



## Water Rate Structure, Price, and Use in Utah

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# Goals

- **Gather and characterize data** from public water systems on:
  - *Rate structures*
  - *Water prices*
  - *Water use*
- Illustrate potential **patterns** and **differences** among water providers across the WRMA urban gradient.

# Methods

- ❑ Compile **data** from state reports, state surveys, and internet sites.
- ❑ Extensive data **assessment, interpretation, and “cleaning”**.
- ❑ Organize data into a clean and valid **data set**.

# Rate Structures

- ❑ **Increasing**

  - Price per unit increases as use increases

- ❑ **Decreasing**

  - Price per unit decreases as use increases

- ❑ **Uniform**

  - Price per unit stays the same regardless of use

- ❑ **Flat**

  - “One time” charge for unlimited use

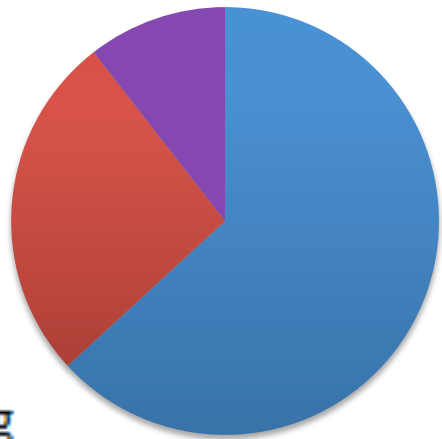
- ❑ **Seasonal**

  - Price per unit increases during summer months

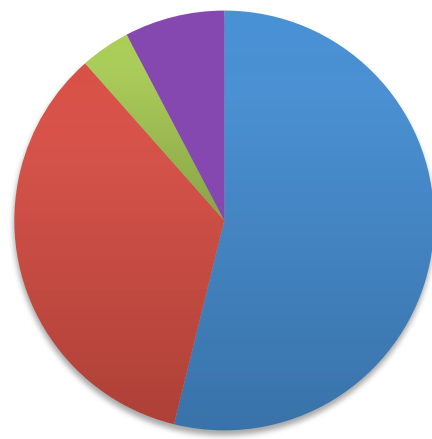
# Rate Structures

- Increasing
- Uniform
- Seasonal
- Flat
- Decreasing

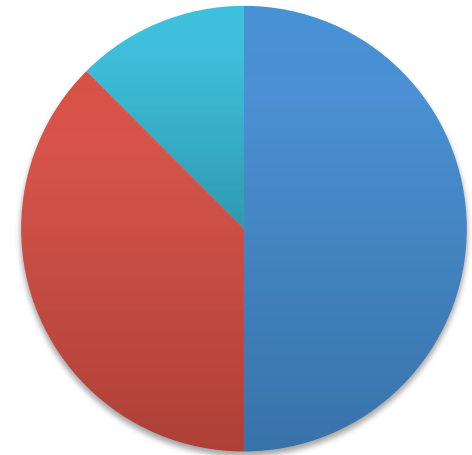
**Cache County**



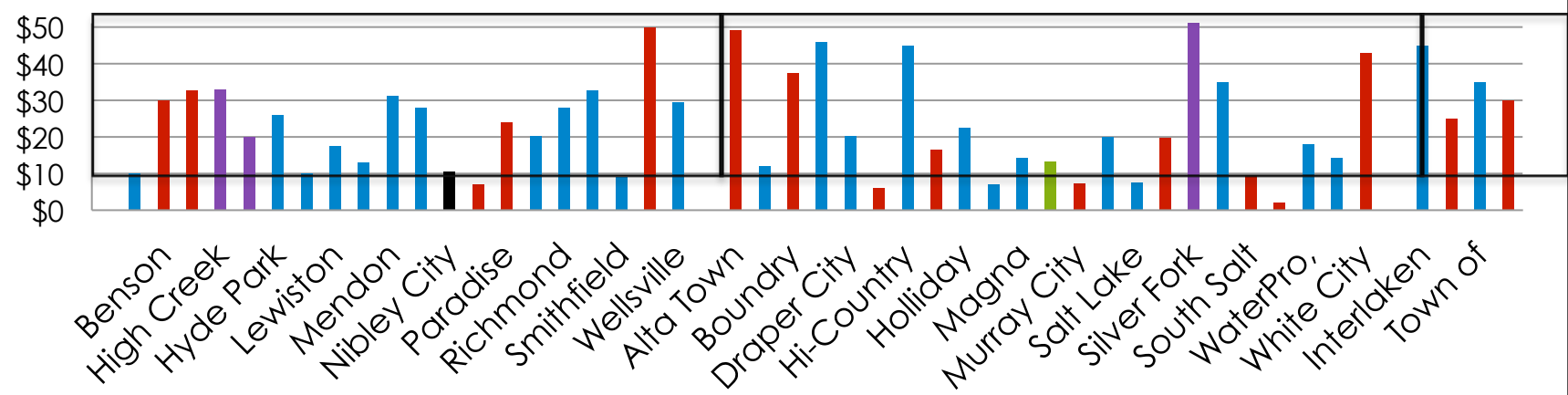
**Salt Lake County**



**Wasatch County**



**Base Rates Across Three Counties**



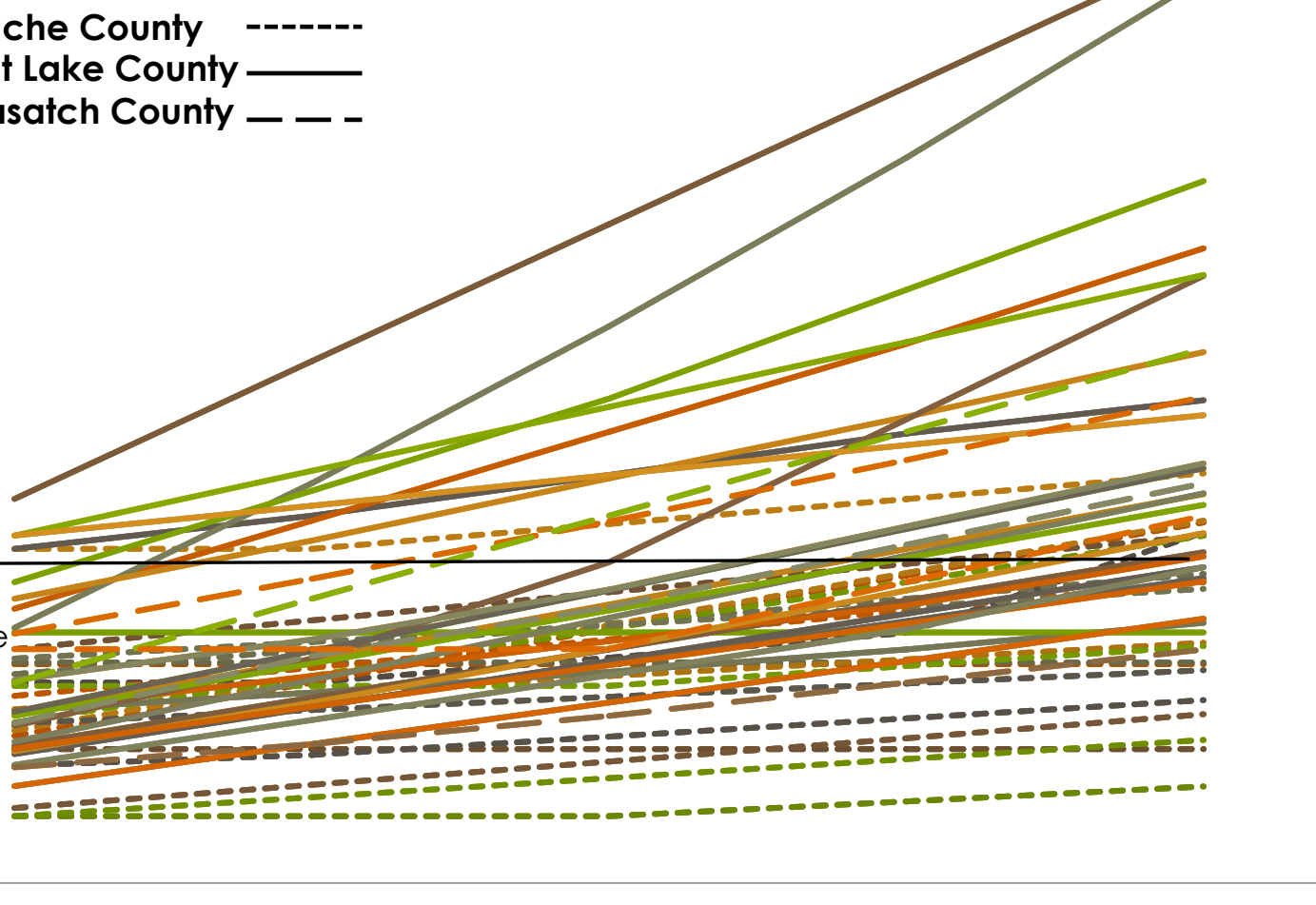
# Household Monthly Water Bill

\$140  
\$120  
\$100  
\$80  
\$60  
\$40  
\$20  
\$-

Cache County -----  
Salt Lake County \_\_\_\_\_  
Wasatch County - - - - -

2010  
Average  
Bill Price

Cost at 10,000 Gallons      15,000 Gallons      20,000 Gallons      25,000 Gallons      30,000 Gallons



# Water Use Terminology

- **GPCD** - Gallons Per Capita Per Day  
Derived by **dividing** water **use** by **population**
  - **M&I** Use vs. **Residential** Use
    - M&I Total - includes residential, commercial, institutional, industrial, etc.
    - Residential - use at the household level
- **Potable** Water vs. **Secondary** Water
  - Potable - Treated Water
  - Secondary - Untreated water

# 2010 Water Use

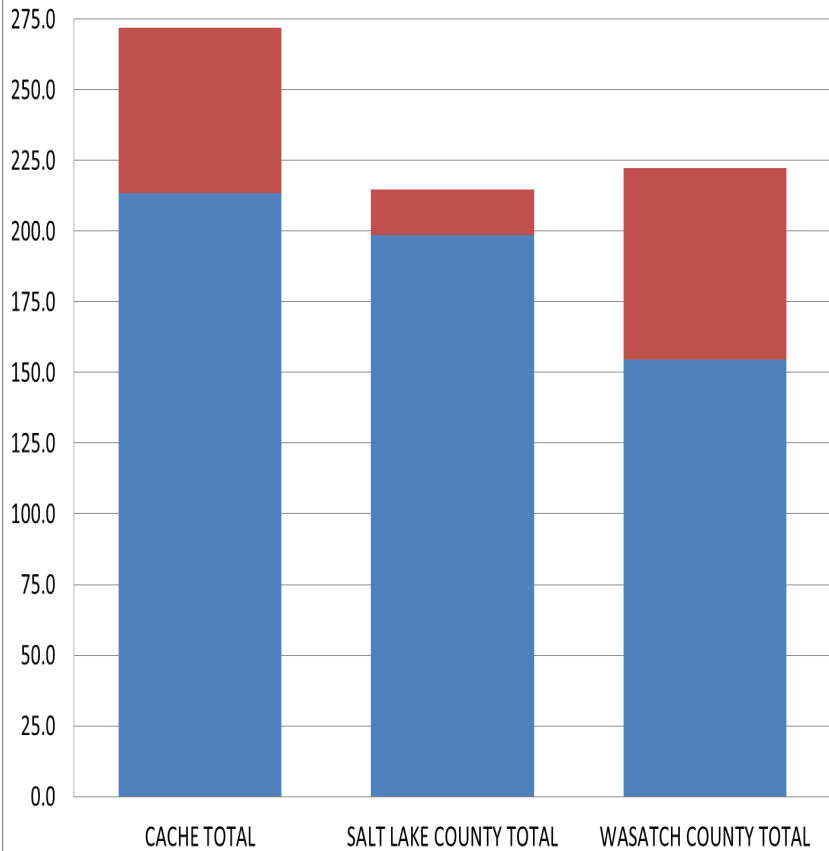
■ Secondary Water

■ Potable Water

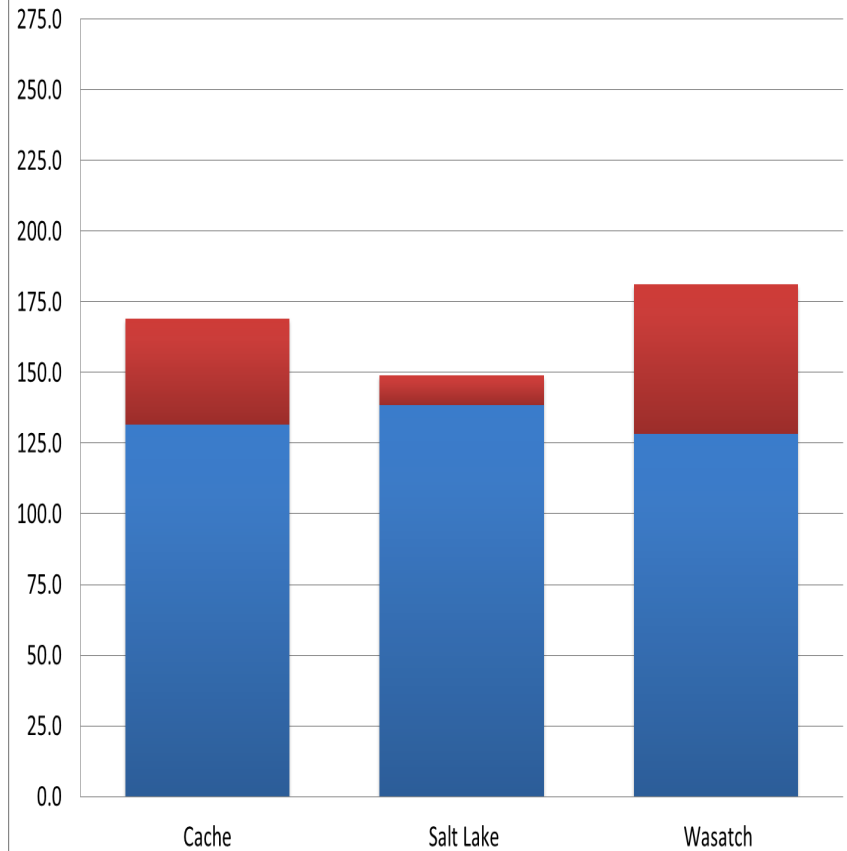
Total M&I Use

Residential Water Use

### GPCD- Potable and Secondary



### Residential GPCD- Potable and Secondary





# Conclusions & Next Steps

- ❑ **Of the three counties:**
  - **Cache County** has the **cheapest** water and the **highest** M&I total GPCD.
  - **Salt Lake County** has the **lowest** secondary water use, but the **highest** residential potable water use.
  - **Wasatch County** has the **highest** secondary water use and the **lowest** residential GPCD
- ❑ The next step is to use this new **data set** for further **analysis** and **comparisons**.

# Thank you for listening!

## Questions?

### **IFELLOWS UNDERGRADUATE RESEARCH PROGRAM**



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