Energy Burdens of Nebraska Households

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Energy Burdens of Nebraska Households

• This study updates the estimates of the energy burden of households in Nebraska that were developed in 2009.

• This study reviews information for the 2012 to 2014 period.

Data Source

• **Main Data Source:**
  

  • In 2014, the Census Bureau discontinued the 3-year microdata sample. To compare over time, this study combines the 1-year samples for 2012, 2013, and 2014

• **Data elements**
  
  • Household income
  • Cost of electricity
  • Cost of gas
  • Cost of oil, kerosene or wood
Definition of Energy Burden

• Energy burden may be defined as the percentage of annual household income that is used to pay annual household energy bills

  • Energy burden = (Annual Energy Bill) / (Annual Income) * 100 percent
• Household energy bills exclude other energy costs, such as those related to transportation.

• Expenditures are recorded if paid by or billed to occupants, a welfare agency, relatives, or friends.

• For a few households, some or all of their energy costs are paid by landlords, included in the rent payment, or included in condominium or cooperative fees. We excluded these households when calculating the energy burden.

• All tables and figures in this section are for households where no energy costs are included in rent.
Energy Expenditures By Income

• In general, annual energy expenditures are slightly lower for households with lower incomes, but the energy burden is substantially higher.

• For Nebraska households with incomes less than $10,000 in 2012 to 2014
  • Average annual energy expenditures were $1,993
  • Average energy burdens were 49.3%
Table 1. Energy Burden by Income Class for Households Where No Energy Expenses Are Included in Rent for Nebraska: 2005-2007 to 2012-2014

<table>
<thead>
<tr>
<th>Time period</th>
<th>Less than $10,000</th>
<th>$10,000 to $19,999</th>
<th>$20,000 to $29,999</th>
<th>$30,000 to $39,999</th>
<th>$40,000 or more</th>
<th>All households</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005-2007</td>
<td>42.5</td>
<td>13.2</td>
<td>8.0</td>
<td>5.9</td>
<td>3.2</td>
<td>7.4</td>
</tr>
<tr>
<td>2006-2008</td>
<td>44.5</td>
<td>14.0</td>
<td>8.3</td>
<td>6.2</td>
<td>3.3</td>
<td>7.4</td>
</tr>
<tr>
<td>2007-2009</td>
<td>43.4</td>
<td>13.6</td>
<td>8.1</td>
<td>6.1</td>
<td>3.3</td>
<td>7.5</td>
</tr>
<tr>
<td>2008-2010</td>
<td>45.1</td>
<td>14.1</td>
<td>8.4</td>
<td>6.2</td>
<td>3.4</td>
<td>7.5</td>
</tr>
<tr>
<td>2009-2011</td>
<td>45.9</td>
<td>14.3</td>
<td>8.5</td>
<td>6.3</td>
<td>3.3</td>
<td>7.5</td>
</tr>
<tr>
<td>2010-2012</td>
<td>46.4</td>
<td>14.3</td>
<td>8.6</td>
<td>6.2</td>
<td>3.3</td>
<td>7.5</td>
</tr>
<tr>
<td>2011-2013</td>
<td>46.7</td>
<td>14.1</td>
<td>8.7</td>
<td>6.2</td>
<td>3.3</td>
<td>7.5</td>
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<tr>
<td>2011-2013*</td>
<td>47.0</td>
<td>14.1</td>
<td>8.7</td>
<td>6.2</td>
<td>3.3</td>
<td>7.6</td>
</tr>
<tr>
<td>2012-2014*</td>
<td>49.3</td>
<td>14.3</td>
<td>8.9</td>
<td>6.5</td>
<td>3.4</td>
<td>7.6</td>
</tr>
</tbody>
</table>

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**Table 1. Energy Burden by Income Class for Households Where No Energy Expenses Are Included in Rent for Nebraska: 2005-2007 to 2012-2014**

<table>
<thead>
<tr>
<th>Income Class</th>
<th>Time period</th>
<th>Less than $10,000</th>
<th>$10,000 to $19,999</th>
<th>$20,000 to $29,999</th>
<th>$30,000 to $39,999</th>
<th>$40,000 or more</th>
<th>All households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean annual energy expenditures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005-2007</td>
<td></td>
<td>$1,944</td>
<td>$1,918</td>
<td>$1,954</td>
<td>$2,041</td>
<td>$2,350</td>
<td>$2,197</td>
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<tr>
<td>2006-2008</td>
<td></td>
<td>$1,988</td>
<td>$2,014</td>
<td>$2,053</td>
<td>$2,139</td>
<td>$2,473</td>
<td>$2,317</td>
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<tr>
<td>2007-2009</td>
<td></td>
<td>$1,875</td>
<td>$1,984</td>
<td>$2,000</td>
<td>$2,126</td>
<td>$2,439</td>
<td>$2,273</td>
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<tr>
<td>2008-2010</td>
<td></td>
<td>$1,845</td>
<td>$2,024</td>
<td>$2,055</td>
<td>$2,153</td>
<td>$2,472</td>
<td>$2,310</td>
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<td>2009-2011</td>
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<td>$1,923</td>
<td>$2,086</td>
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<tr>
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<td>$2,137</td>
<td>$2,139</td>
<td>$2,575</td>
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<td>$2,061</td>
<td>$2,128</td>
<td>$2,140</td>
<td>$2,575</td>
<td>$2,402</td>
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<tr>
<td>2012-2014*</td>
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<td>$1,993</td>
<td>$2,069</td>
<td>$2,197</td>
<td>$2,241</td>
<td>$2,637</td>
<td>$2,467</td>
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<tr>
<td>Mean annual household income</td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>2005-2007</td>
<td></td>
<td>$5,629</td>
<td>$15,125</td>
<td>$24,915</td>
<td>$34,658</td>
<td>$86,646</td>
<td>$60,914</td>
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<tr>
<td>2006-2008</td>
<td></td>
<td>$5,445</td>
<td>$15,008</td>
<td>$24,945</td>
<td>$34,833</td>
<td>$89,175</td>
<td>$64,036</td>
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<tr>
<td>2007-2009</td>
<td></td>
<td>$5,510</td>
<td>$15,197</td>
<td>$25,096</td>
<td>$34,855</td>
<td>$88,882</td>
<td>$62,927</td>
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<tr>
<td>2008-2010</td>
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<td>$5,237</td>
<td>$14,873</td>
<td>$24,852</td>
<td>$34,701</td>
<td>$89,989</td>
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<tr>
<td>2009-2011</td>
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<td>$5,115</td>
<td>$15,026</td>
<td>$24,904</td>
<td>$34,713</td>
<td>$93,224</td>
<td>$66,532</td>
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<tr>
<td>2010-2012</td>
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<td>$5,087</td>
<td>$14,956</td>
<td>$24,890</td>
<td>$34,732</td>
<td>$93,956</td>
<td>$67,826</td>
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<tr>
<td>2011-2013</td>
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<td>$5,127</td>
<td>$15,102</td>
<td>$24,888</td>
<td>$34,629</td>
<td>$96,441</td>
<td>$70,069</td>
</tr>
<tr>
<td>2011-2013*</td>
<td></td>
<td>$5,114</td>
<td>$15,096</td>
<td>$24,876</td>
<td>$34,643</td>
<td>$96,387</td>
<td>$70,005</td>
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<tr>
<td>2012-2014*</td>
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<td>$5,045</td>
<td>$15,084</td>
<td>$24,903</td>
<td>$34,663</td>
<td>$96,809</td>
<td>$70,984</td>
</tr>
</tbody>
</table>

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Figure 1. Mean Annual Energy Expenditures by Income Class for Nebraska Households Where No Energy Expenses Are Included in Rent for 2011-2014
Figure 2. Mean Energy Burden by Income Class for Nebraska Households Where No Energy Expenses Are Included in Rent: 2011-2014
Figure 3. Percentage Change in Mean Annual Energy Expenditures by Income Class for Nebraska Households Where No Energy Expenses Are Included in Rent: 2009-2011 to 2012-2014
Table 2. Energy Expenditures and Burdens by Relation of Income to Poverty for Nebraska Households Where No Energy Expenses Are Included in Rent: 2012-2014

<table>
<thead>
<tr>
<th>Ratio of income to poverty</th>
<th>Annual energy expenditures (mean)</th>
<th>Energy expenditures as a percent of household income (mean)</th>
<th>Number of households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 100%</td>
<td>$2,261</td>
<td>30.1</td>
<td>75,808</td>
</tr>
<tr>
<td>Under 125%</td>
<td>$2,247</td>
<td>24.2</td>
<td>109,293</td>
</tr>
<tr>
<td>Under 150%</td>
<td>$2,257</td>
<td>21.2</td>
<td>138,297</td>
</tr>
<tr>
<td>Under 200%</td>
<td>$2,296</td>
<td>17.1</td>
<td>200,443</td>
</tr>
</tbody>
</table>
Map 1. Nebraska Regions
Figure 4. Mean Annual Energy Expenditures by Area in Nebraska for Households Where No Energy Expenditures Are Included in Rent: 2012-2014
Figure 5. Mean Annual Household Income by Area in Nebraska for Households Where No Energy Expenditures Are Included in Rent: 2012-2014
Figure 6. Mean Annual Energy Burden by Area in Nebraska for Households Where No Energy Expenses Are Included in Rent: 2012-2014
Figure 7. Percentage Change in Mean Annual Energy Expenditures by Area in Nebraska for Households Where No Energy Expenses Are Included in Rent for 2009-2011 to 2012-2014
For 2012-2014, some of the highest mean annual energy burdens are for households that:

- Have incomes below $30,000 or below 200 percent of poverty
- Are linguistically isolated
- Live in a rental housing unit
- Live in a housing unit that is owned free and clear
- Consist of families with householders with no spouse present, especially female householders
- Consist of persons living alone, especially single women
- Have no children under 18 years living in the household
- Have exactly one person 60 years or older living in the household
- Have exactly one person 65 years or older living in the household
- Live in housing units with 6 or fewer rooms
- Heat with a fuel other than electricity or utility gas
- Live in a house built prior to 1980
- Live in Greater Nebraska, Eastern Douglas County, or North Lancaster County
Housing (continued)

2. How many automobiles, vans, and trucks of one-ton capacity or less are kept at home for use by members of this household?
   - None
   - 1
   - 2
   - 3
   - 4
   - 5
   - 6 or more

3. Which FUEL is used MOST for heating this house, apartment, or mobile home?
   - Gas: from underground pipes serving the neighborhood
   - Gas: bottled, tank, or LP
   - Electricity
   - Fuel oil, kerosene, etc.
   - Coal or coke
   - Wood
   - Solar energy
   - Other fuel
   - No fuel used

4. LAST MONTH, what was the cost of electricity for this house, apartment, or mobile home?
   - Last month's cost – Dollars
   - $ ________ .00
   - OR
   - Included in rent or condominium fee
   - No charge or electricity not used

5. LAST MONTH, what was the cost of gas for this house, apartment, or mobile home?
   - Last month's cost – Dollars
   - $ ________ .00
   - OR
   - Included in rent or condominium fee
   - Included in electricity payment entered above
   - No charge or gas not used

6. IN THE PAST 12 MONTHS, what was the cost of water and sewer for this house, apartment, or mobile home? If you have lived here less than 12 months, estimate the cost.
   - Past 12 months’ cost – Dollars
   - $ ________ .00
   - OR
   - Included in rent or condominium fee
   - No charge

7. IN THE PAST 12 MONTHS, what was the cost of oil, coal, kerosene, wood, etc., for this house, apartment, or mobile home? If you have lived here less than 12 months, estimate the cost.
   - Past 12 months’ cost – Dollars
   - $ ________ .00
   - OR
   - Included in rent or condominium fee
   - No charge or these fuels not used
13. Mark ONE category for the fuel used MOST to heat this house, apartment, or mobile home. In buildings containing more than one apartment, you may obtain this information from the owner, manager, or janitor.

Solar energy is provided by a system that collects, stores, and distributes heat from the sun. Other fuel includes any fuel not listed separately, such as purchased steam, fuel briquettes, and waste material.

14a–14d.

If your house, apartment, or mobile home is rented, enter the costs for utilities and fuels only if you pay for them in addition to the monthly rent.

If you live in a condominium, enter the costs for utilities and fuels only if you pay for them in addition to your condominium fee.

If your fuel and utility costs are included in your rent or condominium fee, mark the "Included in rent or condominium fee" box. DO NOT enter any dollar amounts.

For items 14a and 14b, report LAST MONTH’S COSTS. For items 14c and 14d, report total costs for the PAST 12 MONTHS.

Estimate as closely as possible if you do not know exact costs. If you have lived in this house, apartment, or mobile home less than one year, estimate the costs for the PAST 12 MONTHS in 14c and 14d.

Report amounts even if your bills are unpaid or paid by someone else. If the bills include utilities or fuel used also by another apartment or a business establishment, estimate the amounts for your house or apartment only. If gas and electricity are billed together, enter the combined amount in 14a and mark the "Included in electricity payment entered above" box in item 14b.