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# WATER RATE AFFORDABILITY

## BALANCING BUSINESS NEEDS WITH A CUSTOMER'S ABILITY TO PAY



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- Expert Witness in COS/Rate Design before regulatory agencies in Indiana and Texas
- Teaches national EUCI Class on Water/Wastewater COS and Rate Design Fundamentals
- Faculty member for the National Association of Regulatory Commissioners' (NARUC) National Rate School
- 18+ years' experience



“IS WATER A HUMAN RIGHT, OR IS IT A COMMODITY?  
I THINK THE ANSWER IS YES.”

*Water 2050, American Water Works Association, Economics Think Tank Summary Report*

# DEFINING AFFORDABILITY

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# WHAT IS “AFFORDABLE?”

- Affordable – having a cost that is not too high
  - How do you define “too high?”
- Qualifiers
  - Value
    - Service should be reasonably priced relative to value
    - What is the value of water?
  - Accessible
    - Service should be priced accessibly relative to income
    - At what point does service become inaccessible?

# COST PROFILE OF WATER AND WASTEWATER UTILITIES

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**Significant  
Cost Needs**



**Declining  
Usage**



**Water  
Historically  
Underpriced**  
*(but it's still expensive!)*

## PUBLIC POLICY

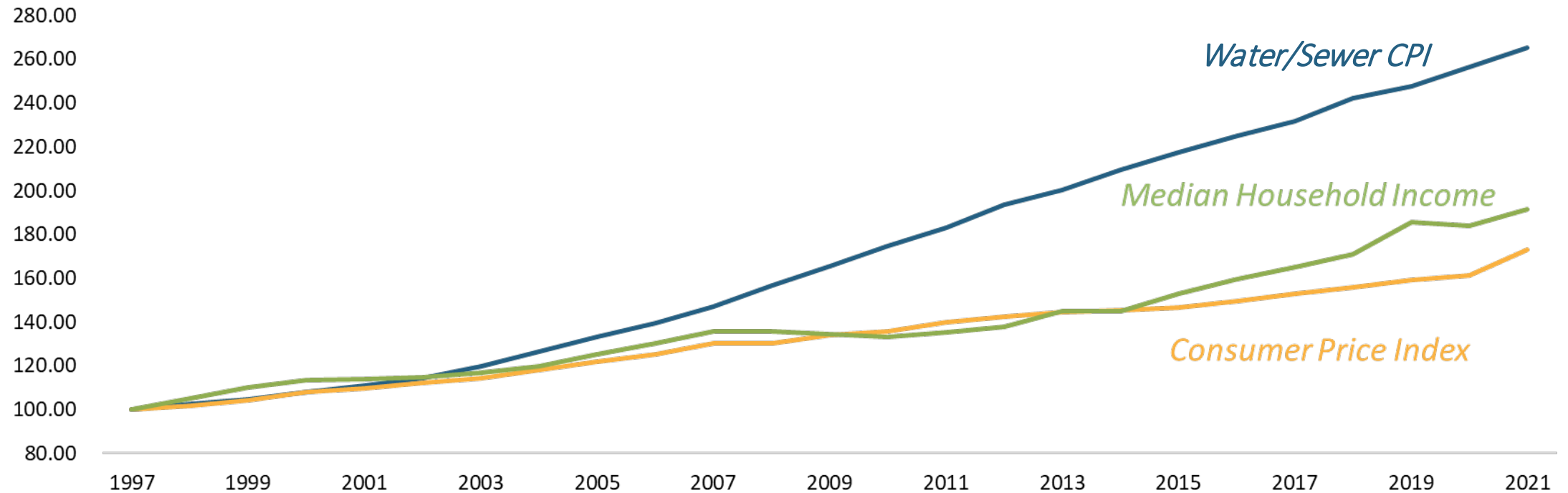
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**Pricing at  
Cost of Service**

**Affordability of a  
Life-sustaining Service**



# CHART ON MHI, CPI, AND W/S INDEX



Index: 2000 = 100; Bureau of Labor Statistics (BLS), Bureau of the Census

- From 1997 to 2021:**
- Median household income (MHI) increased 91% (2.7% per year)
  - Inflation (CPI) increased 73% (2.3% per year)
  - Water and sewer service costs increased 165% (4.1% per year)

# KEY AFFORDABILITY QUESTIONS

- When does a real affordability problem exist, and how do you measure it?
- When it does exist, how do you address it?



# THE TWO SIDES OF AFFORDABILITY

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- Financial capability of the utility to meet regulatory requirements
  - *Does this mean you don't have to comply?*
- Customers' actual ability to pay
  - *How do you define ability to pay?*
  - *What does a customer choose to afford?*



## UTILITY FINANCIAL CAPABILITY

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- Paradox: A regulation may have aggregate benefits to the population, but may be unaffordable for some customers
  - Cost/Benefit analysis of capital investment alone is insufficient
  - Public health must be protected, and vulnerable populations must still have access
- Problem: Cost must still be paid
  - Who should bear the subsidy, in what form, and in what amount?
  - No easy, “one size fits all” answers – every answer is community specific

## OTHER AFFORDABILITY INPUTS FOR A UTILITY

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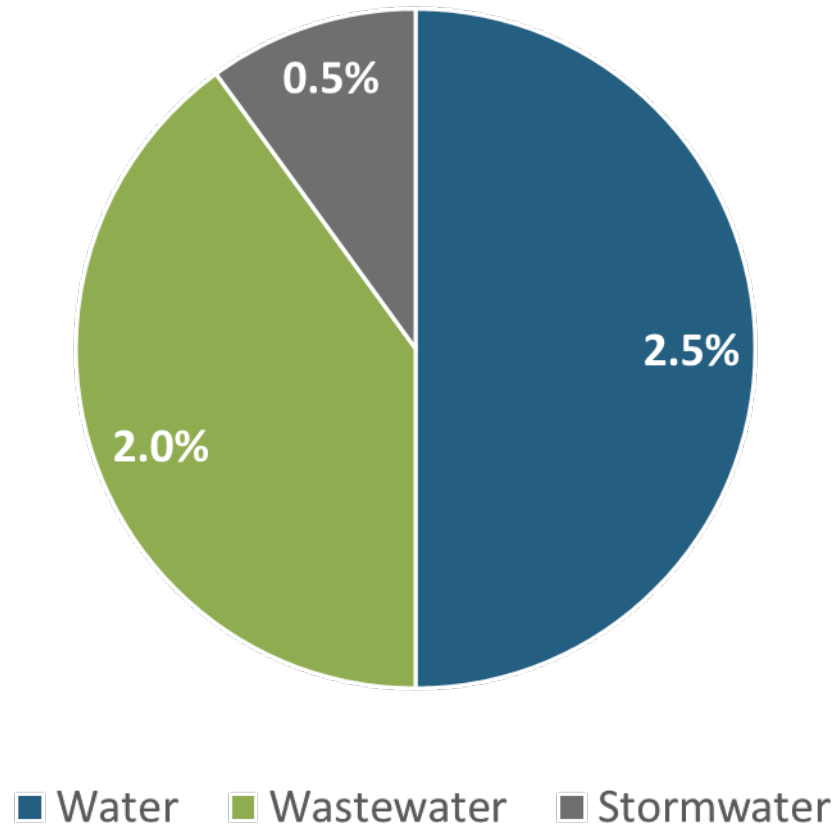
- Bond rating
- Debt load
- Unemployment rates
- Property tax levels and collection rates



# UTILITY FINANCIAL CAPABILITY

## CONVENTIONAL MEASUREMENT UNDER MHI

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### Problems

- Income distribution doesn't follow a bell curve
- Household income levels are changing
  - Reduction in the “middle”
- Median is the “middle,” meaning half of individuals fall below the “affordable” standard
- Arbitrary standard
  - Based on other government programs, not economic analysis
- Uses “average” consumption, not basic consumption

# AWWA PANEL ON AFFORDABILITY

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Improving the  
Evaluation of  
Household-Level  
Affordability in SDWA  
Rulemaking

April 2021

1. How many households bear the cost and accrue the benefits, and what is the income distribution of those households?
2. How are the net benefits of policy options distributed as a function of household income?
3. What amount of federal subsidy would be required to ensure systems can comply without increasing household burden on lowest quintile?
4. Does the rulemaking have consequences occurring in a timeline that overlaps with other regulatory requirements?

# THE TWO SIDES OF AFFORDABILITY

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The Problem remains—if regulation / service is unaffordable. . .



. . . does the utility not have to comply?

. . . if not, who pays?



# CUSTOMER AFFORDABILITY

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- Disposable Income – Income remaining after deduction of taxes
  - The portion of an individual's income over which the recipient has complete discretion
- Is utility service discretionary?
- Disposable Income  $\neq$  Standard of Living



# WHAT DO CUSTOMERS CHOOSE TO AFFORD?

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Which should be prioritized?

- Housing
- Food (at Home)
- Food (Away from Home)
- Utilities – Electric and Gas
- Health and Personal Care
- Transportation
- Utilities – Water
- Utilities – Sewer
- Education
- Retirement Savings
- Insurance
- Clothing
- Utilities – Telephone
- Entertainment
- Alcohol and Tobacco
- Personal Services

# HOW TO BETTER MEASURE AFFORDABILITY FOR CUSTOMERS

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## Get More Granular

- Use census data
- Consider district level data as well
- Define at-risk groups



## Look at the “Full” Cost

- Integrated resource planning
- Remember all cost components
  - O&M
  - Capital
  - Repair and Replacement
  - Asset Management
  - Regulatory Compliance
  - Financial Compliance (DSC, ABT)

# CUSTOMER ASSISTANCE PROGRAMS

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- An internal or external program designed to assist utility ratepayers
- Features
  - External versus Internal Administration
  - Temporary versus Long-Term
  - Can involve multiple methods of assistance, both financial and operational

# EXAMPLES OF CUSTOMER ASSISTANCE OPTIONS

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## Financial

- Payment Extension
- Fixed Discount
- Crisis Assistance
- Interest and Penalty Write-offs
- Rate Pricing
  - Inclining Block / Tiered Pricing
  - Lifeline Rate
- Referral Network
- Deferred Shutoff

## Operational

- Customer Education / Conservation
- Home Water Audit
- Plumbing Retrofit / Low Flow Fixtures
- Irrigation Audits
- Leak Detection and Repair

# CUSTOMER ASSISTANCE FUNDING

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**Utility Funded**  
*(directly or indirectly)*



**Voluntary  
Contributions  
from Others**



**Grants /  
Outside Sources**



**Funds Generated  
Through Rates or  
Taxes (Subsidies)**  
*(can have legal  
implications)*

# WHAT MAKES A PROGRAM SUCCESSFUL?

- Easy to understand and access
- Maintains revenue stability for utility
- Publicly accepted
- Easy to administer
- Fair and equitable to everyone
- KPIs define success

# CUSTOMER COMMUNICATION

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# CUSTOMER CONFUSION

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*Ratepayers are disconnected from the real cost of maintaining infrastructure.*

- Services have historically been underpriced
- Utilities haven't communicated value of service
- Ratepayers consistently rate infrastructure as “good” or “very good”
  - Conventional ratings from professionals are typically “poor”
- Ratepayers believe conservation should result in reduced costs
  - Conservation raises prices in the short term; savings are a long-term proposition

# CUSTOMER COMMUNICATION

- Must work to build trust and credibility
- Focus on value of service
- Be consistent, clear, and communicate often
- Talk about return on investment



# CONCLUSION

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- Defining affordability is not straight-forward
  - Community specific decision / policy
  - Regulations must be adhered to / Public health must be protected / Service must be accessible
- No “one size fits all” approach
  - Customer assistance programs come in many shapes and sizes
  - Communication is critically important for program success

## KEY POINT TO REMEMBER

- Your utility is a business! For a business to be successful:
  - Revenues must match or exceed expenses
  - You must plan for a rainy day
  - You must reinvest in the business



# QUESTIONS / DISCUSSION

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