



*“Getting to know Jane and
John Smith”*

*Using data to drive customer
communication and engagement*

Agenda

The Landscape

- What are utilities doing to engage with customers?
- How are digital services supporting both engagement and efficiency?

Observations:

- Customer behavior and response
- Utility tools and strategies
- Preparing for the future

Q&A



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Dropcountr
Vice-President, Business Operations

Professional Experience

Elsinore Valley MWD
Water Resources Division Manager

West Monroe Partners
Senior Manager

MWH Global
Project Manager



Mehdi Nemati, Ph.D.
Assistant CE Specialist - Water Resource
Economics & Policy
School of Public Policy
University of California, Riverside

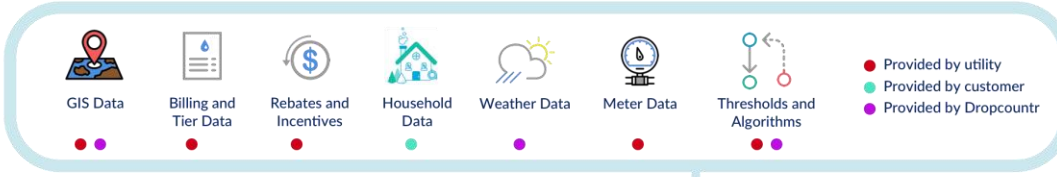
Professional Experience

University of Kentucky
Ph.D. Agricultural Economics

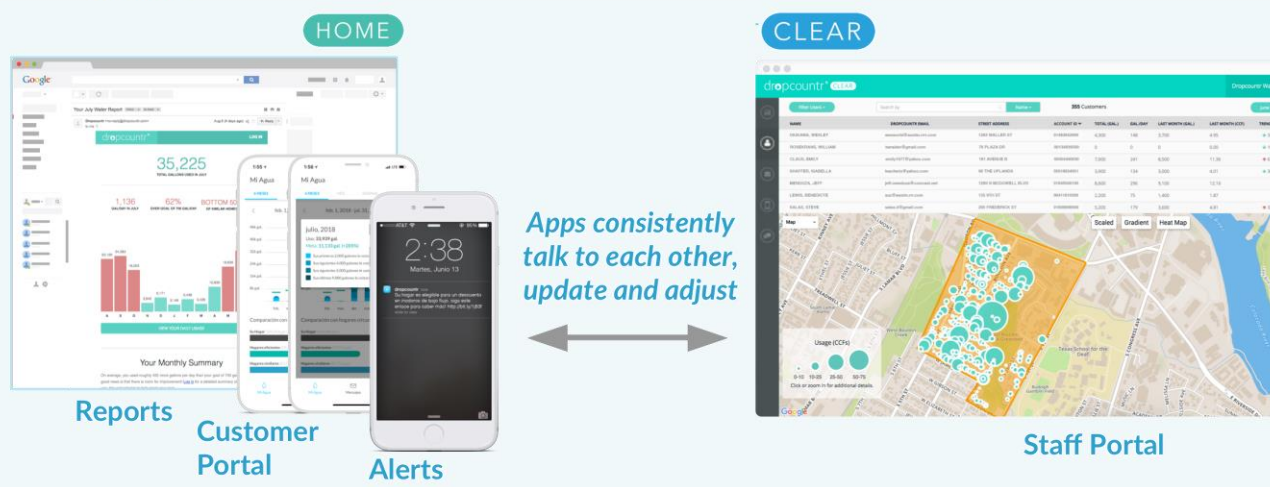
Tehran University
Agricultural Economics

Dropcountr : Company overview

Inputs



Outputs



Dropcountr has been designed to ingest any type of data. The data transfer process allows CLEAR to handle data from all MDMS, CIS, SCADA, and other back-end systems.



Customer engagement and water efficiency

Typical Communication

- Critical and non-critical announcements
- 1-way
- Broad distribution
- Expensive



Mailers



Events +
Workshops



Door Hangers



Website Traffic



Media

Typical Conservation

- Focused on fixtures, landscape and education
- Incentives/rebates
- Low/medium adoption
- Constrained by budgets

WATER FORWARD INTEGRATED WATER RESOURCE PLAN

Landscape Transformation – Incentives

💧 Landscape incentives to encourage water use efficiency and reduce outdoor water use

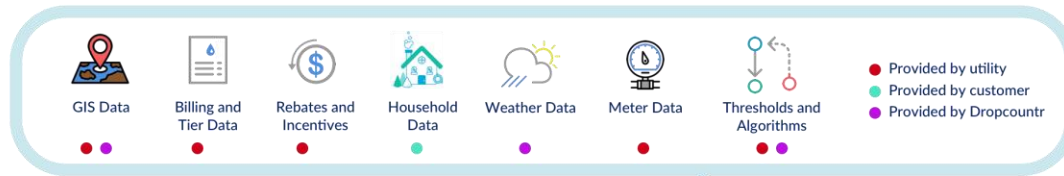
💧 Average Annual Yield (AF/yr)	1,944
💧 End Use / Sectors	Sectors: SFR, MFR, COM End Uses: Outdoor irrigation, existing development
💧 Climate resiliency indicator	Medium
💧 Annual Costs (\$)	\$85,000
💧 Unit Cost (\$ / year / AF)	\$96



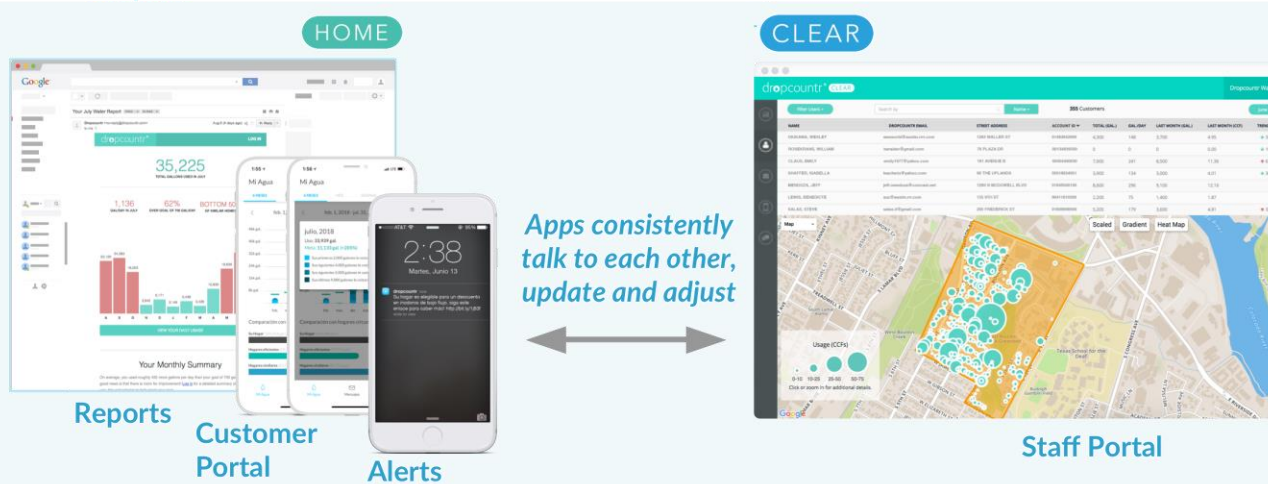
A digital approach

- Complements existing conservation plans
- Adds a data layer that leads to insights, strategy and targeted outreach
- Reduces traditional engagement costs

Inputs



Outputs



Know Your Customer

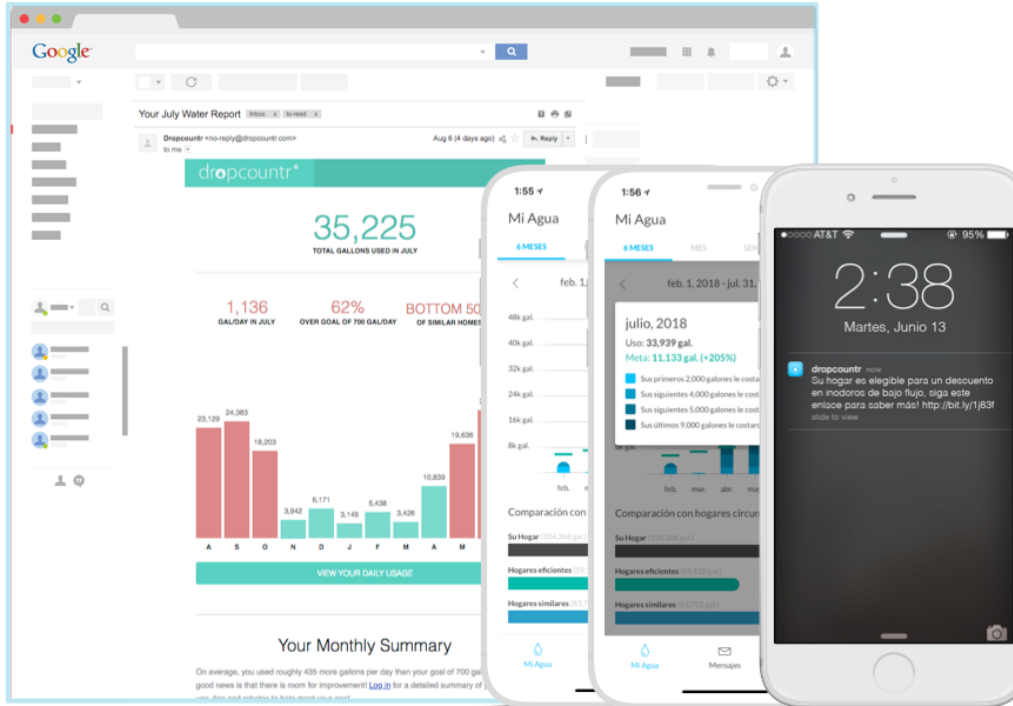
Household Details

- Occupancy
- Income and education
- Appliances
- Features (pool, lawn, etc.)
- History (delinquency, rebate participation)

Preferences

- Language
- Channel
- Frequency
- Types of alerts (leaks, bills, outages)

Case study: Northern California Utility (with AMI)



Reports

Customer Portal

Alerts

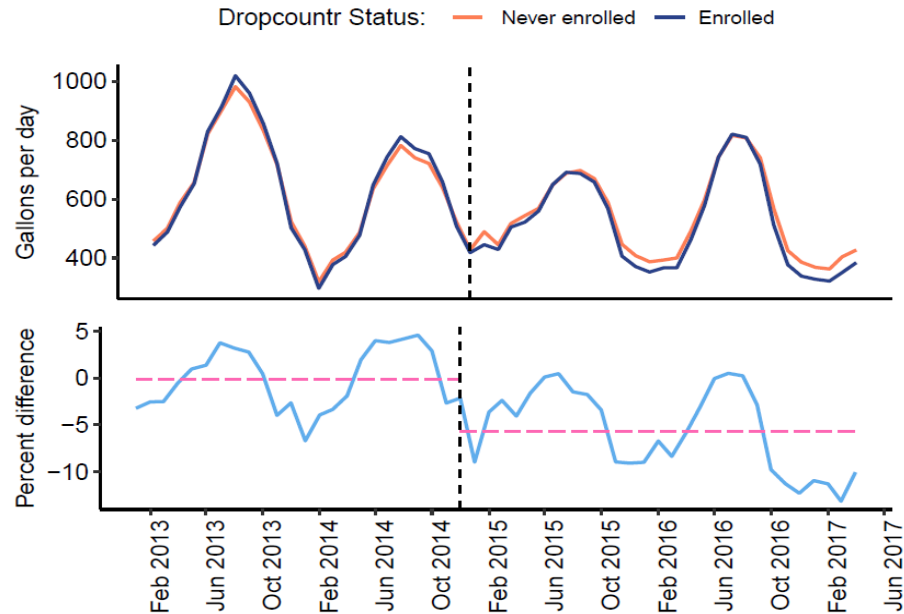
Project Details

- Started in mid-December of 2014.
- The utility contracted for a maximum of 5,000 accounts.
- Advertised first by paper, then by media, customer service, word-of-mouth, site-visits
- Available "for free" on a "first come, first served" basis.

Information drives change



Average Daily Consumption in Utility F

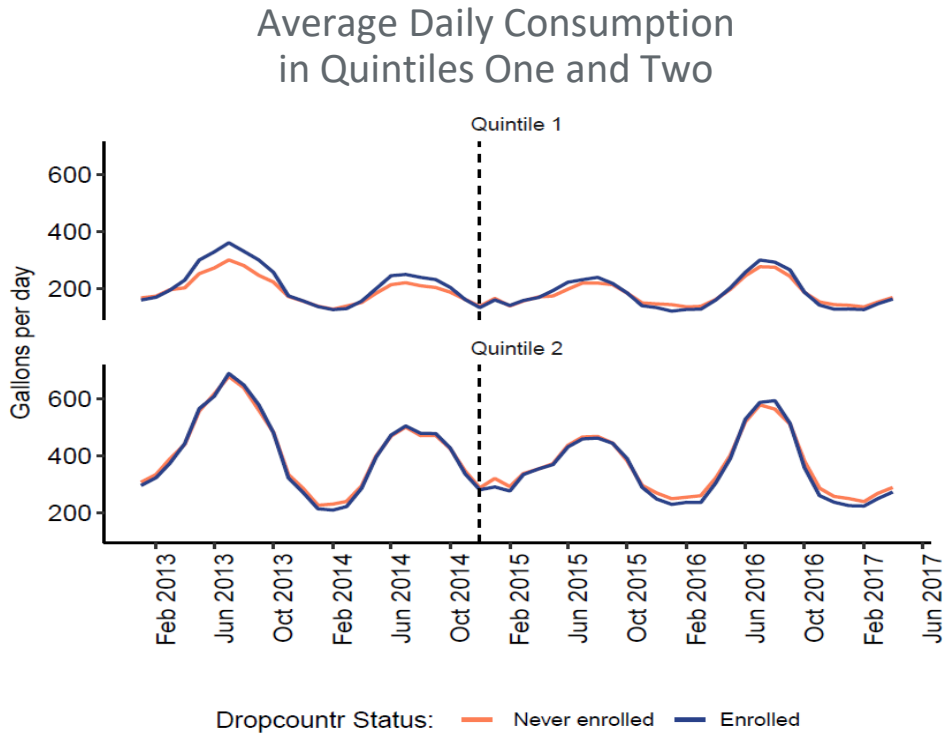


Takeaway: Information Drives Change

Enrolled customers on average reduced their water use by 7.8%

Action: Arm your customers with data

Not all customers are the same



Takeaway: *Not all customers are the same*

Customers aren't identical in consumption. Conservation among those in the "lowest 40%" most efficient was negligible.

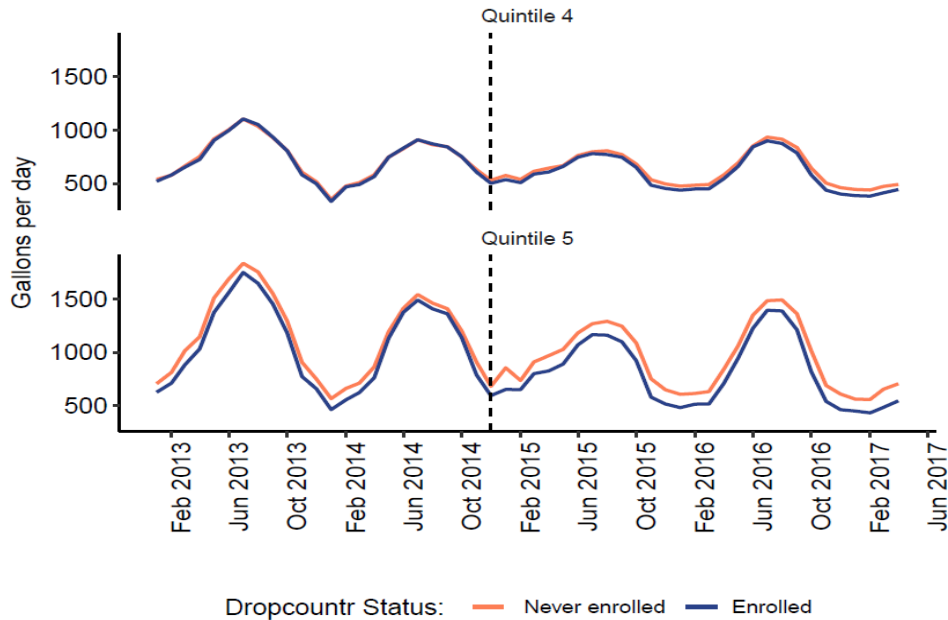
Those customers are already using less than their peers, therefore energy and financial resources shouldn't be expended on them.

● **Action:** *Focus on those customers with the greatest opportunity to conserve*

Not all customers are the same



Average Daily Consumption
in Quintiles Four and Five

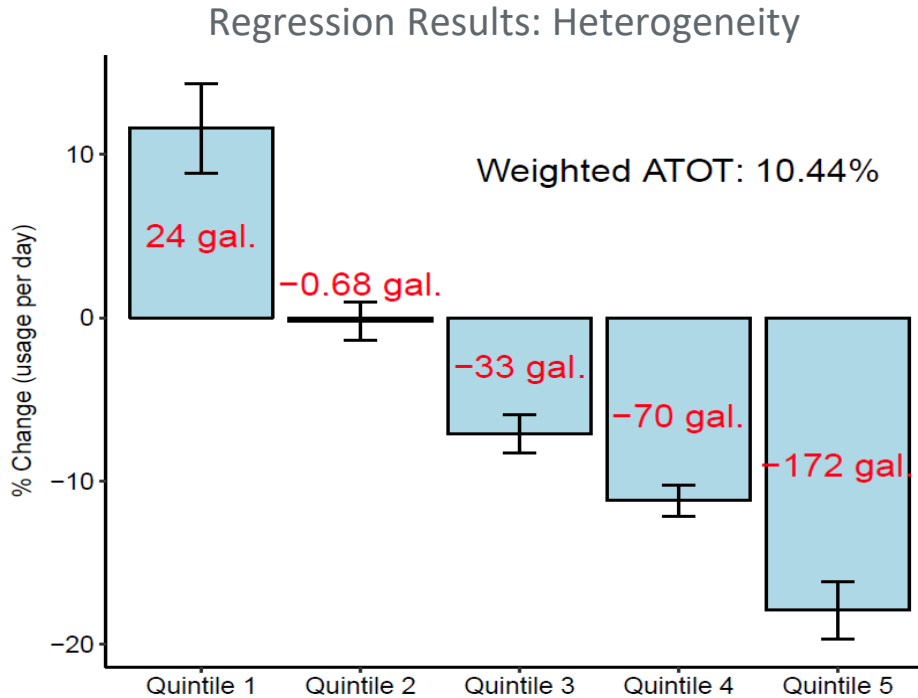


Takeaway: *Not all customers are the same*

Those in the "top 40% reduced their usage significantly; those reductions represented a huge overall gross volume conserved.

Action: *Focus on those customers with the greatest opportunity to conserve*

Sometimes there are unintended consequences



Takeaway: Unintended consequences

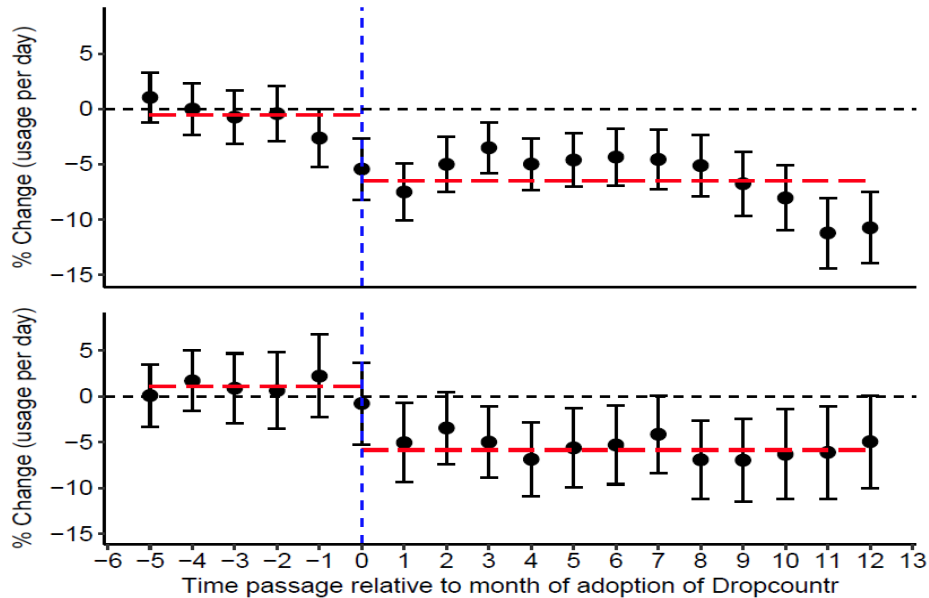
Utility F saw a “rubber band effect” whereby customers (lowest 20%) who were already efficient in their usage actually used *more* than their baseline usage.

● **Action:** Encourage those already conserving with positive messaging to avoid “rubber band effect”

Slow and steady wins the day



Regression Results: Persistence



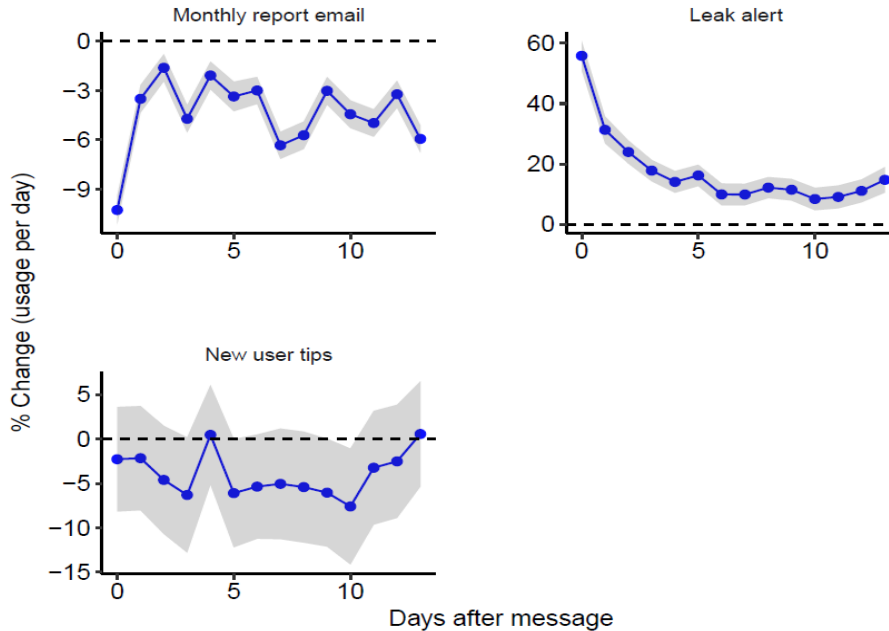
Takeaway: *Slow and steady wins the day*

Enrolled users received/had 40+ months of consistent access to consumption details, supporting long-term behavior change.

This model is uniquely different than “flash-in-the-pan” alerts or engagement that drive short-term behavior change.

● **Action:** *Keep a long view of customer behavioral change. Meaningful change will not happen overnight.*

Regression results: Which tool is causing the effect?



Takeaway: Different channels, different result

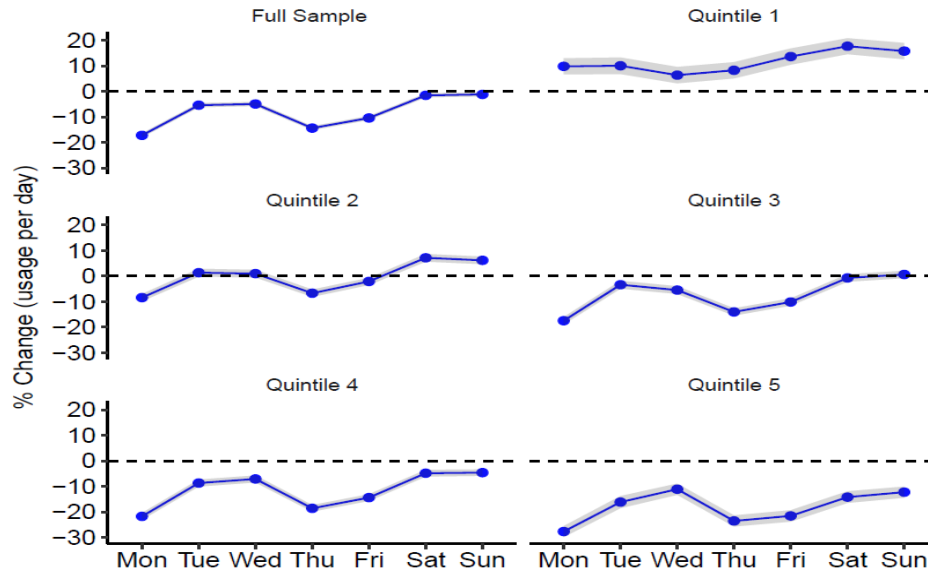
How a customer responds is different, depending on the channel, the messaging and the customer.

Email may be best for marketing rebates, while push may be best for reducing delinquency.

Understanding this response is critical to improving a utility's messaging strategy.

● **Action:** Diversify your messaging, recipients, and channels. Analyze your customers' response and repeat.

Regression results: Effect by day of the week?



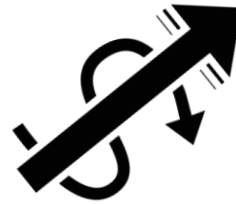
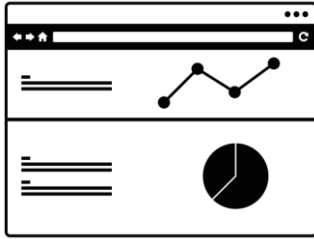
Takeaway: *Not all days are the same*

Similarly, *when* a message is received can demonstrably change how a customer responds to the message.

Understanding when engagement is best received will yield significant conservation results.

● **Action:** *Schedule your messaging for different times and days of the week.*

Sharing contextual and timely information has a big influence on customer behavior and water efficiency

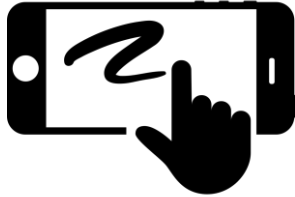


Providing your customers with information is a low-cost, non-price method of reducing residential water consumption.

To achieve a **7.8% reduction in consumption**, we estimate that it would take a **34% price increase**.

Information effects are heterogeneous; largest impacts likely on households with highest water use.

What is important for the future?



Which channel(s) do customer portals act upon? (e.g., consumption feedback, social comparison, household budget, etc.)?



What is the effect of information on the effectiveness of non-linear pricing?



Can the program's effect be magnified when coupled with other conservation programs?

Questions?

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