

Center for American Progress



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Middle-Class Items than a
Quarter-Century Ago

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Christian E. Weller Ph.D., Senior Economist, Center for American Progress

I. Summary

Is the typical middle-class family doing better today than they were 25 years ago? The answer is no, according to new measures of economic well-being developed in this report. The combination of stagnant incomes and staggering cost increases for important middle-class items—housing, health care, education and transportation—have left families with less money to save and spend than just a few years ago, and working longer to achieve the same results as in 1980. According to the analysis here:

- In 2005, the average two-earner family needs to work 31.5 weeks to pay for taxes and a range of middle-class items (health care, housing, college, and transportation). That is an increase from 30.2 weeks in March 2001, and from 28.7 weeks in March 1979.
- In 2005, after paying for the items outlined above, the average two-earner family had about \$19,542 left to pay for basics—such as clothing, food, and utilities—to save for retirement, to improve their economic well-being, and to spend on any leisure and recreation. That is \$951 less than families had in 2000 and \$1,702 less than in 1980.
- While families spend less today on taxes than in 2000—the tax cuts were real—those tax cuts do not offset the cost increases of expenditure items, particularly housing, health care, and education.
- Middle-class families have addressed the economic squeeze by working longer hours. This has meant less time to spend with children and higher out-of-pocket expenditures for child care and for food outside the home.
- Over time, middle-class families have also maintained their consumption levels by borrowing more money. Household debt soared to a record 116 percent of disposable income in March 2005. Average debt service burden levels have remained high throughout the current business cycle.
- The economic squeeze tends to be worse for minorities than for whites. Specifically, income declines have been larger for Hispanics than for African-Americans and greater for African-Americans than for whites.

II. Middle-Class Anxieties Mirror Economic Realities

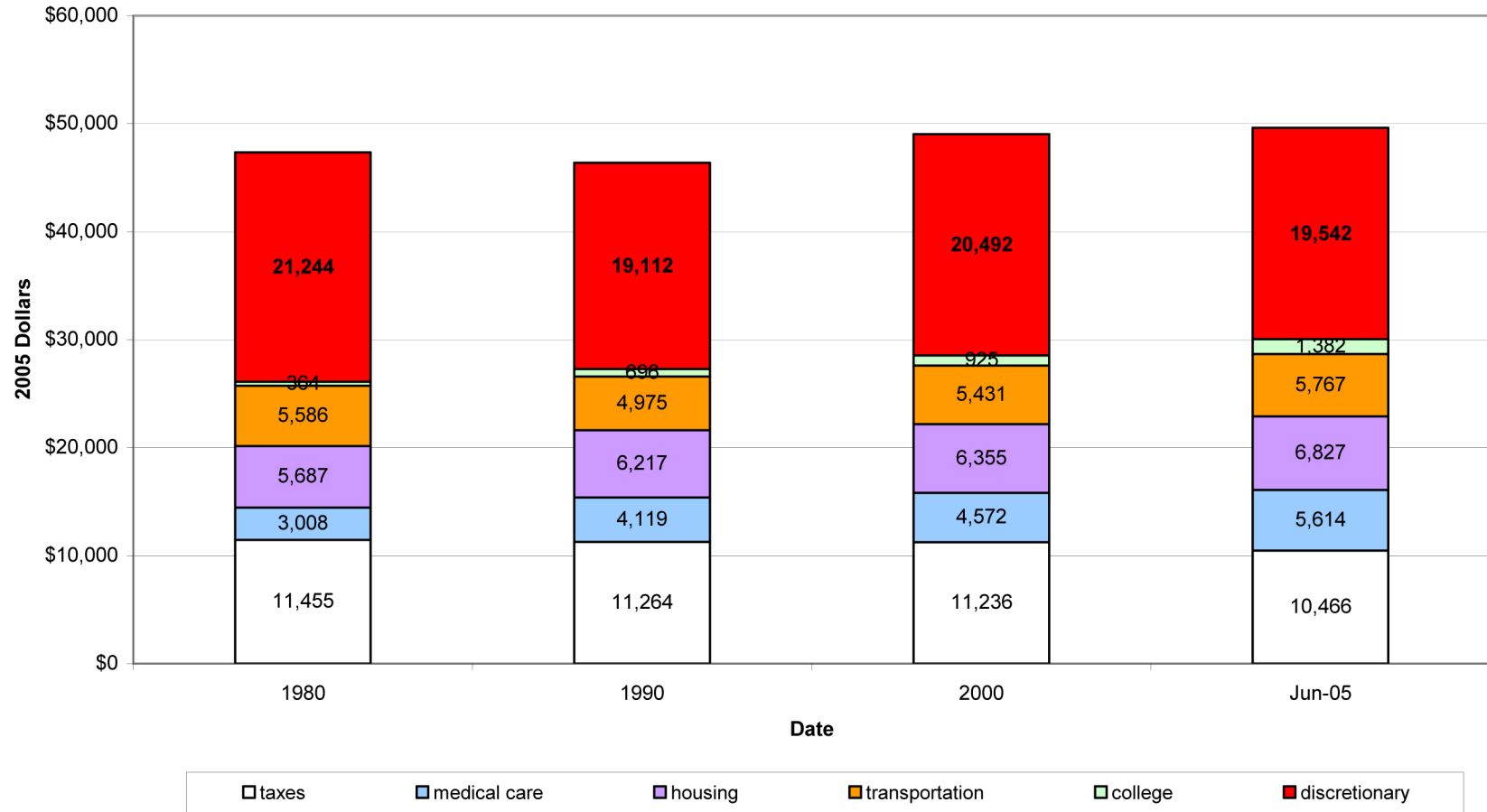
America's middle class is nervous about its future. By the end of 2004, people were generally less optimistic about their future than they were at the same point in previous recoveries. Consumer survey data from the University of Michigan showed that people's assessment of their current personal finances rose by 4.7 percent, compared to an average increase of 17 percent in prior recoveries.¹ Over this same period, people's assessment of their economic future actually declined by 4.5 percent, compared to increases in prior recoveries. The anxieties of middle-class families mirror their economic struggles. It has become harder for middle-class families to pay for the basics of a middle-class existence.

Figure 1 shows that a hypothetical two-earner family is earning only slightly more today (\$49,596) than in 2000 (\$49,012) in inflation-adjusted 2005 dollars. Yet, after paying for the fundamental costs of middle-class life—taxes, transportation, housing, health care, and college—that family has \$19,542 in 2005, \$951 less than in 2000 and \$1,702 less than in 1980. This means less discretionary income to pay for a range of basic items—like food, clothing, and utilities; improving their standing and that of their family (bank fees, book purchases); paying interest on non-mortgage debt; and every form of recreation and relaxation, like going out for dinner and vacationing.

The harder slog for middle-class living can be shown another way, in figure 2. While a typical two-earner couple would have had, in March 2001, to spend 30.2 weeks out of a year to pay for taxes and the middle-class items outlined above—health care, housing, college, and transportation—that family required 31.5 weeks per year in June 2005. That is, after four years, middle-class families had to work one additional week per year to afford the same middle-class items as at the end of the last expansion, and 2.8 weeks more than at the end of 1980.

¹ The first year of the current business cycle was 2001, its first quarter was the second quarter in 2001 and its first month was April 2001. Data are for current and expected assessment of personal finances (UM, 2005). Detailed calculations are available from the authors upon request.

Figure 1: Expenditures by Typical 2-Earner Couple (in 2005 Dollars)



Notes: All figures are in 2005 dollars. See text and appendix for description of calculations and for detailed sources. Discretionary expenditures are calculated by subtracting the other items from total income.

These figures reflect two factors operating together: weakness in family incomes coupled with rapidly rising costs for middle-class goods and services.

Total Income for a Two-Earner Couple: These numbers reflect the typical earnings of a full-time, two-earner, husband-and-wife family. The data reflect the stagnation in overall income since 2000, showing an increase of only 1 percent over this period. This reflects the overall stagnation of income, as discussed further below.

Cost Factors. As the tables show, a few costs have declined in recent years, but those decreases are more than offset by other increases.

Rising Expenditures

Health Care spending (in constant dollars) rose by \$1,041 from 2000 to 2005 and by \$2,606 from 1980 to 2005 (figure 1). A typical two-earner couple had to work a little more than three weeks to pay for their medical care in 1979. However, in 2005 they had to work almost twice as long—an additional 2.7 weeks.

College education required half a week's earnings in 1979. In 2005, a two-earner couple had to work more than three times as long (figure 3 and table 1). Spending rose by \$457 from 2000 to 2005 and by \$1,017 from 1980 to 2005.

Housing costs have gone up substantially. While households worked 6.8 weeks to pay for housing in March 2001, they worked 7.2 weeks to pay for housing in June 2005. The dollar increase was \$472 since 2000 and \$1,140 since 1980. Due to record increases in house prices, the costs of owning have grown; rents have also risen to compensate landlords for higher costs of owning or for the foregone realized capital gains by not selling their properties.

Declining Expenditures

Taxes include federal, state and local government taxes. Taxes declined by \$830 from 2000 to June 2005 (figure 1), largely because of federal tax cuts.² The savings to the typical family from the tax reductions are more than offset by the increased costs—and this does not reflect the reductions in social insurance (such as Medicaid) resulting from the tax cuts.

Despite the recent spike in gas prices, *transportation costs* have slightly declined over the years, largely due to a general decline in the real costs of gasoline and motor vehicles. With energy prices rising again, expenditures have leveled off in recent years and could continue to increase.

Interestingly, though not shown in the tables, expenditures on basic items such as household operations, food, and clothing have also declined over this period. In particular, expenditures on clothing have declined substantially.

² See the appendix for a detailed description of the calculations.

Table 1
Average Weeks Needed Per Year for Two-Earner Couple
to Pay for Specific Items

Year	Taxes	Housing	Transportation	Health care	College
1979	12.6	6.2	6.5	3.2	0.4
1980	12.6	6.2	6.1	3.3	0.4
1981	12.9	6.4	5.7	3.4	0.4
1982	12.3	6.5	5.9	3.6	0.6
1983	12.1	6.5	6.1	3.8	0.5
1984	12.4	6.5	6.0	3.7	0.5
1985	12.5	6.7	6.1	3.8	0.7
1986	12.5	6.9	5.9	3.9	0.8
1987	12.3	6.9	5.9	4.0	0.7
1988	12.5	6.9	5.8	4.2	0.7
1989	12.5	6.9	5.6	4.3	0.8
1990	12.6	7.0	5.6	4.6	0.8
1991	12.6	7.1	5.1	4.9	0.9
1992	12.4	6.9	5.3	5.0	1.0
1993	12.4	6.9	5.5	5.1	1.1
1994	12.3	7.0	5.7	5.1	0.9
1995	12.3	7.0	5.6	5.1	1.1
1996	12.3	6.9	5.7	5.0	1.0
1997	12.3	6.8	5.7	4.9	1.1
1998	12.0	6.8	5.7	4.8	1.1
1999	12.1	6.8	5.8	4.8	1.0
2000	11.9	6.7	5.8	4.9	1.0
2001	11.1	7.1	5.8	5.2	1.1
2002	10.8	7.4	5.8	5.6	1.2
2003	10.8	7.4	5.8	5.8	1.4
2004	10.8	7.2	5.8	5.7	1.4

Notes: All figures are annual averages. All figures are in weeks. See the appendix for a detailed description of the calculations and the sources used here.

III. Slow Income Growth

Wages

The middle-class economic struggle reflects the weak labor market. For instance, after the recession ended in November 2001, the economy continued to lose jobs. From March 2001 to June 2005, employment grew at an annualized average monthly rate of 0.2 percent—far below the average of prior business cycles (table 2). At the same time, average real hourly earnings of production non-supervisory workers—the vast majority of the labor force—rose by a relatively modest average annualized rate of 0.3 percent in the current business cycle. As a result, the sum of wages and salaries grew also at their lowest average rate of any business cycle since World War II with an annualized average rate of 0.9 percent (table 2). Thus, total real wages and salaries in the current business cycle grew at about half the rate of the 1980s and at about one-third the rate of the 1990s.

Table 2
Indicators of Labor Market Growth, Business Cycle Averages

Business cycle start	Employment growth	Real hourly earnings growth	Total real wage growth	Total real compensation growth	Total real profit growth
Nov. 1948	2.5%		5.9%	6.1%	3.6%
May 1953	12.3%		3.1%	3.5%	2.3%
Aug. 1957	1.1%		2.6%	3.0%	1.1%
April 1960	2.7%		4.6%	4.9%	2.8%
Dec. 1969	2.3%	1.3%	2.8%	3.5%	3.7%
Nov. 1973	2.5%	-1.5%	0.9%	1.6%	-0.1%
Jan. 1980	1.8%	-0.5%	2.1%	2.2%	1.7%
July 1990	1.8%	0.5%	2.8%	2.7%	2.9%
Mar. 2001	0.2%	0.3%	0.9%	1.8%	9.8%

Notes: All figures are in percentages. All figures are annualized averages. Figures for employment and real hourly earnings growth are based on monthly data. All other figures are based on quarterly data. Authors' calculations are based on data from BEA (2005), NBER (2005) and on BLS (2005a, 2005b).

Workers received some compensation other than wages, e.g. health insurance benefits. However, even when all compensation is considered, the current business cycle fares relatively poorly. The average annualized growth rate of inflation-adjusted employee compensation was 1.8 percent in this business cycle, which was only marginally faster than the average growth rate of the mid to late-1970s, but below the growth rate of all other business cycles (table 2).

Slow wage and salary growth, though, were not a result of firms' ability to pay. On the contrary, inflation-adjusted profit growth was at its highest level of any business cycle. On an annualized basis, inflation-adjusted corporate profits grew by 9.8 percent, more than three times faster than in the 1990s and more than twice as fast as during any previous business cycle (table 2).

Longer Hours and Higher Expenses

Much of the income growth since 1980 is not a reflection of higher wages, but of workers spending more time at work. For instance, for a two-earner couple with children who had earnings in the middle quintile, working longer hours explained 55.4 percent of their income gains from 1979 to 2000 (Bernstein and Kornbluh, 2005). Annual earnings rose by 78.5 percent during this period, while hours worked for this type of family grew by 43.5 percent at the same time.

As parents spent more time in the labor force, families also underwent a transformation in their expenditures. Services that were previously produced within the household now had to be purchased in the market place, such as child care and prepared meals.

Consider, for example, the rise in child care costs. In 1947, 12 percent of mothers with children under the age of six were in the labor force. That number rose to 64 percent by 2002 (Ways and Means, 2004). As more mothers worked, child care costs have risen sharply. Today the majority of children with working mothers are in child care. In 2002, 42 percent of children under age five with working mothers spent 35 hours or more per week in child care. For children whose mothers worked full-time, 50.6 percent were in child care (Capizzano and Main, 2005).

The costs of child care are substantial. The median weekly cost for child care for those families in 1999 was \$69 (Ways and Means, 2004).

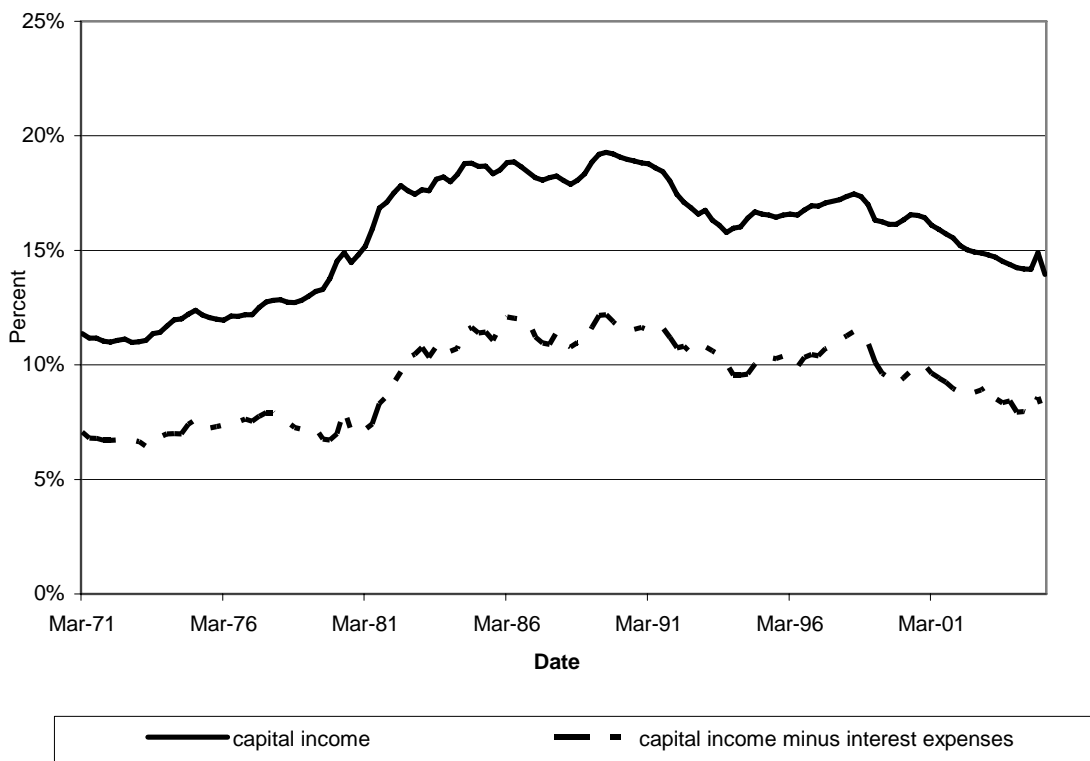
Increased hours at work also required more spending on eating out and prepared meals. For instance, families in the U.S. have seen their hours at work grow from 1,169 per year in 1970 to 1,305 in 2002, while European families over the same period saw theirs decline from 1,241 to 1,059 over the same period (Freeman and Schettkat, 2005). Correspondingly, families in the U.S. spent 4.1 hours per week cooking at home, compared to 7 hours in European economies. For every dollar spent by American families in a restaurant in 1999, European families spent \$0.47 (Freeman and Schettkat, 2005).

Capital Income

Income from work is not the only source of income for middle-class families. Many families receive at least some income from dividends and interest payments. However, capital income as a share of personal income has declined in recent years. While families on average received dividend and interest income equal to 16.1 percent of personal income in March 2001, this share had dropped to 14.0 percent by March 2005 (figure 4). Factoring in interest expenses for mortgages and other debt, capital income averaged 9.6 percent of personal income in 2001, but fell to 7.6 percent in March 2005.³

³ Wealth is relatively unequally distributed, so that much of capital income is concentrated among higher income earners. Indications are that wealth inequality has at least not declined in the current business cycle. See the technical appendix for a more detailed discussion on wealth inequality.

Figure 4: Capital Income and Interest Expenses Relative to Personal Income



Notes: Interest expenses include non-mortgage interest expenses as well as mortgage interest expenses. Mortgage interest expenses are calculated by multiplying total outstanding mortgages by households by the mortgage interest rate. Sources are BEA (2005), and BOG (2005a, 2005b).

Total Income by Demographic Characteristic

The weak labor market and the decline in capital income is also reflected in comparatively weak total income growth across demographic groups. For all families incomes declined in inflation-adjusted terms from 2000, the last year before the recession, to 2004, the last year for which data are available. The overall decline was 3.6 percent during that period. However, the decline was more pronounced for African-American families with a decline of 7.3 percent and for Hispanic families with 5.9 percent (table 3). Also, incomes declined much faster for lower-income families. Among the 20 percent of families with the lowest incomes, incomes dropped by 7.9 percent or about twice as fast as for the 20 percent of families in the middle of the income distribution (table 3).

Table 3
Family Income Trends, 2000 to 2003

Year	Total	White only	Black only	Hispanic	Bottom quintile	Middle quintile	Top quintile
2000	46,058	50,043	32,541	36,382	11,141	46,325	156,054
2001	45,062	49,412	31,448	35,817	10,816	45,490	155,766
2002	44,546	49,264	30,489	34,771	10,494	44,959	150,988
2003	44,482	49,061	30,442	33,884	10,265	44,759	151,031
2004	44,389	48,977	30,142	34,241	10,264	44,455	151,593
Change 2000 to 2004	-3.6	-2.1	-7.3	-5.9	-7.9	-4.0	-2.9

Notes: All dollar values are in 2004 dollars. Figures for total, Whites, Blacks, and Hispanics are median family incomes. Figures by quintile are averages for the respective quintile. Data for Whites and Blacks refer to Whites only and Blacks only. Prior to 2001, people could only select one race/ethnicity, while they have been able to choose one or more since then. Authors' calculations based on Census (2005b).

IV. Rapidly Rising Costs Complete Middle-Class Squeeze

One reason for the growing pressure on middle-class families is that costs are rising most quickly for the most costly items: bigger-ticket consumption items saw larger price increases than smaller items. If consumption items are ranked by their relative importance just prior to the recession, the five most important items are medical care, housing, food, household operation (e.g. utilities), and motor vehicles (table 4). Three of these items, on which combined households spent more than 40 percent of their disposable income in 2000, saw double digit price increases from 2001 to 2005: medical care, housing, and food. Only one of the top five items, motor vehicles, saw prices decline. On average, the top five consumption items saw a price increase of 10.7 percent, while the bottom five items experienced only a 2.8 percent increase.

Table 4
Relative Consumption Levels and Price Changes, March 2001 to June 2005

Consumption item	Consumption as share of disposable income in 2000 (percent)	Rank of relative consumption in 2000	Price change March 2001 to June 2005 (percent)	Relative consumption change, March 2001 to June 2005 (percentage points)
Medical care	14.3	1	13.8	2.0
Housing	14.0	2	13.3	0.0
Food	12.9	3	10.6	0.4
Household operation	5.4	4	8.3	-0.4
Motor vehicles	5.4	5	-1.7	-0.2
Furniture	4.4	6	-19.4	-0.1
Clothes and shoes	4.1	7	-7.6	-0.2
Transportation	4.0	8	9.6	-0.5
Recreation	3.7	9	12.2	0.1
Gasoline, fuel and oil	2.7	10	43.7	0.6
Personal saving	2.3			-1.7
Average for top 5 consumption categories	-	-	10.7	1.8
Average for bottom 5 consumption categories	-	-	2.8	-0.1

Notes: Authors' calculations based on BEA (2005). Averages for the bottom and top five items are weighted by the weights for the respective subgroups.

Households have not been able to escape higher prices for big-ticket items by reducing spending on them. Households increased their consumption of the top five items relative to their disposable income by 1.8 percentage points, but kept the consumption of the bottom five items virtually constant (table 4). The notable exception here is gasoline, fuel and oil, which has risen by 0.6 percentage points as a share of disposable income. These spending trends help explain why families have reduced their savings and taken on more debt—a point we will return to further below.

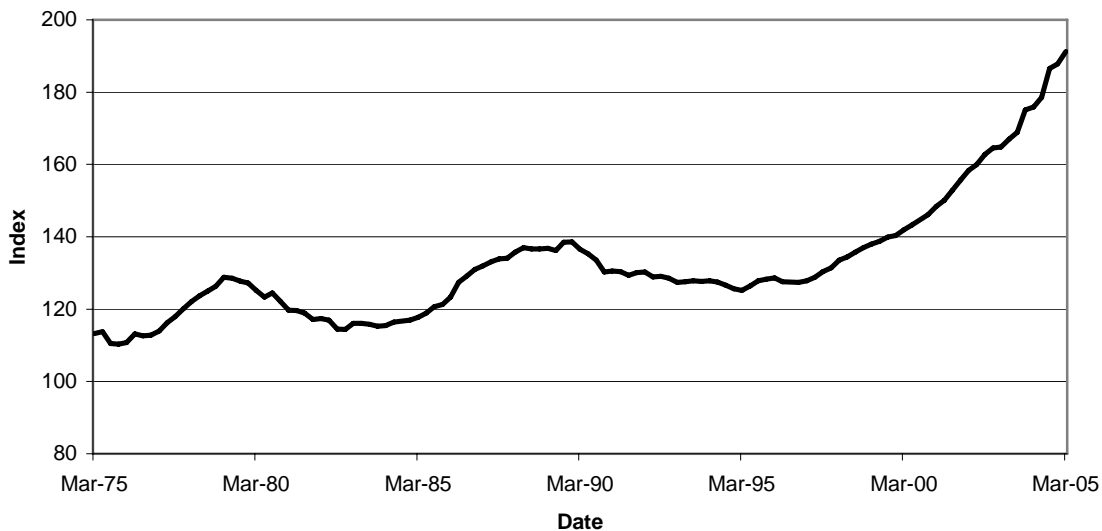
V. Spending Increases Reflect Real Cost Increases

Some would argue that households have spent more money because they purchased better-quality products—bigger homes, for example. Typical inflation measures should control for these factors. In substantial measure, middle-class families are paying more for the same quality of services.

Housing

This point is especially apparent in the housing market. The real house price index (figure 6) reflects price changes for the same houses over time, and is thus only partially affected by quality and size changes (OFHEO, 2005). For the period from 1975 to the middle of 1995, the inflation-adjusted house price index remained relatively stable. However, since the 1990s, this index has outpaced inflation at an accelerating speed (figure 5). From June 1990 to March 2001, it grew each quarter by an average of 0.2 percent above inflation. From March 2001 to March 2005, it rose by eight times as much with 1.6 percent growth each quarter. People are paying more for the same homes.

Figure 5: Real Housing Costs

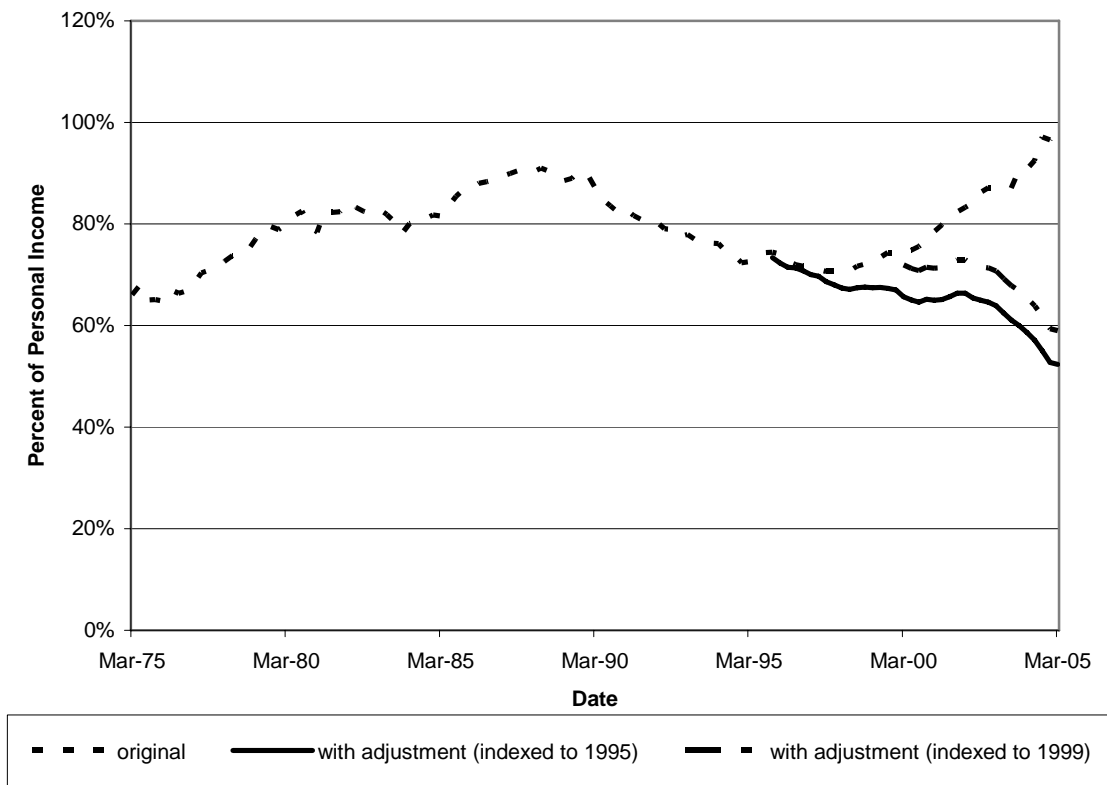


Notes: Authors' calculations based on BLS (2005c) and OFHEO (2005). The real house price index is the house price index deflated by the non-shelter CPI.

It has been argued that house price appreciation reflects improvements. However, data for home improvements do not mirror trends in house price appreciation (Baker, 2004). For one, spending on home improvements relative to the housing stock actually declined at a time when home price appreciation accelerated. Furthermore, areas where there was a fair amount of spending on home improvement saw slower declines in home prices than areas where there was less spending on home improvements.

By all accounts, the current run-up in home prices reflects a bubble in the housing market. Until the mid-1990s, house prices rose with rental prices. From 1995 to March 2005, house prices grew 36 percent faster than rental prices (OFHEO, 2005; BLS, 2005c). If housing values are adjusted for this overvaluation, home equity values relative to personal income would have actually declined in recent years, rather than increased (figure 6). The same result is shown if the bubble is presumed to have developed in 1999 rather than 1995. Instead of being 36 percent lower than its actual values in March 2005, total house values would have been 29 percent lower. In either case, though, total home equity values relative to personal income would have declined since the start of the recovery in late 2001 and not grown (figure 6).

Figure 6: Adjusting Home Equity Relative to Personal Income for Housing Bubble



Notes: Adjustments are taken by deflating the actual value of real estate owned by households by the difference between the House Price Index and the Consumer Price Index for rental property, both re-indexed to 1995. Authors' calculations based on BOG (2005b), BLS (2005c), and OFHEO (2005).

Renters

Renters also suffer in the housing market. Financial obligations for renters (including debt payments) as a share of disposable income have risen substantially in the current business cycle, to more than 30 percent (BOG, 2005c).

What is happening to renters is directly linked to the housing market (Loewentheil and Weller, 2005). Some homeowners have borrowed against the equity in their homes to invest in rental properties, requiring higher rents to cover higher mortgage costs. Others have charged higher rents because the opportunity costs of owning rental property in the face of rising house prices have also grown. The result has been the highest rents in inflation-adjusted terms in three decades. Renters tend to be disproportionately lower-income families, which have disproportionately struggled in the current weak labor market, as discussed before. Hence, the combination of low-income growth and rising house prices has slowed the mobility from renting to owning (table 5). The share of new owners relative to existing owners has declined since the mid-1990s. In 1995, 3.8 percent of homeowners were renters in the prior year. This share had declined to 3.3 percent by 2003—a decline of 12.7 percent. This slowdown was especially noticeable for African-Americans and the poor. In 1995, 5.1 percent of all African-American owners were previous renters, while this share had fallen to 3.9 percent in 2003. This is a relative slowdown of 23.3 percent over a period of eight years. Also, for households below the poverty line, the share of homeowners who were renters in the previous year declined from 3.1 percent in 1997 to 2.5 percent in 2003—a relative slowdown of 17.1 percent (table 5).⁴

Table 5
Share of Homeowners Who Were Renters in Prior Year

	Total	African-American	Hispanic	Below poverty line
2003	3.3%	3.9%	6.7%	2.5%
2001	3.5%	4.7%	6.9%	2.5%
1999	3.5%	4.1%	6.9%	3.0%
1997	3.4%	5.2%	6.7%	3.1%
1995	3.8%	5.1%	6.6%	2.1%
1993	3.7%	3.0%	7.5%	2.9%
1991	3.4%	3.8%	4.6%	2.6%
1989	3.6%	4.3%	5.7%	3.2%
1987	4.0%	4.0%	7.3%	3.1%
1985	3.8%	4.4%	5.5%	2.8%

Note: Source is Loewentheil and Weller (2005).

⁴ The data for Hispanics for 1995 appears to be an outlier in comparison to all other observations.

With mobility from renting to owning slowing and with rents rising, many renters, especially minority and low-income families, are dedicating rising shares of their incomes to paying their rent (table 6). Since the mid-1990s, rental costs have risen steeply. For example, for rental units occupied by families living below the poverty level, real housing costs in 1993 were almost exactly equal to real housing costs in 1985. Since then, the real median monthly cost has risen by over \$40 or 9 percent. The same holds true for African-American renters, who saw real median monthly rents fall from 1985 to 1993, and rise by 12 percent thereafter. Importantly, since the 1980s, rent increases have continuously outpaced income growth (Lowentheil and Weller, 2005).

Table 6
Renters' Median Monthly Rental Costs

Year	Total		African-Americans		Hispanics		Below Poverty Level	
	Median rent (2003 dollars)	Percent of income	Median rent (2003 dollars)	Percent of income	Median rent (2003 dollars)	Percent of income	Median rent (2003 dollars)	Percent of income
2003	651.00	30	596.00	31	674.00	34	494.00	68
2001	656.62	28.9	602.59	31.3	668.05	31.6	495.58	64.7
1999	640.58	28	575.42	31	643.89	31	506.94	64
1997	629.38	28	550.28	31	628.23	32	487.22	65
1995	631.00	29	553.78	31	645.48	34	471.74	62
1993	620.12	29	532.26	31	651.95	34	453.31	58
1991	624.14	28	537.68	31	644.40	33	436.36	55
1989	629.16	27	535.68	29	638.06	31	416.97	53
1987	646.27	29	563.66	32	644.65	32	461.62	66
1985	622.45	27	536.95	31	596.80	30	454.87	65
Total Change								
1985-2003	5%	3%	11%	0%	13%	4%	9%	3%
1985-1995	2%	2%	3%	0%	8%	4%	4%	6%
1995-2003	1%	1%	8%	0%	4%	0%	5%	-3%

Notes: Values are deflated by the CPI-U, indexed to 2003. Change in dollar values refers to percent change and change in share of income refers to percentage point change. Source is Lowentheil and Weller (2005).

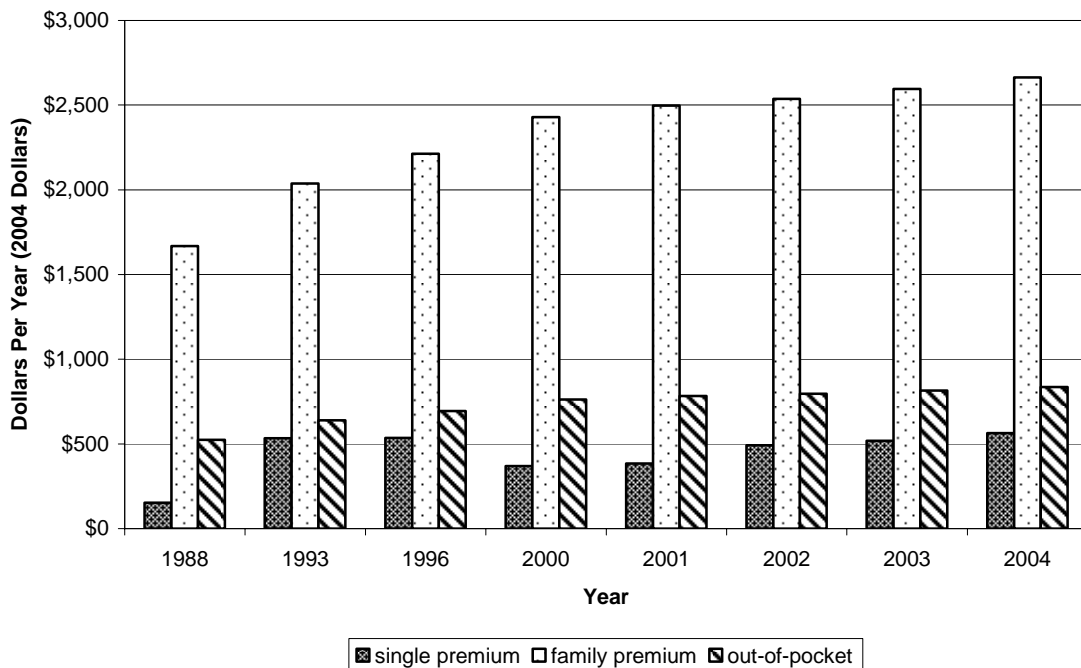
While many homeowners are facing potentially sharply higher mortgage payments due to higher debt levels and an increasing share of variable interest rate debt, many renters also face growing risks of falling behind economically because their mobility from renting-to-owning has slowed and they are forced to dedicate larger shares of their income to meeting their financial obligations, including their rents.

Health Care

Households have also spent more on health care because prices for medical care have risen sharply and because employers have shifted costs onto employees. According to the Bureau of Labor Statistics (2005c), health care prices grew nearly twice as quickly as costs overall from March 2001 to June 2005—by 20 percent, instead of 10.3 percent. The average growth rate for medical care prices since March 2001 has been 1.1 percent per quarter, following an average growth rate of 1.2 percent in the 1990s. In addition, the share of the premium for single coverage paid for by the employee rose from 14 percent in 2000 to 18 percent in 2004 (Kaiser, 2005), after it had declined in the 1990s. The share of family coverage paid for by the employee grew from 26 percent to 28 percent at the same time. In addition, the average annual deductible has risen, as has the share of covered employees with annual copays for doctor's visits of \$15 or \$20—offset by a decline in the share of employees with copays of \$5 or \$10 per doctor's visit (Kaiser, 2004).

The result of these trends has been a sharp increase in the inflation-adjusted premiums and out-of-pocket expenditures for employees. In 1993, annual family premiums paid for by the employee averaged about \$2,000. By 2004, this amount had grown to close to \$2,700 (figure 7). At the same time, the inflation-adjusted out-of-pocket expenses grew from \$640 to \$840 per year.

Figure 7: Insurance Premiums and Out-of-Pocket Expenses Paid by Workers

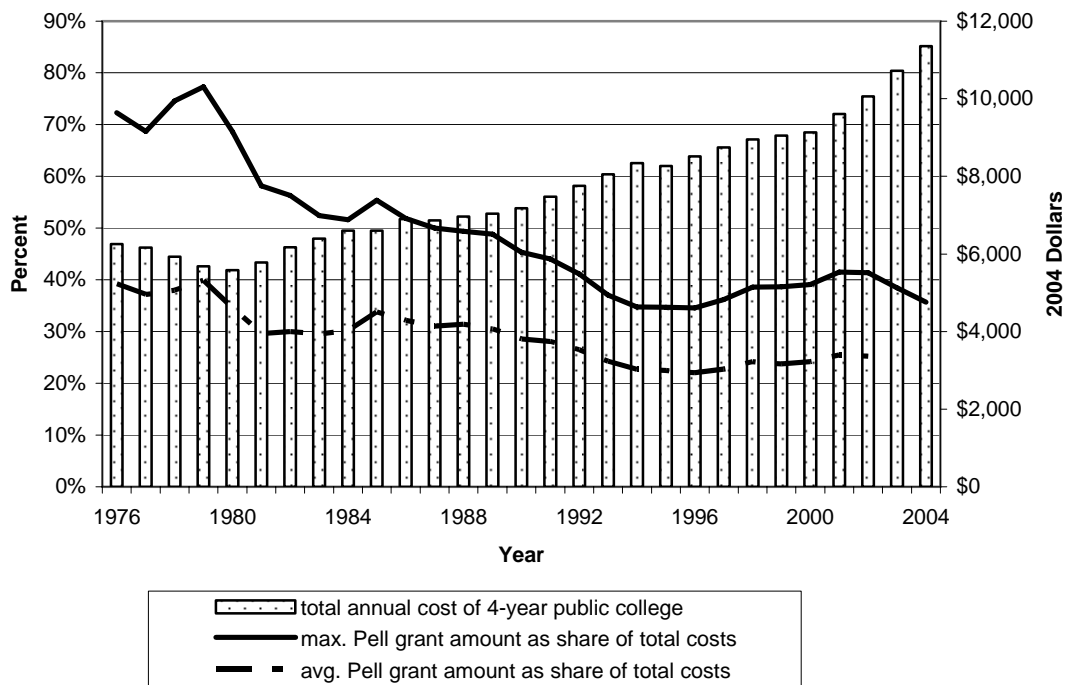


Notes: All figures are in 2004 dollars. Authors' calculations based on data from Kaiser (2004), BLS (2005c), and CMS (2005).

College Education

Middle-class families are increasingly bearing higher costs for college as well. Public support for the largest single need-based source of grant assistance, Pell Grants, has declined, and real college costs have grown. The average annual increase from 2000 to 2004 was 5.4 percent, compared to an average real increase of 2.4 percent from 1990 to 2000 (College Board, 2004). At the same time, the share of total college costs covered by the maximum Pell Grant amount dropped from 68.6 percent in 1980 to 35.7 percent in 2004 (figure 8) (DOEd, 2003; Lilly, 2005). The share covered by the average Pell Grant amount, which is also influenced by changing eligibility, dropped from 34.6 percent in 1980 to 25.2 percent in 2002, the last year for which data are available (DOEd, 2005).

Figure 8: Pell Grant Support for Higher Education



Notes: Authors' calculations based on data from College Board (2004), DOEd (2004), and Lilly (2005).

The increasing middle-class expenditures for housing, health care, and education reflect to some degree higher costs for the same services. In housing, cost increases cannot be justified with quality improvements, and in health care and education, greater costs for middle-class families result from cost shifting from a third party, i.e. employers or the government, onto middle-class families.

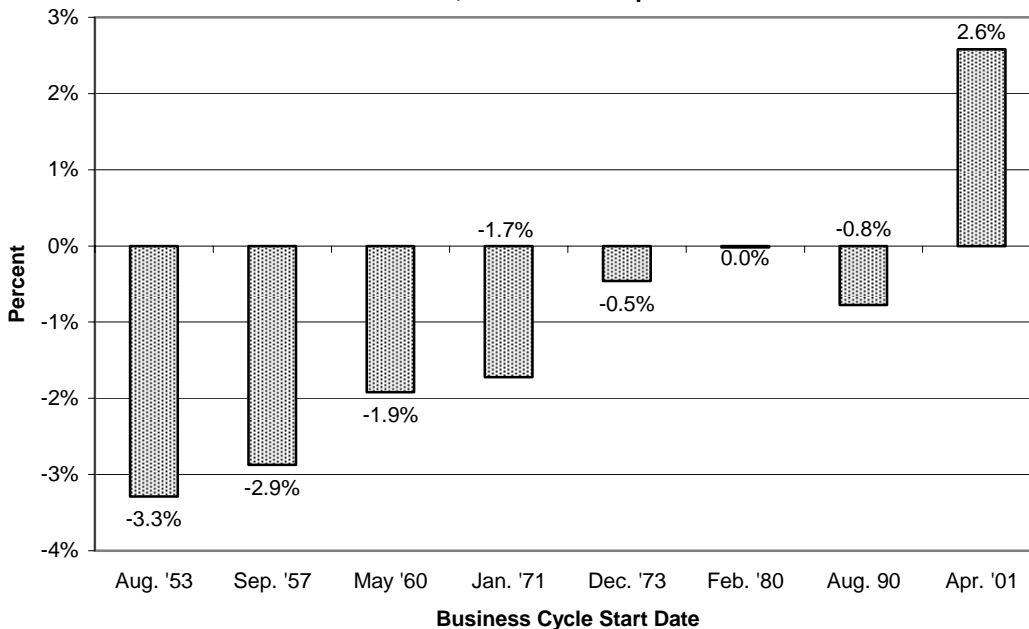
VI. Borrowing to Make Ends Meet

With incomes stagnating and costs rising, households have borrowed increasing amounts of money. Total household debt grew to an unprecedented 116 percent of disposable income by March 2005 (BOG, 2005b). This rise in household debt reflected largely the increase in mortgages, including home equity lines.

Mortgages

For the first time since the early 1950s, American families used their homes as a source of cash, rather than an investment that required additional cash from other sources. Throughout the current business cycle, households borrowed more in additional mortgages than they spent on upgrading or renovating their homes (figure 9). Between March 2001 and March 2005, households thus gained additional resources equal to 2.6 percent of disposable income. Over the course of these four years, home equity cash outs amounted to a total of more than \$910 billion in 2004 dollars. Thus, additional household debt fuelled by increasing housing prices and lower interest rates helped middle-class families to maintain consumption in the face of rising costs and stagnant incomes.

Figure 9: Difference between Additional Mortgages and Residential Real Estate Investments, Relative to Disposable Income



Notes: All figures are in percentages. Authors' calculations based on data from BOG (2005b).

Credit Cards

Many families who do not have access to mortgages because they do not own their own homes borrow money on credit cards. Competition among credit card providers led to more credit card offers to clients that were previously underserved (Manning, 2000), especially lower-income households (Manning, 2000, Yoo, 1996; Bird et al., 1999; Black and Morgan, 1999; Warren and Tyagi, 2003). In addition, non-bank credit also expanded in response to rising inequality. These types of loans, including payday loans, pawnbroking, rent-to-own and appliance title loans, and tax refund anticipation loans grew and were concentrated among low-income customers (Barr, 2001, CFA, 1999, Stegman and Faris, 2003).

In this business cycle, credit card debt has risen to record highs. Total credit card debt amounted to 8.9 percent of personal disposable income in March 2005, data from the Federal Reserve show (BOG, 2005b, 2005d). Throughout the current business cycle, i.e. since March 2001, credit card debt amounted to about 9 percent of personal disposable income. In comparison, prior to September 2000, credit card debt had never exceeded 9 percent of disposable income.

One direct result of the growing credit card debt levels, especially among lower-income households, has been a rise in debt service payments. The terms of credit card debt are often worse than for other forms of credit and the credit card debt offered to lower-income clients tends to be on worse terms than for higher-income clients (Ausubel 1997, Stavins 2000). The growth of more costly credit card debt among low- and moderate-income families has contributed to rising default and bankruptcy rates (Ausubel, 1997; Chatterjee et al. 2002, Gross and Souleles 1998, Stavins 2000). Personal bankruptcy rates reached record highs throughout this business cycle (Weller and Gino, 2005) and credit card default rates remained comparatively high after surpassing a record 6 percent in 2001 (BOG, 2005e).

VII. Conclusion

The current business cycle has posed serious economic challenges for America's middle class. Incomes have largely been stagnant, while prices for crucial items, such as education, health care, and housing, have risen rapidly. Consequently, the middle class is increasingly anxious about its economic future, despite a growing economy.

To reduce the economic stress on America's middle class, both sides of the equation need to be addressed. Middle-class families need higher wages to afford their basic standard of living and to reduce the overall burden that record amounts of debt impose on their budgets. Second, costs for important items, such as health care and college education, need to be brought under control to become more manageable for middle-class families.

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Technical Appendix:

A.1 Calculating Weeks Necessary to Pay for Middle Class Items

To calculate the weeks needed for a two-earner couple to pay for a range of items, a number of steps are used. First, total consumption spending on basics—clothing, food, and household operation—housing, health care and transportation is first set relative to total adjusted personal disposable income. All of the consumption and wage and salary data are from the BEA (2005). The adjusted personal income is the share of personal income that is not dedicated to pension plans and the employer share of health insurance premiums.

Second, we calculate the tax burden for the typical two-earner couple. The federal tax rate is assumed to be the average effective tax rate for the middle quintile. Data on tax rates are from TPC (2005). State and local governments are equal to the ratio of state and local personal taxes and property taxes to personal income (BEA, 2005).

Second, the total spending on health care is adjusted by changes in the share of the population over 65, reflecting the fact that an aging population has disproportionate health care demands. Here, we assume that the share of the population over 65 has health care expenditures equal to three times those of the population under 65. Data on the share of the population under 65 are from the Census (2005a). Missing observations are interpolated. The ratios are then multiplied by 52 to arrive at the number of weeks annually needed to earn enough pre-tax wages and salaries to pay for these items.

Third, to arrive at the expenditures for college, it is assumed that a two-earner couple will spread the costs of four years at a public college over 22 years. The calculation thus takes the current costs of four years at a public college and projects these into the future based on the price index for tuition and fees (BLS, 2005c). Future costs are then discounted back to the present using the current AAA bond interest rate. Specifically, the formula for the average quarterly college savings is:

$$CS_t = \frac{1}{88} \sum_t^{88} \frac{CC_t(1 + p_{1979,t})^i}{88(1 + r_t)^i} \quad (1)$$

Where CS are the average quarterly college savings per student, CC are the average total costs of a four-year public college at the current annual costs (College Board), p is the average annual price increase of tuition and fees since 1979 (BLS, 2005c), and r is the corporate bond rate of AAA corporate bonds (BOG, 2005b).

College savings are multiplied by two and set relative to the weekly earnings of a two-earner couple. It is assumed that male earnings are equal to average weekly earnings for production, non-supervisory workers and that female earnings are equal to the average share of female-to-male earnings of production, non-supervisory workers. This corrects for low weekly earnings of women in the earlier years due to fewer hours. Missing observations are interpolated. For quarters after 2003, it is assumed that the female-to-male earnings ratio remained constant.

The formula for the calculation of the weeks needed is thus as follows:

$$\begin{aligned}
 WN_t = & \frac{PCEB_t}{PIadj_t} * 52 + \frac{PCEH_t}{PIadj_t} * 52 + \frac{PCETr_t}{PIadj_t} * 52 + \\
 & \frac{PCEMC_t}{PIadj_t} \\
 & \frac{CS_t}{AWE_t(1 + FtoM_t)} \\
 & \left(\frac{Pop65_t}{Pop65_{1991}} + \left(1 - \frac{Pop65_t}{Pop65_{1991}}\right) * 3 \right) * \frac{Pop65_t}{Pop65_{1991}} * 52 + \frac{CS_t}{AWE_t(1 + FtoM_t)}
 \end{aligned} \tag{1}$$

where WN is the number of weeks needed, $PCEB$ is the sum of personal consumption expenditures on basic items—food, clothing and household operation— $PCEH$ denotes personal consumption expenditures on housing, $PCETr$ personal consumption expenditures on transportation items—transportation, gasoline, and motor vehicles— $PCEMC$ refers to personal consumption expenditures on medical care, and $PIadj$ is the adjusted personal income. Adjusted personal income is personal income minus employer expenditures for health insurance and pensions. $Pop65$ is the share of the population under the age of 65. It is assumed that the medical care costs for people over 65 are on average three times those for people under 65 (AHRQ, 2004). AWE denotes the average weekly earnings of production workers and $FtoM$ the female-to-male earnings ratio.

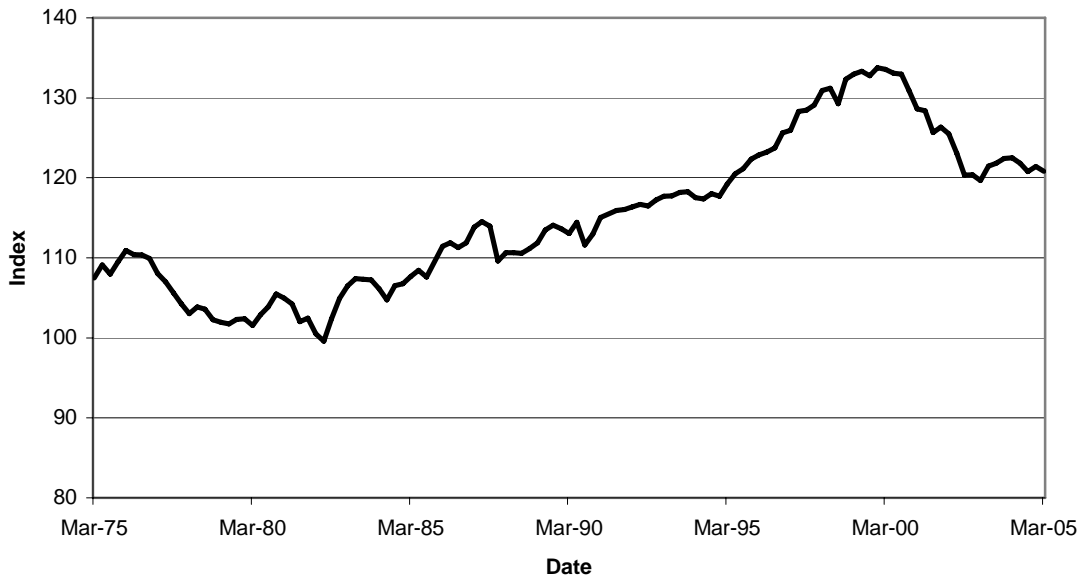
A.2 Wealth Inequality

Capital income is very unequally distributed because financial wealth is very unequally distributed. Many households have no or little wealth, particularly stock market wealth, which was still the single most widely distributed financial asset. In 2001, 48.3 percent of households had no direct or indirect stock holdings. Among the 20 percent of families with the lowest incomes, only 12.4 percent had any direct or indirect stock holdings in 2001 but 89.6 percent of the 10 percent of families with the highest incomes in 2001 had stock holdings. And while low-income stock holders had typically had \$7,000 in their accounts, high-income stock holders owned typically \$247,700 in 2001 (Aizcorbe et al., 2003). Also, less than 20 percent of households owned a mutual fund, less than half a retirement account, less than 20 percent savings bonds, and only 15 percent certificates of deposits (CDs) in 2001 (Aizcorbe et al., 2003).

In comparison, homeownership has traditionally been more widespread. Close to 70 percent of all households owned their own home in early 2005, although homeownership among minorities has traditionally been substantially lower than among whites (Aizcorbe et al., 2003; Loewentheil and Weller, 2005). Even among the bottom 20 percent of households, homeownership was 38.8 percent in 2001, with the next 20 percent of households on the income scale showing a homeownership rate of 55.3 percent in 2001 (Aizcorbe et al., 2003). While the typical (median) value of a home for 20 percent of families with the lowest incomes was \$59,900 in 2001, it was \$244,900 for the 10 percent of families with the highest incomes. That is, homeownership was more widespread than the ownership of financial assets and the distribution of homeownership wealth among those who owned a home was more equitably distributed than stock wealth among those who owned stocks.

Because housing wealth is rather widespread and stock market wealth is so unequally distributed, it has been suggested that the ratio of stock prices to house prices be used to approximate changes in the distribution of wealth (Wolff, 2002). According to this measure, wealth inequality rose with the stock market in the late 1990s, but remained relatively stable, albeit at comparatively high levels, since 2001 (figure A-1). The decline of capital income thus added to the average middle-class family's financial woes.

Figure A-1: Stock Prices Relative to House Prices



Notes: The ratio is taken of logarithmic values of stock prices to housing prices. Sources are Yahoo!Finance.com (2005) and OFHEO (2005).

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