Trends in consumer expenditures and prices for public utilities (2020)
Introduction

- This research summary is based on data from the Bureau of Labor Statistics of the U.S. Department of Labor (https://www.bls.gov/data)
- Data are provided on both household expenditures and the consumer price index (CPI) with a focus on public utility services
Household expenditures on utilities in the U.S.

Consumer expenditures on utilities for a four-person household in 2018 ($5,001 and 6.2% of total household expenditures)

- Natural gas (6% of exp.), $506, 10%
- Fuel oil and other fuels (.1% of exp.), $110, 2%
- Water and other public services (1% of exp.), $800, 16%
- Telephone (2.3% of exp.), $1,856, 37%
- Electricity (2.2% of exp.), $1,801, 35%

Source: IPUMS based on BLS data.

Consumer expenditures on utilities by household size (2018)

- Single-person:
  - Water and other public services: $354
  - Fuel oil and other fuels: $74
  - Natural gas: $461
  - Telephone: $759
  - Electricity: $964
  - Total: $2,233

- Four-person:
  - Water and other public services: $800
  - Fuel oil and other fuels: $110
  - Natural gas: $506
  - Telephone: $1,856
  - Electricity: $1,801
  - Total: $6,068

Source: IPUMS based on BLS data.
Household expenditures on utilities over time

Annual consumer expenditures on utilities for a four-person household ($)

Consumer expenditures on utilities for a four-person household (% of total expenditures)
Utilities expenditures by income level and regressivity

Consumer expenditures on utilities by income quintile (all consumers $2018)

Source: IPUMSU based on BLS data.

Water and other public services
Fuel oil and other fuels
Natural gas
Telephone
Electricity

1.30% 0.30% 1.27% 1.15% 0.76%
0.91% 0.28% 0.84% 0.75% 0.18%
2.66% 2.72% 2.70% 2.51% 0.54%
3.98% 3.41% 2.86% 2.35% 1.78%
1.65%
Change in percentage of expenditures on utilities

Change in percentage of consumer expenditures on utilities by income quintile (2005-2018)

- Electricity
- Natural Gas
- Fuel oil and other fuels
- Water and other public services
- Telephone

Source: IPUMSU based on BLS data
Trends in expenditures by income

Income before taxes by income quintile

Trends in consumer expenditures on utilities by income quintile

(% of total expenditures)

Source: IPUMSU based on BLS data
Trends in expenditures by region

Consumer expenditures on utilities by region

Source: IPUMSU based on BLS data.
Trends in expenditures by area

Consumer expenditures on utilities by urban and rural area

Source: IPU-MSU based on BLS data.
Trends in expenditures by housing

Consumer expenditures on utilities by housing

Source: IPU-MSU based on BLS data.
CPI trends for utilities (US)

Trends in the Consumer Price Index (CPI) for public utilities

Source: IPUMSU based on BLS data
CPI trends for utilities (US)

Trends in the Consumer Price Index (CPI) for public utilities

- Water & sewer (1953)
- CPI (1983=100)
- Electricity (1913)
- Natural gas (1935)
- Telephone services (1997=100)

Source: IPUMSU based on BLS data.
CPI trends for household expenditures (US)

Trends in CPI for major household expenditures (1983=100)

Source: IPUMSU based on BLS data.
Expenditure and price trends combined

Household expenditures and CPI for electricity

Source: IPU-MSU based on BLS data.
Expenditure and price trends combined

Household expenditures and CPI for natural gas

- Natural gas (nominal)
- Natural gas expenditures ($2016)
- Natural gas CPI

Source: IPU-MSU based on BLS data
Expenditure and price trends combined

Household expenditures and CPI for water and sewer maintenance

- Water expenditures (nominal)
- Water expenditures ($2016)
- Water CPI

Source: IPU-MSU based on BLS data.
Expenditure and price trends combined

Household expenditures and CPI for telecommunications

Annual household expenditures (family of four)

Telecom (nominal)
Telecom expenditures ($2016)
Telecom CPI

CPI for natural gas

Source: IPU-MSU based on BLS data.
Welcome to IPU

The Institute of Public Utilities (IPU) supports informed, effective, and efficient regulation of the infrastructure-intensive network industries providing essential electricity, natural gas, water, and broadband services. IPU was established in 1965 and operates as a self-sustaining unit within the College of Social Science at Michigan State University, the nation’s pioneer land-grant institution. We are located on MSU’s beautiful East Lansing campus and collaborate with faculty and researchers from various academic colleges, departments, and centers.

IPU specializes in conducting applied research and providing exceptional learning and networking opportunities to professionals in the utility policy community. IPU’s neutral analytical and instructional practice is informed by a broad array of traditional and applied disciplines including economics, political science, law, accounting, finance, and engineering. IPU’s educational forums sharpen the skills needed to address today’s most salient challenges of infrastructure governance, including the integration of markets and economic regulation.

Upcoming Programs

All IPU Programs are open to everyone

- **Accounting and Ratemaking Course**
  - April 13-15, 2020
- **Power Grid School**
  - May 4-6, 2020
- **Annual Program: Fundamentals Course**
  - August 10-14, 2020
- **Annual Program:**