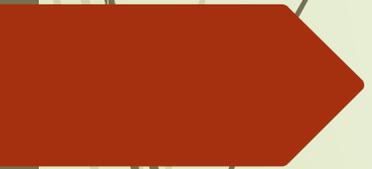


Strategies for Profiling and Identifying Hard to Reach Markets





Overview

- ▶ How we utilize existing data to answer hard questions
 - ▶ Outline of one question we recently had and the analytics we used to better understand how to create energy efficiency programs for residential customers who have a hard time paying their bills
 - ▶ Analytical steps, process maps, and where to obtain free data
 - ▶ Using data to understand program barriers
 - ▶ Suggestions on regional & local energy planning to help eliminate barriers
- 



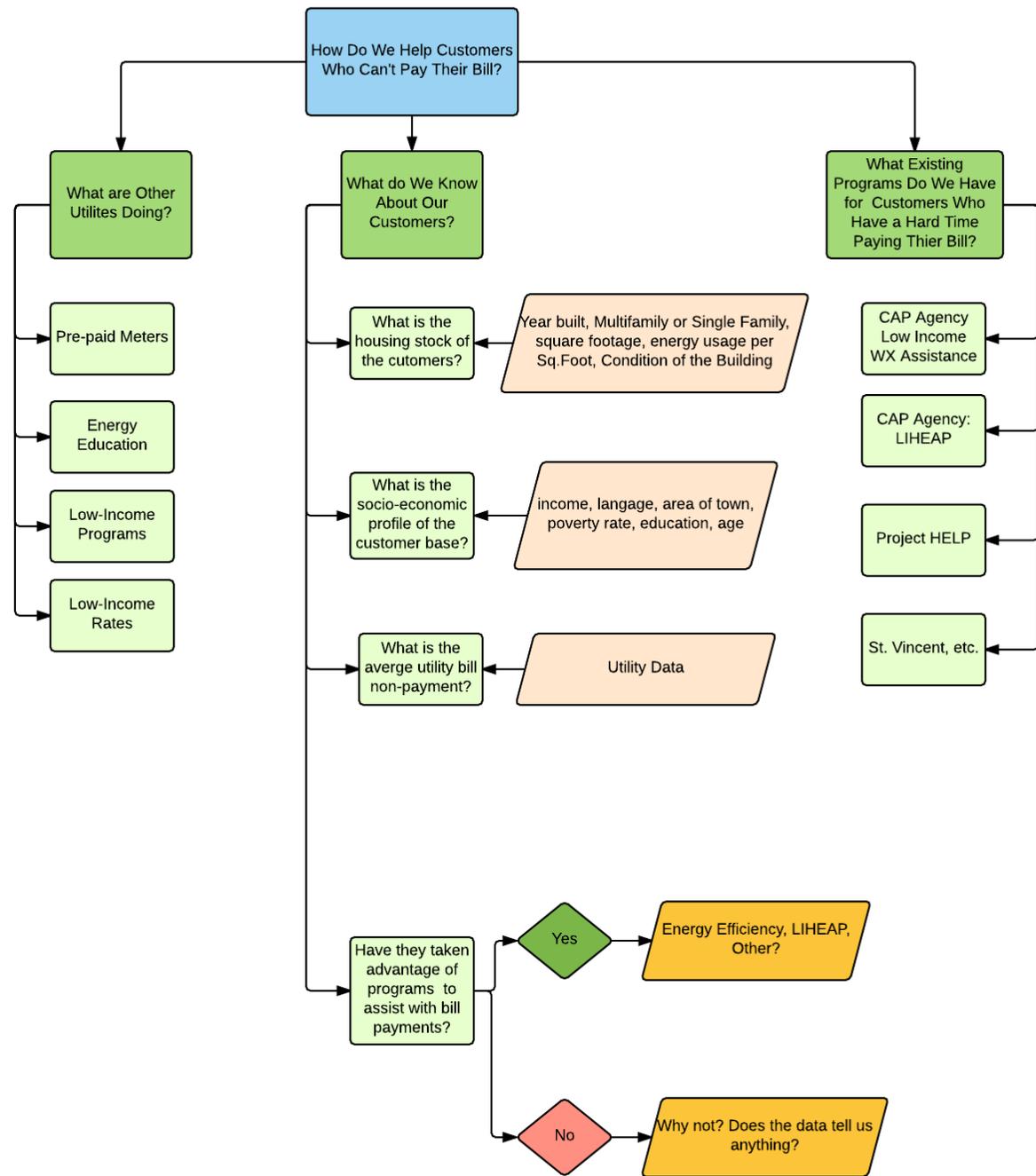
Question We Set Out to Answer:

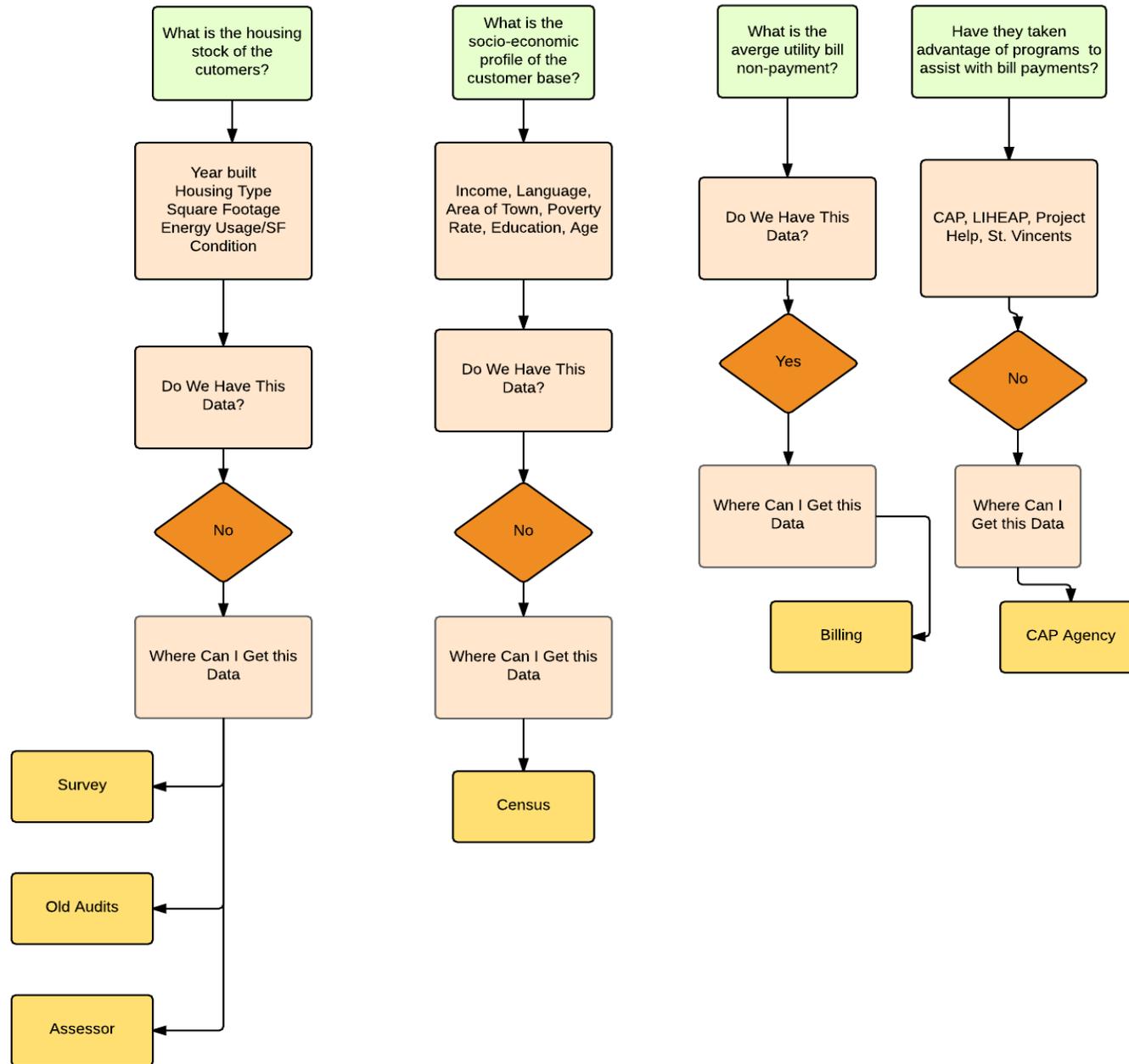
- ▶ What can we do to better provide services to our lowest-income customers, specifically the customers who are most impacted by rate increases and have the hardest time paying their utility bill?
- ▶ When Looking at Idaho Falls Power:
 - ▶ Load growth is very, very small
 - ▶ The majority of our EE participants are commercial lighting projects
 - ▶ How do we redirect some of our EE money to make the greatest difference for people who feel the pinch from utility bills?



Process Mapping Questions

- ▶ Helps outline all aspects of a question
- ▶ Assists in understanding the right questions to ask to determine outcomes
- ▶ Provides an avenue to pause, consider needed data elements for each stage of the analysis
- ▶ Allows time to assess what we really need, what we are after, and how to merge data
- ▶ Allows me to focus on individual aspects of a question and look at small pieces rather than the whole question





What do we know about our customers?



Data Requirements

- ▶ Based on the process maps of our initial question, we can start outlining data requirements
 - ▶ Non Utility Data
 - ▶ Utility Data

Acquiring Non-Utility Data



- ▶ Assessor Data
 - ▶ Fairly easy to acquire (\$0.00)
 - ▶ two week turn around
 - ▶ Treats from Great Harvest make a huge difference!!
 - ▶ Obtained household level data: year built, heating type, value of home, size of home, etc.
 - ▶ This data needs to be matched with utility information by county parcel number
- ▶ Census Data
 - ▶ Very easy to acquire: (\$0.00)
 - ▶ Have to obtain census block to zip+4 decoder ring from the USPS (\$125)
 - ▶ Information in income, poverty, food stamps, language, ethnicity, children, age, etc.
- ▶ Available data on Help, LIHEAP, or late payments



Utility Level Data

- ▶ Energy Usage
 - ▶ Remote Disconnect Meter Status / Delinquency Information
 - ▶ Meter Numbers
 - ▶ Addresses
 - ▶ Customer Name
 - ▶ Building Owner Name
 - ▶ Mailing address
 - ▶ \$0.00 to acquire
- 



What Does the Data Tell Us About Customers?

- ▶ After obtaining data from various sources, I compiled the data and started to build a profile of customers of interest
 - ▶ Let's talk about some basic statistics about our customers who are having a difficult time paying their bills

Statistics: Low Income Vs. High Income

	LICB*	HICB
Median Income	\$21,000	\$97,917
Percent Below Poverty Line	43.62%	2.91%
Percent On Food Assistance	44.13%	0%
Percent Unemployed	11.60%	2.49%
Percent Hispanic	39.21%	4.63%
% Owner Occupied	31.3%	92.76%
% Occupied by families	59.79	86.75%
% Occupied by Elderly	16.97%	22.79%

* This is not the lowest income census block, which has a median income of \$16,000 per year, this is the census block with a sufficient number of homes to make comparisons to a high income census block

Space Heat Type: Low Income Vs. High Income

Space Heat Type	LICB	HICB
Electric baseboard	17.70%	0.85%
Forced hot air-elec	7.18%	0.28%
Forced hot air-gas	19.14%	93.75%
Forced hot air-oil	0.48%	2.56%
Radiant - ceiling	55.50%	0.28%
Wall units	0.00%	0.28%
Other	0.00%	1.99%



Low Income Census Block Stats Vs. Highest Income Census Block

Housing Type	% LICB	Average Electric Usage	% HICB	Average Electric Usage
Condo	14.35%	10,720.96	3.13%	6,448.72
Duplex	0.96%		0.00%	
Mobile Home	17.22%	9,300.25	0.00%	
Multifamily	64.59%	9,101.38	2.84%	4,942.69
Single Family	1.91%	15,122.72	93.47%	10,639.33
Townhouse	0.00%		0.00%	
Triplex	0.96%	1,633.47	0.57%	



Basic Profile of Customers who have a hard time paying their bill

- Very low income
- Renters/multifamily
- Young families & single
- Hispanic & Non-Hispanic
- Primary Electric Heat (Baseboard/Ceiling Cable)
- High energy usage/S.F.
- Older parts of the city



Existing Low Income Programs in Idaho Falls

Now that we know who are customers are, what existing and new programs can we create to help them?

- LIHEAP
- EICAP Weatherization
- Project Help

LIHEAP

Currently, we have a program through EICAP that helps customers pay their energy bills. The program provides a **one-time per winter** bill assistance to qualifying customers.

Family Size	Monthly Income Limit	3-Month Income Limit EA
1	\$1,471	\$4,413
2	\$1,991	\$5,973
3	\$2,511	\$7,533
4	\$3,031	\$9,093
5	\$3,551	\$10,653
6	\$4,071	\$12,213
7	\$4,591	\$13,773
8	\$5,111	\$15,333
Each additional member	\$520	\$1,560

Qualifications for EICAP Weatherization

Family Size	Annual Income Limit	Monthly Income Limit	3-Month Income Limit
1	\$23,540	\$1,961	\$5,885
2	\$31,860	\$2,655	\$7,965
3	\$40,180	\$3,348	\$10,045
4	\$48,500	\$4,041	\$12,125
5	\$56,820	\$4,735	\$14,205
6	\$65,140	\$5,428	\$16,285
7	\$73,460	\$6,121	\$18,365
8	\$81,780	\$6,815	\$20,445
Each Additional Member	\$8,320	\$693	\$2,080

Outline of the Problem:

- ▶ We have a significant portion of our community who can't pay their energy bill, a large portion of whom:
 - ▶ Live in Multifamily complexes
 - ▶ IFP current energy efficiency programs don't focus on multifamily
 - ▶ CAP Agency/BPA weatherization funding is difficult for multifamily
 - ▶ 50% Documented Low-Income
 - ▶ Most of our multifamily are 4 unit buildings; and those are considered single family for BPA programs. Why is this important?
 - ▶ Live in areas where there is a high proportion of Hispanic community members
 - ▶ Very few of the homes on Remote Disconnect have taken advantage of LIHEAP



Payment Assistance :

➤ **LIHEAP:**

Why have only 13% of people with chronic late payments taken advantage of LIHEAP?
How can we fix this?

➤ **HELP:**

Why have people not taken advantage of this program?
How can we fix this?

Weatherization Program:

- ▶ Why can't we simply help people take advantage of low-income weatherization :
 - ▶ This requires a 50% of multifamily tenants to document income
 - ▶ Documentation may be a problem in some areas
 - ▶ Rates are really low, so energy savings may not be high enough to jump through paperwork
- ▶ Ideas to create a low-income weatherization program what works:
 - ▶ Eliminate Social Security Numbers as a standard on documentation (current, not required by BPA but required by CAP agency)
 - ▶ Eliminate the need for individual tenant documentation (use Census Block or Rental Agreements)
 - ▶ Make this really easy for landlords, property management firms, and the utility



Program Planning on a Regional Level

- ▶ Is our planning process 'creating' hard to reach markets?
- ▶ How can we change our planning process, on local and regional levels, to better understand individual markets?
- ▶ By planning in a way that strives to understand markets, building stocks, and individual utility needs, can we eliminate the 'hard' in 'hard to reach' and just create reachable markets?



Regional Asks



- ▶ Create mechanisms that eliminate barriers that are creating hard to reach markets:
 - ▶ Utilize existing data for income verification: Census Block, Rental Agreements, Location
 - ▶ Make it easy for landlords, residents, and CAP agencies
 - ▶ Understand the link between income and building/census block/area of town
 - ▶ Allow low-income programs to have a lower cost-effectiveness threshold
- ▶ Assist utilities in understanding how to utilize existing data to better understand their customer base and program needs
- ▶ Understand local utility demographics, local needs, etc. when doing regional planning



How to Use our exiting Data

- ▶ Audit Data
 - ▶ Improve audit data collection across the region
 - ▶ Idaho Falls Power improving data collection while increasing customer satisfaction by utilizing an online tool for audits and data collection
- ▶ Tracking and reporting
 - ▶ Create mechanisms to link tracking and reporting data with audit data
- ▶ Over Time:
 - ▶ Program Tacking and Audit data can be paired to understand building demographics, participant demographics, and non-participant demographics
 - ▶ Targeted marking, dynamic building stock assessments, likelihood to participate, etc.