



# Customer Attrition Patterns:

---

## *Who Drops Out from SCE's CARE Program?*



# Southern California Edison Representative



*Melanie S. Edel, Ph.D.*

**Senior Analyst,**

**Measurement & Evaluation (M&E)**

**Evaluation, Data, Analytics, and Reporting  
(EDAR)**

# MODEL VARIABLES 1 of 2

VARIABLE	DEFINITION	CATEGORIES	N	%
INCOME ELIGIBILITY VERIFICATION 2014 RESULT as of APRIL 3, 2015	Outcome of Income Eligibility Verification as of Observation/Report Date of April 3, 2015	Closed Fail	69,937	79.1%
		Closed Pass or Still Open	18,534	20.9%
		<i>Closed Pass</i>	17,662	20.0%
		<i>Still Open</i>	872	1.0%
CATEGORICAL PROGRAM PARTICIPATION	Participation in Public Assistance Program; e.g. MediCal; Food Stamps; Low Income Home Energy Assistance Program (LIHEAP); Women, Infants, and Children (WIC); etc.	Categorical Program Participant	46,538	52.6%
		Non-Participant	41,933	47.4%
LEVEL OF USAGE	Energy Usage as Percent of Baseline	Traditional (DSRS)/Non-High Usage	51,561	58.3%
		High Usage	36,910	41.7%
		<i>High-Low (400% to &lt;600% of Baseline)</i>	29,674	33.5%
		<i>High-High (At least 600% of Baseline)</i>	7,236	8.2%
INCOME LEVEL of RESIDENTIAL AREA (County ZIP5)	Residence in County ZIP5 with Proportion of CARE Eligible Households (200% of Federal Poverty Line) Less Than Median Level for CARE Population	Residing in "High or Unknown Income" Area	50,508	57.1%
		Residing in "Low Income" Area	37,963	42.9%
HISTORY OF ELIGIBILITY VERIFICATION	Previous Experience of Failing Eligibility Verification	With previous experience of failing eligibility verification	4,776	5.4%
		No previous experience of failing eligibility verification	83,695	94.6%

# MODEL VARIABLES 2 of 2

VARIABLE	DEFINITION	CATEGORIES	N	%
PRIZM INCOME GROUP	Prizm Segment Grouped by Income Level	Lower Middle Class, Downscale, or Low Income Prizm Segments	27,058	30.6%
		<i>Lower Middle Class (50 Kid Country USA, 54 Multi-Culti Mosaic, 59 Urban Elders, 60 Park Bench Seniors, 63 Family Thrifts, 65 Big City Blues, 66 Low-Rise Living)</i>	19,514	22.1%
		<i>Downscale (44 New Beginnings, 46 Old Glories, 49 American Classics, 52 Suburban Pioneers, 53 Mobility Blues, 55 Golden Ponds, 56 Crossroads Villagers, 57 Old Milltowns, 58 Back Country Folks, 61 City Roots, 62 Hometown Retired)</i>	6,169	7.0%
		<i>Low Income (47 City Startups, 64 Bedrock America)</i>	1,375	1.6%
		Other Prizm Segments	61,413	69.4%
ENROLLMENT CHANNEL	Mode of Entry into CARE Program	CARE Application	9,873	11.2%
		External Data (i.e. referrals from gas company)	4,822	5.5%
		Internet Enrollment	9,176	10.4%
		Recertification/Verification (Every two years)	37,917	42.9%
		Special Project (e.g. Call Centers, Targeted Acquisition Calls, Internal Data Sharing like ESA, LIHEAP, EAF Grantees, etc.)	9,588	10.8%
		Other Channels of Enrollment/Unknown	17,095	19.3%
HOUSEHOLD SIZE	Household Size	One to Two	21,181	23.9%
		Three to Five	39,321	44.4%
		At Least Six	15,733	17.8%
		Unknown Household Size	12,236	13.8%

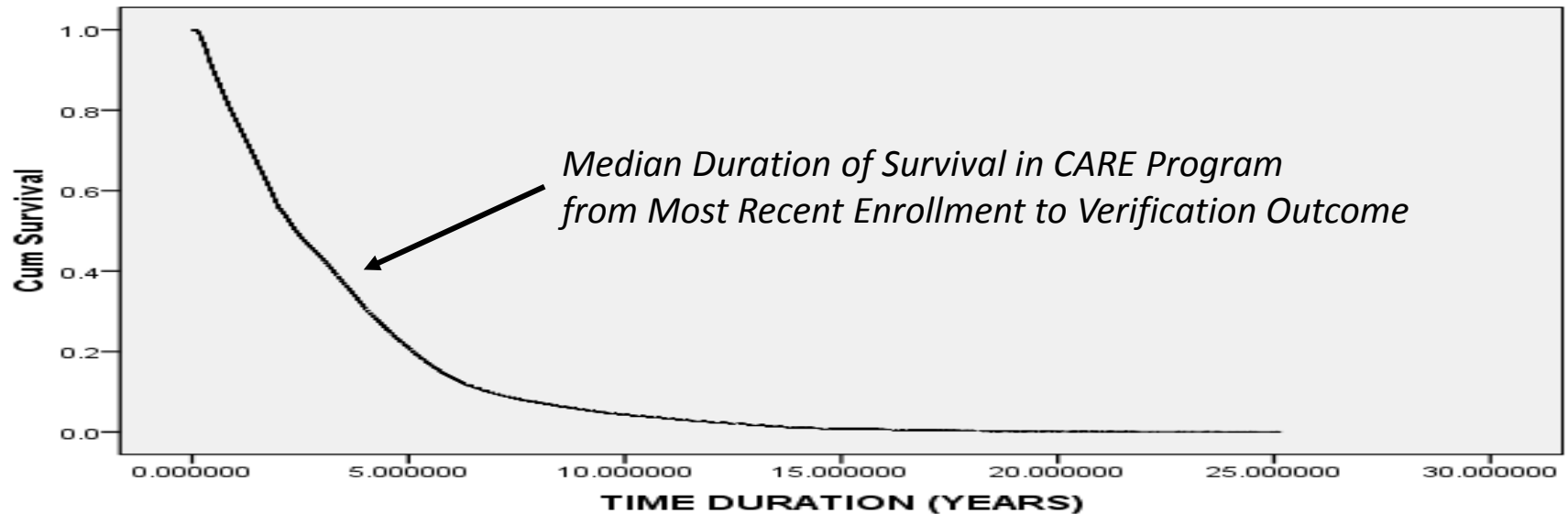
# STATISTICAL FINDINGS 1 of 2

CHARACTERISTICS		BIVARIATE (FISHER'S EXACT PROBABILITY)			MULTIVARIATE (COX REGRESSION/PROPORTIONAL HAZARDS/SURVIVAL ANALYSIS)	
		% FAILED (n=69,937)	% PASS or OPEN (n=18,354)	SIGNIFICANCE (** significant at .01, n.s. not significant)	MARGINAL IMPACT on LIKELIHOOD of FAILING ELIGIBILITY VERIFICATION	SIGNIFICANCE (** significant at .01, n.s. not significant)
Categorical Program Participant		51.6	56.5	**	Decrease	**
Enrollment Channel	CARE Application	10.6	13.3	**	Increase	**
	External Data	5.7	4.4	**	Increase	**
	Internet	10.8	8.9	**	Increase	**
	Recertification/Verification	41.7	47.2	**	Decrease	**
	Special Project	11.8	7.2	**	Increase	**
	Other Enrollment Channels	19.4	19.0	n.s.	Reference Category	
Residence in "High" or Unknown Income County ZIP5		56.1	60.7	**	Increase	**
Previous Failure at Income Eligibility Verification		6.0	3.0	**	Increase	**
Household Size	One to Two	19.9	39.3	**	Decrease	**
	Three to Five	45.9	39.1	**	Decrease	**
	At Least Six	19.9	9.6	**	Decrease	**
	Unknown Household Size	14.3	12.0	**	Reference Category	
Usage Level	Non-High Usage	50.7	86.9	**	Reference Category	
	High Usage	49.3	13.1	**	N.A.	
	<i>High-Low</i>	39.4	11.3	**	<i>Increase</i>	**
	<i>High-High</i>	9.9	1.9	**	<i>Increase</i>	**
Prizm Income Group	Lower Mid, Downscale, & Low Income	29.5	34.8	**	N.A.	
	<i>Lower Middle Class</i>	21.3	25.1	**	<i>Decrease</i>	<i>n.s.</i>
	<i>Downscale</i>	6.6	8.3	**	<i>Decrease</i>	**
	<i>Low Income</i>	1.6	1.5	n.s.	<i>Increase</i>	<i>n.s.</i>
	Other Prizm Segments	70.5	65.2	**	Reference Category	



# STATISTICAL FINDINGS 2 of 2

OUTCOME of ELIGIBILITY VERIFICATION as of APRIL 3, 2015	DURATION FROM PROGRAM START DATE to VERIFICATION EVENT DATE (YEARS)				N
	Minimum	Maximum	Mean	Median	
CLOSED FAILED	0.00274	25.15264	2.88582	1.70021	69,937
CLOSED PASS or OPEN	0.41342	25.53320	4.85617	3.09103	18,534
CLOSED PASS	0.41342	25.53320	4.91111	3.14305	17,662
OPEN	0.44353	21.05133	3.74337	2.23135	872
TOTAL	0.00274	25.53320	3.29860	1.96030	88,471

**Survival Function at mean of covariates**



# CONCLUSIONS

<b>MARGINAL IMPACT of FACTORS on PROBABILITY of FAILING CARE ELIGIBILITY VERIFICATION</b>	
<b>DECREASE</b> 	<b>INCREASE</b> 
Categorical Program Participation	Enrollment through CARE Application, External Data Sharing, Internet Application, Special Projects
Enrollment through Recertification/Verification	Residence in "High" or Unknown Income County ZIP5 Area
Increasing Household Size	Previous Failure at Income Eligibility Verification
"Downscale" Prizm Segment Affiliation	High Usage, especially "High-High" Usage Customers
Length of stay in the program from most recent enrollment to determination of outcome of eligibility verification tends to be significantly longer among those who passed than those who failed verification. In effect, those who have been in CARE for a longer time tend to pass verification than those who have been in the program for a relatively shorter period.	