



Setting the Stage: Overview of Water Affordability



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Who am I?

- ▶ Lawyer, consultant, expert witness, researcher, author
- ▶ Since 1983, worked solely on issues affecting the public utility industries
- ▶ PA Office of Consumer Advocate (OAG) 1983-1994
- ▶ Chair, Water Committee, NASUCA 1990-1994
- ▶ Independent attorney and consultant 1994-2021
- ▶ Started working on water affordability in 1992 as part of US EPA regulatory negotiation on D/DBP
- ▶ Affordability clients have included AWWA, NRWA, US EPA, municipal water utilities, state consumer advocates

A note on words and abbreviations

- ▶ *EITC* earned income tax credit
- ▶ *FPL* federal poverty level
- ▶ *HH* household
- ▶ *MHI* median household income
- ▶ *Water bill* combined bill for water & wastewater service

What is Affordability?

What is affordability?

- ▶ Ability to pay water bill in full and on time
- ▶ Without jeopardizing ability to pay for other necessities
 - ▶ Food
 - ▶ Medical care
 - ▶ Housing (rent, mortgage, other essential utilities)
 - ▶ Transportation
 - ▶ Child care

Is there a “magic number”?

- ▶ No
- ▶ US EPA uses “magic numbers” for affordability at the *utility level* to determine ability of *utility* to afford to comply with regulatory requirements:
 - ▶ Average drinking water bill \leq 2.5% of MHI
 - ▶ Average sewer bill \leq 2.0% of MHI
- ▶ Thresholds based on MHI have little to do with an individual *household's* ability to afford to pay the water bill

Are there commonly used measures?

- ▶ No consensus
- ▶ Examples of indicators include:
 - ▶ water bill as % MHI
 - ▶ water bill as % of a low income (such as 20th percentile)
 - ▶ water bill as % of income for a HH \leq x% FPL
 - ▶ days needed to work at minimum wage to pay water bill
 - ▶ % of revenues written off as bad debt by utility
 - ▶ utility receivables aging (such as % bills > 60 days past due)

Why no common measures?

- ▶ **HH that do not pay for some or all water services**
 - ▶ Private wells
 - ▶ Septic systems
- ▶ **HH that pay indirectly for water service, but are not utility customers**
 - ▶ Some renters
 - ▶ Some owners of condominiums / coops
 - ▶ Some residents of multi-unit buildings
- ▶ **Data availability / quality**
 - ▶ Small municipalities
 - ▶ Water system boundaries not always same as municipal boundaries
 - ▶ Utility bad debt / arrearage data often not public

What do we know?

If we have trouble measuring water affordability directly, can we look for signs?

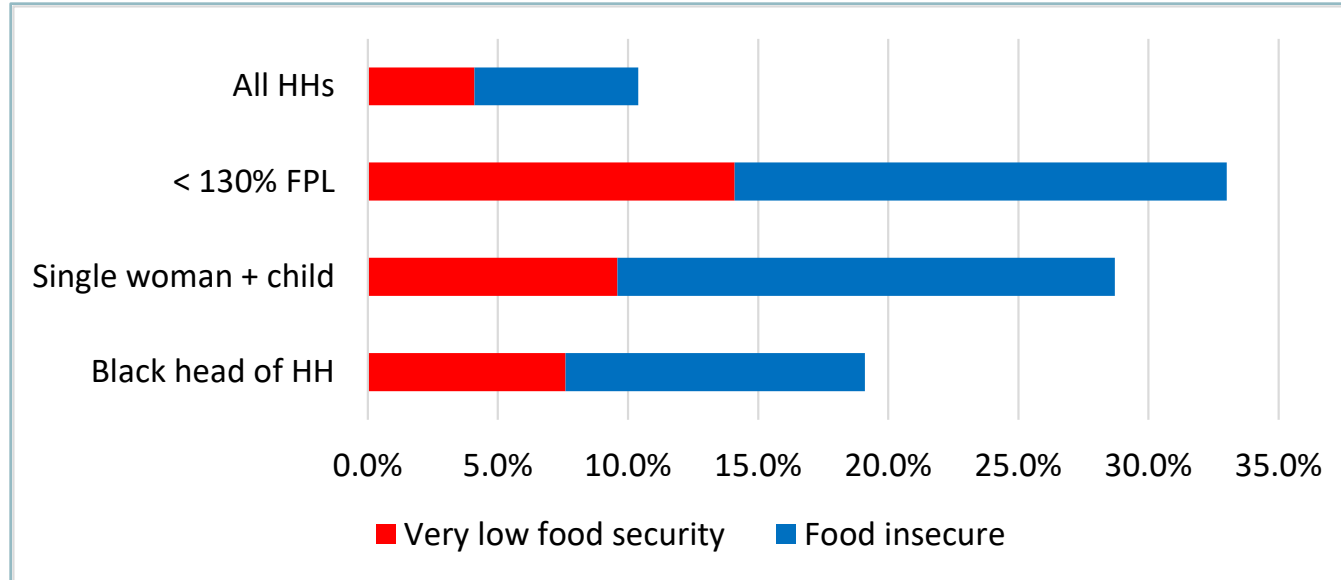
- ▶ Indicators of affordability problems
- ▶ Comparisons to other utility services
- ▶ Trends

Indicators of affordability problems

- ▶ Food Insecurity
- ▶ Receipt of Other Utility Aid
 - ▶ Energy assistance
 - ▶ Telephone lifeline assistance
- ▶ Qualify for EITC
 - ▶ Varies by no. of children, income and other factors

Food Insecurity

- ▶ Food insecure: “limited or uncertain access to adequate food”
- ▶ Very low food security: “food intake of household members is reduced and their normal eating patterns are disrupted because the household lacks money and other resources for food”



- USDA, Economic Research Service, Food Security in the U.S., <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/>

HH receiving energy assistance

- ▶ Eligible HH: generally $\leq 150\%$ FPL or $\leq 60\%$ state MHI
- ▶ Using 150% FPL: approx. 25 million HH may be eligible
 - ▶ 21% of people have income $\leq 150\%$ FPL
 - ▶ Approx. 128 million HHs in US
- ▶ Estimated 5.3 million HH receive LIHEAP assistance

OCS, LIHEAP Fact Sheet (July 2021), <https://www.acf.hhs.gov/ocs/fact-sheet/liheap-fact-sheet>

US Census Bureau, American Community Survey (2019 5-Year Estimate), Table S-1701

HH receiving telephone assistance

- ▶ **Telephone Lifeline support**
 - ▶ \$9.25 per month discount on wireline or wireless phone service
 - ▶ Generally \leq 135% FPL
- ▶ **Approx. 8 million HH receive Lifeline benefits**

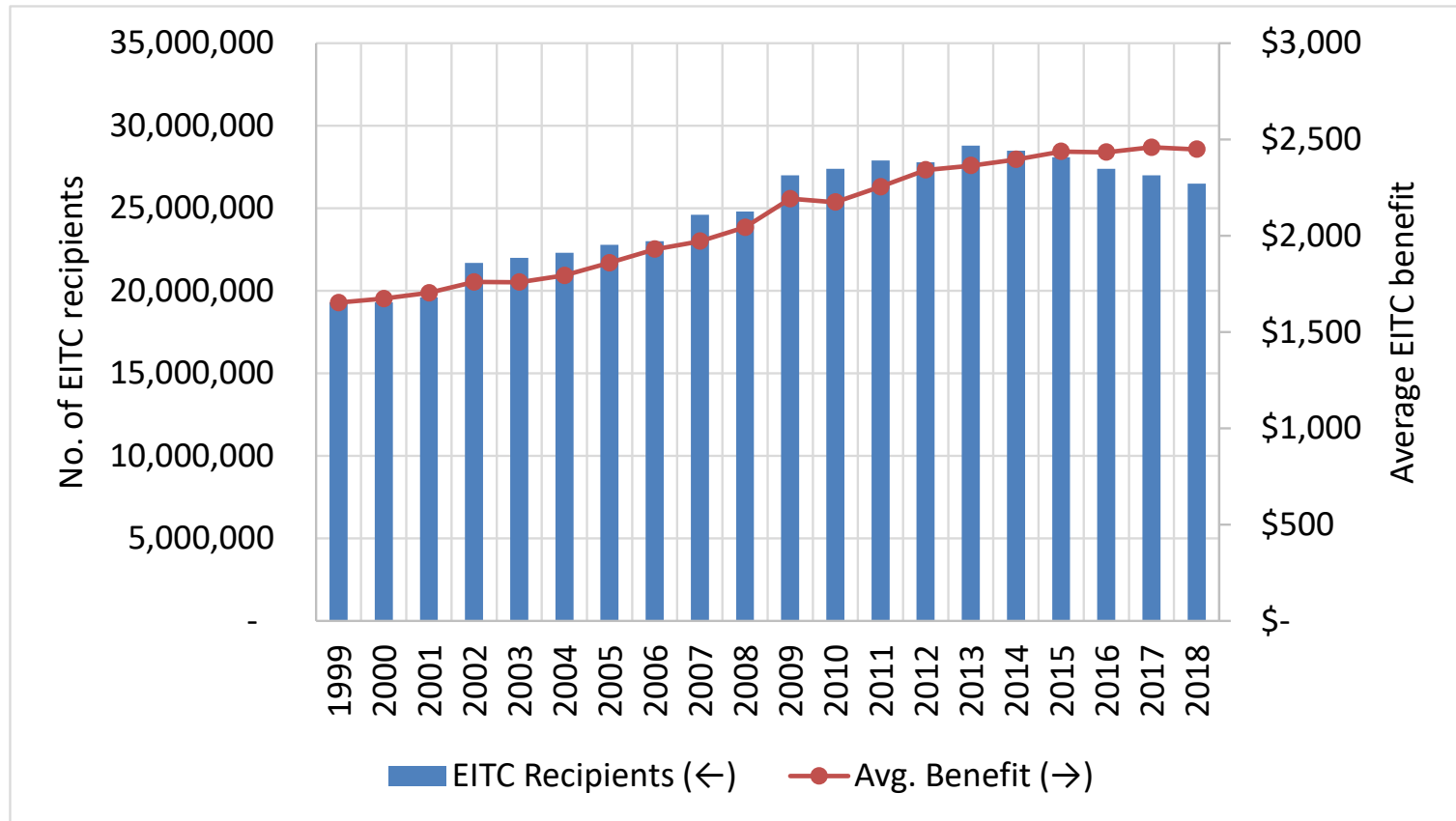
Universal Service Administrative Co., Lifeline Disbursement Tool (data through July 2021), <https://opendata.usac.org/stories/s/Lifeline-Tools/w5mg-izf6/>

HH receiving EITC

- ▶ EITC: Annual payment to lower-income working families
- ▶ Recipients (in 2020):
 - ▶ Approx. 25 million HHs (80% of those eligible)
 - ▶ Average benefits about \$2,400

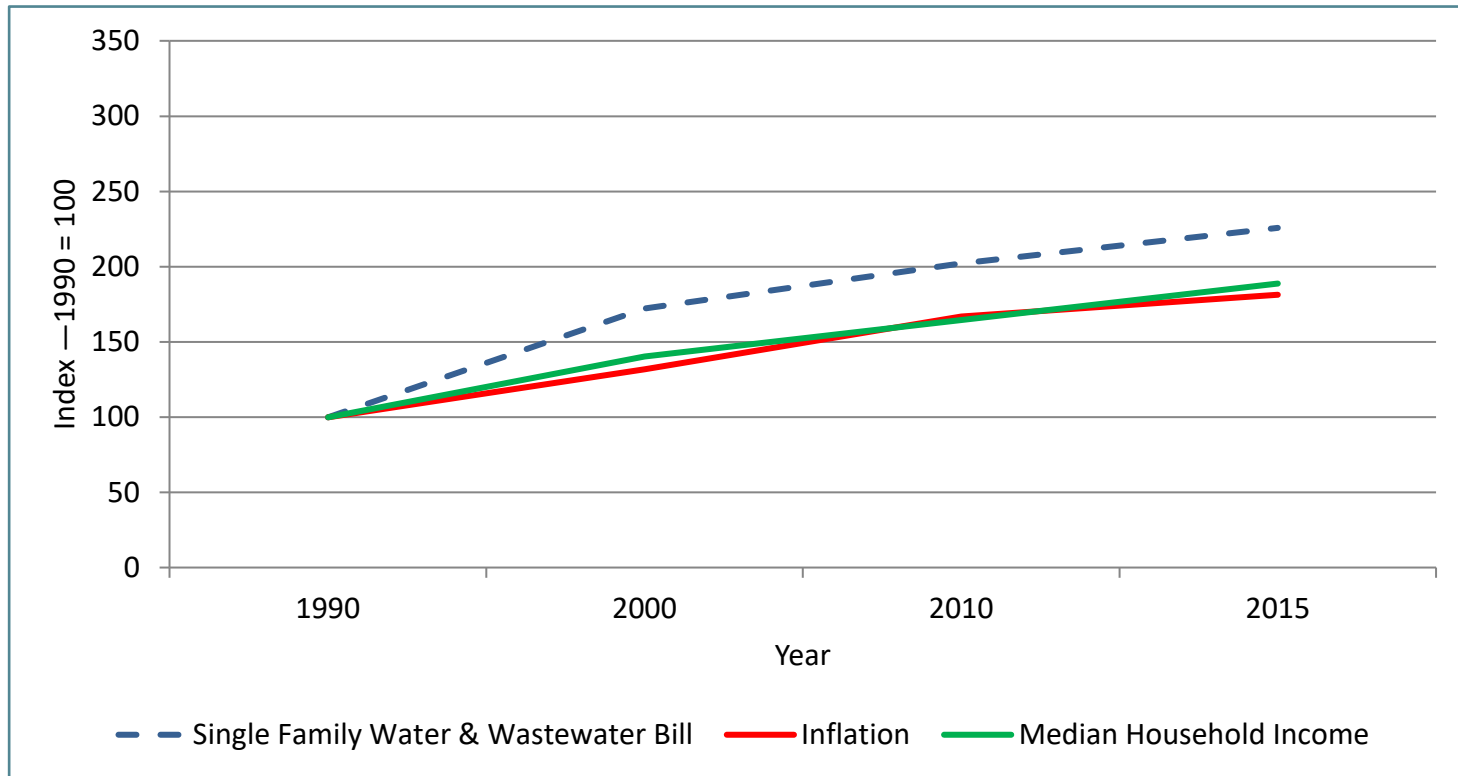
Internal Revenue Service, EITC Reports and Statistics, <https://www.irs.gov/credits-deductions/individuals/earned-income-tax-credit/eitc-reports-and-statistics>

Trend: EITC Recipients and Benefits



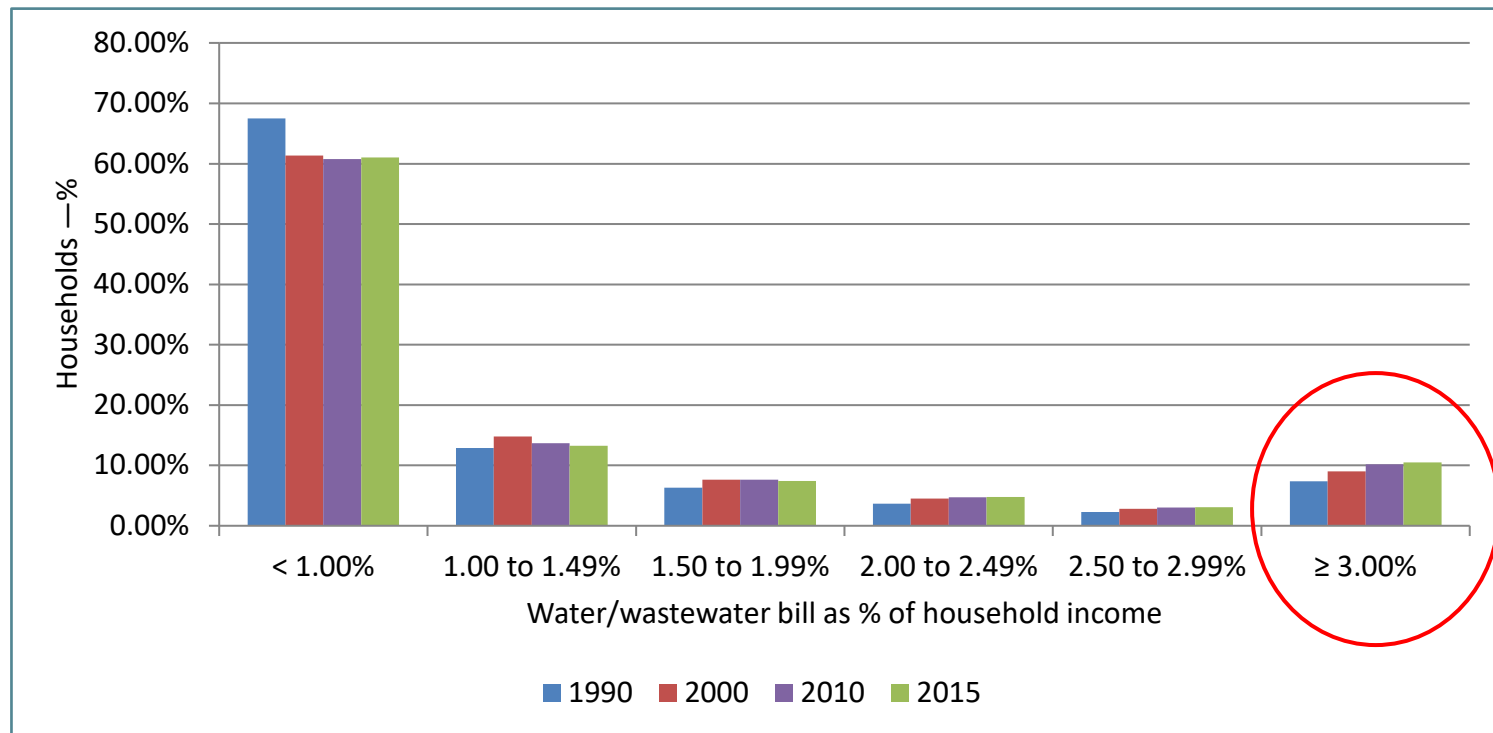
Internal Revenue Service, EITC Reports and Statistics, <https://www.irs.gov/credits-deductions/individuals/earned-income-tax-credit/eitc-reports-and-statistics>

Trend: Water bill vs. inflation and MHI



Source: Scott J. Rubin, Water Costs and Affordability in the US: 1990 to 2015, *Journal American Water Works Association*, Vol. 110, No. 4 (Apr. 2018), pp. 12-16.

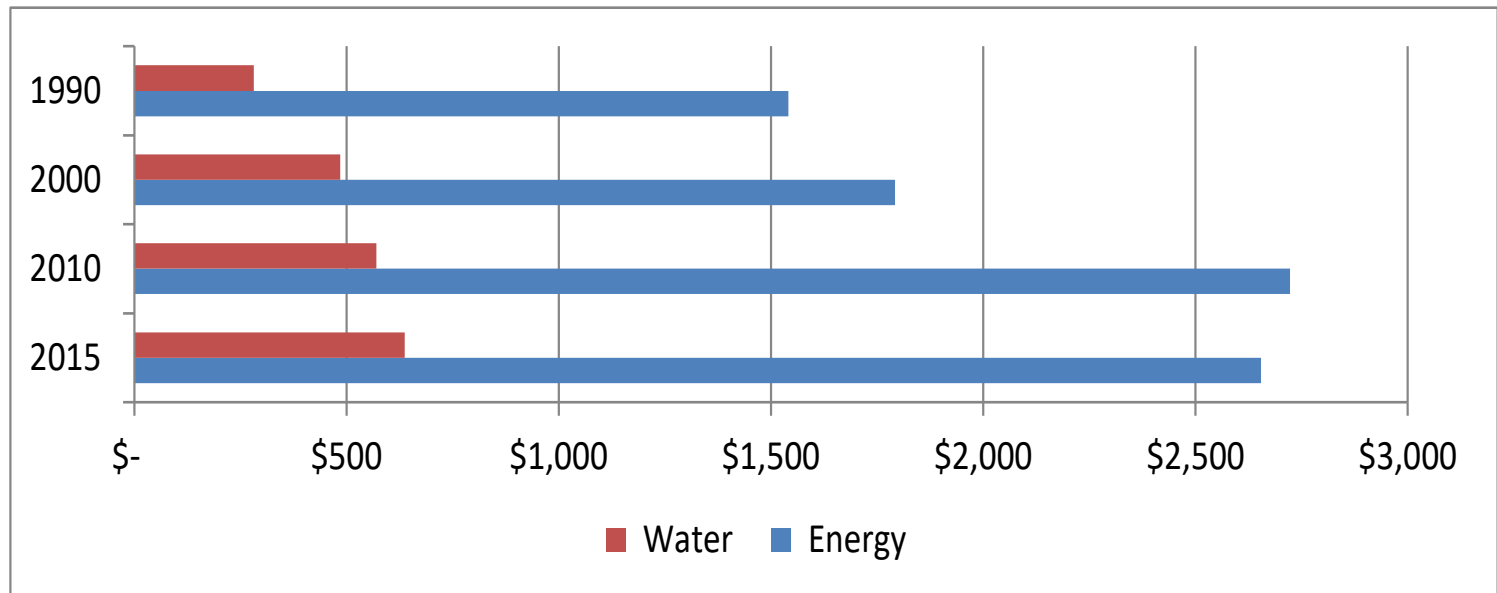
Trend: water bill as percent of income



Source: Scott J. Rubin, Water Costs and Affordability in the US: 1990 to 2015, *Journal American Water Works Association*, Vol. 110, No. 4 (Apr. 2018), pp. 12-16.

Trend: water bill vs. energy bill

1990 to 2015: energy costs increased ~70%; water costs increased ~125%



Source: Scott J. Rubin, Water Costs and Affordability in the US: 1990 to 2015, *Journal American Water Works Association*, Vol. 110, No. 4 (Apr. 2018), pp. 12-16.

What we know about water affordability

- ▶ There are low-income people who cannot pay all their bills for necessities
- ▶ Water costs are increasing much faster than incomes
- ▶ Water costs are increasing faster than energy costs

Strategies to address affordability

What can we do?

- ▶ **Utility-level programs**
 - ▶ Rate design
 - ▶ low-income rates
 - ▶ usage-sensitive rate design
 - ▶ Billing and payment solutions
 - ▶ monthly billing
 - ▶ pick-a-date billing
 - ▶ budget billing
 - ▶ arrearage forgiveness
 - ▶ Usage reduction

What can we do?

- ▶ **State-level policies**

- ▶ Allow utility rates to consider customer income
- ▶ Privatization / municipalization policies
- ▶ Disconnection / property lien policies

- ▶ **National-level policies**

- ▶ Assistance programs
- ▶ Conservation programs