

# IPU RESEARCH NOTE

INSTITUTE OF PUBLIC UTILITIES REGULATORY RESEARCH AND EDUCATION ■ MICHIGAN STATE UNIVERSITY

## CONSUMER EXPENDITURES ON UTILITIES IN 2007

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APRIL 2009 ■ ipu.msu.edu

The Bureau of Labor Statistics (BLS) of the U.S. Department of Labor publishes annual data on household expenditures. This research note summarizes 2007 and time series data on utility expenditures extracted from the BLS website ([www.bls.gov](http://www.bls.gov)). Expenditures are reported here in absolute terms and relative to total household expenditures. The data are also reported along several demographic dimensions. Utility expenditures are divided by total household expenditures instead of income because total household expenditures may exceed income before taxes for lower income households.

These data reflect broad aggregations and averages; the actual experience of particular regions, states, and households will vary significantly. The data are also affected by the survey method, where households not using or paying directly for a particular service (for example, natural gas, fuel oil, or water) will be included at a value of zero. Nonetheless, the data provide insight into significant attributes and trends for consumer expenditures on utility services.

Sixteen exhibits are provided:

- Exhibit 1. Consumer expenditures on utilities for a four-person household in 2007.
- Exhibit 2. Consumer expenditures on utilities by household size in 2007.
- Exhibit 3. Trends in consumer expenditures on utilities for a four-person household.
- Exhibit 4. Trends in consumer expenditures on utilities as a percentage of total expenditures.
- Exhibit 5. Trends in consumer expenditures on utilities relative to total expenditures and income by income quintile.
- Exhibit 6. Trends in income levels by income quintile.
- Exhibit 7. Trends in consumer expenditures on utilities by income quintile.
- Exhibit 8. Consumer expenditures on utilities by income quintile.
- Exhibit 9. Consumer expenditures on utilities by income quintile as a percentage of total expenditures.
- Exhibit 10. Change in percentage of consumer expenditures on utilities by income quintile from 1984 to 2007.
- Exhibit 11. Consumer expenditures on utilities by region (amounts and percentages).
- Exhibit 12. Consumer expenditures on utilities by urban and rural area (amounts and percentages).
- Exhibit 13. Consumer expenditures on utilities by housing (amounts and percentages).
- Exhibit 14. Consumer expenditures on utilities by age (amounts and percentages).
- Exhibit 15. Consumer expenditures on utilities by race (amounts and percentages).
- Exhibit 16. Expenditures on all utilities in 2007 for key demographics.

The data reveal the following:

- In 2007, a four-person household in the U.S. spent about \$4,481 on public utilities or about 6.7% of total household expenditures (Exhibit 1).
- For the household utility budget, expenditures are highest for electricity (37%) and telephone (33%), followed by natural gas (15%), water and other public services (13%), and fuel oil and other fuels (3%) (Exhibit 1).
- Utility expenditures for a four-person household are double that for a single-person household (Exhibit 2).

- Although utility expenditures demonstrate an upward pattern over time in nominal terms (Exhibit 3), the proportion of household expenditures devoted to utilities has fluctuated between six and seven percent since the middle-1980s (Exhibit 4).
- For the lowest income quintile, utilities can take a large share of expenditures and an even larger share of income; for the highest income quintile, utilities take a relatively low share of expenditures and an even lower share of income (Exhibit 5).
- Households with higher incomes spend more on utilities, but households with lower incomes devote a greater proportion of their expenditures (and an ever greater proportion of their income) to utilities (Exhibits 6 and 7), illustrating the regressive nature of utilities.
- Trend data reveal persistent disparity across the income quintiles (Exhibit 8), as well as persistent regressivity; recent trends also suggest that households in the lower income quintiles have seen a more rapid rise in the proportion of expenditures required for utilities (Exhibit 9).
- Trend data further suggest distributional effects associated with expenditures on utilities. Between 1984 and 2007, the lowest income quintile saw increases in percentages paid for electricity and water, in comparison to a smaller percentage change for water and a percentage decrease for electricity (Exhibit 10).<sup>1</sup>
- Consumers in the West spend less on utilities in the aggregate and as a percentage of total household expenditures; a greater share of expenditures is paid by utility consumers in the South (Exhibit 11).
- Expenditures on utilities are comparable for urban and rural customers (Exhibit 12), but greater for owners than renters (Exhibit 13).
- Older Americans (and retired persons) spend less on utilities but utilities take a greater share of household expenditures, most likely reflecting the effects of fixed incomes (Exhibit 14).
- Racial groups spend comparable amounts on utilities, but the impact on household expenditures and income is greater for African Americans due to income disparity (Exhibit 15).

Consumer expenditures on utilities for a four-person household in 2007  
[\$4,481 and 6.8% of total expenditures]

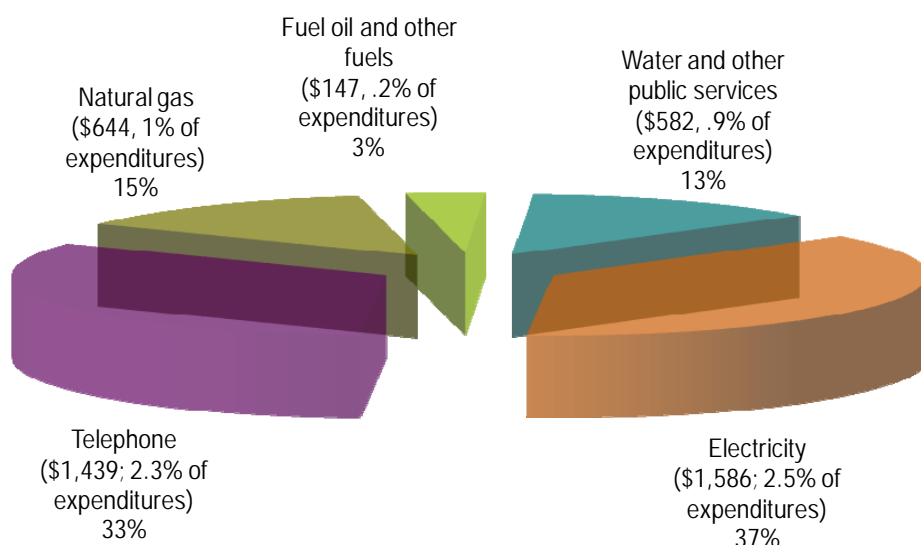


Exhibit 1. Consumer expenditures on utilities for a four-person household in 2007.

<sup>1</sup> For all customers, the share of expenditures for fuel oil declined along with consumption fuel oil See Energy Information Administration (<http://www.eia.doe.gov>).

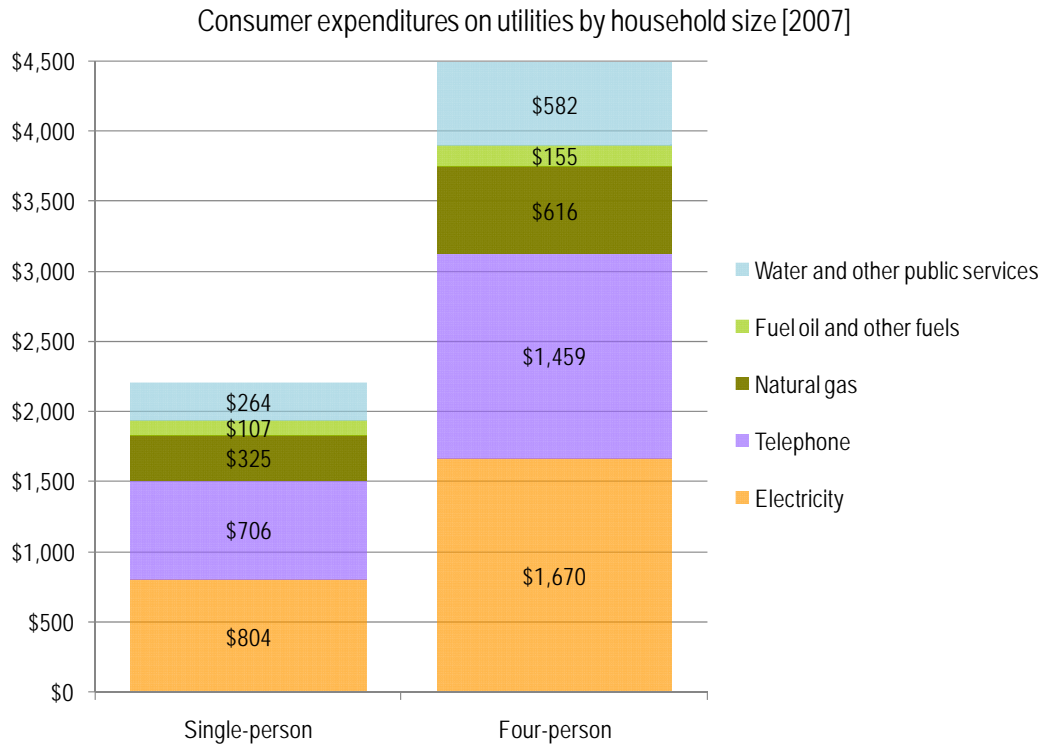


Exhibit 2. Consumer expenditures on utilities by household size in 2007.

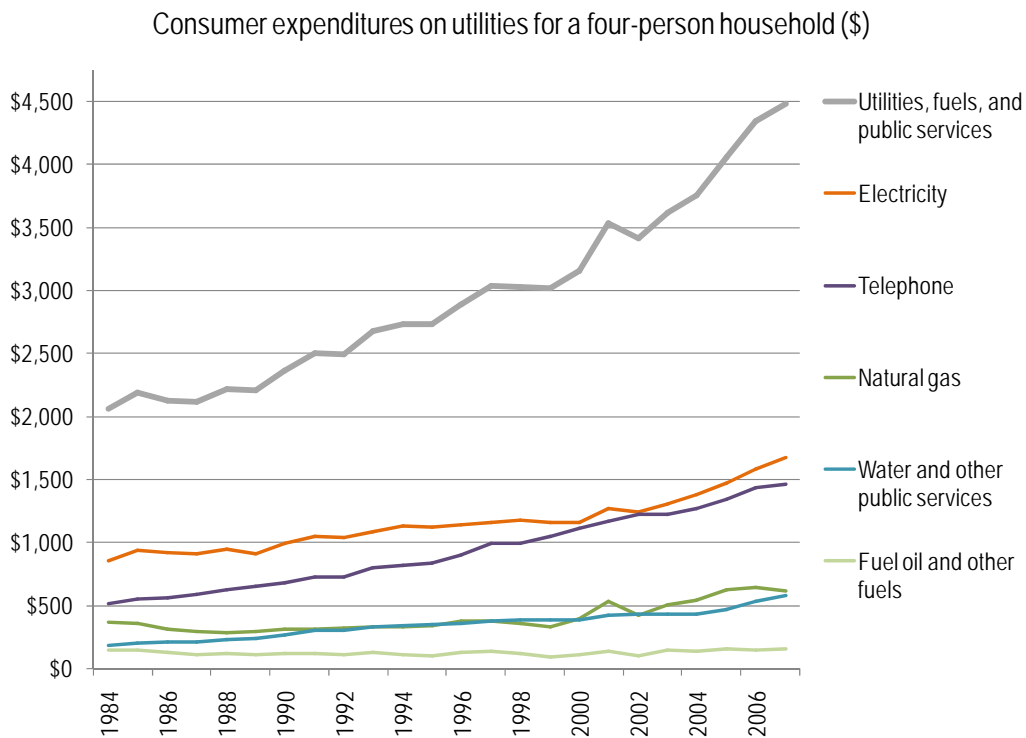


Exhibit 3. Trends in consumer expenditures on utilities for a four-person household.

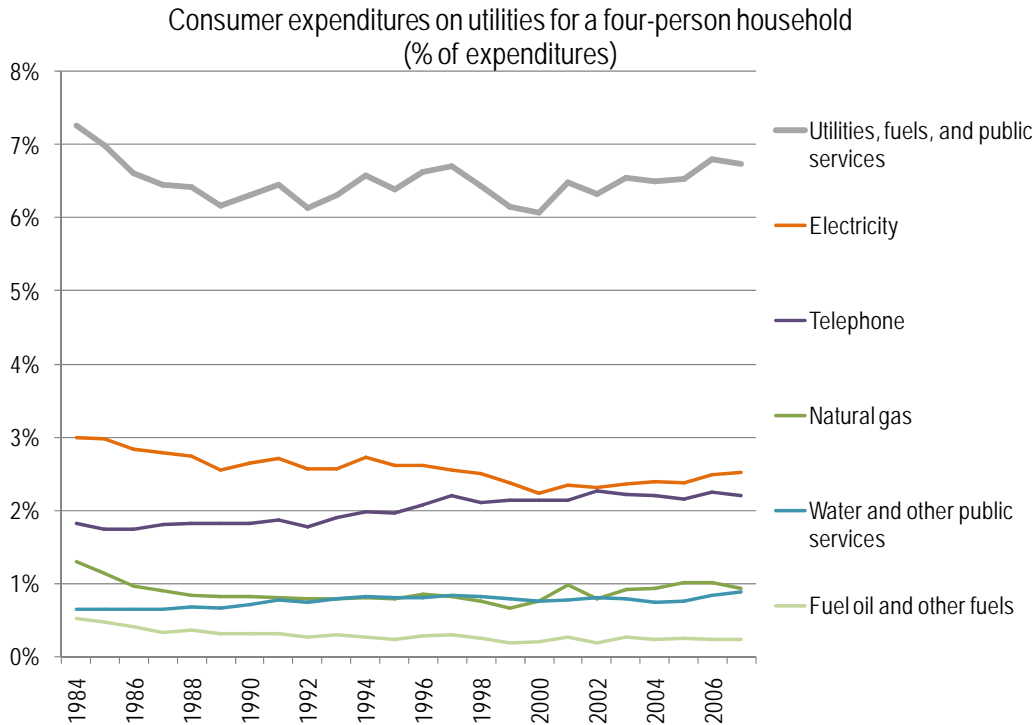


Exhibit 4. Trends in consumer expenditures on utilities as a percentage of total expenditures.

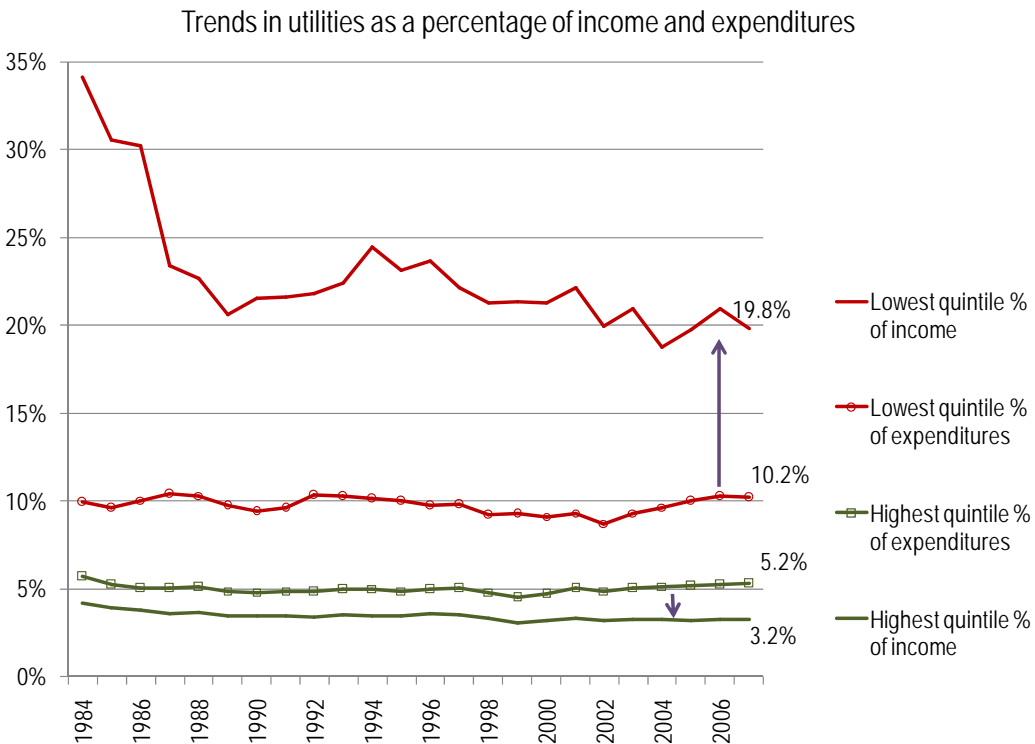


Exhibit 5. Trends in consumer expenditures on utilities relative to total expenditures and income by income quintile.

Consumer expenditures on utilities by income quintile (all consumers \$)

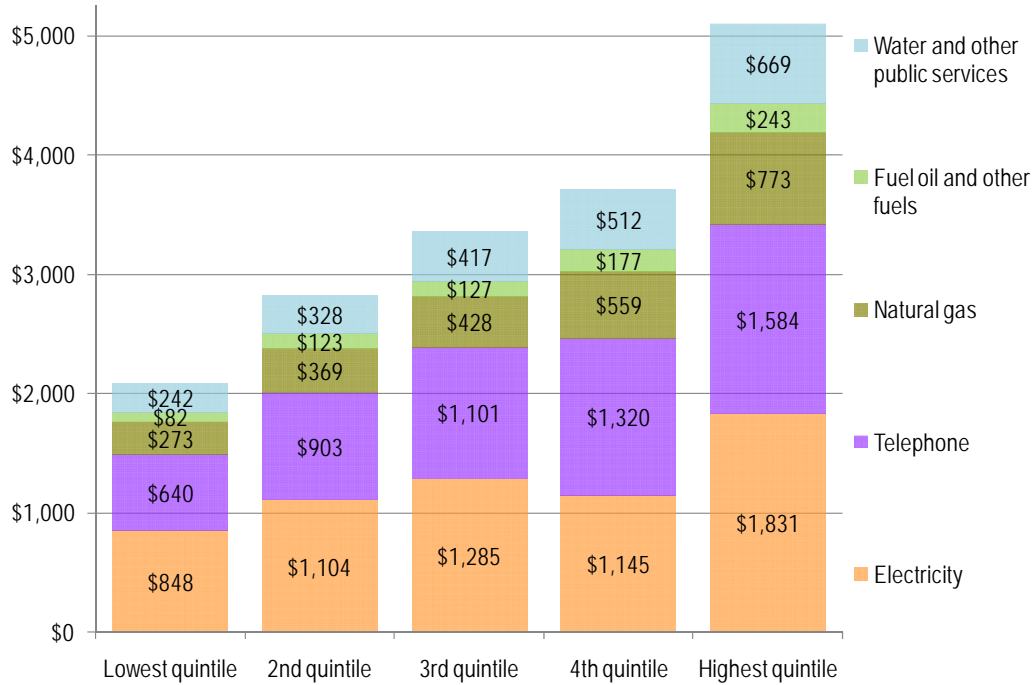


Exhibit 6. Consumer expenditures on utilities by income quintile.

Consumer expenditures on utilities by income quintile (all consumers %)

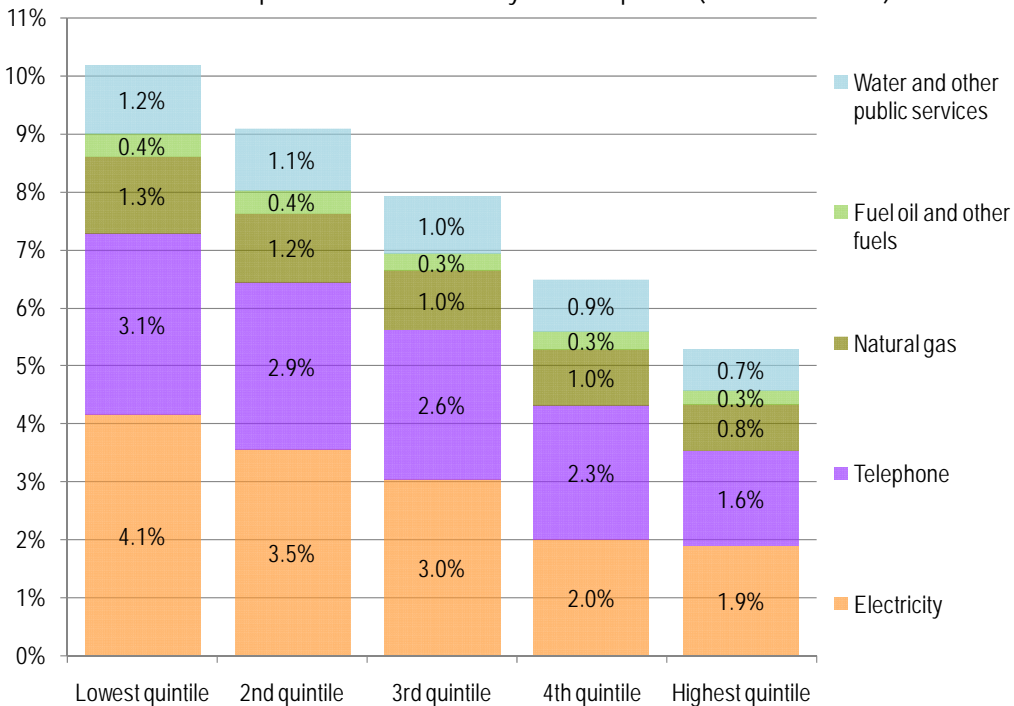


Exhibit 7. Consumer expenditures on utilities by income quintile as a percentage of total expenditures.

Income before taxes by income quintile

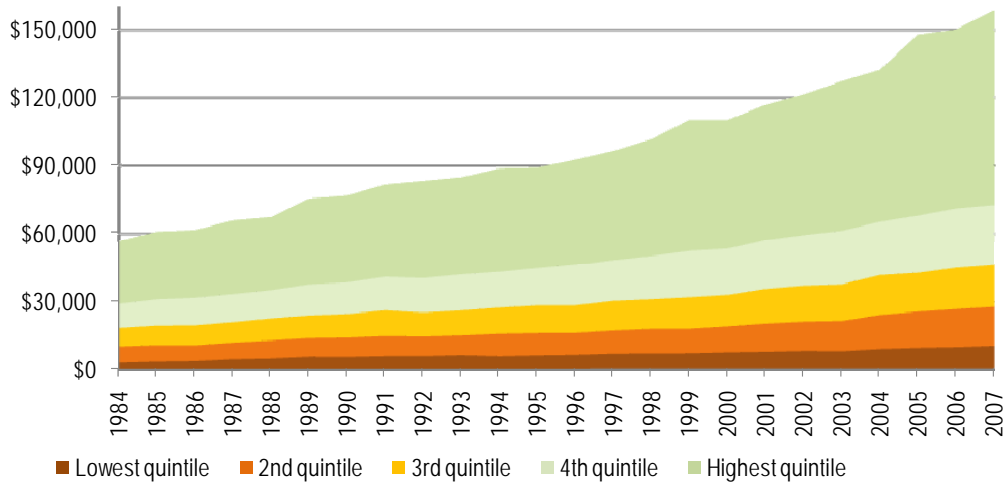


Exhibit 8. Trends in income levels by income quintile.

Trends in consumer expenditures on utilities by income quintile

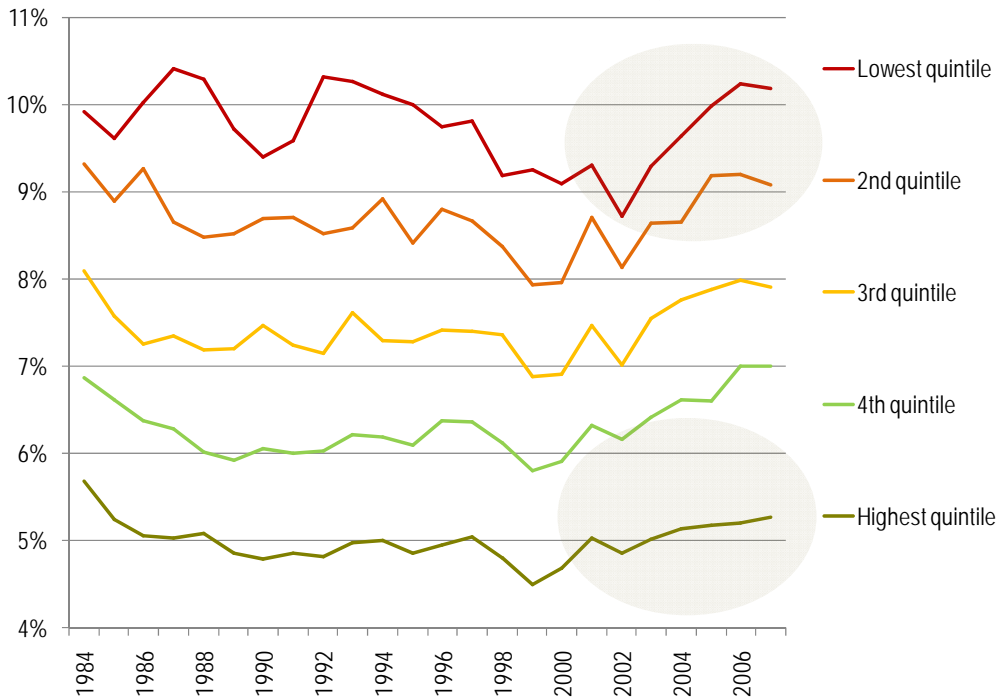


Exhibit 9. Trends in consumer expenditures on utilities by income quintile.

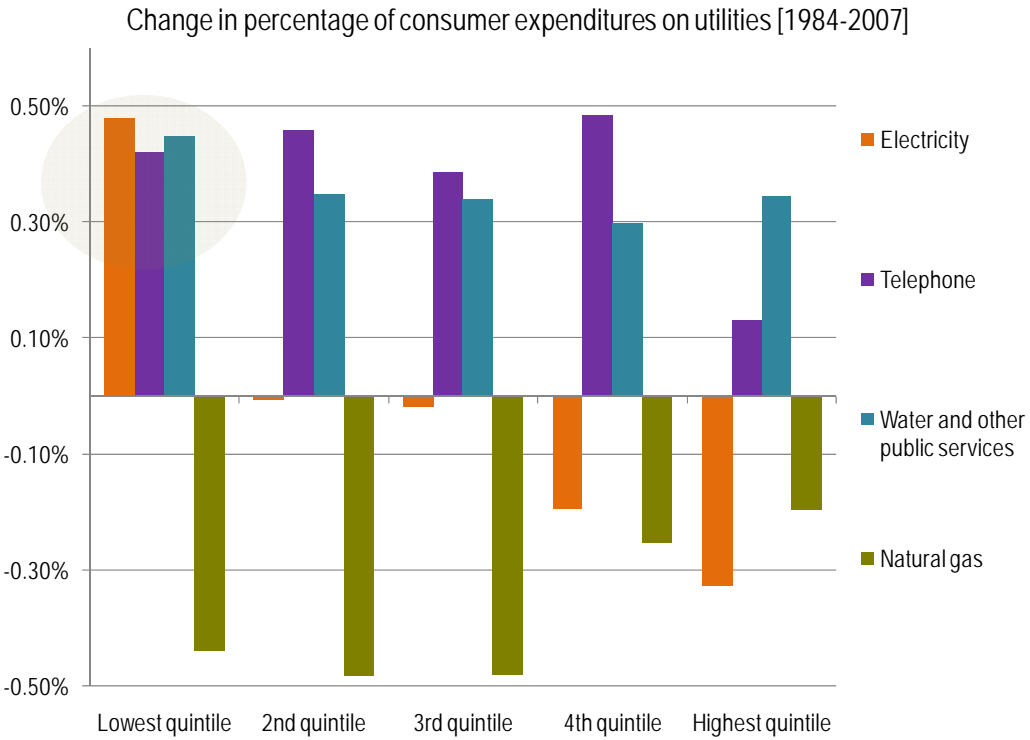


Exhibit 10. Change in percentage of consumer expenditures on utilities by income quintile from 1984 to 2007.

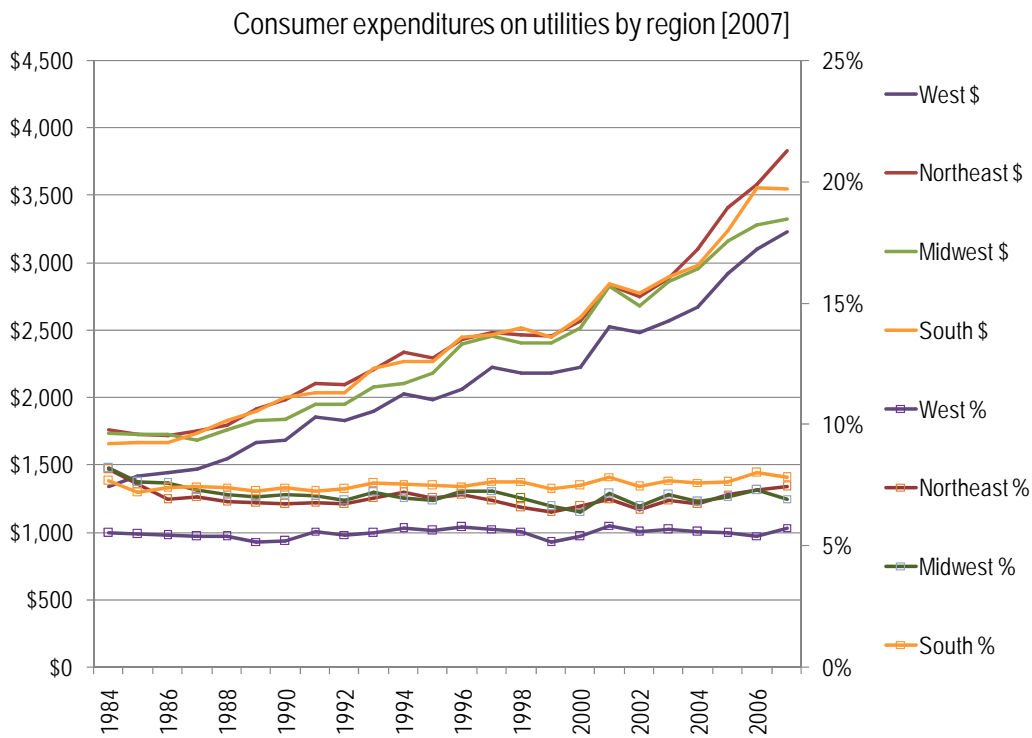


Exhibit 11. Consumer expenditures on utilities by region (amounts and percentages).

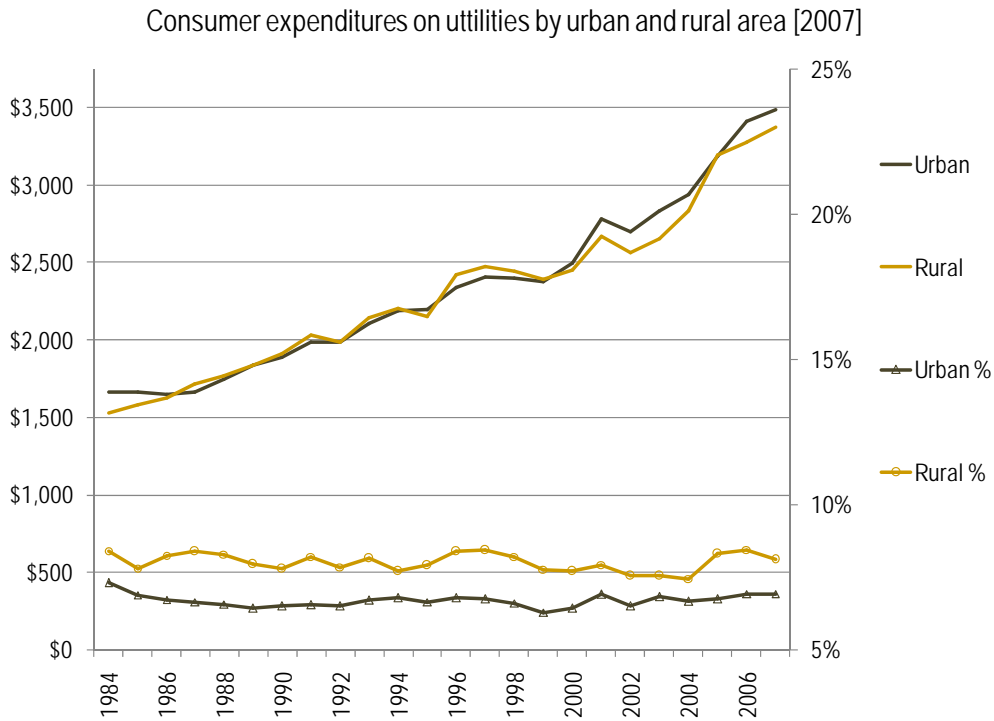


Exhibit 12. Consumer expenditures on utilities by urban and rural area (amounts and percentages).

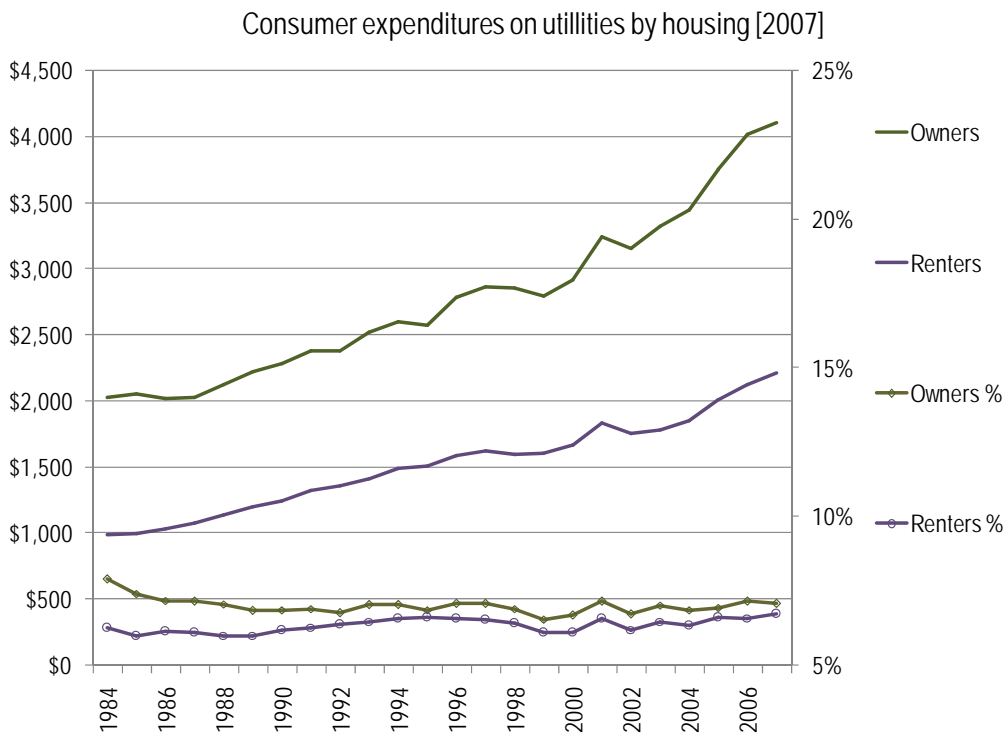


Exhibit 13. Consumer expenditures on utilities by housing (amounts and percentages).

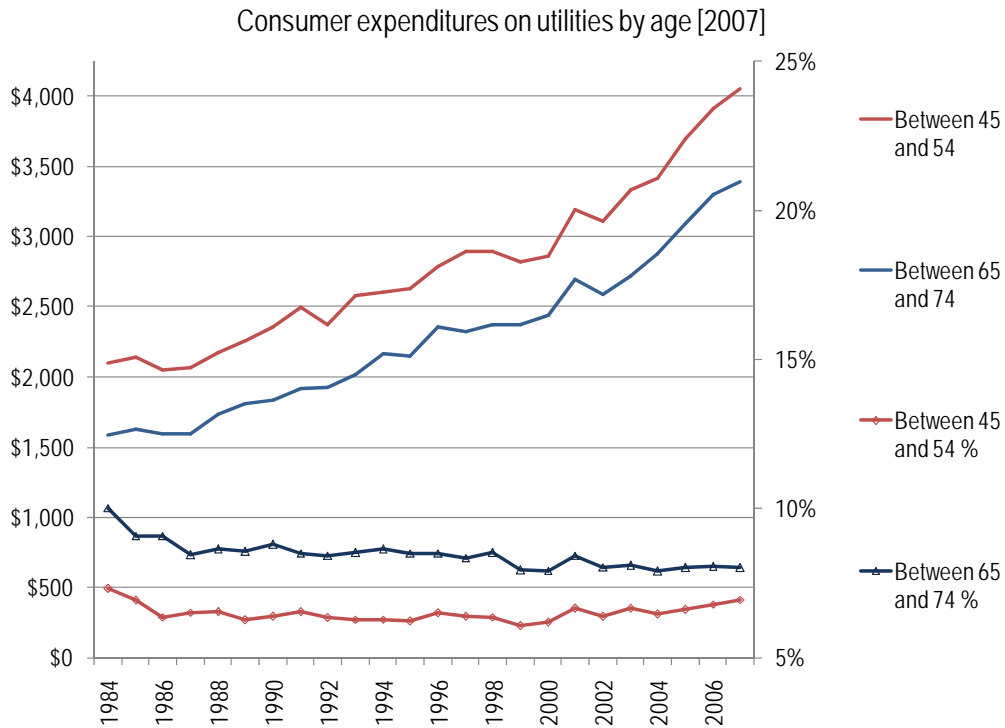


Exhibit 14. Consumer expenditures on utilities by age (amounts and percentages).

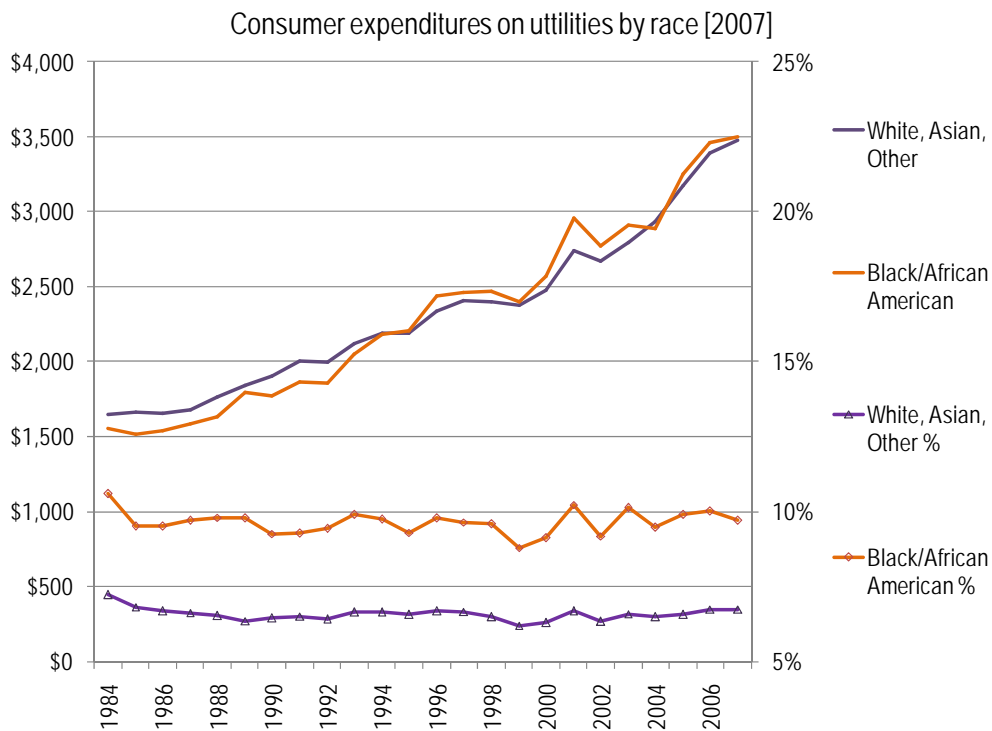


Exhibit 15. Consumer expenditures on utilities by race (amounts and percentages).

Exhibit 16. Summary: expenditures on all utilities in 2007 for key demographics.

	<u>Expenditures on utilities</u>	<u>% of expenditures</u>	<u>% of pre-tax income</u>		<u>Expenditures on utilities</u>	<u>% of expenditures</u>	<u>% of pre-tax income</u>
<b>Size of Consumer Unit</b>				<b>Population Size of Urban Areas</b>			
One person	2,206	7.5%	6.9%	Less than 100,000	3,142	7.7%	6.7%
Two persons	3,577	6.7%	5.1%	100,000-249,999	3,265	6.9%	5.4%
Three persons	4,068	7.1%	5.4%	250,000-999,999	3,316	6.8%	5.3%
Four persons	4,481	6.7%	5.2%	1,000,000-2,499,999	3,538	6.8%	5.5%
Five or more persons	4,722	7.3%	5.6%	2,500,000-4,999,999	3,794	6.7%	5.0%
				5,000,000 and more	3,669	6.6%	4.8%
<b>Quintiles of Income before Taxes</b>				<b>Region of Residence</b>			
Lowest 20 percent	2,085	10.2%	19.8%	Northeast	3,832	7.4%	5.5%
Second 20 percent	2,827	9.1%	10.2%	Midwest	3,323	6.9%	5.6%
Third 20 percent	3,358	7.9%	7.3%	South	3,547	7.8%	6.1%
Fourth 20 percent	4,013	7.0%	5.5%	West	3,229	5.7%	4.7%
Highest 20 percent	5,100	5.3%	3.2%				
<b>Income before Taxes</b>				<b>Housing Tenure</b>			
Less than 5,000	1,736	8.8%	-	Homeowner	4,107	7.1%	5.3%
5,000- 9,999	1,760	10.6%	21.8%	Renter	2,211	6.7%	6.2%
10,000-14,999	2,230	10.8%	17.6%				
15,000-19,999	2,422	10.0%	14.0%	<b>Age</b>			
20,000-29,999	2,748	9.3%	11.0%	Under 25 years	1,813	6.2%	5.8%
30,000-39,999	3,072	8.8%	8.8%	25-34 years	3,063	6.4%	5.3%
40,000-49,999	3,282	8.0%	7.4%	35-44 years	3,928	6.7%	5.1%
50,000-69,999	3,697	7.3%	6.2%	45-54 years	4,053	6.9%	5.0%
70,000 and more	4,772	5.7%	3.7%	55-64 years	3,754	7.0%	5.3%
				65 years and older	3,117	8.5%	7.7%
<b>Education</b>				65-74 years	3,392	8.0%	7.1%
Less than high school	2,930	9.7%	8.6%	75 years and older	2,828	9.3%	8.7%
High school	3,312	8.5%	7.1%				
Bachelors degree	3,860	5.9%	4.3%	<b>Race</b>			
Advanced degree	4,254	5.3%	3.7%	White and all other	3,474	6.8%	5.3%
				African American	3,500	9.7%	7.9%
<b>Occupation</b>				Hispanic or Latino	3,274	7.9%	6.8%
Wage & Salaried	3,587	6.7%	5.0%	Asian	3,436	5.7%	4.3%
Retired	3,022	8.5%	8.6%				
<b>Type of Area</b>							
Urban	3,487	6.9%	5.4%				
Rural	3,371	8.1%	6.7%				