7.065***	-1.2119	-5.773***
Adjusted R Square	0.1321		0.1039		0.0864	
Obs	1308		1308		1308	

Table 18: Greater than $150,000 in Household Income 2005 Wave(*, **, *** - significance at the 10%, 5%, and 1% levels)

VARIABLE	Dep Var 1 if Cons> 105%	Mean = 0.154	Dep Var 1 if Cons> 110%	Mean = 0.104	Dep Var 1 if Cons> 120%	Mean = 0.0506
	ESTIMATED COEFF	T-RATIO	ESTIMATED COEFF	T-RATIO	ESTIMATED COEFF	T-RATIO
Married	-2.87E-02	-0.5419	-2.40E-02	-0.5276	-7.81E-03	-0.2184
Male	-1.43E-02	-0.5731	8.68E-04	4.04E-01	6.67E-03	0.4182
Own Weeks Worked	2.97E-04	0.4742	-4.24E-06	-8.01E-01	-4.76E-04	-1.14
Spouse Weeks Worked	-1.15E-03	-1.769*	-7.78E-04	-1.424	-4.47E-04	-1.081
30 to 39 years	8.58E-03	0.1219	1.49E-03	2.76E-01	-2.91E-02	-0.7432
40 to 49 years	7.83E-02	1.115	4.69E-02	0.8614	2.63E-02	0.649
50 to 59 years	8.99E-02	1.26	4.94E-02	0.8863	3.45E-02	0.8066
60 to 69 years	8.04E-02	0.9993	3.03E-02	0.478	4.32E-02	0.8688
70 years and up	1.58E-02	0.1692	-3.90E-02	-0.5304	-1.78E-02	-0.3058
One child aged 0-4	9.89E-02	2.007**	4.35E-02	1.055	3.46E-02	1.277
Two or more children aged 0-4	7.46E-02	1.039	-1.63E-02	-0.3129	4.31E-02	0.9261
At least High School	-5.99E-02	-0.7324	-5.30E-02	-0.7595	-1.56E-02	-0.3041
At least College	-2.94E-02	-0.36	-2.35E-02	-0.3361	9.36E-03	0.1823
At least University	-2.07E-02	-0.2555	-1.24E-02	-0.1749	8.19E-03	0.16
Post Graduate	-9.64E-03	-0.1184	1.34E-02	0.1899	8.56E-03	0.1682
Shelter net mortgage	-1.2847	-4.522***	-0.86559	-3.291***	-0.54045	-2.834***
Rent and Mortgage	-0.66523	-3.068***	-0.63524	-3.288***	-0.26317	-1.624
Food on Stores	-1.6937	-4.035***	-1.7299	-5.173***	-1.2675	-4.857***
Food on Restaurants	-0.73465	-0.9251	-1.0151	-1.571	-0.44693	-1.171
Household Operations	-0.81738	-1.036	-6.40E-02	-9.68E-01	-0.23705	-0.4911
Childcare	-1.106	-1.129	-1.1647	-1.422	-0.23122	-0.4361
Household Furnishings	-0.40808	-0.9208	-0.67365	-2.012**	-0.56717	-2.588**
Clothes	-0.84795	-1.724*	-0.78736	-1.951*	-0.12839	-0.4271
Car Operations	-1.6896	-2.412**	-1.8282	-3.037***	-0.3166	-0.6648
Gas Expenses	0.69028	0.5196	0.81416	0.7514	-0.78865	-0.9269
Health	-0.84053	-1.305	-1.047	-2.498**	-0.38193	-1.118
Recreation	-0.12869	-0.45	-0.40814	-1.648*	-4.39E-02	-0.2187
Education net Tuition	-7.03E-02	-5.59E-01	-0.26021	-0.2523	-9.18E-02	-0.1209
Tuition	5.36E-02	0.1028	-0.13449	-0.2894	0.43107	0.9921
Tobacco & Alcohol	-0.70471	-0.9233	-1.4138	-2.706***	-0.70817	-1.87*
Tax	-1.4538	-9.729***	-1.2831	-9.008***	-0.71446	-6.156***
Pension & Insurance	-1.8697	-6.015***	-1.6695	-6.24***	-0.89132	-4.181***
Adjusted R Square	0.1583		0.1503		0.1544	
Obs	928		928		928	

Table 19: Greater than $150,000 in Household Income 2007 Wave(*, **, *** - significance at the 10%, 5%, and 1% levels)

	Dep Var 1 if Cons> 105%	Mean= 0.14	Dep Var 1 if Cons> 110%	Mean= 0.10	Dep Var 1 if Cons> 120%	Mean= 0.046
VARIABLE	ESTIMATED COEFF	T-RATIO	ESTIMATED COEFF	T-RATIO	ESTIMATED COEFF	T-RATIO
Married	-8.12E-03	-0.2067	2.93E-02	0.8187	2.12E-03	8.26E-02
Male	7.74E-03	0.3481	3.37E-02	1.808*	2.34E-03	0.1727
Own Weeks Worked	5.59E-04	0.9393	4.79E-05	9.45E-02	-7.85E-05	-0.1948
30 to 39 years	-0.10497	-1.532	-4.60E-03	-8.35E-02	3.64E-02	0.9667
40 to 49 years	-6.99E-02	-1.051	6.05E-03	0.1199	3.84E-02	1.075
50 to 59 years	-0.10072	-1.526	-1.21E-02	-0.2372	1.71E-02	0.4986
60 to 69 years	-0.17326	-2.527**	-7.81E-02	-1.482	-1.15E-02	-0.324
70 years and up	-0.17587	-2.119**	-0.11012	-1.585	1.96E-02	0.3456
One child aged 0-4	-2.39E-02	-0.532	-1.71E-02	-0.4432	-3.60E-02	-1.687*
Two or more children aged 0-4	-3.98E-02	-0.5772	-3.85E-03	-6.65E-02	3.42E-02	0.6613
At least High School	-5.03E-02	-0.8152	-4.04E-02	-0.7049	6.33E-03	0.1713
At least College	6.71E-03	0.1121	-1.21E-02	-0.2192	2.16E-02	0.6198
At least University	-1.27E-02	-0.2163	-3.16E-02	-0.5938	2.30E-03	6.86E-02
Post Graduate	-7.48E-03	-0.1237	-2.27E-02	-0.4117	1.94E-02	0.5398
Shelter net mortgage	-0.74863	-2.546**	-0.57448	-2.213**	-0.21876	-1.083
Rent and Mortgage	-0.61796	-3.081***	-0.68584	-3.82***	-0.18019	-1.179
Food on Stores	-1.9621	-5.324***	-1.6533	-5.082***	-0.88507	-4.003***
Food on Restaurants	-1.5677	-2.332**	-0.97942	-1.728	-0.49406	-1.222
Household Operations	-1.4345	-2.454**	-1.4498	-3.185***	-0.248	-0.6039
Childcare	1.2661	1.539	0.79718	1.337	-0.13116	-0.2682
Household Furnishings	-0.53998	-1.326	-0.58032	-1.638	-0.23644	-0.978
Clothes	-0.16866	-0.3425	-8.53E-02	-0.2122	0.11637	0.3453
Car Operations	-0.34168	-0.3966	-0.66091	-1.476	-0.48121	-1.758*
Gas Expenses	-1.1682	-0.8312	-0.33887	-0.4461	-0.32455	-0.6467
Health	-1.7303	-3.452***	-1.7985	-4.258***	-0.94746	-3.078***
Recreation	-0.33138	-1.224	1.37E-02	5.64E-02	0.17503	0.7067
Education net Tuition	-0.87095	-0.7113	-0.97435	-1.098	-0.40137	-0.7276
Tuition	-1.0746	-2.546**	-0.54743	-1.393	-5.23E-02	-0.1629
Tobacco & Alcohol	5.34E-02	7.72E-02	-0.54515	-1.132	-0.36029	-1.328
Tax	-1.211	-8.885***	-0.93271	-7.518***	-0.40786	-3.904***
Pension & Insurance	-1.6792	-6.048***	-1.4703	-6.014***	-0.68375	-3.93***
Adjusted R Square	0.1199		0.1101		0.05	
Obs	1081		1081		1081	

Table 20: Greater than $150,000 in Household Income 2009 Wave(*, **, *** - significance at the 10%, 5%, and 1% levels)

VARIABLE	Dep Var 1 if Cons> 105%	Mean=0.13	Dep Var 1 if Cons> 110%	Mean= 0.09	Dep Var 1 if Cons> 120%	Mean= 0.051
	ESTIMATED COEFF	T-RATIO	ESTIMATED COEFF	T-RATIO	ESTIMATED COEFF	T-RATIO
Married	-5.55E-02	-1.217	-3.18E-02	-0.8012	-3.64E-02	-1.193
Male	-1.29E-02	-0.5806	-9.38E-03	-0.5003	1.85E-03	0.127
Own Weeks Worked	-5.75E-04	-0.9983	-2.96E-04	-0.6078	1.24E-04	0.3563
Spouse Weeks Worked	-7.87E-04	-1.166	-3.57E-04	-0.6318	-4.77E-04	-1.031
30 to 39 years	1.08E-02	0.2114	4.04E-02	0.9878	-1.51E-02	-0.4106
40 to 49 years	7.68E-02	1.558	5.74E-02	1.488	1.68E-02	0.4815
50 to 59 years	2.35E-02	0.4842	4.32E-02	1.144	1.82E-03	0.5354E-
60 to 69 years	4.63E-02	0.8095	5.15E-02	1.153	8.22E-03	0.2181
70 years and up	6.41E-02	0.691	5.07E-02	0.7028	-1.34E-02	-0.2245
One child aged 0-4	-7.15E-02	-1.787*	-1.90E-02	-0.5028	-1.54E-02	-0.713
Two or more children aged 0-4	-3.68E-02	-0.5002	-5.11E-02	-0.9449	-3.22E-03	-0.6813E-
At least High School	-7.10E-02	-1.133	-7.27E-02	-1.23	4.66E-02	2.074**
At least College	-1.60E-02	-0.2605	-5.04E-02	-0.8768	5.85E-02	2.983***
At least University	-3.25E-02	-0.5265	-6.82E-02	-1.191	3.60E-02	2.338**
Post Graduate	-5.64E-02	-0.8978	-7.69E-02	-1.305	2.67E-02	1.407
Shelter net mortgage	-0.26536	-0.8385	3.80E-02	0.1315	-4.39E-02	-0.1491
Rent and Mortgage	-0.18773	-0.9329	-0.18598	-0.9551	-8.20E-02	-0.4804
Food on Stores	-0.94065	-1.963**	-1.055	-2.745***	-0.85649	-2.838***
Food on Restaurants	-0.62246	-0.9417	-0.46144	-0.832	-0.72731	-2.025**
Household Operations	-1.2263	-1.763*	-1.0713	-1.879*	-0.82726	-1.794*
Childcare	1.6258	1.689*	1.2285	1.443	0.37259	0.7904
Household Furnishings	-9.01E-02	-0.1975	-0.11084	-0.3033	-0.21052	-0.6323
Clothes	-0.31074	-0.6971	-0.14257	-0.3638	-7.21E-02	-0.2166
Car Operations	-2.1278	-3.098***	-2.1512	-4.092	-0.95906	-2.526**
Gas Expenses	2.0243	1.619	2.5264	2.35**	0.26586	0.3772
Health	-0.87494	-1.778*	-0.26652	-0.5963	-0.46913	-2**
Recreation	-0.16411	-0.6372	-3.61E-02	-0.1394	5.25E-02	0.2149
Education net Tuition	-0.20368	-0.1368	-0.3617	-0.3567	-0.67228	-1.063
Tuition	-0.54581	-1.422	-0.3672	-1.237	-0.30386	-1.458
Tobacco & Alcohol	-0.50088	-0.7662	-0.40626	-0.8114	-0.39055	-0.9943
Tax	-0.81624	-6.101***	-0.57284	-4.591***	-0.3715	-3.271***
Pension & Insurance	-1.1973	-5.053***	-0.80132	-3.946***	-0.44962	-2.697***
Adjusted R Square	0.0725		0.0499		0.0365	
Obs	1006		1006		1006	

Table 21: Results from summary statistics analyses – sample means

Mean proportion of expenditure	Change in Income, Liabilities, and Assets for Households losing Assets equal to 25% or more of Income and in debt (110%>income)		Change in Income, Liabilities, and Assets for Households not losing Assets equal to 25% or more of Income but also in debt (110%> income)		Change in Income, Liabilities, and Assets for Households gaining Assets equal to 25% or more of Income	
	2005	**2009**	**2005**	**2009**	**2005**	**2009**
Shelter net of Mortgage	0.10791	0.11081	9.90E-02	9.69E-02	0.12048	0.12139
Mortgage & Rent	0.10159	0.11345	0.13263	0.15115	6.70E-02	7.96E-02
Food on Stores	8.73E-02	8.97E-02	0.10789	0.10913	9.81E-02	9.33E-02
Food on Restaurants	2.47E-02	2.16E-02	2.66E-02	2.52E-02	2.38E-02	2.18E-02
Household Operations	5.09E-02	5.53E-02	6.10E-02	6.08E-02	5.37E-02	5.42E-02
Child Care	3.44E-03	4.36E-03	4.81E-03	4.75E-03	3.07E-03	3.45E-03
Household Furnishings	3.58E-02	3.00E-02	3.45E-02	3.11E-02	3.01E-02	3.10E-02
Clothes	3.65E-02	3.58E-02	4.12E-02	4.38E-02	3.62E-02	3.60E-02
Car Operations	6.76E-02	6.94E-02	7.46E-02	7.03E-02	7.29E-02	7.25E-02
Gas	3.10E-02	3.26E-02	3.53E-02	3.25E-02	3.42E-02	3.37E-02
Health	3.37E-02	3.76E-02	3.27E-02	3.31E-02	3.38E-02	3.52E-02
Recreation	6.53E-02	5.69E-02	6.41E-02	6.04E-02	5.05E-02	5.06E-02
Education Net of Tuition	5.55E-03	4.63E-03	5.04E-03	3.90E-03	3.04E-03	2.14E-03
Tuition	2.08E-02	2.06E-02	1.39E-02	1.47E-02	7.54E-03	5.56E-03
Tobacco & Alcohol	2.57E-02	2.57E-02	3.67E-02	3.55E-02	2.06E-02	2.11E-02
Personal Taxes	7.96E-02	7.24E-02	9.30E-02	9.09E-02	0.2206	0.19669
Personal Insurance & Pension	3.29E-02	2.97E-02	3.63E-02	3.42E-02	5.80E-02	6.06E-02
Change in RRSPs	-1248.7	-1904.4	449.3	606.02	5156.8	4949.1
Household Income	41501	46645	44347	50105	1.01E+05	1.08E+05
Household Expenditure	67957	72808	59468	67474	71185	77164
Change in Assets	-24965	-28805	681.75	539.43	47993	47297

Table 22

	Proportion Spent on Core Items – **Households Spending more than 110% of income**	Debt amounts of **Households Spending more than 110% of income**	Proportion Spent on Core Items – **Households Spending less than 110% of income Proportion**
Household Income Less than $50,000	0.74398 (1946 obs), Mean Income = $26,674	$13,868	0.77588 (2879 obs), Mean Income= $30,462
Household Income between $50,000-$100,000	0.76127 (990 obs), Mean Income = $71,060	$21,813	0.77908 (2990 obs), Mean Income = $73,833
Household Income Greater than $100,000	0.76194 (311 obs), Mean Income = $141,160	$40,718	0.78155 (2115 obs), Mean Income = $164,520

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