



## **CRS Report for Congress**

# **Impact of Rising Energy Costs on Older Americans**

Janemarie Mulvey  
Specialist on Aging Policy  
Domestic Social Policy Division

### **Summary**

Energy-related expenditures include spending for utilities and fuel to operate, heat, and cool homes and spending for gasoline and motor oil for private transportation. Energy prices to consumers have increased 70% between 2000 and 2007, driven largely by growth in prices for energy commodities such as petroleum. Petroleum-based products such as fuel oil, propane and gasoline comprise about 50% of household energy expenditures.

Older Americans are disproportionately affected by higher energy costs. As a share of income, households headed by a person age 65 or older spend more on energy-related expenditures than their younger counterparts. In addition, low-income households (those with less than \$15,000 in household income) spent nearly 20% of their household income on energy-related expenditures in 2006 (the latest year for which data are available). This compares to 7.3% spent by older households with incomes above \$15,000. These estimates are for 2006 and do not reflect the additional 17% increase in energy prices that occurred in 2007.

The key public program that provides energy assistance to low-income households is the Low-Income Home Energy Assistance Program (LIHEAP). Approximately 40% of low-income households that were eligible for LIHEAP have a household member aged 60 or older. Funding for the LIHEAP Program has not kept pace with recent increases in energy costs of older Americans. This report will explore the burden of rising energy costs on older Americans and discuss implications for public policies.

This report will be updated when new data is released.

## Background

In 2006, expenditures on energy-related goods and services represented nearly 10% of total expenditures for older households.<sup>1</sup> There are two main components of energy expenditures. Over half (57%) are for utilities and fuel to operate, heat, and cool homes; the remaining 43% are for gasoline and motor oil.<sup>2</sup>

Within the category of utilities and fuel, electricity comprises the largest share of spending, representing nearly two-thirds (62.8%) of this category. Second is natural gas (27.6%), and the remaining 9.6% are petroleum-based fuels like fuel oil and propane. However, the reliance on certain fuels varies widely by geographic region. Natural gas is the most commonly used source in the Northeast (55%), Midwest (79%) and West (66%), while electricity is the most commonly used source in the South (52%). In the Northeast, heating oil is also a significant fuel source, where it is reported second to natural gas as a primary fuel source (see **Table 1**).

**Table 1. Percent of Households Using Indicated Fuel As Primary Source, By Region**

	Northeast	Midwest	South	West	U.S.
Natural Gas	55	79	41	66	58
Heating Oil	32	3	2	1	7
Propane	2	7	5	4	5
Electricity	11	11	52	30	30

**Source:** Short-Term Energy Outlook, October 2007, Energy Information Administration.

Petroleum-based products like fuel oil, propane, and gasoline comprise about 50% of household energy expenditures.<sup>3</sup> Increases in costs in this category reflect the significant increases in the price of crude oil over the past five years. Over the past five years, the price per barrel of crude oil has risen nearly 200%.<sup>4</sup> Over the same period, prices charged to consumers for petroleum-based energy costs (energy commodities) increased 117%, while prices charged for energy services increased 38% (see **Table 2**).

## Effect of Rising Energy Costs on Consumer Prices

Growth in overall energy spending is driven by two key factors: the price charged to the consumer and the quantity demanded. Energy prices to consumers have increased 70% between 2000 and 2007 as compared to a 20% rise in overall prices over the same time period. More recently, in 2007, overall energy prices rose 17.4% as compared to a

<sup>1</sup> Older households are defined as a household headed by a person age 65 or older.

<sup>2</sup> CRS estimates from BLS Consumer Expenditure Survey, 2006.

<sup>3</sup> *ibid.*

<sup>4</sup> Energy Information Administration, US Spot Price FOB Weighted by Estimated Import Volume, January 2003 to November 2007.

4.1% rise in overall prices (see **Table 2**). In fact, the increase in energy prices in December of 2007 accounted for about one-third of the overall CPI increase in that month.

**Table 2. Trends in Consumer Price Index (CPI-U), 2000 to 2007**  
(percent)

	2000	2001	2002	2003	2004	2005	2006	2007
All Items	3.4	1.6	2.4	1.9	3.3	3.4	2.5	4.1
Transportation	4.1	-3.8	3.8	0.3	6.5	4.8	1.6	8.3
Energy	14.2	-13.0	10.7	6.9	16.6	17.1	2.9	17.4
Energy Commodities <sup>a</sup>	15.7	-24.5	23.7	6.9	26.7	16.7	6.1	29.4
Energy Services <sup>b</sup>	12.7	-1.5	0.4	6.9	6.8	17.6	-0.6	3.4
All Items Less Energy	2.6	2.8	1.8	1.5	2.2	2.2	2.5	2.8

**Source:** Bureau of Labor Statistics, January 16, 2008, press release.

a. Energy commodity prices reflect petroleum-based energy costs.

b. Energy service prices reflect charges for energy services such as natural gas and electricity.

Beyond the direct effect of rising energy prices on household spending, there are also indirect effects on overall consumer prices that must be taken into account. All of the non-energy goods and services consumed by households rely to some degree on energy for their production. It takes energy to run a plant, and gasoline to fuel trucks and other forms of transport to take goods to the store to sell. Higher energy prices to manufacturers may be passed through to the consumer and thus increase overall inflation rates of goods and services. The consumer price index, excluding energy, has been rising in recent years, increasing from 1.5% in 2003 to 2.8% in 2007, suggesting that higher energy prices are affecting other areas of consumption as well.

## Impact of Higher Energy Costs on Older Americans

Older households account for approximately 20% of our nation's total consumption on energy-related products. Yet, they are disproportionately affected by higher energy costs. Although in *actual dollar terms* older households spend slightly less on energy-related consumption than households headed by a person under age 65, they spend a *higher share of their income* on energy-related expenditures. As shown in **Table 3**, in 2006, older households spent 9.5% of their income on energy-related services compared to 7.4% for younger households in 2006.

Among older households, lower-income elderly spend significantly more as a share of income for energy-related services compared to those with higher incomes. Older households with less than \$15,000 in household income spent approximately 20% of their income for energy-related expenditures, as compared to 7.3% for elderly households with incomes over \$15,000 in 2006. For utilities and fuel, these same households spent 13% of their income to heat and operate their homes, compared to only 4.7% for older households with \$15,000 or more in income (see **Table 4**). The \$15,000 threshold for household income in **Table 4** is a close approximation to older households that have incomes below

or near 150% of poverty.<sup>5</sup> The 150% of poverty threshold is used by current public programs that provide low-income energy assistance to households (see discussion below). In 2006, about 22% of older Americans had family incomes below 150% of the poverty thresholds.<sup>6</sup> These estimates are for 2006 and do not reflect the additional 17% increase in energy prices that occurred in 2007.

**Table 3. Average Annual Household Energy Expenditures By Age, 2006**

	Age of Head of Household	
	Under 65	65+
Utilities and Fuel Expenditures	\$1,931	\$1,837
Natural Gas	\$509	\$507
Electricity	\$1,293	\$1,154
Fuel Oil and Other Fuels	\$129	\$176
As a Share of Income	2.9%	4.8%
Transportation Expenditures		
Gasoline and Motor Oil	\$2,436	\$1,359
As a Share of Income	4.5%	4.7%
Total Energy Expenditures	\$4,367	\$3,196
As a Share of Income	7.4%	9.5%

**Source:** CRS calculations from 2006 BLS Consumer Expenditures Survey data.

Over time, growth in energy expenditures has increased faster than income of older households (see **Figure 1**). However, among older households, the data indicate that energy-related spending for low-income households is not increasing as fast as overall energy prices or energy-related spending for higher-income households. Average annual energy-related spending for low-income households (after adjusting for inflation) has increased only 5.9% since 2000, compared to 20% for higher-income households (see **Table 4**). This difference may reflect lower-income households changing their behavior in response to rising energy costs. According to an AARP survey, older Americans with household incomes below \$25,000 are significantly more likely to reduce their savings and other spending to offset higher gasoline prices.<sup>7</sup> Other alternatives that households explore in response to rising energy costs have included replacing heating and cooling systems with more energy-efficient units, installing energy-efficient windows, and purchasing more fuel-efficient cars. Although these alternatives may save costs in the longer-run, many lower-income households do not have sufficient funds to purchase them.

<sup>5</sup> The average size of households with less than \$15,000 in income is 1.2. For example, if 80% are living alone and 20% are married and the poverty thresholds of \$9,669 for single and \$12,201 for married are weighted ( $.80 * \$9,669 + .20 * \$12,201 = \$10,175$ ), then 150% of the weighted poverty threshold (\$10,175) would equal \$15,263 or approximately \$15,000.

<sup>6</sup> See CRS Report RL32697, *Income and Poverty Among Older Americans in 2006*, by Patrick Purcell.

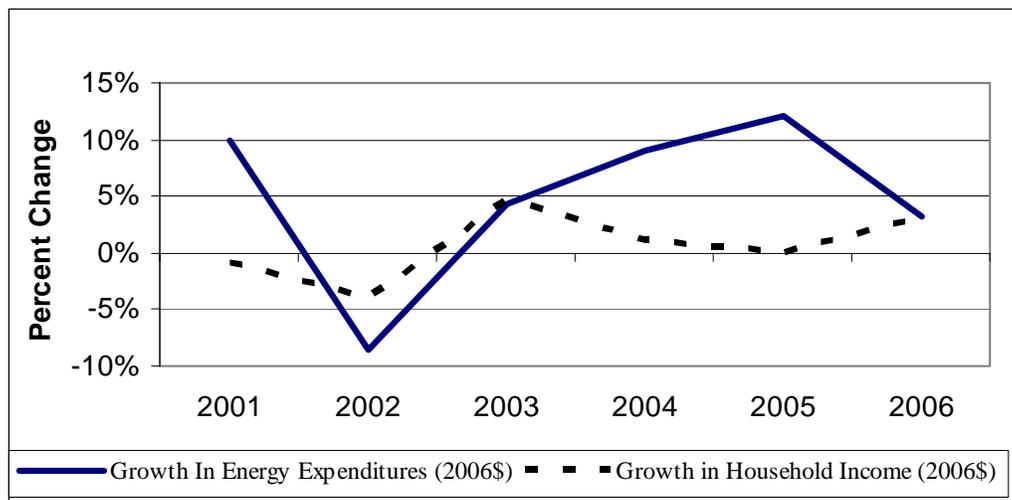
<sup>7</sup> AARP, "The Effects of Gasoline Costs on U.S. Residents Age 50+," September 2005.

**Table 4. Average Annual Energy Expenditures Relative to Household Income, For Older Households**

	2000/2001		2005/2006	
	Household Income		Household Income	
	Under \$15,000	\$15,000 and Over	Under \$15,000	\$15,000 and Over
Utilities and Fuel As a Share of Income	11.6%	4.1%	13.0%	4.1%
Gasoline and Motor Oil As a Share of Income	4.4%	2.5%	6.3%	3.2%
Total Energy Expenditures (In 2006 \$)	\$1,796	\$2,913	\$1,903	\$3,486
Growth Rate (2000 to 2006)	—	—	5.9%	20.0%
Total Energy Expenditures As a Share of Income	16.1%	6.9%	19.2%	7.3%

**Source:** CRS calculations from Bureau of Labor Statistics Consumer Expenditure Survey data for select years.

**Figure 1. Growth in Energy-Related Expenditures Relative to Growth in Household Income, for Older Households**



**Source:** BLS Consumer Expenditure Survey and U.S. Bureau of Census, select years.

## Implications for Public Programs

The key public program that provides energy assistance to low-income households is the Low-Income Home Energy Assistance Program (LIHEAP). LIHEAP was established in 1981 (P.L. 97-35) and is a block grant program under which the federal government makes annual grants to states, territories, and tribes to operate home energy assistance programs for low-income households. The LIHEAP statute authorizes two types of funds: block grant funds, which are allocated to all states using a statutory formula, and contingency funds, which are allocated to one or more states at the discretion of the Administration.

Federal law limits LIHEAP eligibility to households with incomes up to 150% of the federal poverty guidelines (or, if greater, 60% of the state median income). States may adopt lower income limits, but no household with income below 10% of the poverty guidelines may be considered ineligible.<sup>8</sup> In FY2004 (the most recent year for which data are available), 40% of low-income households eligible for LIHEAP had a member aged 60 or older.<sup>9</sup>

Over time, while energy costs have risen as a share of income, public programs like LIHEAP have faced declining funding. While utility and fuel expenditures have increased 34.6% from 2000 to 2005, the average benefit for LIHEAP has increased 12.6% over the same time period.<sup>10</sup> These estimates do not include growth rates between 2005 and 2007, during which time energy prices increased another 20.8%.

In the FY2008 Consolidated Appropriations Act (P.L. 110-161), Congress appropriated \$1.98 billion in LIHEAP funds and an additional \$590 million in contingency funds. In the 110<sup>th</sup> Congress, two bills have been introduced that would appropriate an additional \$1 billion in LIHEAP contingency funds. Both bills, H.R. 4275 and S. 2405, are entitled the “Keeping Americans Warm Act.” In addition, a number of bills have been introduced that would provide additional funds for LIHEAP through various means, including penalties collected from energy suppliers and profits from carbon allowance trading.<sup>11</sup>

S. 1238, the “Energy Security and Corporate Accountability Act of 2007,” has also been introduced in the 110<sup>th</sup> Congress and would allow low-income households eligible under the LIHEAP program to be eligible for state funds to assist them in paying transportation expenses associated with gasoline and motor oil purchases as well as public transportation.

---

<sup>8</sup> For more detail on LIHEAP and spending by state, see CRS Report RL31865, *The Low-Income Home Energy Assistance Program (LIHEAP): Program and Funding*, by Libby Perl.

<sup>9</sup> FY2004 LIHEAP Report to Congress, May 25, 2007, p. 20.

<sup>10</sup> Utility and fuel expenditures growth based on BLS Consumer Expenditure Survey, LIHEAP growth rates based on CRS Report RL31865.

<sup>11</sup> See CRS Report RL31865.