



Beyond empathy: When ethnographic research gets personal

By Jeffrey Daigle

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I grew up in a low-income household. I didn't know it when I was a kid, but I know it now.

My parents divorced when I was young. And like most children of divorce, my sister and I split our time between two households. Both homes were full of love and security, but only one had a Nintendo.

Developing comprehensive utility programs for LMI customers

Find out how E Source and the Edison Electric Institute (EEI) brought together three utilities to help them better understand their LMI customers' energy challenges and design solutions to help them manage their utility bills. We combined techniques from data science, ethnography, and design thinking.

[Read the case study](#)

My dad's house had all the creature comforts; money was never a problem. My mom's had just the bare necessities; there never seemed to be enough money to get by.

According to [2021 data from the US Census Bureau](#), a household comprised of one adult and two children is impoverished if the family's total income is less than \$21,831. When I was a kid in 1990, that threshold was \$10,530.

By that standard, my mom, my sister, and I lived in a low-income household.

Working closely with utilities to best support their low- and moderate-income (LMI) customers is a humbling

experience. My lived experience has enabled me to see the value of ethnography for our clients.

[Our approach](#) is a cost-effective way to gather voice-of-the-customer insights that can make a big difference as utilities design programs, products, and services.

How COVID-19 created a new class of LMI customers

COVID-19 changed the demographics—and thus the challenges—of LMI populations. As the pandemic shut down service industries such as restaurants, hotels, fitness centers, and salons, millions of employable Americans were suddenly out of work. Without a regular income, these households qualified as LMI. But they demonstrated characteristics that didn't fit the traditional LMI profile. They were a new LMI subsegment.

Utilities realized they couldn't support these customers with the same programs and services they had designed for prepandemic LMI populations. They had to develop new offerings that addressed these customers' particular struggles, desires, needs, and motivations.



About the author

Jeffrey Daigle is an expert on contact center operations, customer experience, channel design, operations, digital engagement, and journey mapping. For Jeffrey, all channels can serve to delight the customer, transform behavior, and result in positive outcomes for both the customer and the organization. When he isn't evangelizing customer experience, working on a consulting project, or writing an article, Jeffrey is dissecting the latest technology. He holds a BAS in communication and French from the University of Colorado and is a Certified Customer Experience Professional (CCXP).

Understanding the varied and complex LMI population

Using ethnography to bring data to life

In developing our two-week mobile survey, we didn't seek a statistically valid sample of respondents. Rather, we wanted to collect a representation of customer voices to enrich our understanding of the various customers included in the LMI population.

Working with EEI, E Source launched a two-week [ethnographic research](#) project. Participants downloaded a mobile app to their smartphone or tablet, and we sent them questions through the app.

At their own pace, from anywhere at any time, they responded using text messages, photos, videos, or audio recordings. This approach neutralized the discomfort most people feel when discussing their finances in a public setting with people they've never met.

Our mobile survey gave us authentic and extraordinary views into these newly LMI customers' lives. They expressed fear that their power was going to be disconnected. They described the joy of completing a payment arrangement. And they reported the little ways they were attempting to control their energy bills.

Challenging personal biases about LMI households

A major benefit of ethnography is that, by bringing in the customer's voice and getting their unique perspective, we challenge our own internal biases that prevent us from solving customers' biggest problems. All [voice-of-the-customer research](#)—whether it's done through in-depth interviews, focus groups, or mobile ethnographic surveys—can bring customer data to life.

Recognizing ourselves in LMI customers

I realized as I was listening to the honest comments these customers shared through our survey that I was feeling uncomfortable. I was having a hard time engaging with the research. Curious, I spent some time reflecting on why I was having such a strong reaction.

As a kid, I assumed both my parents earned average incomes and lived in middle-class households. But after hearing the survey respondents describe their worries, struggles, wants, and needs, I realized how much they had in common with my mom.

An immigrant from Wales with the equivalent of a high school education, my mom worried about money and how she'd provide for me and my sister. She just wanted us to feel safe, secure, supported, and loved.

The discomfort I was feeling was the realization that I had formed biases against LMI families even though I had grown up in one.

Through my work on this project, I was humbly reminded that on the other side of every account number, and within every premise, there's a human being.

Shedding our misconceptions about LMI customers

Our ethnographic research with EEI refuted some common misconceptions about LMI customers (**figure 1**).



Figure 1: Ethnographic research invalidates common misconceptions about LMI customers

Many of the beliefs we have about LMI customers are wrong. The ethnographic research we collected with EEI told a different story about these Americans.

Common misconception	Reality
LMI customers don't budget or spend their money wisely.	LMI customers use a variety of methods to track their expenses and are looking for more ways to save.
LMI customers don't understand their energy use.	LMI customers know a lot about what's driving their energy use. But the solutions that would make their home more comfortable and efficient don't drive enough savings or are outside of their control if they're renters.
LMI customers don't work enough.	Many LMI customers work two or more jobs.
LMI customers don't want to pay their bills.	LMI customers want to stay current with their bills, but when they don't have the funds, they fall into arrears.

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Removing barriers to LMI program participation

Respondents to our mobile survey told us they had changed their behavior or modified their homes to save energy and, therefore, money.

They did things like:

- Placing plastic sheets, towels, or blankets over windows
- Sealing gaps around drafty doors
- Closing doors, windows, and vents in unoccupied rooms
- Using box fans rather than air-conditioning to cool spaces
- Using space heaters or stoves to heat spaces
- Boiling water to increase humidity
- Using electric blankets to maintain a safe body temperature

This list got me wondering: How much do these activities really help? To save even \$20 on their bill, how much energy would someone need to conserve?

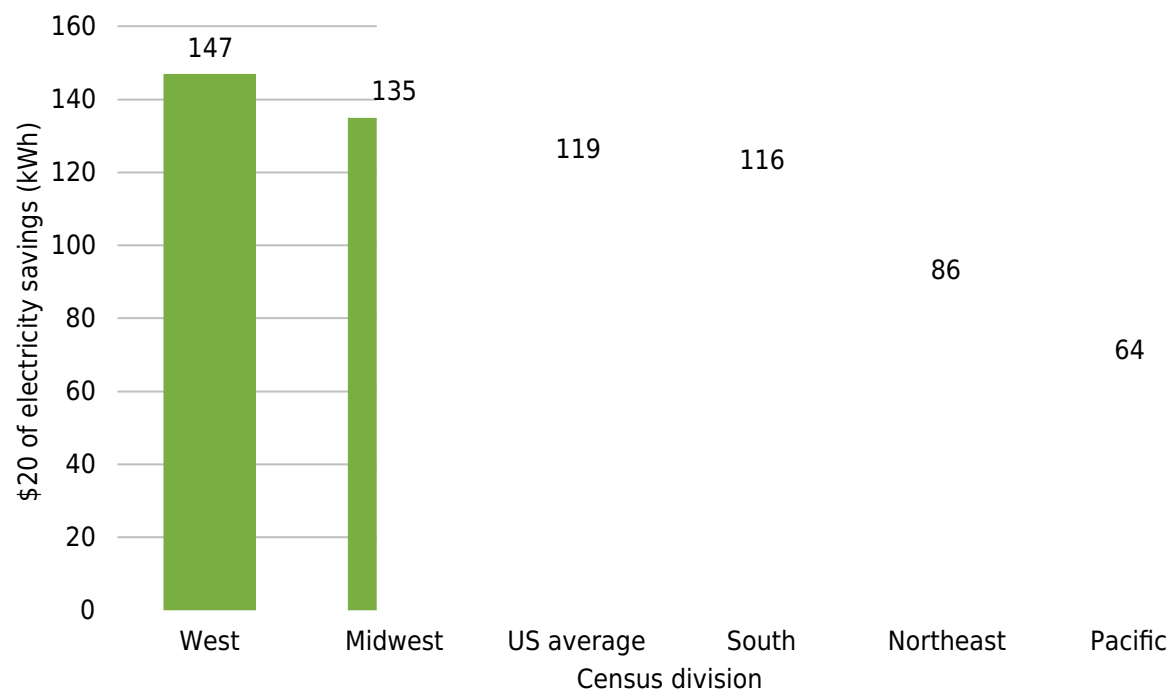
As energy professionals, we know it's more cost-effective to heat or cool a space by covering windows or using box fans than by running space heaters or turning on the stove.

Before we push energy efficiency as the ideal solution for lowering energy bills, we need to understand the cost savings associated with each measure. Broken out by census division, **figure 2** shows how many kilowatt-hours or cubic feet of natural gas a customer would need to save to lower their energy bill by \$20.

Figure 2: Monthly energy reduction required to save \$20

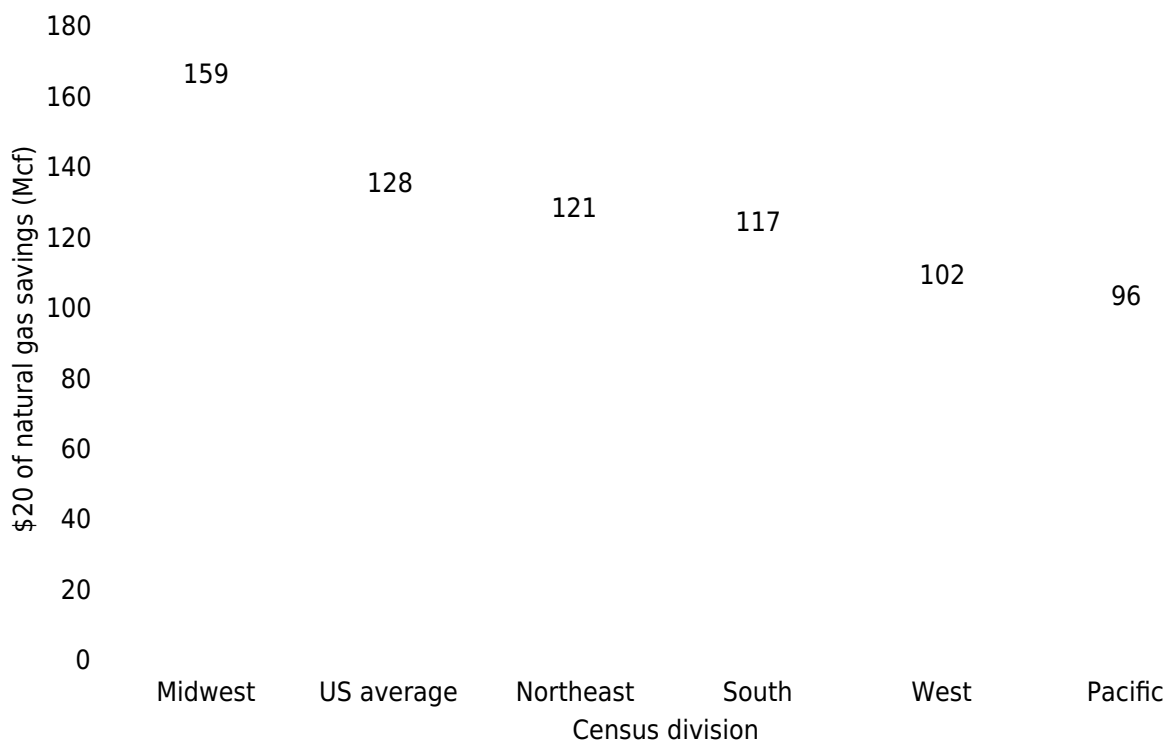
On average, a US utility customer would need to cut their electricity use by 119 kilowatt-hours to save \$20 on their monthly utility bill. For natural gas, they'd need to conserve 128,000 cubic feet to save \$20.

Electricity



© E Source; data from the US Bureau of Labor Statistics. Note: kWh = kilowatthours.

Natural gas



© E Source; data from the US Bureau of Labor Statistics Note: Mcf = thousand cubic feet.

Energy efficiency treatments in my childhood home were fun to implement, but they weren't very effective.

My mother bought a single-wide trailer we lived in at a mobile home park about six miles outside the city. She worked in the trailer while my sister and I went to school. Heating and cooling were complicated in the trailer because the building shell was so thin.

Through my work on this project, I was humbly reminded that at the end of every account number, and within every premise, there's a human being.

Every winter we'd enjoy a festive tradition: my mom would buy a bunch of plastic wrap and we'd go about dressing all the windows.

First, we'd take old towels and ragged, too-small T-shirts and stuff them into the gaps along the windowsill. Then, my mother would cover the window with plastic wrap like a Christmas present only an antique-collecting or DIY glazier would be interested in opening.

Was this effective? Well, the fact that gift-wrapping windows isn't an energy efficiency measure offered by utilities probably suggests it doesn't do much. But it gave my mom comfort to know she was taking control of our energy bills. And maybe that was enough.

Understanding how LMI customers save

Perhaps the most insightful part of our [ethnographic study](#) came about when we asked participants if they would consider themselves savers.

Growing up in a low-income household wasn't a choice, a curse, or a punishment. It shaped me as a person. And it gave me empathy for the LMI customers our clients serve.

Our team never specifically defined what it meant to be a saver, but we received a variety of insightful responses from participants. Based on the responses, we formed three broad groups:

- *Financial savers.* Customers who put money away for a rainy day or save money for a future event, such as retirement. Respondents we identified as financial savers told us they learned to set aside a little bit of money each month when they were children and the habit continued into adulthood.
- *Aspirational savers.* Customers who understood that saving meant putting away money for a future date, but something always seemed to prevent them from doing so.
- *Value savers.* Customers who sought ways to make their dollars go further. Respondents we grouped as value savers reported buying only used or on-sale items and paying with coupons.

I've been a customer experience expert in the utility industry for almost 10 years. And I've worked on a lot of voice-of-the-customer surveys and projects. But this ethnographic study affected me in a deep and personal way.

Growing up in a low-income household wasn't a choice, a curse, or a punishment. It shaped me as a person. And it gave me empathy for the LMI customers our clients serve.

As an industry, we need to think about how to better support these customers. We need to design programs that meet them where they are and get them where they want to go.

And, at the end of the day, when we better serve these customers, we make a real difference in their lives and in our communities. Isn't that what this is all about?