Appendices to

Disability, Earnings, Income and Consumption

Bruce D. Meyer and Wallace K. C. Mok*

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*Meyer: Irving B. Harris Graduate School of Public Policy Studies, University of Chicago, Chicago IL 60637. Email: bdmeyer@uchicago.edu
Mok: Department of Economics, The Chinese University of Hong Kong, Shatin, NT, Hong Kong.
Email: wallacemok@cuhk.edu.hk

Appendix 1
Validation of the Severity Question

In this appendix we examine the association between the responses to the PSID severity question and other indicators of health and disability. The PSID includes three sets of questions that allow us to validate the use of these severity questions as summary indicators of disability severity: 1) the 1986 Health Supplement, 2) the activity limitation questions in the 2003-2009 PSID questionnaire, and 3) the condition questions in the 1999-2009 questionnaires. The first two sets of questions allow us to examine the tasks that can be performed by the severely disabled compared to the not severely disabled or the non-disabled. The third set of questions gives us reports of the health conditions that the three groups of individuals have, as diagnosed by a doctor or other health professional.

1A. 1986 Health Supplement

A special health supplement to the 1986 survey asked six questions related to daily activities:

1) Do you have any trouble either walking several blocks or climbing a few flights of stairs, because of your health?
2) Do you have trouble bending, lifting or stooping because of your health?
3) Would your health keep you from driving a car?
4) When you travel around your community, does someone have to assist you because of your health?
5) Do you have to stay indoors most or all of the day because of your health?
6) Does your health confine you to a bed or a chair for most or all of the day?

The respondent is asked to state simply *yes* or *no* to each question. We compare the activity limitations for those reported as severely disabled and those not-severely disabled in 1986. Columns 1 to 3 of Appendix Table 1 show for each severity group the percentage of household heads who report having trouble performing each of the six activities, the percentage having trouble performing at least one of these activities and the average total number of activity limitations. For all six activities, the percentage is higher for the severe group than the not-severe group. We see that 79 percent of the severe group have trouble walking or climbing stairs, while only 41 percent of the not-severe group have such a

problem. Similarly, 82 percent of the severe group has trouble stooping, bending or lifting, while only 53 percent of the not-severe group has such difficulty. The rates for the non-disabled for these two types of limitations are 0.04 and 0.06, respectively. The average total number of activity limitations for the severe group was 2.74, compared to only 1.15 for the not severe group and 0.11 for the non-disabled group.

1B. Activity Limitation Questions in the 2003-2009 PSID Questionnaires

After asking each individual about the presence and severity of a work limitation, the 2003-2009 surveys ask a series of activity limitation questions. The questions begin with the following statement: "The next questions are about [your/Head's] ability to do certain activities – by [your/him]self and without special equipment. Because of a health or physical problem, [do you/does he] have any difficulty (performing a specific activity)."

The specific activities include 1) Bathing or showering, 2) Dressing, 3) Eating, 4) Getting in or out of a bed and chair, 5) Walking, 6) Getting outside, 7) Using the bathroom, 8) Preparing own meals, 9) Shopping for personal items or medicines, 10) Managing money, 11) Using telephone, 12) Doing heavy housework (scrubbing floors, washing windows) and 13) Doing light housework (washing dishes, light house cleaning). Generally, each respondent is again asked to state simply *yes* or *no* to each question.[1] These questions are similar to those of the 1986 Health Supplement.

Columns 4 to 6 of Appendix Table 1 report the activity limitation rates of the disability severity groups, averaged over the 2003-2009 PSID surveys. For each activity, the severe group once again has a higher propensity to report having a limitation. Specifically, 62 percent of the severely disabled report difficulty in performing heavy housework. Of the not-severely disabled, only 24 percent report such a difficulty. On average, a severely disabled person has approximately 3 activity limitations, while the not-severely disabled have about 0.8, and the non-disabled only 0.04.

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[1] There is a follow-up question after each activity. For the first seven activities, respondents who state "yes," are then asked: "Does someone usually help [you/him] with that activity?" For the last six activities, the possible answers are "yes," "no," or "does not do." Those who state "Does not do" (i.e. they do not currently perform that activity) are then asked: "Is this because of a health or physical problem?" We classify the respondent as having one of these activity limitations if he says yes also to the follow-up question.

1C. Health Limitation Questions in the 1999-2009 PSID Questionnaires

The 1999-2009 surveys also ask questions about the presence of health conditions. Each respondent is first asked, "Has a doctor (or medical professional) ever told you that you have or had (a particular health condition)?" For those who answer yes, the date of onset is recorded and the respondent is then asked, "How much does this condition limit your normal daily activity?" The possible answers are: "A lot," "Somewhat," "Just a little," or "Not at all."

We are again interested in the shares of the current not severely and severely disabled who report a health condition. The results for all (1999-2009) surveys are very similar; we, therefore, report the average across these survey years. Columns 1 to 3 of Appendix Table 2 present for the currently non-disabled, not-severely disabled and the severely disabled groups, respectively, the fraction that reports having or having had a particular health condition as told by a doctor. In all cases, the frequency for the severe group is considerably higher than the other two groups. Nonetheless, individuals who answered affirmatively to this health condition question may have had the condition many years ago and have since recovered.

We are more interested in how a condition affects activities currently rather than in the past. Thus, we use the follow-up question regarding how much the condition limits the head and consider only those who answered, "A lot," "Somewhat," or "Just a little" as having a limitation currently. Columns 4 to 6 report these percentages. It is again evident that the severe group reports a much higher share of people with a health condition that currently limits their activities.

Finally, we consider the seriousness of a health condition itself by looking at the percentage of people who report that a particular health condition currently limits them "A lot." Columns 7 to 9 report these results, which display the now familiar pattern – the severe group has the highest rate of serious health conditions. The severe group averages 1.17 serious health limitations, compared to 0.19 for the not-severe group, and 0.01 for the non-disabled group. Thus, the severely disabled group not only has more types of limiting conditions, but also has them in more serious forms.

Taken together, the consistent response patterns in these surveys support the view that the self-reported severity questions are good indicators of the true severity of disabling conditions.[2]

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[2] Ideally, we would like to have certified medical professionals to verify these self-reported activity limitations. To our knowledge, however, there is no survey that asks both about self-reported severity and includes information about activity limitations that are externally assessed.

Appendix 2
Additional Results

2A.   Chronic-Severe Disability Spells after an Initially Milder Disability

Our results suggest that on average members of the Chronic-Severe group experience a large long-term drop in their material well-being. Our disability classification, however, is based only on the first observed disability and the subsequent ten years. We would like to determine if it is appropriate to combine our results on the decline in material well-being for initial Chronic-Severe disabilities with our lifetime frequencies that are reported in Table 4 and Appendix Table 3. Specifically, we ask whether those non-Chronic-Severe disabled individuals whose disability classification subsequently changes to Chronic-Severe over time (using a rolling ten-year-ahead window) exhibit outcomes similar to those in the original Chronic-Severe group. To do so, we re-run our fixed effect regressions using only these new Chronic-Severe disability spells. We determine the year of onset as the year when their disability classification switches to Chronic-Severe, but we still use the period before their first observed disability as the years before onset. We find that the long-term changes in various outcomes based on these Chronic-Severe disability spells that begin after other spells are qualitatively similar to those of the original Chronic-Severe group presented above.

2B.   Social Security Recipiency

The evidence we presented in the paper suggests that the Chronic-Severe group fares particularly badly relative to the other groups. We also see that in the long run (six to ten years after disability onset), about 48 percent of these men receive Social Security retirement or disability benefits. A natural question to ask then is how those Chronic-Severe disabled who receive Social Security fare relative to their non-receiving counterparts. To examine this issue, we split the Chronic-Severe group into those who receive Social Security benefits more than half of the time within the ten years after disability onset (SSA recipients) and those who do not (SSA non-recipients). Appendix Figure 4 illustrates the fixed effects regression results for annual earnings.

The drop in earnings for the SSA recipient Chronic-Severe group is much larger than that for the SSA non-recipient Chronic-Severe group. This difference is not surprising given that SSDI recipients cannot have earnings above a certain level and maintain eligibility. Next, we look at the changes in hours of work, which are shown in Appendix Figure 5. These results suggest that on average the annual hours worked of the SSA recipient Chronic-Severe group falls sharply relative to the SSA non-recipient Chronic-Severe group.[3]

Finally, we study how income and consumption differ between social security recipients and non-recipients. Appendix Figure 6 displays the results for income, and Appendix Figure 7 for food and housing consumption. These figures suggest that the fall in material well being is very similar for the two Chronic-Severe groups. In the sixth through tenth years after onset, average after-tax post-transfer income is similar for the two groups, but food consumption drops a bit more for the nonrecipients of social security benefits. When combined with the changes in earnings and hours, this result suggests that those who receive Social Security payments stop working earlier than those who do not. Nonetheless, the fall in material well-being is very similar for the two groups.

2C.   Additional Specifications: Changes over Time and Differences by Wealth

We have also examined whether the material consequences of disability have changed over time. To do so, we split the disabled into two samples: those who are first disabled before 1985, and those disabled later. We estimate the regressions on these two samples separately and find that the two sets of results for the Chronic-Severe group are very similar.

We have also studied the changes in economic outcomes for those with high (above median) and low (below median) net wealth. The results suggest that the consumption decline for those Chronic-Severe disabled with high net wealth is in general smaller than that for their less wealthy counterparts over the first seven years after disability onset. Beginning in the eighth year after onset, the consumption decline for these two Chronic-Severe groups is quite similar. This evidence is consistent with our finding that the Chronic-Severe disabled smooth their consumption somewhat by running down their wealth, but the estimates are noisy due to small sample sizes.

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[3] In theory, the net effect of the availability of SSDI benefits on a disabled person's work hours decision is ambiguous because the income effect of the benefit can induce him to work more or less (or no change), depending on his taste for leisure.

2D. Food Consumption vs. Food Expenditures

The results in Section 6 suggest that the disabled suffer from a sizable drop in food consumption, particularly so for the Chronic-Severe group. We should interpret these estimates with care, however, because the PSID records only food expenditure. As Becker (1965) notes, consumption is the output of home production that uses both expenditure and time as ingredients. Individuals with a lower relative price of time may substitute expenditure with more time spent in home production. Becker's ideas have strong implications for our conclusions because the fall in food consumption we observe for the disabled may be a result of: 1) the disabled spending more time shopping and searching for bargains, thus getting lower prices for the same quantity of goods and/or 2) the disabled spending more time on food preparation, which may turn cheaper ingredients into better food.[4] In this section, we investigate these two possibilities in turn.

We use data from the 1989-1991 Continuing Survey of Food Intake of Individuals (CSFII) to examine the food quantity that the disabled consume. To study whether the disabled spend more time shopping and preparing food, we mainly use the American Time Use Survey (ATUS). For clarity of exposition, we include descriptions of the surveys in the subsections below. As before, we focus on male household heads ages 22-61. To determine the effect of disability, we estimate:

$$(A1) \qquad Y = \beta_0 + \beta_1 D + X\beta + u$$

where Y is the dependent variable of interest, D is an indicator variable that equals one if the individual is disabled, β_1 is the coefficient of interest, X is a vector of demographic controls including age, age-squared of the male head, year, month of survey, geographical regions, family composition, education and race.

Other than the question about whether an individual has a disability, CSFII and ATUS ask no other disability-related questions.[5] Thus, we can only study the disabled as a whole for the remainder of this section.

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[4] Aguiar and Hurst (2005) highlight this distinction by explaining that the fall in food expenditure after retirement that is observed in many studies is due to retirees shopping for food more frequently and spending more time on food preparation (which affects quality of the food eaten).

[5] See the data appendix (Appendix 3) on how we define disability in the ATUS using matched information from the ASEC.

Food Consumption

We first study the quantity of food consumption at the household level using the CSFII. CSFII is a repeated cross-sectional survey which collects detailed information on the type and quantity of food consumed by the non-institutionalized population in the 48 coterminous states. CSFII was implemented annually in 1989-1991 and 1994-1996 and 1998. The survey begins with a general household questionnaire followed by three one-day food diaries. We use only the 1989-1991 surveys because the question about the presence of disability was not asked in the 1994-1997 surveys. The 1989-1991 surveys also interviewed a low income sample; we present results with and without this low income sample. Our sample includes 3,253 male household heads ages 22-61 of whom 362 (11.1 percent) are disabled. There are 2,214 male household heads who completed all three one-day diaries, of whom 266 (12 percent) are disabled.[6]

Columns 1 and 2 in Appendix Table 13 show the descriptive statistics by current disability status. On average, disabled households spend less on food than their non-disabled counterparts, both for food eaten at home and for food eaten outside. Column 3 reports the estimates of β_1 in equation (6) for the full sample and column 4 reports these results for the main sample only (that is, excluding the low-income sample). The results suggest that conditional on the observables, a family with a disabled head expends on average 16 percent less on food than its non-disabled counterpart in the full sample (and 11 percent less in the main sample).

For comparison, we have also estimated similar regressions using the PSID data with and without individual fixed effects; the results are tabulated in columns 5 and 6. The PSID estimates without fixed effects are very similar to the CSFII results in column 4, which excludes the low-income sample. When fixed effects are included, however, the fall in food consumption is smaller. For total and home food expenditures, the fixed effects estimates are about half as big as those without fixed effects, but remain statistically significant at the 1 percent level.

To see whether the disabled suffer from a change in the quantity of food consumed, we examine the change in their log consumption index developed by Aguiar and Hurst (2005). The consumption index is constructed by studying how permanent income can be predicted based on what food the

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[6] If we exclude the low-income sample, the sample size falls to 2,431 male household heads, of whom 215 (8.8 percent) are disabled. Selecting only those who completed the three one-day diaries, gives us 1,676 male household heads, of whom 164 (9.8 percent) are disabled.

household head eats. The data appendix (Appendix 3) includes details of its construction but we include a simplified description here. We first predict permanent income of the non-disabled household heads using education, industry, occupation and demographic controls. We then regress predicted permanent income on the household's food expenses, household composition and the head's food consumption quantities. Using only the resulting estimated coefficients pertaining to consumption (food quantities and food expenses), we obtain the log consumption index. A one percent decline in the log consumption index implies that households are consuming as though their permanent income has fallen by one percent. By comparing the log consumption indices of the disabled and the non-disabled heads, we can see how disability affects consumption.

The regression results (shown in the fifth row of Appendix Table 13) suggest that the disabled experience a decline in consumption equal to 3 percent of their permanent income in the full sample and 2% in the main sample. Since the CSFII disabled sample includes the disabled with all degrees of persistence and severity, it is reasonable to surmise that the actual drop in the log consumption index for our Chronic-Severe group is likely to be much higher than this estimate.

We also observe a decline in the nutrition of the disabled individual himself, with about a 10-15 percent drop in intake of Vitamin A, Vitamin C and Vitamin E, as Appendix Table 13 reports.[7] Finally, we looked at the change in the frequency of eating out. The results indicate that households with a disabled head are less likely to eat out (8 percentage points lower). This difference mostly comes from fewer meals in fast-food outlets (7.8 percentage points lower) and restaurants with table service (5.4 percentage points lower).

Food Preparation/Shopping

To consider whether the disabled also spend more time on food preparation and shopping, we make use of the 2003-2006 ATUS, a large cross-sectional survey of time use by the non-institutionalized population of the United States. Households that have completed the last round of their monthly CPS are randomly selected, and one member of each selected household is interviewed. Like the monthly CPS, the ATUS does not have a disability question that is asked of everyone. The Annual Social and Economic Supplement to the CPS (ASEC) does ask a disability question of everyone, regardless of their

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[7] There is no evidence, however, of a decline in the intake of calcium, cholesterol, saturated fat or protein.

employment status. Respondents whose final CPS interview takes place between March and June of the year are potentially also selected to participate in the ATUS. Using this link, we can obtain the disability status of a subset of ATUS respondents.

For our analysis, we again look at male household heads who are 22-61 years of age. Linking the ASEC with the ATUS yields a sample of 4,650 male household heads, with 6.8 percent of them classified as disabled. We study their time spent (in hours per week) on food preparation, food shopping and all kinds shopping. The upper section of Appendix Table 14 reports the results for these male household heads. Columns 1 and 2 report the weighted average number of hours spent per week on each of these three activities for the non-disabled and disabled male household heads, respectively. Column 3 reports the results of estimating equation (6) with time use as the dependent variable in each category.[8]

Currently disabled male heads are estimated to spend 0.66 hours per week (5.7 minutes per day) more on food preparation.[9] Relative to the mean for the non-disabled, this represents a 34 percent increase in the time spent on food preparation, but the amount of time is small. The disabled spend more time improving food quality, but this increase takes up only a small fraction of their extra 24.3 hours of leisure hours per week (see section 2E of this appendix). There is no evidence that the disabled spend more time shopping. It is possible that the disabled spend more time on food preparation simply because they have much more extra time to spend or that their disability makes their time less productive and they compensate by using more time to prepare meals than their non-disabled counterparts.

It is important to recognize, however, that these food preparation and shopping activities may be done by the spouse instead of the head. The lower section of Appendix Table 14 reports the results for a sample of 3,658 wives of household heads, 132 (4 percent) of whom have disabled husbands. The sample means show that married females spend more time on food preparation and shopping activities than the average male household heads do. We estimate equation (6), but with time spent by the wife as the dependent variable; we also include her disability status as an extra control. Column 3 reports the

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[8] These regressions control for the age and age-squared of the head, education, region, urbanicity, year, marital status, race, number of children, number of adults, and the month of the ATUS interview.
[9] If we identify the disabled via the Basic CPS monthly labor status recode, which likely heavily weights the more severely disabled people due to their being out of the labor force completely, the results suggest that the disabled spend 1.07 hours per week (9.2 minutes per day) more on food preparation than the non-disabled. This small difference suggests that the severely disabled also do not spend much additional time on food preparation.

estimated coefficient on the head's disability indicator variable. These results suggest that the average wife of a disabled husband does not spend more time on food preparation and shopping given the small, negative, and statistically insignificant estimates. Overall, these findings are inconsistent with the fall in food expenditure among the disabled being purely due to more time spent on food preparation and shopping.

2E.   Disability, Time Use and Leisure

The discussion so far points to the conclusion that there is a decline in the material well-being of the disabled. A related question is whether there is a corresponding increase in leisure. This is important for two reasons. First, leisure is an input in an individual's utility function. Second, we saw previously in our analysis that working hours decline following disability; due to the presence of non-market work, however, it remains premature to conclude that leisure increases following disability. In this section, we look at the differences in the leisure patterns of the disabled and the non-disabled.

We again make use of the ATUS. The battery of time-use information in the ATUS allows us to look at time use for many specific activities. In theory, all non-work activities can be defined as leisure, but we prefer to investigate activities that directly affect personal enjoyment. We define Leisure (Narrow) to include all time spent on socializing and communicating, pet care, social events, relaxing, television watching, radio listening, playing games, computer use for leisure, hobbies, reading and writing for personal interest, sports and recreation, traveling for leisure, and telephone use and mailing. Our Leisure (Broad) includes all of the activities above and adds eating, personal care and sleeping.[10]

We again estimate equation (6) with time spent on each category as the dependent variable. Column 3 of Appendix Table 15 reports the results of these regressions. These regression estimates confirm the patterns in the sample means (Columns 1 and 2). Measuring leisure narrowly, the disabled enjoy 18.2 hours per week more than their non-disabled counterparts. Most of this extra leisure time is spent watching TV – 10.6 hours per week, with an additional 3.2 hours spent "relaxing." There are increases in other time-use categories as well, but they are small in general.

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[10] Our Narrow and Broad leisure measures are the same as "Leisure 1" and "Leisure 2" in Aguiar and Hurst (2007).

Measuring leisure broadly, the disabled enjoy 24.3 hours per week of leisure more than the non-disabled do. The six-hour increase (relative to measuring leisure narrowly) is due almost entirely to increased time spent sleeping – the disabled spend 6.8 hours more per week sleeping than the non-disabled. We also do not see any evidence that the disabled spend more time on vacation, despite enjoying almost an extra day of leisure per week than the non-disabled.

Finally, we examine the time spent using medical services (for example, visiting doctors). The results indicate that the disabled on average spend 7.2 hours per week more on this activity than their non-disabled counterparts.

Although not reported, we have also investigated the time use of wives of the disabled. On average, wives of the disabled do not spend more time working than those whose husbands are not disabled; this is consistent with the PSID results discussed earlier. Maybe surprisingly, there is also no conclusive evidence that wives of disabled husbands spend more time on caring for adult family members.

Appendix 3

Data Appendix

This appendix provides details of the surveys and the construction of the various variables. Section 1 is devoted to the PSID; it explains the construction of the sample, how year of disability is determined, the severity questions, and the construction of key variables. Section 2 explains these details for CSFII. Section 3 explains these details for ATUS. Section 4 describes the independent variables we include in our regression models.

1. Panel Study of Income Dynamics (PSID)

A. The PSID Sample

Our sample consists of the male household heads in the 22-61 age range during the survey years 1968-2009. We retain all disability information outside this age range. We require the person to be in the survey for at least six years, to be 22-61 years old for at least four interviews, three of which must be consecutive. We also require that disabled respondents whose positive limitation report came after 1978 to have two consecutive years of non-disability immediately before the first positive limitation report. All disabled persons must have at least three years of data in the subsequent ten years after the determined year of disability onset. This last requirement eliminates those who are first observed to be disabled in 2005, 2007 or 2009.

We replace missing demographic variables with those from the nearest survey year, if available. The number of individuals in the primary sample is 6,741, of whom 1,937 (29 percent) indicate the presence of a limitation during the survey years.

B. Determining the Year of Disability Onset

For those who are first observed to be disabled before 1979, the year of disability onset is determined by the responses to the retrospective question of when the work limitation began. The wording of the retrospective question is, "*How long have you been limited in this way by your health?*"

The PSID codes the responses into four categories: 0-18 months, 2-4 years, 5-7 years, 8 or more years. For the 1978 survey, the exact number of years the individual has been limited is recorded. The retrospective question is unavailable for the 1976 and 1977 waves.

We use the response to the retrospective question in each year to determine the interval into which the onset year must fall. Given the panel nature of the data, we may have more than one interval for some disabled. Accordingly, we determine the intersection of these intervals, taking the onset year to be the earliest year within this intersection. If the individual's first observed disability is prior to the earliest year given in responses to the retrospective questions, we take the year of first observed disability as the year of onset. We drop from the sample those who in every year answer "8 or more years," as the onset of their condition might precede their working years.

For the disabled who do not answer these retrospective questions, we require two consecutive years of non-disability immediately prior to the first observed positive limitation. Note also that first reports of disability may come as much as a year later than the condition's actual onset. An individual who first reports disability in the 1990 wave, for example, may in fact have had his condition since soon after his previous interview in 1989. We therefore adjust his year of onset to the midpoint of the interview date in which he reported a positive limitation and the interview date in the previous year, if available. Should this midpoint fall in year t-1 for an individual who first reported disability in year t, his year of onset would be year t-1. This adjustment is made only for those who do not answer the retrospective disability questions.

C. PSID Severity Questions

The following table shows the PSID questions regarding the severity of limiting conditions over time. We use only the severity reports up to the tenth year after onset.

<center>**Severity Questions and Possible Responses**</center>

Screening question:[*] Do you have any physical or nervous condition that limits the type or amount of work you can do? (In the 1969-1971 surveys, this question is divided into two parts.)	
Survey Years	**Question and the possible responses**
1968, and 1972-1976	How much does it limit your work? 1) Completely: "I can't work," 2) Severely: "It limits me a lot," 3) "Some," "Not much," can only work a few hours at a time, "must rest," mentions part-time work; can't lift heavy objects; reports periods of pain, 4) Limitation, but not on work
1977-1985	Does it limit your work a lot, somewhat, or just a little? 1) A lot, 2) Somewhat, 3) Just a little
1986-2009	A) Does this condition keep you from doing some type of work? 1) Yes, 2) No (that is, Not limiting), 3) Can do nothing If respondent's answer to A) is "Yes": B) For work you can do, how much does it limit the amount of work you can do – a lot, somewhat or just a little? 1) A lot, 2) Somewhat, 3) Just a little, 4) Not at all, 5) Answered "Can do nothing" or "Not limiting" in the preceding question

<center>*Both the screening and the severity questions asked only of new entrants in 1973-1975.</center>

Those who respond "A little," "Somewhat," "Not limiting" or "Not at all" to the severity question are defined as "Currently Not Severely" disabled. Otherwise, those who report "Can do nothing," "Completely," "A lot" or "Severely" are defined as "Currently Severely" disabled. In the 1977-1985 surveys, the possible responses to the severity question are more limited with only three possibilities: "A lot," "Somewhat," or "Just a little." In the other survey years, however, the range of possible responses to the severity question is wider, with options such as "Can do nothing," "Completely," "Severely," and "Not at all" also available. An individual's self-assessment of disability severity may be affected by the number of response options he faces and we do see that relatively more disabled are classified as severely disabled during 1977-1985 (see Column 4 of Table 1). This questionnaire change likely means that there is some change over time in the interpretation of severe disability. To examine how this questionnaire change affects our lifetime prevalence rates, we re-compute the severity ratio of each disabled individual without using their 1977-1985 responses to the severity questions, and re-estimate the prevalence rates. Thus, the severity ratio of each disabled individual is determined using a more consistent and broad set of response categories.[11] In general, this restriction turns out to have a relatively small impact on our results, changing the chance of having a Chronic-Severe disability by age 40 from 2.9 percent to 2.6 percent, by age 50 from 9.2 percent to 9.4 percent, and by age 60 from 24.5 percent to 23.2 percent.[12] In our main analyzes, we will use the 1977-1985 severity data to not unnecessarily reduce the sample size.

D. Issues in Calculating Disability Rates in the PSID

Comparing disability rates among surveys, Burkhauser et al. (2006) find that PSID disability rates are higher than those in the March CPS, but are generally lower than those found using the Survey of Income Program Participation (SIPP) or the National Health Interview Survey (NHIS).[13] These

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[11]This restriction reduces the number of disabled to 1,857 individuals, with 16 percent of them classified as Chronic Severe. Recall that we drop those chronically disabled who are unclassified under the severity dimension. When we ignore the 1977-1985 severity data, the number of Chronic-Not Severe individuals falls from 548 to 507 individuals. For the Chronic-Severe group, the sample size falls from 329 to 290 individuals.

[12] For the 1980 disability prevalence estimates, the chance of experiencing a Chronic-Severe disability is 6.2 percent for a 40-49 and 14.1 percent for a 50-59 year old, which is very similar to the original results in Appendix Table 3. For the 1992 estimates, they rates are 5.5 percent for those 40-49 and 10.9 percent for those 50-59 years old.

[13] The CPS disability screening question is worded as follows: "Do you/Does anyone in this household have a health problem or disability which prevents (you/them) from working or which limits the kind or amount of work (you/they) can do?" Although this question asks about health problems, the lack of any probing regarding specific health problems seems to cause respondents to give fewer positive responses (Hale 2001). Second, it is also not clear whether interviewees regard mental or nervous problems as a "health problem." Third, the word "disability" is used without any qualification of what it

differences may be due to the range of disabling conditions covered, question wording, or the definition of disability itself. The PSID focuses on conditions that limit work, but disability definitions used in the NHIS and SIPP include conditions that limit other activities besides work. Using the NHIS, Burkhauser et al. (2006) find that about 16.7 percent of people aged 25-61 have a disability in the year 2002 when non-work limitations are included. Using the SIPP, this rate in the year 2002 is 18.7 percent. These examples illustrate that other disability rates in the U.S. may be much higher than those found using definitions of disability that focus exclusively on work limitations.

In Appendix Table 3 we also report working lifetime disability rates over time for two different age groups: 40-49 and 50-59. Generally, we see a rise in disability prevalence over the 1980-1992 period – the probability of experiencing a disability at least once before reaching age 50 rises from 26 percent to 35 percent over this period. Most of the rise comes from an increase in One-Time disability, which more than tripled over this period. By the time an individual is in his 50s, the probability he has experienced a disability is close to 50 percent in the 1980s. There is little time trend in disability rates shown in this age group. More extensive analyses (not shown here), which account for definitional and sample changes, suggest a modest decline in disability rates over time.

There are a number of possible biases in these disability rates, most of which lead to an understatement of the rate, and most are small. If the head becomes totally incapacitated or dies before providing the minimum number of responses after disability onset, he is no longer in our sample. The mortality rate is noticeably higher for the disabled, about 1.25 percentage points higher annually, for those 31-50 (mortality rates seem to be somewhat understated in the PSID, so this is likely an understatement). Rates of total incapacitation are low and similar for the disabled and nondisabled. The other main source of attrition, refusal to answer the questionnaire, is substantial, but similar for the disabled and nondisabled. We also exclude those disabled before age 18 and those disabled before the start of the survey, if the age of onset is not reported retrospectively. This exclusion removes disabled individuals from both the numerator and denominator, decreasing the calculated rate.

E. Sources of Demographic Variables

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means, and the disability question is asked after questions about Social Security and SSI. It is plausible that interviewees may take the SSA's definition of disability into consideration when answering.

The PSID includes family level data and individual level data. While the same variable can appear in both files, it need not be identical. Based on the assessment of PSID staff, we select our variables as follows: age of head (individual level), marital status of head (family level), education of head (family level).

F. Sources of Public Transfer Variables

We construct measures of different types of transfers and total transfers received at the family level. The PSID does not always record all benefits that family members receive. In some cases, it reports only those transfers received by the head. We use whatever information is available and scale the receipt by the (inverse of the) reporting rates given in Meyer, Mok and Sullivan (2009): AFDC/TANF (0.588), unemployment insurance (0.662), workers' compensation (0.345), all Social Security benefits (1.010), SSI (0.601) and Food Stamps (0.779). We do not scale the receipt of Veterans' benefits and other welfare received. We use the SSDI reporting rate to scale up all Social Security receipts because we focus on the age range 22-61, and about 87 percent of the Social Security recipients in the Chronic-Severe group receive SSDI rather than retirement or survivors' benefits in the six to ten years after disability.

Beginning in the survey year 1994 (1993 benefits), the public data release gives all benefit variables except Social Security in the following format: 1) Amount received, 2) Whether the amount specified is per year, per month, per two weeks, per week, or other, 3) In which months of the year such benefits were received. If the respondent specified that the amount received was on a per year basis, we take the reported amount as the annual amount. Otherwise, we convert the reported amount to a monthly basis and multiply the result by the number of months such benefits were received.

During 1969-1974 and 1994-2003 all public benefits for other family members (non-head, non-spouse) are reported in a variable that combines public and private transfers. We take 85 percent of the reported public plus private transfers as the amount of public transfers such family members received. This percentage is the average public share of public plus private transfers received by other family members in the earlier years of the PSID.

The source of each benefit variable is as follows:

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- Unemployment Insurance (UI) and Workers' Compensation (WC) – Data on UI and WC receipts come from the PSID family file. These benefits are reported categorically in 1968-1969, and we take the midpoint in each category as the amount received. UI and WC are reported for the head only in 1968-1974 surveys. UI and WC are combined in 1968-1975 surveys, and we divide them equally. The benefits are reported only for the head and spouse in 1994-2009 surveys (except for the amount received in 2003 and 2005, which are elicited in the 2005 and 2007 surveys respectively).

- Social Security (SS) – These benefits are reported only of the head in 1968-1970 surveys, and reported of the head and the spouse in 1971-1974 surveys. SS is reported for the whole family beginning in the 1975 survey. These benefits are reported categorically in 1968-1969, and we take the midpoint in each category as the amount received.

- Supplemental Security Income (SSI) – These benefits are reported for the whole family in 1975-1993, 1999 (for amount received in 1997), 2001 (for amount received in 1999), 2005 (for amount received in 2003) and 2007 (for amount received in 2005). Otherwise, these benefits are reported only for the head and spouse.

- Food Stamps – These are reported in every survey year except 1972. As a result, we set Food Stamps in 1972 to missing.

- Other Welfare – These benefits are reported categorically in 1968-1969, and we take the midpoint in each category as the amount received. These benefits are reported only for the head and wife (combined) in 1968-1974 surveys.

- Veterans' Benefits – These benefits are not separately reported in the 1968-1970 surveys and they are part of "other retirement pay" in 1971-1983 surveys. These benefits are reported only for the head in 1971-1974.

- Aid to Families with Dependent Children (AFDC)/Temporary Assistance for Needy Families (TANF) – These benefits are reported only for the head in the 1969-1970 surveys and only for the head and wife (combined) in the 1971-1974 and 1993-2009 surveys (except for receipt in 2003 and 2005 that were asked in the 2005 survey and 2007 survey respectively).

More detail on the reporting of public transfers in the PSID can be found in Appendix Table 1 of Meyer, Mok and Sullivan (2009).

G. Sources of Labor, Income and Food Variables

Annual earnings, annual hours worked and family income come from the PSID family file. Hourly earnings are obtained by dividing annual earnings by annual hours worked. In the pre-1994 data, we convert PSID measures of work hours lost due to illness and unemployment into days lost, assuming an eight hour working day.

All food variables come from the PSID family files. Total amount of food consumed at home is the sum of reported expenses for food at home, food delivered to home and food purchased with Food Stamps. The amount of money spent on food consumed outside the home is reported on a categorical basis in 1968; we take the midpoint of the specified range as the actual amount.

There are instances when some families' food expense variables have zero values. If food consumed at home is reported as zero, we treat it as missing. Food consumed outside the home is treated as missing if expenditures on food consumed at home is also zero for the family. The logarithms of these food variables are set to zero if these variables are equal to or below one.

H. Poverty Thresholds

We use the official poverty thresholds published by the U.S. Census Bureau annually from 1980 to present. For poverty thresholds prior to 1980, we use the CPI-U-RS to index the 1980 thresholds backwards.

I. Estimating Federal Income Tax Liabilities

We estimate a family's federal income tax liability using TAXSIM.[14] We determine the number of dependents, the amount of asset income, dividend income and earnings for up to two tax units: 1) The head and spouse (if present), and 2) Other family unit members. We are forced to consider all other family unit members together as the income of all such members is reported together in the post 1993 surveys. Family federal income tax liabilities is the sum of the taxes estimated for these two tax units. A detailed technical appendix is available from the authors upon request.

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[14] The PSID provides estimated taxes only for 1968-1991. To maintain consistency, we use our TAXSIM generated taxes for all years.

J. Housing Type

To analyze the sources of changes in housing consumption, we divide families' housing consumption into three types of housing: home ownership, private rental, and publicly subsidized housing. Each year, the PSID asks each family in what form of dwelling unit the family resides, with the possible responses: "Own Home," "Renting," and "Not Owning and Not Renting." Questions about whether the family is living in a public housing project and whether the state paid the family's rent are asked in the 1968-1972 and 1986-2009 waves, but not 1973-1985. A family that gives an affirmative answer to either of these public housing question is regarded as a publicly subsidized housing resident. To determine whether a family is living in a publicly subsidized housing unit during 1973-1985, we interpolate from the available years if possible. Specifically, we start from the most recent housing response in 1968-1972 waves and assign a family to publicly subsidized housing in the following year if all of the following conditions hold:

a) The head lived in a publicly subsidized housing unit in the previous year;

b) The family did not move in the previous year;

c) The head does not own a home; and

d) If there is a switch from "Renting" to "Not Owning and Not Renting," the reason for not paying rent must be: 1) Paid for by someone else, 2) Part of compensation or 3) Other. Based on the 1986-1992 surveys, these are the main responses given among those who also indicate that they are in publicly subsidized housing.

We repeat this procedure going forward from 1973 wave, and follow the analogous procedure going backward from 1985. When the two directions given conflicting answers we base our decision on whether the particular year is closer to 1973 or 1985.

We then use the response of the PSID housing choice question (Owning, Renting, Not Owning and Not Renting) together with these public housing recipiency indicators to determine the housing type. If a family is renting in a particular year but is receiving public housing, the family is treated as a public housing recipient (partially subsidized). If the family is neither renting nor owning in a year but is receiving public housing, the family is treated as a public housing recipient (fully subsidized). If a family is "Renting" or "Not Owning and Not Renting" but is not receiving public housing, it is treated as renting privately.

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K. Housing Expenses and Private/Public Housing Subsidies

Based on each housing type (as detailed in preceding section) we calculate housing consumption, and any private or public housing subsidy. The method is summarized in the table below. The first entry says, for example, that for those who own their home, their housing consumption during the year is 6 percent of their current home value, and they receive zero private and public housing subsidies.

Housing Consumption, Private and Public Housing Subsidies

for Each Type of Housing Choice

Housing Type	Housing Consumption	Private Housing Subsidy	Public Housing Subsidy
Home Ownership	6 percent of home value	Zero	Zero
Private Rental	Rent or the rental equivalent (if he neither rents or owns)	Rental equivalent (if neither rents or owns)	Zero
Publicly Subsidized Housing (Fully subsidized)	Reported rental equivalent	Zero	Reported rental equivalent.
Publicly Subsidized Housing (Partially subsidized)	Housing consumption is the maximum of the estimated rental equivalent and rent paid.	Zero	The amount of rental subsidy is the estimated rental equivalent minus rent paid (set to zero if the difference is negative).

For a family that lives in partially subsidized public housing, the amount of any public housing subsidy received is not reported, and the rent reported is likely to be net rent after any subsidies. To estimate the rental equivalent for those who rent but receive housing subsidies, we do the following:

1. We use the 1986-2009 waves to estimate a rent regression, using the sample of families who rent but do not receive public housing subsidies. The dependent variable is rent paid, and the explanatory variables include state indicator variables, year since 1968, year since 1968 squared, number of rooms, type of unit (two-family house, apartment, trailer, row house and other) and an urbanicity indicator (equal to one if the largest city in the county of residence has a population of 50,000 or more).

2. Using these regression results, we estimate the rental equivalent for those whose housing is partially publicly subsidized as 0.775 times the predicted rent. 0.775 is the mean of the ratio of the reported rental equivalent for those whose housing is fully publicly subsidized to the predictions from the above equation. Because the housing quality for those who receive public housing would generally be lower, we use this factor to scale down the estimated rent for those who receive partial subsidies.

2. Continuing Survey of Food Intake of Individuals (CSFII)

A. Survey Description

The CSFII is a food consumption survey conducted by the Department of Agriculture. Cross-sectional in design, it was implemented annually in 1989-1991 (known as CSFII_89), 1994-1996 (CSFII_94) and 1998 (CSFII_98). The survey begins with a household-level questionnaire (conducted via personal interview) which collects information such as the basic demographic characteristics of household members, household food expenditures and current employment status. Three one-day food diaries (per individual in household) then follow.[15] These diaries record the total food intake of the individual in a particular 24-hour period. The surveys are only representative of individuals who live in the 48 coterminous states; in addition, those who are institutionalized, living away at school or traveling during the survey period are excluded. After the food diaries, there is an optional follow-up survey regarding health perceptions, health status and dietary awareness.

We use only the CSFII_89 in our analyses because the key disability question is not asked in the other years. The CSFII_89 included 15,192 individuals in about 6,700 households. It is also important to note that the CSFII_89 also includes a low-income sample.

B. Sample Selection

To be consistent with the PSID, we select male household heads who are 22-61 years old during the survey year. In selecting the disabled, we first use the response to the disability question from the first food diary: "Do you have any disability or handicap that limits your activities?" For those household heads who do not answer this disability question, we look at their response to the employment status question: "Which of these activities best describes what you were doing most during the last week?" Individuals who did not answer the disability question, but answered "Disabled, unable to work (combined category)" are regarded as disabled. These restrictions result in a sample of 3,253 male household heads (822 belong to the low-income sample). The disability rate in the full sample is

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[15] For CSFII_94, interviewees received only two one-day diaries.

11.1 percent.[16] The number of male household heads in the overall sample who completed all three one-day diaries is 2,214.

C. Derivation of Food Expenditure, Shopping frequency

Information regarding how much money was spent on food comes from the household questionnaire. Four questions are asked:

(1) How much money has this household spent per week or per month during the last three months at the grocery store? Include purchases made with food stamps.

(2) About how much of this amount (as in the question above), if any, was for non-food items, such as cleaning or paper products, food bought for feeding a pet or cigarettes?

(3) How much has this household spent per week or per month during the last three months at specialty stores – such as bakeries, liquor stores, meat markets, vegetable stands, health food stores and other similar places? Include any expenditures from carryout places when the food was brought into your home.

(4) What has been this household's <u>usual</u> amount of money spent per week or per month during the last three months for food <u>bought and eaten away</u> from home? Include food and beverages that never entered your home, that is, eaten at restaurants, fast-food eating places, cafeterias at work or at school, purchased from vending machines, or received from day-care centers, for all household members.

We define Food At Home expenditure as the sum of the responses to questions (1) and (3) minus the response to (2). Food Away From Home expenditure is the response to question (4). Total food expenditure is the sum of Food At Home and Food Away From Home expenditures. All variables are annualized and defined in 2005 dollars using the CPI-U-RS for all items published in 2007.[17] We define the logarithm of these food expenditure variables similar to the way we do in the PSID. For further details, see the corresponding section in the PSID.

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[16] If we exclude the low-income sample, the disability rate is 8.8 percent.

[17] These CPI-U-RS price indices were downloaded from the US Census Bureau website (http://www.census.gov/hhes/www/income/income06/cpiurs.html) in June 2008.

The shopping frequency variable also comes from the household questionnaire, which asked, "How often does someone do a major food shopping for the household?" The possible responses were: more than once a week, once a week, once every two weeks, and once a month or less.

C. Derivation of Consumption Index

The consumption index is a measure of permanent income reflected by food consumption. A 1 percent decline in the consumption index implies that households are consuming as though their permanent income had fallen by 1 percent (Aguiar and Hurst, 2005). Specific details about how the consumption index is derived can be found at pages 935-936 in Aguiar and Hurst (2005). A summary description follows.

Aguiar and Hurst (2005) suggest the existence of a relationship between a household's permanent income and the composition of its diet. To apply their approach to our study, we first obtain permanent income by estimating a regression of income on race, industry and occupation controls (interacted with education) from CSFII data on a sample of non-disabled household heads who were 25-55 years of age and who reported working full time and normally work one to eighty hours per week. Permanent income is then predicted by using the resultant coefficients, giving $y^{perm,i}$.

We then estimate a regression of permanent income on the head's diet:

$$(A2) \qquad \ln(y^{perm,i}) = \beta_0 + \alpha_1 c_{1,t}^i + \ldots + \alpha_J c_{J,t}^i + \beta_X \ln(x_t^i) + \beta_\theta \theta_t^i + \beta_{age} age_t^i + \beta_{age^2}(age_t^i)^2 + \varepsilon_t^i$$

where y^{perm} is the predicted permanent income as described above, $c_1,\ldots,c_J$ are quantity of food consumed by the household head (20 food groups and eight nutritional measures, obtained from the CSFII food diaries[18]), x is the food expenditure, θ is a vector including the household head's race, sex, size of household, health status, and region of residence.

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[18] The 20 food groups include Dairy Products, Cheese, Beef, Pork, Poultry, Other Meat Products, Eggs, Nut Products, Bread, Biscuits and Related Products, Other Sweets, Staples and Cereals, Fruits, Potatoes, Dark Green Vegetables, Other Vegetables, Tomato Sauce, Fats, Salad Dressings, and Alcoholic Substances. The eight nutritional measures are the logarithms of calories, vitamin A, vitamin C, vitamin E, calcium, cholesterol, saturated fat, and protein.

After estimating this regression, the log of the consumption index C^{index} is obtained by taking the estimated coefficients pertaining to consumption, that is,

$$(A3) \qquad \ln(C^{index}) = \hat{\alpha}_1 c_1 + ... + \hat{\alpha}_J c_J + \hat{\beta}_X \ln(x)$$

Note that the expenditure on consumption is included to control for local price differences.

3. The American Time Use Survey (ATUS)

A. *Description of Survey*

The ATUS is a large-scale cross-sectional annual survey conducted by the Bureau of Labor Statistics (BLS) and the Census Bureau since 2003. The primary purpose of the survey is to study how people divide their time among various activities (Bureau of Labor Statistics and U.S. Census Bureau, 2007). Upon completing the eighth and final Basic-CPS interview, a subset of these households is selected and one person (age 15 and above) from each of these households is interviewed (done mostly by Computer-Assisted Telephone Interviewing) approximately three months later.[19] The first ATUS survey included some 40,500 individuals, and the 2004-2006 surveys collected information from 26,328 individuals.

Selected respondents are first asked about basic household characteristics, his/her employment status and to recall the activities and the time spent on each activity done between 4 a.m. of the previous day to 4 a.m. of the interview day.

B. *Sample Selection*

We use the 2003-2006 ATUS surveys. ATUS does not have a usable disability question, so we first match the ATUS data with the corresponding Annual Social and Economic Supplement of the CPS (ASEC) of that year. We keep only those whose ATUS interviews are classified as "Complete" by

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[19] Since the ATUS sample is drawn from the CPS, the universe is essentially the same as that of the CPS (that is, civilian non-institutional population).

ATUS. Upon matching, we have a sample of individuals who participated in both surveys. Two subsamples are derived:

- *The Male Household Head sample:* We select those who were male household heads and aged 22-61 at the time of their ASEC interview. The disabled are those who gave affirmative answers to the disability question, *"Does…have a health problem or a disability which prevents work or which limits the kind or amount of work?"*

- *The Female Spouse sample:* We select all female spouses who were aged 22-61 and whose husbands were also in this age range. A husband of a spouse is disabled if his response to the ASEC disability question is affirmative.

C. Leisure

Our narrow measure of leisure includes the following time-use categories: Gardening and Pets (care), Socializing, Communicating and Social Events; Arts and Non-Home Entertainment; Relaxation and Smoking; Music and Radio; Games and Hobbies; Reading and Writing; Watching TV, Sports and Recreation; Telephone Calls, Mails and E-Mails; and Travel for Recreation. Our broader measure of leisure includes Eating, Sleeping, and Personal Care; in addition to the categories in the aforementioned narrow leisure measure. A six-digit classification number is given to each activity; a list of the classification numbers we include for each time-use category is available from the authors upon request.

D. Vacation

Data on vacation comes from the 2005-2006 ATUS trip files. These files contain information on the number of trips, the purpose of each trip and the duration of the trip in a reference month. We consider only those trips that are for vacation and visiting friends and families. Unlike results for leisure hours, results for vacation are not weighted because ATUS does not recommend using weights on these vacation data (see Bureau of Labor Statistics and U.S. Census Bureau, 2007, page 23).

4. Independent Variables in Regressions

In this section, we list the regressors we have included in our main regression models.

A. PSID Fixed Effects Regressions

In all regressions we include:

      1) Year indicator variables, 2) State indicator variables, 3) Indicator variable for being married, 4) Four education indicators (high school, some college, completed college education and some graduate studies), 5) Age and age-squared, 6) Time dummies for the year since onset, 21 in total (representing the ten years before and after the year of disability). A separate set of time dummies for each different disability group is also included (except in Table 7 and Appendix Table 10, where we include an indicator variable that equals one if the observation is from the 6-10 years after disability).

When the dependent variable is earnings, hours, hourly earnings, income or public transfers we additionally include:

      1) Age and education interactions, 2) Age-squared and education interactions, 3) Education and year minus 1968 interactions, 4) Education and year minus 1968 squared interactions, 5) Number of members in the family (for income and public transfer regressions only).

In the food and food plus housing regressions we additionally include:

      1) Number of men and its square, 2) Number of women and its square, 3) Number of Young adults (11-17 years old) and its square, 4) Number of children (0-10 years old) and its square.

B. Regressions using CSFII include:

      1) Year indicator variables, 2) Geographic region indicator variables, 3) Education indicator variables, 4) Race indicator variables, 5) Age of head and its square, 6) Number of adults, 7) Number of children under 18 years of age, 8) An indicator variable for residence in a central city, 9) An indicator variable for disability.

C. Regressions using ATUS include:

1) Age and age-squared, 2) Education indicator variables, 3) Region indicator variables, 4) Year indicator variables, 5) Number of adults, 6) Number of children under 18 years of age, 7) Race indicator variables, 8) A married indicator variable, 9) Month of ATUS survey indicator variables, 10) A disability indicator variable for the household head.

For the female spouse sample we additionally include:

1) A disability indicator variable for the husband, 2) Age of husband.

Appendix Figure 1
Work Days Lost due to Unemployment Before Disability Onset,
Extent of Disability Groups and All Disabled

Year from Onset

One Time — Temporary — Chronic-Not Severe — Chronic-Severe — All Disabled
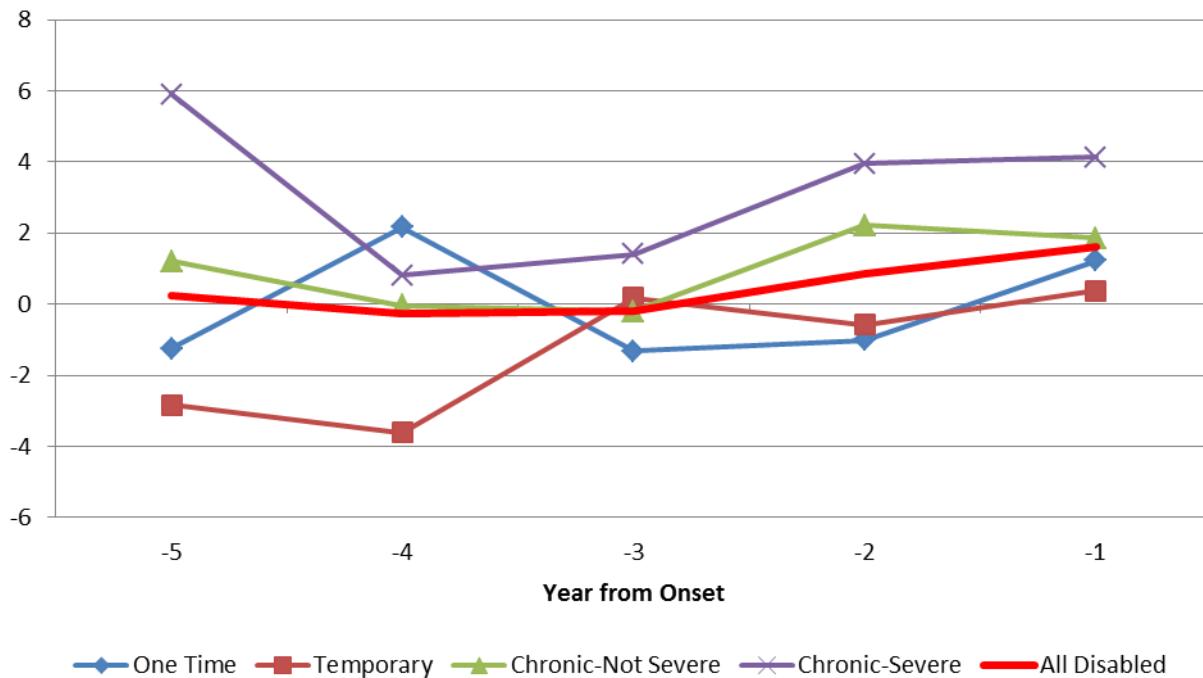
Appendix Figure 2
Work Days Lost due to Illness Before Disability Onset,
Extent of Disability Groups and All Disabled

Year from Onset

One Time — Temporary — Chronic-Not Severe — Chronic-Severe — All Disabled

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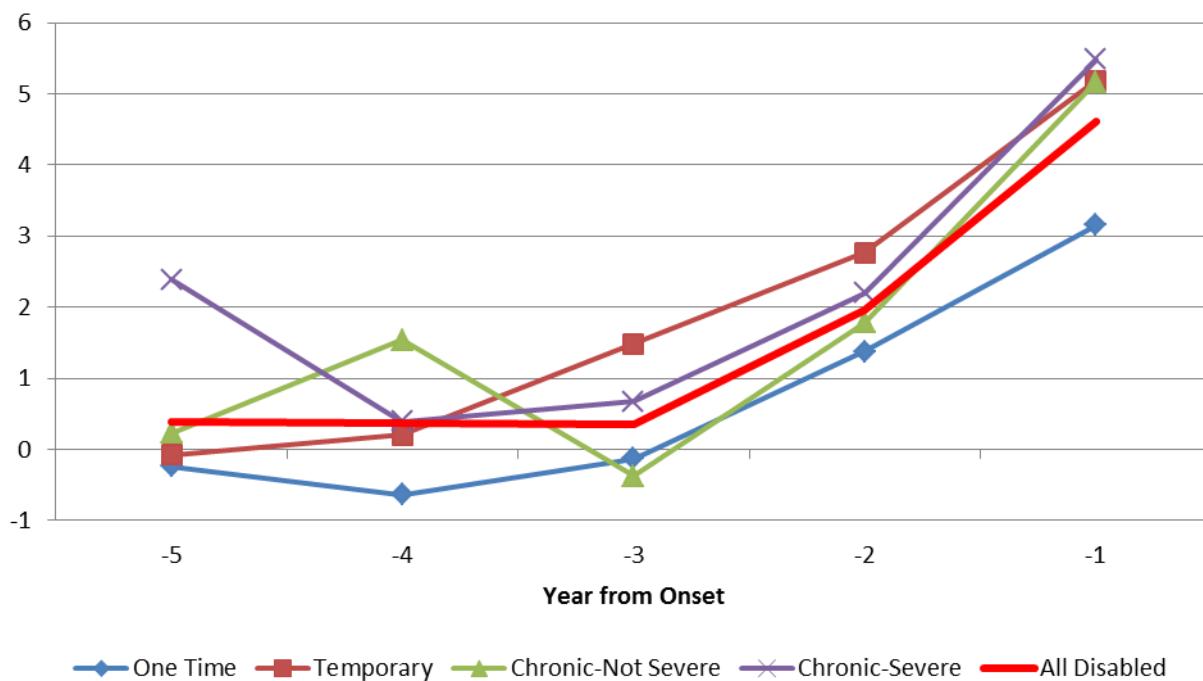
Appendix Figure 3
Probability of Fair or Poor Health Before Disability Onset,
Extent of Disability Groups and All Disabled
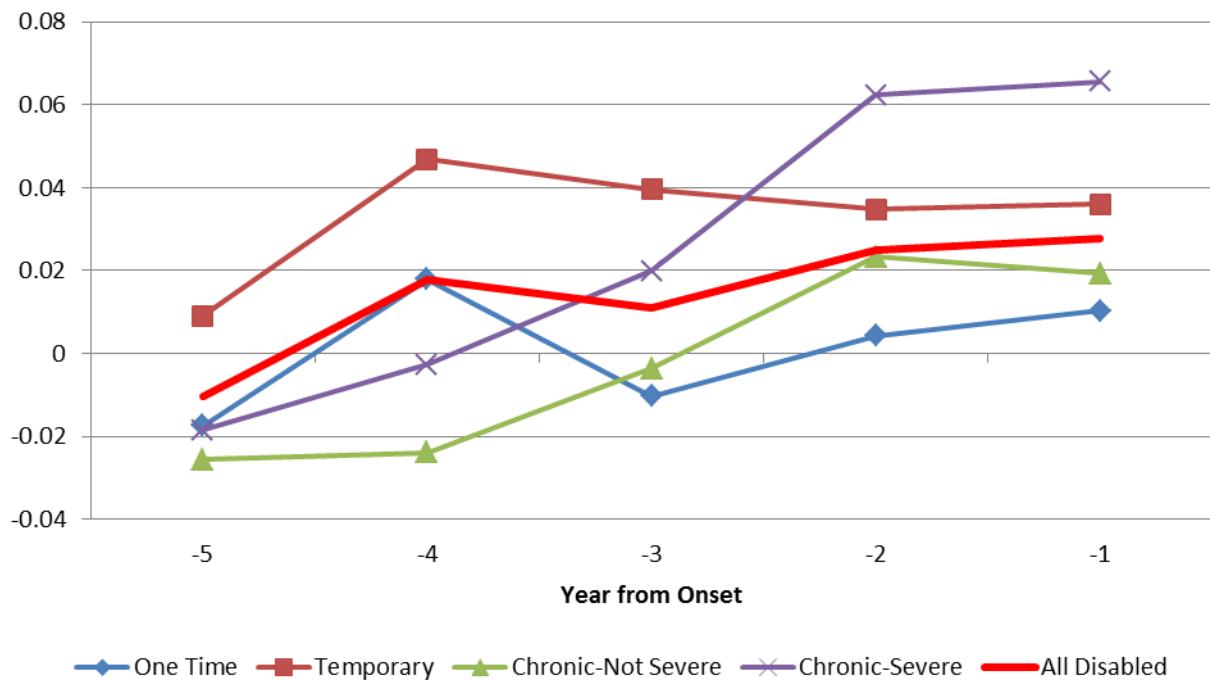
Appendix Figure 4
Change in Annual Earnings Before and After Disability Onset,
Groups Defined by SSA Benefit Receipt and Disability
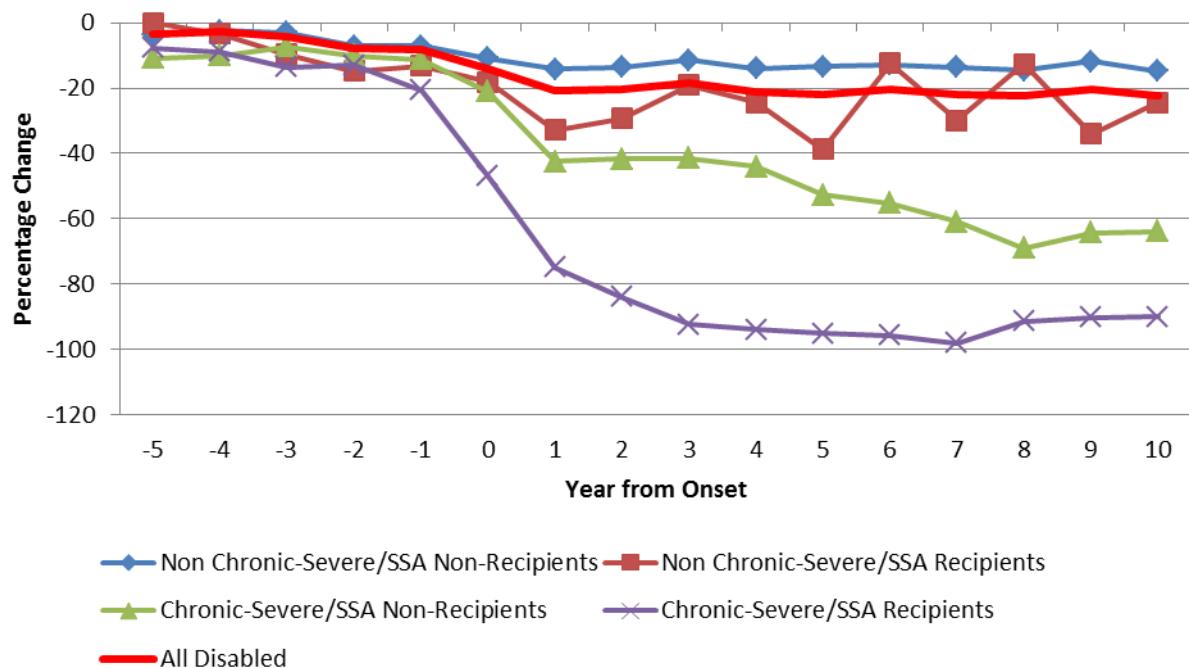
Appendix Figure 5
Change in Annual Hours of Work Before and After Disability Onset,
Groups Defined by SSA Benefit Receipt and Disability
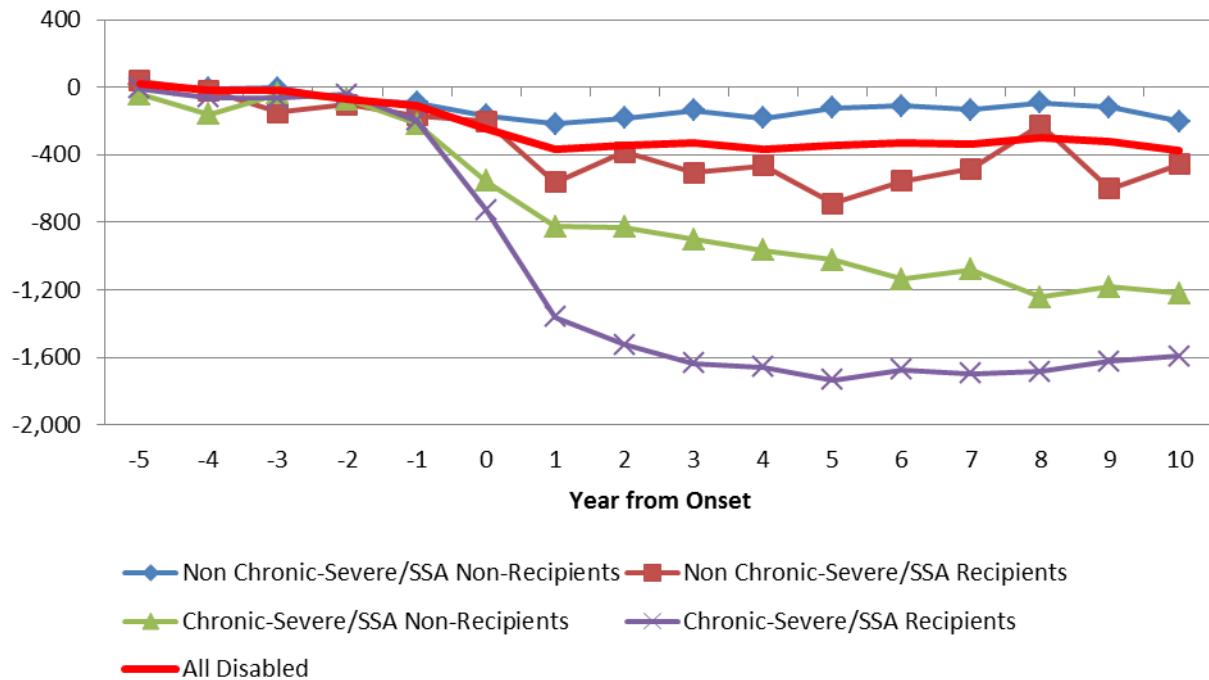
Appendix Figure 6
Change in After-Tax Post-Transfer Income
Before and After Disability Onset,
Groups Defined by SSA Benefit Receipt and Disability

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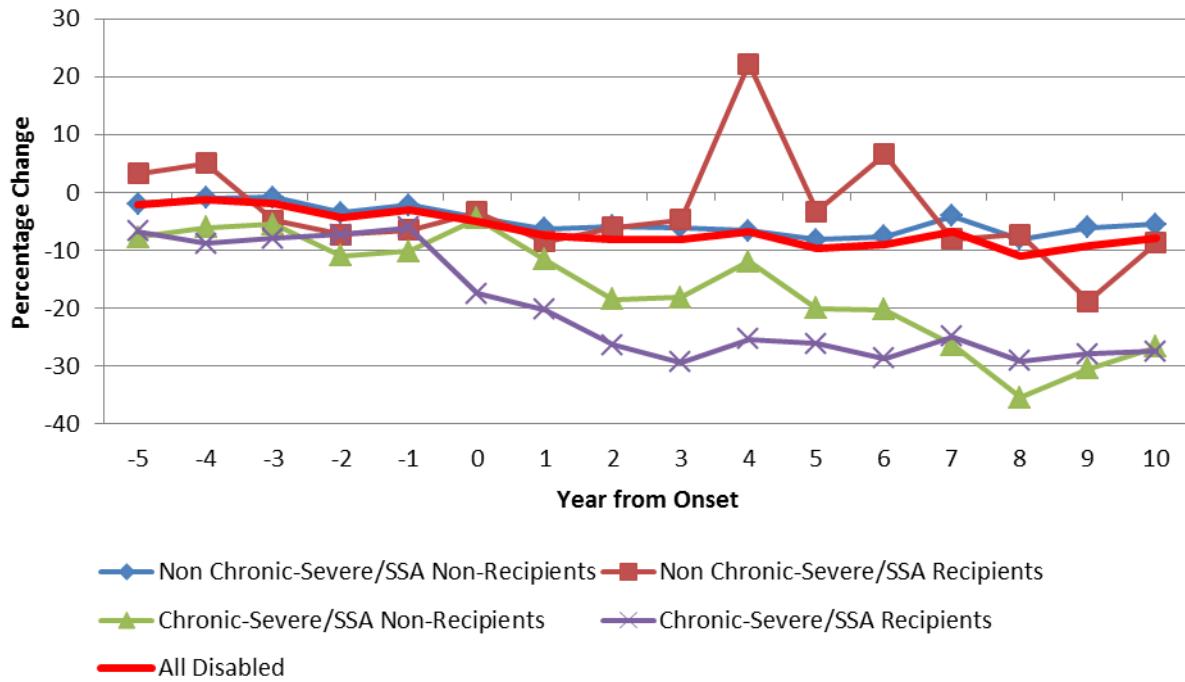
Appendix Figure 7
Change in Food plus Housing Consumption
Before and After Disability Onset,
Groups Defined by SSA Benefit Receipt and Disability
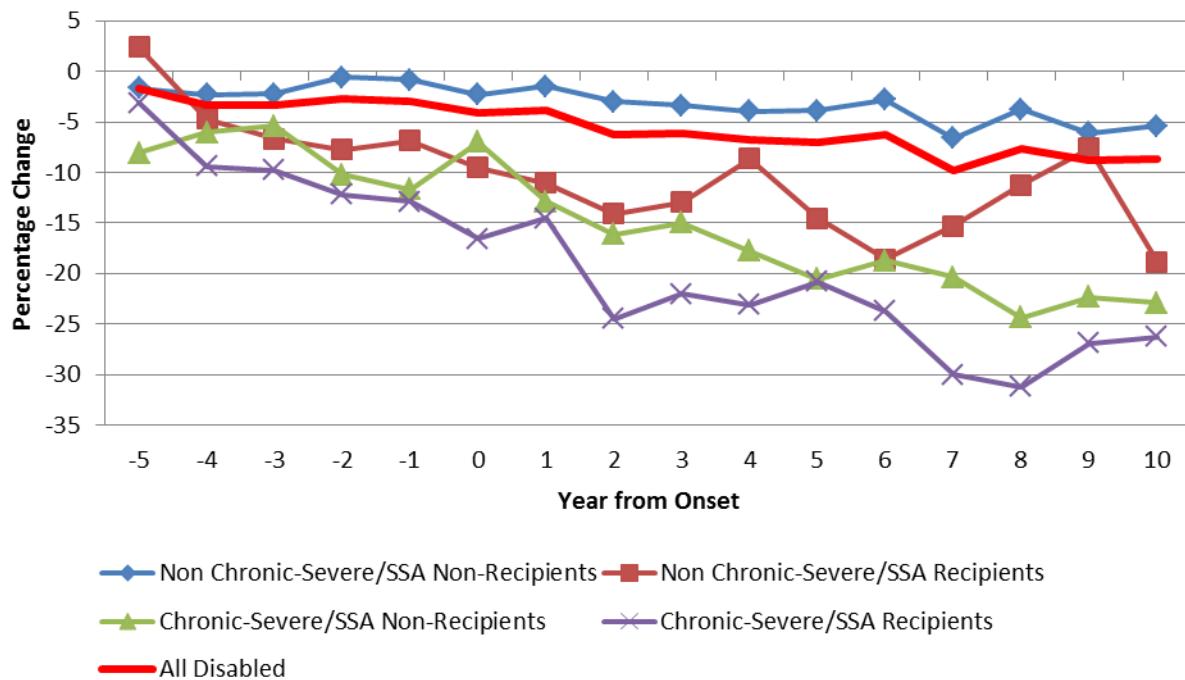
Appendix Table 1
Severity and Activity Limitations of PSID Male Household Heads

A. 1986 Health Supplement	Non-disabled (1)	Not Severe (2)	Severe (3)	B. Average of 2003-2009 PSID	Non-disabled (4)	Not Severe (5)	Severe (6)
Walking/Stairs	0.04	0.41	0.79	Bathing/Showering	0.00	0.03	0.21
Bending/Lifting	0.06	0.53	0.82	Dressing	0.00	0.04	0.20
Driving	0.00	0.09	0.35	Eating	0.00	0.02	0.06
Assistance for Travel	0.00	0.03	0.23	Getting in/out of a Bed/Chair	0.00	0.11	0.31
Stay Indoors	0.00	0.04	0.30	Walking	0.01	0.20	0.51
Bed/Chair Confinement	0.00	0.04	0.25	Getting Outside	0.00	0.03	0.17
				Using Toilet	0.00	0.02	0.07
				Preparing Own Meals	0.00	0.02	0.18
				Shopping for Personal Items	0.00	0.03	0.22
				Managing Money	0.01	0.05	0.19
				Using Telephones	0.00	0.01	0.07
				Heavy Housework	0.01	0.24	0.62
				Light Housework	0.00	0.04	0.23
Any Limitation	0.08	0.63	0.92	Any Limitation	0.03	0.38	0.79
Total Number of Limitations	0.11	1.15	2.74	Total Number of Limitations	0.04	0.82	3.00
N	3,823	319	131	N	17,727	1,493	885

Notes: The sample consists of male household heads 22-61 years of age in the 1986, 2003 - 2009 PSID. This table shows the percentage of currently non-disabled, not severely and severely disabled male household heads 22-61 years of age reported having the specified activity limitation, the percentage having trouble performing at least one of these activities, the average total number of activity limitations, and the sample size. In 1986, the six activity questions are: 1) Do you have any trouble either walking several blocks or climbing a few flights of stairs, because of your health? 2) Do you have trouble bending, lifting or stooping because of your health? 3) Would your health keep you from driving a car? 4) When you travel around your community, does someone have to assist you because of your health? 5) Do you have to stay indoors most or all of the day because of your health? 6) Does your health confine you to a bed or a chair for most or all of the day? The possible answers to these activity questions are "yes" or "no." For the 2003-2009 surveys, the head is asked "Because of a health or physical problem, do you have any difficulty in 1) Bathing or showering, 2) Dressing, 3) Eating, 4) Getting in or out of a bed or chair, 5) Walking, 6) Getting Outside, 7) Using the bathroom, 8) Preparing own meals, 9) Shopping for personal items or medicines, 10) Managing money, 11) Using Telephone, 12) Doing heavy housework (Scrubbing Floor, washing windows), 13) Doing light housework (washing dishes, light house cleaning). The possible answers to these activity questions are generally "yes" or "no."

Appendix Table 2
Severity and Health Limitations of PSID Male Household Heads– Average of 1999-2009 Surveys

Health Limitation	Percentage with Condition								
	A. Doctor Diagnosed the Condition			B. Currently Limiting Daily Activities			C. Currently Limiting Daily Activities A Lot		
	Non-disabled (1)	Not Severe (2)	Severe (3)	Non-disabled (4)	Not Severe (5)	Severe (6)	Non-disabled (7)	Not Severe (8)	Severe (9)
Stroke	0.006	0.044	0.093	0.002	0.027	0.084	0.000	0.005	0.058
High Blood Pressure or Hypertension	0.179	0.371	0.465	0.023	0.166	0.298	0.001	0.013	0.106
Diabetes or High Blood Sugar	0.051	0.129	0.190	0.014	0.087	0.146	0.001	0.017	0.070
Cancer, Malignant Tumor, Skin Cancer	0.016	0.034	0.070	0.003	0.021	0.054	0.001	0.005	0.034
Lung Disease	0.015	0.065	0.132	0.005	0.046	0.116	0.001	0.009	0.072
Heart Attack	0.015	0.077	0.123	0.003	0.051	0.106	0.000	0.005	0.064
Heart Disease	0.021	0.101	0.155	0.006	0.074	0.134	0.001	0.010	0.080
Emotional, Nervous or Psychiatric	0.031	0.149	0.292	0.013	0.109	0.260	0.001	0.024	0.140
Arthritis	0.062	0.291	0.417	0.033	0.254	0.393	0.002	0.039	0.230
Asthma	0.065	0.138	0.158	0.016	0.083	0.113	0.001	0.013	0.035
Loss of Memory or Mental Ability	0.002	0.038	0.140	0.001	0.033	0.131	0.000	0.010	0.076
Learning disorder	0.019	0.067	0.114	0.008	0.040	0.099	0.001	0.006	0.050
Other Serious or Chronic conditions	0.093	0.347	0.461	0.033	0.264	0.430	0.004	0.062	0.322
Any of the Above	0.365	0.777	0.878	0.111	0.613	0.819	0.009	0.126	0.614
Total Number of Conditions	0.527	1.675	2.572	0.143	1.119	2.144	0.011	0.185	1.174

Notes: Data comes from the 1999 - 2009 waves of the PSID. We restrict to male household heads ages 22-61 during the time of the survey. Columns 1-3 of the table display the percentages of the currently non-disabled, non-severe and severely disabled that are informed by doctors to have or have had the specified health condition. Columns 4-6 show the percentages of the currently non-disabled, non-severe and severely disabled that have a particular health condition which currently limits their normal daily activities "A lot," "Somewhat" or "Just a little." Columns 7-9 show the percentages of the currently non-disabled, non-severe and severely disabled that have a particular health condition which currently limits their normal daily activities "A lot." Results shown are the averages of the 1999-2009 results. For the "Other Serious or Chronic Conditions," the results displayed come from the 2005-2009 survey.

Appendix Table 3
Prevalence of Disability by Year

						Chronic	
		Any	**Currently**	**One-**		**Not**	**Chronic**
Year	**N**	**disability**	**Disabled**	**Time**	**Temporary**	**Severe**	**Severe**

Age 40-49

Year	N	Any disability	Currently Disabled	One-Time	Temporary	Chronic Not Severe	Chronic Severe
1980	439	0.2605	0.1235	0.0254	0.0734	0.0996	0.0622
		(0.0249)	(0.0185)	(0.0086)	(0.0150)	(0.0171)	(0.0135)
1982	449	0.2702	0.1095	0.0245	0.0939	0.1022	0.0496
		(0.0248)	(0.0172)	(0.0083)	(0.0164)	(0.0170)	(0.0117)
1984	459	0.2467	0.1056	0.0298	0.0874	0.0829	0.0465
		(0.0234)	(0.0166)	(0.0091)	(0.0152)	(0.0148)	(0.0113)
1986	510	0.3040	0.0972	0.0523	0.0949	0.1216	0.0351
		(0.0239)	(0.0156)	(0.0110)	(0.0149)	(0.0173)	(0.0092)
1988	611	0.3192	0.1313	0.0538	0.0953	0.1279	0.0421
		(0.0225)	(0.0164)	(0.0107)	(0.0141)	(0.0163)	(0.0097)
1990	732	0.3448	0.1470	0.0606	0.0887	0.1493	0.0462
		(0.0212)	(0.0159)	(0.0103)	(0.0130)	(0.0161)	(0.0090)
1992	795	0.3546	0.1272	0.0844	0.0896	0.1241	0.0564
		(0.0207)	(0.0145)	(0.0119)	(0.0122)	(0.0146)	(0.0102)

Age 50-59

		Any	**Currently**	**One-**		**Chronic Not**	**Chronic**
Year	**N**	**disability**	**Disabled**	**Time**	**Temporary**	**Severe**	**Severe**
1980	395	0.3992	0.2355	0.0434	0.0613	0.1387	0.1558
		(0.0277)	(0.0238)	(0.0117)	(0.0126)	(0.0198)	(0.0200)
1982	402	0.4184	0.2108	0.0519	0.0634	0.1466	0.1565
		(0.0281)	(0.0233)	(0.0129)	(0.0129)	(0.0202)	(0.0205)
1984	406	0.4236	0.2112	0.0568	0.0721	0.1706	0.1241
		(0.0284)	(0.0233)	(0.0132)	(0.0143)	(0.0217)	(0.0186)
1986	390	0.4415	0.1967	0.0747	0.0751	0.1434	0.1483
		(0.0293)	(0.0235)	(0.0158)	(0.0149)	(0.0208)	(0.0211)
1988	376	0.4431	0.2037	0.0991	0.0882	0.1395	0.1163
		(0.0301)	(0.0242)	(0.0186)	(0.0165)	(0.0207)	(0.0193)
1990	347	0.4571	0.2315	0.0743	0.1002	0.1365	0.1460
		(0.0323)	(0.0280)	(0.0168)	(0.0191)	(0.0223)	(0.0231)
1992	365	0.4798	0.1960	0.0837	0.1243	0.1593	0.1125
		(0.0315)	(0.0253)	(0.0178)	(0.0205)	(0.0229)	(0.0199)

Notes: This table reports for each year the fraction of the sample that has had a disability by the specified year, the fraction of individuals who are currently disabled, and the fraction for whom a given disability type is their most severe disability to date. These fractions are weighted as are the standard errors, which are in parentheses. We restrict this sample to individuals with at least 10 years of data prior to the specified year. See text for details.

Appendix Table 4
Changes in Annual Earnings Before and After Disability Onset,
All Disabled and Extent of Disability Groups

| Year from onset | A. All Disabled | | B. Extent of Disability Groups | | | | | | | |
	Annual Earning	Implied % change	One-Time	Implied % Change	Temporary	Implied % Change	Chronic Not Severe	Implied % Change	Chronic Severe	Implied % Change
-5	-0.038	-3.68	-0.077*	-0.57	-0.057	-1.34	-0.103**	-9.79	-0.101*	-9.61
	(0.024)		(0.038)		(0.043)		(0.039)		(0.060)	
-4	-0.028	-2.80	-0.068	4.46	-0.073	-4.40	-0.103*	-9.79	-0.109**	-10.33
	(0.022)		(0.038)		(0.038)		(0.038)		(0.054)	
-3	-0.043	-4.21	0.022	2.28	-0.050	-4.84	-0.111**	-10.51	-0.129**	-12.10
	(0.027)		(0.066)		(0.031)		(0.032)		(0.045)	
-2	-0.080**	-7.73	-0.068	-6.61	-0.073	-7.06	-0.120**	-11.31	-0.147**	-13.67
	(0.027)		(0.066)		(0.032)		(0.042)		(0.041)	
-1	-0.087**	-8.36	-0.077*	-7.42	-0.013	-5.56	-0.121**	-11.40	-0.216**	-19.43
	(0.021)		(0.051)		(0.027)		(0.030)		(0.043)	
0	-0.150**	-13.93	-0.075*	-7.25	-0.117*	-11.04	-0.190**	-17.30	-0.454**	-36.49
	(0.025)		(0.038)		(0.046)		(0.043)		(0.079)	
1	-0.231**	-20.63	-0.109*	-10.33	-0.157**	-14.53	-0.261**	-22.97	-0.900**	-59.34
	(0.030)		(0.045)		(0.051)		(0.049)		(0.103)	
2	-0.230**	-20.55	-0.103*	-9.79	-0.146**	-13.58	-0.246**	-21.81	-0.981**	-62.51
	(0.030)		(0.045)		(0.052)		(0.047)		(0.112)	
3	-0.203**	-18.37	-0.056	-5.48	-0.097	-9.23	-0.258**	-22.74	-1.075**	-65.87
	(0.036)		(0.050)		(0.070)		(0.052)		(0.126)	
4	-0.237**	-21.10	-0.105*	-9.97	-0.095	-9.03	-0.298**	-25.77	-1.111**	-67.08
	(0.032)		(0.054)		(0.054)		(0.048)		(0.129)	
5	-0.247**	-21.89	-0.132**	-12.37	-0.080	-7.70	-0.306**	-26.36	-1.314**	-73.13
	(0.039)		(0.043)		(0.078)		(0.055)		(0.136)	
6	-0.226**	-20.23	-0.139**	-12.98	-0.048	-4.69	-0.269**	-23.59	-1.331**	-73.58
	(0.036)		(0.047)		(0.064)		(0.053)		(0.145)	
7	-0.248**	-21.96	-0.139**	-12.98	-0.072	-6.90	-0.297**	-25.70	-1.525**	-78.24
	(0.041)		(0.047)		(0.080)		(0.057)		(0.156)	
8	-0.255**	-22.51	-0.098*	-9.38	-0.080	-7.72	-0.322**	-27.53	-1.594**	-79.69
	(0.037)		(0.049)		(0.065)		(0.055)		(0.184)	
9	-0.226**	-20.23	-0.068	-6.56	-0.079	-7.56	-0.286**	-24.87	-1.474**	-77.10
	(0.042)		(0.060)		(0.075)		(0.063)		(0.180)	
10	-0.252**	-22.28	-0.082	-7.90	-0.096	-9.15	-0.343**	-29.04	-1.431**	-76.09
	(0.043)		(0.076)		(0.069)		(0.061)		(0.196)	

Notes: This table reports the coefficient estimates of the time from onset indicator variables in fixed effect regressions. The omitted period is more than 5 years before onset. The implied percentage changes are obtained by dividing the estimated coefficient by the average earnings of the disabled before the fifth year before disability onset ($43,309). Columns 1 and 2 report these estimates for the disabled as a whole, while columns 3-10 report these estimates for the extent of disability groups. Standard errors clustered by person are in parentheses. Statistical significance of each estimate is denoted as follows: **Significant at 1 percent level, *Significant at 5 percent level. See text for details.

Appendix Table 5
Changes in Annual Hours of Work, and Percentage Working Zero Hours Before and After Disability Onset, All Disabled and Extent of Disability Groups

Year from onset	A. All Disabled		B. Extent of Disability Groups							
	Hours	% working zero hours	One-Time	% working zero hours	Temporary	% working zero hours	Chronic Not Severe	% working zero hours	Chronic Severe	% working zero hours
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
-5	22	1.84	-1	1.75	43	1.92	-1	0.92	-36	3.20
	(20)		(33)		(35)		(38)		(58)	
-4	-15	2.63	13	3.51	-33	1.73	-32	2.45	-120*	2.82
	(23)		(41)		(43)		(43)		(51)	
-3	-18	2.78	-11	2.26	-53	3.35	-15	2.67	-75	2.90
	(23)		(37)		(42)		(44)		(53)	
-2	-70**	2.81	-68	2.48	-112*	2.93	-86	2.35	-87	3.90
	(25)		(38)		(47)		(45)		(63)	
-1	-112**	4.59	-84*	5.37	-120**	4.74	-114*	3.55	-249**	4.67
	(25)		(41)		(45)		(48)		(59)	
0	-246**	6.21	-107*	4.71	-229**	4.72	-210**	3.35	-686**	16.18
	(27)		(42)		(50)		(49)		(71)	
1	-368**	13.30	-124**	5.52	-264**	8.98	-360**	9.40	-1,121**	39.85
	(29)		(45)		(50)		(50)		(69)	
2	-346**	13.52	-66	3.94	-268**	6.90	-271**	8.07	-1,195**	47.49
	(30)		(49)		(49)		(51)		(73)	
3	-328**	15.50	-47	4.93	-177**	7.50	-289**	9.52	-1,283**	56.36
	(30)		(48)		(48)		(51)		(68)	
4	-368**	15.23	-138**	5.85	-138**	4.12	-353**	9.38	-1,327**	55.26
	(30)		(50)		(49)		(50)		(70)	
5	-343**	17.50	-56	5.62	-99	6.83	-346**	11.20	-1,397**	62.28
	(32)		(51)		(51)		(55)		(66)	
6	-329**	16.17	-74	6.86	-84	5.11	-277**	8.77	-1,434**	59.75
	(33)		(53)		(53)		(55)		(72)	
7	-334**	18.55	-125*	9.32	-96	6.52	-280**	10.45	-1,417**	66.67
	(33)		(53)		(53)		(57)		(74)	
8	-300**	16.33	-3	6.81	-31	3.69	-277**	8.63	-1,499**	65.35
	(34)		(56)		(53)		(56)		(75)	
9	-320**	18.72	-14	6.73	-49	6.36	-364**	11.86	-1,444**	69.73
	(36)		(62)		(56)		(60)		(86)	
10	-378**	18.41	-53	7.92	-200**	7.09	-387**	12.88	-1,445**	65.82
	(38)		(66)		(57)		(63)		(85)	

Notes: This table reports the coefficient estimates of the time from onset indicator variables in fixed effect regressions, followed by the percentage of the disabled reported working zero hours. The omitted period is more than 5 years before onset. Columns 1 and 2 report these estimates for the disabled as a whole, while columns 3-10 report these estimates for the extent of disability groups. Standard errors clustered by person are in parentheses. Statistical significance of each estimate is denoted as follows: **Significant at 1 percent level, *Significant at 5 percent level. See text for details.

Appendix Table 6
Changes in After-Tax Pre-Public Transfer Income Before and After Disability Onset, All Disabled and Extent of Disability Groups

Year from onset	A. All Disabled		B. Extent of Disability Groups							
	All Disabled	Percentage Change	One-Time	Percentage Change	Temporary	Percentage Change	Chronic Not Severe	Percentage Change	Chronic Severe	Percentage Change
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
-5	-0.019	-1.91	-0.006	-0.61	-0.021	-2.10	-0.009	-0.88	-0.091**	-8.70
	(0.013)		(0.025)		(0.020)		(0.023)		(0.034)	
-4	-0.012	-1.20	0.019	1.92	-0.032	-3.19	-0.022	-2.22	-0.059	-5.78
	(0.015)		(0.031)		(0.022)		(0.028)		(0.035)	
-3	-0.019	-1.90	0.013	1.35	-0.018	-1.74	-0.048	-4.72	-0.070	-6.78
	(0.018)		(0.040)		(0.028)		(0.028)		(0.038)	
-2	-0.045**	-4.40	-0.035	-3.44	0.001	-3.90	-0.058*	-5.63	-0.092*	-8.77
	(0.015)		(0.025)		(0.026)		(0.028)		(0.040)	
-1	-0.046**	-4.50	-0.031	-3.02	-0.045	-4.40	-0.050	-4.90	-0.114**	-10.77
	(0.017)		(0.026)		(0.030)		(0.030)		(0.042)	
0	-0.095**	-9.02	-0.065*	-6.32	-0.085**	-8.19	-0.081**	-7.75	-0.255**	-22.51
	(0.017)		(0.026)		(0.029)		(0.030)		(0.052)	
1	-0.147**	-13.67	-0.098**	-9.34	-0.112**	-10.60	-0.122**	-11.49	-0.475**	-37.81
	(0.019)		(0.030)		(0.031)		(0.032)		(0.060)	
2	-0.138**	-12.89	-0.057	-5.59	-0.115**	-10.86	-0.111**	-10.51	-0.512**	-40.07
	(0.019)		(0.030)		(0.031)		(0.033)		(0.060)	
3	-0.125**	-11.75	-0.047	-4.62	-0.097*	-9.23	-0.085	-8.17	-0.574**	-43.67
	(0.024)		(0.031)		(0.042)		(0.048)		(0.069)	
4	-0.124**	-11.66	-0.061	-5.96	-0.074*	-7.12	-0.096	-9.15	-0.553**	-42.48
	(0.026)		(0.034)		(0.035)		(0.054)		(0.095)	
5	-0.157**	-14.53	-0.112**	-10.60	-0.080	-7.67	-0.140**	-13.06	-0.643**	-47.43
	(0.023)		(0.030)		(0.045)		(0.033)		(0.069)	
6	-0.138**	-12.89	-0.072	-6.95	-0.046	-4.51	-0.140**	-13.06	-0.653**	-47.95
	(0.024)		(0.038)		(0.039)		(0.034)		(0.072)	
7	-0.119**	-11.22	-0.092*	-8.81	-0.055	-5.34	-0.063	-6.12	-0.676**	-49.14
	(0.034)		(0.038)		(0.045)		(0.078)		(0.078)	
8	-0.157**	-14.53	-0.060	-5.86	-0.088*	-8.45	-0.134**	-12.54	-0.817**	-55.82
	(0.025)		(0.034)		(0.041)		(0.039)		(0.078)	
9	-0.140**	-13.06	-0.064	-6.22	-0.067	-6.51	-0.122**	-11.49	-0.800**	-55.07
	(0.027)		(0.039)		(0.044)		(0.043)		(0.082)	
10	-0.144**	-13.41	-0.015	-1.52	-0.112**	-10.60	-0.139**	-12.98	-0.739**	-52.24
	(0.028)		(0.050)		(0.041)		(0.043)		(0.095)	

Notes: This table reports the coefficient estimates of the time from onset indicator variables in fixed effect regression. The omitted period is more than 5 years before onset. The implied percentage changes are obtained by dividing the estimated coefficient by the average after-tax pre-public transfer income of the disabled before the fifth year before disability onset ($54,930). Columns 3-10 show these estimates and implied percentage changes for the extent of disability groups. Standard errors clustered by person are in parentheses. Statistical significance of each estimate is denoted as follows: **Significant at 1 percent level, *Significant at 5 percent level. See the data appendix for variable definitions and the text for further details.

Appendix Table 7
Changes in After-Tax Post-Transfer Income Before and After Disability Onset, All Disabled and Extent of Disability Groups

Year from onset	A. All Disabled		B. Extent of Disability Groups							
	All Disabled	Percentage Change	One-Time	Percentage Change	Temporary	Percentage Change	Chronic Not Severe	Percentage Change	Chronic Severe	Percentage Change
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
-5	-0.021	-2.04	-0.001	-0.06	-0.032	-3.18	-0.007	-0.73	-0.076*	-7.27
	(0.013)		(0.024)		(0.021)		(0.023)		(0.031)	
-4	-0.012	-1.18	0.034	3.50	-0.027	-2.62	-0.017	-1.65	-0.081*	-7.80
	(0.015)		(0.032)		(0.023)		(0.029)		(0.033)	
-3	-0.020	-1.95	0.021	2.14	-0.016	-1.57	-0.048	-4.68	-0.073*	-7.08
	(0.018)		(0.041)		(0.029)		(0.026)		(0.035)	
-2	-0.045**	-4.43	-0.023	-2.31	-0.032	-3.11	-0.061*	-5.88	-0.098**	-9.33
	(0.015)		(0.025)		(0.027)		(0.027)		(0.035)	
-1	-0.032	-3.11	-0.018	-1.79	-0.020	-1.96	-0.038	-3.77	-0.091*	-8.73
	(0.016)		(0.026)		(0.031)		(0.029)		(0.037)	
0	-0.051**	-4.97	-0.049	-4.80	-0.054	-5.21	-0.029	-2.90	-0.115**	-10.86
	(0.017)		(0.026)		(0.029)		(0.029)		(0.041)	
1	-0.078**	-7.48	-0.078*	-7.50	-0.064*	-6.24	-0.056	-5.41	-0.176**	-16.14
	(0.018)		(0.031)		(0.029)		(0.032)		(0.049)	
2	-0.084**	-8.06	-0.056	-5.45	-0.078*	-7.54	-0.046	-4.49	-0.256**	-22.59
	(0.019)		(0.030)		(0.031)		(0.034)		(0.044)	
3	-0.086**	-8.23	-0.044	-4.32	-0.091*	-8.74	-0.045	-4.40	-0.271**	-23.74
	(0.024)		(0.031)		(0.043)		(0.048)		(0.048)	
4	-0.070**	-6.75	-0.054	-5.26	-0.056	-5.48	-0.047	-4.64	-0.203**	-18.37
	(0.025)		(0.034)		(0.035)		(0.054)		(0.066)	
5	-0.101**	-9.61	-0.103**	-9.79	-0.056	-5.41	-0.093**	-8.90	-0.265**	-23.28
	(0.022)		(0.030)		(0.044)		(0.034)		(0.048)	
6	-0.094**	-8.97	-0.078*	-7.48	-0.038	-3.76	-0.099**	-9.42	-0.279**	-24.35
	(0.023)		(0.039)		(0.039)		(0.034)		(0.053)	
7	-0.071*	-6.90	-0.092*	-8.81	-0.031	-3.02	-0.018	-1.76	-0.306**	-26.36
	(0.033)		(0.038)		(0.044)		(0.079)		(0.054)	
8	-0.117**	-11.04	-0.067	-6.48	-0.069	-6.65	-0.105**	-9.97	-0.412**	-33.77
	(0.024)		(0.035)		(0.041)		(0.036)		(0.053)	
9	-0.096**	-9.14	-0.049	-4.80	-0.064	-6.22	-0.085*	-8.16	-0.360**	-30.23
	(0.026)		(0.041)		(0.043)		(0.042)		(0.054)	
10	-0.083**	-7.97	-0.015	-1.51	-0.069	-6.65	-0.079	-7.59	-0.325**	-27.75
	(0.028)		(0.051)		(0.041)		(0.042)		(0.064)	

Notes: This table reports the coefficient estimates of the time from onset indicator variables in fixed effect regression. The omitted period is more than 5 years before onset. The implied percentage changes are obtained by dividing the estimated coefficient by the average after-tax post-transfer income of the disabled before the fifth year before disability onset ($56,684). Columns 3-10 show these estimates and implied percentage changes for the extent of disability groups. Standard errors clustered by person are in parentheses. Statistical significance of each estimate is denoted as follows: **Significant at 1 percent level, *Significant at 5 percent level. See the data appendix for variable definitions and the text for further details.

Appendix Table 8

Changes in Food and Food plus Housing Consumption Before and After Disability Onset, All Disabled and Extent of Disability Groups

				A. Food Consumption						
Year from onset	All Disabled	Percentage Change	One-Time	Percentage Change	Temporary	Percentage Change	Chronic Not Severe	Percentage Change	Chronic Severe	Percentage Change
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
-5	0.006	0.59	-0.009	-0.87	0.008	0.77	0.019	1.94	-0.003	-0.33
	(0.014)		(0.022)		(0.037)		(0.022)		(0.027)	
-4	-0.019	-1.87	0.012	1.24	-0.019	-1.90	-0.032	-3.11	-0.06	-5.85
	(0.013)		(0.024)		(0.023)		(0.023)		(0.031)	
-3	-0.023	-2.31	-0.023	-2.24	-0.021	-2.03	-0.010	-0.97	-0.064*	-6.20
	(0.013)		(0.024)		(0.026)		(0.025)		(0.033)	
-2	-0.002	-0.17	0.003	0.28	0.032	3.25	0.000	0.05	-0.081*	-7.78
	(0.014)		(0.024)		(0.027)		(0.025)		(0.034)	
-1	-0.030*	-2.95	-0.002	-0.18	-0.005	-0.51	-0.043	-4.20	-0.106**	-10.06
	(0.014)		(0.024)		(0.024)		(0.025)		(0.036)	
0	-0.025	-2.48	-0.017	-1.73	-0.02	-2.02	-0.003	-0.33	-0.093**	-8.93
	(0.013)		(0.024)		(0.023)		(0.025)		(0.033)	
1	-0.027	-2.63	-0.018	-1.82	-0.018	-1.76	-0.016	-1.63	-0.09	-8.58
	(0.016)		(0.025)		(0.024)		(0.031)		(0.049)	
2	-0.062**	-6.02	-0.036	-3.57	-0.047	-4.64	-0.039	-3.80	-0.194**	-17.63
	(0.014)		(0.027)		(0.026)		(0.025)		(0.034)	
3	-0.058**	-5.61	-0.047	-4.59	-0.025	-2.47	-0.048	-4.70	-0.174**	-15.97
	(0.015)		(0.027)		(0.027)		(0.027)		(0.039)	
4	-0.066**	-6.35	-0.012	-1.21	-0.056*	-5.45	-0.047	-4.60	-0.212**	-19.10
	(0.015)		(0.028)		(0.027)		(0.028)		(0.033)	
5	-0.072**	-6.95	-0.033	-3.21	-0.036	-3.56	-0.072*	-6.96	-0.214**	-19.27
	(0.015)		(0.026)		(0.027)		(0.028)		(0.036)	
6	-0.056**	-5.46	-0.003	-0.27	-0.045	-4.45	-0.065*	-6.33	-0.162**	-14.96
	(0.016)		(0.026)		(0.027)		(0.028)		(0.039)	
7	-0.086**	-8.23	-0.072**	-6.92	-0.066*	-6.42	-0.062*	-5.96	-0.221**	-19.83
	(0.016)		(0.026)		(0.027)		(0.027)		(0.040)	
8	-0.054**	-5.26	-0.022	-2.18	-0.023	-2.30	-0.035	-3.43	-0.226**	-20.23
	(0.017)		(0.029)		(0.030)		(0.029)		(0.034)	
9	-0.074**	-7.18	-0.052	-5.11	-0.056	-5.47	-0.052	-5.07	-0.237**	-21.10
	(0.017)		(0.029)		(0.030)		(0.029)		(0.036)	
10	-0.079**	-7.56	-0.038	-3.75	-0.069*	-6.65	-0.068*	-6.60	-0.201**	-18.21
	(0.018)		(0.032)		(0.032)		(0.030)		(0.044)	

Notes: The numbers reported are, for each variable of interest, the coefficient estimates of the time from onset indicator variables in fixed effect regressions, for the disabled as a whole and for the extent of disability groups. The omitted period is more than 5 years before onset. Standard errors clustered by person are in parentheses. Statistical significance of each estimate is denoted as follows: **Significant at 1 percent level, *Significant at 5 percent level. See the data appendix for variable definitions and the text for further details.

Changes in Food and Food plus Housing Consumption Before and After Disability Onset, All Disabled and Extent of Disability Groups

B. Food plus Housing Consumption

Year from onset	All Disabled (1)	Percentage Change (2)	One-Time (3)	Percentage Change (4)	Temporary (5)	Percentage Change (6)	Chronic Not Severe (7)	Percentage Change (8)	Chronic Severe (9)	Percentage Change (10)
-5	-0.017 (0.011)	-1.72	-0.022 (0.018)	-2.20	0.004 (0.027)	0.44	-0.019 (0.019)	-1.89	-0.054* (0.022)	-5.25
-4	-0.034** (0.012)	-3.32	-0.005 (0.020)	-0.49	-0.026 (0.022)	-2.56	-0.054* (0.021)	-5.22	-0.084** (0.027)	-8.07
-3	-0.034** (0.013)	-3.38	-0.028 (0.021)	-2.81	-0.015 (0.024)	-1.48	-0.041 (0.022)	-3.99	-0.083** (0.028)	-7.98
-2	-0.028* (0.014)	-2.74	-0.025 (0.021)	-2.44	0.023 (0.027)	2.28	-0.038 (0.022)	-3.75	-0.123** (0.032)	-11.57
-1	-0.030* (0.014)	-2.99	-0.004 (0.022)	-0.39	-0.002 (0.025)	-0.22	-0.036 (0.029)	-3.55	-0.136** (0.032)	-12.72
0	-0.042** (0.014)	-4.10	-0.037 (0.023)	-3.63	-0.022 (0.025)	-2.16	-0.03 (0.027)	-2.94	-0.127** (0.032)	-11.93
1	-0.040* (0.016)	-3.88	-0.024 (0.023)	-2.32	-0.025 (0.026)	-2.47	-0.021 (0.030)	-2.08	-0.153** (0.039)	-14.19
2	-0.065** (0.016)	-6.26	-0.04 (0.024)	-3.88	-0.042 (0.027)	-4.14	-0.038 (0.030)	-3.77	-0.229** (0.032)	-20.47
3	-0.063** (0.017)	-6.12	-0.046 (0.026)	-4.51	-0.041 (0.030)	-3.98	-0.042 (0.031)	-4.07	-0.207** (0.033)	-18.70
4	-0.071** (0.018)	-6.82	-0.046 (0.025)	-4.50	-0.052 (0.031)	-5.09	-0.038 (0.037)	-3.74	-0.232** (0.034)	-20.71
5	-0.072** (0.019)	-6.99	-0.034 (0.026)	-3.37	-0.052 (0.031)	-5.04	-0.057 (0.039)	-5.51	-0.239** (0.034)	-21.26
6	-0.065** (0.023)	-6.29	0.008 (0.045)	0.82	-0.043 (0.039)	-4.22	-0.080* (0.034)	-7.66	-0.242** (0.037)	-21.49
7	-0.103** (0.019)	-9.79	-0.095** (0.027)	-9.08	-0.062 (0.032)	-6.06	-0.077* (0.034)	-7.46	-0.289** (0.039)	-25.10
8	-0.079** (0.022)	-7.62	-0.059* (0.028)	-5.74	-0.029 (0.036)	-2.85	-0.051 (0.043)	-5.00	-0.326** (0.036)	-27.82
9	-0.092** (0.022)	-8.83	-0.075* (0.033)	-7.22	-0.042 (0.037)	-4.10	-0.085* (0.039)	-8.14	-0.285** (0.045)	-24.80
10	-0.091** (0.023)	-8.69	-0.054 (0.036)	-5.29	-0.056 (0.044)	-5.46	-0.083* (0.037)	-7.96	-0.287** (0.040)	-24.95

Notes: The numbers reported are, for each variable of interest, the coefficient estimates of the time from onset indicator variables in fixed effect regressions, for the disabled as a whole and for the extent of disability groups. The omitted period is more than 5 years before onset. Standard errors clustered by person are in parentheses. Statistical significance of each estimate is denoted as follows: **Significant at 1 percent level, *Significant at 5 percent level. See the data appendix for variable definitions and the text for further details.

Changes in Log Hourly Earnings Before and After Disability Onset, All Disabled and Extent of Disability Groups

Year from onset	All Disabled (1)	Percentage Change (2)	One-Time (3)	Percentage Change (4)	Temporary (5)	Percentage Change (6)	Chronic Not Severe (7)	Percentage Change (8)	Chronic Severe (9)	Percentage Change (10)
-5	-0.049**	-4.81	-0.003	-0.26	-0.038	-3.77	-0.105**	-9.97	-0.078*	-7.51
	(0.016)		(0.024)		(0.039)		(0.031)		(0.034)	
-4	-0.031	-3.01	0.018	1.84	-0.003	-0.32	-0.095**	-9.06	-0.074	-7.16
	(0.016)		(0.031)		(0.029)		(0.029)		(0.042)	
-3	-0.037*	-3.59	0.007	0.69	0.003	0.30	-0.100**	-9.52	-0.099**	-9.44
	(0.016)		(0.027)		(0.028)		(0.030)		(0.039)	
-2	-0.039*	-3.83	-0.008	-0.82	-0.002	-0.16	-0.080*	-7.69	-0.116*	-10.95
	(0.017)		(0.028)		(0.031)		(0.032)		(0.049)	
-1	-0.049**	-4.80	-0.019	-1.91	-0.009	-0.91	-0.112**	-10.60	-0.095*	-9.05
	(0.017)		(0.029)		(0.030)		(0.031)		(0.044)	
0	-0.037*	-3.66	-0.018	-1.83	-0.001	-0.13	-0.105**	-9.97	-0.05	-4.84
	(0.018)		(0.032)		(0.032)		(0.035)		(0.046)	
1	-0.072**	-6.92	-0.056	-5.46	-0.058	-5.65	-0.085*	-8.11	-0.153*	-14.19
	(0.020)		(0.037)		(0.032)		(0.034)		(0.060)	
2	-0.088**	-8.40	-0.05	-4.92	-0.046	-4.50	-0.153**	-14.19	-0.159*	-14.70
	(0.021)		(0.038)		(0.035)		(0.040)		(0.064)	
3	-0.086**	-8.23	-0.032	-3.14	-0.039	-3.83	-0.155**	-14.36	-0.223**	-19.99
	(0.023)		(0.043)		(0.034)		(0.042)		(0.083)	
4	-0.073**	-7.03	-0.021	-2.09	-0.013	-1.27	-0.173**	-15.89	-0.14	-13.06
	(0.021)		(0.036)		(0.035)		(0.038)		(0.072)	
5	-0.077**	-7.40	-0.025	-2.43	-0.04	-3.93	-0.162**	-14.96	-0.127	-11.93
	(0.022)		(0.035)		(0.034)		(0.041)		(0.084)	
6	-0.080**	-7.71	-0.001	-0.11	-0.003	-0.29	-0.208**	-18.78	-0.223*	-19.99
	(0.023)		(0.037)		(0.035)		(0.042)		(0.091)	
7	-0.104**	-9.88	-0.069	-6.70	-0.02	-1.94	-0.199**	-18.05	-0.286**	-24.87
	(0.026)		(0.057)		(0.039)		(0.041)		(0.108)	
8	-0.098**	-9.36	-0.014	-1.37	-0.032	-3.18	-0.210**	-18.94	-0.276**	-24.12
	(0.024)		(0.042)		(0.037)		(0.040)		(0.103)	
9	-0.083**	-7.93	-0.022	-2.22	-0.049	-4.76	-0.160**	-14.79	-0.194*	-17.63
	(0.027)		(0.049)		(0.047)		(0.041)		(0.089)	
10	-0.097**	-9.29	-0.011	-1.12	-0.043	-4.19	-0.213**	-19.18	-0.201	-18.21
	(0.026)		(0.042)		(0.047)		(0.042)		(0.117)	

Notes: The numbers reported are, for each variable of interest, the coefficient estimates of the time from onset indicator variables in fixed effect regressions, for the disabled as a whole and for the extent of disability groups. The omitted period is more than 5 years before onset. Standard errors clustered by person are in parentheses. Statistical significance of each estimate is denoted as follows: **Significant at 1 percent level, *Significant at 5 percent level. See the data appendix for variable definitions and the text for further details.

Appendix Table 10

Benefit Receipt Rates and Net Wealth of the Disabled

	All Disabled (1)	One-Time (2)	Temporary (3)	Chronic Not Severe (4)	Chronic Severe (5)
Benefit Receipt Rate					
Social Security	0.139	0.039	0.055	0.108	0.490
Social Security Disability	0.086	0.003	0.002	0.037	0.419
Supplemental Security Income	0.026	0.008	0.015	0.015	0.090
Social Security or SSI	0.152	0.046	0.066	0.116	0.529
SSDI or SSI	0.118	0.025	0.031	0.057	0.486
Workers' Compensation	0.043	0.012	0.052	0.044	0.060
Unemployment Insurance	0.081	0.059	0.093	0.104	0.038
Food Stamps	0.110	0.052	0.086	0.108	0.241
Public Housing (Partial or Full)	0.026	0.025	0.021	0.022	0.038
Any one of the above	0.329	0.175	0.250	0.317	0.710
Work and Wealth					
Not receiving any benefit above and not working 6-10 years post-onset	0.101	0.137	0.081	0.084	0.130
Median Pre-onset Net Wealth	$40,747	$40,498	$44,142	$39,287	$41,361
Median Net Wealth 6-10 years post-onset	$66,743	$89,894	$63,960	$67,916	$25,875

Notes: Receipt rates reported for disabled individuals who are in their sixth to tenth year after disability onset. Working is defined as working at least 1000 hours. Asset data come from those who participated in the 1984, 1989, 1994, 1999, 2001, 2003, 2005, 2007, and 2009 PSID surveys. Net wealth is defined as the sum of business and farm equity, savings instruments (checking, savings, and certificates of deposits), real estate, stocks, vehicles, other investments and home equity, less any non-mortgage and non-business debts. Social Security Disability (SSDI) recipiency data come from the 1984-1992 PSID surveys and the fractions reported above represent individuals in this period only.

**Hours of Work by Spouse Before and After Disability Onset of Head,
All Disabled and Extent of Disability Groups**

Year from onset	All Disabled	Extent of Disability Groups			
		One-Time	Temporary	Chronic Not Severe	Chronic Severe
	(1)	(2)	(3)	(4)	(5)
-5	21	-1	33	21	48
	(25)	(47)	(48)	(47)	(58)
-4	-35	-73	11	-50	0
	(28)	(54)	(50)	(50)	(66)
-3	-16	-33	-33	2	23
	(28)	(50)	(52)	(51)	(73)
-2	19	-6	36	17	43
	(29)	(59)	(52)	(52)	(64)
-1	-16	-65	41	-30	-3
	(30)	(58)	(52)	(53)	(76)
0	-11	-70	30	-6	22
	(32)	(62)	(55)	(54)	(76)
1	-23	-76	18	-10	-25
	(32)	(60)	(56)	(55)	(79)
2	-59	-124	-50	-23	-33
	(34)	(64)	(58)	(61)	(86)
3	-61	-95	-47	-26	-73
	(34)	(63)	(59)	(58)	(80)
4	-60	-143*	-30	-22	-44
	(36)	(69)	(60)	(62)	(88)
5	-43	-89	-33	-35	-2
	(36)	(67)	(60)	(60)	(83)
6	-65	-103	-63	-6	-110
	(38)	(72)	(65)	(64)	(91)
7	-78*	-149*	-64	-9	-124
	(38)	(70)	(63)	(65)	(92)
8	-69	-71	-105	8	-149
	(40)	(70)	(65)	(68)	(95)
9	-65	-43	-128	54	-216*
	(42)	(78)	(70)	(70)	(98)
10	-51	-53	-100	57	-193
	(44)	(76)	(72)	(71)	(113)

Notes: This table reports the coefficient estimates of the time from onset indicator variables in the basic fixed effect regression model with annual hours worked by the spouse as the dependent variable. The omitted period is more than 5 years before onset. Standard errors clustered by person are in parentheses. Statistical significance of each estimate is denoted as follows: **Significant at 1 percent level, *Significant at 5 percent level. The sample is restricted to married male household heads aged 22-61. See the data appendix for variable definitions and the text for further details.

Changes in Food Eaten at Home, Food Eaten Outside Home Before and After Disability Onset,
All Disabled and Extent of Disability Groups

					A. Food Eaten at Home					
Year from onset	All Disabled	Percentage Change	One-Time	Percentage Change	Temporary	Percentage Change	Chronic Not Severe	Percentage Change	Chronic Severe	Percentage Change
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
-5	0.011	1.10	-0.017	-1.64	0.021	2.11	0.016	1.62	0.025	2.58
	(0.015)		(0.021)		(0.042)		(0.023)		(0.029)	
-4	-0.012	-1.24	0.008	0.78	-0.008	-0.75	-0.039	-3.79	-0.018	-1.73
	(0.013)		(0.025)		(0.023)		(0.024)		(0.029)	
-3	-0.013	-1.34	-0.005	-0.49	-0.024	-2.36	-0.014	-1.38	-0.019	-1.84
	(0.014)		(0.026)		(0.027)		(0.024)		(0.034)	
-2	0.011	1.07	0.019	1.89	0.043	4.39	0.000	-0.05	-0.042	-4.11
	(0.014)		(0.026)		(0.027)		(0.026)		(0.034)	
-1	-0.011	-1.07	0.03	3.02	-0.011	-1.06	-0.031	-3.01	-0.049	-4.73
	(0.014)		(0.025)		(0.025)		(0.027)		(0.037)	
0	-0.013	-1.27	-0.022	-2.14	-0.012	-1.23	0.001	0.13	-0.03	-2.98
	(0.014)		(0.024)		(0.024)		(0.026)		(0.034)	
1	-0.001	-0.07	0.003	0.34	-0.001	-0.11	-0.003	-0.32	-0.015	-1.46
	(0.017)		(0.027)		(0.025)		(0.033)		(0.052)	
2	-0.035*	-3.45	-0.009	-0.91	-0.034	-3.38	-0.019	-1.85	-0.121**	-11.40
	(0.015)		(0.030)		(0.028)		(0.025)		(0.033)	
3	-0.044**	-4.30	-0.023	-2.29	-0.022	-2.19	-0.045	-4.38	-0.126**	-11.84
	(0.015)		(0.028)		(0.029)		(0.025)		(0.038)	
4	-0.032	-3.15	0.027	2.71	-0.028	-2.77	-0.019	-1.85	-0.151**	-14.02
	(0.016)		(0.032)		(0.030)		(0.028)		(0.035)	
5	-0.044**	-4.27	-0.014	-1.43	-0.026	-2.54	-0.037	-3.59	-0.143**	-13.32
	(0.016)		(0.028)		(0.029)		(0.028)		(0.036)	
6	-0.022	-2.22	0.026	2.65	-0.029	-2.81	-0.034	-3.29	-0.073	-7.02
	(0.016)		(0.028)		(0.028)		(0.029)		(0.039)	
7	-0.047**	-4.62	-0.043	-4.20	-0.059*	-5.76	-0.013	-1.28	-0.121**	-11.40
	(0.017)		(0.028)		(0.030)		(0.028)		(0.042)	
8	-0.018	-1.79	-0.01	-1.01	-0.004	-0.43	0.009	0.91	-0.129**	-12.10
	(0.017)		(0.031)		(0.030)		(0.029)		(0.035)	
9	-0.028	-2.77	-0.023	-2.31	-0.023	-2.32	0.000	0.03	-0.137**	-12.80
	(0.018)		(0.032)		(0.032)		(0.030)		(0.039)	
10	-0.037	-3.59	-0.039	-3.82	-0.03	-2.93	-0.025	-2.46	-0.087	-8.35
	(0.019)		(0.032)		(0.035)		(0.030)		(0.047)	

Notes: The numbers reported are, for each variable of interest, the coefficient estimates of the time from onset indicator variables in fixed effect regressions, for the disabled as a whole and for the extent of disability groups. The omitted period is more than 5 years before onset. Standard errors clustered by person are in parentheses. Statistical significance of each estimate is denoted as follows: **Significant at 1 percent level, *Significant at 5 percent level. See the data appendix for variable definitions and the text for further details.

Appendix Table 12 (*continued*)
Changes in Food Eaten at Home, Food Eaten Outside Home Before and After Disability Onset, All Disabled and Extent of Disability Groups

	B. Food Eaten Outside the Home									
Year from onset	All Disabled	Percentage Change	One-Time	Percentage Change	Temporary	Percentage Change	Chronic Not Severe	Percentage Change	Chronic Severe	Percentage Change
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
-5	-0.005	-0.51	0.014	1.46	-0.034	-3.39	0.038	3.87	-0.091	-8.73
	(0.032)		(0.056)		(0.068)		(0.059)		(0.085)	
-4	-0.039	-3.82	0.018	1.78	-0.071	-6.89	0.013	1.30	-0.222	-19.91
	(0.034)		(0.052)		(0.057)		(0.069)		(0.128)	
-3	-0.048	-4.69	-0.088	-8.47	0.005	0.46	0.028	2.82	-0.225**	-20.15
	(0.034)		(0.054)		(0.064)		(0.075)		(0.078)	
-2	-0.026	-2.55	-0.052	-5.08	-0.001	-0.14	0.029	2.90	-0.144	-13.41
	(0.033)		(0.051)		(0.069)		(0.061)		(0.084)	
-1	-0.094**	-8.98	-0.133*	-12.45	0.045	4.61	-0.075	-7.21	-0.375**	-31.27
	(0.035)		(0.056)		(0.067)		(0.065)		(0.100)	
0	-0.049	-4.82	0.006	0.57	-0.043	-4.23	0.019	1.89	-0.361**	-30.30
	(0.035)		(0.063)		(0.058)		(0.066)		(0.094)	
1	-0.110**	-10.42	-0.086	-8.20	-0.073	-7.05	-0.038	-3.72	-0.433**	-35.14
	(0.037)		(0.057)		(0.061)		(0.083)		(0.102)	
2	-0.134**	-12.54	-0.116*	-10.95	-0.07	-6.73	-0.076	-7.36	-0.490**	-38.74
	(0.034)		(0.053)		(0.059)		(0.068)		(0.103)	
3	-0.065	-6.31	-0.106	-10.06	0.018	1.77	-0.031	-3.05	-0.272*	-23.81
	(0.038)		(0.056)		(0.063)		(0.082)		(0.113)	
4	-0.158**	-14.62	-0.120*	-11.31	-0.134*	-12.54	-0.134	-12.54	-0.367**	-30.72
	(0.034)		(0.053)		(0.057)		(0.070)		(0.094)	
5	-0.139**	-12.98	-0.077	-7.40	-0.051	-4.96	-0.173*	-15.89	-0.421**	-34.36
	(0.036)		(0.060)		(0.059)		(0.074)		(0.095)	
6	-0.137**	-12.80	-0.09	-8.64	-0.062	-6.06	-0.139*	-12.98	-0.471**	-37.56
	(0.037)		(0.060)		(0.066)		(0.068)		(0.103)	
7	-0.186**	-16.97	-0.140*	-13.06	-0.039	-3.84	-0.221**	-19.83	-0.625**	-46.47
	(0.036)		(0.061)		(0.061)		(0.064)		(0.099)	
8	-0.133**	-12.45	-0.037	-3.64	-0.051	-4.92	-0.159*	-14.70	-0.553**	-42.48
	(0.038)		(0.062)		(0.071)		(0.069)		(0.096)	
9	-0.202**	-18.29	-0.130*	-12.19	-0.141	-13.15	-0.232**	-20.71	-0.523**	-40.73
	(0.039)		(0.057)		(0.074)		(0.073)		(0.103)	
10	-0.175**	-16.05	-0.022	-2.15	-0.177*	-16.22	-0.177*	-16.22	-0.566**	-43.22
	(0.042)		(0.077)		(0.069)		(0.076)		(0.116)	

Notes: The numbers reported are, for each variable of interest, the coefficient estimates of the time from onset indicator variables in fixed effect regressions, for the disabled as a whole and for the extent of disability groups. The omitted period is more than 5 years before onset. Standard errors clustered by person are in parentheses. Statistical significance of each estimate is denoted as follows: **Significant at 1 percent level, *Significant at 5 percent level. See the data appendix for variable definitions and the text for further details.

Appendix Table 13
Sample Means and Changes in Food Expenditure, Food Shopping Frequency and Consumption Index by Disability Status

Dependent Variable	A. Full Sample: Sample Mean (standard deviation)		B. Regression Coefficient on the Disability Indicator Variable in CSFII		C. Regression Coefficient on the Disability Indicator Variable in PSID	
	Non-disabled	Disabled	Full Sample	Exclude Low Income Sample	OLS	Fixed Effects
	(1)	(2)	(3)	(4)	(5)	(6)
Total food expenditure	3,747	3,304	-0.182**	-0.123**	-0.112**	-0.059**
	(2,252)	(1,863)	(0.031)	(0.038)	(0.010)	(0.007)
Expenditure on Food eaten at Home	2,667	2,476	-0.116**	-0.072	-0.076**	-0.039**
	(1,419)	(1,277)	(0.030)	(0.037)	(0.010)	(0.007)
Expenditure on Food outside Home	1,080	828	-0.813**	-0.504**	-0.693**	-0.220**
	(1,326)	(953)	(0.145)	(0.166)	(0.054)	(0.040)
Shop for food at least once a week	0.628	0.605	-0.010	-0.014		
	(0.483)	(0.489)	(0.008)	(0.010)		
Log Consumption Index			-0.028**	-0.023*		
			(0.009)	(0.012)		
Log calories			-0.049*	-0.005		
			(0.025)	(0.030)		
Log Vitamin A			-0.145*	-0.130		
			(0.057)	(0.074)		
Log Vitamin C			-0.156**	-0.165*		
			(0.053)	(0.065)		
Log Vitamin E			-0.107**	-0.077		
			(0.038)	(0.047)		
N	2,891	362	3,253	2,431		
N Completing 3 diaries	1,948	266	2,214	1,676		

Notes: The sample is currently non-disabled and disabled male household heads aged 22-61 in the 1989-1991 CSFII. In columns 3-6, standard errors clustered by person are in parentheses. Statistical significance of each estimate is denoted as follows: **Significant at 1 percent level, *Significant at 5 percent level. All regressions control for geographical regions, education, race, year, age and age-squared of the head, number of adults, number of children and an indicator variable on whether the residence is located in central cities. Columns 5 and 6 reports the same coefficient estimates using the PSID data (keeping observations after the 10th year since onset), without and with individual fixed effects. See the text for a fuller description of the variables included and the data appendix on the construction of these variables and detail of sample construction. All CSFII food expenditure variables are in 2005 dollars.

Appendix Table 14
Time Spent on Food Preparation, Food Shopping and All Shopping Activities
(in Hours per Week), by Male Household Heads and Wives

	A. Sample Means (standard deviation)		B. Coefficient on Head Disabled Indicator Variable
	Non-disabled Head (1)	Disabled Head (2)	(3)
1. Male Household Heads:			
Food Preparation	1.93	2.53	0.66
	(4.00)	(5.13)	(0.34)
Shopping for Food	0.83	0.96	0.14
	(2.56)	(2.90)	(0.21)
All Shopping	4.23	4.38	0.31
	(8.46)	(9.97)	(0.68)
N	4,334	316	
2. Wives:			
Food Preparation	6.41	6.96	0.12
	(7.25)	(7.21)	(0.67)
Shopping for Food	1.59	1.16	-0.38
	(3.44)	(2.38)	(0.25)
All Shopping	7.35	6.08	-0.96
	(11.09)	(8.86)	(1.03)
N	3,526	132	

Notes: The data come from merging the 2003-2006 American Time Use Survey with the corresponding year's Annual Social and Economic Supplement to the Current Population Survey. For the top half of the table, the sample is restricted to male household heads 22-61 years of age. For the bottom half of the table, the sample is restricted to married females 22-61 years of age and whose husbands are also in this age range. In column 3, standard errors clustered by person are in parentheses. Statistical significance of each estimate is denoted as follows: **Significant at 1 percent level, *Significant at 5 percent level. The controls in these regressions include age, age-squared, education, region, year, number of adults and children, race, marital indicator, the month of the survey and the head's disability indicator variable. See text and data appendix for further details.

Appendix Table 15
Changes in Leisure and Time Use by Disability Status

	A. Sample Means (standard deviation)		B. Regression Coefficient on the Disabled Indicator
	Non-disabled (1)	Disabled (2)	(3)
Market Work	42.49	12.54	-27.71**
	(35.07)	(26.03)	(2.36)
Leisure (Narrow)	36.20	58.37	18.23**
	(26.25)	(30.08)	(2.41)
Watching TV	14.84	29.03	10.64**
	(16.20)	(25.89)	(1.66)
Socializing, Social Events	6.01	7.55	1.89*
	(12.18)	(12.98)	(0.93)
Arts and Non-Home Entertainment	0.87	0.83	0.22
	(5.12)	(7.42)	(0.66)
Relaxing	2.04	6.16	3.21*
	(6.20)	(15.96)	(1.46)
Music and Radio	0.30	1.22	0.84
	(2.61)	(5.84)	(0.50)
Games and Computer	1.74	3.30	1.87*
	(6.42)	(9.21)	(0.75)
Hobbies	0.07	0.39	0.26
	(1.33)	(5.04)	(0.22)
Reading and Writing	1.62	2.46	0.75
	(4.59)	(6.83)	(0.52)
Sports	3.48	2.47	-0.48
	(9.81)	(7.51)	(0.55)
Leisure (Broad)	105.75	134.34	24.28**
	(30.81)	(30.21)	(2.43)
Eating	9.05	8.62	-0.06
	(7.19)	(8.24)	(0.66)
Sleeping	56.28	63.75	6.79**
	(14.47)	(16.82)	(1.31)
Personal Care	4.22	3.61	-0.67
	(4.23)	(5.15)	(0.41)
Vacation (Days per Month)	1.33	0.83	-0.32
	(3.15)	(2.93)	(0.21)
Use of Medical Services	2.04	8.76	7.15*
	(18.74)	(40.10)	(2.85)
N	4,334	316	

Notes: Data comes from merging the 2003-2006 American Time Use Survey with the corresponding year's Annual Social and Economic Supplement to the Current Population Survey. The sample consists of male household heads aged 22-61. In column 3, standard errors clustered by person are in parentheses. Statistical significance of each estimate is denoted as follows: **Significant at 1 percent level, *Significant at 5 percent level. The controls in these regressions include age, age-squared, education, region, year, number of adults and children, race, marital indicator, the month of the survey and the head's disability indicator variable. The results for vacation days are based on the 2005-2006 ATUS surveys only. See text and data appendix for further details.