

## What Do People Buy When They Don't Buy Health Insurance?

Helen Levy  
[hlevy@uchicago.edu](mailto:hlevy@uchicago.edu)

Thomas DeLeire  
[t-deleire@uchicago.edu](mailto:t-deleire@uchicago.edu)

Harris Graduate School of Public Policy Studies  
University of Chicago

June 26, 2002

**Abstract:** Public policy debates about health insurance are usually based on the idea that uninsured households can't afford health insurance. But what does this actually mean? Households face a multitude of competing uses for their income: food, shelter, medical care, clothing, transportation, education, travel, entertainment, and so on. It is not at all clear where health insurance ranks in this list of spending priorities. Health insurance is a relatively big-ticket item, and uninsured households can purchase other goods and services with the money they do not spend on health insurance. What do people buy when they don't buy health insurance? Using data from the 1994 through 1998 Consumer Expenditure Surveys, we compare the share of household budgets allocated to 16 different expenditure categories (food at home, food away from home, housing, transportation, alcohol and tobacco, interest, furniture and appliances, home maintenance, clothing, utilities, medical care, health insurance, entertainment, personal care, education, and other) for insured versus uninsured households, controlling for total expenditures and demographic characteristics. The analysis shows that the uninsured in the lowest quartile of the distribution of total expenditures spend a larger share of their budgets on food at home, housing, alcohol and tobacco, and education than do the insured. By contrast, transportation is the only item on which uninsured households in the top quartile of the distribution of total expenditures spend a larger share of their budgets than do comparable insured households. Our results suggest that poor households who do not purchase health insurance are doing so because they have more pressing needs like food and shelter. The well-off uninsured, by contrast, appear not to purchase it because they rank consumption of less essential goods above health insurance.

We thank Vanessa Coca for excellent research assistance. Levy thanks the California Health Care Foundation for financial support.

## **1. Introduction**

Public policy debates about health insurance are usually based on the idea that uninsured households can't afford health insurance. But what does this actually mean? Households face a multitude of competing uses for their income: food, shelter, medical care, clothing, transportation, education, travel, entertainment, and so on. It is not at all clear where health insurance ranks in this list of spending priorities. Health insurance is a relatively big-ticket item, and uninsured households can purchase other goods and services with the money they do not spend on health insurance. What do people buy when they don't buy health insurance?

One reason we are interested in this question is that the answer may shed light on what public policy toward the uninsured should be. One could reasonably argue that if the uninsured choose not to purchase insurance because they would rather spend their money on vacations, there is no role for government intervention: why should they be prevented from making their own consumption decisions? If, however, the uninsured go without health insurance because they need to purchase basic necessities – food, shelter – there may be a redistributive argument for public policy to focus on the uninsured.

In this paper, we analyze the spending patterns of uninsured households and compare them to the spending patterns of insured households with similar total expenditures and other characteristics. This analysis provides insight into the tradeoffs these households face in allocating their limited resources. We compare the share of household budgets allocated to food at home, food away from home, alcohol and tobacco, housing, interest, furniture and appliances, home maintenance, clothing, transportation, utilities, entertainment, personal care, education, health care and health insurance. We find that on average during the period 1994 through 1998, households with health insurance spent \$233 in real 1998 dollars out-of-pocket per quarter on

insurance. Uninsured households were able to spend this money on other goods instead. We find that uninsured households spend more on food at home, housing, and alcohol and tobacco than do insured households with similar total expenditures and other characteristics.

We also find interesting differences when comparing insured versus uninsured households at different points in the expenditure distribution.<sup>1</sup> Low-expenditure uninsured households (that is, uninsured households in the bottom quartile of the expenditure distribution) spend more on food, housing, alcohol and tobacco, and education than do comparable insured households. By contrast, transportation is the only item on which high-expenditure uninsured households spend a larger share of their budgets than do comparable insured households.

Our results suggest that poor households who do not purchase health insurance are doing so because they have more pressing needs like food and shelter. The nonpoor uninsured, by contrast, appear not to purchase health insurance because they prefer to spend their money on luxury goods (primarily transportation). These results suggest that there may be a redistributive argument for transfers to poor households beyond currently existing program such as Medicaid. Had we found that the poor uninsured chose luxury goods over health insurance, this would have undermined redistributive arguments for transfers or subsidies to this group. We find no evidence to support this view. Instead, we find that poor households are trading off health insurance primarily for food and shelter.

Our results also suggest that the well-off uninsured evidently place very little value on health insurance, so that mandating or subsidizing the purchase of insurance by this group is likely to result in large welfare losses. This heterogeneity within the population without health insurance highlights the dangers of treating “the uninsured” as a single group. Instead, public

---

<sup>1</sup> We use total expenditures, rather than income, to describe households’ economic status because expenditures are likely to be a better measure of permanent income than is annual income.

policy toward the uninsured should distinguish between households that are poor and those that are not.

## **2. Background**

A growing body of research suggests that the lack of health insurance coverage is the result of rational economic decision-making by households. Studies have shown that rates of private coverage respond to the availability of Medicaid (Cutler and Gruber, 1996; Shore-Sheppard et al., 2000; Thomas, 1994/95) and to the availability of charity medical care (Herring, 2001). Two studies using different datasets have shown that declines in employer-sponsored coverage in the late 1980s and early 1990s were attributable to declines in enrollment by workers offered benefits, rather than by any decline in the fraction of workers offered coverage by their employers (Cooper and Schone 1997; Farber and Levy 2000). These results suggest that households without insurance may choose to be uninsured in the sense that they weigh the value of coverage against its cost and decide which, at the margin, is greater.

Moreover, many of the uninsured are not poor. Chollet (2000) estimates that 73.6 percent of the uninsured in 1997 were in families with incomes at or above the Federal poverty level; 42.6 percent were at or above 200 percent of poverty. This reinforces the point that health insurance may not be something that the uninsured *cannot* buy, but rather may simply be something that they do not value highly. Yegian et al. (1992) report that only 41 percent of the nonpoor uninsured in California in 1998 “agree strongly” or “agree somewhat” with the statement “Health insurance ranks very high on my list of priorities for where to spend my money.” About half (56 percent) of these households own a computer, 40 percent own a home, and nearly all (92 percent) own a VCR (Yegian et al. 1992).

These results raise the question: what does it mean to say that uninsured households can't afford health insurance?<sup>2</sup> Bundorf and Pauly (2000), in an important and interesting paper, propose one approach to answering this question. They define health insurance as affordable for a household if most other households at the same income level choose to buy health insurance, where the definition of "most other households" varies from 50 percent to 80 percent. Using this criterion they find that health insurance was affordable for between 24 percent and 55 percent of uninsured households in 1998.

A complementary definition of affordability relies on the concept of revealed preference: what goods and services are revealed preferred to health insurance by the consumption decisions of uninsured households? Paulin and Weber (1995) use data from the 1993 Consumer Expenditure Survey to show that on average households without health insurance spend larger shares of their annual budgets on food at home (12.9 versus 10.5 percent), housing (32.3 versus 30.0 percent), and tobacco and alcohol (2.5 versus 1.6 percent) than do households with private insurance. Of course, since uninsured households also have much lower total expenditures than insured households (\$22,492 versus \$30,372), these simple differences may simply reflect the fact that uninsured households have lower total expenditures on average than other households. Housing, food, alcohol and tobacco are necessities in the sense that their expenditure elasticities of demand are less than one, so that poorer households spend a larger share of their budgets on them.

The goal of this paper is to shed light on the economic tradeoffs insured and uninsured households make in allocating their households budgets. That is: what do households buy when

---

<sup>2</sup> Thomas (1994/95) analyzes Tobit models of health insurance spending using data from the 1977 National Medical Care Expenditure Survey and reports that "income must rise above a threshold at 125% of the poverty level before families are likely to purchase private health insurance," but does not report what fraction of the uninsured in her sample are below this threshold.

they don't buy health insurance? To answer this question, we compare the share of the household budget allocated to sixteen different expenditure categories by insured versus uninsured households, holding total expenditure and other relevant households characteristics constant. We also consider a consumption-based definition of "affordability" to complement Bundorf and Pauly's income-based one. Specifically, we are able to estimate how many of the uninsured fall below the threshold where health insurance, if purchased, would crowd out spending on "basic needs" like food and shelter rather than replacing more discretionary spending on things like personal care and entertainment.<sup>3</sup> This may differ from Bundorf and Pauly's estimate of the fraction of the uninsured for which health insurance is unaffordable for at least two reasons. Suppose that at some income level a majority of households choose not to buy health insurance and instead spend that money on entertainment or some other luxury. Bundorf and Pauly's estimate would say that health insurance is unaffordable for households at this level of income while our method would classify them as having chosen non-basic needs over health insurance. Conversely, suppose that at some income level a majority of households choose to buy health insurance, but the minority who do not buy insurance spend their "extra" money on food and housing. Bundorf and Pauly's estimate would say that health insurance is affordable for these households while our method would say the opposite. Therefore, it is not obvious a priori whether our approach will result in a higher or lower number of uninsured households who could afford health insurance than Bundorf and Pauly's estimate.

---

<sup>3</sup> We use the term "basic needs" rather than necessities to mean something less precise than the economic definition of a necessity, as we will discuss in more detail below.

### 3. Methods

#### A. Expenditure Share Regressions

To shed light on the issue of what the uninsured buy instead of health insurance, we estimate multivariate regressions controlling for household composition and demographics. Specifically, for each of the sixteen expenditure categories, we estimate a separate linear regression with the share of the household's spending in that category as the dependent variable  $s_j$ :

$$s_j = X\mathbf{b}_j + \mathbf{g} \cdot (\text{uninsured}) + \mathbf{d} \cdot (\text{total spending}) + STATE + (y_{1994} + \dots + y_{1998}) + \mathbf{e}_j \quad (1)$$

where  $X$  is a vector of demographic controls, *uninsured* is a dummy variable equal to one if the household has no private health insurance, *STATE* is a vector of state dummy variables, and  $y_{1994} \dots y_{1998}$  is a set of year dummies. The demographic controls we use are the natural logarithm of total real family income (in 1998 dollars), race (white, non-white) of the head, educational attainment of the head (indicator variables for being a high school dropout, high school graduate, some college, or college graduate), age of the head, the number of male adults in the family, the number of female adults in the family, the number of boys (ages 2 to 17) in the family, the number of girls (ages 2 to 17) in the family, and the number of infants. The coefficient  $\mathbf{g}$  on the *uninsured* dummy indicates how the budget share of each type of expenditure differs for uninsured versus insured households. To focus on households that must choose between paying for private insurance and being uninsured, we drop households with public insurance from the sample. We also drop households in which some members have private insurance and some are uninsured. We describe exactly how the sample is drawn in section 4.

## *B. Predicted Budgets for Insured and Uninsured Households*

In addition to analyzing the differences in budget *shares* for insured and uninsured households, we would like to say something about how many more *dollars* uninsured households spend on goods other than health insurance than comparable insured households do. To do this, we use the results of our regression analyses to calculate predicted budgets for insured and uninsured households at different levels of total expenditure and the implied difference in mean spending between comparable insured and uninsured households. This requires us to make very specific assumptions about what “comparable” means in this setting. Our regressions control for the size of the total household budget, which implicitly assumes that the amount of money uninsured households “save” by not buying health insurance is the amount of out-of-pocket spending for health insurance observed for insured households in the CEX (on average, \$233 per quarter).

This ignores the fact that workers directly pay, on average, only about 20 percent of health insurance premiums with firms paying the remainder on their behalf (Levy and Krueger 1996). In a competitive labor market, workers who do not have health insurance should get higher wages if a firm does not make a contribution on their behalf (for a discussion of the literature on this question, see Levy and Feldman 2001). In other words, the family’s total income is higher if they do not buy health insurance. Assuming that the employer’s payment is four times the household’s payment, the total pre-tax budget expands by  $4 * \$233$ , or \$932. Since households must pay income tax on this amount, the household’s after tax budget expands by  $\$932 * (1 - \text{marginal tax rate})$ . For convenience, we assume the marginal tax rate is 25 percent



so that the increment to the total budget for households without insurance is three times out-of-pocket insurance expenditures for insured households, or \$699.<sup>4</sup>

Because this approach relies on a number of strong assumptions, we calculate predicted budgets for the uninsured in two different ways and present both sets of results. First we assume that there is no wage offset for workers who purchase health insurance: that is, the uninsured have the same total budget to spend. Second, we make the more complicated assumptions outlined above, which result in the uninsured having a total budget that is larger by \$699 ( $= 3 * \$233$ ). The actual amount of the wage offset must lie between zero and 100 percent, so these two sets of results represent lower and upper bounds on the impact of not having health insurance on a household's total budget.

### *C. How Many of the Uninsured Do Not Have Insurance because They Are Meeting Other Basic Needs?*

Finally, we want to answer the question, “how many of the uninsured do not have insurance because they are meeting other basic needs?” Our approach to this is the following. First, we aggregate expenditures into two categories: basic needs and non-basic needs. We consider food at home, housing and utilities to be basic needs; all other expenditures are non-basic. We then estimate the share of spending devoted to basic needs as a function of total expenditures, a dummy for uninsurance and total expenditures interacted with a dummy for uninsurance, controlling for demographics and household composition. This regression captures the relationship between spending on basic needs and total expenditures for insured and uninsured households; figure 1 depicts this relationship graphically. The idea is that at low

---

<sup>4</sup> Specifically, let  $P$  be the total premium, let  $a$  be the worker's share of the premium, let  $(1-a)$  be the firm's share of the premium, and let  $t$  be the marginal tax rate on income. The total budget increases by  $(1-a)P(1-t)$ . Since we observe the amount  $aP$  in the data as the household's out-of-pocket payment for health insurance, if we assume that  $t$  is 0.25 and  $a$  is 0.2, we can calculate  $(1-a)P(1-t)$  as  $3 * aP$ , or  $3 * \$233$  on average in these data.

levels of total expenditure, uninsured households spend their “extra money” on basic needs, while at higher levels of total expenditure they do not. We want to know at what level of total spending an uninsured household stops spending the “extra money” on basic needs. In figure 1, this level of total expenditure is given by  $Y^*$ , where the two lines intersect. We consider uninsured households falling below this level of total expenditure as not having insurance because they are meeting other basic needs.

#### **4. Data**

We use data from the 1994 through 1998 panels of the Consumer Expenditure Survey (CEX). The CEX, which is collected by the Census Bureau under contract from the Bureau of Labor Statistics, is a nationally representative survey of about 7,000 households per year. It contains information on the demographic characteristics of each household member and detailed household-level information on income, expenditures and health insurance. Each household is interviewed up to four times at three-month intervals. Three months of expenditure data are collected retrospectively at each quarterly interview for a total of twelve months of expenditure data. For each household, we have between one and four observations on quarterly expenditures in each of these categories. We begin by averaging quarterly expenditures over however many observations are available so that there is one observation per household for each expenditure category.<sup>5</sup> We then calculate the expenditure share for each category by dividing expenditures in that category by total expenditures. All of the statistics and analyses we present have been weighted using the sampling weights provided with the CEX so as to be nationally representative.

---

<sup>5</sup>Medical care and housing expenditures in a given quarter may be negative (because of reimbursements or refunds). About three percent of households have negative average quarterly expenditures in one or both of these categories; we drop these households from the analysis.

In the CEX, a “consumer unit” or family is the basic unit of observation. A consumer unit is smaller than a “household” and is meant to include only those household members who depend upon one another and who share expenditures. For details of the distinction between a consumer unit and a household in the CEX, please see BLS (2002).<sup>6</sup> In this paper, we use the terms family and household interchangeably.

### *Defining the uninsured*

Each household in the CEX reports the total number of health insurance policies held by anyone in the household in each quarter, and the number of household members covered by each policy. It is not possible to identify which individuals in a household are covered (either as dependents or as the policyholder) by a particular private policy. Each household also reports which individuals were covered by Medicare and/or Medicaid. We categorize households as uninsured, partially insured, fully insured, covered by Medicaid or covered by Medicare according to the insurance status of all members of the household at the first quarter in which the household is observed, as follows:

- Households that do not report holding any private insurance policies are considered to be **uninsured**.
- Households that report holding a private insurance policy or policies that cover some but not all household members are considered **partially insured**.

---

<sup>6</sup> According to the BLS, a consumer unit consists of any of the following: (1) All members of a particular household who are related by blood, marriage, adoption, or other legal arrangements; (2) a person living alone or sharing a household with others or living as a roomer in a private home or lodging house or in permanent living quarters in a hotel or motel, but who is financially independent; or (3) two or more persons living together who use their incomes to make joint expenditure decisions. Financial independence is determined by the three major expense categories: Housing, food, and other living expenses. To be considered financially independent, at least two of the three major expenditure categories have to be provided entirely or in part by the respondent. In regard to the CEX, the BLS uses the terms consumer unit, family, and household are used interchangeably for convenience. However, the proper technical term in the CEX is consumer unit (BLS 2002).

- Households that report holding one or more private insurance policies that cover at least as many people as there are in the household are considered **fully insured**.
- Households with at least one member covered by Medicaid and no one covered by Medicare are considered covered by **Medicaid** (even if some or all members of the household also have private insurance).
- Households with anyone covered by Medicare, or in which the reference person is age 65 or older, are considered covered by **Medicare** (even if some or all members of the household also have private insurance).

Some households that do not report holding any private insurance policies do report having positive out-of-pocket expenditures for health insurance. We categorize these households as being fully insured as well.<sup>7</sup> Since households may change insurance status, we discard households with insurance status changes. This reduces the sample by about twenty percent and has no noticeable effect on the results.

### *Expenditure categories*

The CEX gathers data on expenditures in hundreds of detailed categories. We aggregate these detailed expenditures into 16 broad expenditure categories: (1) food to be consumed in the home, (2) food to be consumed outside of the home (at restaurants etc.), (3) alcohol and tobacco, (4) housing expenses (rent and renting related expenses, mortgage and mortgage related expenses, and home improvements), (5) non-mortgage interest, (6) furniture, appliances and related expenses, (7) home maintenance, (8) clothing (adult clothing and shoes, children's clothing and shoes, and clothing services), (9) transportation (car purchases, car leases, other private transportation expenses, fuel, car repairs, car insurance, public transportation expenses),

---

<sup>7</sup> This change affects about 7 percent of the sample; our results do not change if we categorize these households as uninsured.

(10) utilities, (11) medical care, (12) health insurance, (13) entertainment expenses, (14) personal care, (15) education and (16) other. Note that each of these categories includes expenditures made by the household members only – in particular, expenses made on behalf of household members by insurance companies or employers are not reflected in these data. This means that medical care and health insurance reflect out-of-pocket payments only.

The CEX measures expenditures and not consumption. Expenditures may be a noisy measure of consumption – for example, where a family occupies public housing. In addition, there is topcoding for some expenditure items. In order to minimize measurement error associated with these factors, we trim the top and bottom 5 percent of spenders in our sample. This does not appreciably change the substance of our results.

Table 1 shows sample sizes at different steps in this process. The 1994 through 1998 panels of the CEX interviewed 39,617 households. Dropping the 1,321 households with negative average expenditures in any category and 467 households with missing income data results in a final sample for analysis of 37,829 households. Of these, about 15 percent are completely uninsured, while about half are fully privately insured. The remaining 35 percent are either partially insured or publicly insured.

Table 2 presents statistics on demographic and household composition by insurance status. Comparing mean values of the household demographic characteristics for the different groups reveals that uninsured households have lower real incomes and lower quarterly expenditures than either fully or partially insured households. Household heads in uninsured households have lower educational attainment than the heads of fully or partially insured households, are more likely to be female and are more likely to be nonwhite.

## 5. Results

### *Bivariate results*

Table 3 shows mean budget shares and mean real expenditures in each spending category for the groups fully insured, partially insured and uninsured. The single largest expenditure category is housing, followed by transportation and food at home. Insured households spend about three and a half percent of their budgets, or \$233 per quarter, on health insurance (recall that this amount does not reflect payments made directly by an employer to an insurance company on the household's behalf).

Comparing budget shares across insurance status reveals that the uninsured spend a larger share of their budgets on food at home (17.4 percent) than the fully insured (13.6 percent). The uninsured also spend a larger share on housing: 25.0 percent versus 21.4 percent for the fully insured. The uninsured spend a substantially smaller share of their budgets on transportation (15.9 percent versus 17.9 percent for the fully insured). Out-of-pocket medical care expenses account for approximately the same share of total spending regardless of insurance status (about 2 percent).

Of course, insured and uninsured households do not differ only in their health insurance status. In particular, insured households are much richer, on average, than uninsured households, with \$7,528 in total real spending per quarter compared with only \$4,869 for the uninsured. As a first cut at comparing insured households and uninsured households that are similar, we calculate mean expenditure shares separately for insured and uninsured households in the lowest quartile of total expenditures ("low spenders"), the middle 50 percent ("middle spenders"), and the top quartile of total expenditures ("high spenders"). The results are presented in table 4. Among low spenders, the uninsured spend a larger fraction of their budgets on housing than do the

insured (28.0 percent compared to 24.0 percent), on food at home (19.9 percent compared to 17.1 percent), and on education (3.4 percent compared to 2.5 percent). These results suggest that when low-spending and middle-spending households do not purchase health insurance, they are purchasing what might be characterized as “basic needs” instead.

On the other hand, the low-spending uninsured also spend a larger share of their budgets on alcohol and tobacco (4.4 percent compared to 3.3 percent) than do the insured. On average, the low-spending uninsured spend \$123 per quarter on alcohol and tobacco, which is more than the \$116 that their insured counterparts spend out-of-pocket on health insurance. This is not to suggest that uninsured households could actually purchase health insurance with the amount they currently spend on alcohol and tobacco – as we have already noted, most health insurance premiums are paid by employers, so that the actual price of health insurance per quarter is more likely to be at least \$369 for these households.

Low-spending uninsured households also spend a smaller share of their budgets on categories other than health insurance. The low-spending uninsured spend significantly less on interest, home maintenance, transportation, utilities, health care and personal care than do insured households with similar total expenditures. This underscores the point that uninsured households and insured households simply have different preferences about what to consume.

The differences between spending patterns of the insured versus the uninsured are much smaller for high spenders. In particular, the only two categories on which uninsured high-spenders spend a larger share of their budgets than do insured high-spenders are alcohol and tobacco (0.020 versus 0.016) and transportation (0.325 versus 0.248). This is a striking contrast to the result reported above for low-spending households; the differences between insured and

uninsured households' consumption patterns are very different for poor versus well-off households.

### *Regression results*

Of course, the insured and the uninsured differ in many other ways in addition to total spending; for example, as shown in table 2, the uninsured have lower educational attainment and are more likely to be non-white. In order to control at least partially for these differences, we run expenditure share regressions as described above. Table 5 presents the coefficients on the "uninsured" dummy variable from 64 separate regressions (sixteen expenditure share categories \* [three total spending levels + one regression for all spending levels]) corresponding to equation (1). All the coefficients from all 64 regressions are reported in appendix tables A1 through A4.

The regression results confirm that for the low-spending households, the differences between the uninsured and the insured that we observed in the mean differences in table 4 persist when we control for other households characteristics. In particular, the uninsured spend a larger share of their budgets on housing (3.96 percentage points more than insured households), on food at home (1.25 percentage points more), on education (0.53 percentage points more) and on alcohol and tobacco (0.89 percentage points more). Of course, there are differences in preferences that our regressions do not control for, as evidenced by the fact that among low spenders, the uninsured spend significantly *less* than the insured on not only health insurance, but also home maintenance (0.35 percentage points less), utilities (0.92 percentage points less) and personal care (0.15 percentage points less). This confirms that low-spending uninsured households spend more on basic needs, plus alcohol and tobacco.



In the middle-spending category, the uninsured/insured differentials look very much like those just discussed for the lowest expenditure quartiles, with several interesting differences. In particular, in the middle-spending category, the uninsured spend a *larger* share of their budgets on transportation than do the insured (1.91 percentage points more), whereas in the lowest spending category the uninsured spent a smaller share on transportation than did the insured (although this difference was only weakly significant, with  $p = 0.066$ ). Like low-spending uninsured households, middle-spending uninsured households spend a larger share of their budgets on education, but the differential is larger (1.77 percentage points more) in the middle spending category than it was in the low spending category (0.53 percentage points more). For the most part, though, the insured/uninsured differentials for middle-spending households look like those for low-spending households.

The regression results for high spenders confirm that, by contrast, the uninsured in this category are spending not spending more than insured households do on basic needs; rather, they are spending more on transportation (4.79 percentage points more). Reinforcing the point that the uninsured differ from the insured in ways that our regressions do not control for, the high-spending uninsured spend a smaller budget share on food out (0.48 percentage points less), housing (1.87 percentage points less), interest (0.33 percentage points less), utilities (0.51 percentage points less), and personal care (0.13 percentage points less) than do comparable insured households.

### *Simulated budgets*

In order to convey the substance of these regression results in a way that is more readily interpretable, we construct simulated budgets for the insured and uninsured as follows. First, we

construct a simulated budget for the uninsured by multiplying average budget shares in each category by median total spending. We then construct a simulated budget for the insured by adding the regression-adjusted differential between insured and uninsured budget shares (i.e., the negative of the coefficient on the uninsured dummy) to the mean budget shares of the uninsured in each spending category, and multiplying these adjusted shares by median total spending. We also construct an alternative simulated budget for the uninsured using a larger total spending as described above to account for the possibility of an increase in total income as a result of not having health insurance. Thus, we have one simulated budget for the insured and two different for the uninsured. We construct these three simulated budgets separately for the entire sample, and the sample stratified by total spending as above.

Table 6 presents these simulated budgets for all sixteen expenditure categories. The simulated budgets are very similar to the mean real expenditures in the bottom panel of table 4, except that the difference in housing expenditure for low spenders is much larger after the regression adjustment. Figures 2 through 5 present the differences in the simulated budgets in each category for uninsured – insured households. These figures highlight the fact that the low-spending uninsured spend more on food at home and housing, while the high-spending uninsured spend more on transportation.

### *How Many of the Uninsured Do Not Have Insurance because They Are Meeting Other Basic Needs?*

We would also like to be able to address the question: how many of the uninsured do not have insurance because they are meeting other basic needs? As described above, we aggregate all spending into two categories: basic needs, which are housing, utilities, and food at home, and

non-basic needs, which includes everything else. We then regress the share of spending on basic needs on the control variables used in all our regressions, a dummy for uninsured, total spending, and total spending interacted with the uninsured dummy. The results of this regression are presented in table 7. The coefficient on the uninsured dummy is 0.087; the coefficient on total expenditures is  $-0.000023$  and the coefficient on the interaction of uninsured with total expenditures is  $-0.000011$ . This means that at low levels of expenditure, the uninsured spend a higher fraction of their budgets on basic needs, but that this differential gets smaller as total expenditure increases. At a total expenditure of \$8,151 per quarter, the uninsured begin spending a *smaller* share of their budgets on basic needs than do the insured at the same level of total expenditure. That is, the value of  $Y^*$  in figure 1 implied by this regression is \$8,150. Eighty-eight percent of uninsured households fall below this threshold; therefore, one might say that 88 percent of uninsured households cannot afford health insurance. Of course, 63 percent of households with insurance also fall below this threshold. We interpret this to mean that the majority of households with insurance are giving up “basic needs” to buy insurance. In other words, health insurance ranks high on most households’ list of spending priorities.

Our definition of “basic needs” is arbitrary. An alternative way to do this is to use the economic definition of necessities versus luxuries. We estimate total expenditure elasticities for each category of consumption and determine that the following expenditures are empirically necessities (i.e. they have total expenditure elasticity of less than or equal to one; results are in appendix table A5): food at home, utilities, health insurance, alcohol and tobacco, personal care, housing, interest, food away from home, and clothing. Using this definition to aggregate expenditures into necessities (except for health insurance) and luxuries, we find very similar results to those using the “basic needs” dependent variable. These results are reported in table 7.

We estimate that at total expenditures of \$7,597, uninsured households begin spending *less* on necessities than do insured households. Eighty-six percent of uninsured households and 58 percent of insured households fall below this threshold. Therefore, we conclude that between 86 percent and 88 percent of uninsured households do not have health insurance because they are meeting other basic needs, depending on whether one uses a more expansive definition of necessities or a narrow definition of basic needs to determine the threshold.

## **6. Conclusion**

Our results suggest that most of the uninsured do not have health insurance because they give higher priority to food and housing in allocating their household budgets. A minority of the uninsured – those who are relatively well-off – rank less essential goods (specifically, transportation) above health insurance. As we have already noted, this heterogeneity within the population without health insurance highlights the dangers of treating “the uninsured” as a single group. Had we found that the poor uninsured also chose luxury goods over health insurance, this would have undermined redistributive arguments for transfers or subsidies to this group. We find no evidence to support this view. Instead, we find that poor households are trading off health insurance primarily for food and shelter. On the other hand, the well-off uninsured evidently place very little value on health insurance, so that mandating or subsidizing the purchase of insurance by this group is likely to result in large welfare losses.

## 7. References

- Bureau of Labor Statistics, U.S. Department of Census. 2002. Consumer Expenditure Survey: Frequently Asked Questions. <http://www.bls.gov/cex/csxfaqs.htm#q3>, last modified Feb 22.
- Chollet, Deborah. 2000. "Consumers, Insurers, and Market Behavior," *Journal of Health Politics, Policy and Law* (30).
- Cutler, David and Jonathan Gruber. 1996. "Does Public Insurance Crowd Out Private Insurance?" *Quarterly Journal of Economics* 111(2): 391-430.
- Herring, Bradley. 2001. "Does Access to Charity Care for the Uninsured Crowd Out Private Health Insurance Coverage?" Working Paper, Yale University.
- Levy, Helen and Roger Feldman. 2001. "Does the Incidence of Group Health Insurance Fall on Individual Workers?" *International Journal of Health Care Finance and Economics*, 1, 227 – 247.
- Krueger, Alan B. and Helen Levy. 1996. "Accounting for the Slowdown in Employer Health Care Costs," *Proceedings of the National Tax Association*, Eighty-Ninth Annual Conference (1996), pp. 61-75.
- Pauly, Mark V. and M. Kate Bundorf. 2000. Is Health Insurance Affordable for the Uninsured? Manuscript.
- Shore-Sheppard, Lara, Thomas Buchmueller, and Gail Jensen. 2000. "Medicaid and Crowding Out of Private Insurance: A Re-examination Using Firm-Level Data." *Journal of Health Economics* (19)1: 61-91.
- Thomas, Kathleen. 1994/95. "Are Subsidies Enough to Encourage the Uninsured to Purchase Health Insurance? An Analysis of Underlying Behavior." *Inquiry* 31: 415-424.
- Yegian, Jill M., David G. Pockell, Mark D. Smith, and Eleanor K. Murray. 2000. "The Nonpoor Uninsured in California, 1998." *Health Affairs* 19(4): 171 – 177.

Table 1  
 Consumer Expenditure Survey, 1994 through 1998  
 Sample description

	Total	By insurance status at first wave:				
		No private insurance	Partial private insurance	Full private insurance	Medicaid	Medicare
Observations with no negative average spending categories	37,829	5,930	975	18,797	2,758	9,369
No change in insurance status across waves:	35,239	5,324	730	17,994	2,460	8,731
After trimming top 5% and bottom 5% of spenders:	31,717	4,623	690	16,264	2,193	7,947
Distribution of sample by insurance status:	1.00	0.146	0.022	0.513	0.069	0.251

Table 2  
Means and standard deviations of household demographic characteristics  
By insurance status

	<u>Uninsured</u>	<u>Partially insured</u>	<u>Fully insured</u>	<u>Medicaid</u>	<u>Medicare</u>
Age of Reference Person	34.7 [12.0]	39.0 [11.7]	40.3 [11.3]	34.9 [10.7]	68.6 [14.1]
Number of Adult Males	0.882 [0.664]	1.209 [0.72]	0.942 [(0.597)]	0.717 [0.715]	0.780 [0.638]
Number of Adult Females	0.806 [0.666]	1.231 [0.64]	0.969 [(0.559)]	1.196 [0.619]	1.015 [0.534]
Number of Boys	0.255 [0.597]	0.352 [0.65]	0.303 [(0.619)]	0.770 [0.910]	0.069 [0.332]
Number of Girls	0.268 [0.612]	0.295 [0.56]	0.297 [(0.601)]	0.709 [0.883]	0.066 [0.328]
Number of Babies	0.063 [0.255]	0.094 [0.31]	0.072 [(0.268)]	0.307 [0.525]	0.020 [0.153]
Family Size	2.3 [1.5]	3.2 [1.2]	2.6 [1.4]	3.7 [1.7]	2.0 [1.1]
Non-white	0.204 [0.403]	0.174 [0.37]	0.132 [(0.339)]	0.338 [0.473]	0.112 [0.316]
H.S. Dropout	0.217 [0.413]	0.155 [0.362]	0.081 [0.273]	0.406 [0.491]	0.315 [0.465]
H.S. Graduate	0.309 [0.462]	0.336 [0.47]	0.288 [(0.453)]	0.356 [0.479]	0.332 [0.471]
Some College	0.331 [0.470]	0.281 [0.45]	0.303 [(0.460)]	0.184 [0.388]	0.198 [0.399]
College Graduate	0.100 [0.300]	0.145 [0.35]	0.209 [(0.407)]	0.041 [0.199]	0.091 [0.287]
Graduate degree	0.043 [0.202]	0.083 [0.27]	0.120 [(0.325)]	0.013 [0.111]	0.064 [0.245]
Female Reference Pers	0.391 [0.488]	0.409 [0.49]	0.348 [(0.476)]	0.644 [.479]	0.448 [0.497]
Total Real Expenditures	\$4,869 [2,875]	\$6,775 [3,425]	\$7,528 [3610]	\$4,515 [2731]	\$5,517 [3,271]
Sample n	5,324	730	17,994	2,460	8,731

Note: results are presented as mean  
(standard deviation)

Table 3  
Expenditures by insurance status

<i>Share spent on:</i>	Uninsured:		Fully Insured:		p-value on t-test that means differ:
	<u>Mean</u>	<u>Std. dev.</u>	<u>Mean</u>	<u>Std. dev.</u>	
Food In	0.174	(0.108)	0.136	(0.072)	<0.0001
Food Out	0.053	(0.063)	0.053	(0.046)	0.5328
Alcohol and Tobacco	0.037	(0.054)	0.024	(0.034)	<0.0001
Housing	0.250	(0.154)	0.214	(0.131)	<0.0001
Interest	0.010	(0.025)	0.016	(0.027)	<0.0001
Furniture/Appliances	0.044	(0.072)	0.050	(0.064)	<0.0001
Home Maintenance	0.011	(0.037)	0.022	(0.047)	<0.0001
Clothing	0.039	(0.049)	0.043	(0.038)	0.0001
Transportation	0.159	(0.153)	0.179	(0.144)	<0.0001
Utilities	0.106	(0.075)	0.101	(0.054)	<0.0001
Health Care	0.020	(0.050)	0.026	(0.040)	<0.0001
Health Insurance	0.000	(0.000)	0.034	(0.040)	<0.0001
Entertainment	0.031	(0.047)	0.041	(0.045)	<0.0001
Personal Care	0.010	(0.016)	0.011	(0.011)	0.0001
Education	0.037	(0.107)	0.025	(0.067)	<0.0001
Other	0.016	(0.046)	0.027	(0.050)	<0.0001
<i>Real Expenditures on:</i>					
Total	\$4869	(2875)	\$7528	(3610)	<0.0001
Food In	751	(513)	928	(533)	<0.0001
Food Out	249	(312)	388	(391)	<0.0001
Alcohol and Tobacco	155	(219)	157	(209)	0.4330
Housing	1125	(862)	1536	(1179)	<0.0001
Interest	56	(138)	118	(191)	<0.0001
Furniture/Appliances	242	(509)	405	(586)	<0.0001
Home Maintenance	69	(255)	188	(430)	<0.0001
Clothing	193	(270)	324	(324)	<0.0001
Transportation	956	(1616)	1534	(1904)	<0.0001
Utilities	473	(347)	681	(343)	<0.0001
Health Care	112	(395)	198	(355)	<0.0001
Health Insurance	0	(0)	233	(280)	<0.0001
Entertainment	162	(313)	328	(446)	<0.0001
Personal Care	47	(71)	79	(78)	<0.0001
Education	186	(638)	207	(593)	0.0156
Other	95	(340)	223	(487)	<0.0001
Sample n	5,324		17,994		



Table 4  
Expenditures by insurance status

<i>Share spent on:</i>	Low Spenders				Middle Spenders				High Spenders			
	Insured		Uninsured		Insured		Uninsured		Insured		Uninsured	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Food In	0.171	(0.090)	<b>0.199</b>	(0.115)	0.142	(0.066)	<b>0.160</b>	(0.094)	0.102	(0.052)	0.097	(0.062)
Food Out	0.056	(0.059)	0.056	(0.071)	0.053	(0.043)	0.051	(0.055)	<b>0.050</b>	(0.041)	0.043	(0.040)
Alcohol and Tobacco	0.033	(0.048)	<b>0.044</b>	(0.062)	0.025	(0.033)	<b>0.031</b>	(0.042)	0.016	(0.020)	<b>0.020</b>	(0.027)
Housing	0.246	(0.152)	<b>0.280</b>	(0.164)	0.222	(0.126)	<b>0.241</b>	(0.135)	<b>0.190</b>	(0.120)	0.170	(0.123)
Interest	<b>0.016</b>	(0.035)	0.008	(0.025)	<b>0.017</b>	(0.027)	0.012	(0.026)	0.014	(0.020)	0.012	(0.019)
Furn. and Appliances	0.034	(0.058)	0.035	(0.062)	0.051	(0.063)	0.050	(0.073)	0.059	(0.065)	0.063	(0.094)
Home Maintenance	<b>0.012</b>	(0.037)	0.007	(0.026)	<b>0.022</b>	(0.046)	0.015	(0.041)	<b>0.029</b>	(0.050)	0.024	(0.054)
Clothing	0.039	(0.046)	0.039	(0.055)	<b>0.045</b>	(0.037)	0.041	(0.042)	0.042	(0.033)	0.039	(0.042)
Transportation	<b>0.128</b>	(0.086)	0.117	(0.103)	0.155	(0.108)	<b>0.170</b>	(0.144)	0.248	(0.190)	<b>0.325</b>	(0.256)
Utilities	<b>0.126</b>	(0.077)	0.114	(0.085)	<b>0.106</b>	(0.048)	0.101	(0.060)	<b>0.073</b>	(0.030)	0.065	(0.038)
Health Care	<b>0.020</b>	(0.037)	0.015	(0.042)	0.026	(0.040)	0.025	(0.053)	0.027	(0.042)	0.025	(0.065)
Health Insurance	<b>0.036</b>	(0.049)	0.000	(0.000)	<b>0.036</b>	(0.041)	0.000	(0.000)	<b>0.026</b>	(0.028)	0.000	(0.000)
Entertainment	0.030	(0.042)	0.029	(0.046)	<b>0.041</b>	(0.041)	0.033	(0.042)	<b>0.048</b>	(0.050)	0.040	(0.055)
Personal Care	<b>0.013</b>	(0.015)	0.011	(0.017)	<b>0.012</b>	(0.011)	0.010	(0.012)	<b>0.009</b>	(0.007)	0.007	(0.008)
Education	0.025	(0.080)	<b>0.034</b>	(0.100)	0.022	(0.062)	<b>0.041</b>	(0.112)	0.034	(0.071)	0.039	(0.122)
Other	<b>0.017</b>	(0.037)	0.012	(0.036)	<b>0.027</b>	(0.048)	0.018	(0.049)	0.033	(0.057)	0.029	(0.066)
<i>Real Expenditures on:</i>												
Total	<b>\$3,191</b>	(650)	\$2,899	(680)	<b>\$6,493</b>	(1419)	\$5,941	(1343)	<b>\$12,255</b>	(2226)	\$12,037	(2143)
Food In	539	(292)	<b>571</b>	(346)	906	(439)	<b>931</b>	(548)	<b>1,230</b>	(618)	1148	(766)
Food Out	<b>177</b>	(186)	162	(212)	<b>343</b>	(293)	305	(334)	<b>608</b>	(519)	522	(503)
Alcohol and Tobacco	104	(147)	<b>123</b>	(174)	157	(204)	<b>182</b>	(244)	195	(243)	<b>229</b>	(314)
Housing	768	(509)	812	(510)	1,429	(851)	1,409	(834)	<b>2,307</b>	(1519)	2,008	(1456)
Interest	<b>52</b>	(112)	25	(76)	<b>112</b>	(174)	75	(157)	<b>164</b>	(232)	143	(222)
Furn. and Appliances	109	(194)	102	(184)	<b>340</b>	(438)	307	(475)	713	(808)	772	(1210)
Home Maintenance	<b>41</b>	(125)	20	(78)	<b>147</b>	(316)	89	(250)	<b>354</b>	(619)	277	(598)
Clothing	<b>121</b>	(141)	112	(152)	<b>292</b>	(255)	244	(261)	<b>516</b>	(419)	466	(512)
Transportation	<b>410</b>	(295)	347	(325)	1,026	(835)	1,044	(1010)	3,127	(2642)	<b>4,028</b>	(3446)
Utilities	<b>403</b>	(249)	330	(253)	<b>666</b>	(297)	586	(346)	<b>873</b>	(353)	770	(443)
Health Care	<b>65</b>	(121)	45	(135)	<b>171</b>	(270)	150	(340)	323	(518)	315	(968)
Health Insurance	<b>116</b>	(159)	0	(0)	<b>229</b>	(265)	0	(0)	<b>314</b>	(342)	0	(0)
Entertainment	<b>96</b>	(130)	82	(131)	<b>274</b>	(283)	200	(265)	<b>592</b>	(647)	477	(672)
Personal Care	<b>40</b>	(50)	31	(53)	<b>75</b>	(72)	59	(71)	<b>112</b>	(87)	87	(96)
Education	74	(240)	<b>100</b>	(314)	148	(424)	<b>243</b>	(708)	422	(925)	455	(1367)
Other	<b>54</b>	(120)	37	(109)	<b>177</b>	(333)	116	(340)	<b>406</b>	(722)	341	(769)
Sample size	2,880		2,342		8,583		1,860		4,801		421	
Row percent	0.138		0.112		0.411		0.089		0.230		0.020	

Table 5  
How do budget shares differ for the uninsured versus the insured?  
Coefficient on “uninsured” dummy

Dependent variable = Share of budget spent on:	<u>All</u>	<u>Low spenders</u>	<u>Middle spenders</u>	<u>High spenders</u>
Food In	<b>0.017287</b> (0.001215)	<b>0.012540</b> (0.002579)	<b>0.008508</b> (0.001606)	-0.000592 (0.002377)
Food Out	-0.000926 (0.000876)	-0.000308 (0.001831)	0.000152 (0.001163)	<b>-0.004776</b> (0.002109)
Alcohol and Tobacco	<b>0.006347</b> (0.000677)	<b>0.008875</b> (0.001595)	<b>0.003615</b> (0.000889)	0.000800 (0.001032)
Housing	<b>0.018136</b> (0.002249)	<b>0.039625</b> (0.004356)	<b>0.009938</b> (0.003100)	<b>-0.018668</b> (0.005901)
Interest	<b>-0.007370</b> (0.000481)	<b>-0.007464</b> (0.000915)	<b>-0.006092</b> (0.000730)	<b>-0.003301</b> (0.001033)
Furniture/ Appliances	0.000556 (0.001174)	0.002393 (0.001794)	<b>0.004079</b> (0.001752)	0.004449 (0.003552)
Home Maintenance	<b>-0.004282</b> (0.000798)	<b>-0.003536</b> (0.000967)	<b>-0.004271</b> (0.001223)	-0.001294 (0.002682)
Clothing	<b>-0.003506</b> (0.000716)	-0.002029 (0.001425)	<b>-0.003883</b> (0.001005)	-0.000654 (0.001719)
Transportation	<b>0.012226</b> (0.002394)	-0.005175 (0.002810)	<b>0.019146</b> (0.003060)	<b>0.047922</b> (0.009636)
Utilities	<b>-0.004889</b> (0.000921)	<b>-0.009227</b> (0.002114)	<b>-0.004874</b> (0.001198)	<b>-0.005058</b> (0.001444)
Health Care	-0.000610 (0.000752)	0.000130 (0.001148)	0.001964 (0.001133)	0.001160 (0.002246)
Health Insurance	<b>-0.035950</b> (0.000622)	<b>-0.036260</b> (0.001061)	<b>-0.037225</b> (0.000993)	<b>-0.024900</b> (0.001383)
Entertainment	<b>-0.004118</b> (0.000795)	-0.001938 (0.001285)	<b>-0.005310</b> (0.001074)	-0.001154 (0.002690)
Personal Care	<b>-0.001535</b> (0.000215)	<b>-0.001544</b> (0.000486)	<b>-0.001673</b> (0.000294)	<b>-0.001337</b> (0.000360)
Education	<b>0.010735</b> (0.001357)	<b>0.005277</b> (0.002480)	<b>0.017683</b> (0.001884)	0.006210 (0.003886)
Other	<b>-0.002104</b> (0.000865)	-0.001360 (0.001052)	-0.001757 (0.001302)	0.001190 (0.002973)
Sample n	20,887	5,222	10,444	5,221

Notes:

1. Results are presented as coefficient (standard error).
2. Regressions also include controls for the number of adult males, number of adult females, number of boys, number of girls, and number of infants in each household; age, race and educational status of household reference person; is reference person female; and a full set of year and state dummies.

Coefficients in **bold** are significantly different from zero at the p#0.05 level.

Table 6  
Simulated budgets

	All expenditure levels			Lowest spending quartile			Middle spending quartiles			Highest spending quartile		
	<u>Ins.</u>	<u>Uninsured</u>		<u>Ins.</u>	<u>Uninsured</u>		<u>Ins.</u>	<u>Uninsured</u>		<u>Ins.</u>	<u>Uninsured</u>	
		(1)	(2)		(1)	(2)		(1)	(2)		(1)	(2)
Total budget	\$6,150	\$6,150	\$6,813	\$3,116	\$3,116	\$3,452	\$6,245	\$6,245	\$6,941	\$11,788	\$11,788	\$12,667
Food In	\$963	\$1,070	\$1,185	\$580	\$619	\$686	\$934	\$988	\$1,098	\$1,126	\$1,119	\$1,203
Food Out	\$334	\$329	\$364	\$177	\$176	\$196	\$321	\$322	\$358	\$564	\$507	\$545
Alcohol and Tobacco	\$189	\$228	\$253	\$112	\$140	\$155	\$170	\$193	\$214	\$210	\$219	\$235
Housing	\$1,428	\$1,539	\$1,705	\$730	\$853	\$945	\$1,420	\$1,482	\$1,647	\$2,184	\$1,964	\$2,111
Interest	\$109	\$64	\$71	\$50	\$26	\$29	\$117	\$79	\$88	\$179	\$140	\$150
Furn. and Appliances	\$267	\$270	\$300	\$102	\$110	\$122	\$296	\$321	\$357	\$686	\$739	\$794
Home Maintenance	\$96	\$70	\$78	\$32	\$21	\$23	\$118	\$92	\$102	\$303	\$287	\$309
Clothing	\$264	\$242	\$268	\$126	\$120	\$133	\$278	\$253	\$282	\$469	\$461	\$496
Transportation	\$901	\$976	\$1,081	\$388	\$372	\$412	\$960	\$1,080	\$1,200	\$3,370	\$3,935	\$4,228
Utilities	\$683	\$653	\$723	\$390	\$361	\$400	\$670	\$640	\$711	\$818	\$758	\$814
Health Care	\$127	\$123	\$137	\$48	\$48	\$54	\$142	\$155	\$172	\$291	\$305	\$327
Health Insurance	\$221	\$0	\$0	\$113	\$0	\$0	\$232	\$0	\$0	\$293	\$0	\$0
Entertainment	\$219	\$193	\$214	\$96	\$90	\$99	\$236	\$203	\$226	\$513	\$499	\$536
Personal Care	\$72	\$63	\$69	\$38	\$34	\$37	\$73	\$63	\$70	\$102	\$86	\$92
Education	\$162	\$228	\$253	\$90	\$106	\$117	\$146	\$256	\$285	\$370	\$443	\$476
Other	\$114	\$101	\$112	\$43	\$39	\$43	\$131	\$120	\$133	\$312	\$326	\$350

Table 7  
Share of expenditures on basic needs or necessities other than health insurance

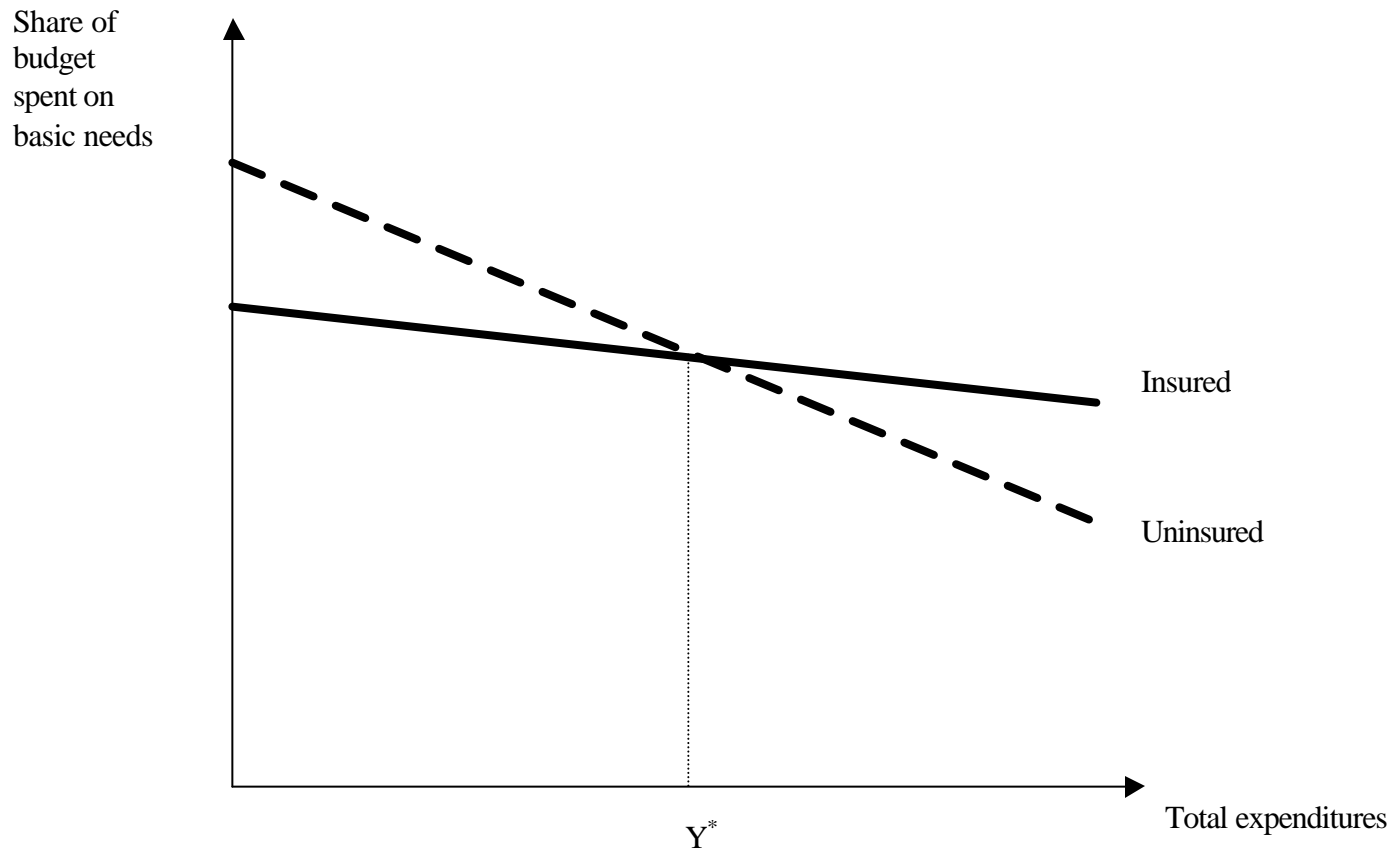
Dependent variable:

	Share on “basic needs”		Share on necessities other than health insurance	
	Coeff.	SE	Coeff.	SE
Independent variables:				
Uninsured	0.086997	0.004818	0.089086	0.004860
Total expenditures	-0.000023	0.000000	-0.000025	0.000000
Total expenditures *				
uninsured	-0.000011	0.000001	-0.000012	0.000001
Nonwhite	0.026085	0.002819	0.010669	0.002844
H.S. Graduate	-0.012047	0.003480	-0.004456	0.003510
Some College	-0.026227	0.003538	-0.019053	0.003568
College Graduate	0.000264	0.003915	0.004130	0.003949
Graduate Degree	0.002230	0.004444	-0.002549	0.004483
Age of Reference Person	0.001082	0.000091	0.000432	0.000092
Reference person is female	0.007124	0.002521	-0.004061	0.002543
Number of Adult Males	0.013694	0.001935	0.019154	0.001952
Number of Adult Females	0.021803	0.001908	0.011215	0.001924
Number of Boys	0.028335	0.001651	0.018987	0.001666
Number of Girls	0.027170	0.001683	0.018230	0.001697
Number of Babies	0.028511	0.003749	0.004706	0.003781

Notes:

1. Sample size for both regressions is 20,887.
2. “Basic needs” are defined as food at home, housing and utilities.
3. Necessities are defined as food at home, food away from home, housing, utilities, alcohol and tobacco, interest, and personal care (i.e. all goods with elasticities with respect to total spending less than or equal to one, except for health insurance).

Figure 1  
At what point does health insurance replace basic needs?



$Y^*$  is the level of total expenditures at which the uninsured devote a smaller share of their budget to basic needs than do comparable insured households.

Figure 2  
Regression-adjusted spending differentials: uninsured – insured households  
All households

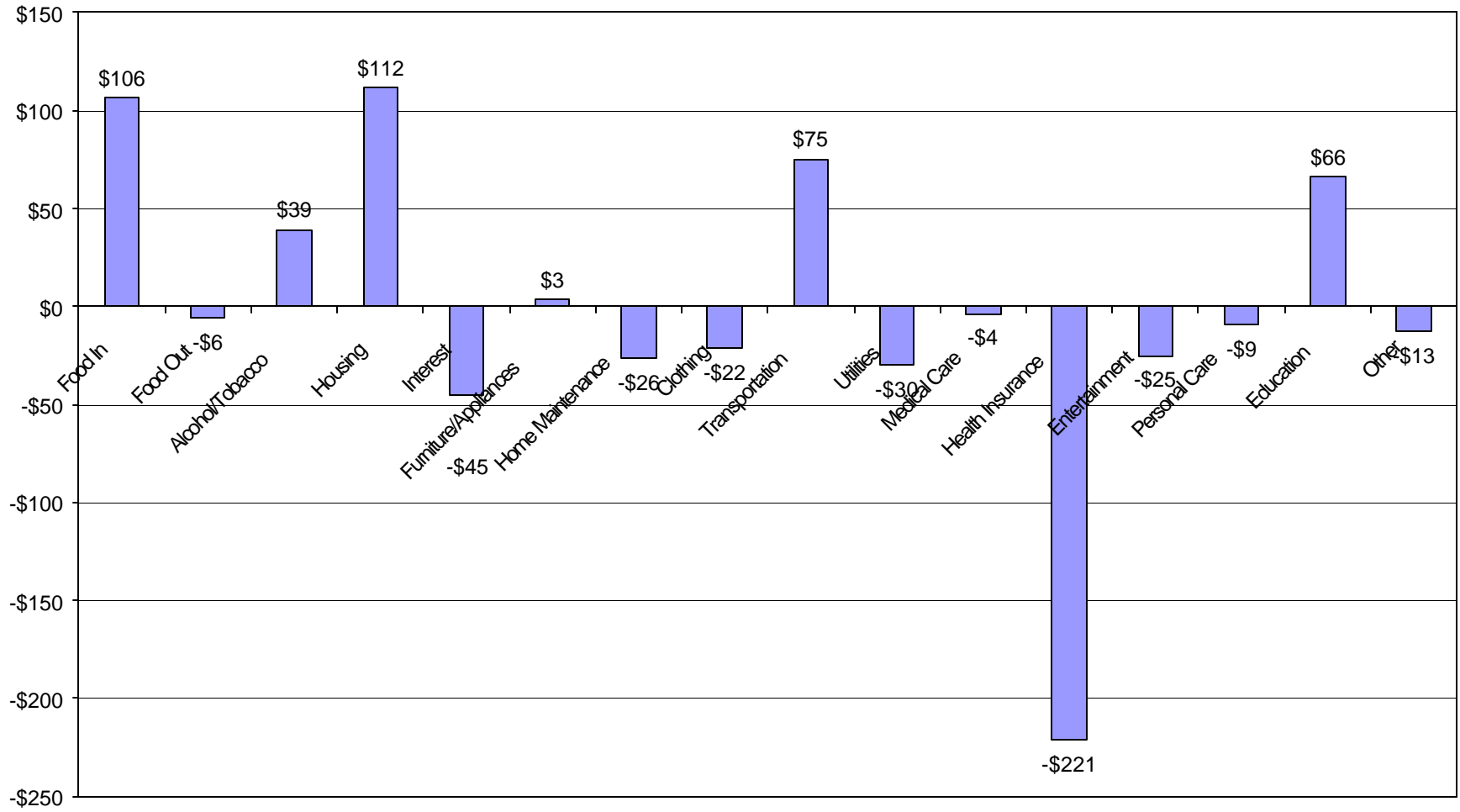


Figure 3  
 Regression-adjusted spending differentials: uninsured – insured households  
 Lowest quartile of spenders

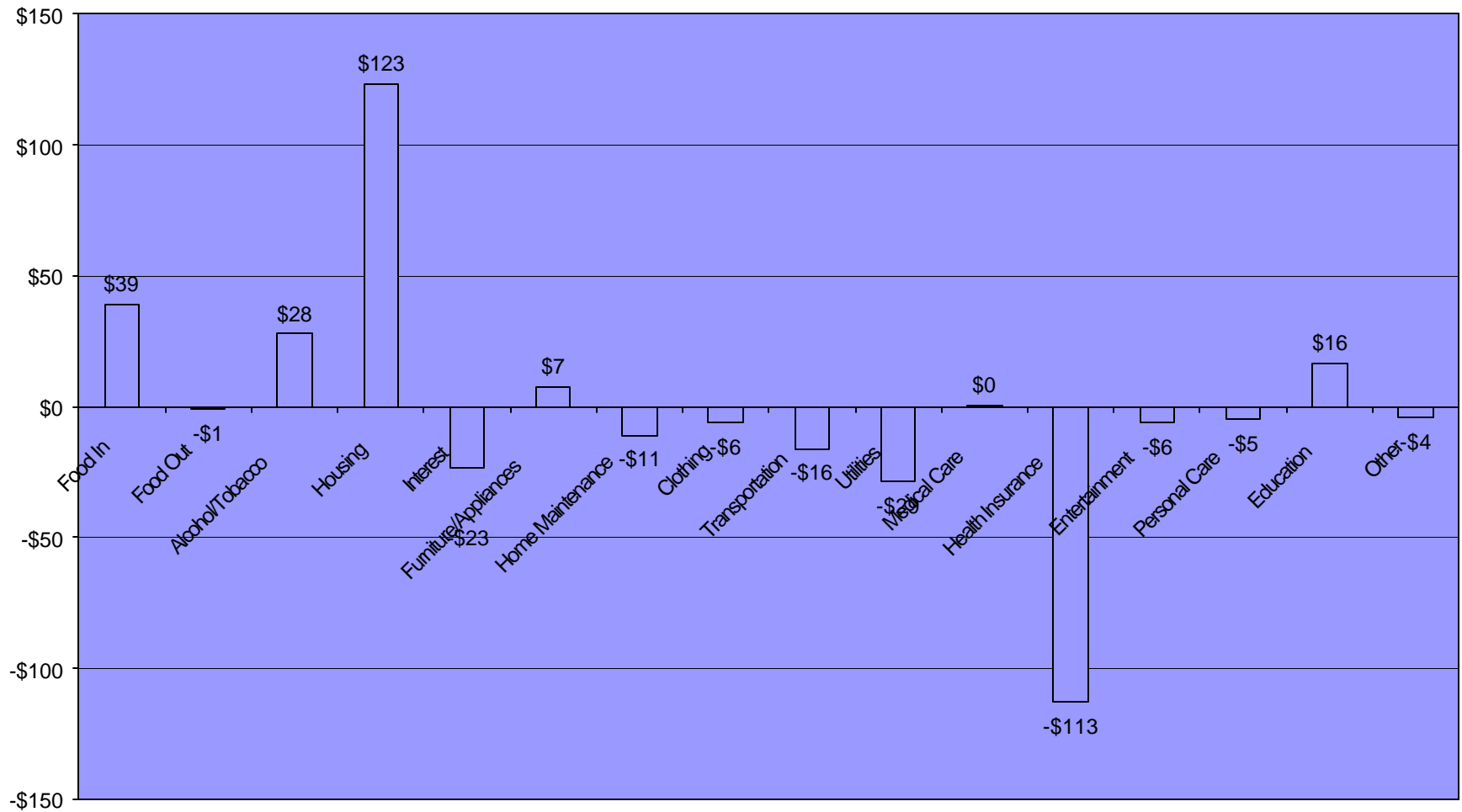


Figure 4  
 Regression-adjusted spending differentials: uninsured – insured households  
 Middle two quartiles of spenders

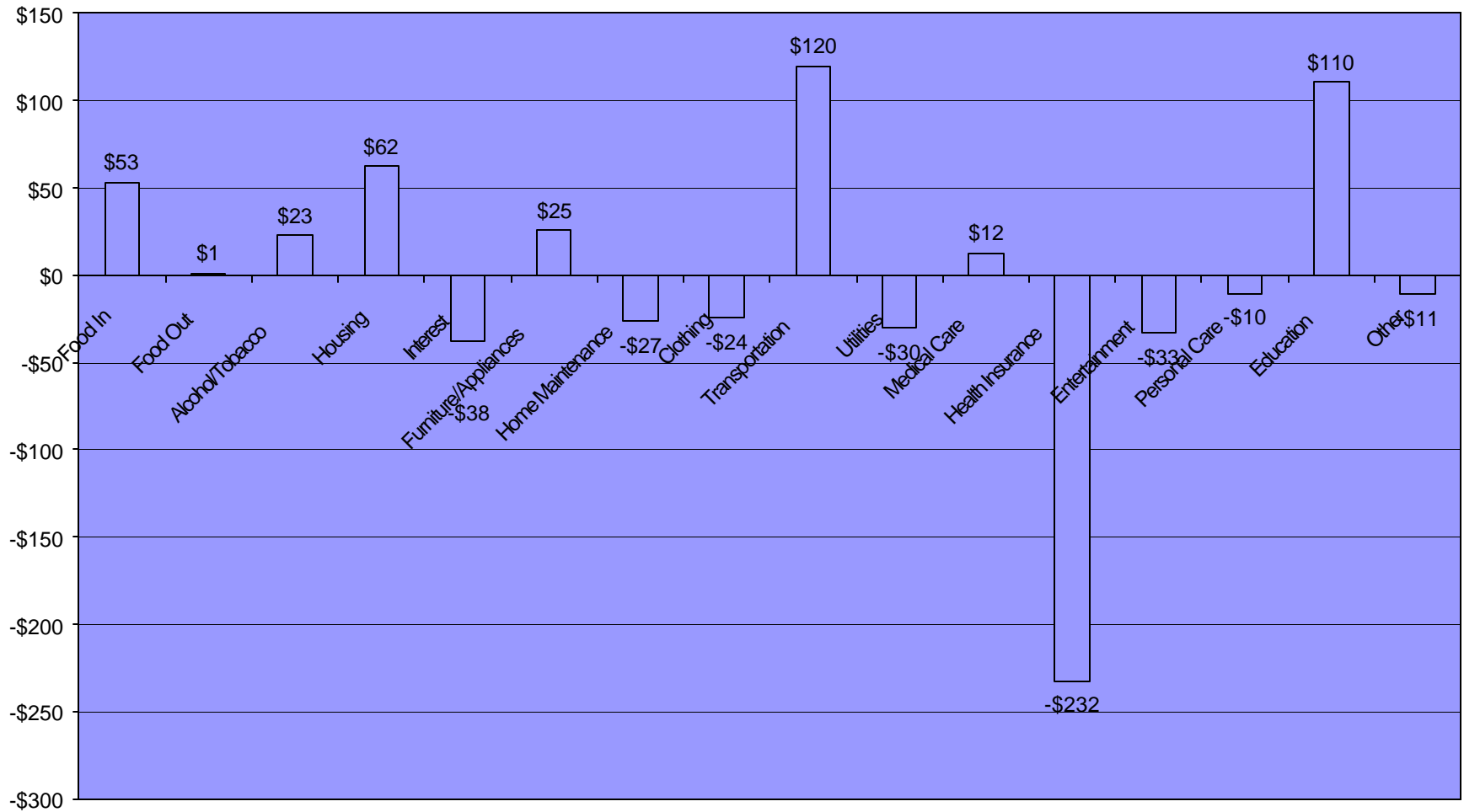
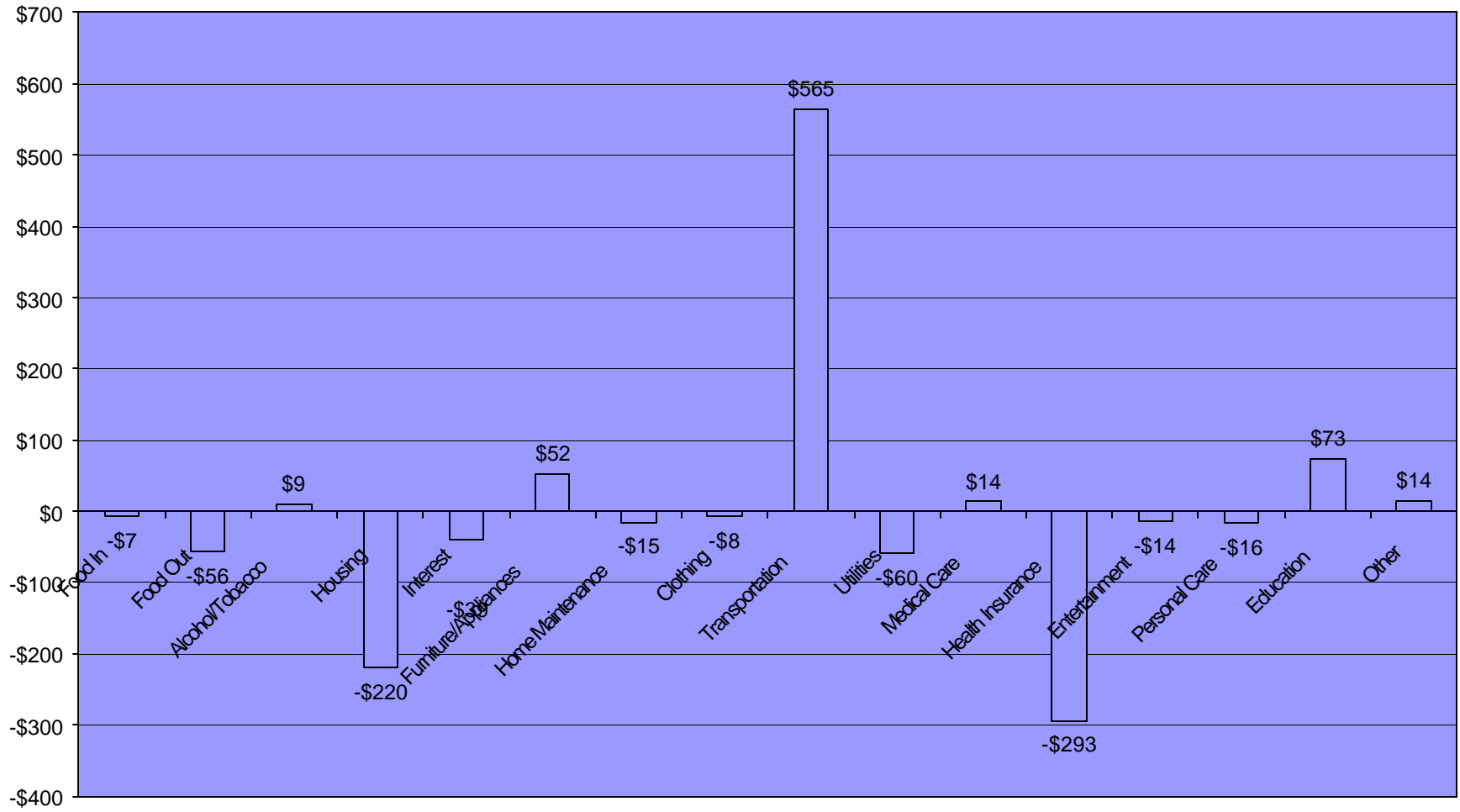




Figure 5  
 Regression-adjusted spending differentials: uninsured – insured households  
 Highest quartile of spenders



Appendix Table A1  
Expenditure share regressions  
All spending levels

---

Dependent variable is share spent on:

Independent vars.:	<u>Food In</u>		<u>Food Out</u>		<u>Alcohol &amp; Tobacco</u>		<u>Housing</u>	
	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Uninsured	0.017287	(0.001215)	-0.000926	(0.000876)	0.006347	(0.000677)	0.018136	(0.002249)
Total spending	-0.000011	(0.000000)	-0.000000	(0.000000)	-0.000001	(0.000000)	-0.000006	(0.000000)
Nonwhite	-0.000990	(0.001350)	-0.011332	(0.000973)	-0.010506	(0.000752)	0.015462	(0.002499)
H.S. Graduate	-0.016433	(0.001666)	0.005323	(0.001201)	-0.002726	(0.000928)	0.000962	(0.003083)
Some College	-0.024905	(0.001694)	0.009912	(0.001221)	-0.005918	(0.000944)	0.000227	(0.003136)
College Graduate	-0.024902	(0.001874)	0.012193	(0.001351)	-0.011822	(0.001045)	0.025451	(0.003470)
Graduate degree	-0.020451	(0.002128)	0.010541	(0.001534)	-0.015299	(0.001186)	0.025486	(0.003939)
Age of Ref. Person	0.000923	(0.000044)	-0.000409	(0.000032)	-0.000178	(0.000024)	-0.001125	(0.000081)
Female Ref. Person	-0.000969	(0.001207)	-0.006858	(0.000870)	-0.003375	(0.000673)	0.003797	(0.002235)
No. of adult males	0.026649	(0.000927)	0.000780	(0.000668)	0.002680	(0.000516)	-0.021565	(0.001715)
No. of adult females	0.024094	(0.000913)	-0.007765	(0.000658)	-0.008648	(0.000509)	-0.016971	(0.001691)
No. of Boys	0.023467	(0.000791)	-0.005329	(0.000570)	-0.003645	(0.000441)	-0.000737	(0.001464)
No. of Girls	0.022002	(0.000806)	-0.005096	(0.000581)	-0.003682	(0.000449)	-0.001432	(0.001491)
No. of Babies	0.014971	(0.001795)	-0.017688	(0.001294)	-0.006586	(0.001000)	0.007134	(0.003323)

---

Appendix Table A1  
Expenditure share regressions  
All spending levels

---

Dependent variable is share spent on:

Independent vars.:	<u>Interest</u>		<u>Furniture &amp; Appliances</u>		<u>Home Maintenance</u>		<u>Clothing</u>	
	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Uninsured	-0.007370	(0.000481)	0.000556	(0.001174)	-0.004282	(0.000798)	-0.003506	(0.000716)
Total spending	-0.000000	(0.000000)	0.000003	(0.000000)	0.000002	(0.000000)	0.000000	(0.000000)
Nonwhite	-0.000110	(0.000535)	-0.002860	(0.001305)	-0.003648	(0.000887)	0.004913	(0.000796)
H.S. Graduate	0.003055	(0.000660)	0.001689	(0.001610)	0.001382	(0.001094)	0.000542	(0.000982)
Some College	0.000989	(0.000671)	0.003328	(0.001637)	0.001363	(0.001113)	0.003996	(0.000999)
College Graduate	0.000672	(0.000743)	0.005576	(0.001811)	0.002836	(0.001231)	0.005281	(0.001105)
Graduate degree	-0.002104	(0.000843)	0.007407	(0.002056)	0.006222	(0.001398)	0.005566	(0.001255)
Age of Ref. Person	-0.000098	(0.000017)	-0.000276	(0.000042)	0.000495	(0.000029)	-0.000329	(0.000026)
Female Ref. Person	-0.001658	(0.000478)	-0.001802	(0.001167)	0.000896	(0.000793)	0.004478	(0.000712)
No. of adult males	0.001445	(0.000367)	-0.004220	(0.000895)	-0.005043	(0.000609)	-0.002382	(0.000546)
No. of adult females	0.002889	(0.000362)	-0.001590	(0.000883)	-0.004345	(0.000600)	0.006977	(0.000539)
No. of Boys	-0.000810	(0.000313)	-0.003636	(0.000764)	0.000922	(0.000519)	0.000939	(0.000466)
No. of Girls	0.000235	(0.000319)	-0.002545	(0.000779)	0.001356	(0.000529)	0.002734	(0.000475)
No. of Babies	0.001416	(0.000711)	-0.004043	(0.001735)	0.012035	(0.001179)	0.003393	(0.001058)

---

Appendix Table A1  
Expenditure share regressions  
All spending levels

Independent vars.:	Dependent variable is share spent on:							
	<u>Transportation</u>		<u>Utilities</u>		<u>Medical Care</u>		<u>Health Insurance</u>	
	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Uninsured	0.012226	(0.002394)	-0.004889	(0.000921)	-0.000610	(0.000752)	-0.035950	(0.000622)
Total spending	0.000019	(0.000000)	-0.000007	(0.000000)	0.000001	(0.000000)	-0.000002	(0.000000)
Nonwhite	0.004744	(0.002660)	0.011712	(0.001024)	-0.008198	(0.000835)	0.000265	(0.000691)
H.S. Graduate	-0.008968	(0.003282)	0.002221	(0.001263)	0.000004	(0.001031)	-0.001239	(0.000853)
Some College	-0.026382	(0.003337)	-0.002102	(0.001285)	0.000752	(0.001048)	-0.002663	(0.000867)
College Graduate	-0.049215	(0.003693)	-0.000860	(0.001422)	0.000747	(0.001160)	-0.003213	(0.000959)
Graduate degree	-0.066206	(0.004193)	-0.001914	(0.001614)	0.000084	(0.001317)	-0.002627	(0.001089)
Age of Ref. Person	-0.000569	(0.000086)	0.001262	(0.000033)	0.000630	(0.000027)	0.000410	(0.000022)
Female Ref. Person	0.001969	(0.002379)	0.004341	(0.000916)	0.001993	(0.000747)	-0.000516	(0.000618)
No. of adult males	-0.000058	(0.001826)	0.008755	(0.000703)	-0.002979	(0.000573)	0.003636	(0.000474)
No. of adult females	-0.009045	(0.001800)	0.014517	(0.000693)	0.001605	(0.000565)	0.004393	(0.000468)
No. of Boys	-0.020186	(0.001558)	0.005307	(0.000600)	0.001181	(0.000489)	0.002455	(0.000405)
No. of Girls	-0.022121	(0.001587)	0.006725	(0.000611)	0.001035	(0.000499)	0.001964	(0.000412)
No. of Babies	-0.017405	(0.003537)	0.006490	(0.001362)	0.007050	(0.001111)	0.007785	(0.000919)

Appendix Table A1  
Expenditure share regressions  
All spending levels

---

Dependent variable is share spent on:

Independent vars.:	<u>Entertainment</u>		<u>Personal Care</u>		<u>Education</u>		<u>Other</u>	
	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Uninsured	-0.004118	(0.000795)	-0.001535	(0.000215)	0.010735	(0.001357)	-0.002104	(0.000865)
Total spending	0.000001	(0.000000)	-0.000000	(0.000000)	0.000002	(0.000000)	0.000001	(0.000000)
Nonwhite	-0.014753	(0.000884)	0.006542	(0.000239)	0.009362	(0.001508)	-0.000604	(0.000962)
H.S. Graduate	0.007936	(0.001091)	0.001820	(0.000294)	0.003453	(0.001861)	0.000980	(0.001186)
Some College	0.014332	(0.001109)	0.002137	(0.000299)	0.022410	(0.001892)	0.002525	(0.001206)
College Graduate	0.016872	(0.001227)	0.002765	(0.000331)	0.011411	(0.002094)	0.006206	(0.001335)
Graduate degree	0.019874	(0.001393)	0.002172	(0.000376)	0.020841	(0.002377)	0.010408	(0.001516)
Age of Ref. Person	-0.000249	(0.000029)	0.000032	(0.000008)	-0.001340	(0.000049)	0.000822	(0.000031)
Female Ref. Person	-0.001529	(0.000790)	0.000711	(0.000213)	-0.000069	(0.001349)	-0.001409	(0.000860)
No. of adult males	-0.002193	(0.000607)	0.000569	(0.000164)	-0.003336	(0.001035)	-0.002738	(0.000660)
No. of adult females	-0.005223	(0.000598)	0.002920	(0.000162)	0.000402	(0.001020)	-0.004211	(0.000651)
No. of Boys	0.001975	(0.000518)	0.000406	(0.000140)	-0.002843	(0.000883)	0.000535	(0.000563)
No. of Girls	0.001907	(0.000528)	-0.000384	(0.000142)	-0.002612	(0.000900)	-0.000085	(0.000574)
No. of Babies	-0.006734	(0.001175)	-0.000938	(0.000317)	-0.006507	(0.002005)	-0.000371	(0.001279)

---

Appendix Table A2  
Expenditure share regressions  
Lowest spending quartile

---

Dependent variable is share spent on:

Independent vars.:	<u>Food In</u>		<u>Food Out</u>		<u>Alcohol &amp; Tobacco</u>		<u>Housing</u>	
	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Uninsured	0.012540	(0.002579)	-0.000308	(0.001831)	0.008875	(0.001595)	0.039625	(0.004356)
Total spending	-0.000034	(0.000002)	0.000003	(0.000001)	-0.000004	(0.000001)	0.000007	(0.000003)
Nonwhite	0.009074	(0.003170)	-0.012642	(0.002251)	-0.012535	(0.001961)	0.023954	(0.005353)
H.S. Graduate	-0.015012	(0.003608)	0.002968	(0.002562)	-0.001556	(0.002232)	0.000896	(0.006093)
Some College	-0.028535	(0.003795)	0.006579	(0.002694)	-0.005762	(0.002347)	-0.015630	(0.006409)
College Graduate	-0.026793	(0.004890)	0.005421	(0.003472)	-0.016232	(0.003025)	0.028799	(0.008259)
Graduate degree	-0.022043	(0.006341)	0.002231	(0.004502)	-0.026929	(0.003922)	0.018601	(0.010710)
Age of Ref. Person	0.001275	(0.000100)	-0.000960	(0.000071)	-0.000166	(0.000062)	-0.000816	(0.000169)
Female Ref. Person	-0.014962	(0.004116)	-0.002461	(0.002922)	-0.002647	(0.002546)	0.022047	(0.006952)
No. of adult males	0.036804	(0.002998)	0.000655	(0.002129)	0.004667	(0.001854)	-0.029449	(0.005063)
No. of adult females	0.041413	(0.002802)	-0.015607	(0.001990)	-0.014781	(0.001733)	-0.038527	(0.004733)
No. of Boys	0.033255	(0.002790)	-0.008790	(0.001981)	-0.003943	(0.001726)	-0.002523	(0.004712)
No. of Girls	0.037689	(0.002784)	-0.009228	(0.001977)	-0.004324	(0.001722)	-0.016252	(0.004702)
No. of Babies	0.028280	(0.006402)	-0.019605	(0.004545)	-0.004475	(0.003960)	0.010283	(0.010812)

---

Appendix Table A2 continued  
Expenditure share regressions  
Lowest spending quartile

---

Dependent variable is share spent on:

Independent vars.:	<u>Interest</u>		<u>Furniture &amp; Appliances</u>		<u>Home Maintenance</u>		<u>Clothing</u>	
	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Uninsured	-0.007464	(0.000915)	0.002393	(0.001794)	-0.003536	(0.000967)	-0.002029	(0.001425)
Total spending	0.000003	(0.000001)	0.000006	(0.000001)	0.000002	(0.000001)	0.000001	(0.000001)
Nonwhite	-0.001188	(0.001125)	-0.000816	(0.002205)	-0.002033	(0.001188)	0.009282	(0.001752)
H.S. Graduate	0.002532	(0.001280)	0.000239	(0.002510)	0.004066	(0.001352)	-0.001823	(0.001994)
Some College	-0.001121	(0.001346)	0.004086	(0.002640)	0.001835	(0.001422)	-0.000446	(0.002097)
College Graduate	0.000705	(0.001735)	-0.000317	(0.003402)	0.002871	(0.001833)	-0.003751	(0.002703)
Graduate degree	-0.004792	(0.002250)	0.000756	(0.004411)	0.003155	(0.002377)	-0.002087	(0.003505)
Age of Ref. Person	-0.000024	(0.000036)	-0.000469	(0.000070)	0.000348	(0.000038)	-0.000668	(0.000055)
Female Ref. Person	-0.002775	(0.001461)	-0.000250	(0.002863)	0.002970	(0.001543)	0.006069	(0.002275)
No. of adult males	-0.001394	(0.001064)	-0.003777	(0.002085)	-0.002103	(0.001124)	-0.005664	(0.001657)
No. of adult females	0.002109	(0.000994)	-0.000977	(0.001949)	-0.003196	(0.001050)	0.003677	(0.001549)
No. of Boys	-0.000752	(0.000990)	-0.004214	(0.001941)	0.002312	(0.001046)	-0.002990	(0.001542)
No. of Girls	0.000262	(0.000988)	-0.004063	(0.001937)	0.001357	(0.001044)	0.002137	(0.001539)
No. of Babies	0.000834	(0.002272)	-0.001700	(0.004453)	0.004304	(0.002399)	0.007339	(0.003538)

---

Appendix Table A2 continued  
Expenditure share regressions  
Lowest spending quartile

---

Dependent variable is share spent on:

Independent vars.:	<u>Transportation</u>		<u>Utilities</u>		<u>Medical Care</u>		<u>Health Insurance</u>	
	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Uninsured	-0.005175	(0.002810)	-0.009227	(0.002114)	0.000130	(0.001148)	-0.036260	(0.001061)
Total spending	0.000012	(0.000002)	-0.000010	(0.000002)	0.000005	(0.000001)	-0.000000	(0.000001)
Nonwhite	-0.020453	(0.003454)	0.016599	(0.002598)	-0.005174	(0.001411)	0.000172	(0.001305)
H.S. Graduate	0.003550	(0.003931)	0.005482	(0.002957)	-0.001656	(0.001606)	-0.003427	(0.001485)
Some College	0.004730	(0.004135)	0.001223	(0.003110)	-0.000017	(0.001689)	-0.004020	(0.001562)
College Graduate	0.005231	(0.005329)	0.004991	(0.004008)	-0.000658	(0.002177)	-0.004930	(0.002013)
Graduate degree	0.003740	(0.006910)	-0.000018	(0.005197)	-0.001597	(0.002823)	-0.008045	(0.002610)
Age of Ref. Person	0.000113	(0.000109)	0.002035	(0.000082)	0.000619	(0.000045)	0.000484	(0.000041)
Female Ref. Person	-0.008958	(0.004485)	0.003688	(0.003374)	0.000445	(0.001832)	-0.005119	(0.001694)
No. of adult males	0.001707	(0.003267)	0.012978	(0.002457)	-0.006276	(0.001335)	0.002747	(0.001234)
No. of adult females	0.002328	(0.003054)	0.025263	(0.002297)	0.001733	(0.001247)	0.008332	(0.001153)
No. of Boys	-0.010783	(0.003040)	0.007250	(0.002287)	-0.002970	(0.001242)	0.001020	(0.001148)
No. of Girls	-0.002135	(0.003034)	0.007062	(0.002282)	-0.002489	(0.001239)	0.000346	(0.001146)
No. of Babies	-0.012919	(0.006976)	0.001871	(0.005247)	0.006000	(0.002850)	0.003176	(0.002635)

---



Appendix Table A2 continued  
Expenditure share regressions  
Lowest spending quartile

---

Dependent variable is share spent on:

Independent vars.:	<u>Entertainment</u>		<u>Personal Care</u>		<u>Education</u>		<u>Other</u>	
	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Uninsured	-0.001938	(0.001285)	-0.001544	(0.000486)	0.005277	(0.002480)	-0.001360	(0.001052)
Total spending	0.000000	(0.000001)	-0.000000	(0.000000)	0.000005	(0.000002)	0.000003	(0.000001)
Nonwhite	-0.012785	(0.001580)	0.006598	(0.000597)	0.003298	(0.003049)	-0.001352	(0.001293)
H.S. Graduate	0.004787	(0.001798)	0.002141	(0.000680)	-0.002999	(0.003470)	-0.000188	(0.001471)
Some College	0.011528	(0.001891)	0.002553	(0.000715)	0.021712	(0.003650)	0.001284	(0.001548)
College Graduate	0.009151	(0.002437)	0.002146	(0.000921)	-0.007910	(0.004703)	0.001276	(0.001994)
Graduate degree	0.013712	(0.003160)	0.002111	(0.001194)	0.015811	(0.006099)	0.005395	(0.002586)
Age of Ref. Person	-0.000555	(0.000050)	-0.000013	(0.000019)	-0.001651	(0.000096)	0.000447	(0.000041)
Female Ref. Person	0.000764	(0.002051)	0.000779	(0.000775)	-0.000560	(0.003959)	0.000969	(0.001679)
No. of adult males	-0.002221	(0.001494)	0.000813	(0.000565)	-0.008114	(0.002884)	-0.001372	(0.001223)
No. of adult females	-0.006556	(0.001397)	0.003677	(0.000528)	-0.006325	(0.002695)	-0.002561	(0.001143)
No. of Boys	-0.000467	(0.001390)	-0.000118	(0.000526)	-0.005891	(0.002683)	-0.000398	(0.001138)
No. of Girls	-0.001437	(0.001388)	-0.000911	(0.000524)	-0.006250	(0.002678)	-0.001764	(0.001136)
No. of Babies	-0.001464	(0.003190)	-0.002873	(0.001206)	-0.018001	(0.006157)	-0.001050	(0.002611)

---

Appendix Table A3  
Expenditure share regressions  
Middle two spending quartiles

---

Dependent variable is share spent on:

Independent vars.:	<u>Food In</u>		<u>Food Out</u>		<u>Alcohol &amp; Tobacco</u>		<u>Housing</u>	
	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Uninsured	0.008508	(0.001606)	0.000152	(0.001163)	0.003615	(0.000889)	0.009938	(0.003100)
Total spending	-0.000013	(0.000000)	0.000001	(0.000000)	-0.000001	(0.000000)	-0.000007	(0.000001)
Nonwhite	-0.008529	(0.001706)	-0.011591	(0.001236)	-0.010388	(0.000945)	0.018362	(0.003295)
H.S. Graduate	-0.009408	(0.002157)	0.003556	(0.001563)	-0.002902	(0.001195)	0.000770	(0.004166)
Some College	-0.013793	(0.002205)	0.006601	(0.001597)	-0.007336	(0.001221)	0.002964	(0.004257)
College Graduate	-0.017695	(0.002410)	0.009431	(0.001746)	-0.012246	(0.001335)	0.022671	(0.004654)
Graduate degree	-0.014642	(0.002782)	0.006088	(0.002015)	-0.017843	(0.001541)	0.016667	(0.005371)
Age of Ref. Person	0.000750	(0.000057)	-0.000180	(0.000041)	-0.000189	(0.000031)	-0.001461	(0.000109)
Female Ref. Person	-0.000173	(0.001486)	-0.006254	(0.001077)	-0.002389	(0.000823)	0.003000	(0.002870)
No. of adult males	0.030495	(0.001181)	-0.001230	(0.000856)	0.002275	(0.000654)	-0.021689	(0.002281)
No. of adult females	0.027827	(0.001143)	-0.009303	(0.000828)	-0.007529	(0.000633)	-0.014544	(0.002207)
No. of Boys	0.024384	(0.000971)	-0.005011	(0.000704)	-0.003931	(0.000538)	-0.004234	(0.001876)
No. of Girls	0.022205	(0.000976)	-0.004023	(0.000707)	-0.004006	(0.000541)	-0.003557	(0.001886)
No. of Babies	0.013019	(0.002145)	-0.015782	(0.001554)	-0.007717	(0.001188)	0.004542	(0.004142)

---

Appendix Table A3 continued  
Expenditure share regressions  
Middle two spending quartiles

---

Dependent variable is share spent on:

Independent vars.:	<u>Interest</u>		<u>Furniture &amp; Appliances</u>		<u>Home Maintenance</u>		<u>Clothing</u>	
	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Uninsured	-0.006092	(0.000730)	0.004079	(0.001752)	-0.004271	(0.001223)	-0.003883	(0.001006)
Total spending	-0.000000	(0.000000)	0.000006	(0.000000)	0.000002	(0.000000)	0.000001	(0.000000)
Nonwhite	-0.000194	(0.000776)	-0.002165	(0.001862)	-0.002127	(0.001299)	0.003762	(0.001069)
H.S. Graduate	0.003755	(0.000980)	-0.002079	(0.002354)	-0.000450	(0.001643)	-0.001342	(0.001351)
Some College	0.001976	(0.001002)	-0.002219	(0.002406)	-0.000350	(0.001679)	0.001536	(0.001381)
College Graduate	0.001113	(0.001095)	-0.000368	(0.002630)	-0.001107	(0.001835)	0.003904	(0.001510)
Graduate degree	-0.000497	(0.001264)	0.002277	(0.003036)	0.003218	(0.002118)	0.003042	(0.001742)
Age of Ref. Person	-0.000154	(0.000026)	-0.000117	(0.000062)	0.000503	(0.000043)	-0.000190	(0.000036)
Female Ref. Person	-0.001828	(0.000676)	-0.001587	(0.001622)	-0.000347	(0.001132)	0.006202	(0.000931)
No. of adult males	0.001966	(0.000537)	-0.007975	(0.001289)	-0.005762	(0.000900)	-0.003717	(0.000740)
No. of adult females	0.002919	(0.000519)	-0.005419	(0.001247)	-0.004977	(0.000870)	0.005813	(0.000716)
No. of Boys	-0.001563	(0.000442)	-0.005321	(0.001060)	0.000164	(0.000740)	0.001485	(0.000608)
No. of Girls	0.000113	(0.000444)	-0.003010	(0.001066)	0.000563	(0.000744)	0.002692	(0.000612)
No. of Babies	0.000658	(0.000975)	-0.003519	(0.002341)	0.013112	(0.001634)	0.004847	(0.001344)

---

Appendix Table A3 continued  
Expenditure share regressions  
Middle two spending quartiles

---

Dependent variable is share spent on:

Independent vars.:	<u>Transportation</u>		<u>Utilities</u>		<u>Medical Care</u>		<u>Health Insurance</u>	
	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Uninsured	0.019146	(0.003060)	-0.004874	(0.001198)	0.001964	(0.001133)	-0.037225	(0.000993)
Total spending	0.000015	(0.000001)	-0.000009	(0.000000)	0.000001	(0.000000)	-0.000002	(0.000000)
Nonwhite	0.006723	(0.003252)	0.008504	(0.001273)	-0.009405	(0.001204)	0.000752	(0.001055)
H.S. Graduate	-0.009159	(0.004111)	0.004486	(0.001610)	-0.000427	(0.001522)	0.000393	(0.001334)
Some College	-0.023297	(0.004201)	0.001998	(0.001645)	-0.000992	(0.001556)	-0.001452	(0.001363)
College Graduate	-0.035318	(0.004593)	0.000369	(0.001798)	0.000559	(0.001701)	-0.002407	(0.001490)
Graduate degree	-0.038611	(0.005301)	0.000971	(0.002075)	-0.001787	(0.001963)	-0.001191	(0.001720)
Age of Ref. Person	-0.000390	(0.000108)	0.000881	(0.000042)	0.000652	(0.000040)	0.000388	(0.000035)
Female Ref. Person	0.000335	(0.002832)	0.002413	(0.001109)	0.001604	(0.001049)	0.000437	(0.000919)
No. of adult males	0.007105	(0.002251)	0.011165	(0.000881)	-0.003436	(0.000834)	0.004590	(0.000730)
No. of adult females	-0.006212	(0.002178)	0.015025	(0.000853)	0.001084	(0.000807)	0.004253	(0.000707)
No. of Boys	-0.014337	(0.001851)	0.005324	(0.000725)	0.001292	(0.000685)	0.002940	(0.000601)
No. of Girls	-0.017457	(0.001861)	0.006566	(0.000729)	0.001027	(0.000689)	0.001937	(0.000604)
No. of Babies	-0.019173	(0.004088)	0.004400	(0.001600)	0.006374	(0.001514)	0.009922	(0.001326)

---

Appendix Table A3 continued  
Expenditure share regressions  
Middle two spending quartiles

---

Dependent variable is share spent on:

Independent vars.:	<u>Entertainment</u>		<u>Personal Care</u>		<u>Education</u>		<u>Other</u>	
	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Uninsured	-0.00531	(0.00107)	-0.00167	(0.00029)	0.01768	(0.00188)	-0.00176	(0.00130)
Total spending	0.00000	(0.00000)	-0.00000	(0.00000)	0.00000	(0.00000)	0.00000	(0.00000)
Nonwhite	-0.01433	(0.00114)	0.00759	(0.00031)	0.01209	(0.00200)	0.00094	(0.00138)
H.S. Graduate	0.00722	(0.00144)	0.00166	(0.00040)	0.00336	(0.00253)	0.00056	(0.00175)
Some College	0.01229	(0.00147)	0.00186	(0.00040)	0.01951	(0.00259)	0.00070	(0.00179)
College Graduate	0.01428	(0.00161)	0.00238	(0.00044)	0.01031	(0.00283)	0.00411	(0.00195)
Graduate degree	0.01704	(0.00186)	0.00159	(0.00051)	0.01603	(0.00326)	0.00766	(0.00226)
Age of Ref. Person	-0.00019	(0.00004)	0.00005	(0.00001)	-0.00123	(0.00007)	0.00087	(0.00005)
Female Ref. Person	-0.00137	(0.00099)	0.00057	(0.00027)	0.00126	(0.00174)	-0.00188	(0.00120)
No. of adult males	-0.00347	(0.00079)	0.00050	(0.00022)	-0.00641	(0.00139)	-0.00441	(0.00096)
No. of adult females	-0.00541	(0.00076)	0.00303	(0.00021)	-0.00119	(0.00134)	-0.00537	(0.00093)
No. of Boys	0.00017	(0.00065)	0.00040	(0.00018)	-0.00181	(0.00114)	0.00006	(0.00079)
No. of Girls	0.00107	(0.00065)	-0.00057	(0.00018)	-0.00261	(0.00115)	-0.00094	(0.00079)
No. of Babies	-0.00695	(0.00143)	-0.00053	(0.00039)	-0.00378	(0.00252)	0.00058	(0.00174)

---

Appendix Table A4  
Expenditure share regressions  
Highest spending quartile

---

Dependent variable is share spent on:

Independent vars.:	<u>Food In</u>		<u>Food Out</u>		<u>Alcohol &amp; Tobacco</u>		<u>Housing</u>	
	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Uninsured	-0.000592	(0.002377)	-0.004776	(0.002109)	0.000800	(0.001032)	-0.018668	(0.005911)
Total spending	-0.000006	(0.000000)	-0.000001	(0.000000)	-0.000001	(0.000000)	-0.000005	(0.000001)
Nonwhite	-0.008586	(0.002103)	-0.005739	(0.001866)	-0.007005	(0.000913)	-0.006894	(0.005229)
H.S. Graduate	-0.003484	(0.002915)	0.006913	(0.002585)	-0.003034	(0.001266)	0.004239	(0.007247)
Some College	-0.004603	(0.002874)	0.009806	(0.002550)	-0.003708	(0.001248)	0.013684	(0.007147)
College Graduate	-0.001024	(0.002923)	0.015635	(0.002593)	-0.007525	(0.001269)	0.033532	(0.007267)
Graduate degree	0.001531	(0.003050)	0.013910	(0.002705)	-0.008026	(0.001324)	0.042966	(0.007583)
Age of Ref. Person	0.000606	(0.000069)	0.000118	(0.000061)	-0.000100	(0.000030)	-0.001069	(0.000171)
Female Ref. Person	0.001489	(0.001509)	-0.005286	(0.001339)	-0.001264	(0.000656)	-0.008008	(0.003753)
No. of adult males	0.018972	(0.001117)	0.001346	(0.000991)	0.001138	(0.000485)	-0.013113	(0.002779)
No. of adult females	0.014867	(0.001193)	-0.000901	(0.001059)	-0.003347	(0.000518)	-0.007879	(0.002967)
No. of Boys	0.019123	(0.000924)	-0.002975	(0.000820)	-0.002420	(0.000401)	0.005937	(0.002298)
No. of Girls	0.014875	(0.000969)	-0.002983	(0.000860)	-0.002092	(0.000421)	0.008722	(0.002409)
No. of Babies	0.008722	(0.002199)	-0.013455	(0.001950)	-0.004170	(0.000955)	0.014321	(0.005467)

---

Appendix Table A4 continued  
Expenditure share regressions  
Highest spending quartile

---

Dependent variable is share spent on:

Independent vars.:	<u>Interest</u>		<u>Furniture &amp; Appliances</u>		<u>Home Maintenance</u>		<u>Clothing</u>	
	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Uninsured	-0.003301	(0.001033)	0.004449	(0.003552)	-0.001294	(0.002682)	-0.000654	(0.001719)
Total spending	-0.000001	(0.000000)	-0.000001	(0.000000)	-0.000000	(0.000000)	-0.000001	(0.000000)
Nonwhite	0.001721	(0.000914)	-0.003574	(0.003143)	-0.007331	(0.002373)	0.002752	(0.001520)
H.S. Graduate	0.000804	(0.001266)	0.003730	(0.004355)	-0.002815	(0.003288)	0.004457	(0.002107)
Some College	0.000559	(0.001249)	0.003707	(0.004295)	-0.000261	(0.003243)	0.007926	(0.002078)
College Graduate	-0.001527	(0.001270)	0.009182	(0.004367)	0.002976	(0.003297)	0.010662	(0.002113)
Graduate degree	-0.003879	(0.001325)	0.010970	(0.004557)	0.006254	(0.003440)	0.010478	(0.002205)
Age of Ref. Person	-0.000163	(0.000030)	-0.000442	(0.000103)	0.000701	(0.000078)	-0.000063	(0.000050)
Female Ref. Person	-0.001279	(0.000656)	-0.000527	(0.002256)	0.003795	(0.001703)	0.001007	(0.001091)
No. of adult males	0.001773	(0.000485)	-0.001677	(0.001670)	-0.007639	(0.001261)	0.001135	(0.000808)
No. of adult females	0.002611	(0.000518)	-0.000569	(0.001783)	-0.006283	(0.001346)	0.007857	(0.000863)
No. of Boys	-0.000033	(0.000402)	-0.003210	(0.001381)	0.000892	(0.001043)	0.001849	(0.000668)
No. of Girls	-0.000320	(0.000421)	-0.003318	(0.001448)	0.001911	(0.001093)	0.003650	(0.000700)
No. of Babies	0.001562	(0.000955)	-0.008300	(0.003286)	0.012730	(0.002480)	0.002017	(0.001590)

---

Appendix Table A4 continued  
Expenditure share regressions  
Highest spending quartile

---

Dependent variable is share spent on:

Independent vars.:	<u>Transportation</u>		<u>Utilities</u>		<u>Medical Care</u>		<u>Health Insurance</u>	
	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Uninsured	0.047922	(0.009636)	-0.005058	(0.001444)	0.001160	(0.002246)	-0.024895	(0.001383)
Total spending	0.000021	(0.000001)	-0.000004	(0.000000)	-0.000000	(0.000000)	-0.000001	(0.000000)
Nonwhite	0.033983	(0.008525)	0.003452	(0.001278)	-0.007389	(0.001987)	-0.001041	(0.001223)
H.S. Graduate	-0.031676	(0.011814)	0.005073	(0.001771)	-0.001363	(0.002754)	-0.000309	(0.001695)
Some College	-0.069244	(0.011651)	0.005860	(0.001747)	0.000227	(0.002716)	-0.000339	(0.001672)
College Graduate	-0.117237	(0.011847)	0.007710	(0.001776)	-0.002380	(0.002762)	-0.000413	(0.001700)
Graduate degree	-0.143452	(0.012361)	0.006780	(0.001853)	0.000188	(0.002882)	0.001137	(0.001774)
Age of Ref. Person	-0.001738	(0.000279)	0.000586	(0.000042)	0.000582	(0.000065)	0.000236	(0.000040)
Female Ref. Person	0.008292	(0.006118)	0.000777	(0.000917)	0.003617	(0.001426)	-0.000336	(0.000878)
No. of adult males	-0.010627	(0.004530)	0.008204	(0.000679)	-0.001505	(0.001056)	0.002607	(0.000650)
No. of adult females	-0.015509	(0.004837)	0.010015	(0.000725)	0.001366	(0.001128)	0.002768	(0.000694)
No. of Boys	-0.032881	(0.003746)	0.003909	(0.000562)	0.001973	(0.000873)	0.001809	(0.000538)
No. of Girls	-0.038252	(0.003927)	0.005319	(0.000589)	0.001798	(0.000916)	0.002069	(0.000564)
No. of Babies	-0.020486	(0.008913)	0.002578	(0.001336)	0.007700	(0.002078)	0.003638	(0.001279)

---



Appendix Table A4 continued  
Expenditure share regressions  
Highest spending quartile

---

Dependent variable is share spent on:

Independent vars.:	<u>Entertainment</u>		<u>Personal Care</u>		<u>Education</u>		<u>Other</u>	
	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Uninsured	-0.001154	(0.002690)	-0.001337	(0.000360)	0.006210	(0.003886)	0.001190	(0.002973)
Total spending	-0.000001	(0.000000)	-0.000000	(0.000000)	0.000001	(0.000000)	-0.000000	(0.000000)
Nonwhite	-0.014962	(0.002380)	0.003432	(0.000318)	0.017322	(0.003438)	-0.000141	(0.002630)
H.S. Graduate	0.010787	(0.003299)	0.000841	(0.000441)	0.008490	(0.004765)	-0.002655	(0.003644)
Some College	0.016138	(0.003253)	0.001232	(0.000435)	0.019203	(0.004699)	-0.000185	(0.003594)
College Graduate	0.022013	(0.003308)	0.002631	(0.000442)	0.020057	(0.004778)	0.005707	(0.003655)
Graduate degree	0.023945	(0.003451)	0.001978	(0.000462)	0.025898	(0.004985)	0.009322	(0.003813)
Age of Ref. Person	0.000134	(0.000078)	0.000058	(0.000010)	-0.000801	(0.000113)	0.001355	(0.000086)
Female Ref. Person	-0.001382	(0.001708)	0.000235	(0.000229)	-0.000520	(0.002468)	-0.000610	(0.001887)
No. of adult males	-0.001652	(0.001265)	0.000681	(0.000169)	0.003186	(0.001827)	-0.002828	(0.001397)
No. of adult females	-0.006871	(0.001351)	0.001984	(0.000181)	0.007611	(0.001951)	-0.007718	(0.001492)
No. of Boys	0.005209	(0.001046)	0.000740	(0.000140)	-0.001148	(0.001511)	0.001226	(0.001156)
No. of Girls	0.005049	(0.001097)	0.000272	(0.000147)	0.001499	(0.001584)	0.001801	(0.001212)
No. of Babies	-0.006717	(0.002489)	-0.000589	(0.000333)	0.000400	(0.003595)	0.000048	(0.002749)

---

Appendix Table A5  
Expenditure elasticities for different goods

---

	Elasticity
Food In	0.324
Utilities	0.382
Health Insurance	0.411
Alcohol and Tobacco	0.540
Personal Care	0.581
Housing	0.724
Interest	0.746
Food Out	0.891
Clothing	0.903
Health Care	1.062
Entertainment	1.187
Furniture and Appliances	1.295
Other	1.319
Home Maintenance	1.444
Education	1.486
Transportation	1.917

---