



**Household Income Trends:
November 2011**

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Introduction

According to new data derived from the monthly Current Population Survey (CPS), real median annual household income increased by 2.7 percent between August 2011 and November 2011, from \$49,556 to \$50,876. This change is the cumulative result of three consecutive monthly increases in real median annual household income: August to September (1.1 percent), September to October (0.8 percent), and October to November (0.7 percent). This large increase in median household income over a brief time period may be difficult to sustain over the long haul. We will thus be watching to see if this trend levels off in the coming months as labor market conditions continue to be very weak. (Income amounts in this report are before-tax money income and have been adjusted for inflation; income amounts are expressed in November 2011 dollars and have been seasonally adjusted, unless otherwise noted).

Notwithstanding this increase, real median annual household income in November 2011 was still 5.1 percent lower than the level of

median annual household income in June 2009, the ending month of the recent recession (December 2007 to June 2009) and official start of the economic recovery.

The median annual household income in November 2011 can be put into broader perspective by a comparison with previous levels of income dating from the start of the last decade. In January 2000, real median annual household income stood at \$55,962. At the beginning of the last recession in December 2007, real median annual household income was \$55,433, slightly lower than the level at the start of the decade. The ensuing 19-month recessionary period left real median household income at \$53,638, down 3.2 percent. For the entire period dating from December 2007 to November 2011, real median annual household income has declined by 8.2 percent.

The Household Income Index (HII) shows the value of real median annual household income in any given month as a percent of the base value at the beginning of the last

decade (January 2000 = 100.0 percent). The HII for November 2011 stood at 90.9, up from 90.3 in October, 89.5 in September, and 88.6 in August. Based on the key measures of employment hardship illustrated in Figures 1, 2, and 3 below, there has also been some improvement during this time period in the labor market as well, especially in the unemployment rate.

Three employment hardship measures—the unemployment rate, the duration of unemployment, and a broad measure of employment hardship that groups the unemployed, discouraged workers, and part-time workers who want full-time work—are contrasted against the HII in the figures noted above. As shown in Figure 1, between August 2011 and November 2011, the unemployment rate declined from 9.1 percent to 8.6 percent, with the most significant decrease occurring between the months of October (9.0 percent) and November (8.6 percent). As shown in Figure 2, the median number of weeks unemployed was at about the same level in November 2011 (21.6 weeks) as in August 2011 (21.8 weeks), but higher than in October 2011 (20.8 weeks). As shown in Figure 3, the broad measure of employment hardship in November 2011 (15.6 percent) was significantly lower than in August 2011 (16.2 percent), with most of the decline occurring since October 2011 (also 16.2 percent).

Other economic factors, such as changes in average hourly earnings and average hours worked per week, also indicate a gradually improving situation in the labor market. At

the start of the recession in December 2007, the average hourly earnings (expressed in November 2011 dollars) for all private employees were \$22.91 per hour. After taking inflation into account during the recession and the economic recovery, average hourly earnings increased slightly to \$23.18 by November 2011. The average number of hours worked per week for all private employees was 34.6 in December 2007, falling to a low of 33.7 in June 2009, and then rebounding to 34.3 by November 2011 (all figures are seasonally adjusted from the U.S. Bureau of Labor Statistics based on the Current Employment Statistics survey).

The Nation's official estimates of household income and poverty are released once a year by the U.S. Census Bureau. Official data derived from the March 2011 Current Population Survey Annual Social and Economic Supplement (CPS ASEC) that relate to annual income received during calendar year 2010 were released on September 13, 2011. While the U.S. Census Bureau provides the most accurate measures of both the level and change in household income, the new series presented in this report provides an interim measure that tracks income changes on a monthly and quarterly basis, an attribute that is especially important during periods of economic instability. As demonstrated in this and our previous reports, the new series has the ability to track household income changes during the specific months of events, such as the recession and the economic recovery, that do not coincide neatly with calendar year boundaries.

Data Sources and Estimation Methods

This study is based on data collected in the Current Population Survey (CPS), the same household survey used to derive the official monthly unemployment rate. Data have been compiled from each monthly survey taken since January 2000 (as of November 2011, 143 surveys in total). Each of these surveys collected data for a nationally representative sample of more than 50,000 interviewed households and their respective members (approximately 135,000 per month). The survey collects the detailed information needed to determine the employment characteristics of all civilians age 16 years old and over and to compute the official unemployment rate. It also collects key demographic and social characteristics for all household members, including children. Some of these are as follows:

- Age
- Gender
- Relationship to householder (i.e. spouse, own child, grandchild, nonrelative, etc.)
- Race and ethnicity
- Educational attainment
- Veteran's status (era of past membership in the armed forces)
- Presence of disabilities
- Citizenship
- Country of birth

Estimates of household income from the survey are based on a single question that asks respondents to report the total money income received by the household during the previous 12-month period. The definition of income used in the survey includes the following:

- Wages and salary
- Nonfarm self-employment income

- Farm self-employment income
- Social Security and Supplemental Security Income
- Interest, dividends, net rental income, and royalties
- Cash public assistance (federal and state)
- Unemployment compensation and workers' compensation
- Retirement income from pensions, annuities, other retirement plans
- Veterans' pensions and compensation
- Child support and alimony
- Other cash income **excluding** capital gains or lump sum, one-time amounts

The total amount of household income before taxes is recorded in one of 16 categories as shown below:

- Under \$5,000
- \$5,000 to \$7,499
- \$7,500 to \$9,999
- \$10,000 to \$12,499
- \$12,500 to \$14,999
- \$15,000 to \$19,999
- \$20,000 to \$24,999
- \$25,000 to \$29,999
- \$30,000 to \$34,999
- \$35,000 to \$39,999
- \$40,000 to \$49,999
- \$50,000 to \$59,999
- \$60,000 to \$74,999
- \$75,000 to \$99,999
- \$100,000 to \$149,999
- \$150,000 and over

The raw data collected for each household member in the survey must be aggregated and summarized at the household level in order to generate the household statistics underlying this analysis. Householders are

identified in order to compute statistics that relate to characteristics of the householder. Counts of the number of household members, number of children, and number of earners are computed by examining each household member's detailed information. Missing responses to the question on household income are imputed using statistical matching techniques in order to adjust for any nonresponse bias. Procedures for imputing missing responses are based on the same methodology used by the U.S. Census Bureau for the Annual Social and Economic Supplement (CPS ASEC), the source for official estimates of annual income, poverty, and health insurance coverage. There are some reporting differences when asking for total household income as compared to using the CPS ASEC supplemental questionnaire, which asks a detailed series of questions on the receipt of income during the previous calendar year. We have made adjustments to correct for bias caused by these differences. The U.S. Census Bureau's estimates for calendar year 2010 were released on September 13, 2011. That release does not include any monthly trend data, and, therefore, does not report on any income developments during 2011.

All statistics shown in this analysis are based on weighted sample data. The survey for each month includes a sample weight for each household. The sum of these weights across all sample households provides a national estimate of the total number of households existing for that month. When summed these weights also provide estimates of the number of households by characteristics such as race, age, gender, presence of unemployed, etc.

The Consumer Price Index (CPI-U) for all urban consumers has been used to make adjustment for changes in prices where noted in the tables and text of the report.

The quarterly household income series is based on averages of monthly estimates of the number of households and median household incomes. In calculating the median household incomes for a quarter, each monthly median is weighted by the number of households for the month. The estimated margins of error reflect the overlap of the CPS sample across months (sample households are interviewed in four consecutive months before leaving the survey). For any given quarter the household samples from adjoining months (e.g., January and February or February and March) contain about 75 percent of the sample households in common, while those separated by a month (e.g., January and March) have about 50 percent of the sample households in common. It is important to note that the quarterly estimates **do not** reflect income received during the specified quarter. They reflect the income received by households during the 12-month period prior to the interview that took place during the quarter. The median household income estimates for the same quarter, one year apart, have also been adjusted for changes in consumer prices. The medians for both quarters are presented in terms of the average of the monthly CPI-U's for the most recent quarter.

The Household Income Index (HII) has been seasonally adjusted to reduce seasonal differences in the reporting of household income. Various factors may contribute to seasonal difference in the way households report their incomes in the CPS. Earlier studies by the U.S. Census Bureau have shown that reports of household income tend to rise as the survey month approaches the April tax-filing period. This trend, while apparent in surveys of the 1980's and early 1990's, is less pronounced in more recent years. Seasonal adjustments are made by the X-12-ARIMA software. This software

was developed by the U.S. Census Bureau and is the same software used to create adjustment factors for all monthly

employment and unemployment series released by the U.S. Bureau of Labor Statistics.

About the Authors

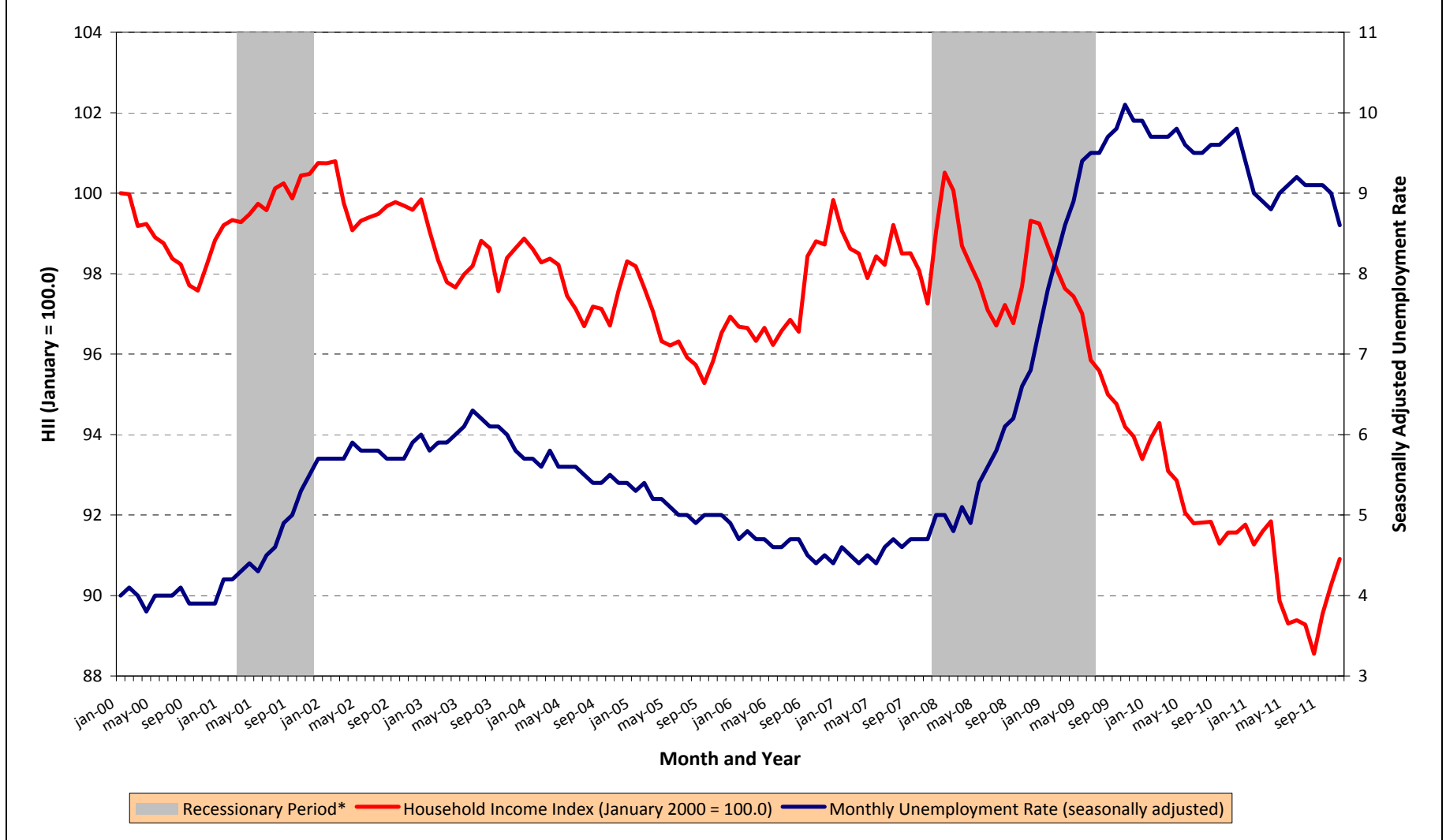
Gordon Green is a former Chief of the Governments Division at the U.S. Census Bureau and a member of the Senior Executive Service (SES). For many years at the U.S. Census Bureau, he directed work on the Nation's official income and poverty statistics program. He received a Ph.D. in economics from The George Washington University in 1984. He is author of the book, *Making Your Education Work for You* (Forge, 2010), which shows students how to make top grades in high school and college and engage in effective job planning. He is also author of the book, *How to Get Straight A's in School and Have Fun at the Same Time* (Forge, 1999), which is intended for younger students. Additional information is available at: www.gordonwgreen.com

John Coder is a former Chief of the Income Statistics Branch at the U.S. Census Bureau. While at the U.S. Census Bureau he directed collection and processing of income and related data collected in the March Current Population Survey (CPS) and was instrumental in developing new methods for imputing missing survey responses. He also was founder of the U.S. Census Bureau's Small Area Income and Poverty Estimates Program. He played a key role in developing the Luxembourg Income Study, which is a data center for cross-national comparisons. website: www.lisdatacenter.org

The authors gratefully acknowledge the valuable assistance provided by Anne Fengyan Shi in preparing this report. She received a Ph.D. in government from Georgetown University in 1999, and has been a social science researcher ever since.

Figure 1.

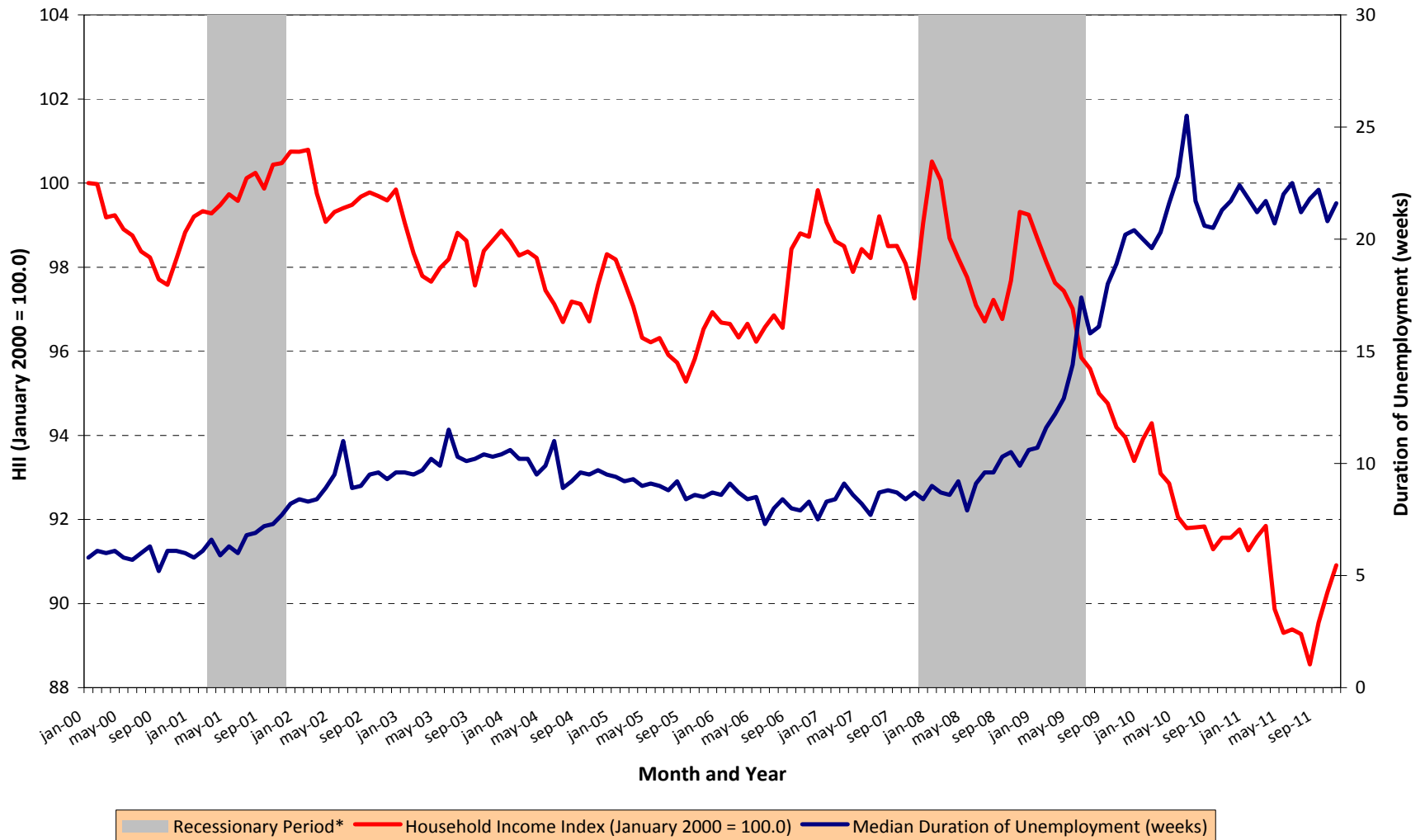
Median Household Income Index (HII) and Unemployment Rate by Month: January 2000 to November 2011



Sources: For income data: Sentier Research, LLC estimates of annual household income derived from the monthly Current Population Survey (CPS) conducted by the U.S. Census Bureau; for unemployment data, the CPI-U, and the median duration of unemployment: the U.S. Bureau of Labor Statistics.

Figure 2.

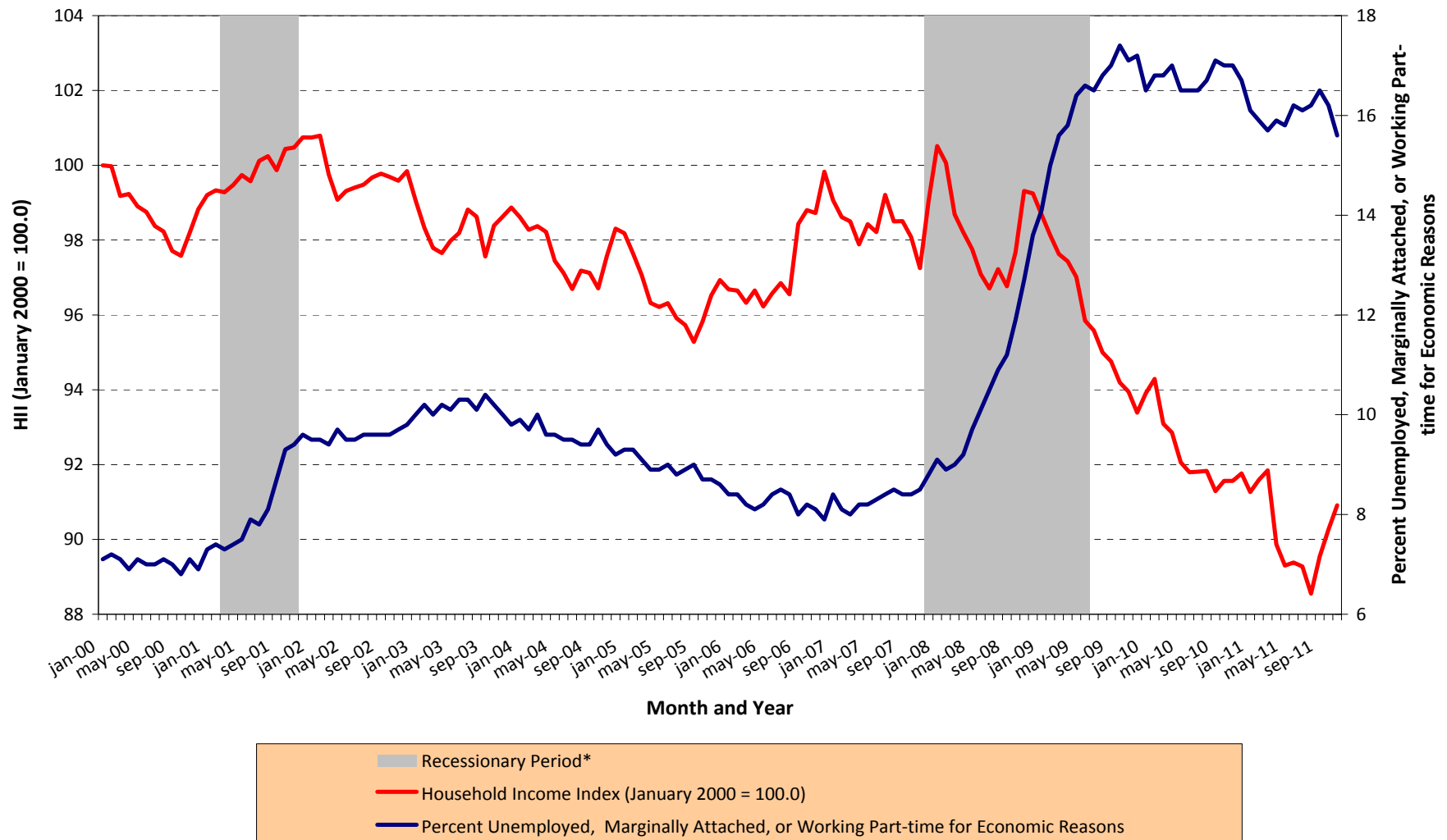
Median Household Income Index (HII) and Median Duration of Unemployment by Month, January 2000 to November 2011



Sources: For income data: Sentier Research, LLC estimates of annual household income derived from the monthly Current Population Survey (CPS) conducted by the U.S. Census Bureau; for unemployment data, the CPI-U, and the median duration of unemployment: the U.S. Bureau of Labor Statistics.

Figure 3.

Median Household Income Index (HII) and Percent Unemployed, Marginally Attached, or Working Part-time for Economic Reasons by Month, January 2000 to November 2011



Sources: For income data: Sentier Research, LLC estimates of annual household income derived from the monthly Current Population Survey (CPS) conducted by the U.S. Census Bureau; for unemployment data, the CPI-U, and the median duration of unemployment: the U.S. Bureau of Labor Statistics.