Evaluating Low-Income Programs Why and How

2017 NEUAC Conference

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June 27, 2017

APPLIED

Nonprofit Research Institute

Established in 2002

Princeton, NJ

Mission

Analyze data and information to assess and improve public programs

Research Areas

Energy Efficiency

Energy Affordability

Clients

Federal Government (DOE, HHS)

State Governments

Utility Companies

Nonprofits

Session Outline

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- Why Evaluate?
- Impact Evaluation
- Process Evaluation
- Performance Measurement
- Recommendations

Why Evaluate?

"Measurement is the first step that leads to control and eventually to improvement. If you can't measure something, you can't understand it. If you can't understand it, you can't control it. If you can't control it, you can't improve it."

— **H. James Harrington**

Why Evaluate

Measure Program Impacts

- Energy usage
- Energy bill affordability
- Economic impacts
- Environmental impacts
- Health, safety, and comfort
- Cost benefit analysis

Assess Potential Improvements

- Goals
- Efficiency
- Effectiveness
- Equity
- Targeting
- Client Satisfaction

Meet Regulatory Requirements

- State
- PUC
- Other

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Impact Evaluation

Program Data Analysis Purpose

Provides a characterization of:

- Participants
- Homes
- Measures
- Testing results

Program Data Analysis

Finding: The Program is serving many vulnerable households.

Vulnerable Status	Treatment Group	
	#	%
Child <18	2,843	44%
Elderly >62	1,881	29%
Disabled	346	5%
Any Vulnerable	**4,624**	**72%**

Program Data Analysis

Finding: Contractors serve renters at different rates.

Occupancy Type	Contractor				
	1	2	3	4	5
Obs.	4,082	985	812	527	31
Own	72%	54%	74%	51%	74%
Rent	27%	46%	26%	48%	26%
Other	0%	<1%	<1%	<1%	0%
Missing	2%	<1%	<1%	<1%	0%
Total	100%	100%	100%	100%	100%

Usage Impact Analysis Purpose

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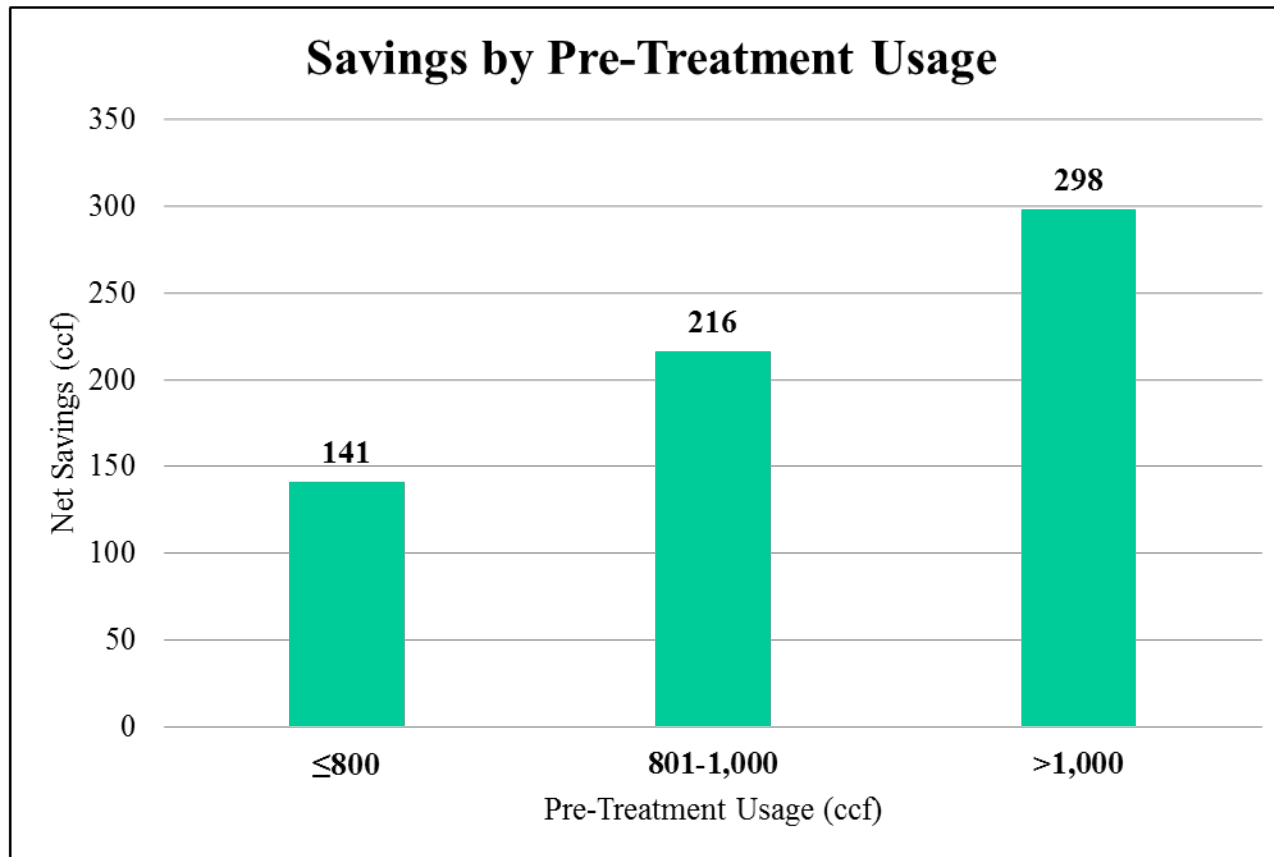Estimate the actual impact of the program on energy affordability or energy usage.

Determine the impacts of different program designs or various energy efficiency measures.

Determine the effectiveness of different providers.
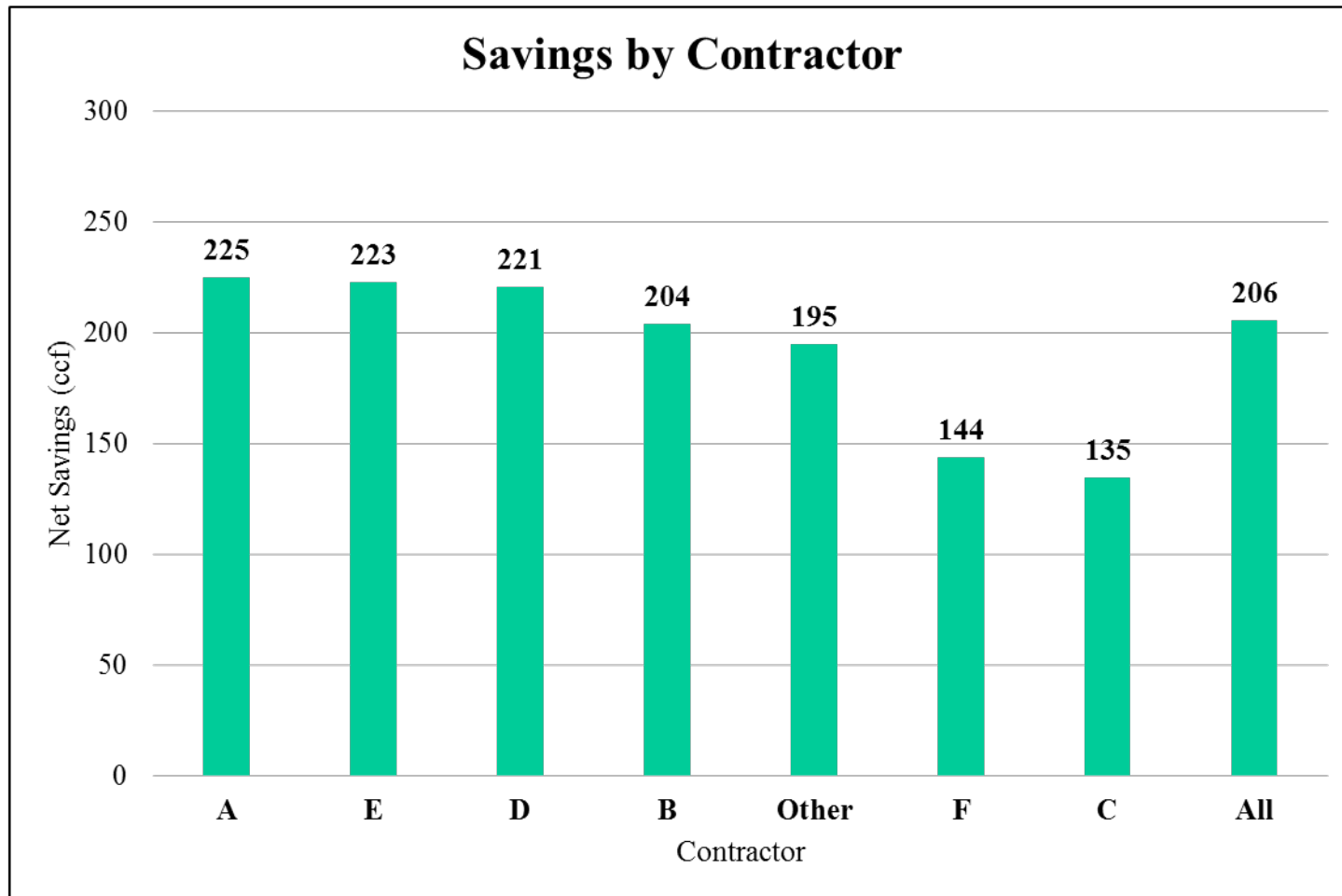
Data to use in cost effectiveness analysis.

Usage Impact
Savings By Pre-Usage

Usage Impact Savings By Contractor

Payment Impact Analysis Description

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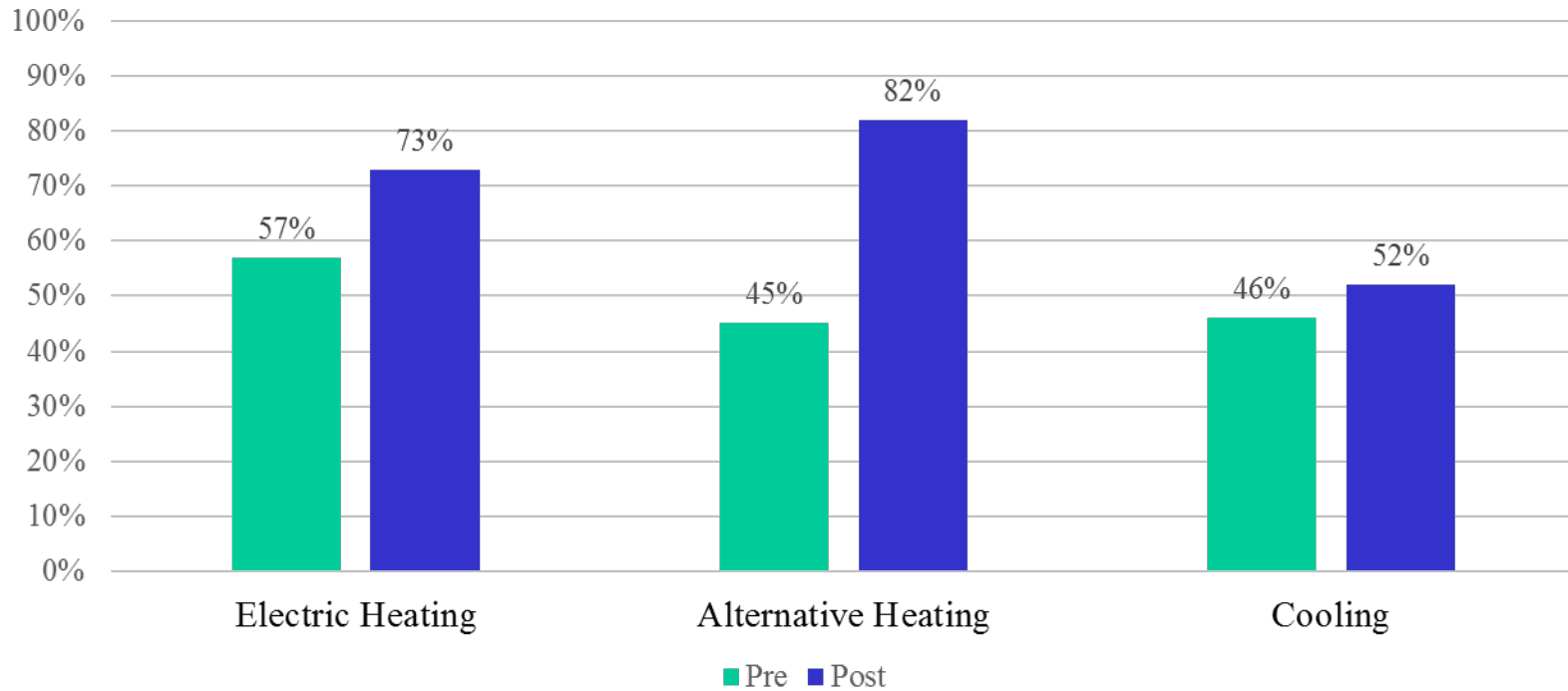Analysis of customer bills and payments.

Analysis of assistance payments.

Comparison between the year preceding and the year following treatment.

Use of a comparison group.
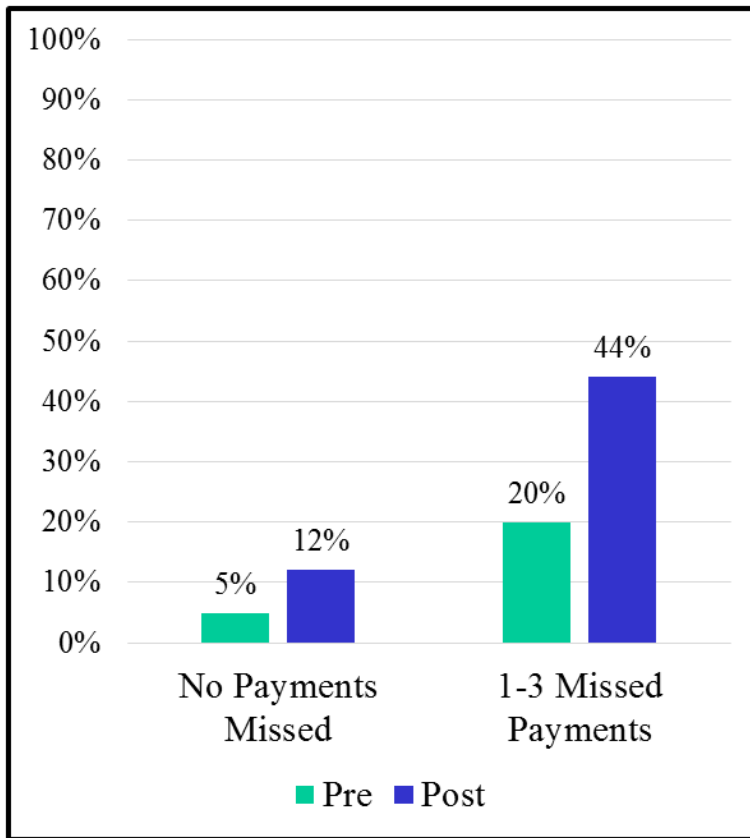
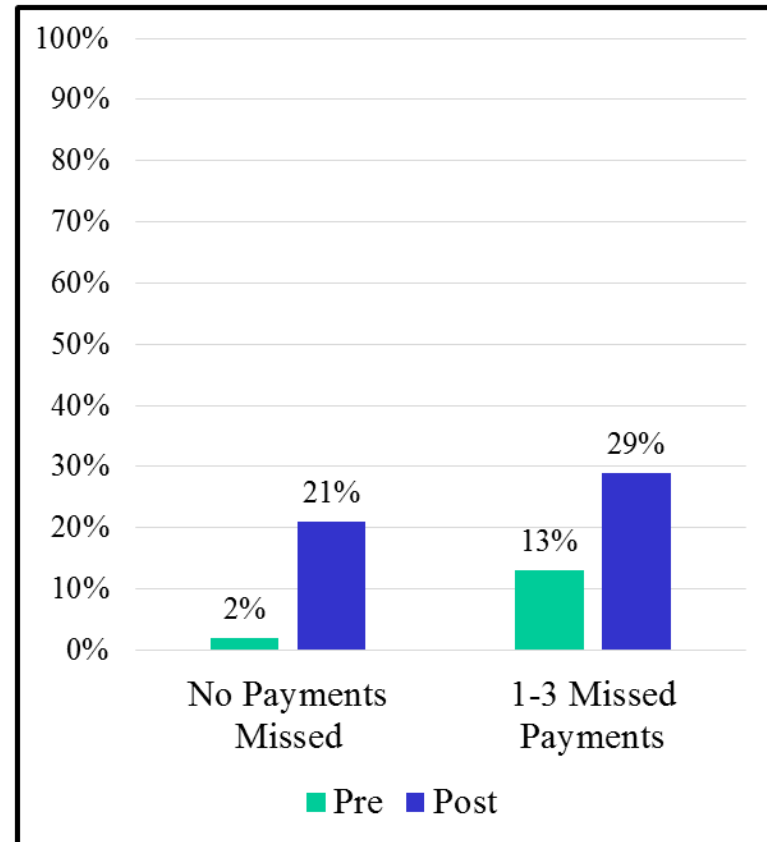# Program Impacts Bill Payment

Bill Coverage Rate ≥90%

Pre / Post bar chart:
- Electric Heating: Pre 57%, Post 73%
- Alternative Heating: Pre 45%, Post 82%
- Cooling: Pre 46%, Post 52%

Program Impacts
Bill Payment

Number of Missed Payments

Electric Heat

Bar chart showing:
- No Payments Missed: Pre 5%, Post 12%
- 1-3 Missed Payments: Pre 20%, Post 44%

Legend: ■ Pre ■ Post

Alternative Heat

Bar chart showing:
- No Payments Missed: Pre 2%, Post 21%
- 1-3 Missed Payments: Pre 13%, Post 29%

Legend: ■ Pre ■ Post

Process Evaluation

Process Evaluation Questions

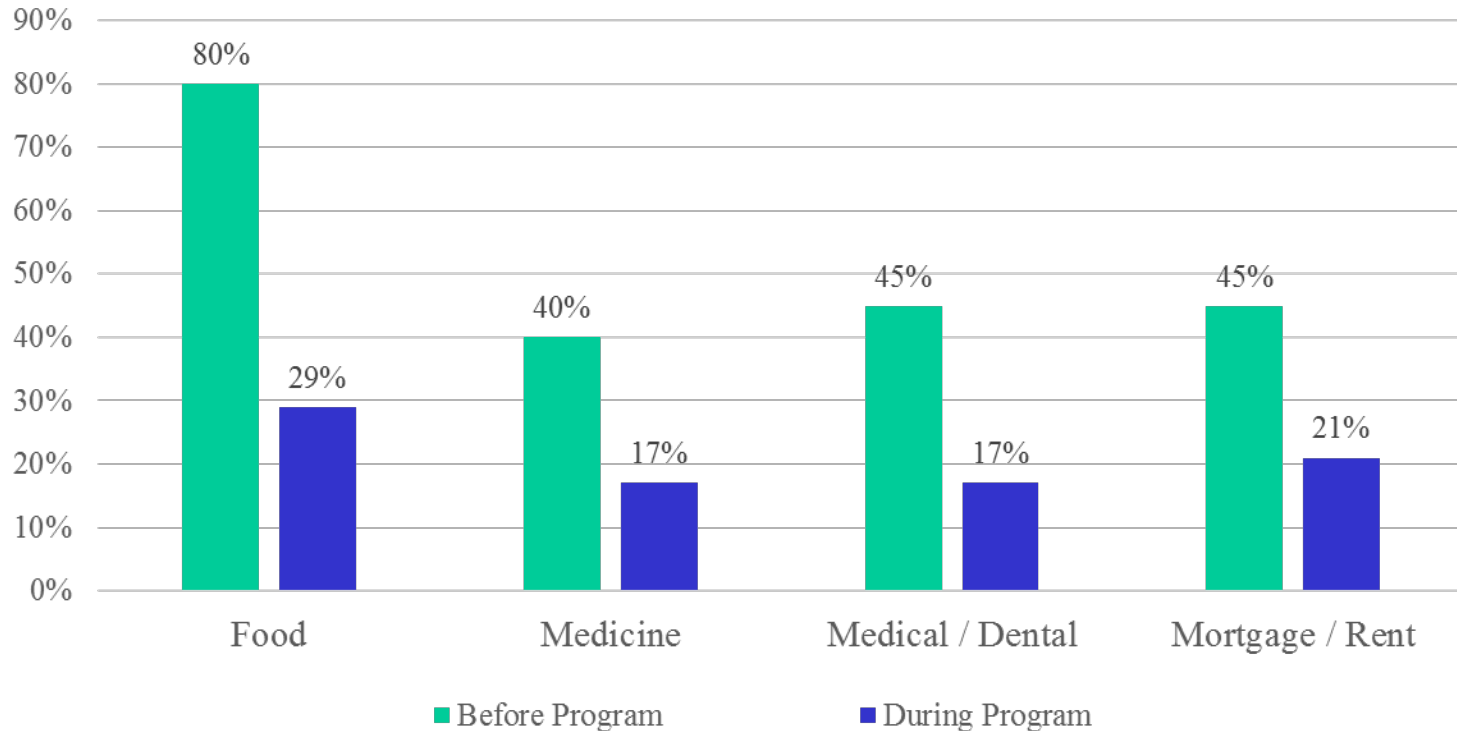| How is the program designed?	• Documentation review • Interviews with program design and management team
How is the program implemented?	• Interviews with program managers and implementers • On-site observation • Surveys with program participants
Why is it working or not working?	• Synthesis of all evaluation data

Process Evaluation Customer Survey

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How did you find out about the Program?						
	All Respondents	Implementation Contractor				
		1	2	3	4	5
Completes	977	459	203	194	101	20
	Percent of Respondents					
Friend/Relative	27%	29%	24%	23%	37%	10%
Utility	18%	21%	14%	15%	20%	20%
Govt. / Comm. Agency	16%	19%	15%	16%	10%	20%
Contractor	15%	12%	17%	18%	14%	40%
Program Flyer	8%	6%	9%	15%	7%	5%
Bill Insert	2%	3%	3%	2%	1%	5%
Internet	2%	1%	5%	2%	0%	5%
Other	5%	5%	4%	5%	4%	0%
Don't Know	14%	14%	17%	11%	12%	10%

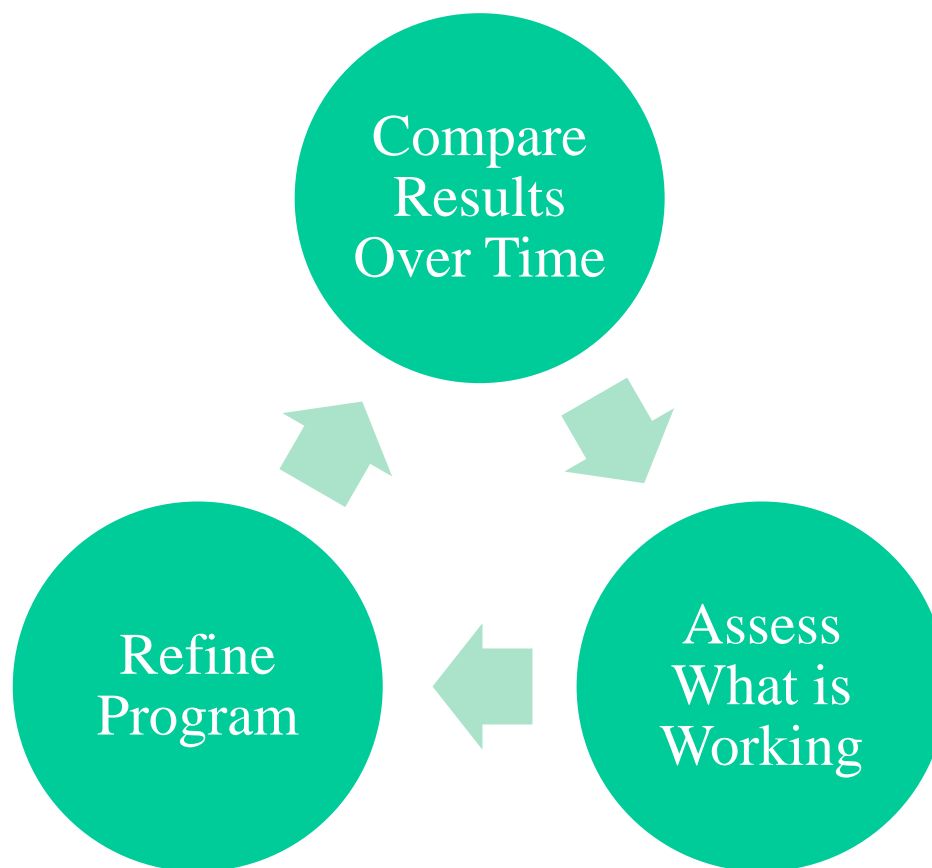# Process Evaluation Customer Survey

Did you every have to delay/skip the following bills or purchases to make ends meet?

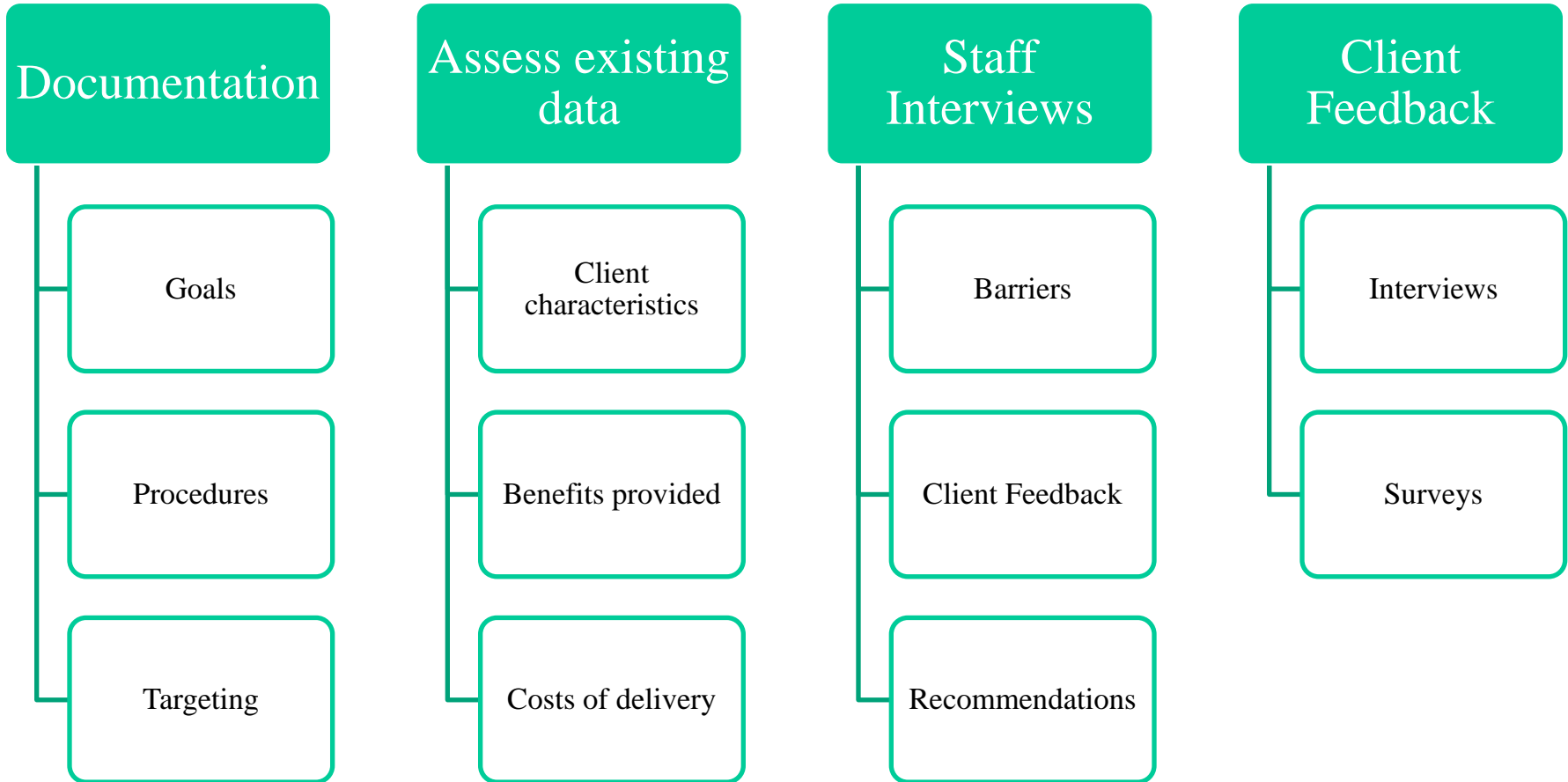Long-Term Participants Who Delayed/Skipped Paying Bill

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Performance Measurement

Performance Measurement Repeat

Compare Results Over Time

Assess What is Working

Refine Program

Recommendations

Getting Started

Documentation	Assess existing data	Staff Interviews	Client Feedback
Goals	Client characteristics	Barriers	Interviews
Procedures	Benefits provided	Client Feedback	Surveys
Targeting	Costs of delivery	Recommendations	

Implementing an Evaluation

- Prioritize goals for the evaluation.

- Determine available/appropriate evaluation budget.

- Choose research activities that are most likely to provide information needed.

- Combination of process and impact data is usually important.

Contact

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