The Rising Burden of Energy Costs On Minority Families

Unity 2008

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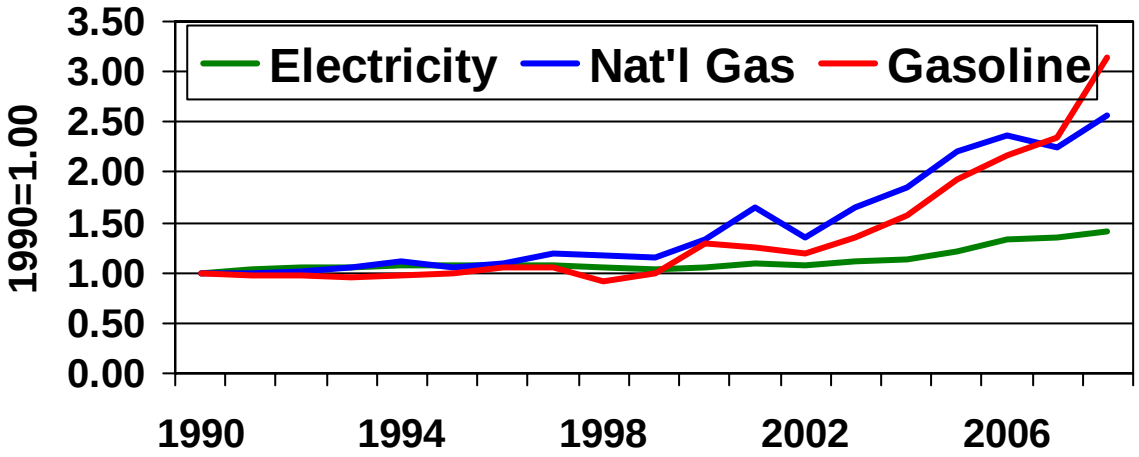
Sharply escalating gasoline prices are straining the budgets of lower- and middle-class minority families, and impoverishing lower-income families. Since 2001, energy costs for the average U.S. household have more than doubled.

Rising energy costs are disproportionately impacting minority families. Nearly two-thirds of minority families earn less than $50,000 annually, compared to 47% of white households. Lower-income families are more vulnerable to rising energy costs than higher-income families, because energy represents a larger portion of their family budgets.

In 2008, black and Hispanic households with annual pre-tax incomes below $50,000 will spend roughly one-quarter of their after-tax income on energy. The prices of gasoline and natural gas have skyrocketed, propelled by increased oil costs. Among consumer energy products, only electricity has maintained a stable price trend over the past decade.

Price Trends of Consumer Energy Products, 1990-2008



Summary of findings

This paper analyzes consumer energy cost increases since 2001 for all U.S. households, and examines the pattern of energy expenditures among minority families in 2008. It relies on historical energy consumption survey data and current energy price forecasts from the U.S. Department of Energy's Energy Information Administration (EIA).[1] Energy costs are summarized by household income category for all U.S. households, and for black, Hispanic and white families using data from the U.S. Bureau of the Census.[2] Energy expenditures as a percent of after-tax income are estimated for the effects of federal and state income taxes and federal social insurance payments.

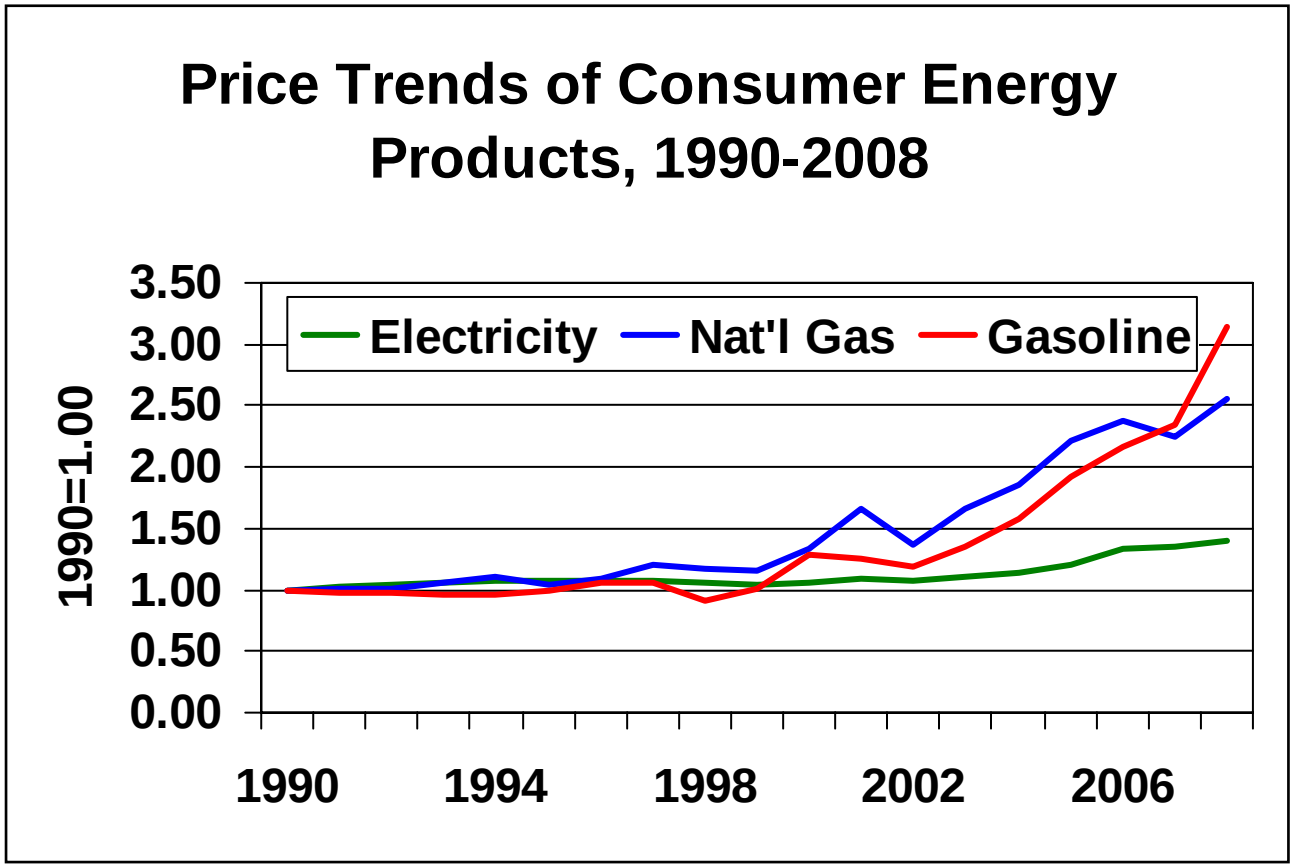
Key findings include:

- Energy costs for the average U.S. family have more than doubled since 2001 as a percent of after-tax income, from 6% in 2001 to 12% in 2008, an increase of $3,400 per household. For families with incomes below $50,000 – representing the majority of American households – energy costs have jumped from 11% of after-tax income in 2001 to 24% in 2008.
- Families earning less than $50,000 annually have increased their average incomes by just $261 since 2001, without any adjustment for inflation, while their energy bills have grown by $2,900, from $2,428 in 2001 to $5,332 in 2008.
- Energy costs are consuming one-quarter or more of the after-tax household incomes of low- and middle-income minority families, an amount usually spent on food, housing or health care. In 2007, 63% of Hispanic households and 68% of black households had average annual incomes below $50,000, compared to 47% for white households. Energy costs represent a much larger fraction of disposable income for households earning less than $50,000 annually than for wealthier families. Due to these income inequalities, the burdens of recent energy price increases are imposed disproportionately among minority families.
- In 2008, total energy costs for residential utilities and gasoline are estimated to average $6,806 for white families, $5,495 for Hispanic families, and $5,569 among black households. Hispanic and black families will spend a larger fraction of their after-tax incomes on energy – 14% and 16%, respectively – than the 13% spent by white households.
- Residential electricity costs represent a relatively small fraction of total energy expenses for all U.S. households. Among families earning less than $50,000 annually, electricity costs in 2008 will account for 21% of total energy expenditures by white households, 17% of expenditures by Hispanic families, and 27% by black families.
- The majority of family energy expenses are for gasoline. Transportation's share of total energy costs for black and Hispanic families earning less than $50,000 is estimated at 51% and 70%, respectively, compared to 62% for white households.

Relative Energy Price Increases

Chart 1 summarizes key consumer energy price increases since 1990 (indexed to 1990=1.0). Prices for gasoline have more than tripled, while residential natural gas prices will more than double. Compared to these fuels, residential electricity prices will increase by 40%, below the rate of inflation since 1990.

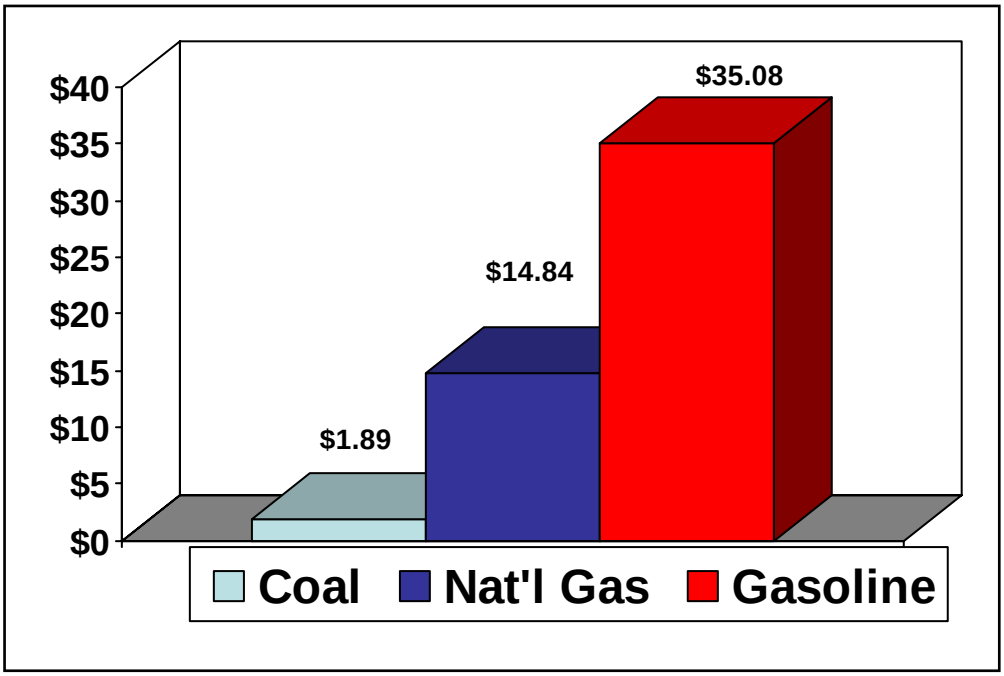
Chart 1



Source: U.S. DOE/EIA Short-Term Energy Outlook (June 2008) and EIA gasoline, residential natural gas and electric historical data since 1990.

The modest rate of price increase for residential electricity reflects, in part, the electric utility industry's historic reliance on low-cost coal for more than half of its energy supplies. Domestic coal typically costs less than $2 per million BTU (MMBTU) delivered to power plants, compared to $14/MMBTU or more for natural gas sold to residential users. At $4 per gallon, gasoline at the pump costs about $35/MMBTU (see Chart 2.)

Chart 2
Relative Energy Costs in 2008
(In dollars per million BTU)



Source: U.S. DOE/EIA, Short Term Energy Outlook (June 2008). Data are for delivered coal prices and average residential natural gas prices. Gasoline costs are calculated at $4 per gallon.

Energy Costs for All U.S. Families, 2001-2008

Energy costs for natural gas, heating oil, and gasoline are straining low- and middle-income family budgets. Heating, cooling and transportation are necessities of life, and the rapid increase in consumer energy costs is diverting low- and middle-income family budgets from other necessary goods and services such as improved health care, housing and nutrition.

In 2008, the average American family with an after-tax income of $52,586 will spend more than $6,200 on energy, or 12% of the family budget. The 60 million households earning less than $50,000 - representing 51% of households - will devote 24% of their after-tax income to energy. For the 27 million families with incomes between $10,000 and $30,000, energy expenditures will consume 26% of average after-tax incomes.

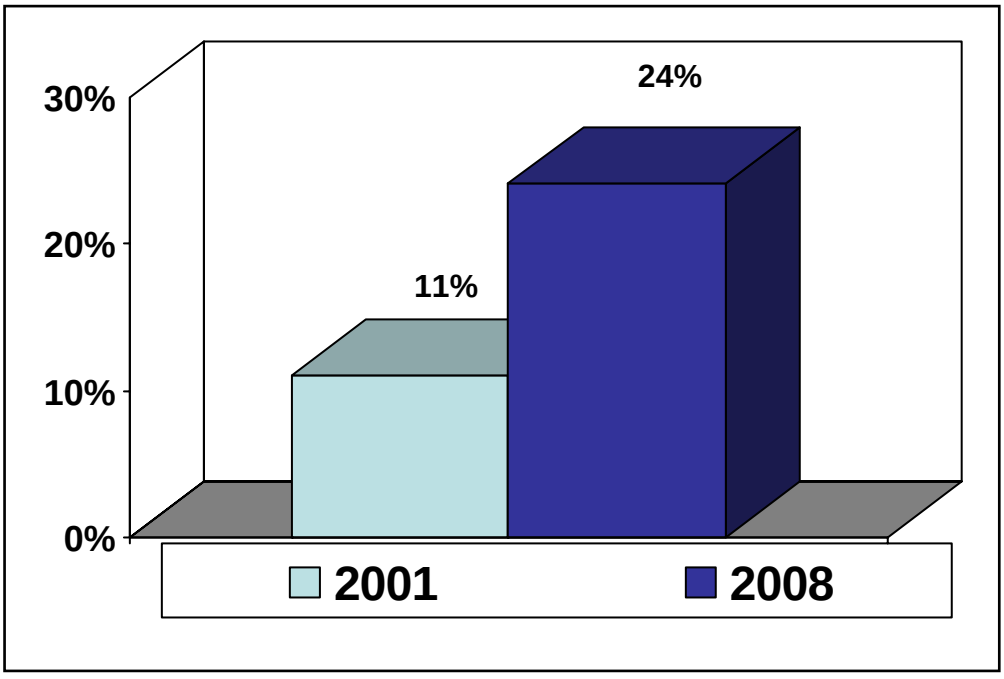
Family energy expenditures as a percentage of income, 2008

Pre-tax Income:	<$10K	$10-30K	$30-$50K	>$50K	Total
Residential energy	$1,545	$1,883	$2,181	$2,729	$2,227
Transportation fuel	$1,543	$2,618	$4,932	$4,991	$4,042
Total energy	$3,088	$4,501	$7,113	$7,720	$6,268
Est. average after-tax income	$5,171	$17,491	$32,129	$77,338	$52,586
Energy pct. of after-tax income	60%	26%	22%	10%	12%

The fraction of household incomes devoted to energy has doubled since 2001 (see Appendix Table 1). In 2001, the 53 million working families earning between $10,000 and $50,000 spent 11% of their after-tax income on residential and transportation energy. In 2008, energy will account for 23% of the after-tax income of the 51 million American families in this income category.

Chart 3 summarizes the increased costs of consumer energy products since 2001 as a percent of after-tax income for families making less than $50,000 annually – representing a majority of all U.S. households. Most of the increased costs are due to the rising price of gasoline. Families earning less than $50,000 annually have increased their average incomes by just $261 since 2001, while their energy bills have grown by $2,900, from $2,428 in 2001 to $5,332 in 2008.

Chart 3
Energy costs as a percent of after-tax income,
U.S. households with gross incomes below $50,000



Source: Appendix table 1.

Minority Energy Cost Estimates

The distribution of U.S. households by income categories and race provides the basis for estimating the effects of energy prices on consumer budgets in 2008. U.S. Census data indicate that working family incomes have not increased much in the past decade, while most income gains have been concentrated among the top 5% of the highest-earning families.

EIA's 2001 Survey of Residential Energy Consumption (updated to 2008 with EIA's June 2008 forecast of residential energy prices) is the source for estimating energy expenditures for residential heating, cooling, electricity and other energy services. Residential energy costs for minority and white families are adjusted based on differences in household energy use for each group.

EIA's 2001 Survey of Household Vehicles Energy Use[3] provides information for estimating transportation energy costs by income category and race. These transportation costs are updated using EIA's June 2008 national average retail gasoline price estimate for 2008 of $3.83 per gallon, and changes since 2001 in vehicle fuel utilization. Differences in gasoline usage among minority and white households are used to estimate total gasoline bills for 2008.

Household Incomes

The table below summarizes 2007 incomes for black, Hispanic and white families in different income brackets. The Congressional Budget Office has calculated effective total federal tax rates, including individual income taxes and payments for social security and other social welfare programs.[4] State income taxes are estimated from current state income tax rates.

Distribution of households by pre-tax and after-tax income, 2007

Pre-tax annual income:	<$10K	$10-30K	$30-$50K	>$50K	TOTALS
Black	16%	30%	22%	32%	100%
Hispanic	9%	29%	25%	37%	100%
White	6%	22%	20%	53%	100%
Est. avg after-tax income					
Black	$4,795	$16,378	$30,271	$63,788	$35,949
Hispanic	$5,029	$16,426	$29,860	$61,899	$38,252
White	$4,884	$17,005	$30,766	$76,613	$54,125

Source: Appendix Table 2.

More than two-thirds of black families had pre-tax incomes below $50,000 in 2007, compared to 63% of Hispanic families and 47% of white families. After paying federal and state taxes, the average black family had an estimated income of $35,949, compared to $38,252 for all Hispanic families and $54,125 for white households. These income inequalities produce disproportionately larger energy cost impacts among minority households, because energy consumption patterns tend to be influenced primarily by household income.

Consumer Energy Expenses

The principal residential energy expenses are for electricity and natural gas for lighting, heating, cooling and appliances. Some homes also use propane fuel and other heating sources such as kerosene and wood. Many low-income consumers qualify for energy assistance, but these government programs increasingly are hard pressed to keep pace with the rapid escalation of energy prices. It is primarily the poor, fixed income, and other low-income families who are bearing the greatest burden of recent energy price increases.

The impacts of residential and transportation energy costs on low- and middle-income families are illustrated in the following table, and in Appendix Table 2. Residential energy costs consume 35% of the after-tax household earnings of black families earning less than $10,000, and 23% of the after-tax incomes of Hispanic families in this income group. U.S. DOE/EIA survey data indicate that Hispanic households consume 30% less residential energy, on average, than the typical U.S. household. This disparity likely reflects geographic differences in the use of residential heating and cooling, including the large number of Hispanic households in California and the Southwest. Black families, on the other hand, tend to use slightly more residential energy than the average household, but consume 15% less gasoline than the average household.

Estimated energy costs by income category, 2008

Pre-tax annual income:	<$10K	$10-30K	$30-$50K	>$50K	TOTALS
Residential energy $					
Black	$1,676	$2,043	$2,367	$2,961	$2,133
Hispanic	$1,163	$1,418	$1,642	$2,055	$1,493
White	$1,584	$1,930	$2,236	$2,797	$2,428
Transport energy $					
Black	$1,312	$2,225	$4,192	$4,242	$3,435
Hispanic	$1,528	$2,592	$4,883	$4,941	$4,001
White	$1,585	$2,688	$5,065	$5,126	$4,378
Total energy $					
Black	$2,988	$4,268	$6,559	$7,203	$5,569
Hispanic	$2,691	$4,009	$6,525	$6,996	$5,494
White	$3,168	$4,618	$7,301	$7,923	$6,806

Source: Appendix table 2.

Transportation Costs

Imported oil prices have surged to $140 or more per barrel, forcing gas prices above $4 per gallon with no relief in sight. Gasoline accounts for the largest single increase in consumer energy costs. EIA's June 2008 forecast projects 2008 average retail gasoline costs at $3.83 per gallon, more than double the $1.47 price prevailing in 2001.

The rapid increase in gas prices follows a decade-long trend of increased use of motor vehicles, measured in millions of vehicle miles driven annually, increased market shares of pickup trucks and SUVs, and an increase in the average number of vehicles owned per household.[5] Many families are now burdened with low-efficiency vehicles with low trade-in values. A $40 fill-up now costs $100 or more.

In 2001, 191 million American vehicles – cars, vans, SUVs, pickup trucks, and motorcycles – consumed 113 billion gallons of gasoline and traveled 2.3 trillion miles.[6] The total bill for these fuel purchases was $150 billion. In 2008, gasoline costs will exceed $400 billion.

Total Household Energy Costs

Energy costs for natural gas and gasoline are straining low- and middle-income family budgets. Heating, cooling and transportation are necessities of life, and the rapid increase in consumer energy costs is diverting low- and middle-income family budgets from other necessary goods and services such as improved health care, housing and nutrition.

In 2008, the average black family with an after-tax income of $35,949 will spend $5,569 on energy, or 16% of the family budget. The 9.4 million black households earning less than $50,000 - representing 68% of black households - will spend 25% of their after-tax income on energy. For the 63% of Hispanic households with gross incomes below $50,000, energy costs will consume 23% of their average after-tax incomes of $20,609.

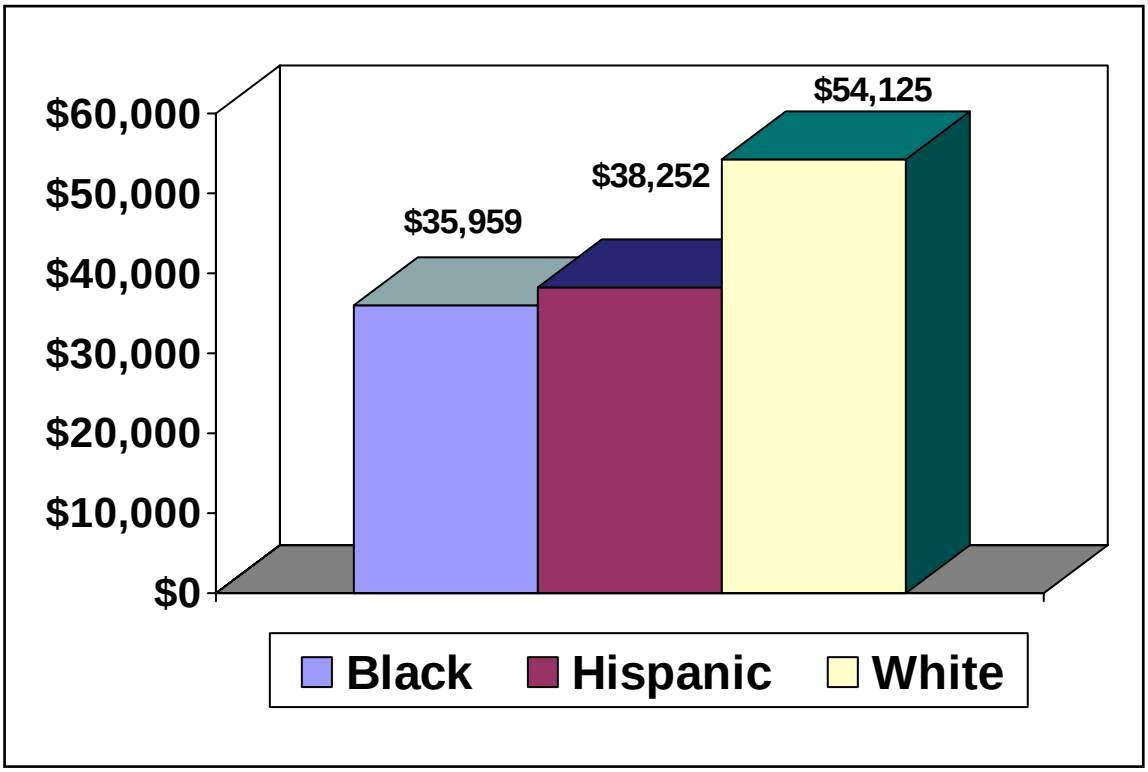
For a majority of low- and middle-income families, energy costs today are consuming a fraction of after-tax household income comparable to that traditionally spent on major categories such as food, housing or health care.[7] A 2001 survey of middle-income families with two parents and two children living in eight diverse U.S. cities reported the following average expenditures, based on an average after-tax family income of $43,962:

- Child care - $12,420 (28%)
- Housing - $10,836 (25%)
- Food - $7,044 (16%)
- Health care - $4,582 (10%)

The diversion of ever-increasing shares of family incomes to energy reduces available funds for other necessities of life such as housing and health care, diminishing both quality of life and the ability to save and invest for future needs. The combined effects of declining real estate values and rising energy costs are pushing many American families into foreclosures and bankruptcy.

As illustrated by Chart 4, the unequal distribution of household incomes is the principal factor leading to disproportionate energy cost impacts on minority families. The average incomes of Hispanic and black families are 29% and 33% lower than the average income of white households, respectively.

Chart 4
Average 2007 after-tax incomes of U.S. families



Source: Appendix table 2.

Conclusion

Rapid increases in oil prices are impacting the price trends for gasoline, natural gas, and other petroleum products. These fuels have experienced the fastest rate of price increase because they are subject both to international market demand pressures and to supply uncertainties. The unequal distribution of incomes in the United States is imposing disproportionate energy cost burdens on minority families.

The prices of petroleum-based fuels have increased significantly in the past decade, while the residential cost of electricity has not kept pace with inflation. The rapid escalation of consumer energy prices - together with sluggish income growth among low- and middle-income households and declining home equity values - underscore the need to find ways to reduce energy cost impacts on all American families. Expanding the use of our domestic coal resources - a primary source of low-cost electric energy - is an immediate, common sense policy response available to state and federal governments.

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[1] Data on residential energy consumption patterns by income and race category are estimated from U.S. Department of Energy, Energy Information Administration, 2001 Survey of Residential Energy Consumption (RECS). See, http://www.eia.doe.gov/emeu/recs/contents.html. Data for 2001 energy consumption by fuel type are updated to estimated 2008 values based on consumer residential energy cost projections for 2008 in EIA's Short Term Energy Outlook (June 2008).

[2] Household incomes by race and income category are from the distribution of household income in U.S. Bureau of the Census, Current Population Survey, Annual Social and Economic Supplement (2008).

[3] U.S. DOE/EIA, "Household Vehicles Energy Use: Latest Data & Trends," (November 2005), available at: http://www.eia.doe/gov/emeu/rtecs/nhts_survey/2001/.

[4] Congressional Budget Office, "Effective Federal Tax Rates Under Current Law, 2001 to 2014," (August 2004). Effective federal tax rates for the income categories used in this paper were interpolated from CBO's tax rates by income quintile based on the distribution of 2005 household incomes. State income tax rates were estimated from current tax rates summarized in Federation of Tax Administrators, http://www.taxadmin.org/fta/rate/ind_inc.html.

[5] U.S. DOT, 2001 National Household Travel Survey, "Summary of Travel Trends," (December 2004).

[6] U.S. DOE/EIA, "Household Vehicles Energy Use: Latest Data & Trends," (November 2005), http://www.eia.doe/gov/emeu/rtecs/nhts_survey/2001/.

[7] See, Economic Policy Institute, "Basic Family Budgets," Briefing Paper (2001), available at http://www.epinet.org/briefingpapers/165/bp165.pdf.

APPENDIX TABLE 1 - COMPARISON OF 2001 AND 2008 HOUSEHOLD ENERGY COSTS (ALL HOUSEHOLDS)

2001 HOUSEHOLD ENERGY EXPENSES BY INCOME CATEGORY - ALL HOUSEHOLDS

	<$10K	$10-30K	$30-$50K	>$50K	TOTALS	SUBTOTALS $10K-$50K	SUBTOTALS <$50K	SUBTOTALS >$50K
Households (Mil.)	9.8	28.9	23.6	47.0	109.3	52.5	62.3	47.0
Pct of total households	9.0%	26.4%	21.6%	43.0%	100.0%	48.0%	57.0%	43.0%
Avg pre-tax income	$5,733	$19,707	$39,201	$107,649	$60,488	$28,470	$24,893	$107,649
Effec. fed tax rate %	2.0%	8.5%	13.4%	23.1%	17.3%	10.7%	9.3%	23.1%
Est. state tax rate%	1.5%	2.6%	4.0%	6.3%	4.4%	3.2%	3.0%	6.3%
Est. after-tax income	$5,532	$17,520	$32,380	$76,054	$47,396	$24,504	$21,834	$76,054
Residential energy $	$1,039	$1,260	$1,456	$1,836	$1,493	$1,348	$1,299	$1,836
Residential electric $	$628	$772	$922	$1,172	$938	$839	$806	$1,172
Other resid. energy $	$411	$488	$534	$664	$555	$509	$493	$664
Transport energy $	$524	$888	$1,674	$1,694	$1,372	$1,241	$1,128	$1,694
Total energy $	$1,563	$2,148	$3,130	$3,530	$2,865	$2,589	$2,428	$3,530
Energy % of after-tax inc.	28.3%	12.3%	9.7%	4.6%	6.0%	10.6%	11.1%	4.6%
Resid. % of after-tax inc.	18.8%	7.2%	4.5%	2.4%	3.2%	5.5%	6.0%	2.4%
Trans. % of after-tax inc.	9.5%	5.1%	5.2%	2.2%	2.9%	5.1%	5.2%	2.2%
Electric % of total energy $	40.2%	35.9%	29.5%	33.2%	32.7%	33.0%	34.2%	33.2%
Trans. % of total energy $	33.5%	41.3%	53.5%	48.0%	47.9%	46.8%	44.7%	48.0%

2008 HOUSEHOLD ENERGY EXPENSES BY INCOME CATEGORY - ALL HOUSEHOLDS

	<$10K	$10-30K	$30-$50K	>$50K	TOTALS	SUBTOTALS $10K-$50K	SUBTOTALS <$50K	SUBTOTALS >$50K
Households (Mil.)	8.689	27.247	23.649	56.417	116.00	50.9	59.6	56.4
Pct of total households	7.5%	23.5%	20.4%	48.6%	1.00	43.9%	51.4%	48.6%
Avg pre-tax income	$5,359	$19,809	$39,229	$109,699	$66,570	$28,833	$25,410	$109,699
Effec. fed tax rate %	2.0%	9.1%	14.1%	23.2%	16.4%	11.4%	10.0%	23.2%
Est. state tax rate%	1.5%	2.6%	4.0%	6.3%	4.6%	3.3%	3.0%	6.3%
Est. after-tax income	$5,171	$17,491	$32,129	$77,338	$52,586	$24,602	$22,095	$77,338
Residential energy $	$1,545	$1,883	$2,181	$2,729	$2,227	$2,022	$1,952	$2,729
Residential electric $	$838	$1,031	$1,231	$1,565	$1,252	$1,124	$1,082	$1,565
Other resid. energy $	$707	$852	$950	$1,164	$974	$898	$870	$1,164
Transport energy $	$1,543	$2,618	$4,932	$4,991	$4,042	$3,693	$3,380	$4,991
Total energy $	$3,088	$4,501	$7,113	$7,720	$6,268	$5,715	$5,332	$7,720
Energy % of after-tax inc.	59.7%	25.7%	22.1%	10.0%	11.9%	23.2%	24.1%	10.0%
Resid. % of after-tax inc.	29.9%	10.8%	6.8%	3.5%	4.2%	8.2%	8.8%	3.5%
Trans. % of after-tax inc.	29.8%	15.0%	15.4%	6.5%	7.7%	15.0%	15.3%	6.5%
Electric % of total energy $	27.1%	22.9%	17.3%	20.3%	20.0%	19.7%	20.3%	20.3%
Trans. % of total energy $	50.0%	58.2%	69.3%	64.6%	64.5%	64.6%	63.4%	64.6%

DIFFERENCES 2001 VERSUS 2008

	<$10K	$10-30K	$30-$50K	>$50K	TOTALS	$10K-$50K	<$50K	>$50K
Households (Mil.)	-1.1	-1.7	0.0	9.4	6.7	-1.6	-2.7	9.4
Pct of total households	-1.5%	-2.9%	-1.2%	5.6%	0.0%	-4.1%	-5.6%	5.6%
Avg pre-tax income	($374)	$102	$28	$2,050	$6,082	$363	$516	$2,050
Effec. fed tax rate %	0.0%	0.6%	0.7%	0.2%	-0.8%	0.7%	0.7%	0.2%
Est. state tax rate%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%
Est. after-tax income	($361)	($28)	($251)	$1,284	$5,191	$98	$261	$1,284
Residential energy $	$506	$623	$725	$893	$734	$673	$653	$893
Residential electric $	$210	$259	$309	$393	$314	$284	$276	$393
Other resid. energy $	$296	$364	$416	$500	$419	$389	$377	$500
Transport energy $	$1,019	$1,730	$3,258	$3,297	$2,670	$2,452	$2,251	$3,297
Total energy $	$1,525	$2,353	$3,983	$4,190	$3,403	$3,125	$2,904	$4,190
Energy % of after-tax inc.	31.5%	13.5%	12.5%	5.3%	5.9%	12.7%	13.0%	5.3%
Resid. % of after-tax inc.	11.1%	3.6%	2.3%	1.1%	1.1%	2.7%	2.9%	1.1%
Trans. % of after-tax inc.	20.4%	9.9%	10.2%	4.2%	4.8%	9.9%	10.1%	4.2%
Electric % of total energy $	-13.0%	-13.0%	-12.2%	-12.9%	-12.8%	-13.4%	-13.9%	-12.9%
Trans. % of total energy $	16.4%	16.8%	15.9%	16.7%	16.6%	17.8%	18.7%	16.7%

Sources: See Appendix table 2.

APPENDIX TABLE 2 - ESTIMATED 2008 ENERGY EXPENSES FOR BLACK, HISPANIC AND WHITE HOUSEHOLDS

ESTIMATED 2008 HOUSEHOLD ENERGY EXPENSES BY INCOME CATEGORY - WHITE HOUSEHOLDS

	<$10K	$10-30K	$30-$50K	>$50K	TOTALS	SUBTOTALS $10K-$50K	<$50K	>$50K
Households (Mil.)	4.818	17.955	16.165	43.739	82.677	34.1	38.9	43.7
Pct of total households	5.8%	21.7%	19.6%	52.9%	100.0%	41.3%	47.1%	52.9%
Avg pre-tax income	$5,061	$19,259	$37,565	$108,671	$69,294	$27,932	$25,102	$108,671
Effec. fed tax rate %	2.0%	9.1%	14.1%	23.2%	17.1%	11.5%	10.3%	23.2%
Est. state tax rate%	1.5%	2.6%	4.0%	6.3%	4.8%	3.3%	3.0%	6.3%
Est. after-tax income	$4,884	$17,005	$30,766	$76,613	$54,125	$23,817	$21,753	$76,613
Residential energy $	$1,584	$1,930	$2,236	$2,797	$2,428	$2,075	$2,014	$2,797
Residential electric $	$859	$1,056	$1,262	$1,604	$1,375	$1,154	$1,117	$1,604
Other resid. energy $	$724	$874	$974	$1,194	$1,054	$921	$897	$1,194
Transport energy $	$1,585	$2,688	$5,065	$5,126	$4,378	$3,814	$3,539	$5,126
Total energy $	$3,168	$4,618	$7,301	$7,923	$6,806	$5,889	$5,553	$7,923
Energy % of after-tax inc.	64.9%	27.2%	23.7%	10.3%	12.6%	24.7%	25.5%	10.3%
Resid. % of after-tax inc.	32.4%	11.3%	7.3%	3.7%	4.5%	8.7%	9.3%	3.7%
Trans. % of after-tax inc.	32.5%	15.8%	16.5%	6.7%	8.1%	16.0%	16.3%	6.7%
Electric % of total energy $	27.1%	22.9%	17.3%	20.2%	20.2%	20.2%	21.1%	20.2%
Trans. % of total energy $	50.0%	58.2%	69.4%	64.7%	64.3%	63.5%	61.8%	64.7%

ESTIMATED 2008 HOUSEHOLD ENERGY EXPENSES BY INCOME CATEGORY - HISPANIC HOUSEHOLDS

	<$10K	$10-30K	$30-$50K	>$50K	TOTALS	SUBTOTALS $10K-$50K	<$50K	>$50K
Households (Mil.)	1.195	3.775	3.238	4.765	12.973	7.0	8.2	4.8
Pct of total households	9.2%	29.1%	25.0%	36.7%	100.0%	54.1%	63.3%	36.7%
Avg pre-tax income	$5,212	$18,602	$36,459	$87,799	$47,272	$26,847	$23,697	$87,799
Effec. fed tax rate %	2.0%	9.1%	14.1%	23.2%	14.9%	11.4%	10.0%	23.2%
Est. state tax rate%	1.5%	2.6%	4.0%	6.3%	4.2%	3.2%	3.0%	6.3%
Est. after-tax income	$5,029	$16,426	$29,860	$61,899	$38,252	$22,913	$20,609	$61,899
Residential energy $	$1,163	$1,418	$1,642	$2,055	$1,493	$1,522	$1,469	$2,055
Residential electric $	$631	$776	$927	$1,178	$938	$846	$814	$1,178
Other resid. energy $	$532	$642	$716	$877	$555	$676	$655	$877
Transport energy $	$1,528	$2,592	$4,883	$4,941	$4,001	$3,649	$3,341	$4,941
Total energy $	$2,691	$4,009	$6,525	$6,996	$5,494	$5,171	$4,810	$6,996
Energy % of after-tax inc.	53.5%	24.4%	21.9%	11.3%	14.4%	22.6%	23.3%	11.3%
Resid. % of after-tax inc.	23.1%	8.6%	5.5%	3.3%	3.9%	6.6%	7.1%	3.3%
Trans. % of after-tax inc.	30.4%	15.8%	16.4%	8.0%	10.5%	15.9%	16.2%	8.0%
Electric % of total energy $	23.5%	19.4%	14.2%	16.8%	17.1%	16.4%	16.9%	16.8%
Trans. % of total energy $	56.8%	64.6%	74.8%	70.6%	72.8%	70.6%	69.5%	70.6%

ESTIMATED 2008 HOUSEHOLD ENERGY EXPENSES BY INCOME CATEGORY - BLACK HOUSEHOLDS

	<$10K	$10-30K	$30-$50K	>$50K	TOTALS	$10K-$50K	<$50K	>$50K
Households (Mil.)	2.191	4.208	3.017	4.492	13.908	7.2	9.4	4.5
Pct of total households	15.8%	30.3%	21.7%	32.3%	100.0%	51.9%	67.7%	32.3%
Avg pre-tax income	$4,969	$18,548	$36,961	$90,480	$43,599	$26,237	$21,288	$90,480
Effec. fed tax rate %	2.0%	9.1%	14.1%	23.2%	13.6%	11.2%	9.0%	23.2%
Est. state tax rate%	1.5%	2.6%	4.0%	6.3%	3.9%	3.2%	2.8%	6.3%
Est. after-tax income	$4,795	$16,378	$30,271	$63,788	$35,949	$22,466	$18,767	$63,788
Residential energy $	$1,676	$2,043	$2,367	$2,961	$2,133	$2,178	$2,061	$2,961
Residential electric $	$910	$1,118	$1,335	$1,698	$1,241	$1,209	$1,139	$1,698
Other resid. energy $	$767	$925	$1,031	$1,263	$893	$969	$922	$1,263
Transport energy $	$1,312	$2,225	$4,192	$4,242	$3,435	$3,047	$2,643	$4,242
Total energy $	$2,988	$4,268	$6,559	$7,203	$5,569	$5,225	$4,704	$7,203
Energy % of after-tax inc.	62.3%	26.1%	21.7%	11.3%	15.5%	23.3%	25.1%	11.3%
Resid. % of after-tax inc.	35.0%	12.5%	7.8%	4.6%	5.9%	9.7%	11.0%	4.6%
Trans. % of after-tax inc.	27.4%	13.6%	13.8%	6.7%	9.6%	13.6%	14.1%	6.7%
Electric % of total energy $	30.4%	26.2%	20.4%	23.6%	22.3%	23.3%	26.8%	23.6%
Trans. % of total energy $	43.9%	52.1%	63.9%	58.9%	61.7%	58.1%	51.0%	58.9%

Sources: Population and income data from U.S. Bureau of the Census, Current Population Reports. Residential energy expenditures are estimated from U.S. DOE Residential Energy Consumption Survey (2001), with projections for 2008 based on changes in 2001-2008 residential energy costs from U.S. DOE/EIA Short-Term Energy Outlook (June 2008). Transportation energy expenditures are estimated from U.S. DOE/EIA, Household Vehicle Energy Use: Latest and Trends (November 2005) and DOE/EIA Short-Term Energy Outlook (June 2008). All energy expenditures per household adjusted for differences in average energy consumption for Hispanic, black and white households. Average effective federal tax rates are estimated from Congressional Budget Office, Effective Federal Tax Rates Under Current Law, 2001-2014 (August 2004), and Effective Federal Tax Rates, 1979-2001 (April 2004). State tax rates estimated from www.taxadmin.org/fta/rate/ind_inc.html.