

Water Affordability: Rates and Remedies

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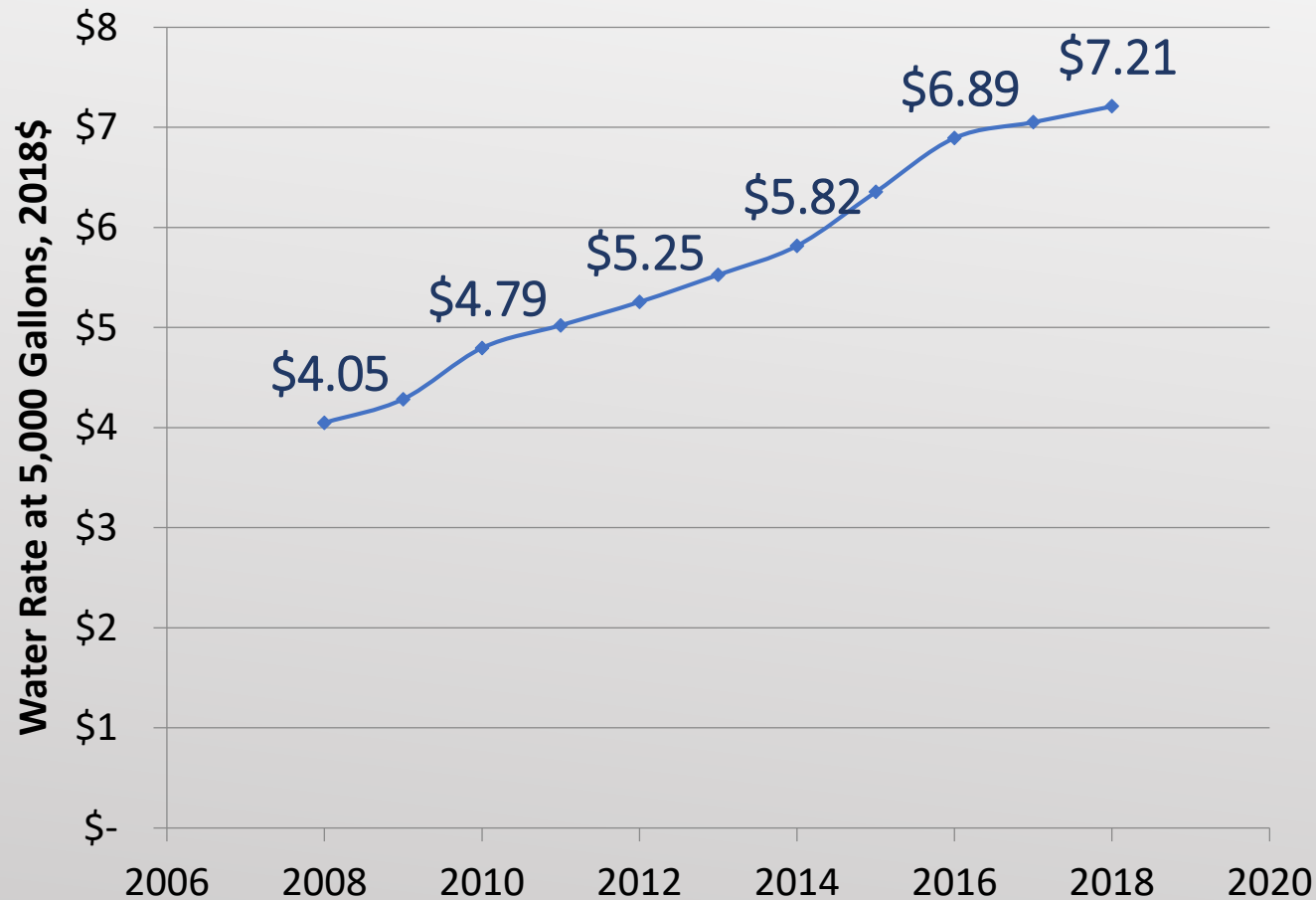
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Issue Background

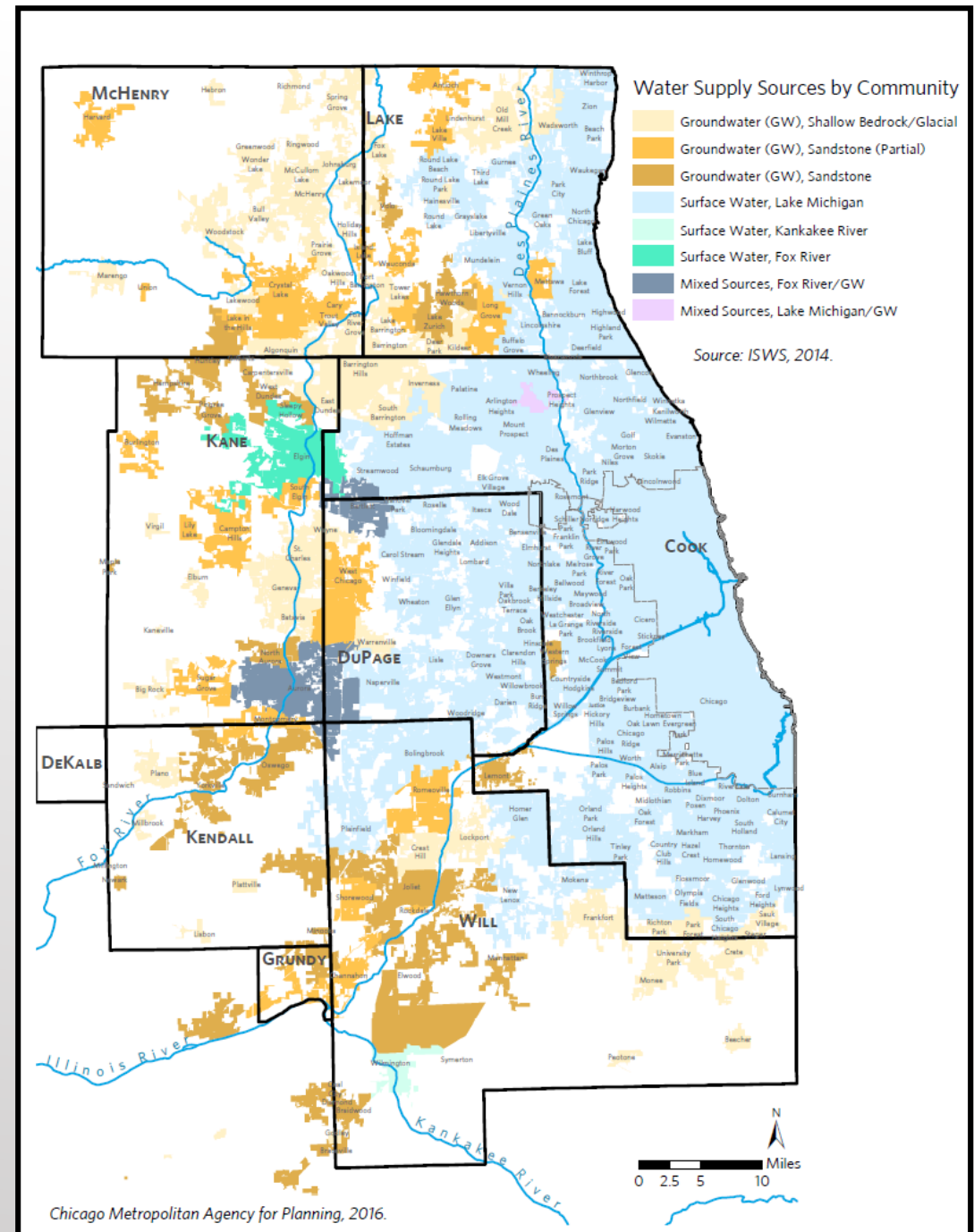
Northeastern Illinois Escalating Residential Water Rates 2000 – 2018



- Replacement era
- Supply constraints
- Source water pollution
- Need to price water appropriately

Study Geography

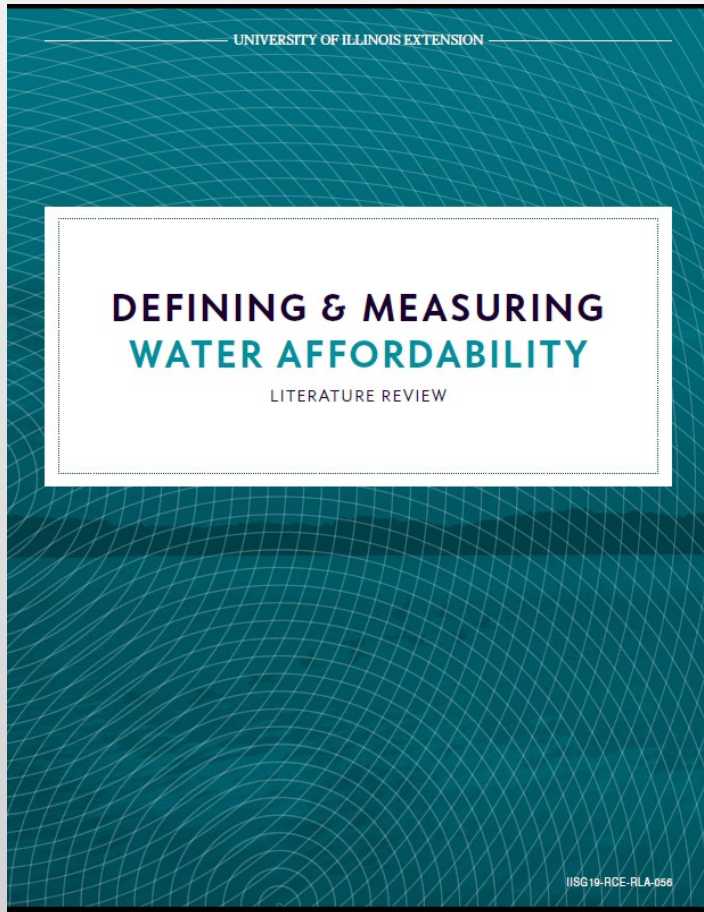
- 7 counties
- 284 communities
 - Data available for 215
- Community disparities



Research Objectives

1. Assess what today's best methodologies for determining water affordability are;
2. analyze and identify where in the northeastern Illinois region water affordability is a concern; and
3. jump start regional dialog on best practices in addressing affordability for those that need it most.

Defining and Measuring Water Affordability



- Currently no generally accepted water affordability definition and measurement
- Depends on purpose of the water affordability assessment
- Water affordability measures need to be expanded beyond traditional metrics to be meaningful

Method Summary

Water affordability measurements used in this analysis:

1. Percent median household income (MHI)
2. Percent of mean household income at the lowest earning quintile
3. Water affordability matrix
4. Number of hours worked to pay the water bill
5. Online dashboard tool for outreach

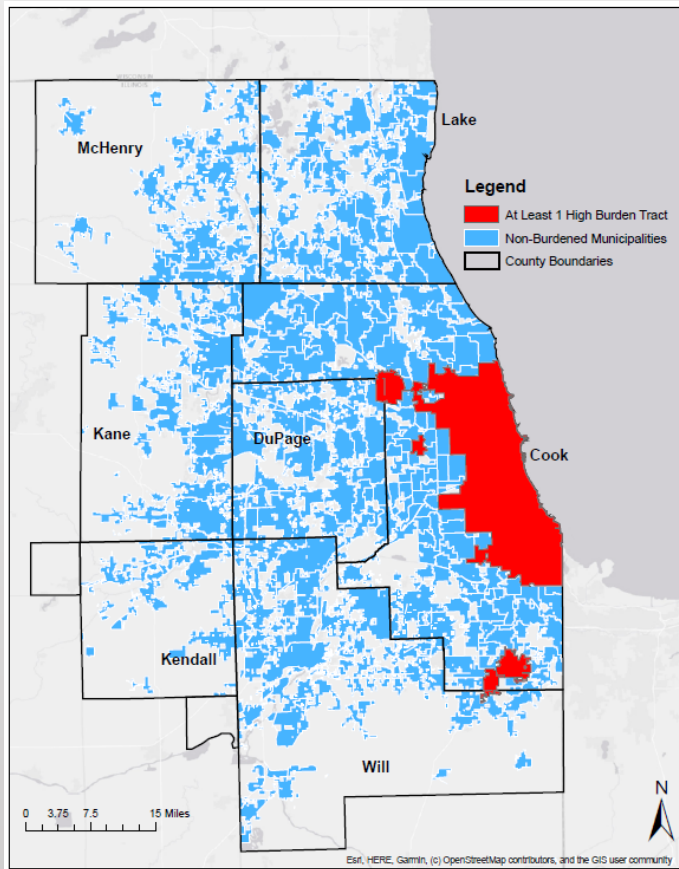
Considerations for Methods Selected

- Use of income quintiles
- Use of smaller geographic units (census tracts)
- Express water burden in more intuitive terms
- Comparison to other socio-economic factors

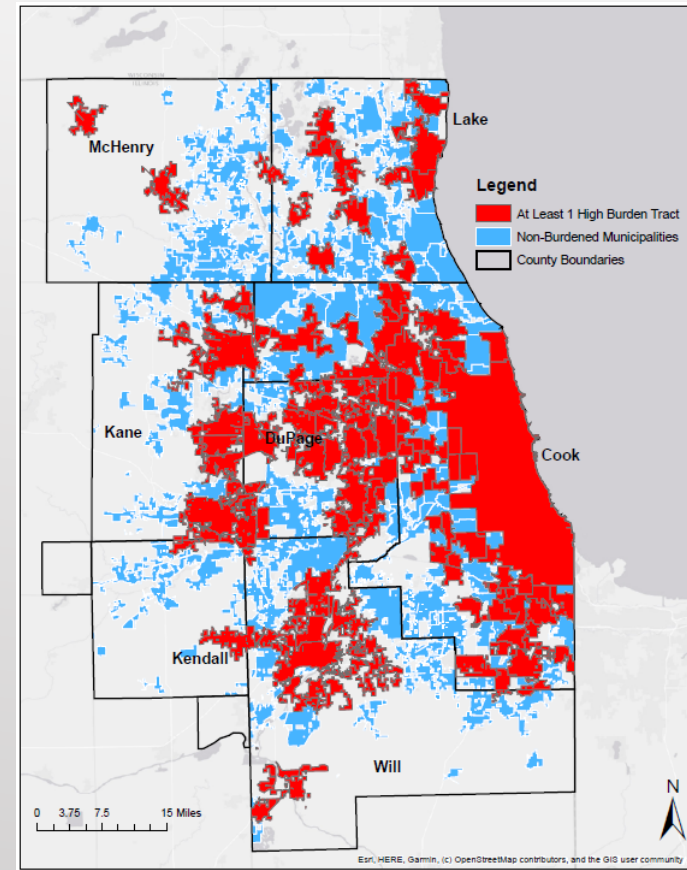
Data sources: ILSG Rate survey, U.S. Census Bureau ACS 2016 5-year estimates B19013, ACS 2016 5-year estimates B19081

Water Burden by Census Tract

Municipalities with at least one high burdened tract using 4.5% threshold of **Median Household Income**



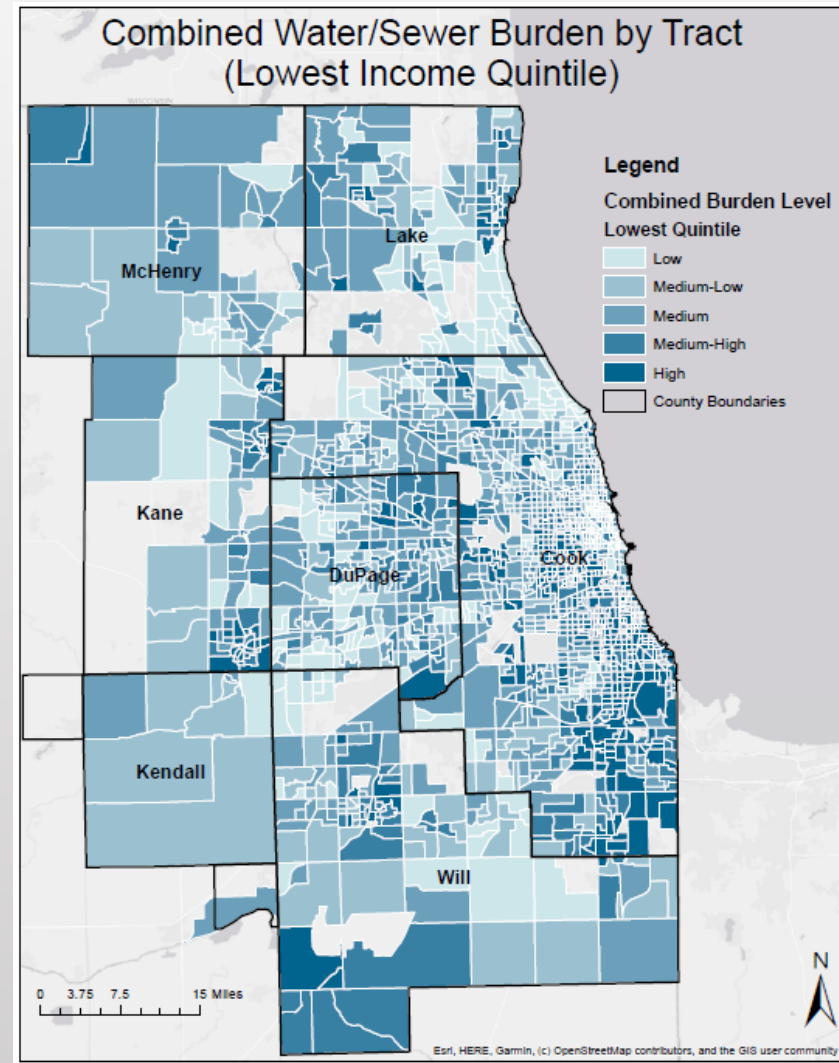
Municipalities with at least one high burden tract for **lowest quintile earners**



Water Burden Comparison

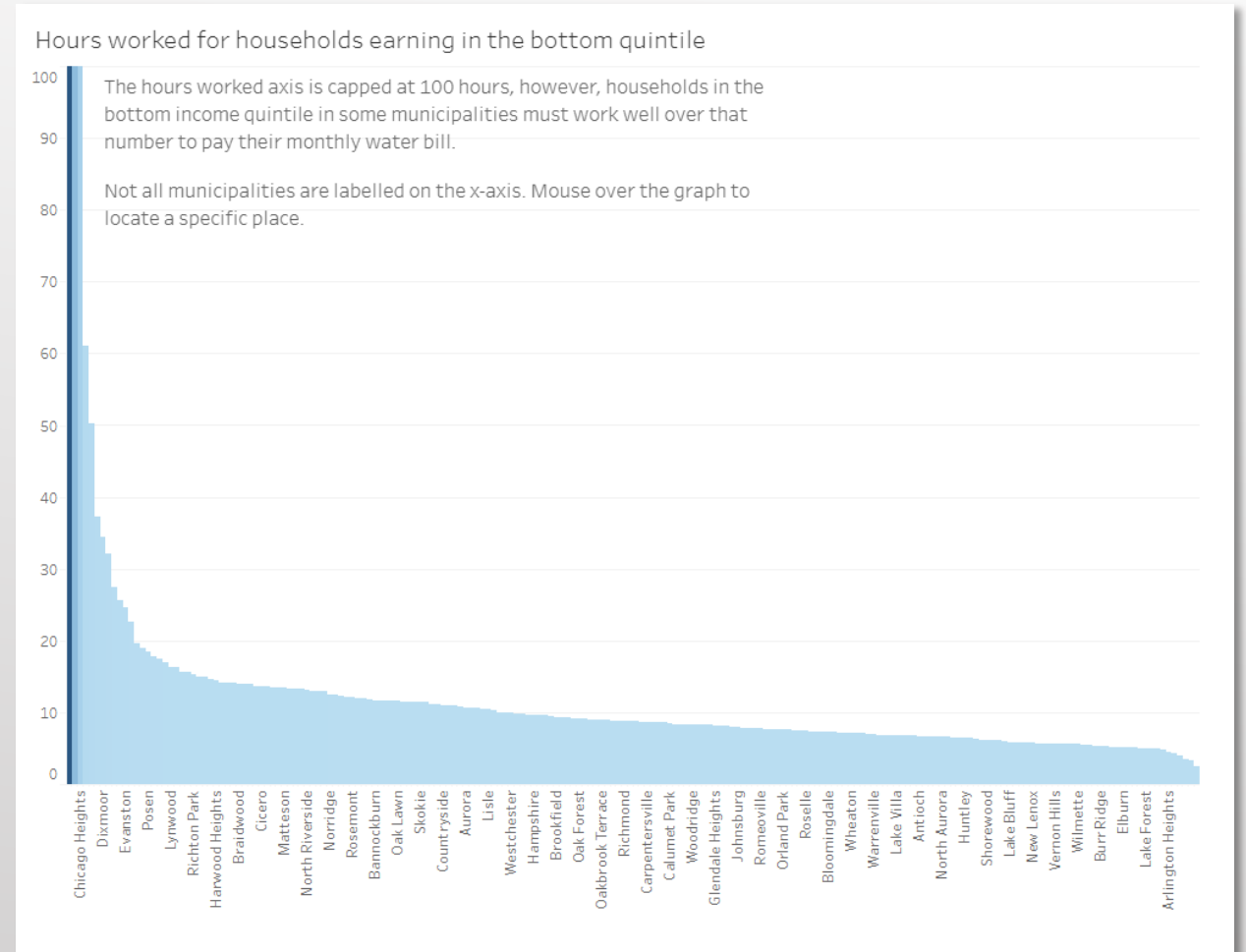
	Lowest Income Quintile Threshold	MHI Threshold
Mean Tract % Combined Expenditure	9.59%	1.06%
Median Tract % Combined Expenditure	3.60%	0.91%
Tract Burden Percent Range	0.58% - 100%	0.16% - 5.52%
Number of High Burdened Tracts <i>(Over 4.5%)</i>	682	4
Percent of Tracts That Are High Burdened	36.47%	< 1.00%
Municipalities with at Least One High Burdened Tract	109	4
Percent of Municipalities with at Least One High Burdened Tract	51.66%	1.90%

Water Matrix Burden Levels for Census Tracts

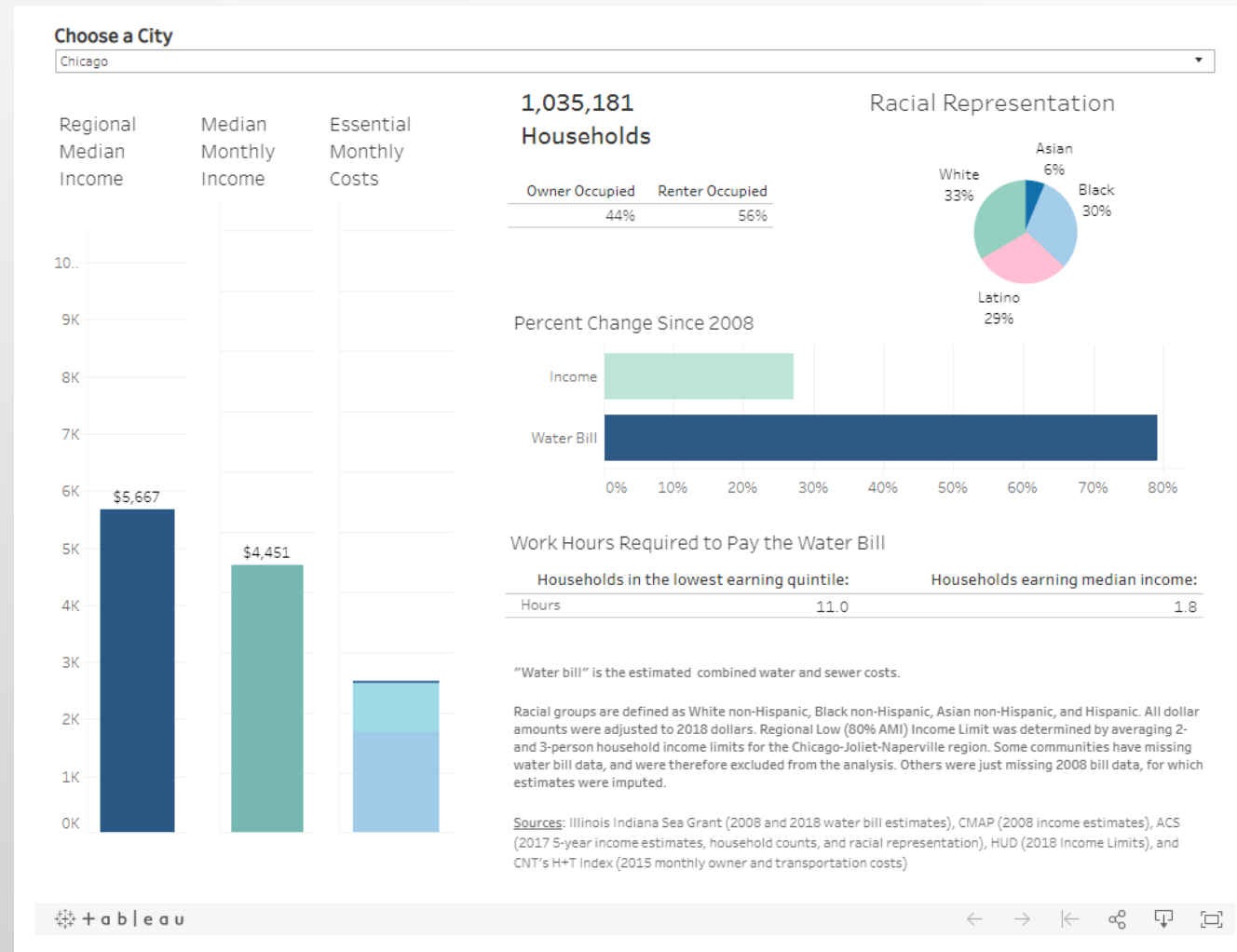


Hours Worked Analysis

- The lowest quintile income earners in **72 municipalities** have to work more than 8 hours to afford their combined water/sewer bill

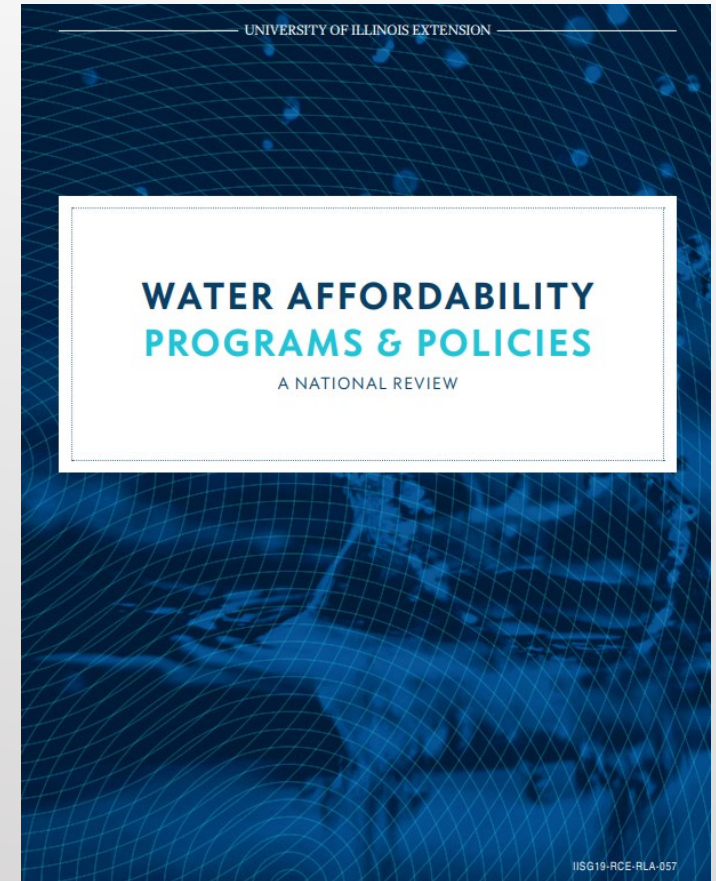


Water Affordability Dashboard Tool



Strategies for Addressing Water Burden

- Reduce costs
- Promote water conservation
- Design and implement rates
- Strengthen customer assistance programs
- Target the hard to reach



Community Typologies and Corresponding Water Affordability Solutions

- Foundational actions for all communities
- Communities with high water costs/bill
- Communities facing an overarching low-income issue
- Communities with large hard-to-reach populations

Water Affordability Resources

metroplanning.org/WaterAffordability



Water Affordability in Northeastern Illinois

ADDRESSING WATER EQUITY IN A
TIME OF RISING COSTS