

# ON THE BRINK: 2009

## THE HOME ENERGY AFFORDABILITY GAP APRIL 2010

### Finding #1

	Home Energy Affordability Gap	Gross LIHEAP Allocation	
2002 (base year)	\$18,193,257,723	\$1,669,935,373	Existing sources of energy assistance do not adequately address the energy affordability gap in the United States. Actual low-income energy bills exceeded affordable energy bills in the United States by \$39,593 million at 2008/2009 winter heating fuel prices. In contrast, the total United States received a gross allotment of federal energy assistance funds of \$4,428.9 million for Fiscal Year 2009.
2009 (current year)	\$39,592,695,214	\$4,428,898,222	The LIHEAP allocation for the total United States has lost ground relative to its Home Energy Affordability Gap. From 2002 to 2009, the total Home Energy Affordability Gap increased by \$21,399.4 million. In comparison, the LIHEAP allocation for the total United States increased \$2,759.0 million.
Change	\$21,399,437,491	\$2,758,962,849	

### Finding #2

Home Energy Affordability Gap: 2002 (base year)	\$18,193,257,723	The Home Energy Affordability Gap Index for the total United States was 217.6 for 2009. This Index indicates that the Home Energy Affordability Gap has increased 117.6% between 2002 and the current year.
Home Energy Affordability Gap: 2009 (current year)	\$39,592,695,214	The Home Energy Affordability Gap Index uses the year 2002 as its base year. In that year, the Index was set equal to 100. A current year Index of more than 100 thus indicates that the Home Energy Affordability Gap for the Total US division has increased since 2002. A current year Index of less than 100 indicates that the Home Energy Affordability Gap has decreased since 2002.
Home Energy Affordability Gap Index (2002 = 100)	217.6	

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### Finding #1

	Home Energy Affordability Gap	Gross LIHEAP Allocation	
2002 (base year)	\$875,313,956	\$190,103,906	Existing sources of energy assistance do not adequately address the energy affordability gap in the West North Central census division. Actual low-income energy bills exceeded affordable energy bills in the West North Central division by \$1,878 million at 2008/2009 winter heating fuel prices. In contrast, the West North Central division received a gross allotment of federal energy assistance funds of \$451.0 million for Fiscal Year 2009.
2009 (current year)	\$1,877,970,731	\$450,957,102	The LIHEAP allocation for the West North Central census division has lost ground relative to its Home Energy Affordability Gap. From 2002 to 2009, the total Home Energy Affordability Gap increased by \$1,002.7 million. In comparison, the LIHEAP allocation for the West North Central division increased \$260.9 million.
Change	\$1,002,656,775	\$260,853,196	

### Finding #2

Home Energy Affordability Gap: 2002 (base year)	\$875,313,956	The Home Energy Affordability Gap Index for the West North Central census division was 214.5 for 2009. This Index indicates that the Home Energy Affordability Gap has increased 114.5% between 2002 and the current year.
Home Energy Affordability Gap: 2009 (current year)	\$1,877,970,731	
Home Energy Affordability Gap Index (2002 = 100)	214.5	The Home Energy Affordability Gap Index uses the year 2002 as its base year. In that year, the Index was set equal to 100. A current year Index of more than 100 thus indicates that the Home Energy Affordability Gap for the West North Central division has increased since 2002. A current year Index of less than 100 indicates that the Home Energy Affordability Gap has decreased since 2002.

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### Finding #1

	Home Energy Affordability Gap	Gross LIHEAP Allocation	
2002 (base year)	\$2,104,790,609	\$378,548,214	Existing sources of energy assistance do not adequately address the energy affordability gap in the East North Central census division. Actual low-income energy bills exceeded affordable energy bills in the East North Central division by \$5,811 million at 2008/2009 winter heating fuel prices. In contrast, the East North Central division received a gross allotment of federal energy assistance funds of \$912.8 million for Fiscal Year 2009.
2009 (current year)	\$5,811,209,183	\$912,766,571	
Change	\$3,706,418,574	\$534,218,357	The LIHEAP allocation for the East North Central census division has lost ground relative to its Home Energy Affordability Gap. From 2002 to 2009, the total Home Energy Affordability Gap increased by \$3,706.4 million. In comparison, the LIHEAP allocation for the East North Central division increased \$534.2 million.

### Finding #2

Home Energy Affordability Gap: 2002 (base year)	\$2,104,790,609	The Home Energy Affordability Gap Index for the East North Central census division was 276.1 for 2009. This Index indicates that the Home Energy Affordability Gap has increased 176.1% between 2002 and the current year.
Home Energy Affordability Gap: 2009 (current year)	\$5,811,209,183	The Home Energy Affordability Gap Index uses the year 2002 as its base year. In that year, the Index was set equal to 100. A current year Index of more than 100 thus indicates that the Home Energy Affordability Gap for the East North Central division has increased since 2002. A current year Index of less than 100 indicates that the Home Energy Affordability Gap has decreased since 2002.
Home Energy Affordability Gap Index (2002 = 100)	276.1	

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### Finding #1

	Home Energy Affordability Gap	Gross LIHEAP Allocation	
2002 (base year)	\$1,008,687,819	\$162,607,251	Existing sources of energy assistance do not adequately address the energy affordability gap in the New England census division. Actual low-income energy bills exceeded affordable energy bills in the New England division by \$2,243 million at 2008/2009 winter heating fuel prices. In contrast, the New England division received a gross allotment of federal energy assistance funds of \$396.2 million for Fiscal Year 2009.
2009 (current year)	\$2,242,754,757	\$396,151,204	The LIHEAP allocation for the New England census division has lost ground relative to its Home Energy Affordability Gap. From 2002 to 2009, the total Home Energy Affordability Gap increased by \$1,234.1 million. In comparison, the LIHEAP allocation for the New England division increased \$233.5 million.
Change	\$1,234,066,938	\$233,543,953	

### Finding #2

Home Energy Affordability Gap: 2002 (base year)	\$1,008,687,819	The Home Energy Affordability Gap Index for the New England census division was 222.3 for 2009. This Index indicates that the Home Energy Affordability Gap has increased 122.3% between 2002 and the current year.
Home Energy Affordability Gap: 2009 (current year)	\$2,242,754,757	The Home Energy Affordability Gap Index uses the year 2002 as its base year. In that year, the Index was set equal to 100. A current year Index of more than 100 thus indicates that the Home Energy Affordability Gap for the New England division has increased since 2002. A current year Index of less than 100 indicates that the Home Energy Affordability Gap has decreased since 2002.
Home Energy Affordability Gap Index (2002 = 100)	222.3	

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### Finding #1

	Home Energy Affordability Gap	Gross LIHEAP Allocation	
2002 (base year)	\$2,402,712,484	\$143,095,341	Existing sources of energy assistance do not adequately address the energy affordability gap in the Pacific census division. Actual low-income energy bills exceeded affordable energy bills in the Pacific division by \$2,589 million at 2008/2009 winter heating fuel prices. In contrast, the Pacific division received a gross allotment of federal energy assistance funds of \$361.2 million for Fiscal Year 2009.
2009 (current year)	\$2,589,069,477	\$361,181,355	The LIHEAP allocation for the Pacific census division has gained ground relative to its Home Energy Affordability Gap. From 2002 to 2009, the total Home Energy Affordability Gap increased by \$186.4 million. In comparison, the LIHEAP allocation for the Pacific division increased \$218.1 million.
Change	\$186,356,993	\$218,086,014	

### Finding #2

Home Energy Affordability Gap: 2002 (base year)	\$2,402,712,484	The Home Energy Affordability Gap Index for the Pacific census division was 107.8 for 2009. This Index indicates that the Home Energy Affordability Gap has increased 7.8% between 2002 and the current year.
Home Energy Affordability Gap: 2009 (current year)	\$2,589,069,477	The Home Energy Affordability Gap Index uses the year 2002 as its base year. In that year, the Index was set equal to 100. A current year Index of more than 100 thus indicates that the Home Energy Affordability Gap for the Pacific division has increased since 2002. A current year Index of less than 100 indicates that the Home Energy Affordability Gap has decreased since 2002.
Home Energy Affordability Gap Index (2002 = 100)	107.8	

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### Finding #1

	Home Energy Affordability Gap	Gross LIHEAP Allocation	
2002 (base year)	\$3,388,498,837	\$391,717,292	Existing sources of energy assistance do not adequately address the energy affordability gap in the Mid-Atlantic census division. Actual low-income energy bills exceeded affordable energy bills in the Mid-Atlantic division by \$6,331 million at 2008/2009 winter heating fuel prices. In contrast, the Mid-Atlantic division received a gross allotment of federal energy assistance funds of \$917.0 million for Fiscal Year 2009.
2009 (current year)	\$6,331,495,819	\$917,024,806	The LIHEAP allocation for the Mid-Atlantic census division has lost ground relative to its Home Energy Affordability Gap. From 2002 to 2009, the total Home Energy Affordability Gap increased by \$2,943.0 million. In comparison, the LIHEAP allocation for the Mid-Atlantic division increased \$525.3 million.
Change	\$2,942,996,982	\$525,307,514	

### Finding #2

Home Energy Affordability Gap: 2002 (base year)	\$3,388,498,837	The Home Energy Affordability Gap Index for the Mid-Atlantic census division was 186.9 for 2009. This Index indicates that the Home Energy Affordability Gap has increased 86.9% between 2002 and the current year.
Home Energy Affordability Gap: 2009 (current year)	\$6,331,495,819	The Home Energy Affordability Gap Index uses the year 2002 as its base year. In that year, the Index was set equal to 100. A current year Index of more than 100 thus indicates that the Home Energy Affordability Gap for the Mid-Atlantic division has increased since 2002. A current year Index of less than 100 indicates that the Home Energy Affordability Gap has decreased since 2002.
Home Energy Affordability Gap Index (2002 = 100)	186.9	

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### Finding #1

	Home Energy Affordability Gap	Gross LIHEAP Allocation	
2002 (base year)	\$926,284,598	\$86,020,612	Existing sources of energy assistance do not adequately address the energy affordability gap in the Mountain census division. Actual low-income energy bills exceeded affordable energy bills in the Mountain division by \$1,826 million at 2008/2009 winter heating fuel prices. In contrast, the Mountain division received a gross allotment of federal energy assistance funds of \$222.9 million for Fiscal Year 2009.
2009 (current year)	\$1,826,330,772	\$222,871,911	The LIHEAP allocation for the Mountain census division has lost ground relative to its Home Energy Affordability Gap. From 2002 to 2009, the total Home Energy Affordability Gap increased by \$900.0 million. In comparison, the LIHEAP allocation for the Mountain division increased \$136.9 million.
Change	\$900,046,174	\$136,851,299	

### Finding #2

Home Energy Affordability Gap: 2002 (base year)	\$926,284,598	The Home Energy Affordability Gap Index for the Mountain census division was 197.2 for 2009. This Index indicates that the Home Energy Affordability Gap has increased 97.2% between 2002 and the current year.
Home Energy Affordability Gap: 2009 (current year)	\$1,826,330,772	The Home Energy Affordability Gap Index uses the year 2002 as its base year. In that year, the Index was set equal to 100. A current year Index of more than 100 thus indicates that the Home Energy Affordability Gap for the Mountain division has increased since 2002. A current year Index of less than 100 indicates that the Home Energy Affordability Gap has decreased since 2002.
Home Energy Affordability Gap Index (2002 = 100)	197.2	

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	Home Energy Affordability Gap	Gross LIHEAP Allocation	
2002 (base year)	\$1,341,042,818	\$72,682,985	Existing sources of energy assistance do not adequately address the energy affordability gap in the East South Central census division. Actual low-income energy bills exceeded affordable energy bills in the East South Central division by \$2,338 million at 2008/2009 winter heating fuel prices. In contrast, the East South Central division received a gross allotment of federal energy assistance funds of \$240.7 million for Fiscal Year 2009.
2009 (current year)	\$2,337,926,760	\$240,662,395	
Change	\$996,883,942	\$167,979,410	The LIHEAP allocation for the East South Central census division has lost ground relative to its Home Energy Affordability Gap. From 2002 to 2009, the total Home Energy Affordability Gap increased by \$996.9 million. In comparison, the LIHEAP allocation for the East South Central division increased \$168.0 million.

### Finding #2

Home Energy Affordability Gap: 2002 (base year)	\$1,341,042,818	The Home Energy Affordability Gap Index for the East South Central census division was 174.3 for 2009. This Index indicates that the Home Energy Affordability Gap has increased 74.3% between 2002 and the current year.
Home Energy Affordability Gap: 2009 (current year)	\$2,337,926,760	The Home Energy Affordability Gap Index uses the year 2002 as its base year. In that year, the Index was set equal to 100. A current year Index of more than 100 thus indicates that the Home Energy Affordability Gap for the East South Central division has increased since 2002. A current year Index of less than 100 indicates that the Home Energy Affordability Gap has decreased since 2002.
Home Energy Affordability Gap Index (2002 = 100)	174.3	



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### Finding #1

	Home Energy Affordability Gap	Gross LIHEAP Allocation	
2002 (base year)	\$3,240,292,399	\$168,508,502	Existing sources of energy assistance do not adequately address the energy affordability gap in the South Atlantic census division. Actual low-income energy bills exceeded affordable energy bills in the South Atlantic division by \$8,336 million at 2008/2009 winter heating fuel prices. In contrast, the South Atlantic division received a gross allotment of federal energy assistance funds of \$630.9 million for Fiscal Year 2009.
2009 (current year)	\$8,336,409,217	\$630,907,546	The LIHEAP allocation for the South Atlantic census division has lost ground relative to its Home Energy Affordability Gap. From 2002 to 2009, the total Home Energy Affordability Gap increased by \$5,096.1 million. In comparison, the LIHEAP allocation for the South Atlantic division increased \$462.4 million.
Change	\$5,096,116,818	\$462,399,044	

### Finding #2

Home Energy Affordability Gap: 2002 (base year)	\$3,240,292,399	The Home Energy Affordability Gap Index for the South Atlantic census division was 257.3 for 2009. This Index indicates that the Home Energy Affordability Gap has increased 157.3% between 2002 and the current year.
Home Energy Affordability Gap: 2009 (current year)	\$8,336,409,217	The Home Energy Affordability Gap Index uses the year 2002 as its base year. In that year, the Index was set equal to 100. A current year Index of more than 100 thus indicates that the Home Energy Affordability Gap for the South Atlantic division has increased since 2002. A current year Index of less than 100 indicates that the Home Energy Affordability Gap has decreased since 2002.
Home Energy Affordability Gap Index (2002 = 100)	257.3	

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### Finding #1

	Home Energy Affordability Gap	Gross LIHEAP Allocation	
2002 (base year)	\$2,905,634,202	\$76,651,270	Existing sources of energy assistance do not adequately address the energy affordability gap in the West South Central census division. Actual low-income energy bills exceeded affordable energy bills in the West South Central division by \$8,240 million at 2008/2009 winter heating fuel prices. In contrast, the West South Central division received a gross allotment of federal energy assistance funds of \$296.4 million for Fiscal Year 2009.
2009 (current year)	\$8,239,528,498	\$296,375,332	The LIHEAP allocation for the West South Central census division has lost ground relative to its Home Energy Affordability Gap. From 2002 to 2009, the total Home Energy Affordability Gap increased by \$5,333.9 million. In comparison, the LIHEAP allocation for the West South Central division increased \$219.7 million.
Change	\$5,333,894,296	\$219,724,062	

### Finding #2

Home Energy Affordability Gap: 2002 (base year)	\$2,905,634,202	The Home Energy Affordability Gap Index for the West South Central census division was 283.6 for 2009. This Index indicates that the Home Energy Affordability Gap has increased 183.6% between 2002 and the current year.
Home Energy Affordability Gap: 2009 (current year)	\$8,239,528,498	The Home Energy Affordability Gap Index uses the year 2002 as its base year. In that year, the Index was set equal to 100. A current year Index of more than 100 thus indicates that the Home Energy Affordability Gap for the West South Central division has increased since 2002. A current year Index of less than 100 indicates that the Home Energy Affordability Gap has decreased since 2002.
Home Energy Affordability Gap Index (2002 = 100)	283.6	

## Definitions and Explanations

Each state (along with the District of Columbia) has a Home Energy Affordability Gap calculated on a county-by-county basis. Once total energy bills are estimated for each county, each county bill is weighted by the percentage of persons below 185% of the Federal Poverty Level in each county to the total statewide population below 185% of the Federal Poverty Level to derive a statewide result. State data are then aggregated into Census Division totals as follows:

East North Central	Illinois, Indiana, Michigan, Ohio, Wisconsin
East South Central	Alabama, Kentucky, Mississippi, Tennessee
Mid-Atlantic	New Jersey, New York, Pennsylvania
Mountain	Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming
New England	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont
Pacific	Alaska, California, Hawaii, Oregon, Washington
South Atlantic	Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia
West North Central	Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota
West South Central	Arkansas, Louisiana, Oklahoma, Texas

LIHEAP comparisons use gross allotments from the baseline LIHEAP appropriation; they do not reflect supplemental appropriations or the release of other emergency funds. For example, the 2006 Home Energy Affordability Gap analysis (issued in April 2007) does not reflect the supplemental appropriation bill enacted in March 2006.

Energy bills are a function of the following primary factors:

- Tenure of household (owner/renter)
- Housing unit size (by tenure)
- Heating Degree Days (HDDs) and Cooling Degree Days (CDDs) (by county)
- Household size (by tenure)
- Heating fuel mix (by tenure)
- Energy use intensities (by fuel and end use)

Bills are estimated using the U.S. Department of Energy's "energy intensities" published in the most recent DOE Residential Energy Consumption Survey (RECS). The energy intensities used for each state are those published for the Census Division in which the state is located. State-specific demographic data is obtained from the most recent Decennial Census of the U.S. Census Bureau. Heating Degree-Days (HDDs) and Cooling Degree-Days (CDDs) are obtained from the National Weather Service's Climate Prediction Center on a county-by-county basis for the entire country. State price data for each end-use is obtained from the Energy Information Administration's (EIA) fuel-specific price reports (e.g., Natural Gas Monthly, Electric Power Monthly).

The Home Energy Affordability Gap is a function of many variables. Increases in income, for example, result in decreases in the Gap while increases in energy prices result in an increase in the Gap. The Home Energy Affordability Gap Index allows the reader to determine the cumulative impact of these variables. Since the Gap is calculated assuming normal Heating Degree Days (HDDs) and Cooling Degree Days (CDDs), temperatures do not have an impact on the Affordability Gap or the Affordability Gap Index.

Price data for the various fuels underlying the calculation of the 2009 Home Energy Affordability Gap was used from the following time periods:

<b><i>Heating prices</i></b>	
Natural gas	February 2009
Fuel oil	February 2009
Liquefied petroleum gas (LPG)	February 2009
Electricity	February 2009
<b><i>Cooling prices</i></b>	
August 2009	
<b><i>Non-heating prices</i></b>	
Natural gas	May 2009
Fuel oil	May 2009
Liquefied petroleum gas (LPG)	May 2009
Electricity	May 2009