DIGITAL BEHAVIORS of INCOME QUALIFIED CUSTOMERS: CURRENT STATUS AND FUTURE PROSPECTS
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Program Manager, SCE CARE Program
Goals

1. To profile IQP customers relative to the general population of SCE residential customers with respect to selected digital or digital-related behaviors.

2. To identify clusters or segments among IQP customers defined by their varying propensities towards being digital.

3. To ascertain significant predictors of IQP customers being non-digital in order to formulate more responsive policies, programs, and strategies that will more effectively reach these individuals.
Agenda

1. Overview of SCE’s IQP programs

2. Importance of Outreach and Communication to IQP customers

3. Statistical results
   a) Digital profile of IQP customers vs non-IQP customers
   b) Cluster analysis of IQP customers on digital propensities
   c) Significant predictors of being non-digital among IQP customers

4. Profile of non-digital IQP customers

5. Future Prospects
Overview of SCE’s IQP Programs

California Alternate Rates for Energy (CARE)
&
Family Electric Rate Assistance (FERA) Programs
Introduction to Southern California Edison

• One of the nation’s largest electric utilities:
  – Nearly 14 million residents in service territory
  – Approximately 5 million customer accounts
  – 50,000 square-mile service area

• High Low Income Population
  – Approximately 1/3 of households are estimated to be Income Qualified
The CARE Program

California Alternate Rates for Energy (CARE) is a state legislated program which offers income-qualified customers a discount of approximately 30% on their monthly electric bills.

SCE has 1.2 Million CARE Households in its service territory and administers nearly $350 Million in CARE bill discounts annually (avg. CARE discount per household is $23 per month).

CARE is available to single family households, submetered residential facilities, non-profit group living facilities, agricultural employee housing facilities, and migrant farm worker housing centers.
Two Ways to Qualify for CARE

1. **Residential Households** can qualify for CARE if someone in the home participates in at least one of the eligible public assistance programs (e.g., LIHEAP or WIC)

   OR

2. **Meet income guideline qualifications** (approximately 200% of federal poverty income guidelines)

<table>
<thead>
<tr>
<th>Number of Persons in Household</th>
<th>Total Combined Annual Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 2</td>
<td>Up to $32,480</td>
</tr>
<tr>
<td>3</td>
<td>Up to $40,840</td>
</tr>
<tr>
<td>4</td>
<td>Up to $49,200</td>
</tr>
<tr>
<td>Each additional person</td>
<td>$8,360</td>
</tr>
</tbody>
</table>

Maximum Household Income Effective June 1, 2017
The FERA Program

The Family Electric Rate Assistance (FERA) Program provides a 12% flat monthly discount on a household’s monthly electric bills. The program is designed for income-qualified households of three or more persons with income guidelines set at 201%-250% of Federal Poverty Limit.

<table>
<thead>
<tr>
<th>Number of Persons in Household</th>
<th>Total Combined Annual Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 2</td>
<td>Not Eligible</td>
</tr>
<tr>
<td>3</td>
<td>$40,841 - $51,050</td>
</tr>
<tr>
<td>4</td>
<td>$49,201 – 61,500</td>
</tr>
<tr>
<td>Each additional person</td>
<td>$8,360 – 10,450</td>
</tr>
</tbody>
</table>
Importance of Outreach & Communication to IQP Customers

Enrollment and Retention
Various Ways to Enroll

1. SCE.COM – self service web enrollment form
2. Direct Mail
   1. Annual Solicitation (mandated mailing to all non-CARE customers)
   2. Direct Mail Marketing (coupled with outbound call campaign)
3. Customer Contact Center
   1. Over the phone with an Energy Advisor (ENA)
   2. Via the Interactive Voice Response (IVR) system
   3. Physical application mailed to customer
4. Data Sharing – with internal programs (eg., ESAP) and eternal partners (eg., So Cal Gas)
5. Capitation Agencies (non-profit partners)
The program involves four separate transactions. These transactions determine the customers’ eligibility and participation in the CARE program.
Conceptual Foundation:

The Driving Force
“Data-driven decision management (DDDM) is an approach to business governance that values decisions that can be backed up with verifiable data. The success of the data-driven approach is reliant upon the quality of the data gathered and the effectiveness of its analysis and interpretation.”

Source: http://whatis.techtarget.com/definition/data-driven-decision-management-DDDM
Data-Driven Decision-Making

DATA & ANALYTICS

PROGRAMS

POLICIES

STRATEGIES
Statistical Results

Operational Terms
<table>
<thead>
<tr>
<th>DIGITAL BEHAVIOR</th>
<th>OPERATIONAL DEFINITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>ONLINE BILLING CHECKFREE ACTIVE</td>
<td>Currently receives bill online from bank</td>
</tr>
<tr>
<td>ONLINE BILLING CHECKFREE EVER</td>
<td>Received online bill from bank at least once in the past</td>
</tr>
<tr>
<td>ONLINE PAYMENT ACTIVE</td>
<td>Currently pays bill online through the bank, or using credit/debit card, or MyAcct or other similar means</td>
</tr>
<tr>
<td>ONLINE PAYMENT EVER</td>
<td>Paid bill online through the bank, or using credit/debit card, or MyAcct or other similar means at least once in the past</td>
</tr>
<tr>
<td>ONLINE BILLING ACTIVE</td>
<td>Currently receives online bill from SCE.com through MyAcct</td>
</tr>
<tr>
<td>ONLINE BILLING EVER</td>
<td>Received online bill from SCE.com through MyAcct at least once in the past</td>
</tr>
<tr>
<td>WITH MYACCT</td>
<td>With SCE MyAcct</td>
</tr>
<tr>
<td>WITH EMAIL</td>
<td>With email address</td>
</tr>
</tbody>
</table>
## STATISTICAL TECHNIQUES

<table>
<thead>
<tr>
<th>STATISTICAL TECHNIQUE</th>
<th>METHODOLOGICAL PURPOSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Bivariate Crosstabulation</td>
<td>To compare IQP and non-IQP customers on select digital behaviors</td>
</tr>
<tr>
<td>2) Cluster Analysis</td>
<td>To group IQP customers based on shared incidence or propensities for digital behaviors</td>
</tr>
<tr>
<td>3) Binary Logistic Regression</td>
<td>To identify significant predictors of non-digital behavior among IQP customers</td>
</tr>
</tbody>
</table>
Statistical Results

Digital Profile of IQP Customers vs Non-IQP Customers
Bivariate Analysis: Chi-Square Tests

IQP vs non-IQP Customers

Digital Behaviors
COMPARISON OF IQP VS NON-IQP ON DIGITAL BEHAVIORS

WITH MYACCT
- IQP (n=1,199,313) 43.9%
- NON-IQP (n=3,114,298) 53.8%

WITH EMAIL
- IQP (n=1,199,313) 43.7%
- NON-IQP (n=3,114,298) 53.7%

ONLINE BILLING EVER
- IQP (n=1,199,313) 39.5%
- NON-IQP (n=3,114,298) 53.2%

ONLINE PAYMENT EVER
- IQP (n=1,199,313) 31.5%
- NON-IQP (n=3,114,298) 35.5%

ONLINE BILLING ACTIVE
- IQP (n=1,199,313) 30.4%
- NON-IQP (n=3,114,298) 44.6%

ONLINE PAYMENT ACTIVE
- IQP (n=1,199,313) 27.0%
- NON-IQP (n=3,114,298) 28.7%

ONLINE BILLING CHECKFREE EVER
- IQP (n=1,199,313) 6.6%
- NON-IQP (n=3,114,298) 12.0%

ONLINE BILLING CHECKFREE ACTIVE
- IQP (n=1,199,313) 2.1%
- NON-IQP (n=3,114,298) 5.4%
Statistical Results

Cluster Analysis of IQP Customers on Digital Propensities
DIGITAL BEHAVIOR AMONG IQP CUSTOMERS

617,774 or 51.6%
NON-DIGITAL (LOW)
Mean Score=0.0

580,416 or 48.4%
DIGITAL
Mean Score=4.63

118,725 or 9.9%
CLUSTER 1 (HIGH)
Mean Score=4.75

461,691 or 38.5%
CLUSTER 2 (MEDIUM)
Mean Score=4.60
CLUSTER ANALYSIS

NON-DIGITAL or LOW DIGITAL CLUSTER

MEDIUM LEVEL DIGITAL CLUSTER

HIGH LEVEL DIGITAL CLUSTER
## Digital Behaviors Cluster Analysis: IQP Customers

<table>
<thead>
<tr>
<th>Digital Behaviors</th>
<th>Non-Digital Cluster “Low” (n=617,774)</th>
<th>“Medium” Digital (n=461,691)</th>
<th>“High” Digital (n=118,725)</th>
</tr>
</thead>
<tbody>
<tr>
<td>With Email</td>
<td>0.0%</td>
<td>90.3%</td>
<td>89.8%</td>
</tr>
<tr>
<td>Online Billing Ever</td>
<td>0.0%</td>
<td>80.5%</td>
<td>84.9%</td>
</tr>
<tr>
<td>Online Billing Active</td>
<td>0.0%</td>
<td>61.7%</td>
<td>66.9%</td>
</tr>
<tr>
<td>Online Billing CheckFree Ever</td>
<td>0.0%</td>
<td>12.8%</td>
<td>16.5%</td>
</tr>
<tr>
<td>Online Billing CheckFree Active</td>
<td>0.0%</td>
<td>4.0%</td>
<td>5.4%</td>
</tr>
<tr>
<td>With MyAcct</td>
<td>0.0%</td>
<td>90.6%</td>
<td>90.1%</td>
</tr>
<tr>
<td>Online Payment Ever</td>
<td>0.0%</td>
<td>64.8%</td>
<td>65.9%</td>
</tr>
<tr>
<td>Online Payment Active</td>
<td>0.0%</td>
<td>55.7%</td>
<td>55.2%</td>
</tr>
<tr>
<td>Mean Digital Score</td>
<td>0.00</td>
<td>4.60</td>
<td>4.75</td>
</tr>
<tr>
<td>Total</td>
<td>617,774</td>
<td>461,691</td>
<td>118,725</td>
</tr>
</tbody>
</table>
Statistical Results

Significant Predictors of Being Non-Digital among IQP Customers
Multivariate Analysis: Binary Logistic Regression

Allows Estimation of Probability of Being Non-Digital By Characteristic of IQP Customer
### PREDICTORS of NON-DIGITAL BEHAVIOR AMONG IQP CUSTOMERS

<table>
<thead>
<tr>
<th>PREDICTOR of NON-DIGITAL BEHAVIOR</th>
<th>OPERATIONAL DEFINITION or CATEGORIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGE</td>
<td>AGE in YEARS</td>
</tr>
<tr>
<td>HOUSEHOLD SIZE</td>
<td>NUMBER of PERSONS in HH</td>
</tr>
<tr>
<td>INCOME</td>
<td>ANNUAL INCOME ($)</td>
</tr>
<tr>
<td>LANGUAGE PREFERENCE</td>
<td>ENGLISH</td>
</tr>
<tr>
<td></td>
<td>BILINGUAL</td>
</tr>
<tr>
<td></td>
<td>NON-ENGLISH</td>
</tr>
<tr>
<td>EDUCATION</td>
<td>HIGH SCHOOL or VOCATIONAL/TECHNICAL SCHOOL</td>
</tr>
<tr>
<td></td>
<td>AT LEAST COLLEGE GRADUATE</td>
</tr>
<tr>
<td>DWELLING TYPE and HOME TENURE</td>
<td>SINGLE FAMILY, HOME OWNER</td>
</tr>
<tr>
<td></td>
<td>MULTIFAMILY, RENTER</td>
</tr>
<tr>
<td></td>
<td>SINGLE FAMILY, RENTER</td>
</tr>
<tr>
<td></td>
<td>MULTIFAMILY, OWNER</td>
</tr>
</tbody>
</table>
THEORETICAL FRAMEWORK of ANALYSIS

AGE
HOUSEHOLD SIZE
INCOME
LANGUAGE PREFERENCE
EDUCATION
DWELLING TYPE & HOME TENURE

PROBABILITY OF BEING NON-DIGITAL
MEAN PROBABILITY of BEING NON-DIGITAL

BY GENERATION/AGE GROUPS

Older customers tend to be more non-digital.

<table>
<thead>
<tr>
<th>Generation/Age Group</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generation Z, Ages 18 to 21, Born 1996 &amp; After (n=26,916)</td>
<td>42.7%</td>
</tr>
<tr>
<td>Generation Y, Ages 22 to 37, Born 1980 to 1995 (n=308,489)</td>
<td>46.0%</td>
</tr>
<tr>
<td>Generation X, Ages 38 to 56, Born 1961 to 1979 (n=458,033)</td>
<td>49.4%</td>
</tr>
<tr>
<td>Ages 57 to 70 Years (n=236,735)</td>
<td>55.3%</td>
</tr>
<tr>
<td>Ages 71 &amp; Over (n=166,603)</td>
<td>63.4%</td>
</tr>
</tbody>
</table>
The propensity to be non-digital significantly decreases with rising income.
The propensity to be non-digital generally increases with household size.
The propensity to be non-digital is significantly highest among larger sized households with low income.
MEAN PROBABILITY of BEING NON-DIGITAL

BY LANGUAGE PREFERENCE

There is a significantly high propensity to be non-digital among customers in non-English speaking households.

- **ENGLISH** (n=539,337) - 47.9%
- **BILINGUAL** (n=164,274) - 46.9%
- **NON-ENGLISH** (n=277,851) - 58.6%
MEAN PROBABILITY of BEING NON-DIGITAL
BY HIGHEST EDUCATION

Customers with at most high school or vocational &/or technical schooling have a significantly higher propensity to be non-digital.

- **HIGH SCHOOL or VOCATIONAL/TECHNICAL (n=907,001):** 52.0%
- **COLLEGE or GRADUATE SCHOOL (n=209,145):** 50.4%
MEAN PROBABILITY of BEING NON-DIGITAL

**BY DWELLING TYPE**

- **MULTIFAMILY** (n=361,140): 56.2%
- **SINGLE** (n=731,905): 49.4%

There is a significantly higher propensity to be non-digital among customers who reside in multifamily dwelling units.

**BY HOME TENURE**

- **OWNER** (n=659,284): 49.7%
- **RENTER** (n=456,862): 54.6%

There is a significantly higher propensity to be non-digital among customers who are renters.
There is a significantly higher propensity to be non-digital among customers who rent in multifamily dwelling units.
Profile of Non-Digital IQP Customers

Composite Structure
SUMMARY PROFILE of NON-DIGITAL IQP CUSTOMERS

1) Older
2) Come from larger households with relatively lower income
3) Non-English speakers
4) At most High School or Technical/Vocational School Graduates
5) Renters living in multifamily dwelling units
Future Prospects
Developing a Digital Future while Honoring Tradition
The Digital Future

Each generation increases their utilization of digital channels:

• Text
• Email
• Social Media
Honoring Tradition

However, there will always be a need for Non-Digital channels:
• In person
• Over the phone
• Direct Mail

Utilize various efforts to best reach Non-Digital households:
• Door to Door canvassing
• Outbound Calling Campaigns
• Postcards
• Events
Engaging your Non-Digital Population

Meet them where they are:
• Senior Centers
• Cultural Events
• Multifamily Residences
• Family Centric events
• Rural Events
Refining Tactics

• Each population will have unique needs
  – Digital prefer succinct direct messages
  – Non-Digital prefer a deeper understanding

• Evaluate your responses
  – Test various messaging
  – See what works best
  – Solicit feedback

• Call to Action
  – Be clear
  – Be concise
  – Provide an avenue for follow up questions
Providing Choice

Provide “Opt In” to Digital communication:
• More direct communication reduces wait times and provides Income Qualified households assistance immediately.
• Can link to other relevant information
• Lower cost to communicate
• Less chance of things getting “Lost in the Mail”
• Various tracking and reporting functions

Provide “Opt Out” to Digital communication:
• Prefer tangible materials
• Prefer interpersonal communication
Questions?