

Technical Studies: Dust Magnets or Savings Generators?

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Agenda

- Background
- Overview
- Results
- Next Steps
- Conclusions
- Recommendations

Background

- 1,300,000 APS customers
- 13,800 GWh Sales Residential
- 15,400 GWh Sales C&I
- Prior incentive programs: 1994
- C&I program approved in February 2006
- Run by Valerie Wynia & Wayne Dobberpuhl
- Implementation Contractor: KEMA

Overview

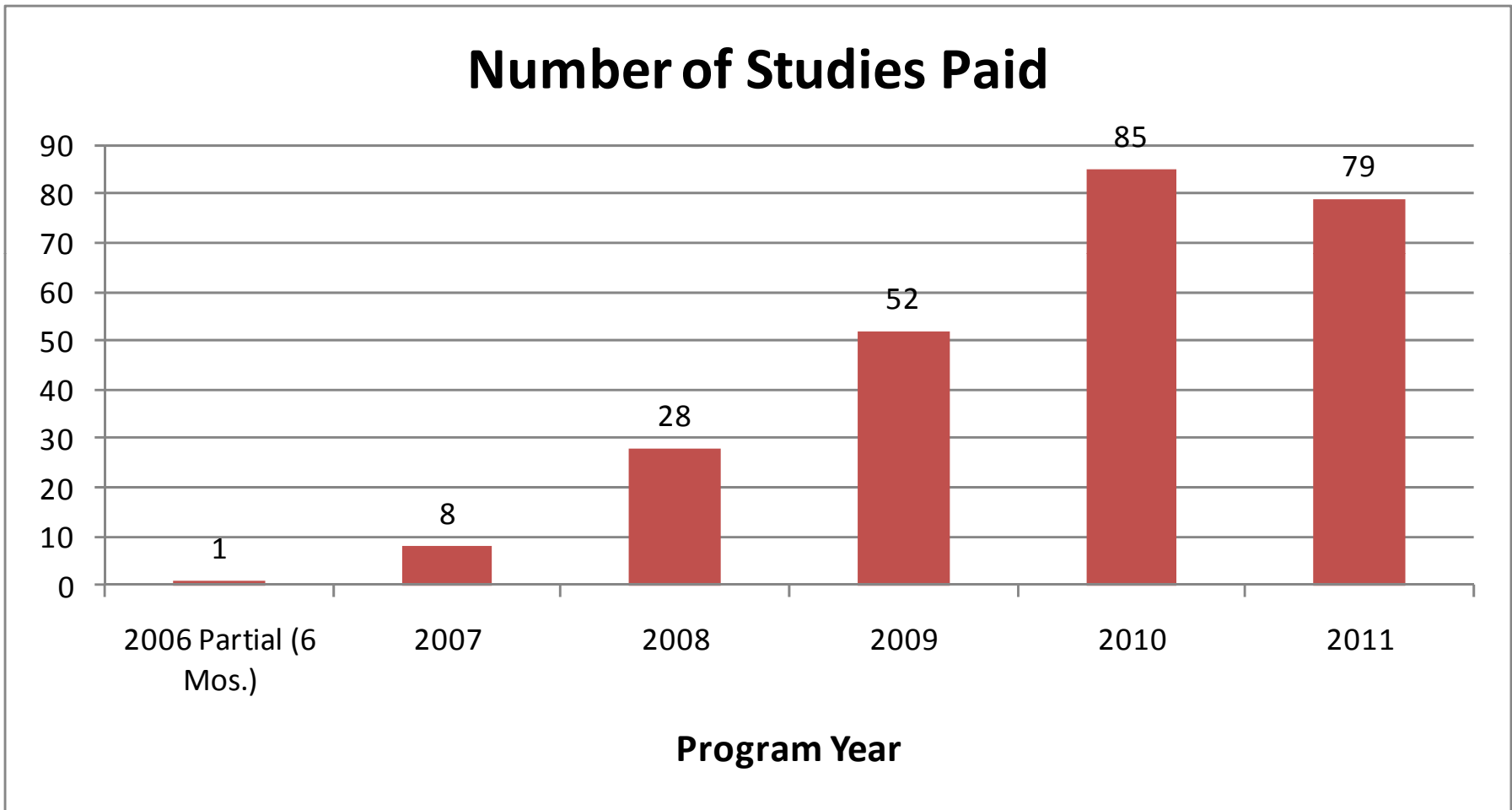
- 2006 – 2009: \$7M/year for C&I rebates
- 2010: Start of GWh Goals (Net w/line loss)

Program Year	Residential, DR & C&I Goal	Percentage of Total Resources	Residential	C&I	Demand Response
2010	320 GWh	1.00%	160 GWh	160 GWh	
2011	391 GWh	1.25%	171 GWh	181 GWh	39 GWh
2012	533 GWh	1.75%	235 GWh	245 GWh	53 GWh

Overview

- Study incentives are 50% of study cost or \$10,000 which ever is less
- In 2009 retro-commissioning cap was raised to \$20,000
- In 2011 retro-commissioning incentive was raised to 75% of cost or \$20,000 which ever is less

Results



Results

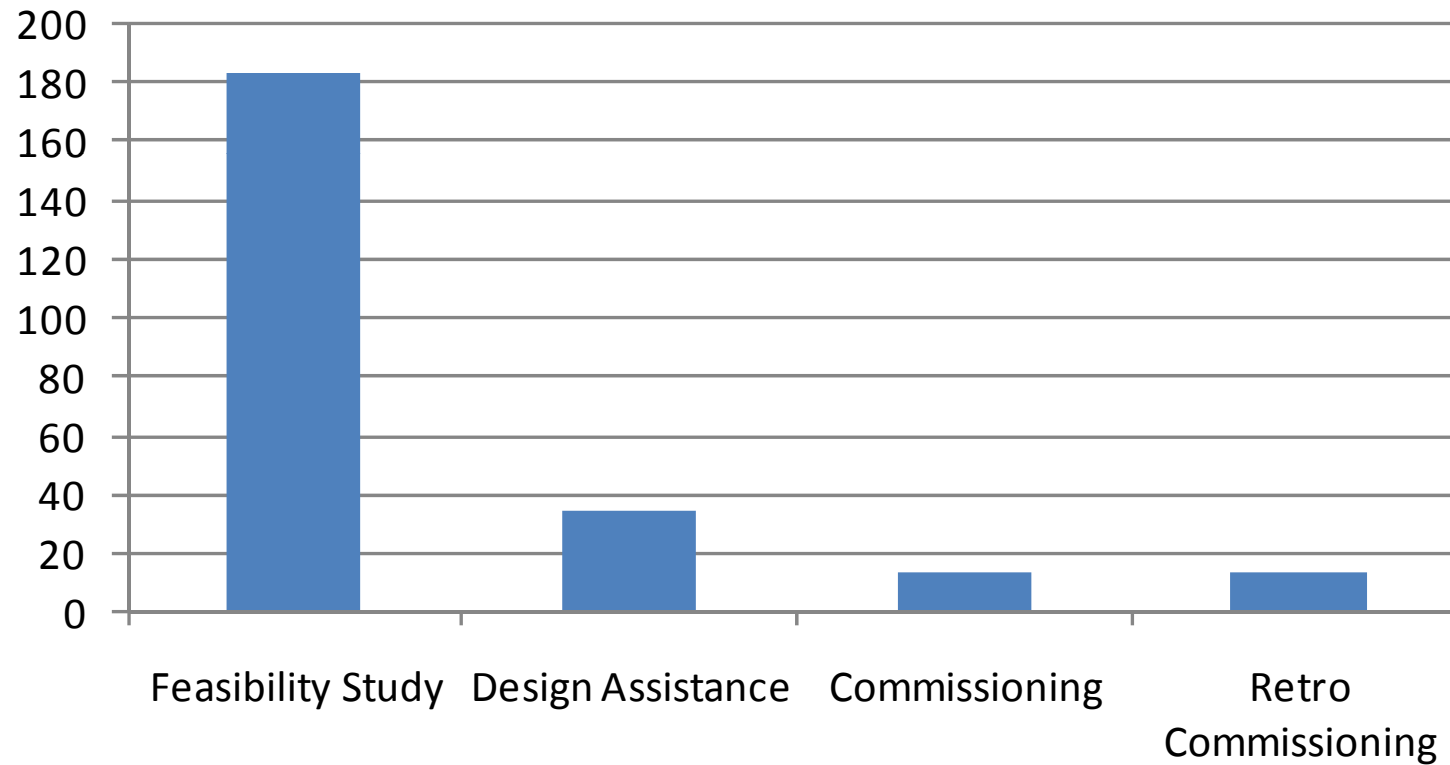
Type of Incentive	Average Study Incentive per Customer	Average Measure Incentive per Customer
Study Only	\$5,994	
Study and Energy Efficiency Measures	\$11,931	\$97,347
Energy Efficiency Measures Only		\$28,052

Results

- Number of studies paid increased each year except 2011
- Largest increase in studies in 2010
- Paid Studies tapered off significantly 4th quarter 2011
- Customers that did studies received significantly more measure incentives
- 65% of customers that did studies also received incentives for EE measures

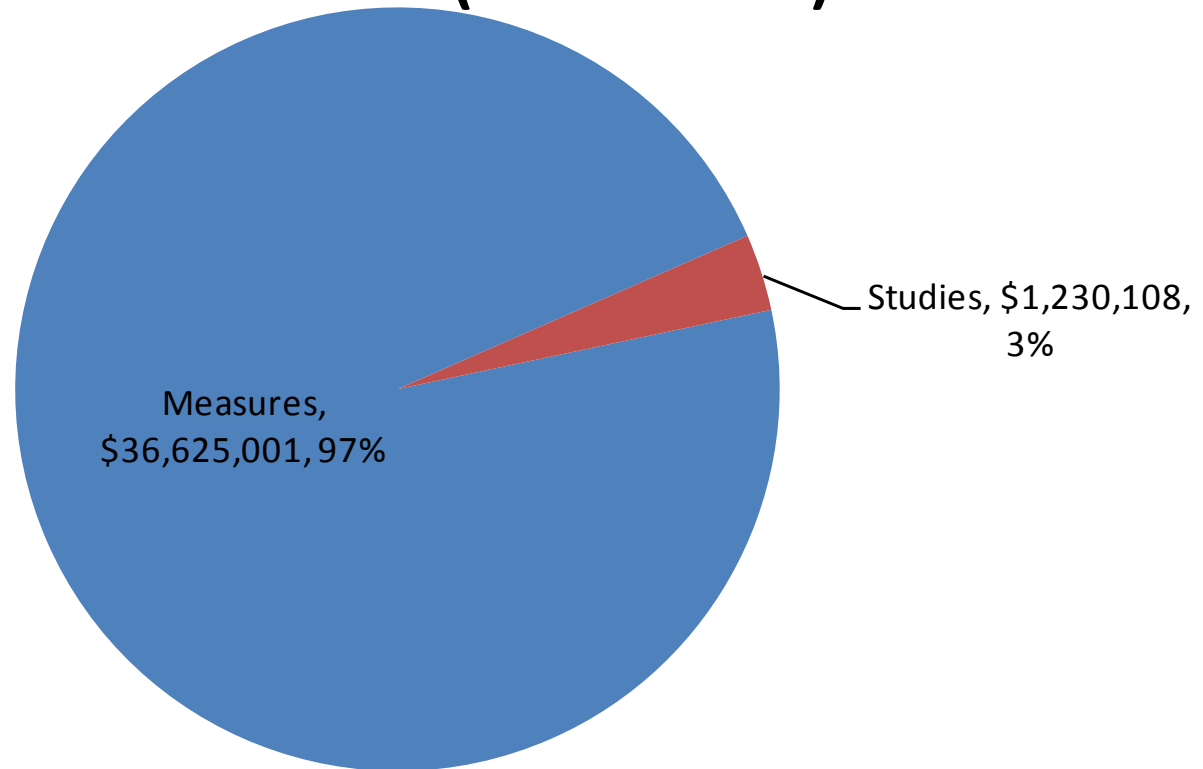
Results

Number of Studies

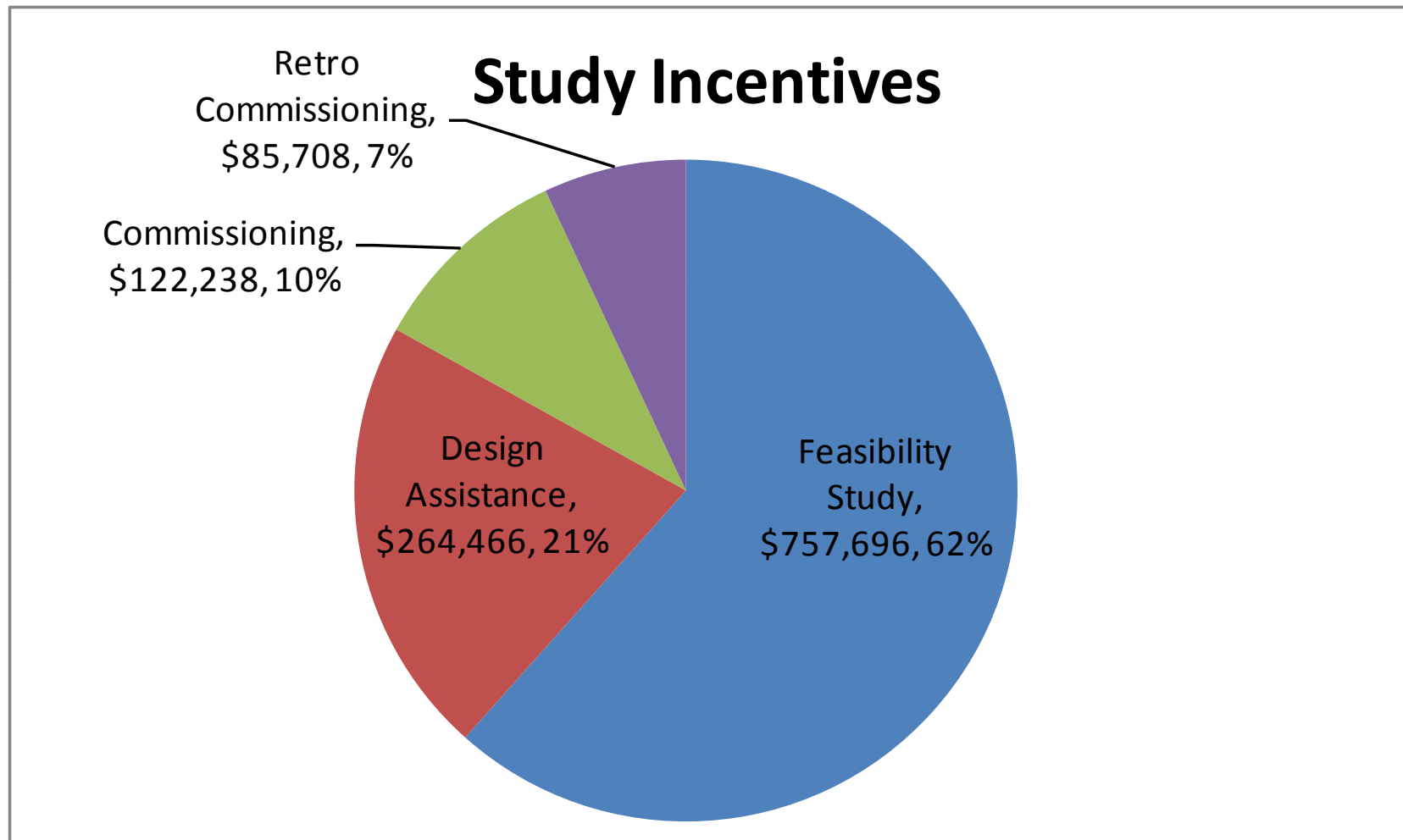


Results

Program Incentives Paid (2006 - 2011)



Results



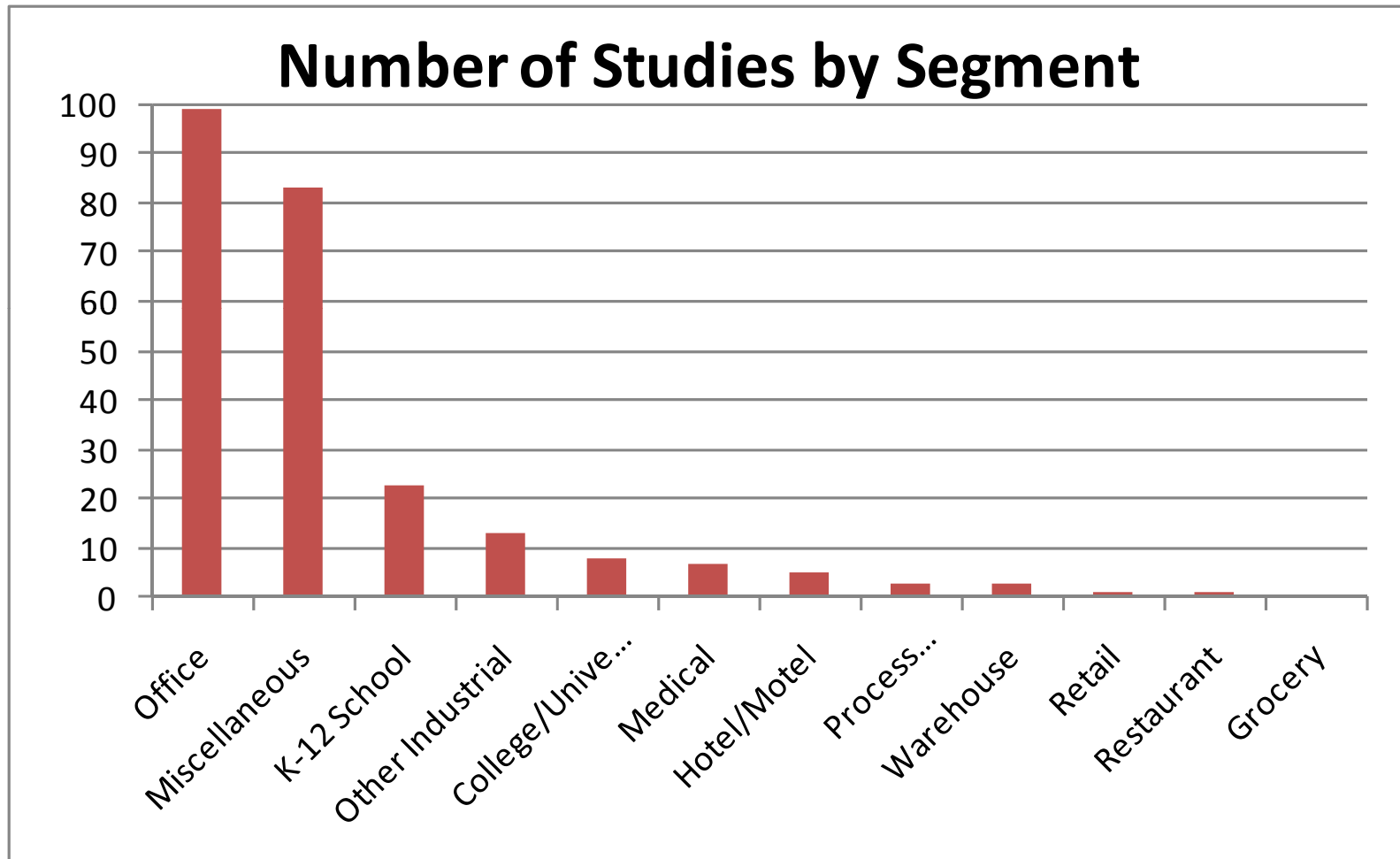
Results

Study Type	Cost	Incentives	Quantity	Average Cost per Study	Average Incentive per Study
Feasibility Study	\$1,937,748	\$757,696	183	\$10,589	\$4,140
Design Assistance	\$560,306	\$264,466	35	\$16,009	\$7,556
Commissioning	\$1,345,800	\$122,238	14	\$96,129	\$8,731
Retro Commissioning	\$363,209	\$85,708	14	\$25,944	\$6,122

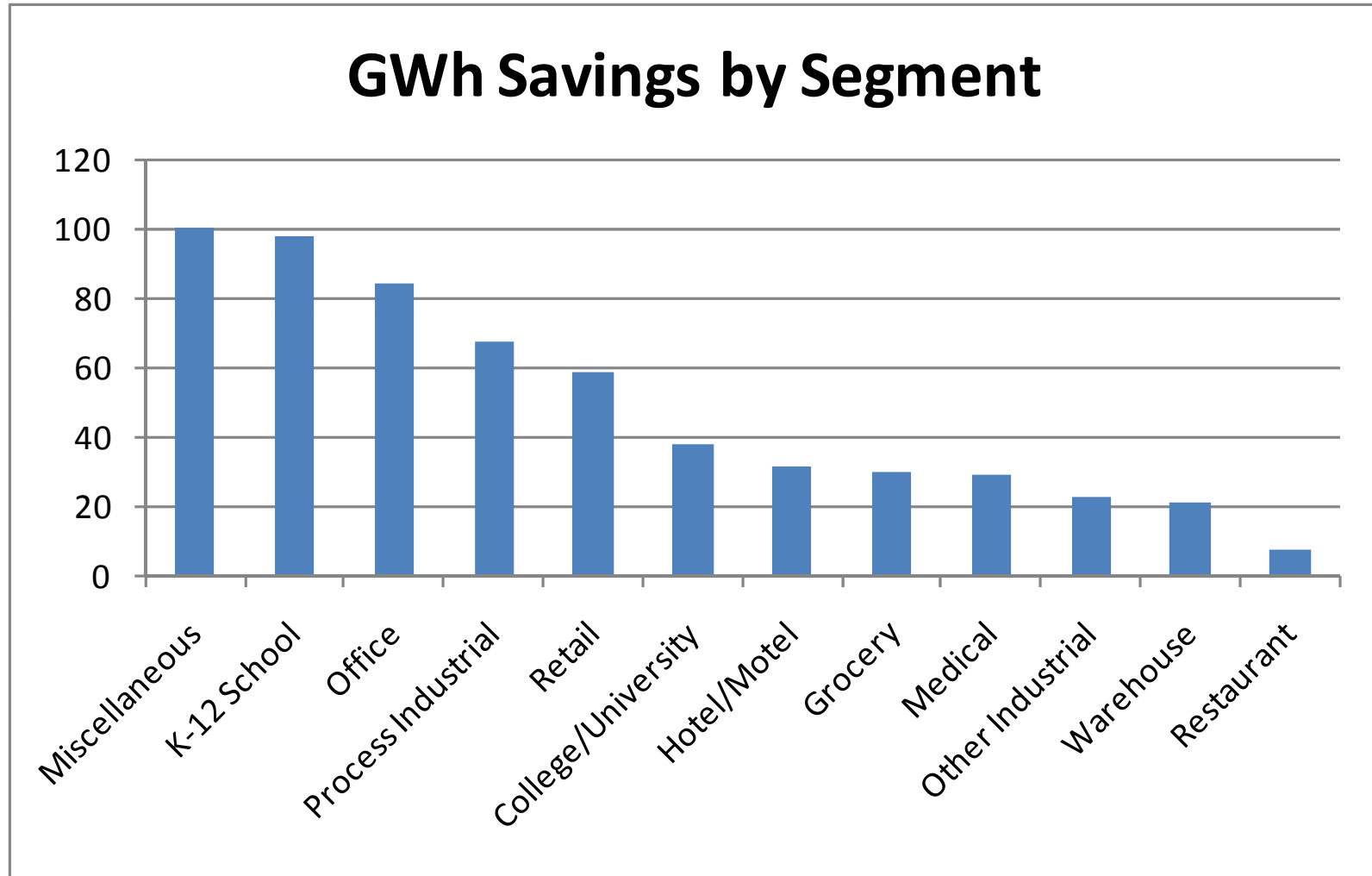
Results

Study Type	Number of Studies Capped	Number of Studies Not Capped	Total Number of Studies
Feasibility Study	28	155	183
Design Assistance	13	22	35
Commissioning	11	3	14
Retro Commissioning	3	11	14
Total	55	191	246

Results



Results

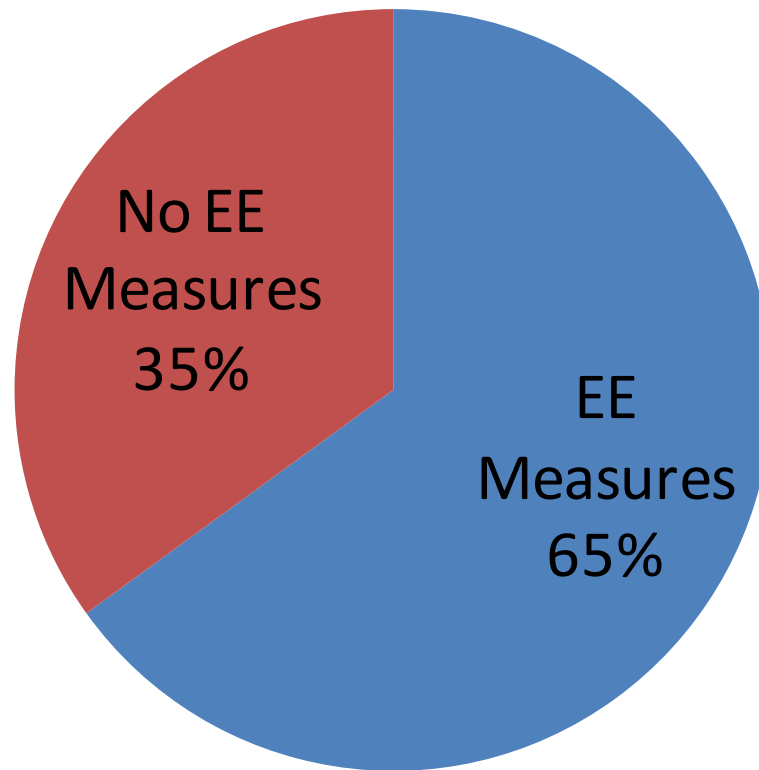


Results

Miscellaneous Segment Examples for Studies			
Facility	Qty	Facility	Qty
Museum	1	Data Center	2
Library	13	Sports Stadium	2
Fire Station	5	Golf Course	3
Recreation Center	5	Jail	4
Water Pumps	23	Mineral Plant	1

Results

Percentage of Study Customers that implemented EE Measures also



Promoting EE Implementation from Study Results

- Technical assistance
- Education and Training on studies
- Marketing of studies
- Follow up calls and outreach

Conclusions

- Studies did not just sit on a shelf
 - 65% of customers also did EE projects
- Projects with studies were comprehensive
 - Customers received more EE incentives
- Studies did not eat up all incentive dollars
 - Only 3% of incentives went to studies

Recommendations

- Utility Companies should: offer incentives for studies and/or
- Provide technical assistance through implementation contractor and/or
- Provide technical assistance through utility engineers or technical account managers



Save the Date

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Baltimore, MD**

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Long Beach, CA**

Jan. 28-31, 2013

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