
SPP End-Of-Summer Survey Report

**Prepared for:
Southern California Edison
Pacific Gas & Electric
San Diego Gas and Electric**

January 21, 2004

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Executive Summary

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Background and Objectives

- The Statewide Pricing Pilot (SPP) was designed to capture information that will be critical to deciding if time-differentiated pricing options should be offered to electricity customers in California, and if so, how those options should be designed and implemented
- The End-of-Summer survey was intended to understand how pilot program participants responded to their first summer as part of the pilot
 - Most customers were enrolled in the program during the late spring/early summer of 2003, and so had been part of the program for 4-8 months before being surveyed as part of this project during December 2003
- Recall that a survey of customers can only capture information about how customers report such things as changes in the way they used energy during the pilot compared to the way they used energy before the pilot started
 - Actual measures of energy use change may yield results that provide a different picture of customer response than will the self-reported actions described in this report

Executive Summary: Customer Reaction to the Pilot Program

- Results indicate that both residential and business customers in California are supportive of both the CPP (critical peak pricing) and TOU (time of use) pricing models which attempt to match the price paid for electricity with demand.
 - Overall program satisfaction levels are reasonably high, though lower for business customers and residential Information-Only customers.
 - A majority of both residential and business program participants prefer their new rate plan to their previous plan; and
 - Most would extend the new pricing program to the statewide population
- Not only has the pilot program generated positive attitudes toward energy conservation, it has also resulted in behavioral changes in how participants use energy, especially among those facing Critical Peak periods.
 - While a majority of participants report changing their electricity use, most households and businesses implemented only one energy change
 - Most changes were relatively easy to make and participants would consider making the changes permanent

Executive Summary: Customer Reaction to the Pilot Program

- The changes made tend to differ by type of respondent, pilot program, and climate zone; the differences in reported behavior, however, are not large
 - Business customers are less likely than residential customers to say they have made changes in how they use energy; this holds for both “any changes” under the program and in terms of changes made in energy use during Critical Peak periods.
 - Residential Information Only customers are more likely to report turning off lights while CPP-V customers are more likely to shift pool/spa pump use to non-peak periods.
 - Customers in hotter climate zones are more likely to raise their thermostats
- Typically, customers expected their electricity bills to decline under the new program
 - Most assumed they would have to change the way they used electricity to make this happen; this is consistent with the high percentage who actually made at least one change in their electricity usage while on the pilot program
 - Actual utility costs did appear to decrease for most customers under the new program, with fewer than 15% saying they pay more than their “typical” bill

Executive Summary: Customer Reaction to the Enrollment/Program Education Process and Materials

- Participants' impressions of the enrollment materials were generally positive with only small differences across conditions
 - A majority of participants indicated the enrollment materials explained everything well
 - In general, business customers were less positive about the materials than residential customers
- The appreciation payment was a significant motivator for program participation among both residential and business customers
 - Saving money and conserving energy were other primary reasons for signing up
 - The MOST important reason for enrolling varied by customer type and program
- Overall, both residential and business customers thought the Welcome Package/Education Materials did a thorough job of explaining the pilot program
 - Not all program details, however, could be readily recalled or explained
 - Consistent with other program attributes, business customers tended to rate the Welcome Package/Education Materials lower than did residential customers

Executive Summary: Customer Reaction to the Enrollment/Program Education Process and Materials

- Perceived effectiveness of the educational materials is positively correlated with more changes being made to reduce electricity consumption
 - The relationship between perceived effectiveness of the educational materials and energy changes during Critical peak periods however is not as strong
- Participants have a good understanding of the pilot program and pricing at a high level, but misunderstand some of the specifics of their program
 - CPP-V residential customers demonstrate higher levels of program accuracy/understand while Information Only customers demonstrate lower levels of accuracy/understanding
 - Residential customers have a more accurate understanding of their pricing program and do business customers.
- The accuracy of program understanding is linked to changes in energy use, both during the program in general and during Critical Peak periods.

Executive Summary: Customer Reaction to Other Critical Program Elements

- A majority of all program participants did not visit the program website or call the Research Support/Energy Information Center to obtain program information
 - Reasons for not visiting the website were no interest/no need (had sufficient information), no internet access, and no time.
 - Primary reasons for visiting the website were to access usage information and obtain tips for reducing electricity use.
 - Residential customers on the more complex CPP-V and CPP-F programs were most likely to call the support center.
 - Overall Experience ratings for the support center were good, but varied by program for other dimensions
- Relatively low percentages of both residential and business customers recalled receiving a comparison bill
 - Ratings for the usefulness of the comparison bill in helping participants manage their energy use varied by type of customer and program with CPP-V customers finding it more useful among the residential groups and TOU customers finding the comparison bill more useful among all C&I customers.

Executive Summary: Customer Reaction to Other Critical Program Elements

- A large majority of both residential and C&I customers liked the new bill design
 - Ratings were highest for Usefulness of Peak/Off-peak Information and Easy to Understand and lower for Helpful in Directing Changes in Energy Use
 - Those disliking the new bill design found it confusing and too long
- Notification for critical/super peak periods is most often given via the telephone and satisfaction with this medium is high for both residential and C&I customers
- Participants generally view the advance notice they receive for critical peak periods as adequate
 - CPP-V customers are more likely to state they need more than the 4-hour notice they receive
 - The most acceptable timeframe for advance notice is a full day
- Program participants do not have a good recollection of how many critical peak notices they received during the pilot program, with responses ranging from none to twenty-five.

Executive Summary: Customer Reaction to Other Critical Program Elements

- Perceptions of the meter installation process differed between residential and business customers
 - Residential customers typically reported having the devices installed and were highly satisfied with the process
 - Only one-third of the C&I CPP-V and fewer than twenty percent of the C&I TOU customers reported having a new meter installed.
 - Two-thirds of all program participants had not checked their new meter since but relied on the utility to accurately report use
- Residential customers on the CPP-V program most often had a programmable thermostat installed to automatically adjust usage during critical peak periods and most were satisfied with its performance
 - One-third of the CPP-V residential respondents did not know if or what control device had been installed

Project Methodology

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Survey Research Was Designed to Explore Program Feedback From a Sample of Program Participants

- Telephone interviews averaging 15-20 minutes in length were conducted with SPP participants during December 2003
- Interviews were conducted with respondents who said they were aware of, and knowledgeable about, the participation of their household or business in the statewide pricing pilot
- A sampling plan was developed that would allow the team to explore survey responses by customer class (residential/business), pricing condition (TOU, CPP-F, CPP-V, Information-Only), and climate zone (where the numbers of program participants allowed this; specifically in the residential CPP-F and residential TOU conditions)
- Because of small sample sizes in some cells, it was not possible to conduct all of the interviews targeted for each group in the original sample plan, but the core analytic objectives of the program are supported by the final sample sizes (see the following page)

Completed interviews by sample cell

Customer Type	Total available sample	Completed Interviews	Final Confidence Interval (90%)
Track A, Res, CPP-F, Climate Zone 1	57	27	11.5%
Track A, Res, CPP-F, Climate Zone 2	197	62	8.6%
Track A, Res, CPP-F, Climate Zone 3	200	62	8.6%
Track A, Res, CPP-F, Climate Zone 4	121	45	9.7%
Track A, Res, CPP-V, Climate Zone 2/3	37	14	17.4%
Track C, Res, CPP-V	123	52	8.6%
Track A, Res, TOU, Climate Zone 1	55	21	14.1%
Track A, Res, TOU, Climate Zone 2	51	18	15.6%
Track A, Res, TOU, Climate Zone 3	53	23	12.9%
Track A, Res, TOU, Climate Zone 4	51	23	12.7%
Track A, Res, Info Only, Zone 2/3	133	51	9.0%
Track A, C&I, CPP-V	35	15	16.1%
Track C, C&I, CPP-V	127	42	10.3%
Track A, C&I, TOU	100	35	11.2%
	Total Res	398	
	Total C&I	92	

Section 1: Customer Reaction to the Pilot Program

Customer Reaction to the Pilot Program

- This first section of the report explores the way that sampled SPP participants responded to the program*:
 - **First**, in terms of their **attitudes and overall impressions of the program**
 - **Second**, in terms of the way they **say they changed their energy using behavior**, both overall, and during critical peak periods
- In addition, this section explores both reported customer **expectations for their electricity bills under the pilot program** as well as their perceptions of how their bills actually changed

* See the Appendix for differences in key responses for Track A vs. Track C residential CPP-V program participants.

Key Section 1 Takeaways

- Program participants are generally **supportive of their new rate options**, with relatively **small differences across most conditions**
 - Overall program satisfaction levels are reasonably high, though lower for business customers, and residential Information-only customers
 - Participants tend to say that they prefer their new rate plan to their prior plan and they tend to say that they think the program should be extended to broader populations
 - Key reasons for positive evaluations include the obvious (saving money and/or saving energy), but also include the fact that customers like the ability to better manage their energy use
- Most program participants **say they have changed the way they use energy under the program**, and particularly for those facing Critical Peak periods
 - But most participants report making **no more than one change**
 - And while customers living in hotter climate zones are more likely to report making any changes in energy use , the overall differences in reported behavior are not large
 - Specific reported changes in energy use do differ by condition (with Residential Information only customers, for example, more likely to report turning off lights and CPP-V customers more likely to report shifting pool/spa pump use) and climate zone

Key Section 1 Takeaways

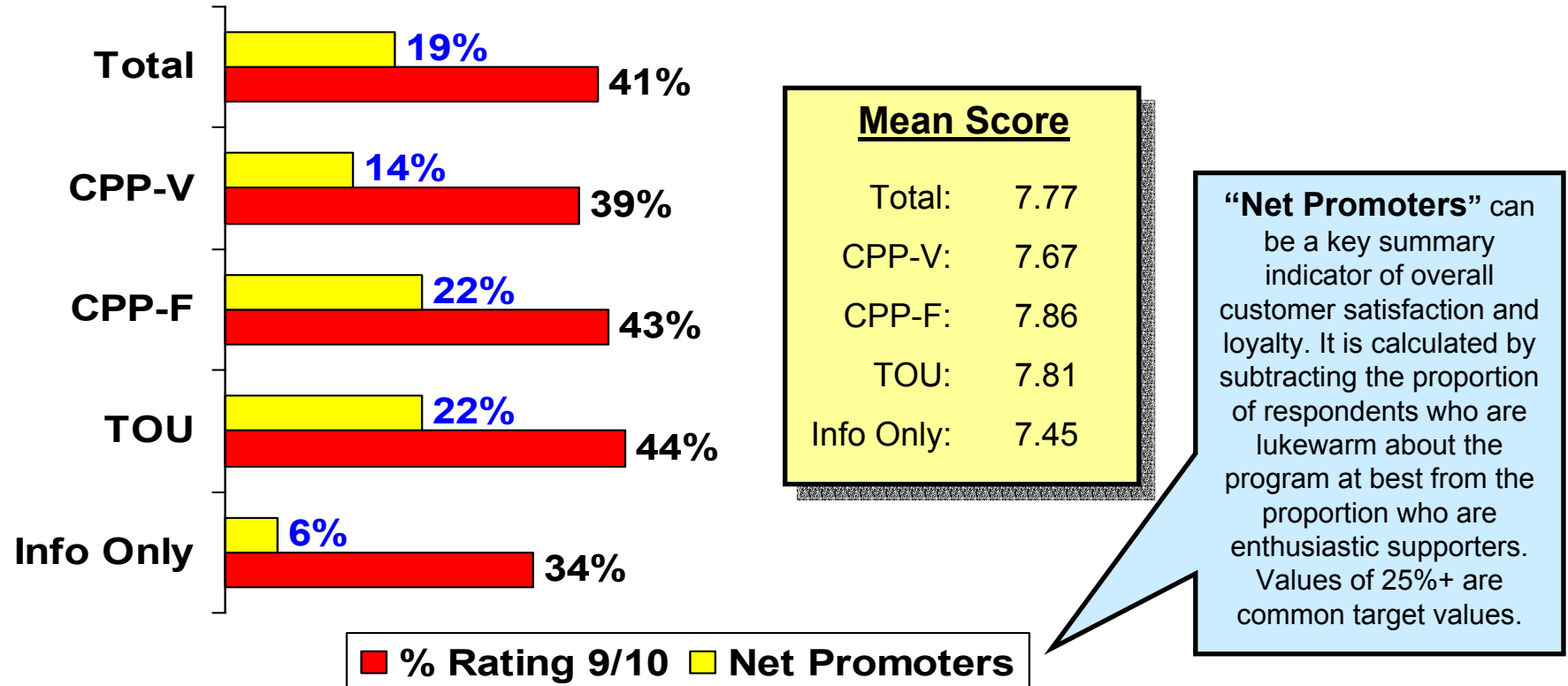
- **Business customers**, however, **are less likely to report making changes** in the way they use energy under the program than are residential customers
 - And this is true for both “any changes” under the program in the way they use energy, and in terms of changes in energy use during Critical Peak periods
- Both residential and business customers **found most of the changes in behavior easy to implement** and nearly all say they could make these changes permanent
- Typically, **customers expected their electricity bills to decline** under the program, and more assumed they would have to change the way they use electricity to make this happen
 - **Customers most commonly report that their actual bills are lower** than comparable month bills previously, and fewer than 15% report actual bills higher than what they “typically” pay
 - No more than 20% say their bills are higher than they expected them to be

Overall customer perspectives on the pilot electricity pricing program

- The survey explored whether or not customers were satisfied with the overall operation of the program and whether or not they think the program should be extended to a statewide population
- **Recall the overall finding here:**
 - *Program participants are generally supportive of their new rate options, with relatively small differences across most conditions*

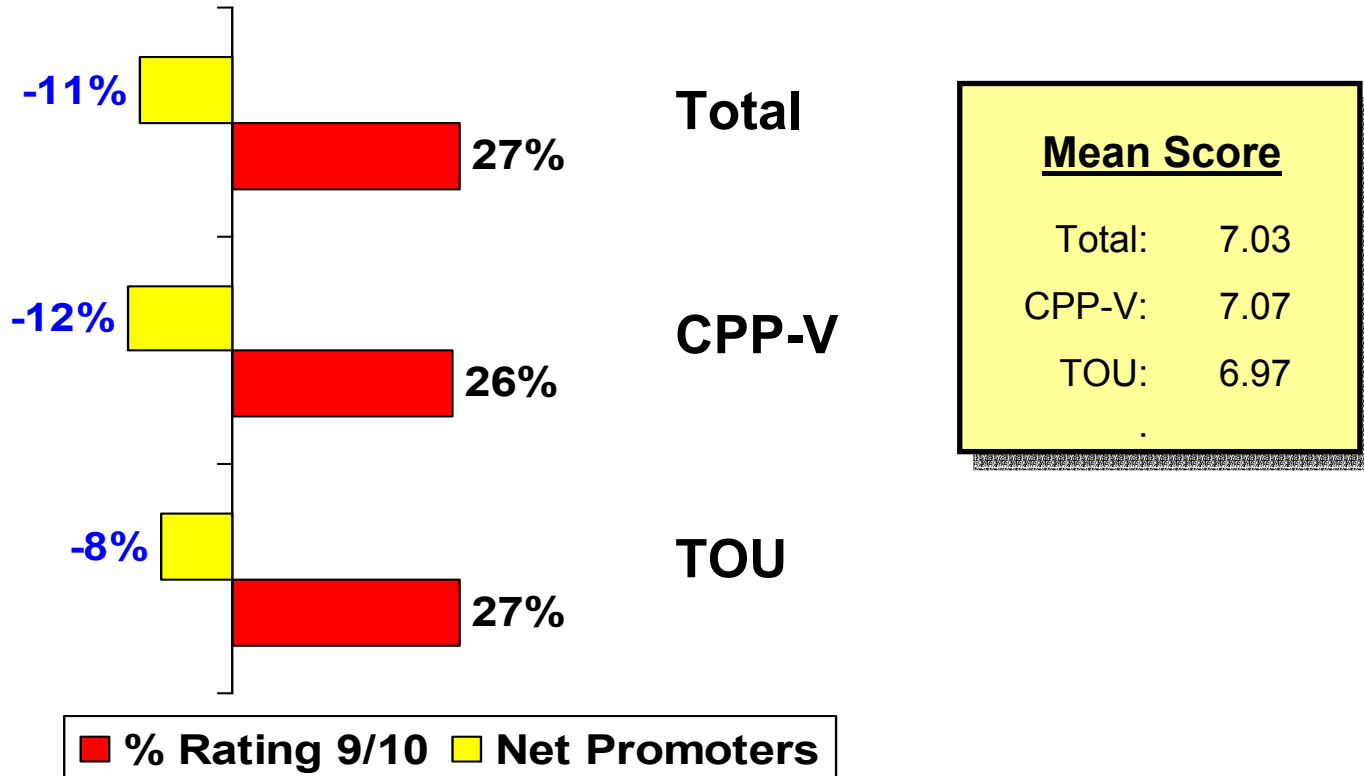
Overall residential customer satisfaction with the program is high, if not stellar

Overall Residential Customer Satisfaction with Program



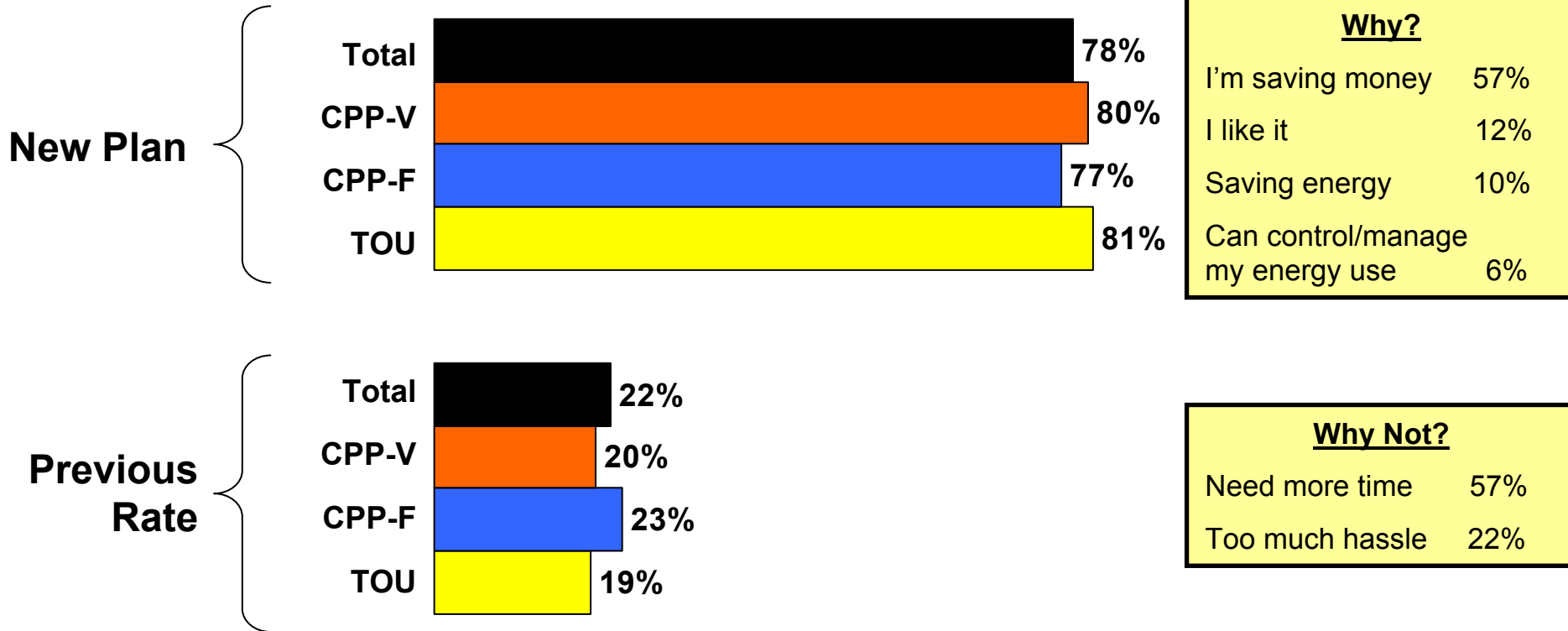
Business customers are less satisfied, and include significantly fewer “Net Promoters”

Business Customer Satisfaction with Program



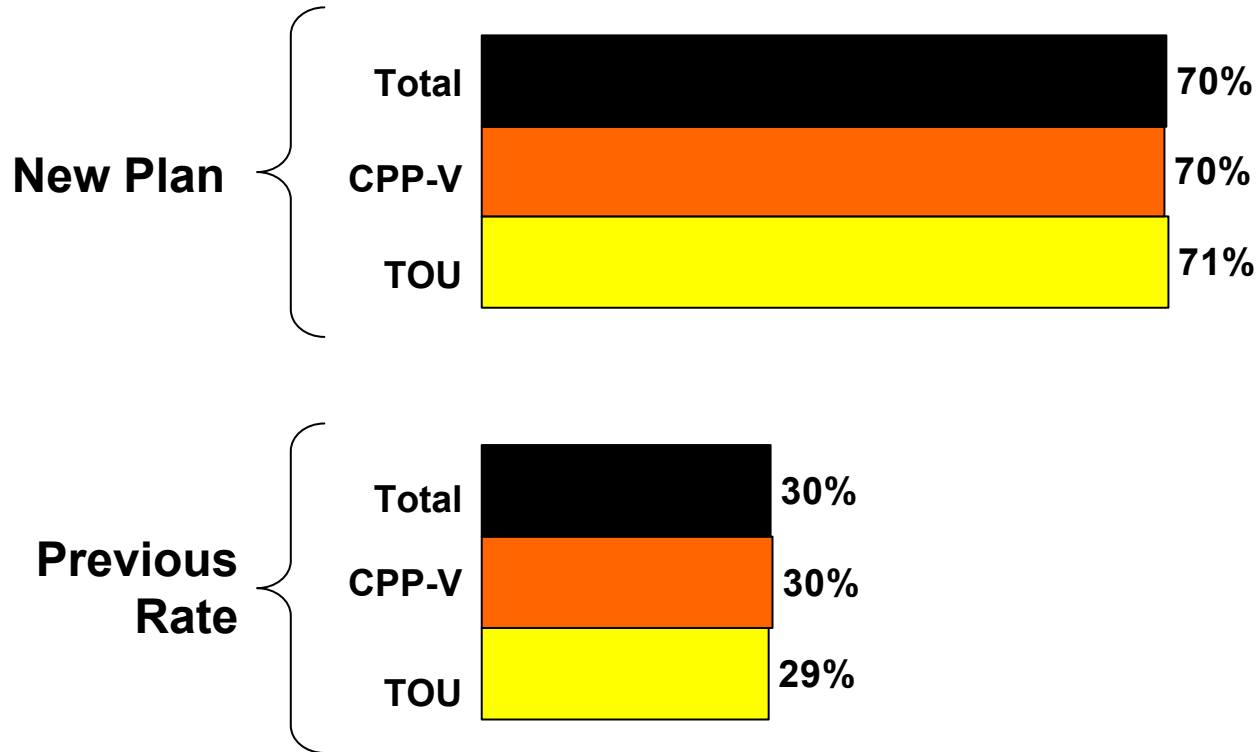
Most residential customers say that, given a choice, they would prefer to continue with the new pricing plan

Residential Pricing Program Preference



Business customers also tend to say they would prefer the new plan, though by slightly smaller margins

Business Program Preference



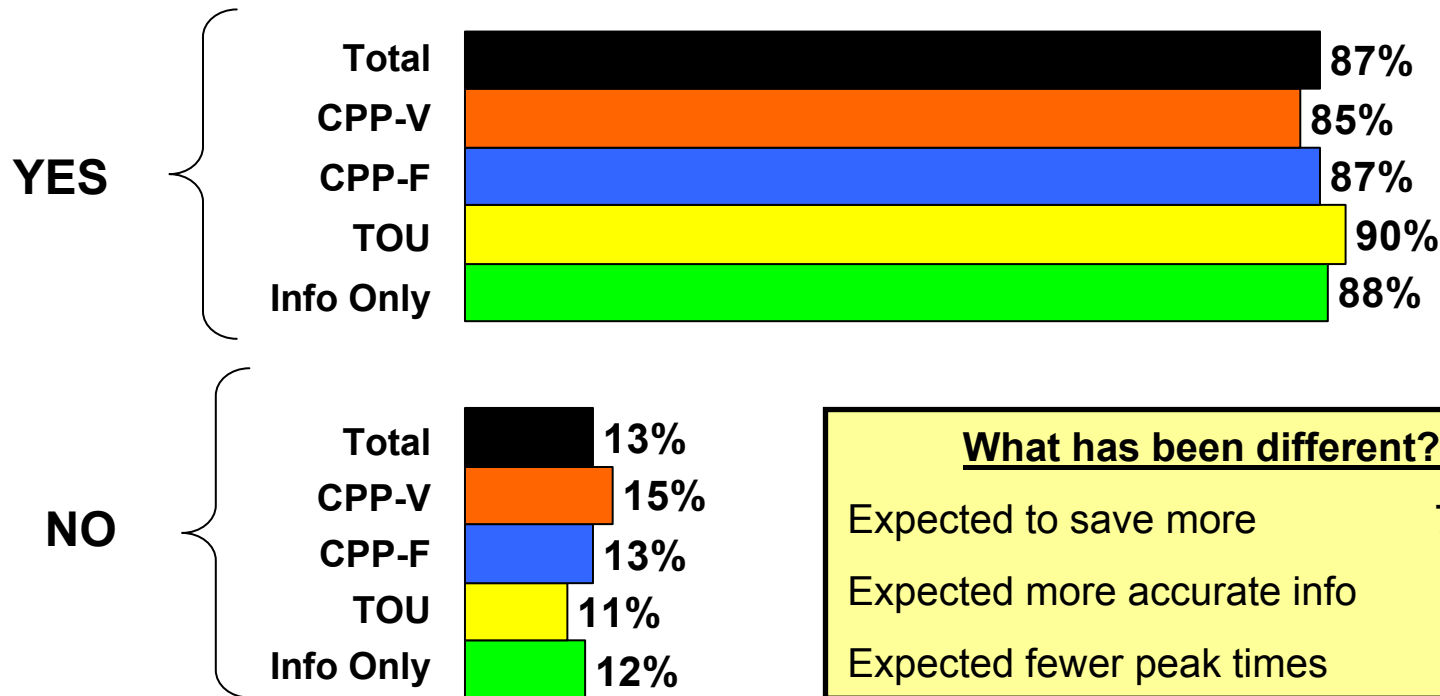
<u>Why?</u>	
I'm saving money	77%
I like it	14%
Receiving more info	4%
Makes me more aware of energy conservation	4%

<u>Why not?</u>	
Need more time	60%
Too much hassle	10%

Q88: When the pilot program is over, would you rather continue on your new pricing plan or return to your previous rate program?/Q89: Why do you feel that way?

These positive responses are likely due to the fact that customers say the program worked as they expected

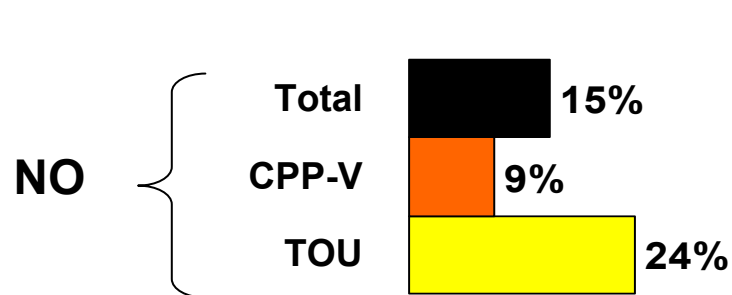
**Did The Pilot Program Work as Expected?
(Residential)**



Q90: Has the pilot program worked as you expected?
Q91: What has been different than you expected?

TOU-condition business customers are somewhat less likely to say the program worked as they expected; for whatever reason, they expected to see more savings

Did The Pilot Program Work as Expected? (Business)

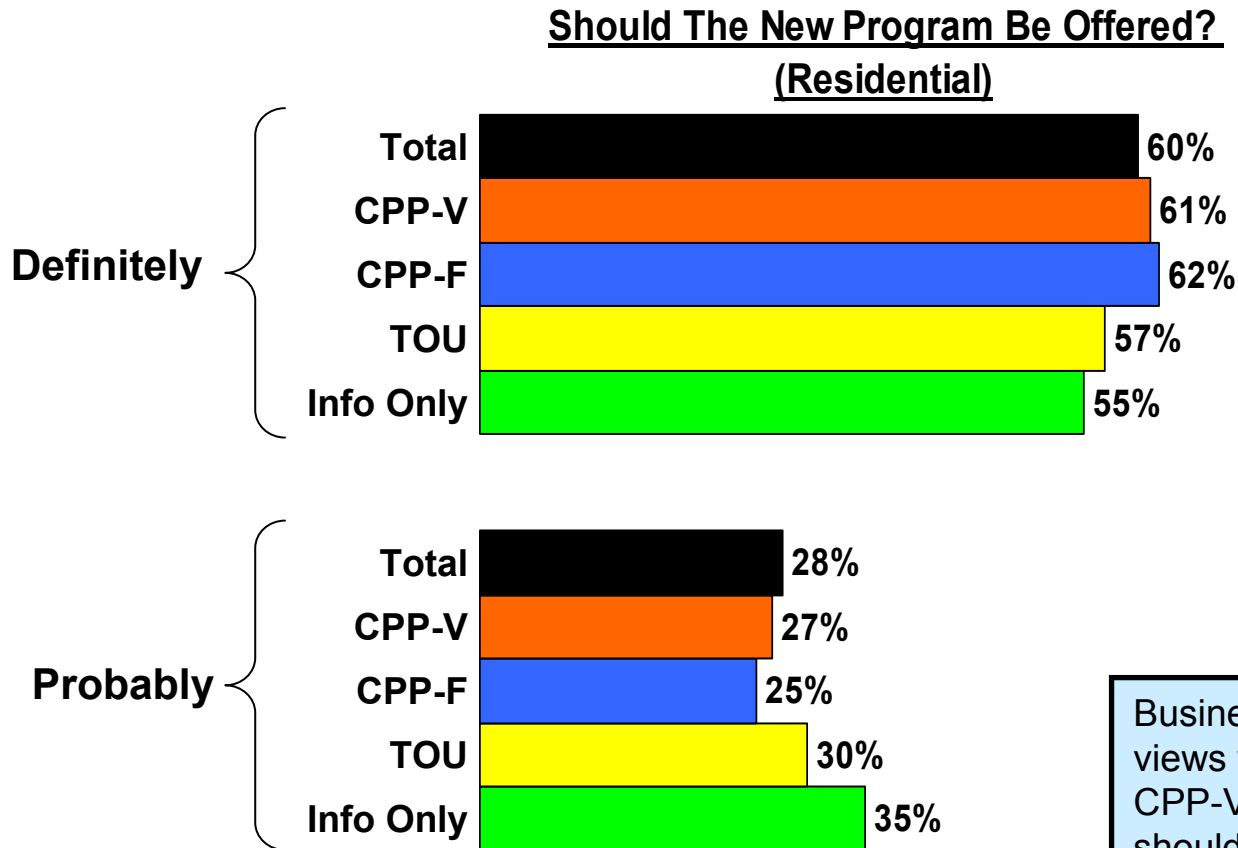


What has been different?

	<u>CPP-V</u>	<u>TOU</u>
Expected to save more	60%	90%
Expected fewer peak times	20%	0%

Q90: Has the pilot program worked as you expected?
 Q91: What has been different than you expected?

A majority of program participants say the new program should be offered to other customers



Why do you feel that way?

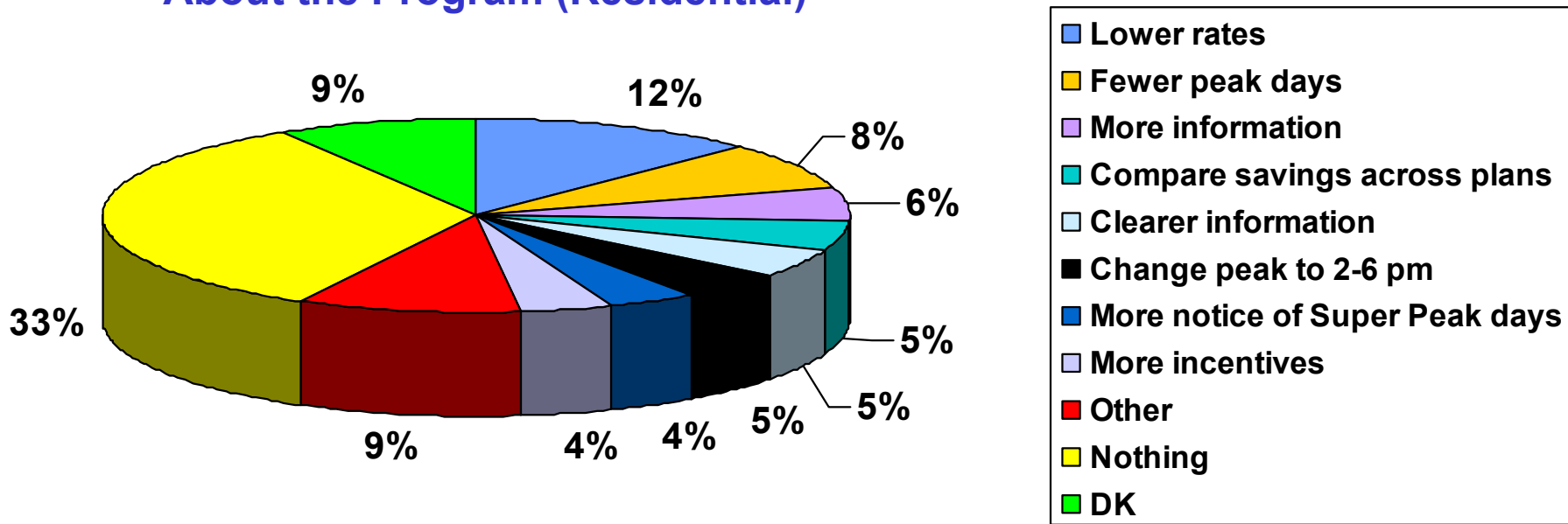
You save energy	19%
You save money	17%
It's good/we like it	15%
It makes people aware of energy conservation	13%
Everyone should have a chance to participate	12%
You can be in control/ manage your energy use	5%

Business customers have similar views with 55% of TOU and 69% of CPP-V customers saying the program should "definitely" be offered

Q95: In your opinion, should the new program be offered to other residential customers in California? Please tell me if the new program should definitely not be offered, probably should not be offered, probably should be offered, or definitely should be offered to other customers./ Q96: Why do you feel that way?

Customers list a variety of suggestions for program changes, though the largest group says they would change nothing

Suggestions for One Thing to Change About the Program (Residential)

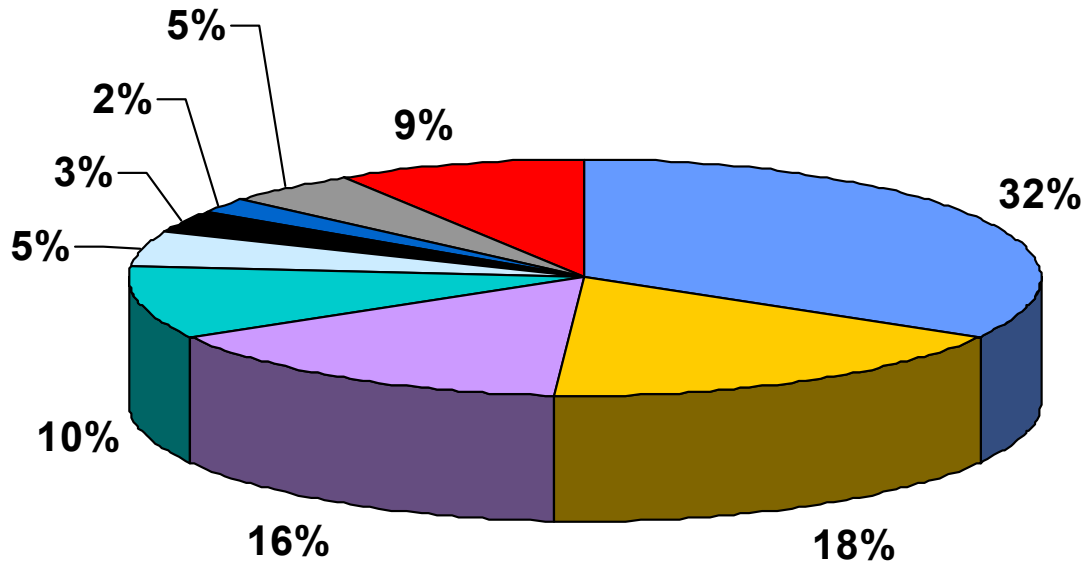


Business customers have similar opinions, though even more (42%) say “nothing”.

Q92: If you could change one thing about the new program, what would it be?

Saving money and energy are identified as the key advantages of the program most often, but other program benefits are also noteworthy

Perceived Main Advantage of the Program (Residential)



- Saving money
- Saving energy
- Can control use
- Make me aware of energy conservation
- Prior notification
- Getting better information
- It's easy/flexible
- Other
- Nothing

The distribution of opinions for business customers on this issue is almost exactly like that for residential customers.

Q93: What do you think is the main advantage, if any, of the new program over the old fixed rate plan?

Moving From Attitudes to Reported Actions

- Whether or not the customers ultimately like the program, a key question is the extent to which customers say they changed the way they used energy in response to the new price signals
- The discussion that follows addresses the question of the degree to which program participants say they made changes in the way they use energy, either in general, or specifically during Critical Peak periods
- **Recall the key takeaways here:**
 - ***Most participants say they have changed the way they use energy under the program, and particularly for those facing Critical Peak periods***
 - *But most participants report making no more than one change*
 - *And while customers living in hotter climate zones are more likely to report making any changes in energy use, the overall differences in reported behavior are not large*
 - *Specific reported changes in energy use do differ by condition and climate zone*
 - *Business customers, however, are less likely to report making changes in the way they use energy under the program than are residential customers*
 - *Both residential and business customers found most of the changes in behavior easy to implement and nearly all say they could make these changes permanent*

Most residential customers report making at least one change in energy use during the program, but those changes vary widely by condition

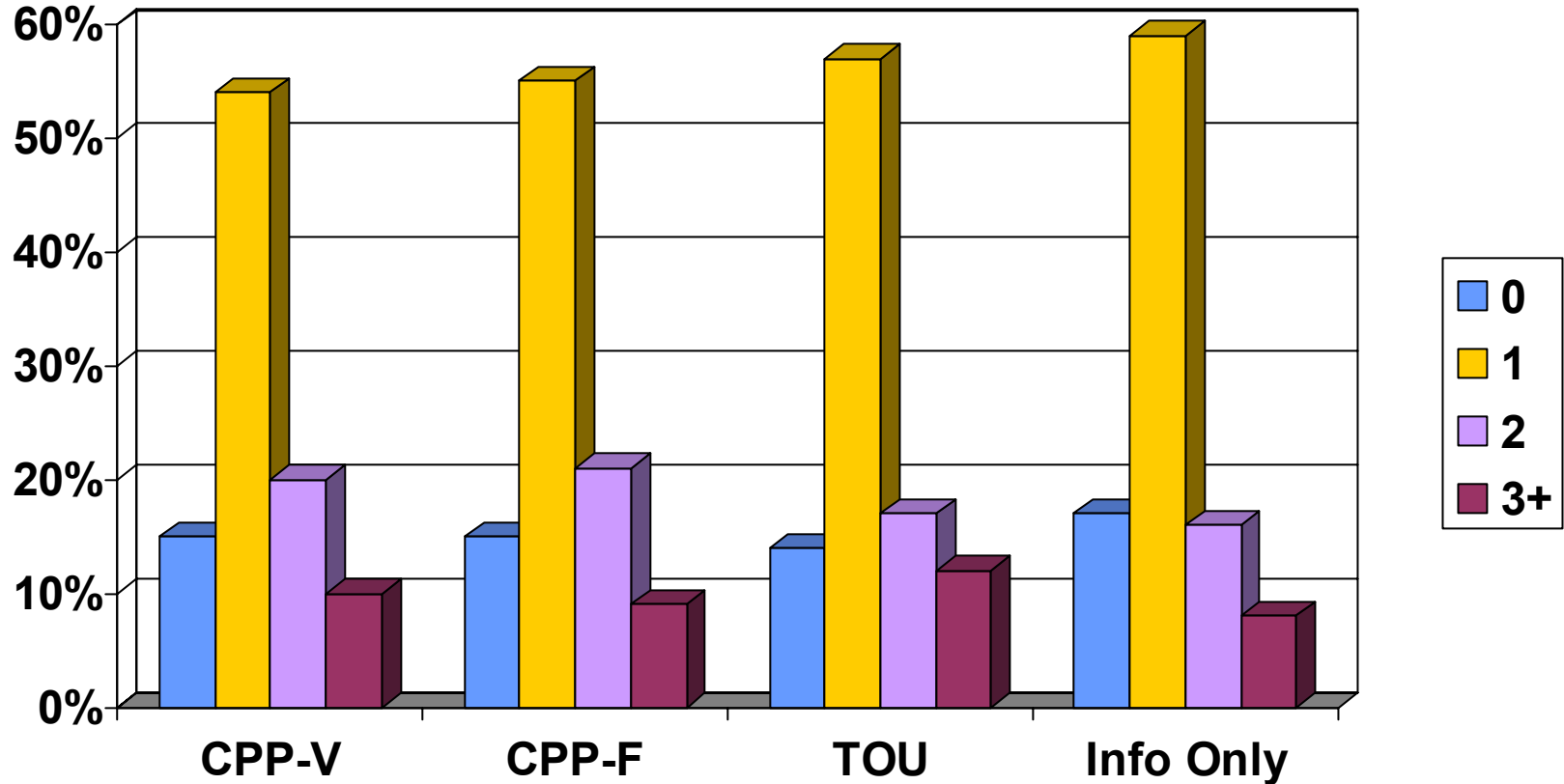
ANY Reported Changes in Electricity Use During the Pilot By Residential Customers

	CPP-V	CPP-F	TOU	Into-Only
Any changes in use	85%	85%	86%	83%
Shift laundry*	43%	31%	38%	17%
Use appliances less *	14%	23%	17%	14%
Turn off lights *	7%	18%	13%	29%
Decrease peak use (general) *	15%	21%	11%	3%
Turn AC off/use less *	12%	15%	14%	9%
Shifted dishwasher use *	5%	10%	6%	5%
Reduce laundry water temperature *	9%	6%	8%	4%
Shift pool/spa pump/filter use *	14%	4%	2%	7%
Made improvements to home EE *	7%	6%	1%	7%
Turn up AC temperature *	5%	4%	8%	7%

% is of those reporting any change

Although a majority of residential customers in each condition reports making only one change in energy use

Number of Any Reported Changes in Electricity Use During the Pilot (Residential)



Calculated by counting the number of actions reported in Q53: Specifically, what have you done since signing up for the new program to reduce your electricity use and costs?

Residential customers found most of these changes easy to make and most believe they can be permanent changes in energy use

Ease and Persistence of Reported Changes in Electricity Use During the Pilot By Residential Customers

	% Easy (1-5)	% Permanent
Shift laundry*	73%	93%
Use appliances less *	81%	89%
Turn off lights *	84%	93%
Decrease peak use (general) *	66%	78%
Turn AC off/use less *	69%	87%
Shifted dishwasher use *	89%	92%
Reduce laundry water temperature *	83%	100%
Shift pool/spa pump/filter use *	94%	94%
Made improvements to home EE *	78%	83%
Turn up AC temperature *	76%	77%

* % is of those reporting making each change

Q57A-Q57T: How easy or difficult was it to make the following change? (1="Very easy" to 10 = "very difficult") Q58A-58T: Would you be willing to make this change permanent?

Climate zone 4 TOU residential customers report higher rates of any change, though there is variability in specific changes reported

Any Reported Changes in Electricity Use During the Pilot for Residential TOU by Climate Zone

	CZ 1	CZ 2	CZ 3	CZ 4
Any changes in use	74%	79%	89%	93%
Shift laundry*	50%	29%	26%	36%
Use appliances less *	20%	20%	22%	29%
Turn off lights *	10%	12%	24%	19%
Decrease peak use (general) *	25%	18%	27%	14%
Turn AC off/use less *	5%	16%	11%	21%
Shifted dishwasher use *	15%	6%	13%	10%
Reduce laundry water temperature *	5%	6%	6%	7%
Shift pool/spa pump/filter use *	5%	8%	2%	2%
Made improvements to home EE *	10%	6%	6%	5%
Turn up AC temperature *	5%	6%	2%	2%

% is of those reporting
any change

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Q50: Since signing up for the [program name] have you made any changes in the way you use electricity in your residence? Q53: Specifically, what have you done since signing up for the new program to reduce your electricity use and costs?

Climate zone has less effect on overall reported “any changes” in energy use during the program for CPP-F residential customers, but there are still differences for specific end uses

Any Reported Changes in Electricity Use During the Pilot for CPP-F Residential by Climate Zone

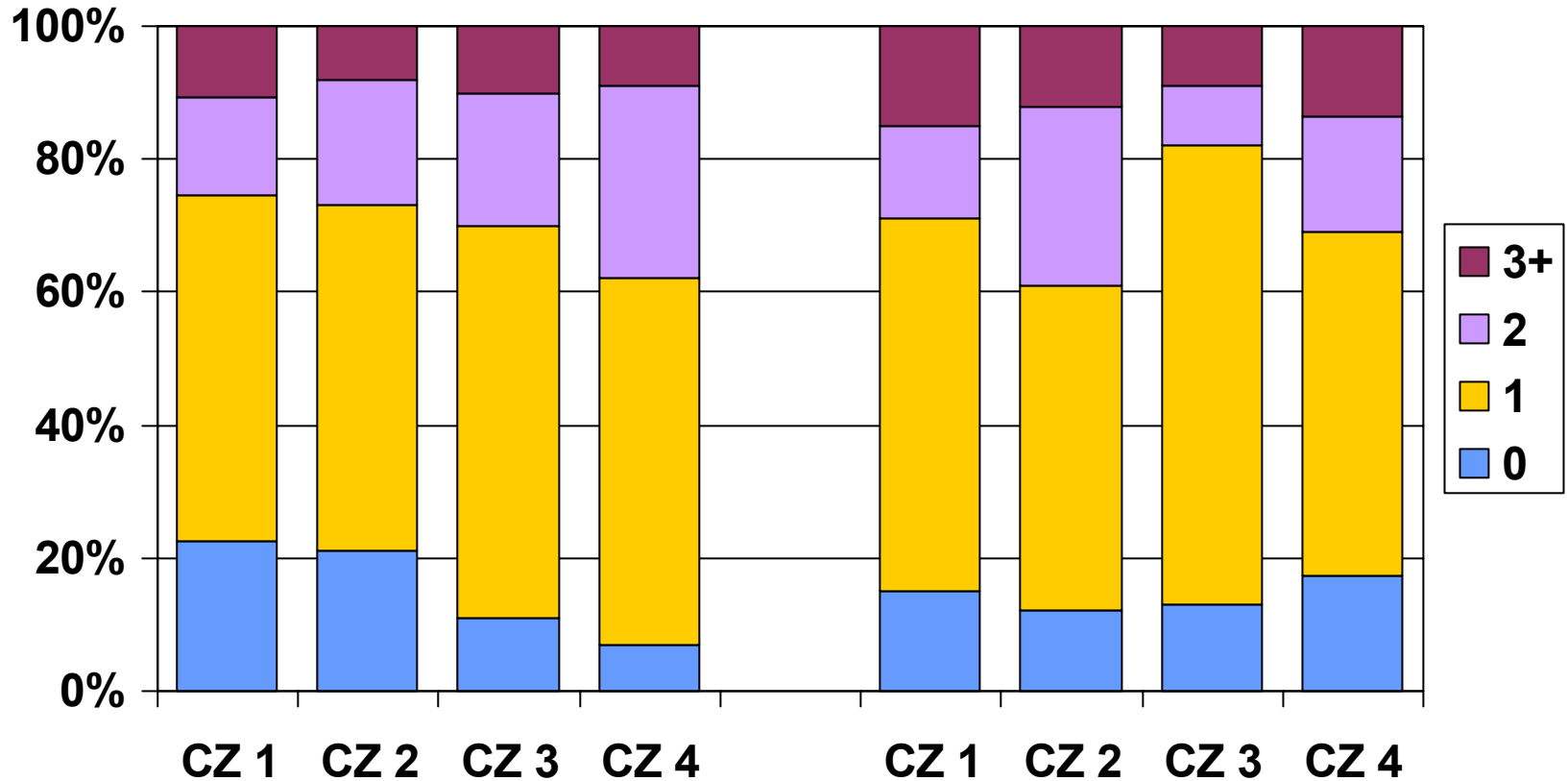
	CZ 1	CZ 2	CZ 3	CZ 4
Any changes in use	86%	89%	87%	83%
Shift laundry*	33%	44%	25%	53%
Use appliances less *	22%	19%	20%	5%
Turn off lights *	6%	6%	15%	26%
Decrease peak use (general) *	22%	0%	15%	5%
Turn AC off/use less *	11%	25%	10%	11%
Shifted dishwasher use *	0%	12%	10%	0%
Reduce laundry water temperature *	6%	12%	10%	5%
Shift pool/spa pump/filter use *	0%	6%	0%	0%
Made improvements to home EE *	0%	0%	0%	5%
Turn up AC temperature *	6%	6%	5%	16%

% is of those reporting any change

Q50: Since signing up for the [program name] have you made any changes in the way you use electricity in your residence?/Q53: Specifically, what have you done since signing up for the new program to reduce your electricity use and costs?

For CPP-F residential customers, higher climate zones yield more reported changes, though the pattern is less clear for TOU customers

Number of Any Reported Changes in Electricity Use During the Pilot For CPP-F/TOU Customers by Climate Zone



Business customers are less likely overall to report making “any changes” in energy use during the pilot

Any Reported Changes in Electricity Use During the Pilot By Business Customers

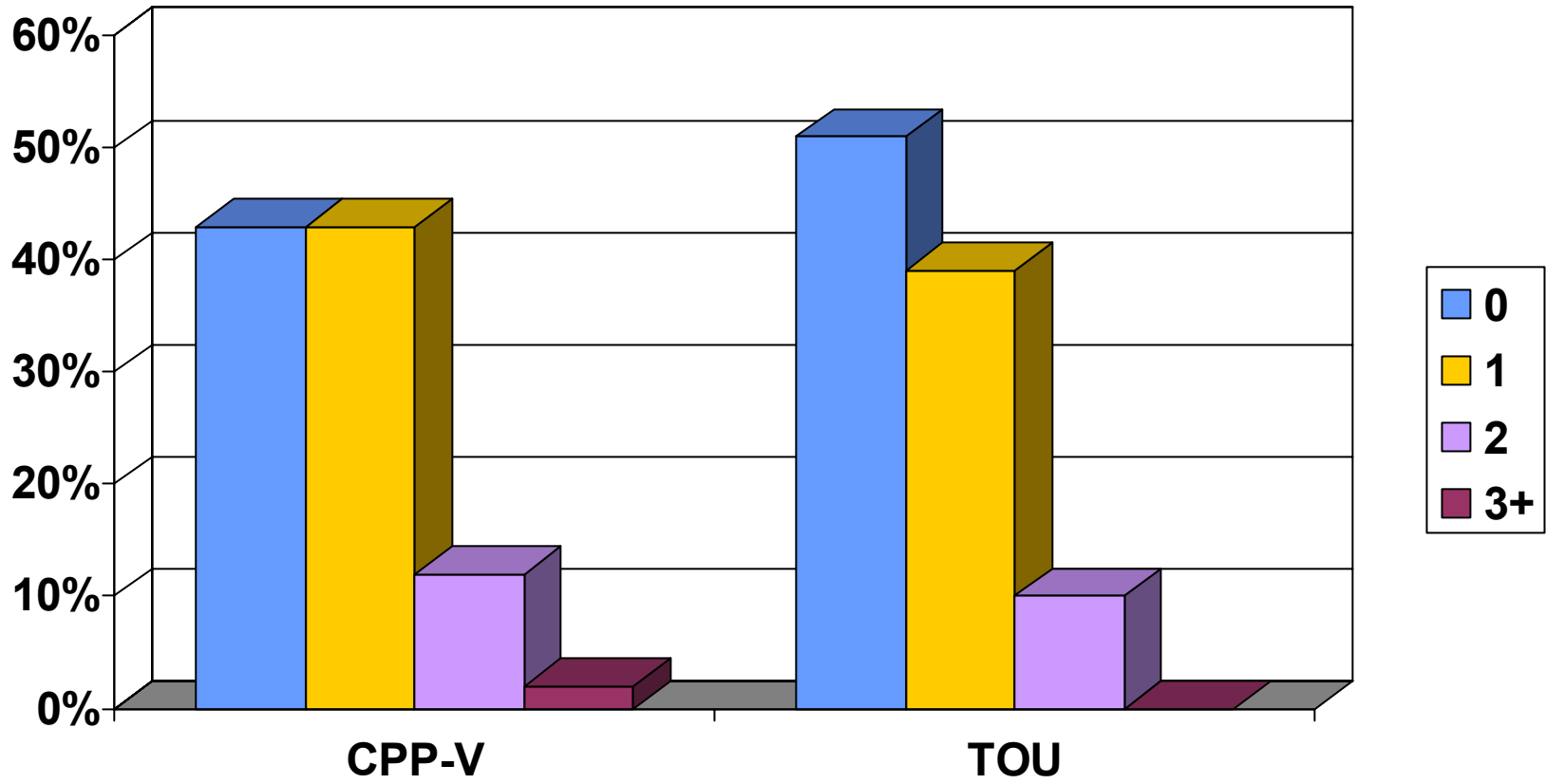
	CPP-V	TOU
Any changes in use	57%	50%
Turn lights/equip off when not needed*	53%	56%
Turn AC off more *	27%	5%
Raise thermostat setting on AC *	13%	5%
Replaced lights/fixtures with more efficient *	9%	10%
Installed programmable thermostat *	14%	0%
Changed hours of operation *	0%	17%
Removed lights/reduced wattage*	6%	7%
Installed lights/equipment timers *	6%	5%
Made improvements to facility EE *	0%	10%
Shifted employee work schedule *	0%	5%

% is of those reporting any change

Q50: Since signing up for the [program name] have you made any changes in the way you use electricity in your residence?/Q53: Specifically, what have you done since signing up for the new program to reduce your electricity use and costs?

Business CPP-V customers are marginally more likely to report making more such changes than are TOU customers

Number of Any Reported Changes in Electricity Use During the Pilot Business



Calculated by counting the number of actions reported in Q53: Specifically, what have you done since signing up for the new program to reduce your electricity use and costs?

With the exception of the programmable thermostat, business customers found these changes relatively easy to make

Ease and Persistence of Reported Changes in Electricity Use During the Pilot By Business Customers

	% Easy (1-5)	% Permanent
Turn lights/equip off when not needed*	80%	100%
Turn AC off more *	92%	100%
Raise thermostat setting on AC *	82%	82%
Replaced lights/fixtures with more efficient *	100%	100%
Installed programmable thermostat *	41%	82%
Changed hours of operation *	70%	100%
Removed lights/reduced wattage*	100%	100%
Installed lights/equipment timers *	100%	100%
Made improvements to facility EE *	100%	100%
Shifted employee work schedule *	100%	100%

* % is of those reporting making each change

Q57A-Q57T: How easy or difficult was it to make the following change? (1="Very easy" to 10 = "very difficult") Q58A-58T: Would you be willing to make this change permanent?

Residential customers (especially CPP-V and CPP-F) are more likely to report making changes during Critical Peak periods, though the pattern of reported changes differs across conditions

Reported Changes in Electricity Use During Pilot Critical Peak Periods

	Residential CPP-V	Residential CPP-F	Residential Into-Only	Business CPP-V
Any changes in use	88%	88%	73%	62%
Turned off all lights not in use *	20%	22%	33%	--
Turned off AC *	33%	19%	27%	--
Limit use of small appliances *	11%	20%	24%	--
Did not do laundry *	15%	18%	18%	--
Turned off all appliances *	12%	16%	14%	--
Turned off TV/computer *	13%	11%	15%	--
Did not use stove/oven *	11%	10%	12%	--
Did not run dishwasher *	8%	8%	6%	--
Turned everything off *	6%	9%	6%	--
Did not run pool/spa pump *	11%	6%	3%	--
Turned up AC thermostat/left house	7%	7%	13%	53%

% is of those reporting any change

Q67: Did you change the way you use electricity during the Super Peak/Critical Peak Periods?/Q68: What changes did you make during Super or Critical Peak Periods? (multiple responses)

For CPP-F residential customers, hotter climate zones drive higher rates of reported CPP response, but again there is variability

Residential Reported Changes in Electricity Use During Pilot Critical Peak Periods by Climate Zone for CPP-F

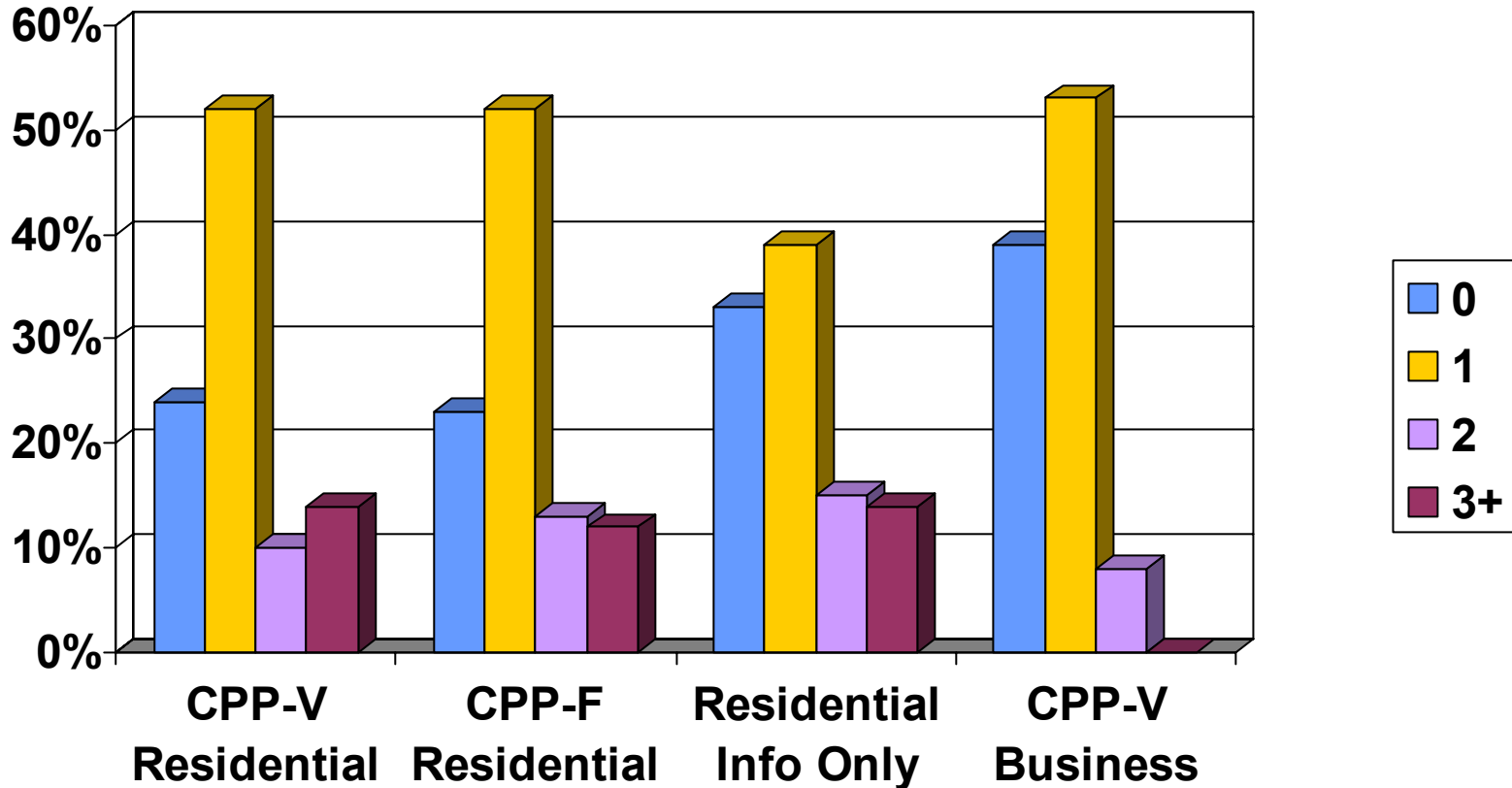
	CZ 1	CZ 2	CZ 3	CZ 4
Any changes in use	80%	82%	87%	100%
Turned off all lights not in use *	35%	22%	15%	28%
Turned off AC *	15%	11%	32%	14%
Limit use of small appliances *	15%	24%	17%	21%
Did not do laundry *	40%	18%	17%	12%
Turned off all appliances *	30%	22%	11%	9%
Turned off TV/computer *	25%	16%	9%	5%
Did not use stove/oven *	30%	9%	6%	7%
Did not run dishwasher *	10%	9%	10%	5%
Turned everything off *	0%	7%	13%	9%
Did not run pool/spa pump *	0%	0%	6%	16%
Turned up AC thermostat/left house	5%	4%	8%	9%

% is of those reporting any change

Q67: Did you change the way you use electricity during the Super Peak/Critical Peak Periods?
Q68: What changes did you make during Super or Critical Peak Periods? (multiple responses)

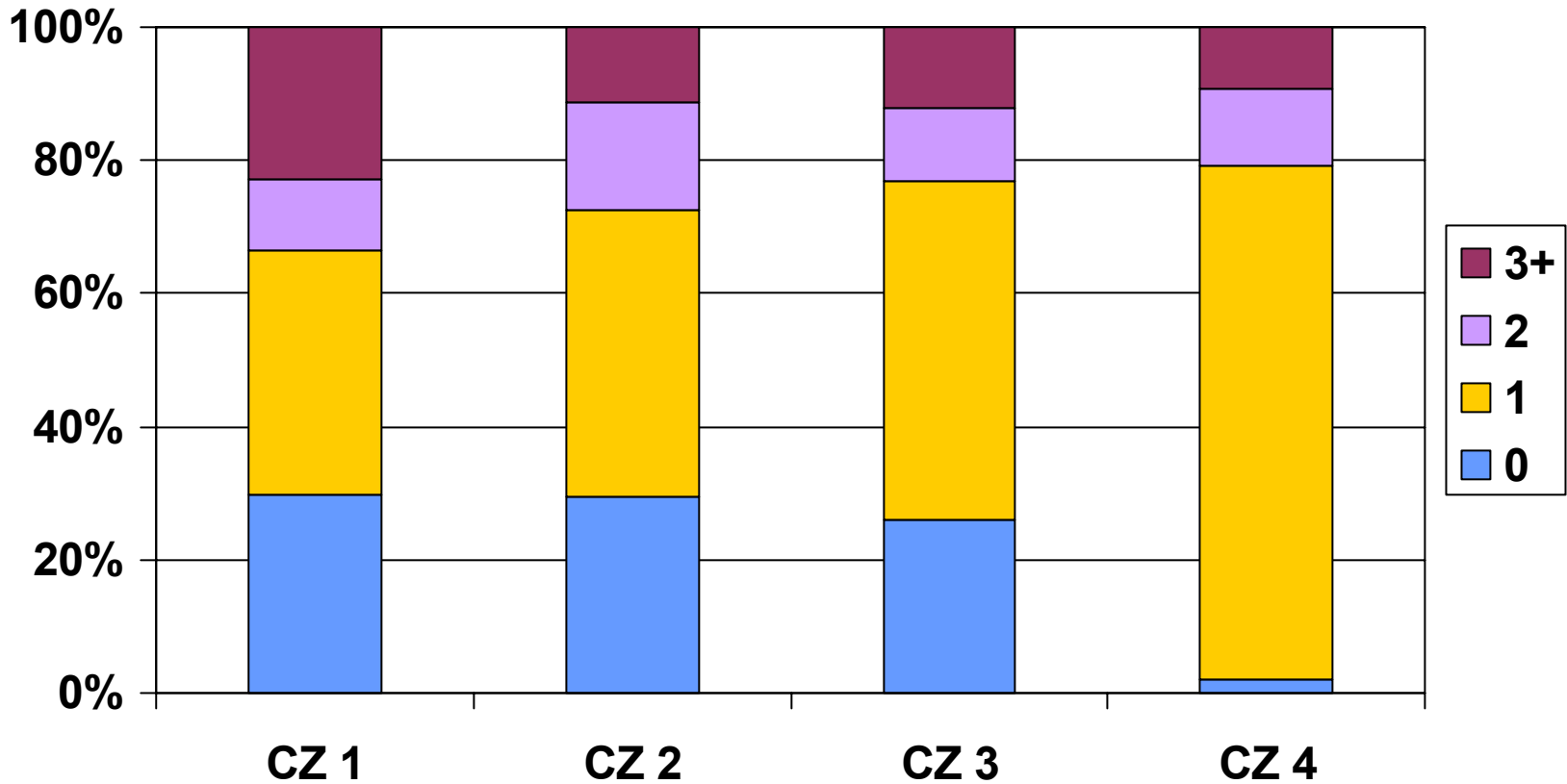
It might be surprising that residential conditions do not differ in the proportions who report taking multiple actions during Critical Peak periods, and that business customers are lower

Number Of Reported Changes in Electricity Use During Pilot Critical Peak Periods



Climate zone 1 and 2 residential CPP-F customers are more likely than others to report taking multiple actions during Critical Peaks

Number of Any Reported Changes in Electricity Use During Pilot Critical Peak Periods For CPP-F Customers by Climate Zone

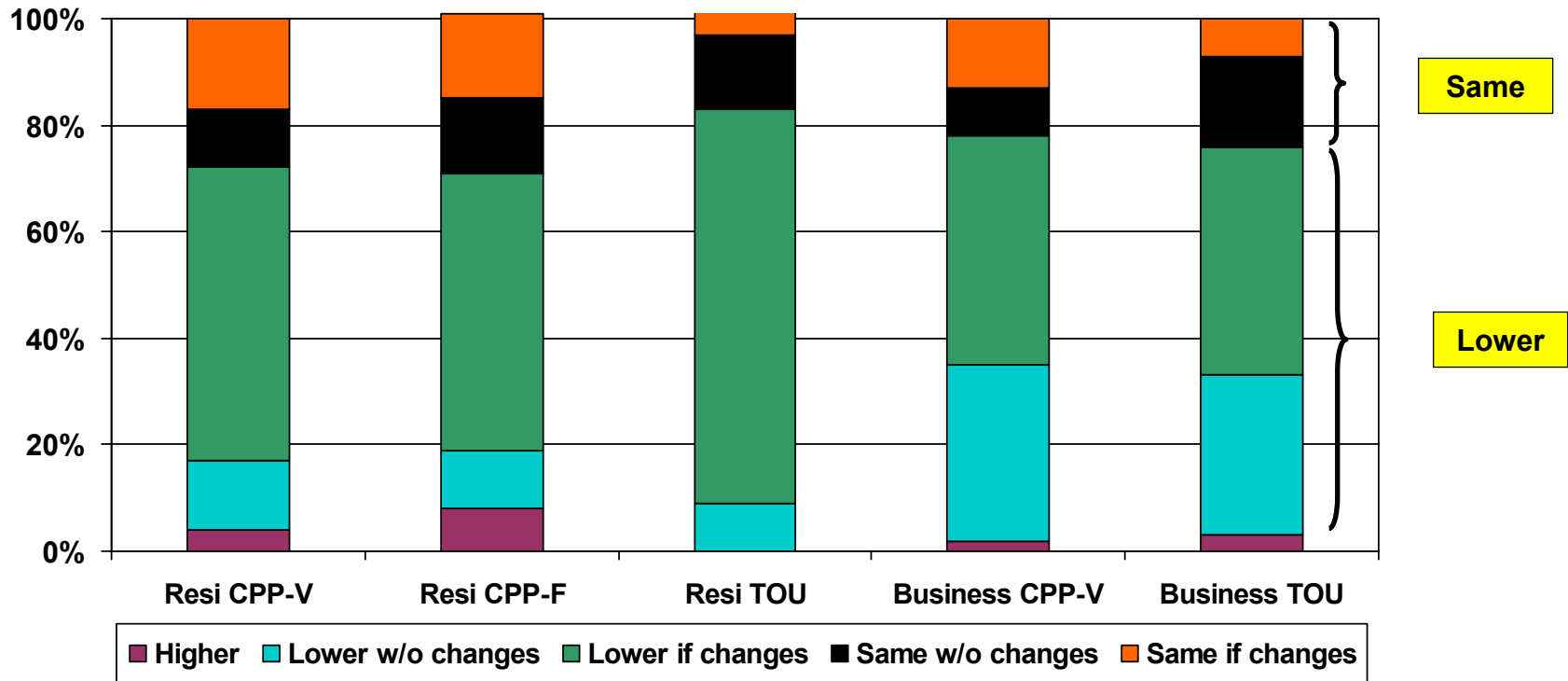


Expectations and Impact on Bills

- Program participants went into the program with some notion of what would likely happen to their electricity bill
- The bills customers received under the program may or may not have met those expectations
- We might expect that large discrepancies between expectations and reality might have created satisfaction problems for participants
- **Recall the key takeaways here:**
 - ***Typically, customers expected their electricity bills to decline under the program, and more assumed they would have to change the way they use electricity to make this happen***
 - *Customers most commonly report that their actual bills are lower than comparable month bills previously, and fewer than 15% report actual bills higher than what they “typically” pay*
 - *No more than 20% say their bills are higher than they expected them to be*

A majority of customers in each condition expected their bills to go down, though more business customers expected this to happen without having to make any changes in the way they use energy

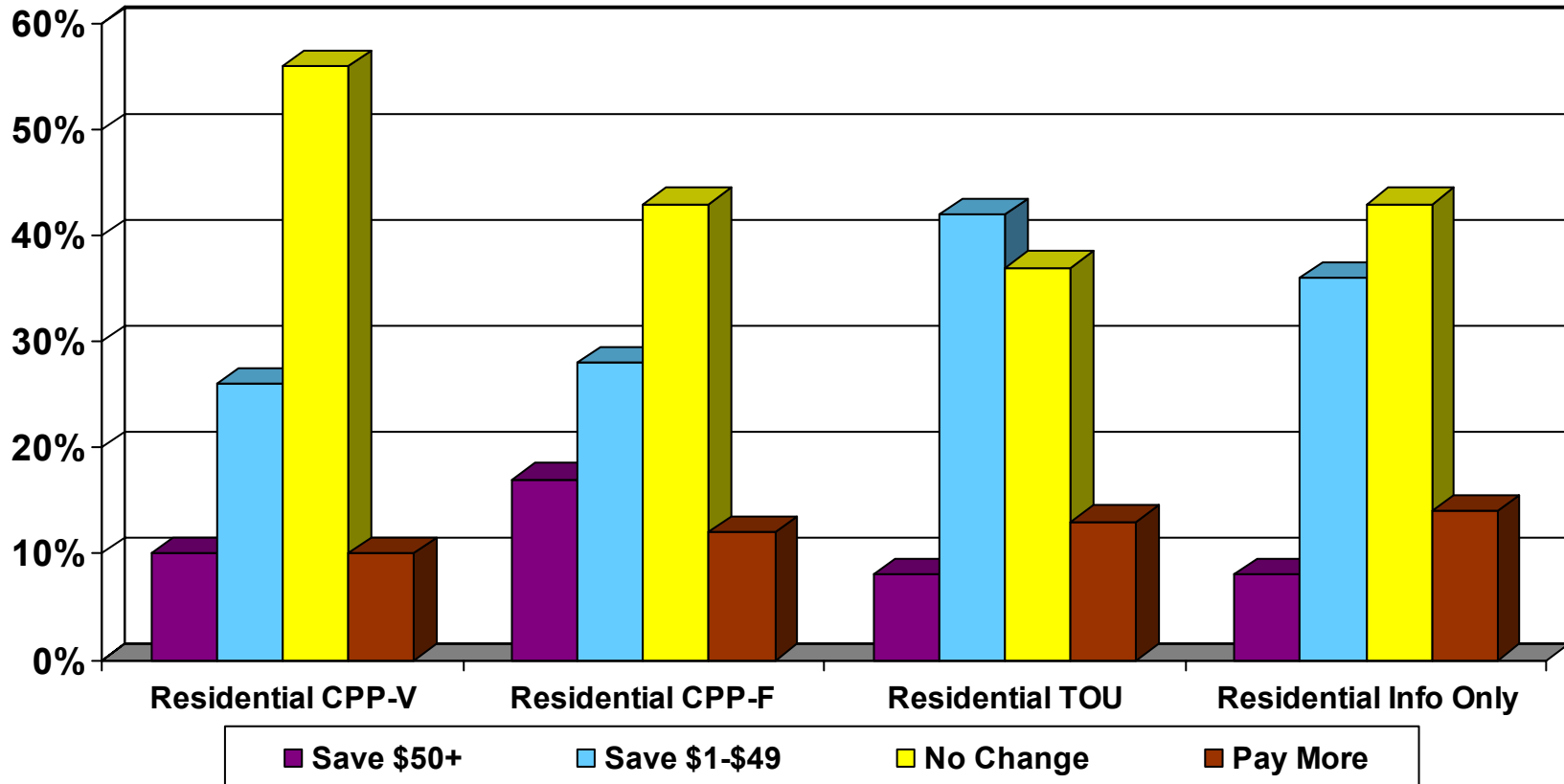
Expected Changes in Bill by Condition



Q36: After receiving all of the program materials, did you think your average monthly electricity bill under the new plan would be higher, lower, or stay about the same as under your old plan? Q38/Q39: Did you think your average monthly bill would [go down/stay the same] without making any changes in the way you use electricity or did you think you would have to make changes to [lower your utility bill/keep your utility bill the same under the new program]?

Only a few customers report actually receiving higher bills, with residential CPP-V customers most likely to report “no change”

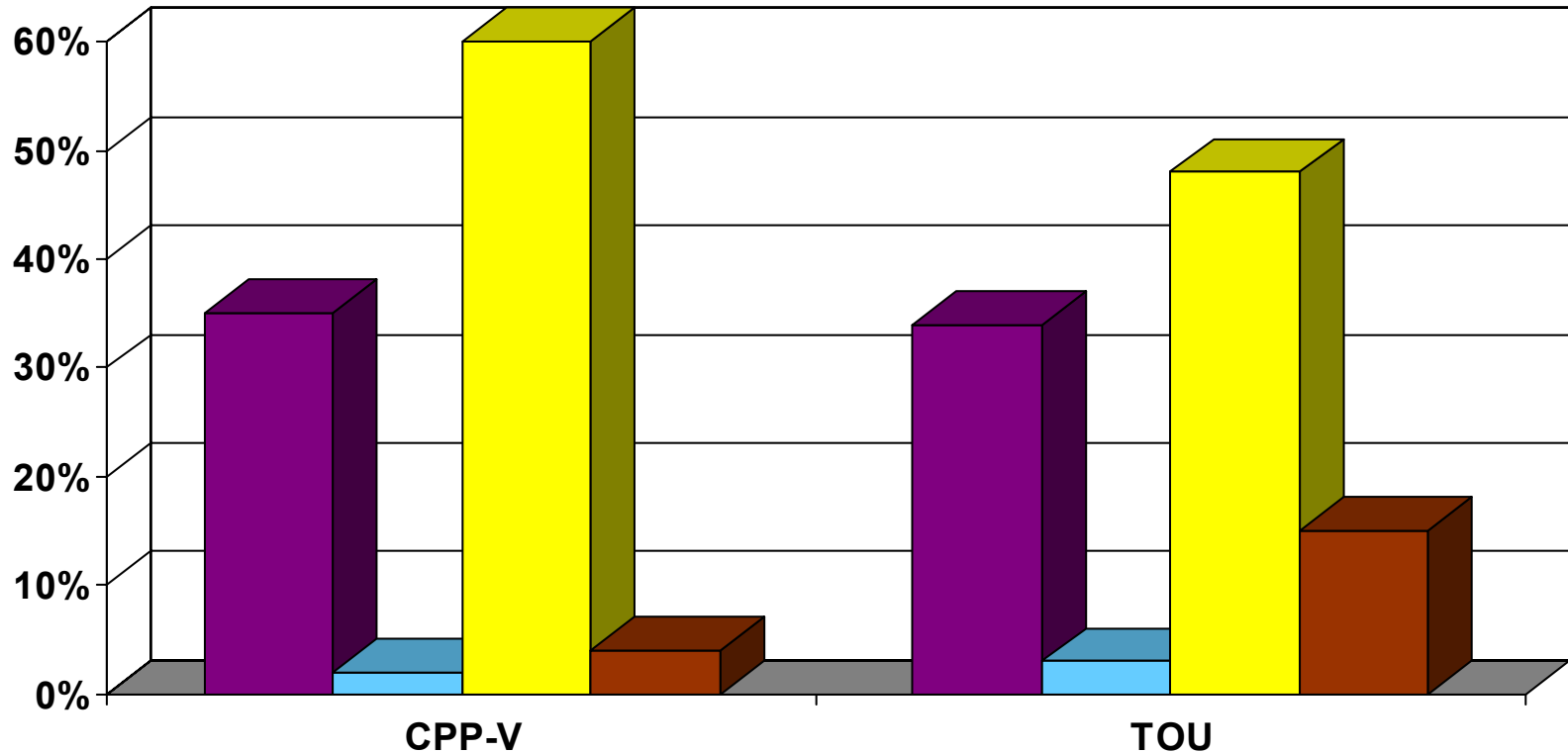
Perceived Bill Impact by Condition: Residential



Calculated from Q79: Now, I'd like you to think about your monthly electricity bills since you went on the new program. Have you noticed any change in the amount you pay?/Q80: On average, about how much were you paying per month for electricity during the summer months before starting the new program? Q81: What was your average monthly electricity bill this summer after starting the new program?

Business customers report saving more (with most of those saving money saving \$50+ per month), though the largest group reports “no change”

Perceived Bill Impact by Condition: Business

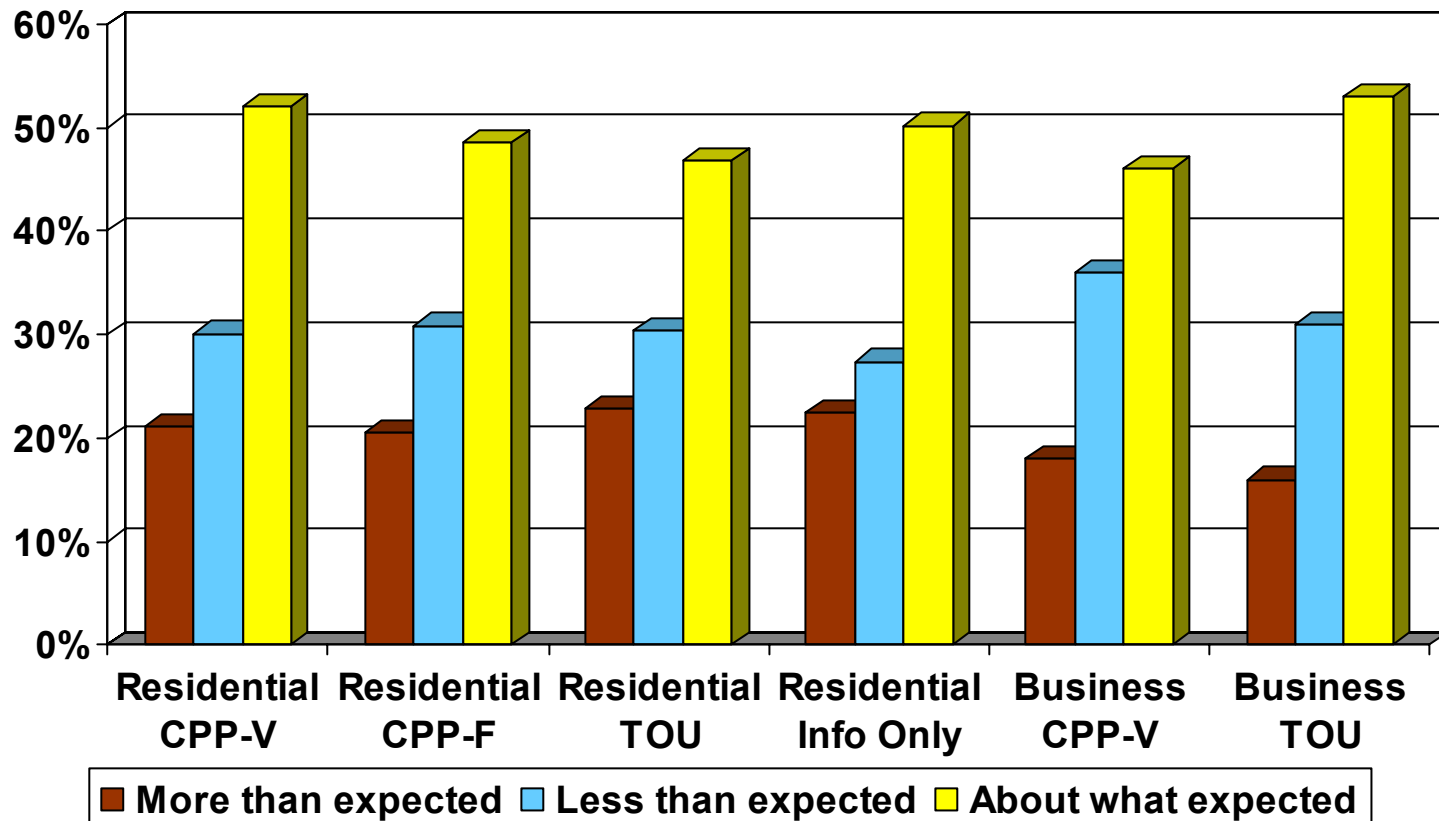


■ Save \$50+
 ■ Save \$1-\$49
 ■ No Change
 ■ Pay More

Calculated from Q79: Now, I'd like you to think about your monthly electricity bills since you went on the new program. Have you noticed any change in the amount you pay?/Q80: On average, about how much were you paying per month for electricity during the summer months before starting the new program?/Q81: What was your average monthly electricity bill this summer after starting the new program?

Customers most commonly – across all conditions – say their bills were about what they expected, though 15-20% said their actual bills were higher than they expected

New Bill vs. Expectations by Condition



Section 2: Customer Reaction to the Enrollment/Program Education Process and Materials

Customer Reaction to the Enrollment/Program Education Process and Materials

- This second section of the report explores customer response to the enrollment process and reaction to the program education materials.
 - First this section explores the response to the enrollment process; and reasons for participating in the pilot program.
 - Second, the section explores customer perceptions of the program education (Welcome Package) materials including their:
 - Perceived effectiveness,
 - And the relationship between perceived effectiveness and reported behavioral change
 - In addition, this section examines customer understanding of the specific elements of their new electricity pricing plan
 - Including a discussion of the relationship between customer understanding of program pricing and reported changes in energy use

Key Section 2 Takeaways

- Program participants' impressions of the enrollment materials were generally positive with relatively small differences across conditions.
 - Business customers rated the materials positively but less so than did residential customers.
 - Considering the entire enrollment package, a majority of participants say the enrollment materials explained everything well.
- The appreciation payment was a significant motivator of program participation for both residential and business customers.
 - Both residential and business customers also said saving money and conserving energy were other primary reasons for signing up to participate in the pilot program.
 - When asked to indicate the single MOST important reason for participating in the pilot, significant differences exist between residential and business customers and across conditions.

Key Section 2 Takeaways

- Overall, both residential and business customers thought the Welcome Package did a thorough job of explaining the pilot program, and ratings of the education materials were quite positive, though, business customers ratings are lower than those for residential customers.
- However, while customers were able to state key learnings, many customers were unable to recall details of the package.
- Perceived effectiveness of the educational materials appears to be linked, at least somewhat to changes in energy use
 - Both residential and business customers who score higher on the effectiveness measure (which means they read the materials and found them to be accurate, easy to understand, etc.) were more likely to report taking any, and more actions to change their energy use during the pilot program. The impact during Critical Peak periods is considerably less.

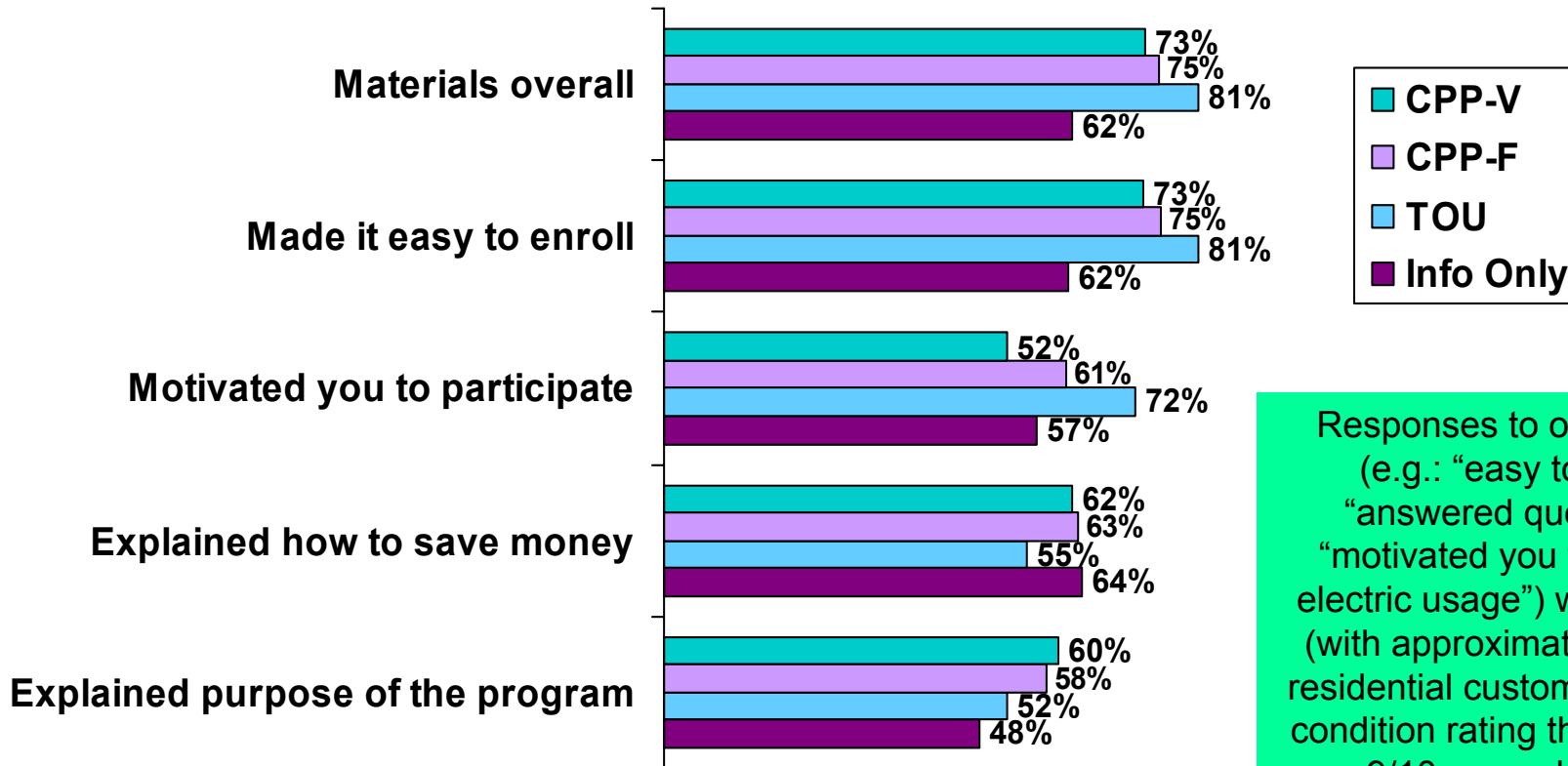
Key Section 2 Takeaways

- The accuracy of understanding that residential customers have of the pilot program varies across conditions.
 - CPP-V customers demonstrate higher accuracy rates while Information only customers demonstrate lower rates of understanding for their pricing program.
- Business customers do not appear to have a very accurate understanding of pilot program pricing.
- The accuracy of understanding that residential and business customers have of the pilot program does appear to be linked to changes in energy use both during the program in general and during Critical Peak periods.

Overall residential customer impressions of the enrollment materials were positive

Residential Customer Impression of Enrollment Materials

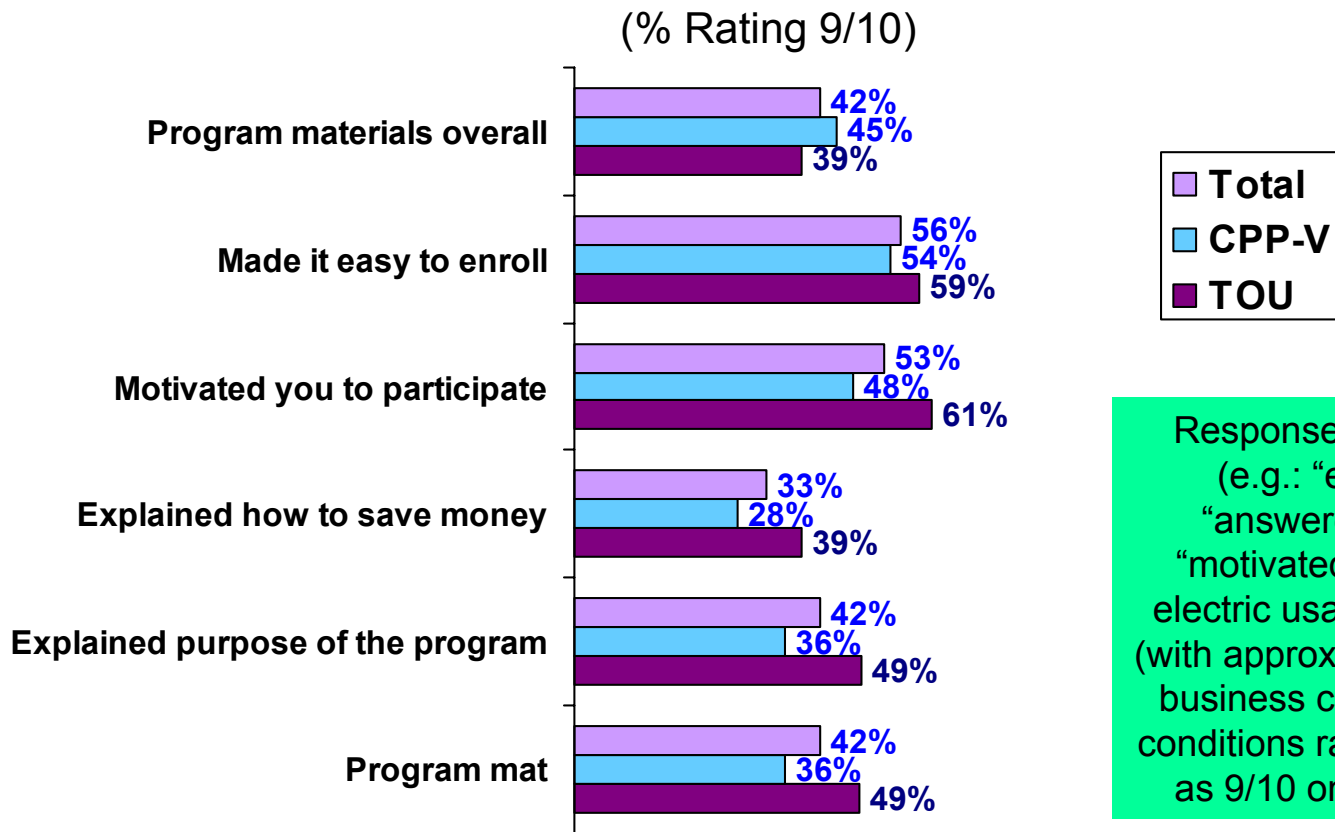
(% Rating 9/10)



Responses to other items (e.g.: “easy to read,” “answered questions,” “motivated you to change electric usage”) were similar (with approximately 50% of residential customers in each condition rating the materials as 9/10 on each attribute.

Business customers also rated the enrollment materials positively, but were less impressed than residential customers

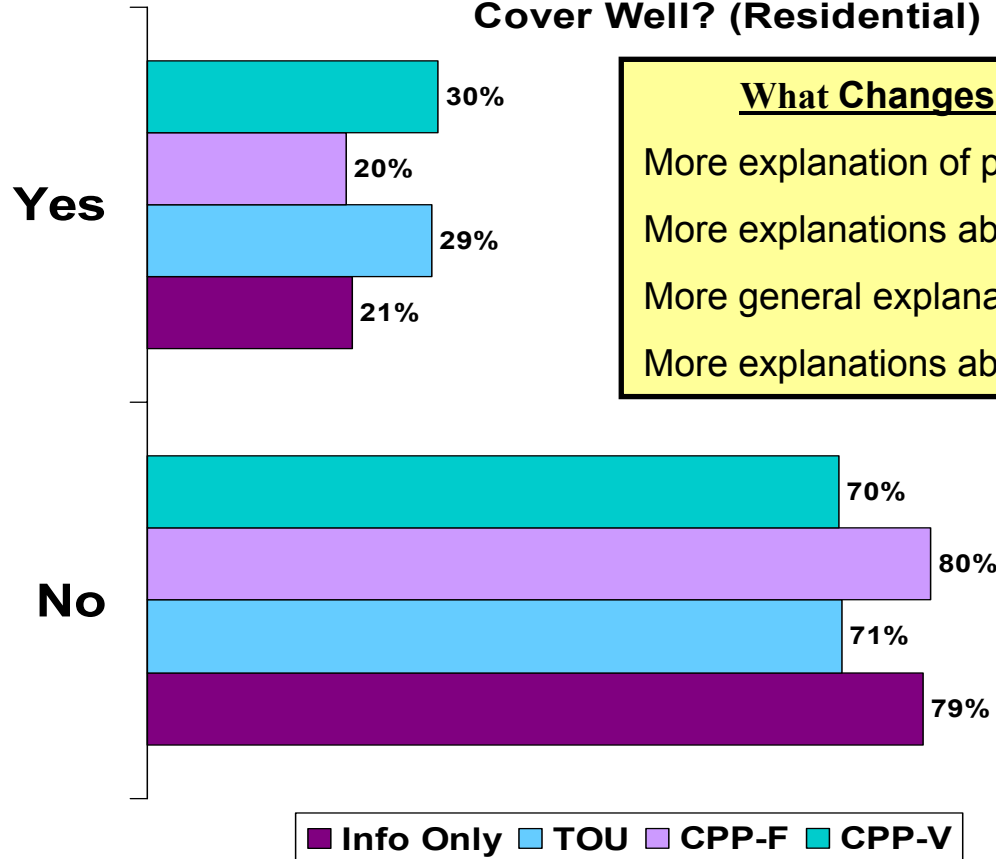
Business Customer Impression of Enrollment Materials



Responses to other items (e.g.: “easy to read,” “answered questions,” “motivated you to change electric usage”) were similar (with approximately 35-40% of business customers in both conditions rating the materials as 9/10 on each attribute.

Considering the entire enrollment package, a majority of participants say the enrollment materials explained everything well

Anything the Program Notification Materials Did Not Cover Well? (Residential)



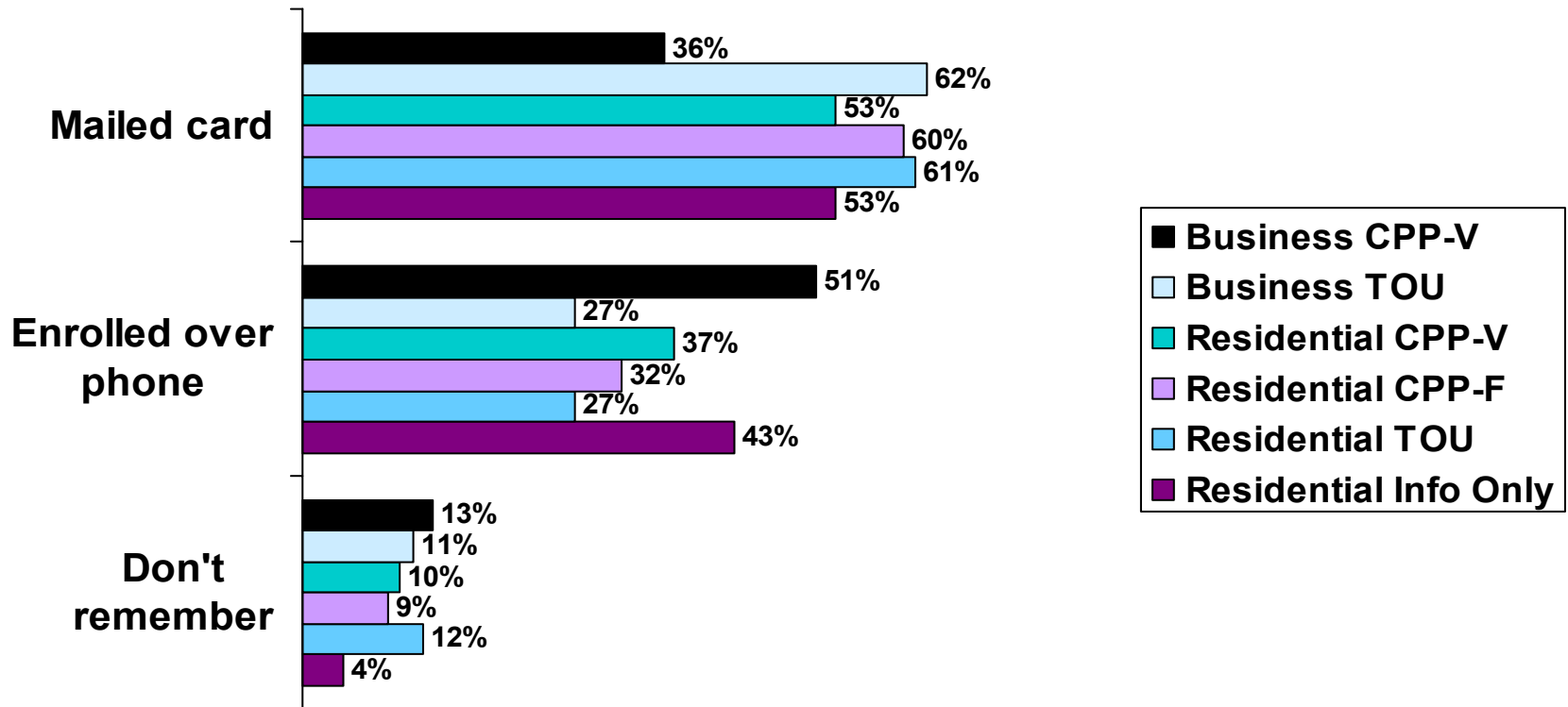
What Changes Would You Recommend?

- More explanation of prices/rates 30%
- More explanations about bill 15%
- More general explanations 15%
- More explanations about peak periods 14%

Business customers have similar views with 77% of CPP-V and 78% of TOU customers saying the program notification materials explained everything.

Most customers signed up by mailing in the card, however, residential Information-only, and business CPP-V, customers are notably more likely to say they enrolled over the phone

Method Used to Sign up for the Program

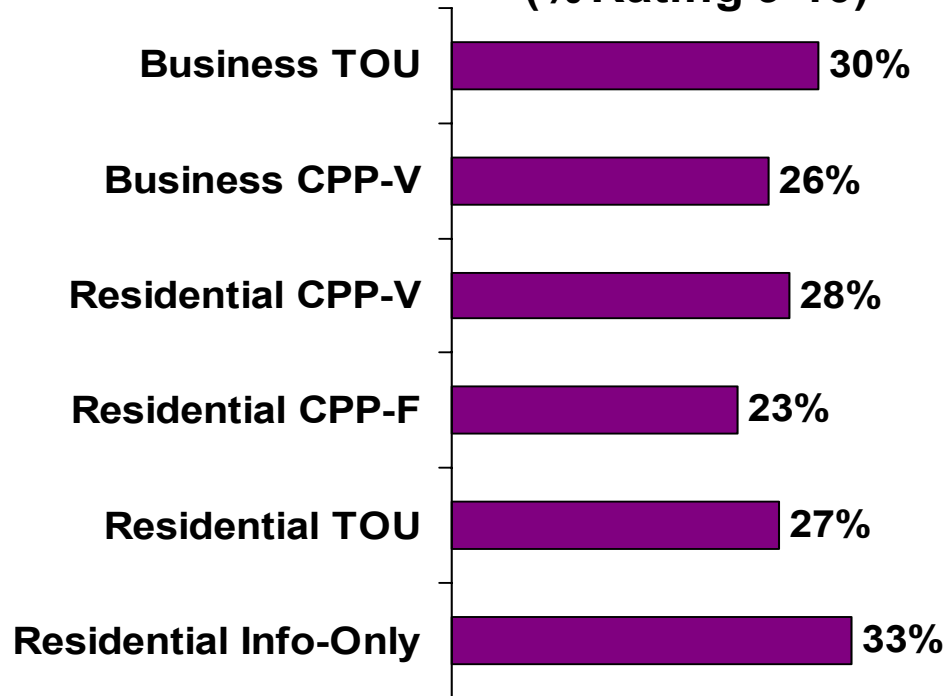


Moving from reactions to the Enrollment Process to Exploring Reasons for Participating in the Pilot Program

- The appreciation payment was a significant motivator of program participation for both residential and business customers.
- Both residential and business customers across all conditions identify saving money and conserving energy as other primary reasons for signing up to participate in the program.
 - However, when asked to single out the MOST IMPORTANT reason for signing up, differences do exist across conditions.
 - Ultimately all customers want to save money but the driver to achieve this end varied across the conditions. The main motivators for residential customers include: learning to manage electrical use for CPP-V customers, conserving electricity for CPP-F customers, and saving money for Info only and TOU customers.
 - For business customers, all CPP-V customers said that saving money was the most important reason for participation while TOU customers were equally motivated to participate to conserve energy or to provide information for this study.

The appreciation payment does appear to have been a significant motivator of program participation across all customer groups

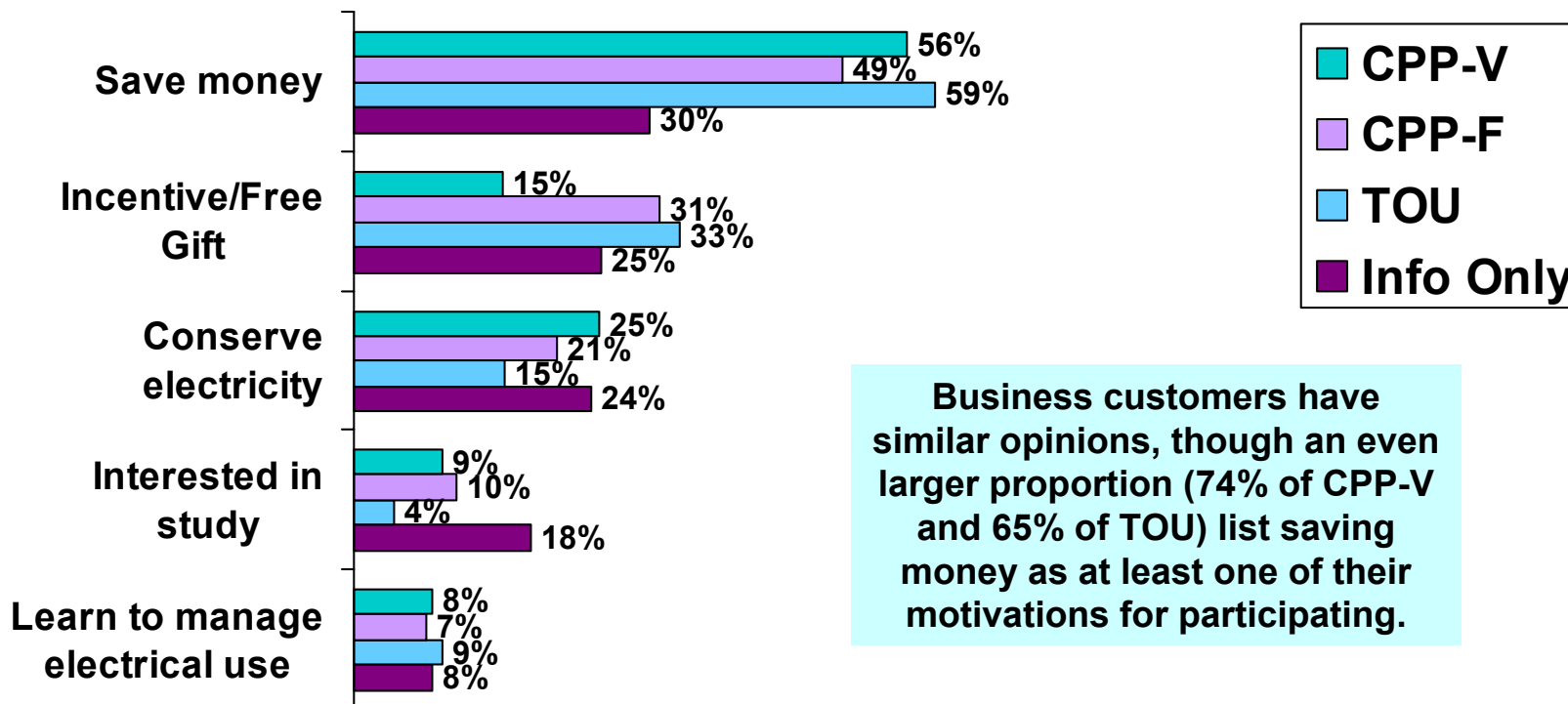
Likelihood of Signing Up Without Appreciation Payment (% Rating 9-10)



Q94. How likely would you have been to sign up for the new program if you had not been offered an appreciation payment? (1= Would definitely **NOT** have signed up without the appreciation payment; 10=Definitely **WOULD** have signed up for the program without the appreciation payment,)

Not surprisingly, the most common reason identified for participating in the pilot was to save money, but many customers do list other benefits as well

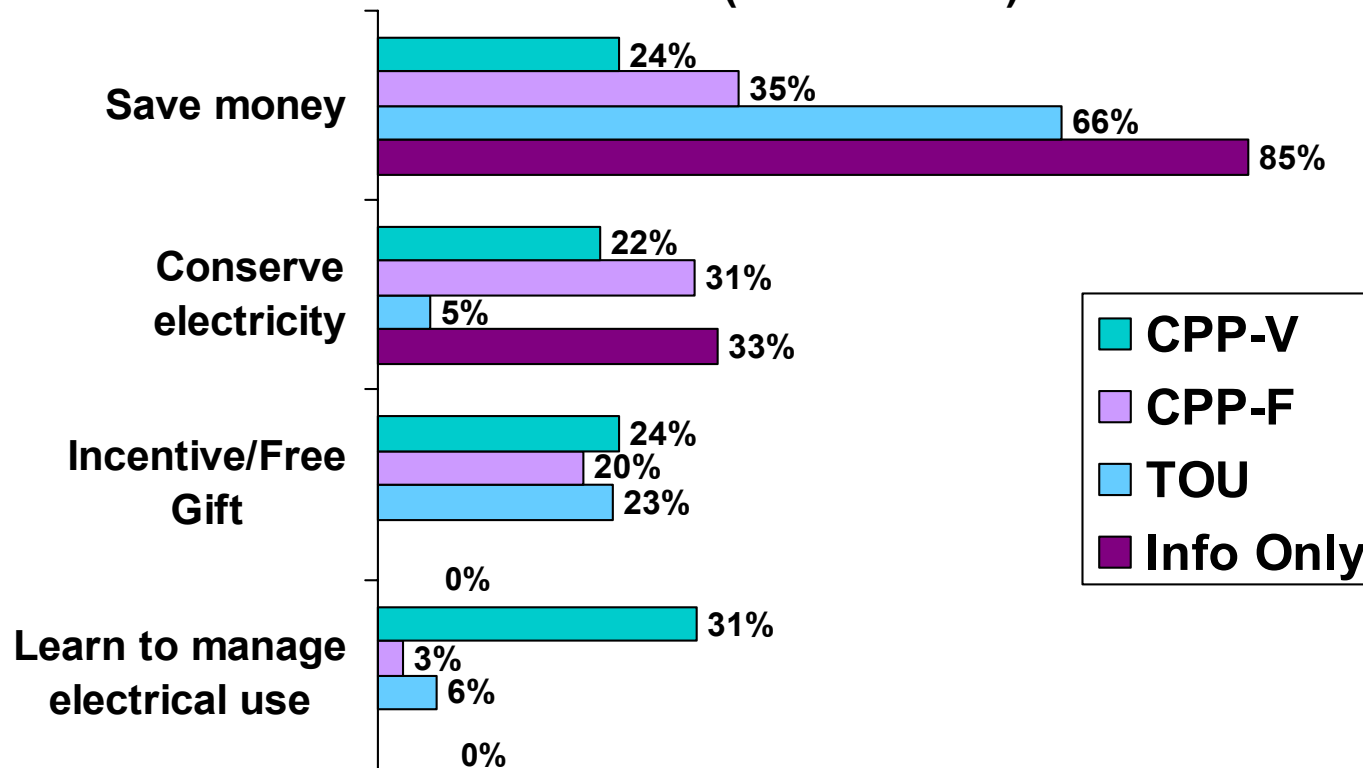
**Residential Reasons for Participating in the Pilot
(Multiple responses)**



Business customers have similar opinions, though an even larger proportion (74% of CPP-V and 65% of TOU) list saving money as at least one of their motivations for participating.

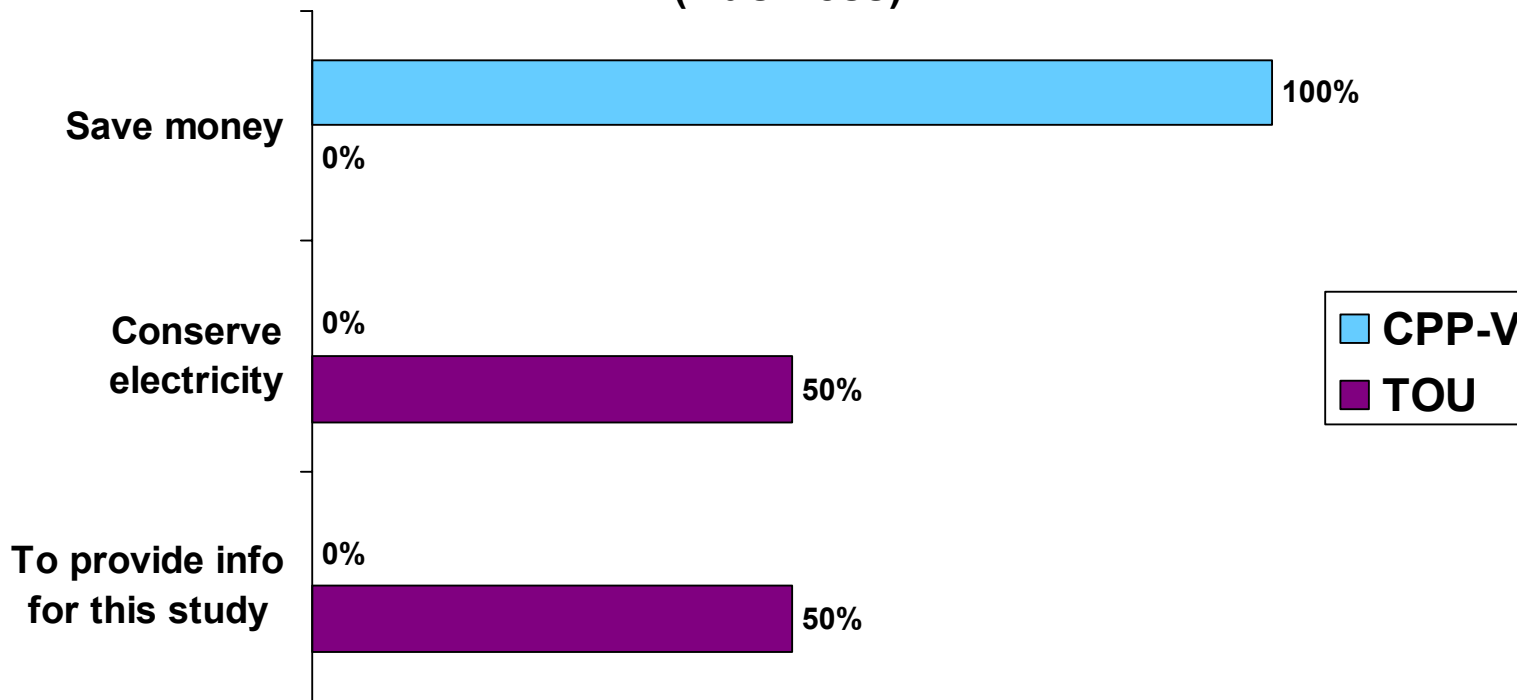
When asked to indicate the single MOST important reason for participating in the pilot, differences appear in the primary driver listed across the residential conditions

Most Important Reason for Participating in the Pilot (Residential)



Significant differences also appear across the two business customer conditions in the primary driver specified for program participation

Most Important Reason for Participating in the Pilot (Business)



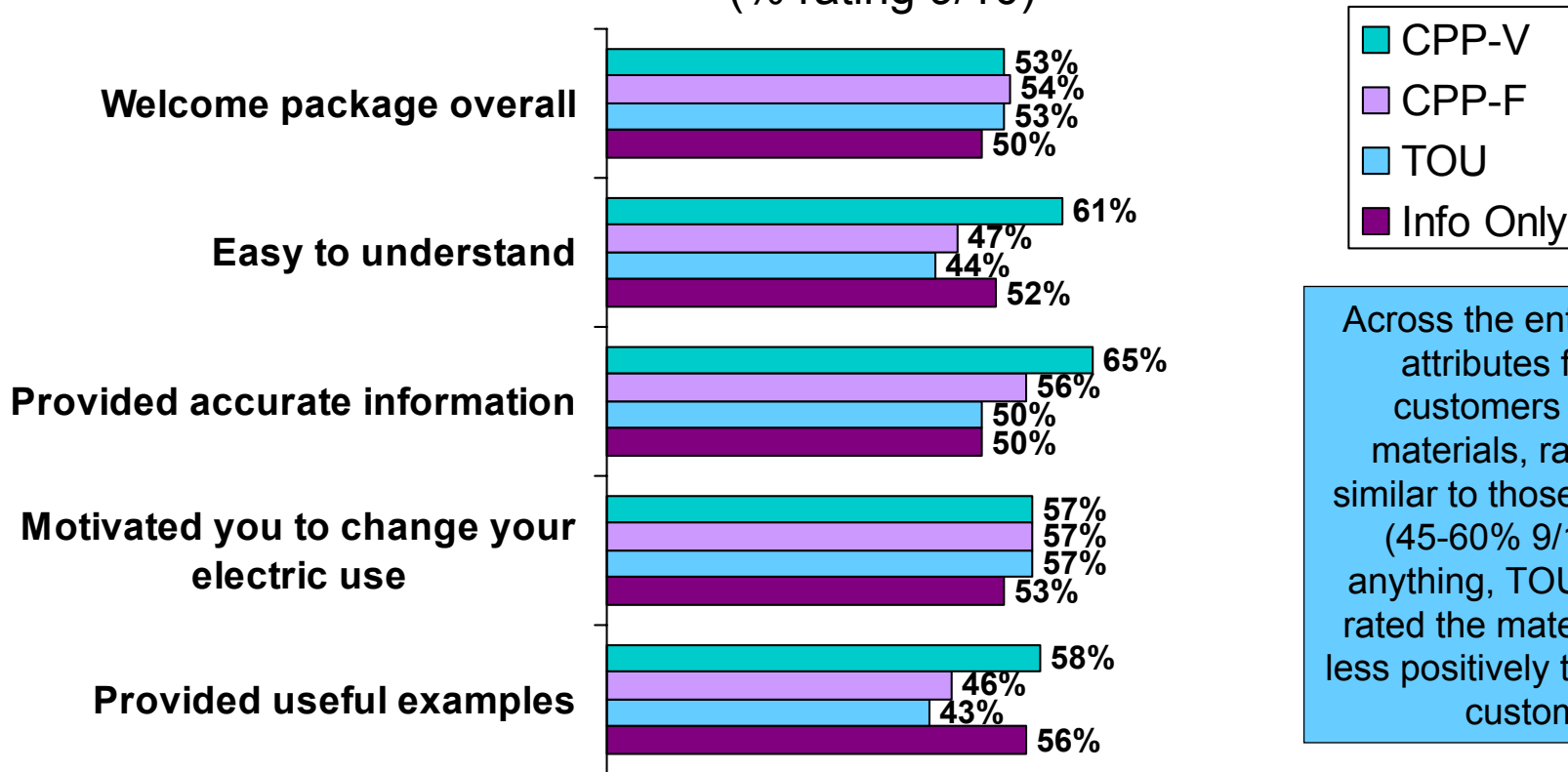
Moving from Reasons for Participating in the Pilot Program to Reactions to the Education Materials (Welcome Package)

- Overall, both residential and business customers thought the Welcome Package did a thorough job of explaining the Pilot Program.
- Residential impressions of the Welcome Package were quite positive while business customers ratings were lower and the pattern of response between conditions varies by attribute among business customers.
- Residential customers say they read all, or at least parts of the Welcome Package, while business customers were significantly less likely to say they read the entire Welcome Package.
- Both residential and business customers were able to identify key learnings, however, neither audience was able to identify specifics or recall details of the Welcome Package with much success.

Overall, residential customers ratings of the educational materials (Welcome package) were quite positive

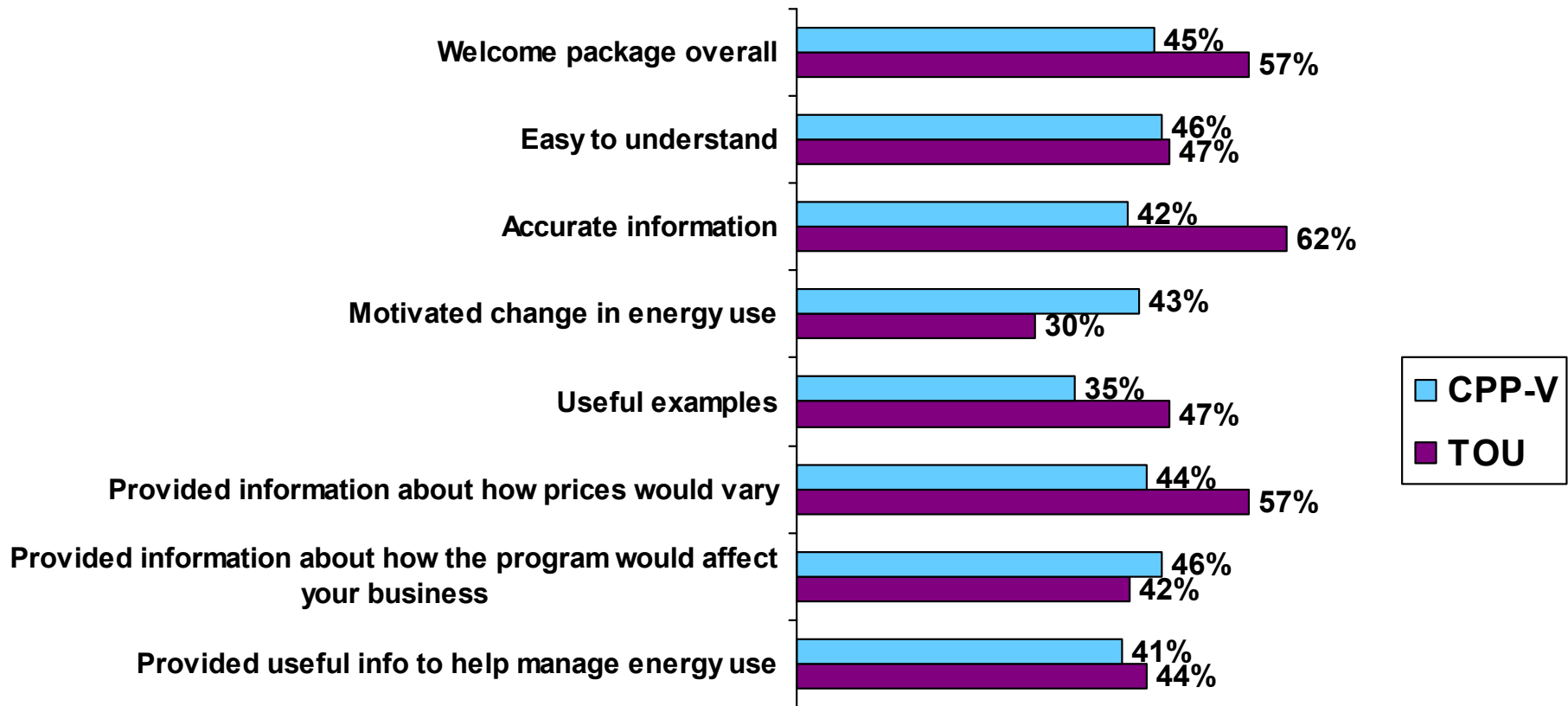
Residential Customer Ratings of Program Education Materials

(% rating 9/10)



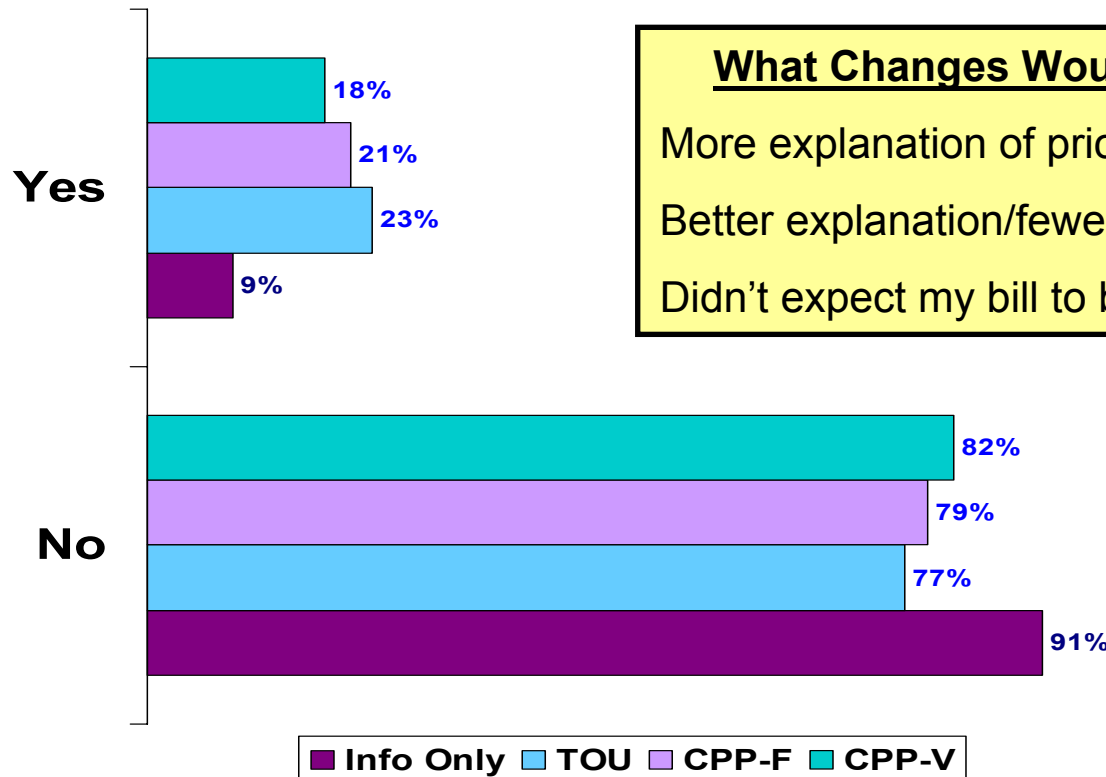
Across the entire set of 11 attributes for which customers rated the materials, ratings were similar to those shown here (45-60% 9/10), and if anything, TOU customers rated the materials slightly less positively than did other customers.

Business customer ratings for the materials are lower than those for residential customers, and the pattern between conditions varies by item



Overall, the majority of customers indicated that the Welcome Package did a thorough job of explaining the program

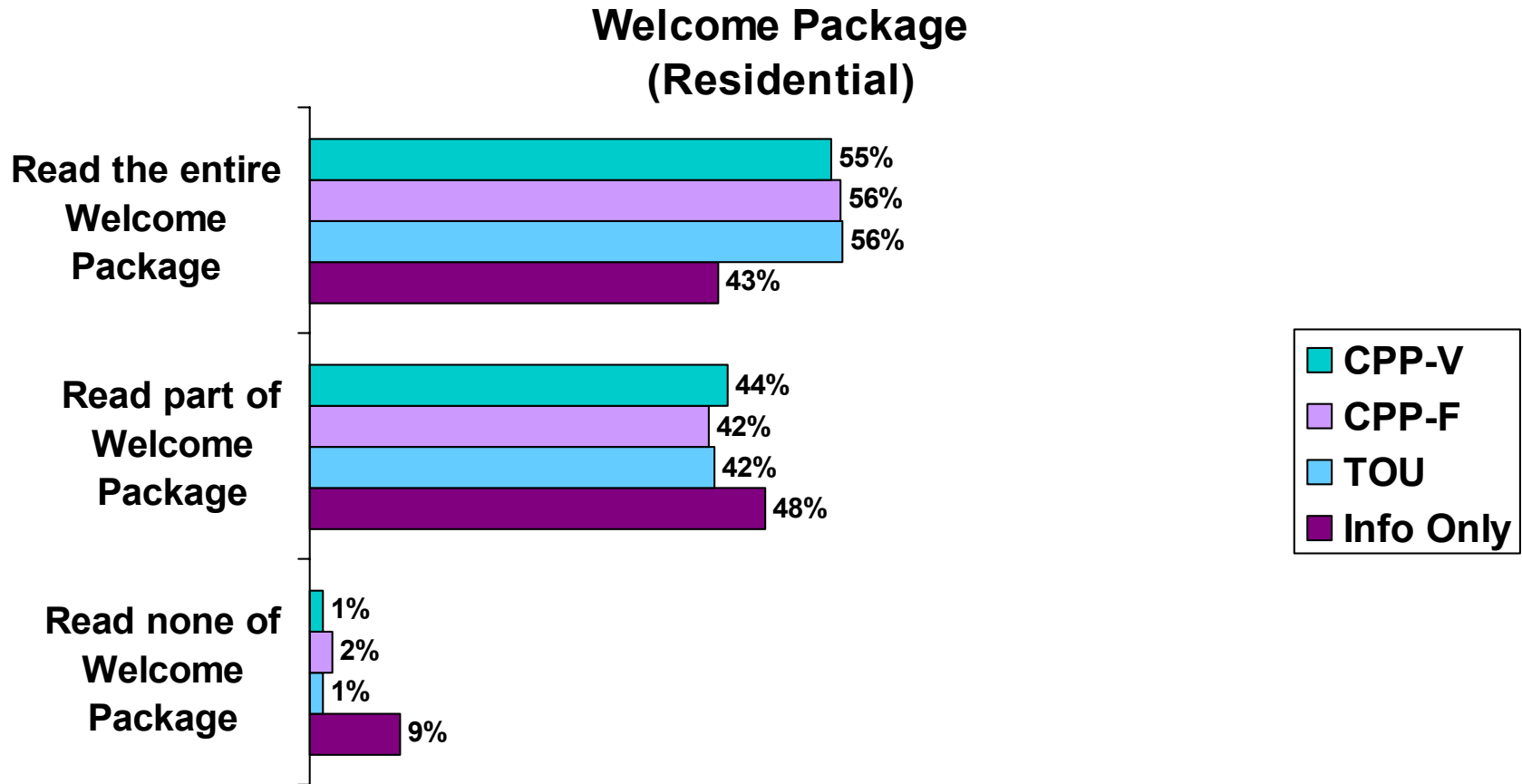
Anything the Welcome Package Did Not Cover Well?



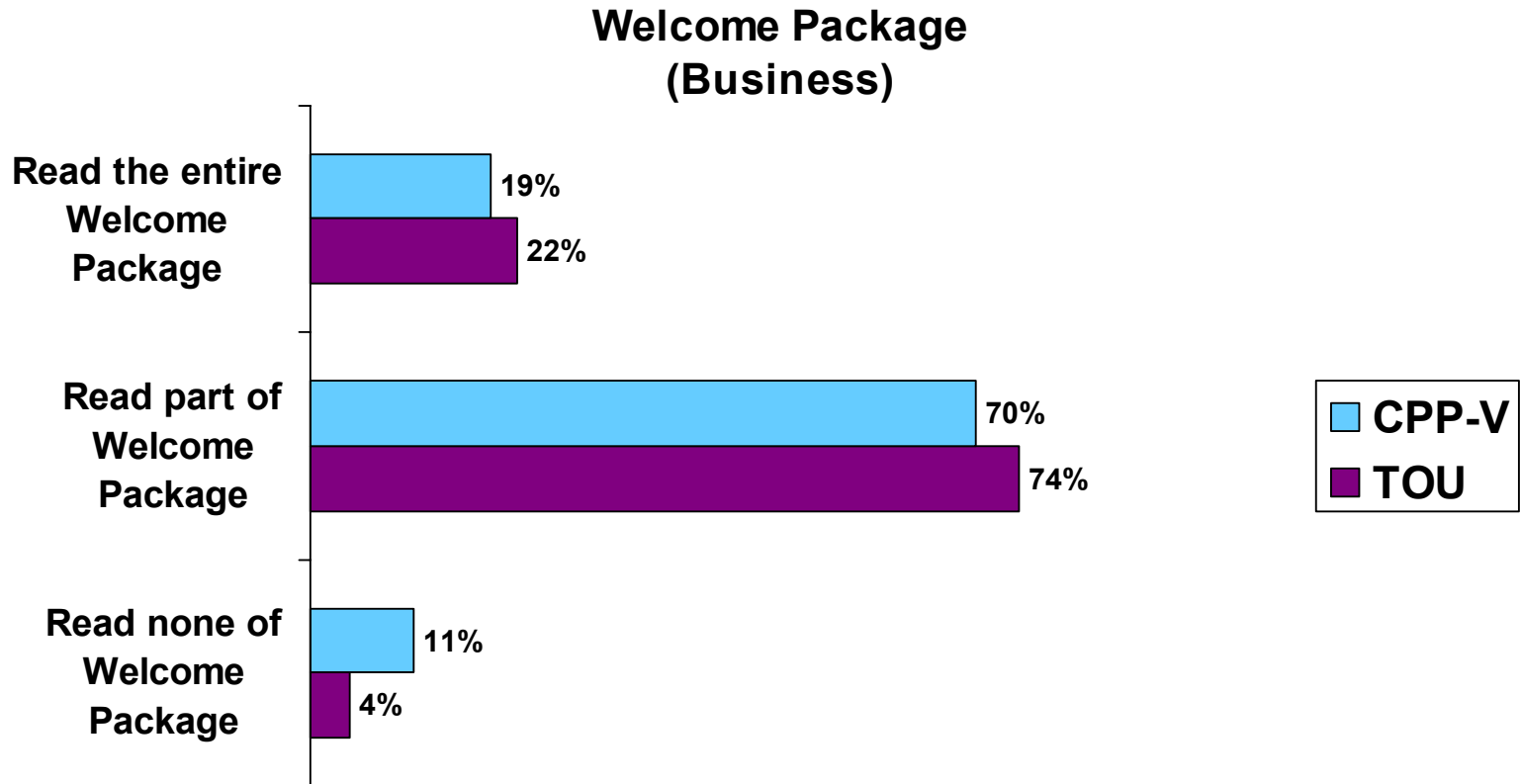
<u>What Changes Would You Recommend?</u>	
More explanation of prices/rates	24%
Better explanation/fewer peak times	15%
Didn't expect my bill to be higher	13%

Business customers have similar views with 88% of CPP-V and 80% of TOU customers saying the Welcome package materials did not leave anything unexplained.

Residential customers say they read all, or at least parts of, the Welcome Package, though Information only customers were a bit less likely to say they read everything

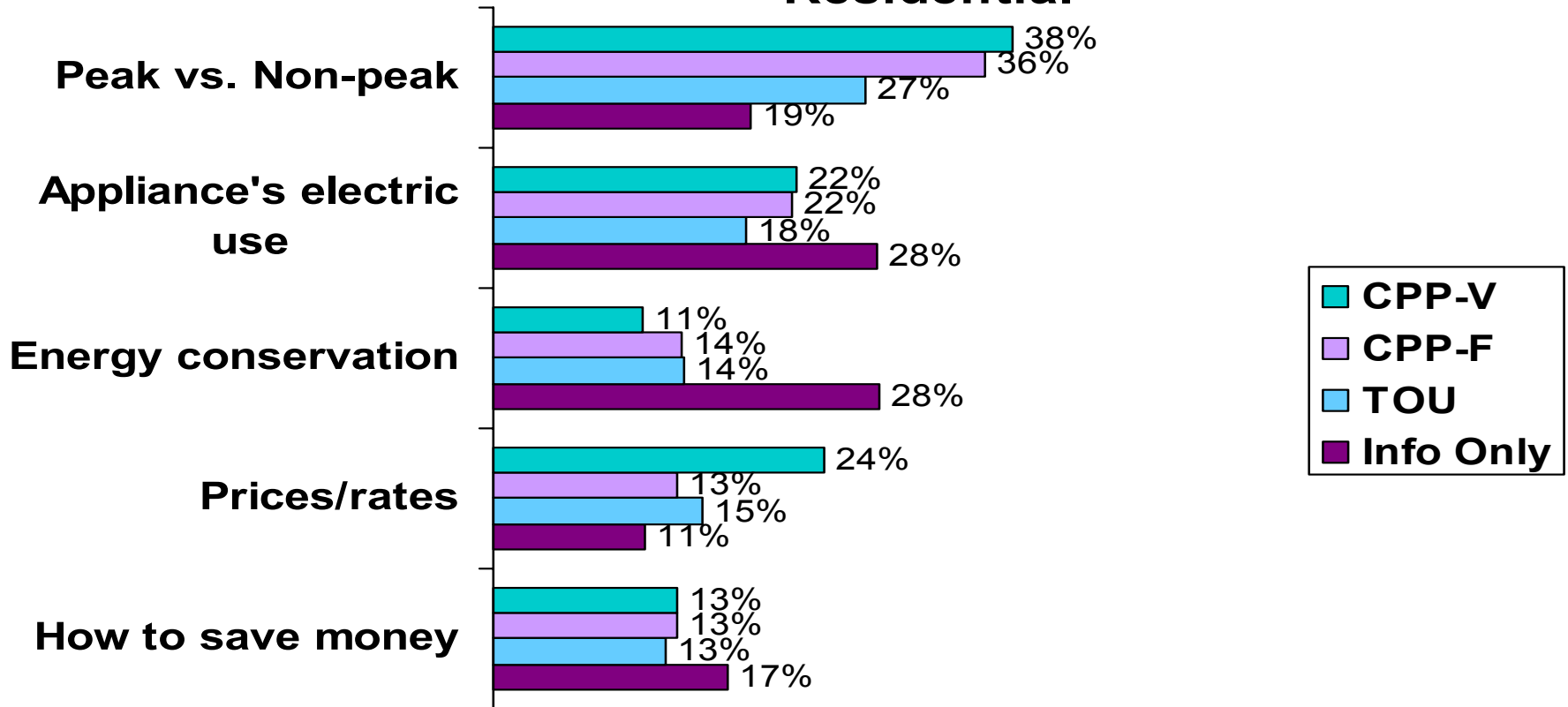


Business customers were significantly less likely than residential customers to say they read the entire Welcome package

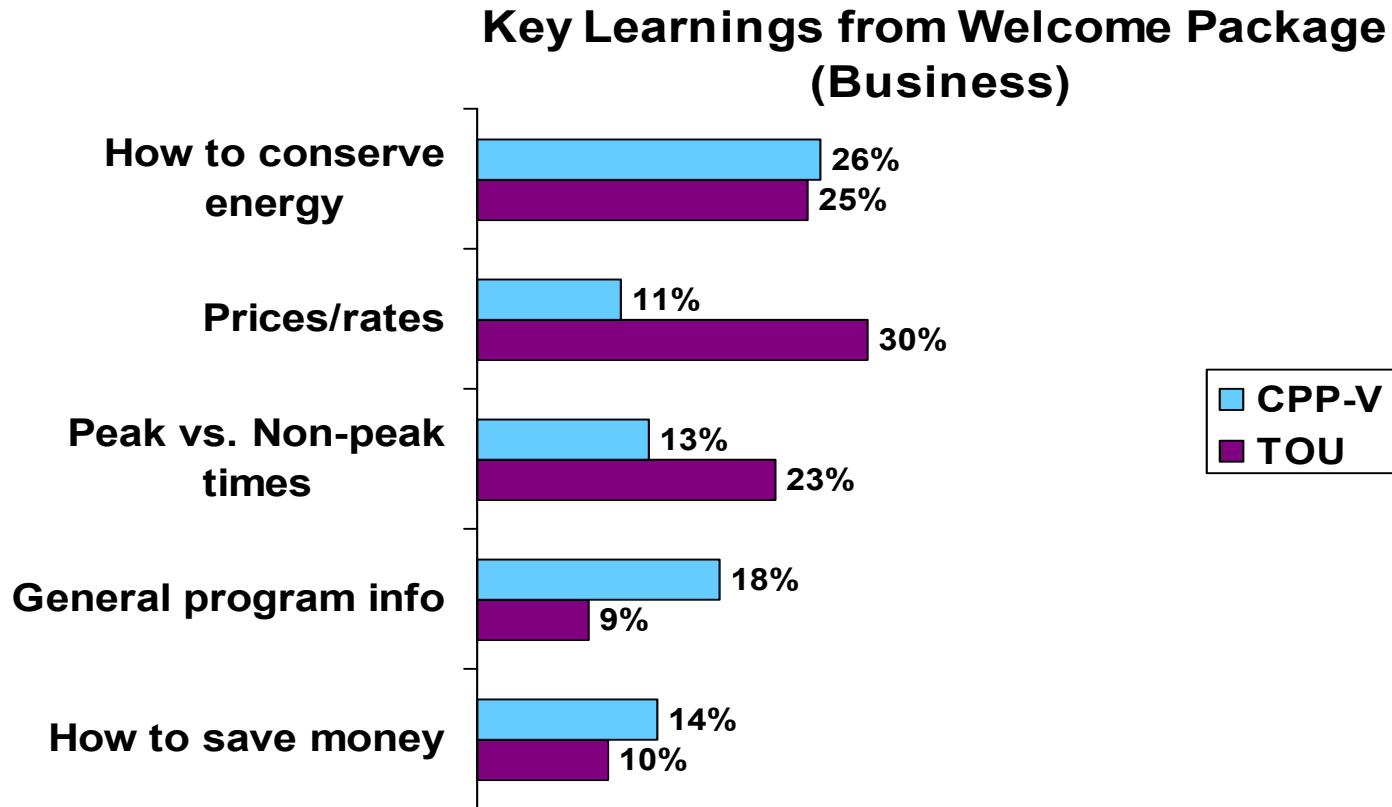


Key learnings customers identified from the educational materials package varied by condition

Key Learnings from Welcome Package Residential

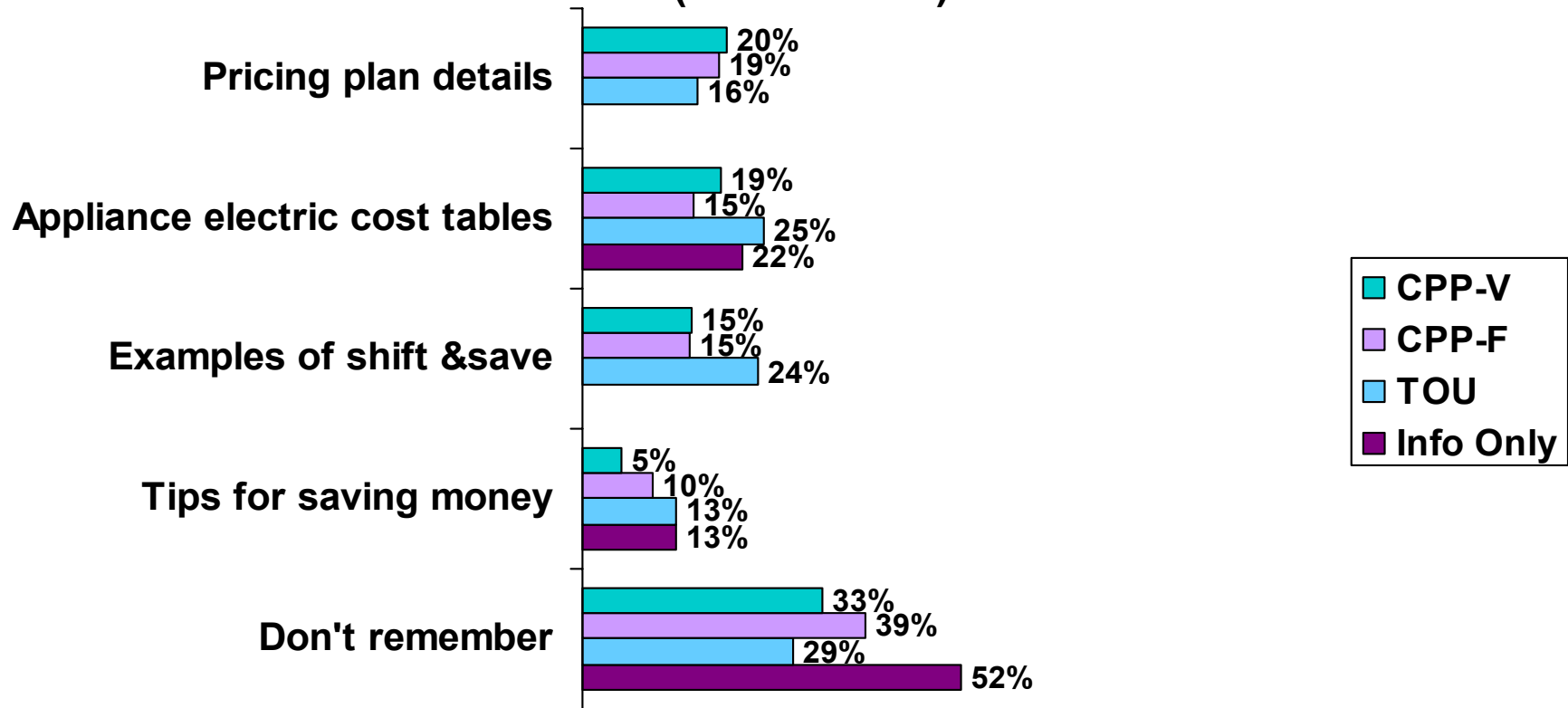


Business customers were more likely than residential customers to say that learning how to conserve energy was a key learning from the Welcome Package



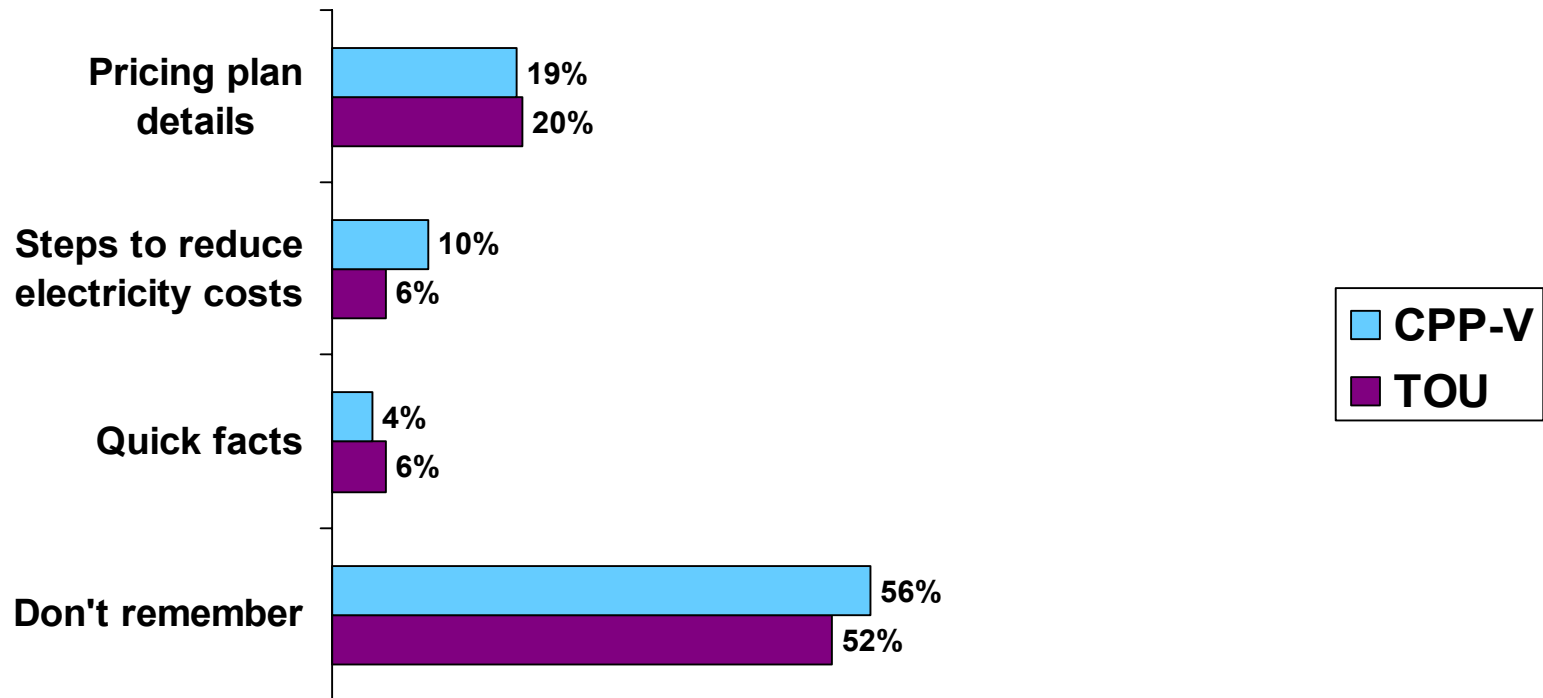
The pricing plan details and the appliance electric cost tables were the sections of the Welcome Package that residential customers identified as most useful most often, but many customers were unable to recall details of the package

Most Useful Sections of Welcome Package (Residential)



Although business customers were able to identify key learnings from the materials, the majority were unable to specify the most useful sections of the Welcome Package

Most Useful Sections of Welcome Package (Business)

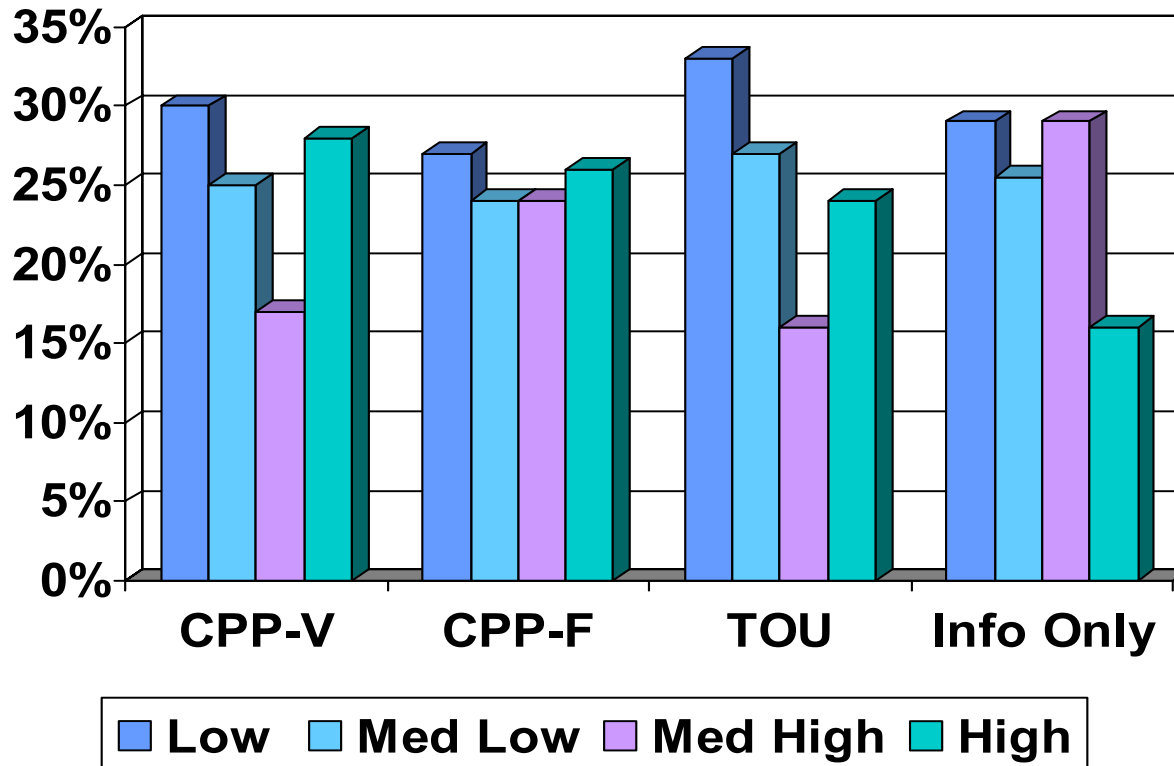


Developing an overall measure of the perceived effectiveness of the enrollment/educational materials

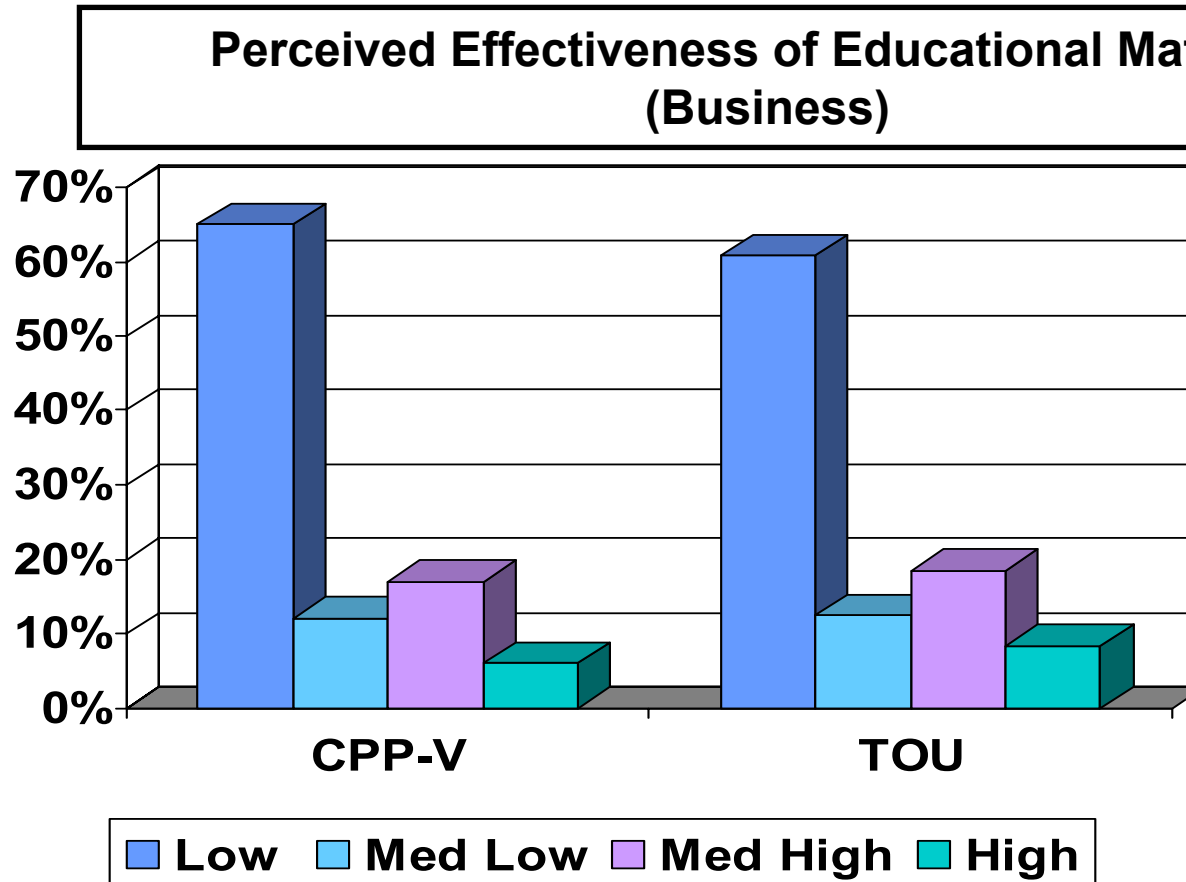
- For analytical purposes, the team chose to develop a single indexed measure of the perceived effectiveness of the program materials
 - The goal of this index was to create a single measure of perceived effectiveness that could be used to explore the drivers and correlates of higher vs. lower perceived materials effectiveness. The pattern of answers used to create the index is provided in the appendix.
- An index was calculated for each respondent which took into account the extent to which that respondent said they read, and evaluated positively, the program enrollment and educational materials
- Respondents were then sorted into four categories depending on the way they scored on this index
 - Respondents scoring high on the index report that they read all of the materials and found them to be accurate, easy to understand, etc.
 - Respondents scoring low on the index reported that they read less of the materials, and/or rated the materials lower on being clear, accurate, etc.

Perceived effectiveness of the educational materials is similar across residential conditions, although fewer Information only customers rate “high” on this measure

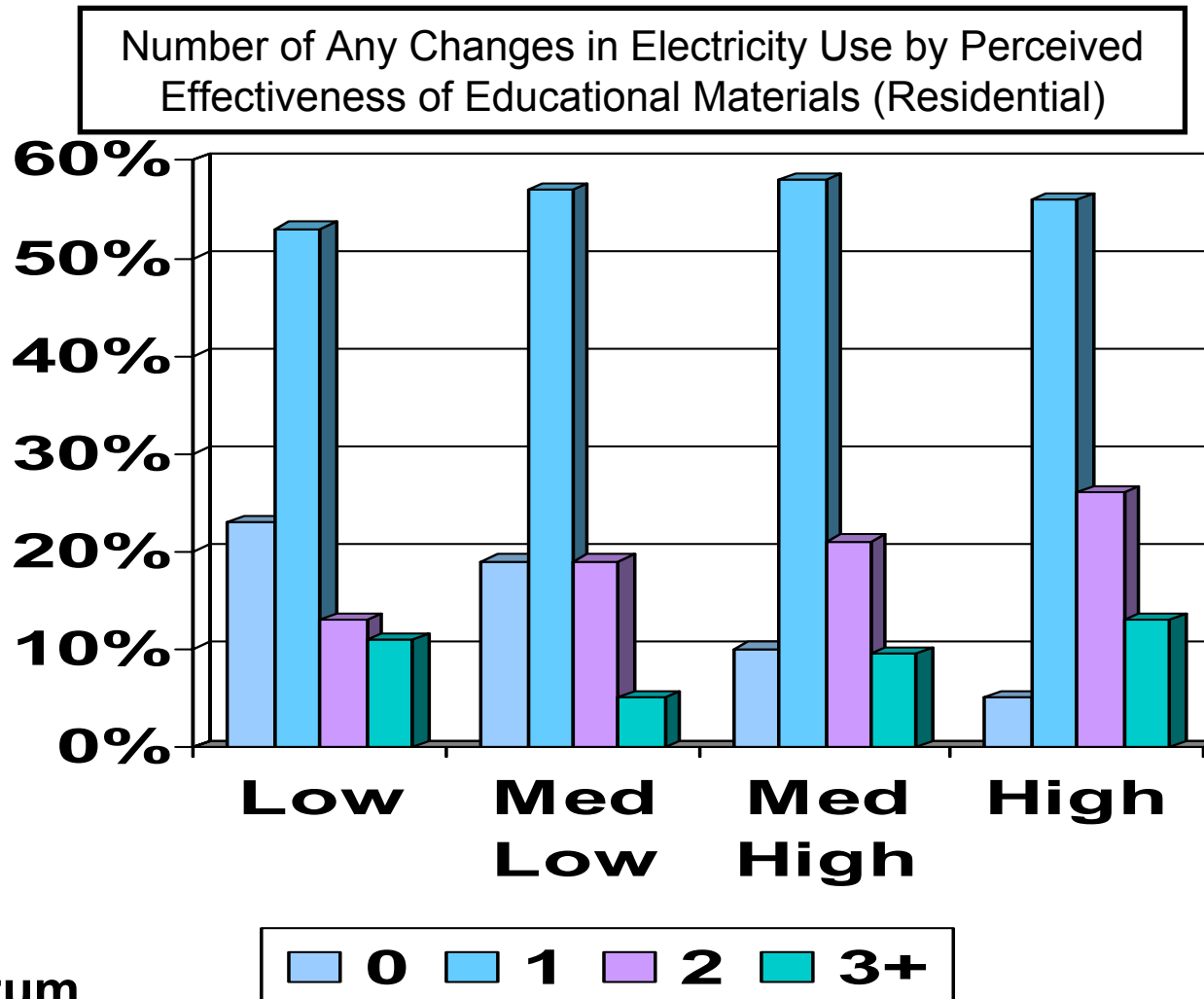
Perceived Effectiveness of Educational Materials (Residential)



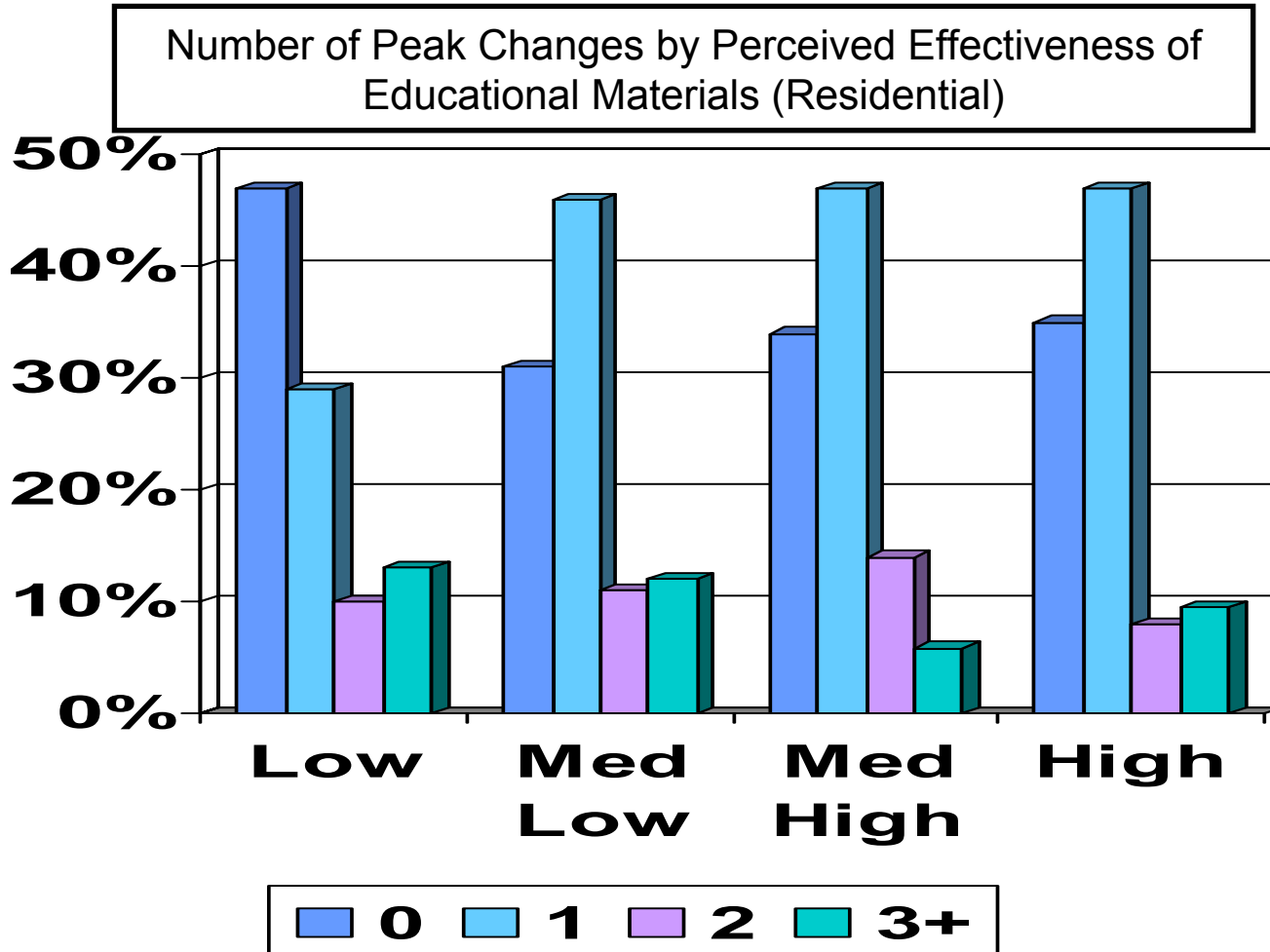
Among business customers, the perceived effectiveness of the materials is much lower



Residential customers who score higher on the materials effectiveness measure are more likely to report taking any, and more, actions to change their energy use during the pilot program



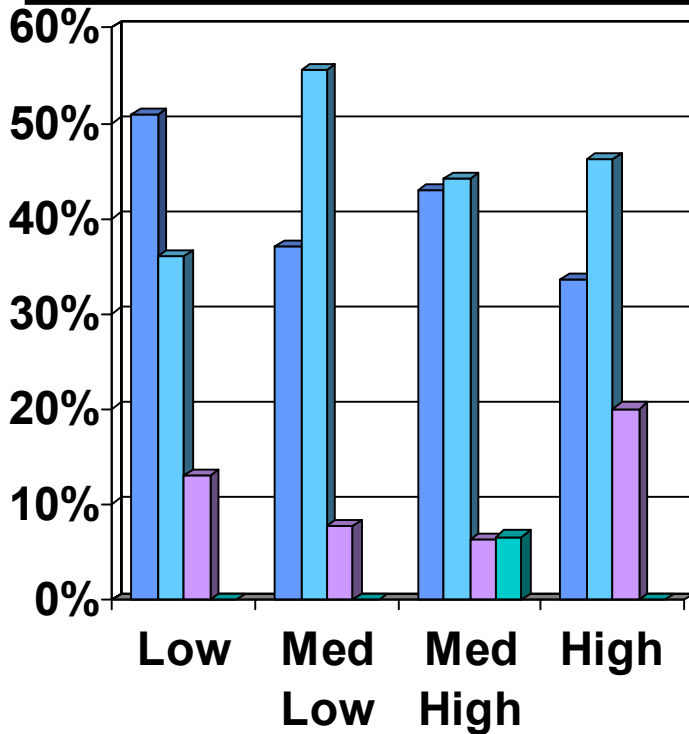
Residential customers rating the materials as less effective are more likely to take no actions to change their energy use during Critical Peak periods, but beyond that, any impact is small



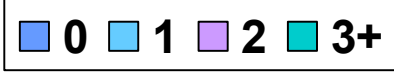
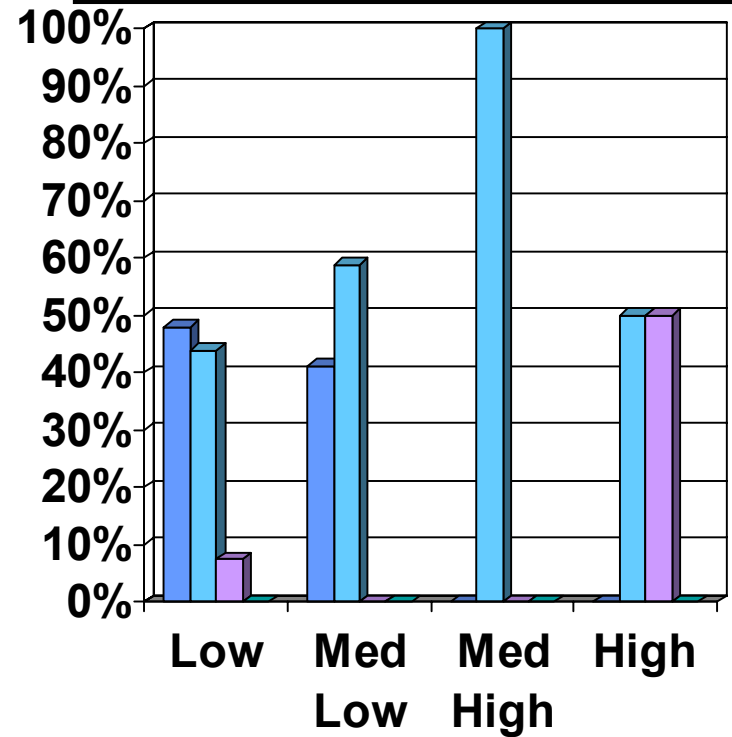
Index score was created from Q8a,Q8d, q8e,Q8h, Q8k, Q18,Q19, Q22a-22e,Q22g-h, Q22j, Q24, Q25: to measure how much of the materials were read and how well they explained the program by the number of changes in electricity use (Q53) & changes made during peak periods (Q68).

Among business customers, perceived effectiveness of the program materials does appear to be linked to changes in energy use both during the program generally, and during Critical Peak periods

Number of Any Changes in Electricity Use by Perceived Effectiveness of Educational Materials (Business)



Number of Critical Peak Changes in Electricity Use by Perceived Effectiveness of Educational Materials (Business)

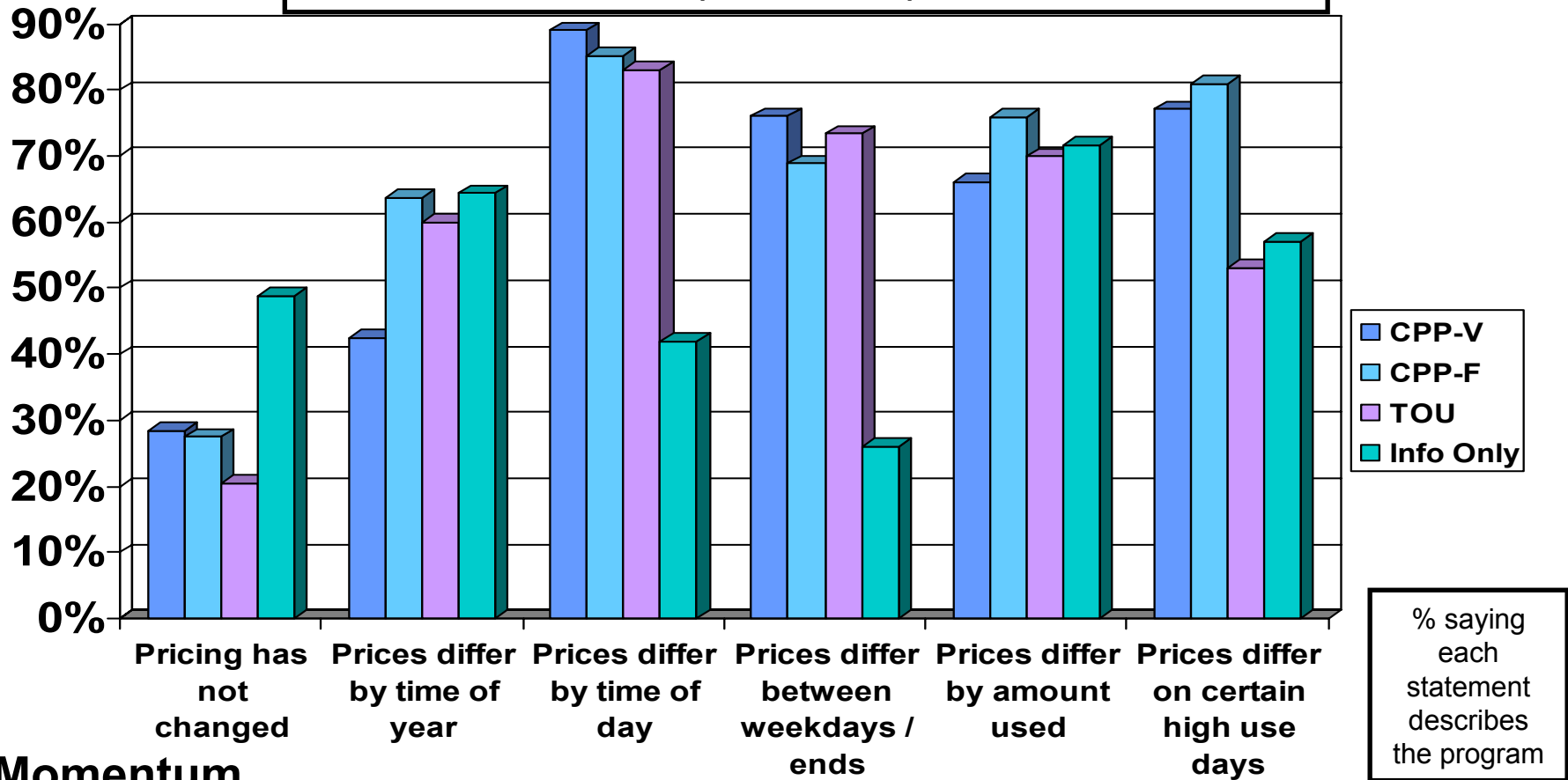


Moving from Reactions to the program Educational Materials to Understanding the Pilot Program and Pricing

- Customers both residential and business understand the Pilot Program and pricing at a high level but misunderstand the specifics of their particular program.
 - Most customers understand that the highest price period is on weekday afternoons or during certain days/hours. However, many misunderstand the specifics of the pricing program.
- The accuracy of understanding that residential customers have of the pilot program varies across conditions.
 - CPP-V customers demonstrate higher rates of accuracy, while Information only customers show lower rates of understanding.
- Business customers do not appear to typically have very accurate understandings of the pilot program pricing.
- The accuracy of understanding that residential and business customers have of the pilot program does appear to be linked to changes in energy use both during the program in general and during the Critical Peak periods.

While many Residential customers know the key features of their new pricing program, there are significant numbers who mis-describe their program specifics

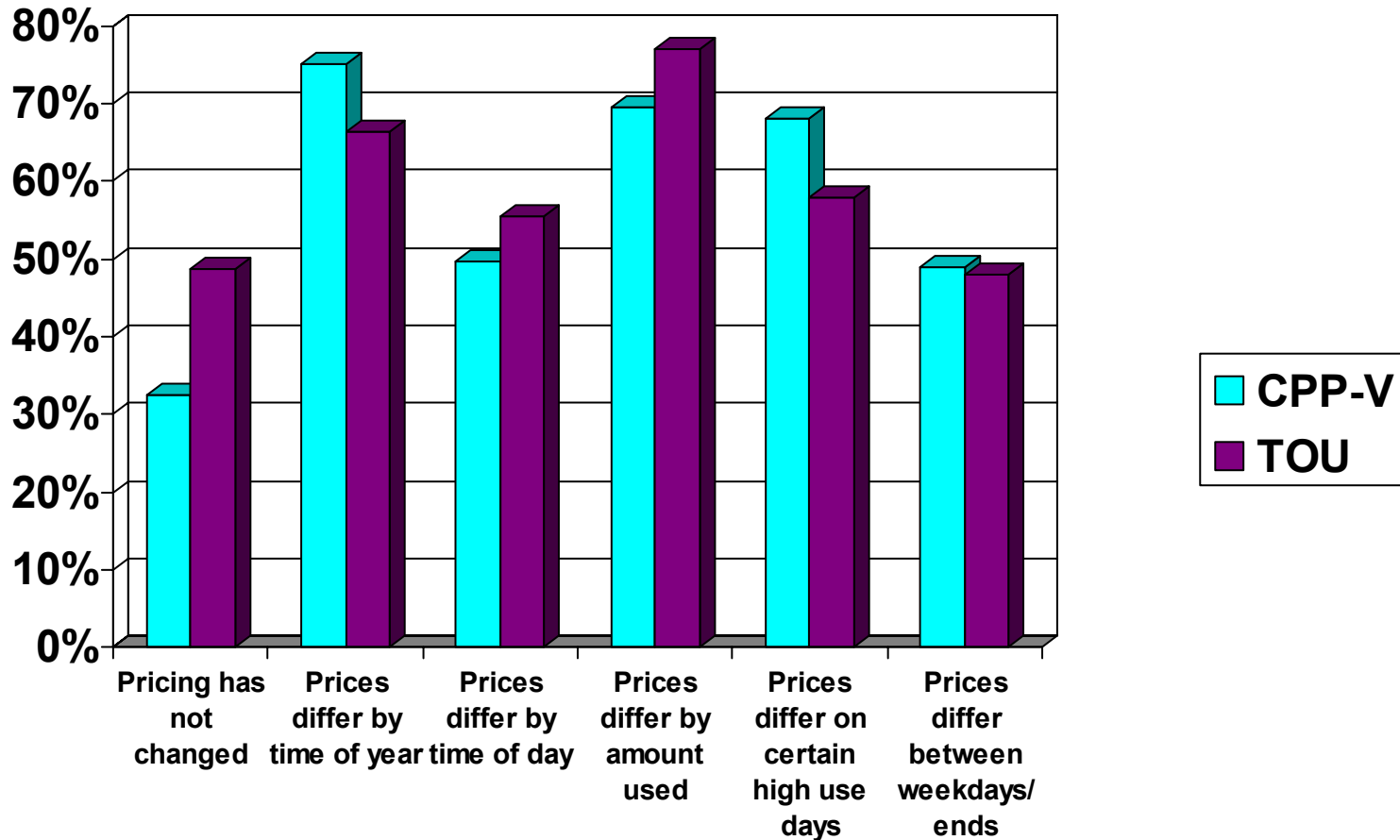
**Perceptions of Pilot Pricing Program Features
(Residential)**



% saying each statement describes the program

Business customers appear to be less accurate than residential customers in describing the specifics of their new pricing program

Perceptions of Pilot Pricing Program Features (Business)

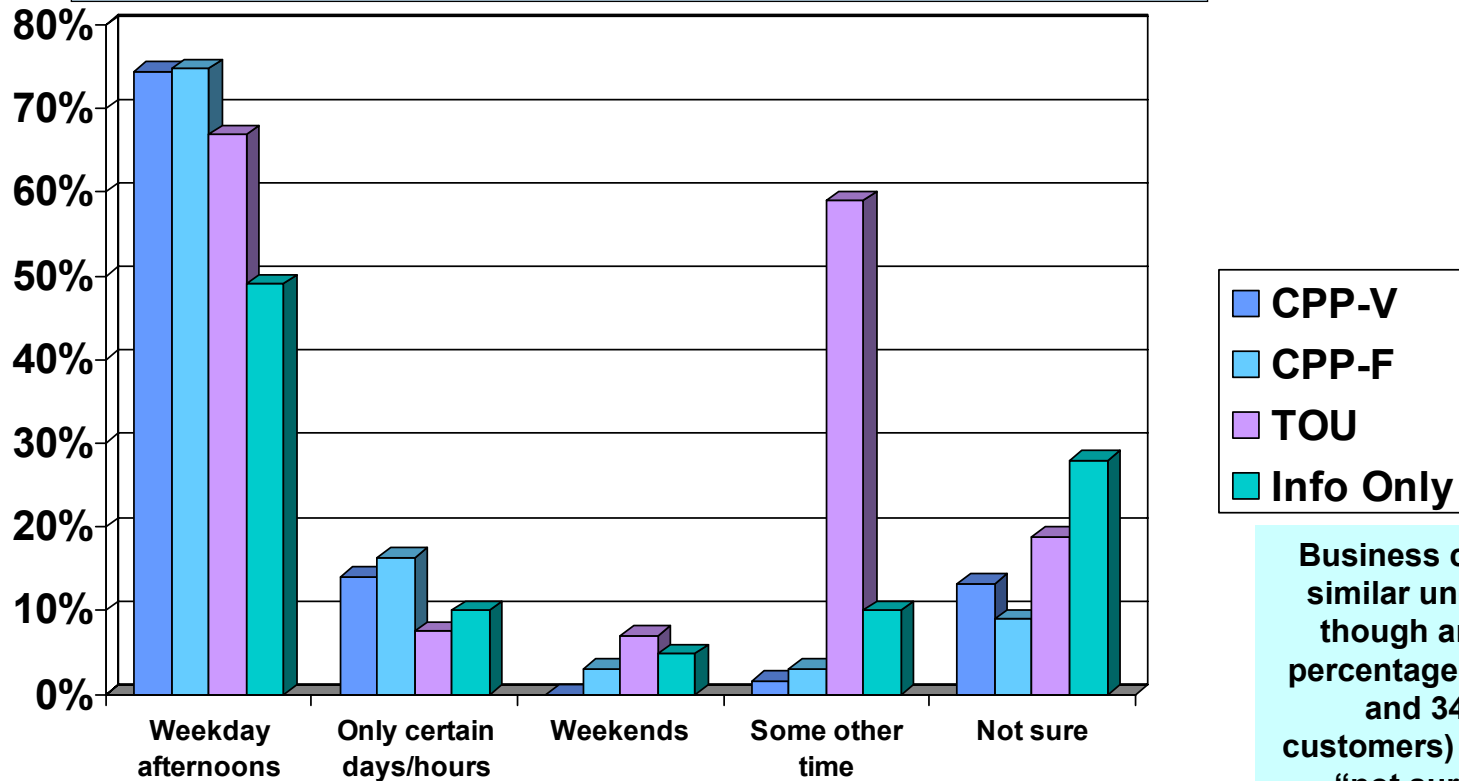


% saying each statement describes the program

Q1A-Q1F: Does the following statement describe your new electricity pilot program?

The majority of customers understand that the highest price period is on weekday afternoons or during certain days/hours

Perceptions of Pilot Pricing Program Highest Price Period
Residential

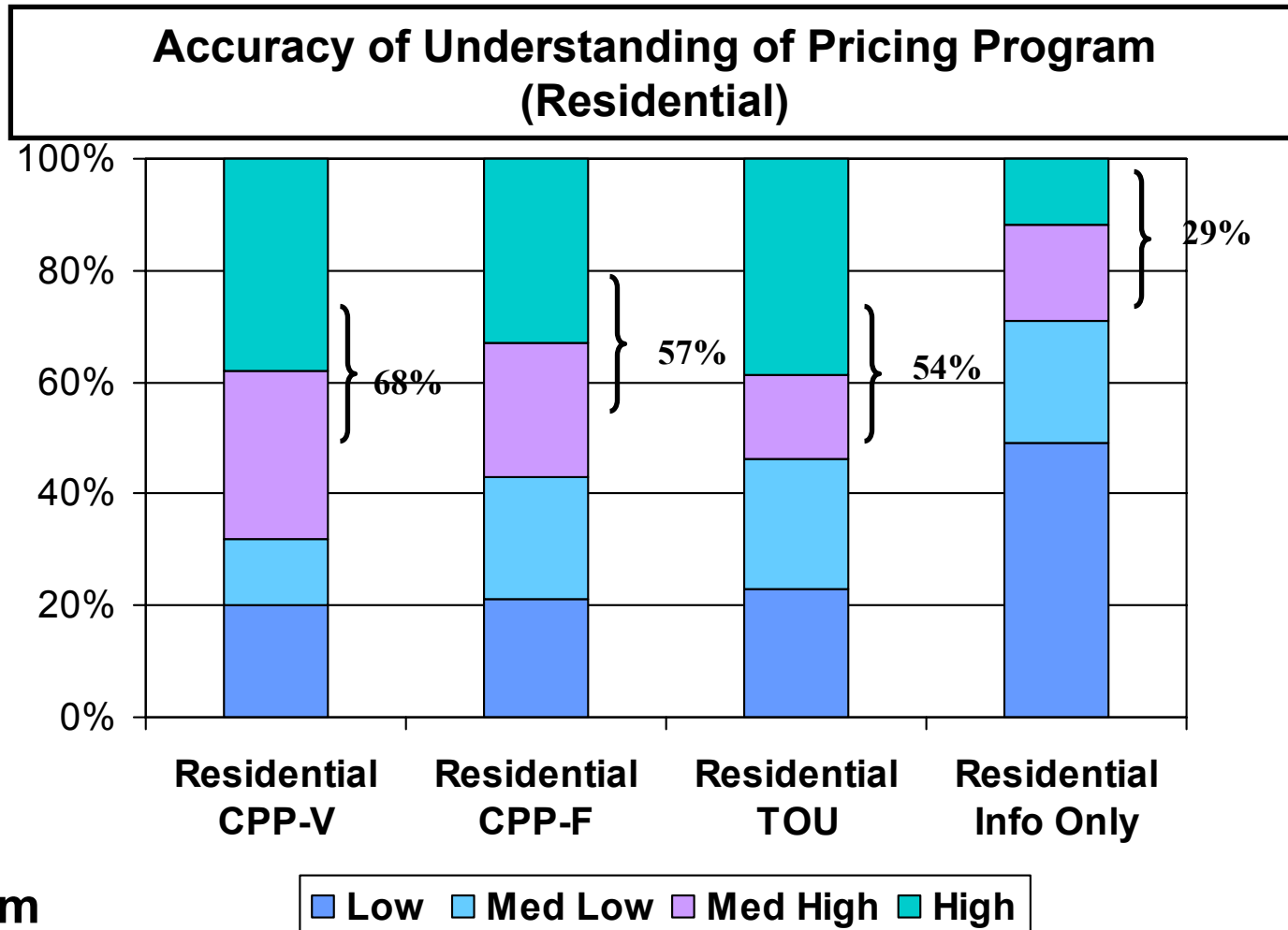


Business customers had similar understandings, though an even larger percentage (28% of CPP-V and 34% of TOU customers) said they were “not sure” when the highest price period occur.

Calculating an index of the accuracy of respondent understanding of their program pricing

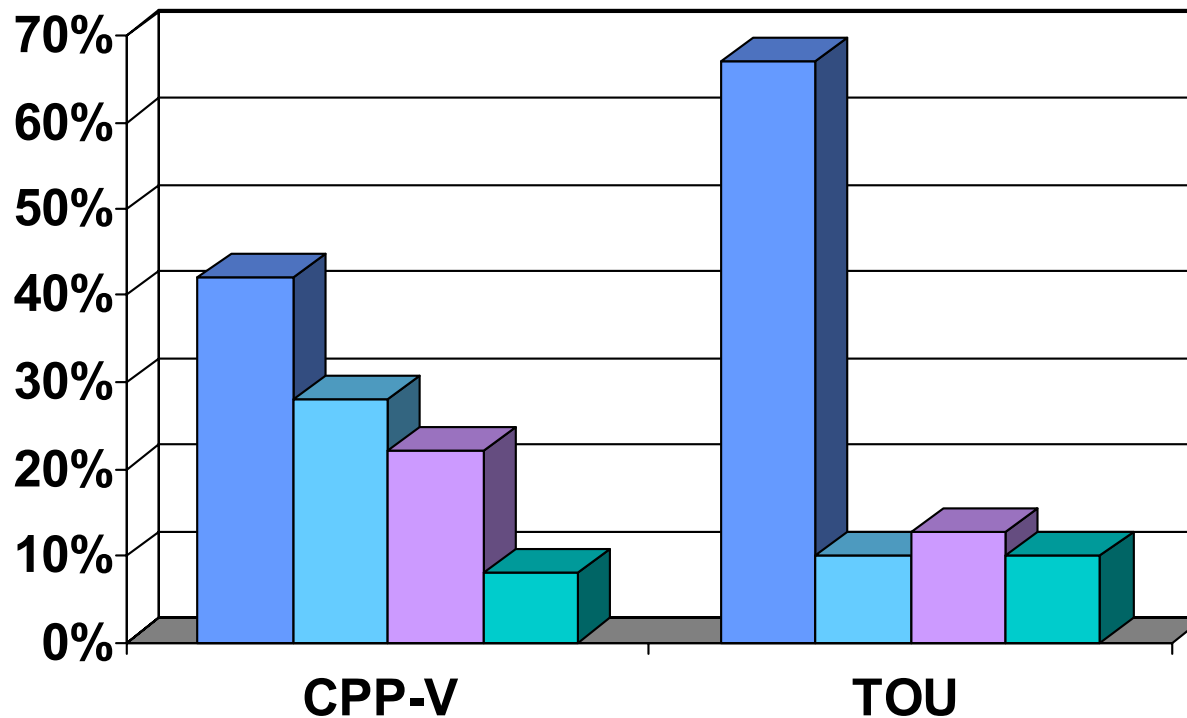
- In order to create a summary measure of the extent to which each respondent had an accurate understanding of their new pricing program, the team created an index measure based on customer descriptions of the electricity pricing they encounter in the pilot program
 - A total of eight different items were used to calculate the index; these items included questions about whether or not their program includes prices that differed by time of day, by days/ weekends, the ratio of on-peak to off-peak prices, etc. The pattern of answers that was specified as correct for each pilot program condition is provided in the appendix
- Respondent scores on the index were then sorted into four categories from “high” to “low”
 - Respondents scoring “high” on the index were correct on six or more of the eight descriptive elements of their pricing program and can be said to have an accurate understanding of their pricing program
 - Respondents scoring “low” on the index were correct on three or fewer of the eight descriptive elements and can be said to have a generally inaccurate understanding of their pricing program
 - Respondents in the middle two categories (Medium High, Medium Low) were accurate on four or five of the program descriptive elements respectively

The accuracy of the understanding that residential customers have of their pricing program varies across conditions, with CPP-V customers demonstrating higher rates of accuracy and information-only customers lower rates of understanding



Neither CPP-V nor TOU customers appear to have a very accurate understanding of pilot program pricing

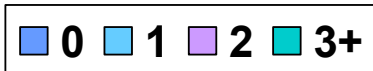
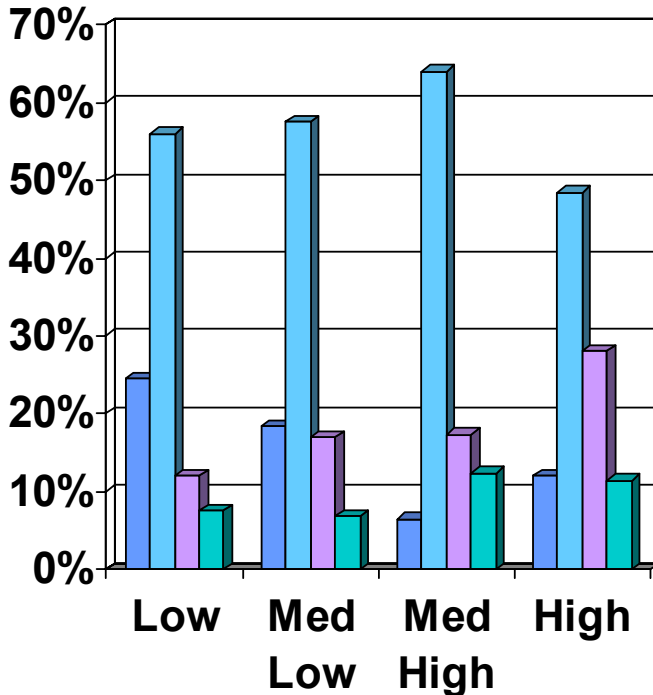
Accuracy of Understanding of Pricing Program (Business)



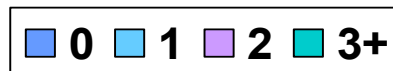
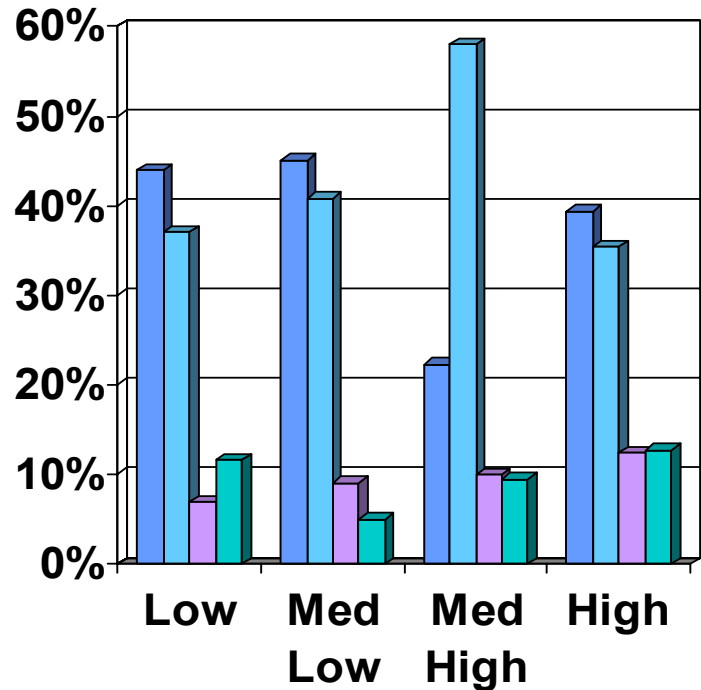
■ Low ■ Med Low ■ Med High ■ High

Residential customers who score higher on the accuracy of understanding program pricing are more likely to report taking any, and more actions to change their energy use during the pilot program and during Critical Peak periods.

Number of Any Changes in Electricity Use by Accuracy of Understanding of Program Pricing (Residential)



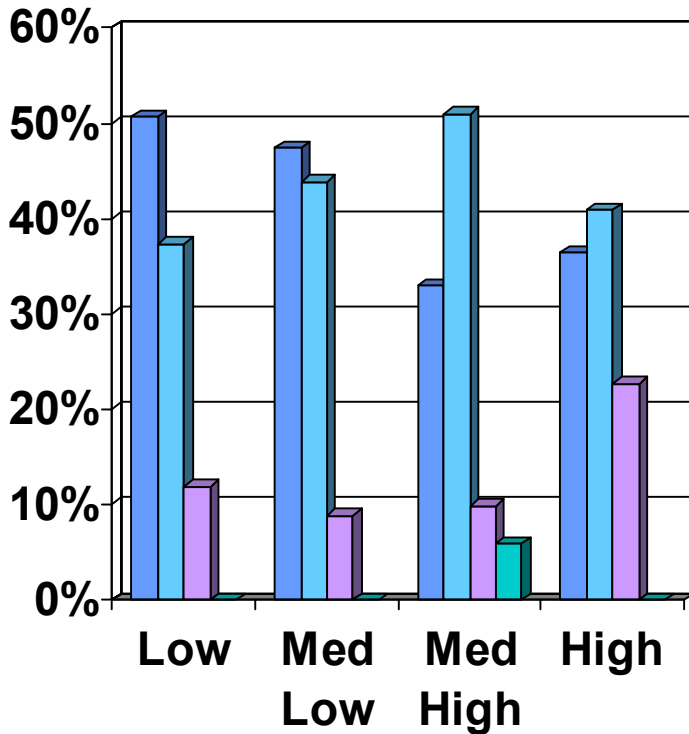
Number of Critical Peak Changes in Electricity Use by Accuracy of Understanding of Program Pricing (Residential)



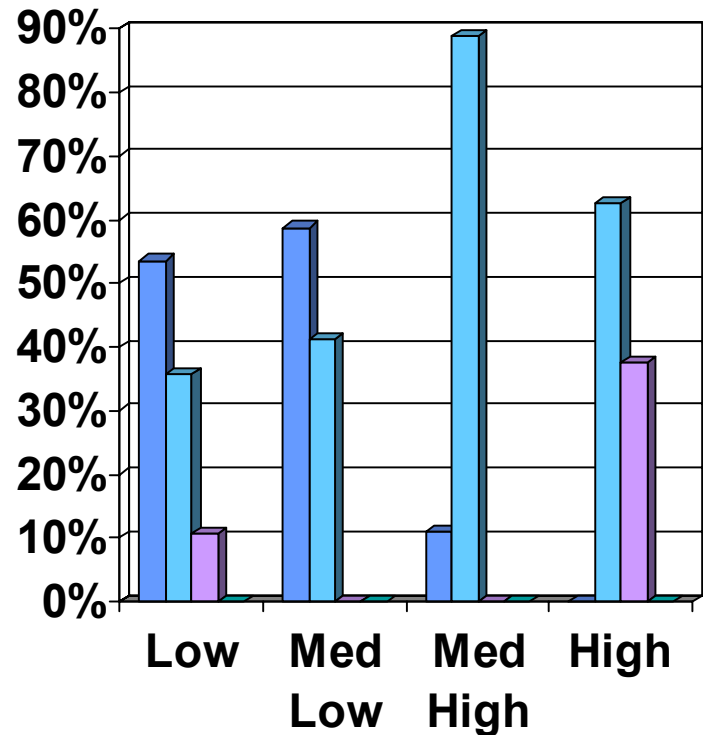
*Excludes Information Only customers

Among business customers, level of accuracy of program pricing also appears to be linked (albeit weakly) to changes in energy use during the program generally, and during Critical Peak periods

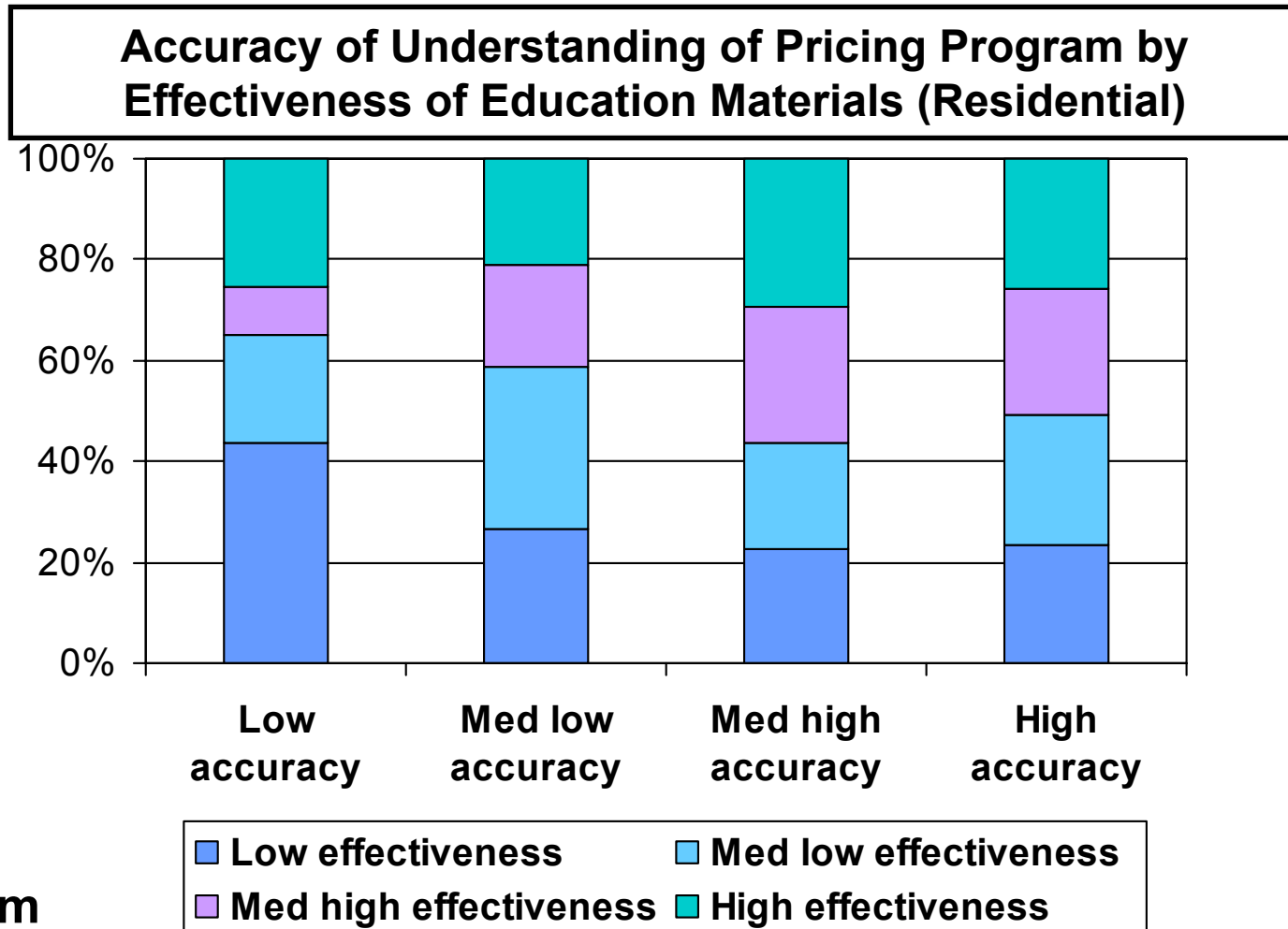
Number of Any Changes in Electricity Use Accuracy of Understanding of Program Pricing (Business)



Number of Critical Peak Changes in Electricity Use Accuracy of Understanding of Program Pricing (Business)

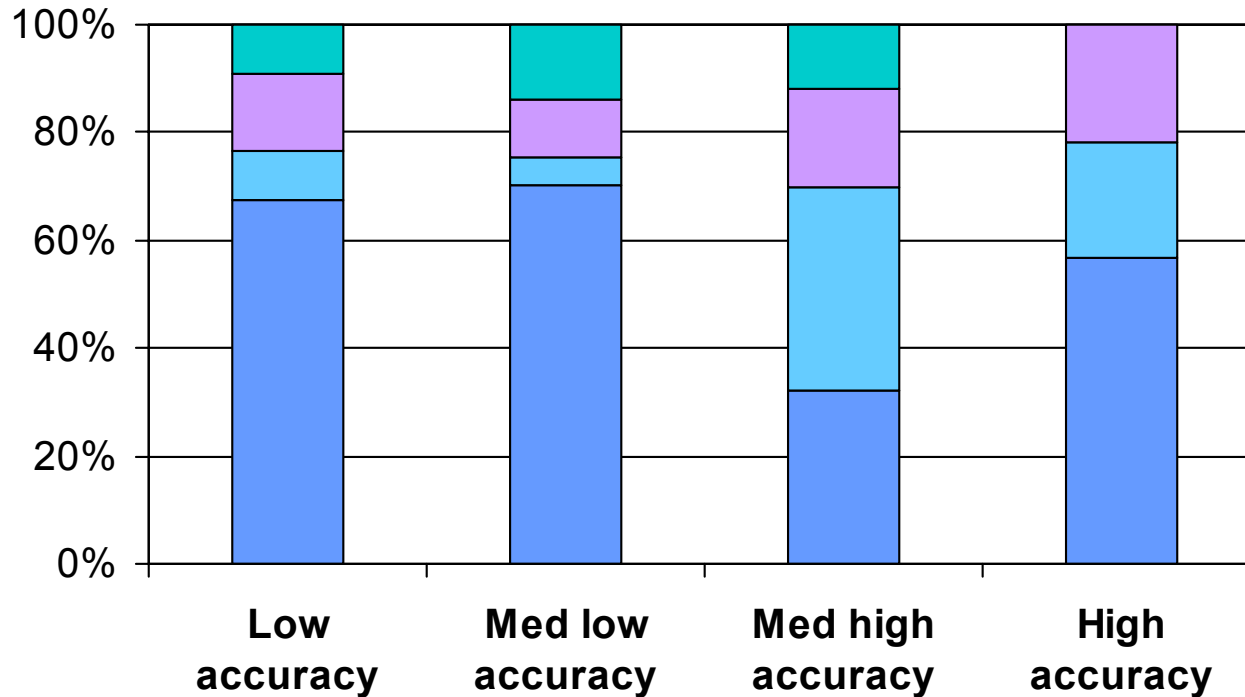


Residential customers who score higher on program accuracy are more likely to report that the educational materials were effective.



Among business customers, the link between accuracy and effectiveness is present but weak, primarily due to the fact that so few business customers have an accurate understanding of program pricing.

Accuracy of Understanding of Pricing Program by Effectiveness of Education Materials (Business)



Section 3: Customer Reaction To Other Critical Program Elements

Customer Reaction to Other Critical Program Elements

- This third section of the report examines customer perceptions of, level of use, and satisfaction with the following program components that were points of customer contact:
 - Web site
 - Telephone customer support
 - Comparison bill
 - New bill format
 - Notification process
 - Meter Installation process
 - CPP-V control device
- Reactions from both residential and C&I program participants are presented, when appropriate.
- The section begins with a summary of these results.

Key Section 3 Takeaways

- A majority of all program participants did not visit the program website
 - Reasons given for not using the website were no interest/no need, no internet access, and no time.
 - The primary reasons for visiting the website were to access usage information and obtain tips for reducing electricity use
 - C&I website users were more likely to find what they needed on the website than were residential visitors to the site.
- Similarly, relatively few customers (12% to 31% across programs) called the Research Support/Energy Information Center with questions.
 - Calls to the Center were highest among residential customers on the more complex CPP-V and CPP-F programs
 - Callers typically gave the Center good performance ratings, but scores were lower for the ability to explain bill changes for CPP-V and Information Only participants.
- A surprisingly low percentage of both residential and business program participants remembered receiving a comparison bill (range: low of 14% for C&I TOU participants to a high of 44% for residential TOU customers)
 - C&I customers found the comparison bill more useful in helping them manage electricity use than did residential customers.
 - Ratings of bill usefulness also varied by program type

Key Section 3 Takeaways

- A large majority of both residential and C&I customers like the new bill design.
 - Ratings for the new design attributes were highest for Usefulness of Peak/Off-peak Information and Easy to Understand
 - While still favorable, ratings were lower for “Helpful in Directing Changes in Energy Use”
 - Those disliking the new bill design find it confusing and too long.
 - Suggestions for improvements focused on making the information more concise.
- Notification for critical/super peak periods is most often given by telephone to both residential and C&I customers.
 - Satisfaction is high with current notification methods used
- Program participants generally view the advance notice they receive for critical/peak periods as adequate
 - Those in the CPP-V program who receive only 4-hours advance notice were least likely to consider their notice adequate
 - The most acceptable timeframe for advance notice was one full day
- Program participants appear to not have good recollection of how many critical/super peak notifications they received during the pilot program, with responses ranging from none to twenty-five.

Key Section 3 Takeaways

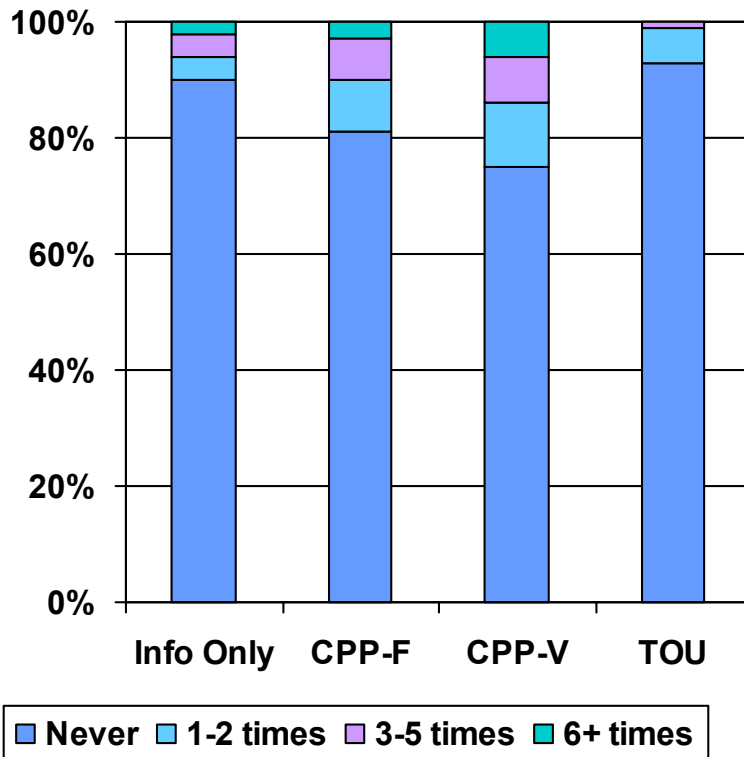
- Perceptions of the meter installation process differed between residential and C&I customers
 - A large majority of residential customers reported having new meters installed in their households and satisfaction with the installation process was very high
 - Only one-third of the C&I CPP-V customers and less than 20% of the C&I TOU customers reported having a new meter installed.
 - About two-thirds of all program participants (residential and C:&I) had not checked their new electricity meter since its installation.
 - Less than 10% of the households and none of the businesses reported having problems with the new meters..
- Residential CPP-V customers most often identify a programmable thermostat as their automated control device.
 - One-third of the respondents in this program group didn't know if or what device had been installed
 - When asked if they were satisfied with how the control device automatically adjusted electricity usage during critical/super peak periods, a majority were highly satisfied.

Use of the program website was uncommon

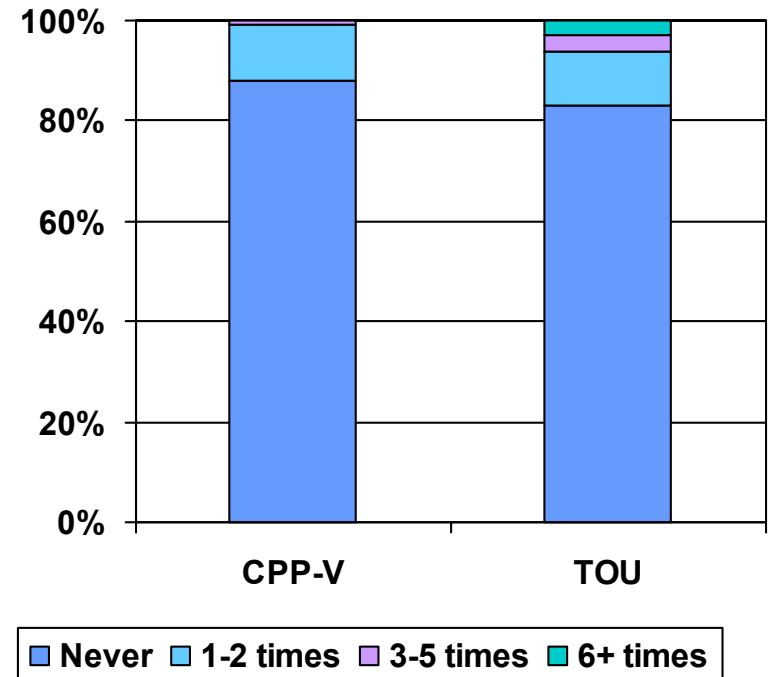
- The survey examined use of the program website and how well it meets users' needs
 - Results indicate that a majority of both residential and C&I participants never visited the website
 - The most common reasons for accessing the site were to access electricity usage information and find tips for reducing use.
 - Business users were more likely to find everything they needed on the site
 - Ratings on the overall value of the website were most often in the “moderate” range for C&I users and in the “low” range for residential users.
 - Users would like the site to be easier to use and have more information on usage and savings/rebates.
- The primary reasons given for not using the website varied by type of respondent.
 - Residential customers did not go to the website because they “had no interest/had enough information”
 - C&I customers did not visit the website primarily because they “had no time.”

A majority of program participants never used the program website; CPP-V residential customers were most likely to visit

Website Usage - Residential



Website Usage - Commercial/Industrial



Q40: Have you visited the utility's website to learn more information about the program?/Q41: About how many times have you visited that website since signing up?

The website provided only low to moderate value to both residential and business visitors

Among Those Who Accessed the Program Website . . .

<u>What were you looking for?</u>			<u>Were you able to find what you needed?</u>		
	<u>Res</u>	<u>C&I</u>		<u>Res</u>	<u>C&I</u>
Access usage info	49%	27%	Everything you needed	32%	62%
Tips for reducing use	26%	38%	Most of what you needed	22%	9%
<u>What else would you like to see?</u>			Only some	16%	0%
	<u>Res</u>	<u>C&I</u>	Nothing you needed	30%	29%
More info on usage	16%	0%	<u>How valuable was the website?</u>		
Be easier to use	14%	15%		<u>Res</u>	<u>C&I</u>
More on savings/rebates	11%	24%	Low (1-6)	44%	38%
Don't know	24%	22%	Moderate (7-8)	28%	55%
Nothing	27%	33%	High (9-10)	28%	7%

Among Those Who Did NOT Access the Website .

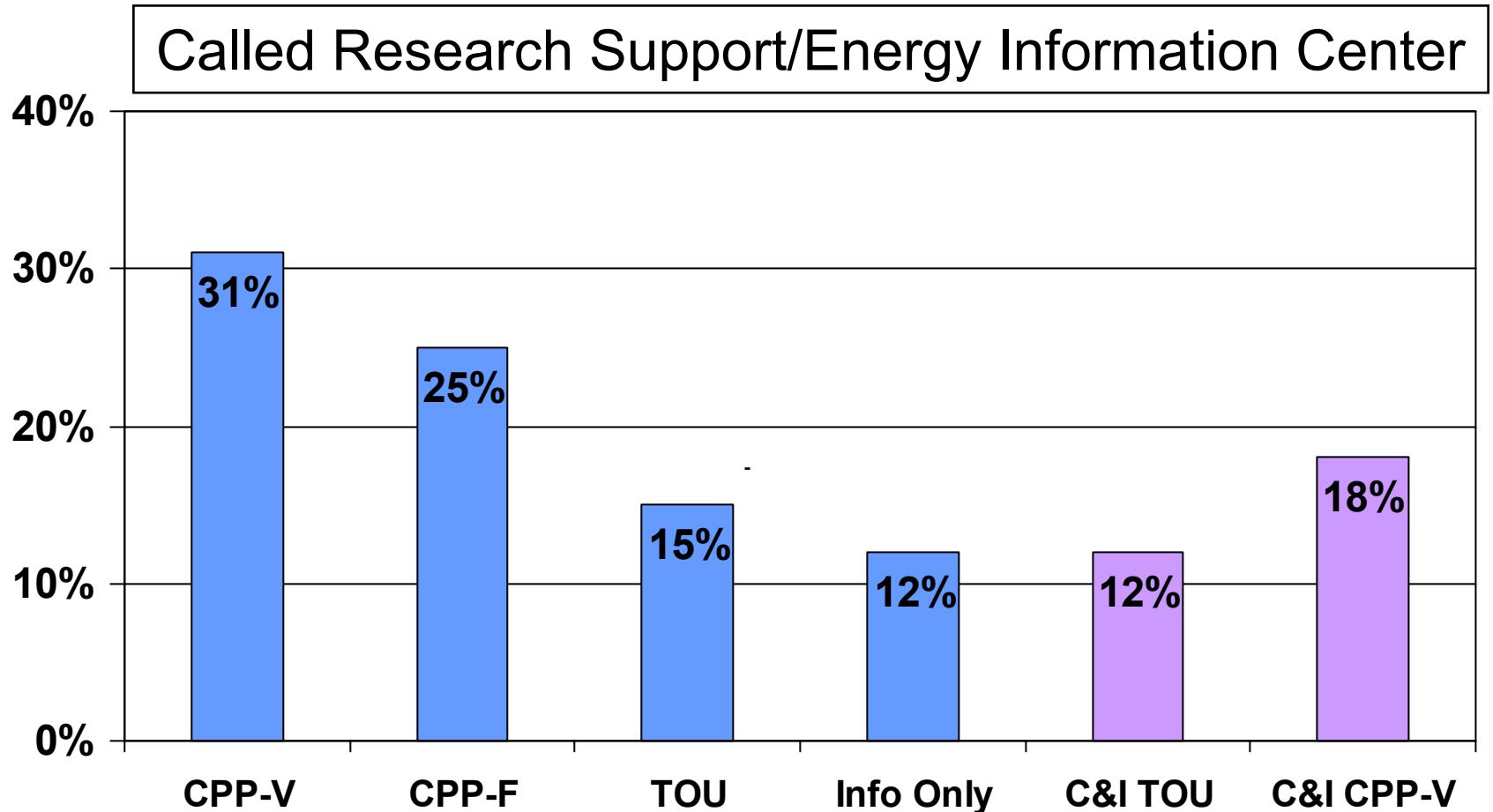
<u>Why not?</u>		
	<u>Res</u>	<u>C&I</u>
No interest/had enough info	43%	27%
No internet	32%	13%
No time	18%	55%

Q42: What kinds of things were you looking for on the website?/Q43: Were you able to find what you needed. Would you say you found?/Q44: On a scale from "1" to "10" where "1" means "of no value" and "10" means "very valuable," how would you rate the utility's website?/Q45: What else would you like to see on the utility's website?/Q46: Why didn't you choose to visit the utility's website for pilot program information?

Use of the Research Support/Energy Information Call Center

- As with the website, relatively few program respondents felt compelled to call the Research Support/Energy Information Center for assistance.
 - Residential customers on the CPP-V were twice as likely as TOU or Information only residential customers to call the Center.
 - Overall, both CPP-V and CPP-F customers called the Center most often
 - In general, residential customers were more likely to call the Center than were C&I customers.
 - As with residential respondents, C&I CPP-V customers were more likely to call the Center than were C&I TOU customers.
- Reasons for calling the Center varied by condition
 - CPP-V customers called the center most often with thermostat-related questions
 - CPP-F and Information Only customers called most often with bill-related questions
 - TOU residential customers called to follow up on poor customer service and
 - TOU commercial/industrial customers placed calls for a variety of reasons.
- CPP-V and Information Only callers were less likely to give top ratings for the Center's ability to answer questions but callers from all residential programs gave strong ratings for overall experience, suggesting the Center is responsive to their needs
- Similarly, C&I CPP-V callers gave the Center lower performance ratings than did C&I TOU callers. This is likely a function of the greater difficulty in explaining the more complex CPP-V program.

Use of the Research Support/Energy Information Center varied by condition; it was most used by residential CPP customers



Q13: Since enrolling in the pilot program have you ever called the research support center or energy information center? OR Q15. Other than when you enrolled in the program over the phone, have you ever called the research support center or energy information center?

Reasons for calling the Research Support/Energy Information Center focused on resolving problems (billing/customer service) and dealing with questions about peak hours, the website, and the incentive

Residential Customer Reasons for Calling:	Total Residential	CPP-V	CPP-F	TOU	Info Only
Bill Questions	23%	19%	26%	7%	33%
Follow-up on poor customer service	17%	4%	20%	31%	0%
Questions about peak hours	16%	13%	21%	7%	0%
See when incentive would arrive	16%	10%	17%	17%	18%
Website questions	9%	18%	6%	7%	18%
Update account info	7%	0%	6%	14%	15%
Maintenance/repair issues	6%	8%	4%	8%	15%
Thermostat/times questions	6%	19%	2%	7%	0%
Other/non-specific	8%	10%	8%	9%	0%

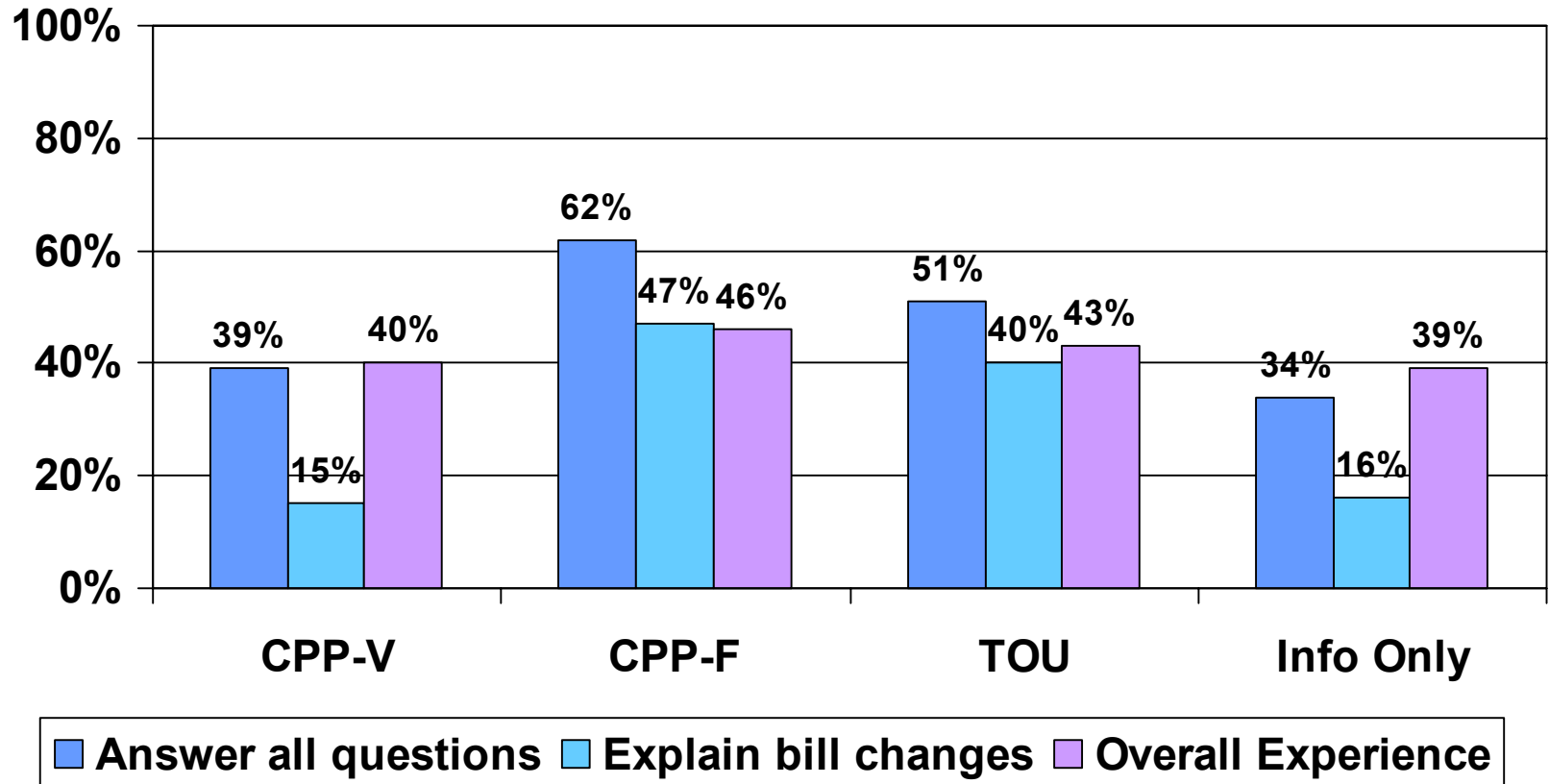
C&I CPP-V customers called the Research Support/Energy Information Center to ask thermostat-related questions while C&I TOU customers called for a wider variety of reasons

C&I: Purpose of the Call

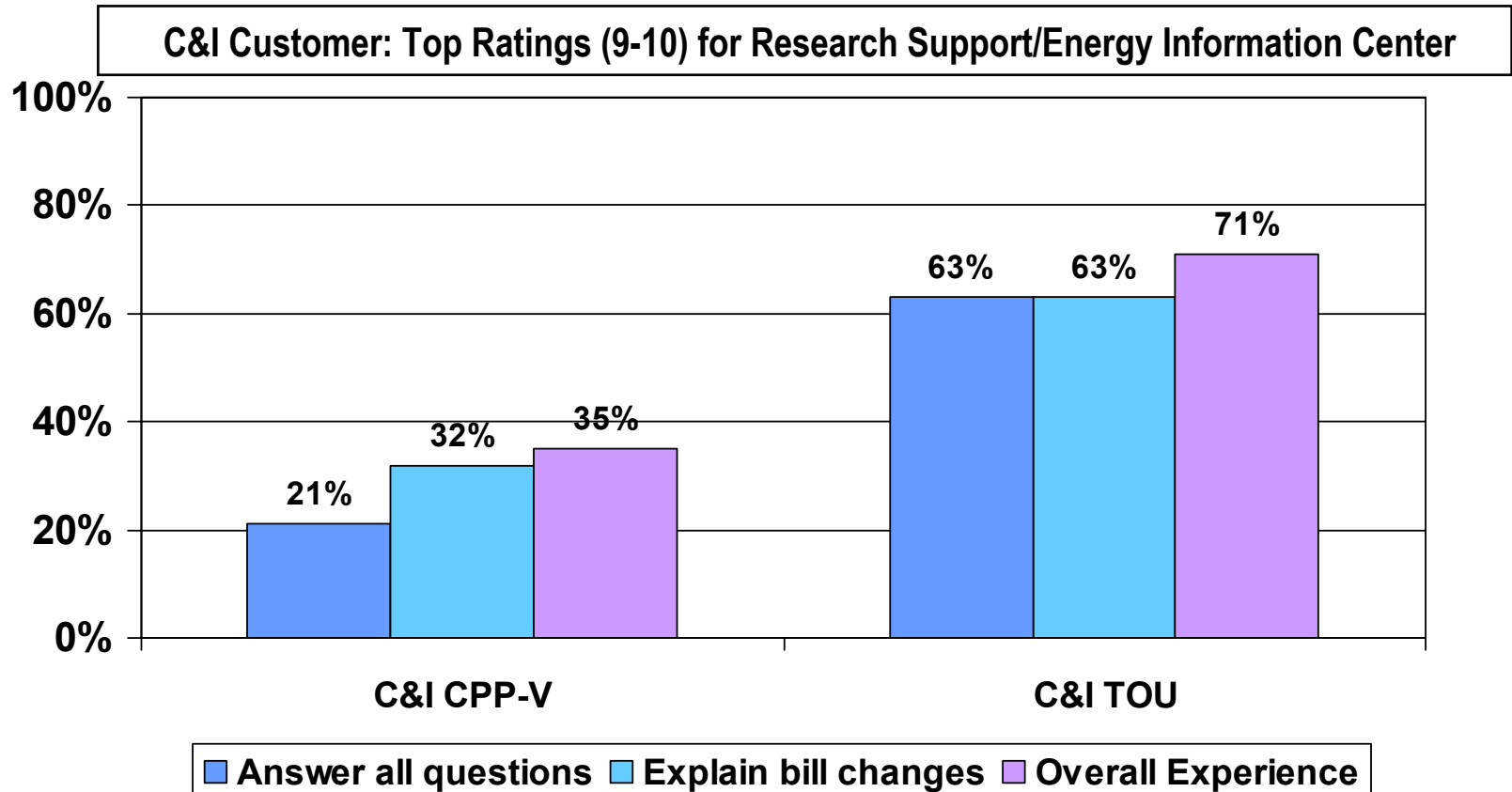
Commercial/Industrial Customers: Reasons	Total C&I	C&I CPP-V	C&I TOU
Thermostat/times questions	36%	42%	22%
Maintenance/repair issues	16%	14%	22%
Update account information	14%	8%	29%
Other questions/non-specific	20%	17%	29%
See when incentive would arrive	13%	19%	0%
Bill Questions	9%	0%	29%
Questions about peak hours	6%	8%	0%

Top box ratings varied for residential customers by condition for specific Call Center performance ratings, but not for ratings of “Overall Experience”

Residential Customer: Top Ratings (9-10) for Research Support/Energy Information Center



C&I TOU customers were at least twice as likely to give top scores for the Call Center compared to those given by CPP-V customers



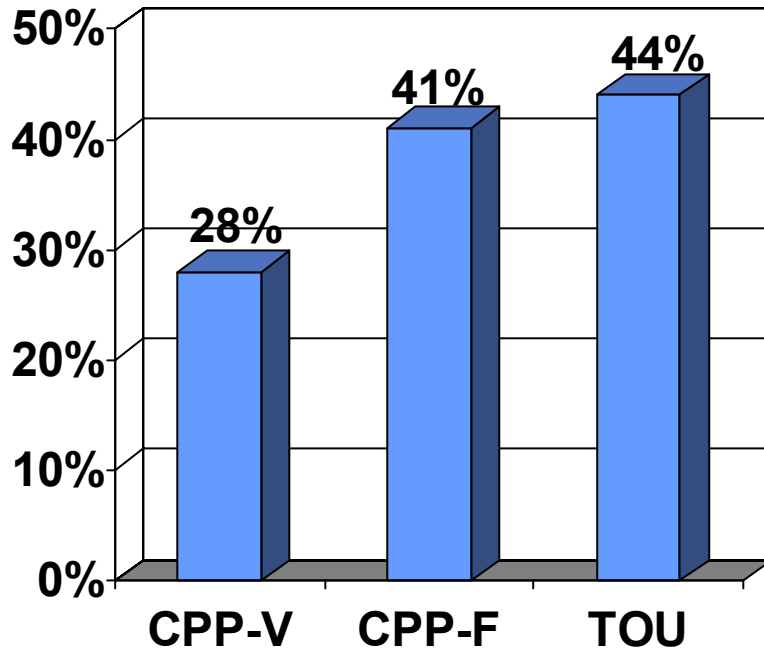
Q17a-c: How would you rate the Center's performance on the following specific items?

Evaluations of the Comparison Bill and New Bill Design

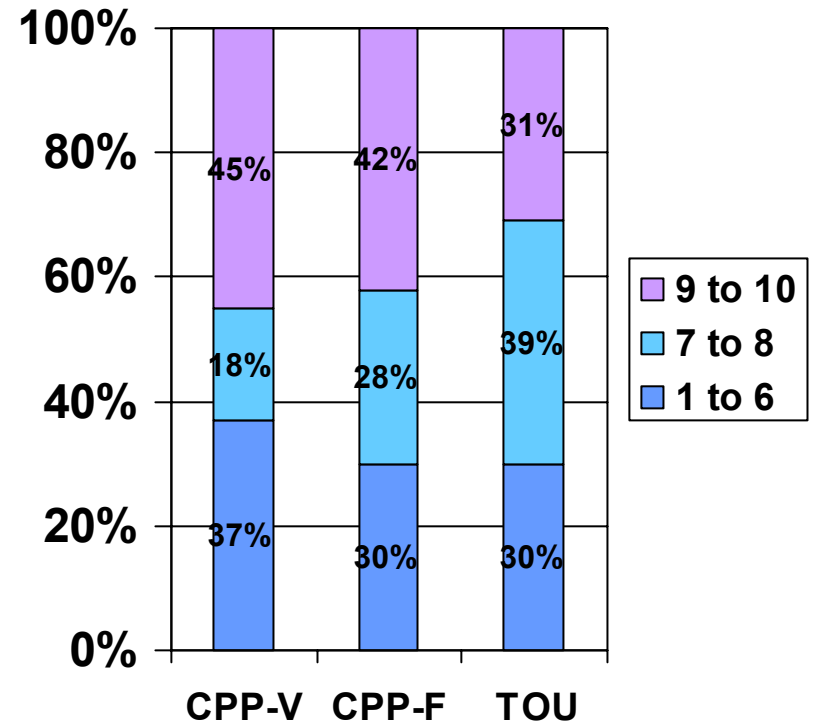
- A majority of both residential and C&I participants did not recall receiving a comparison bill.
- Of the residential customers who recalled receiving a comparison bill, approximately 40% gave it high ratings in helping them manage their electricity use while one-third gave it relatively low ratings on this dimension.
 - Residential CPP-V customers found the comparison bill more useful than did TOU customers
- Fewer than 20% of all C&I customers recalled receiving a comparison bill, but those who did found it useful in managing their electricity use.
 - C&I TOU customers who read the comparison bill found it especially useful
- Response to the new bill design is favorable for both residential and C&I customers
 - It is viewed as easy to understand and provides useful peak/off peak information
 - Suggestions for improvements are to make the information provided more concise

Surprisingly few residential customers reported receiving a comparison bill; of those who recall such a bill, TOU participants were less likely to give high ratings

Percent Receiving Comparison Bill



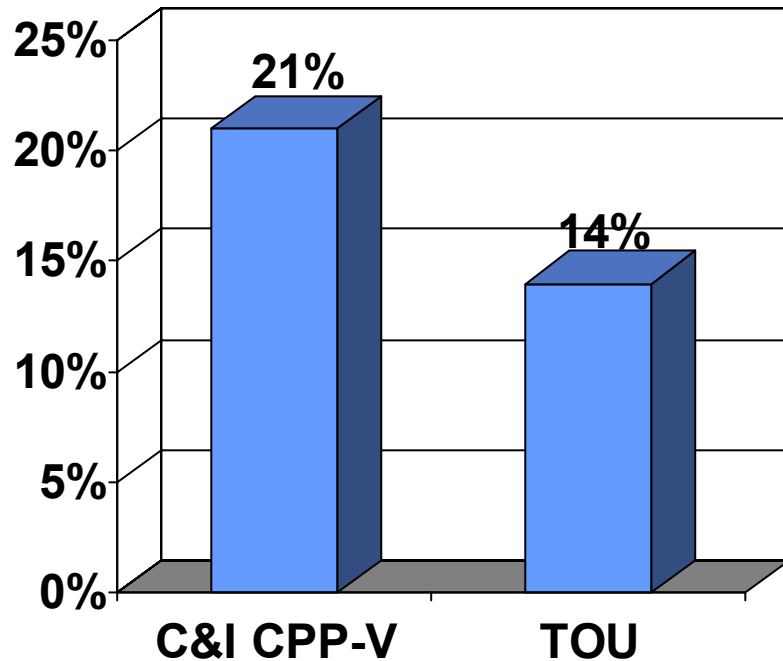
Usefulness of Comparison Bill
Scale: 1=not at all useful to 10=very useful



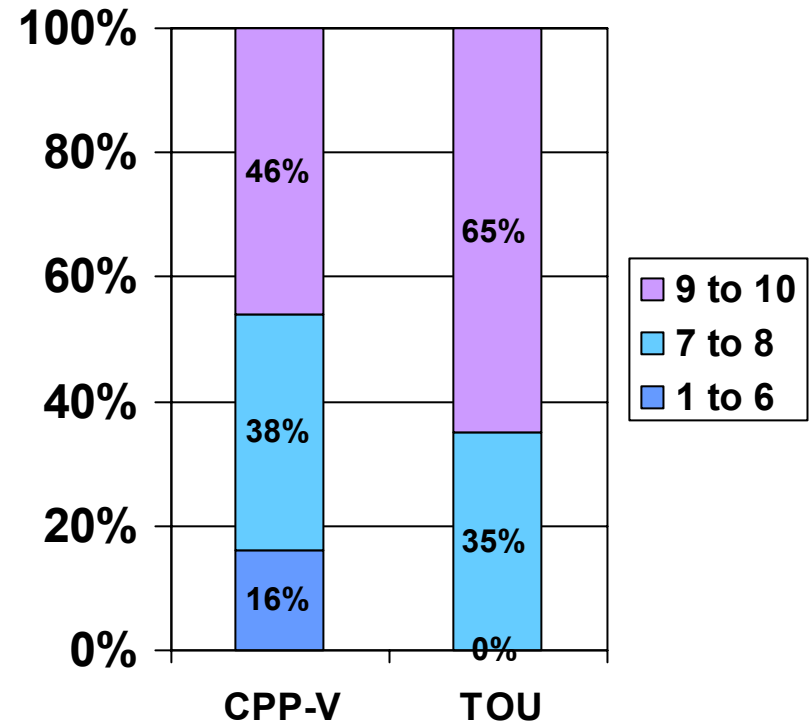
Q47. Have you received a comparison bill that showed what your monthly electricity costs would have been under your old electricity pricing program along with your electricity costs under the new program? (if yes)
 Q48. How would you rate the usefulness of the comparison bill in helping you to manage your electricity use?

Fewer than one-fourth of C&I CPP-V and TOU customers say they received a comparison bill, but of those who had seen one, say it was useful, especially among TOU participants

Percent Receiving Comparison Bill



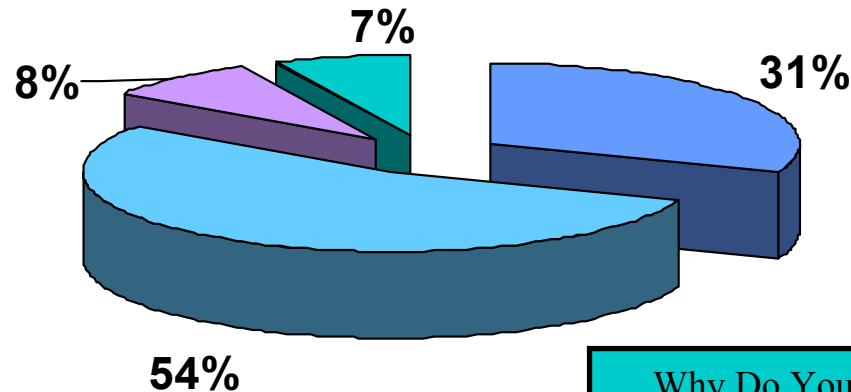
Usefulness of Comparison Bill
Scale: 1=not at all useful to 10=very useful



Q47. Have you received a comparison bill that showed what your monthly electricity costs would have been under your old electricity pricing program along with your electricity costs under the new program? (if yes)
 Q48. How would you rate the usefulness of the comparison bill in helping you to manage your electricity use?

Reaction to the new bill design is positive, if not always enthusiastic among residential customers

Residential Customer Reactions to The New Bill Design



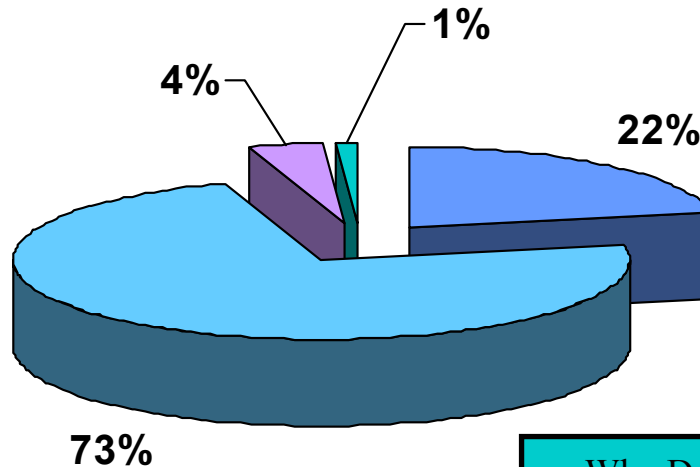
Why Do You Dislike the Design?	
Confusing	93%
Too long	83%

Why Do You Like the Design?	
Easy to read	24%
Good information	9%
Shows usage	7%

Q83: Next, Please think about the format and content of the new billing statements you receive under this plan. Do you:/Q84: Why do you feel that way?

Commercial/industrial participants also liked the new bill design

C&I Reactions to The New Bill Design



Why Do You Dislike the Design?

- Confusing 25%
- Too long 17%

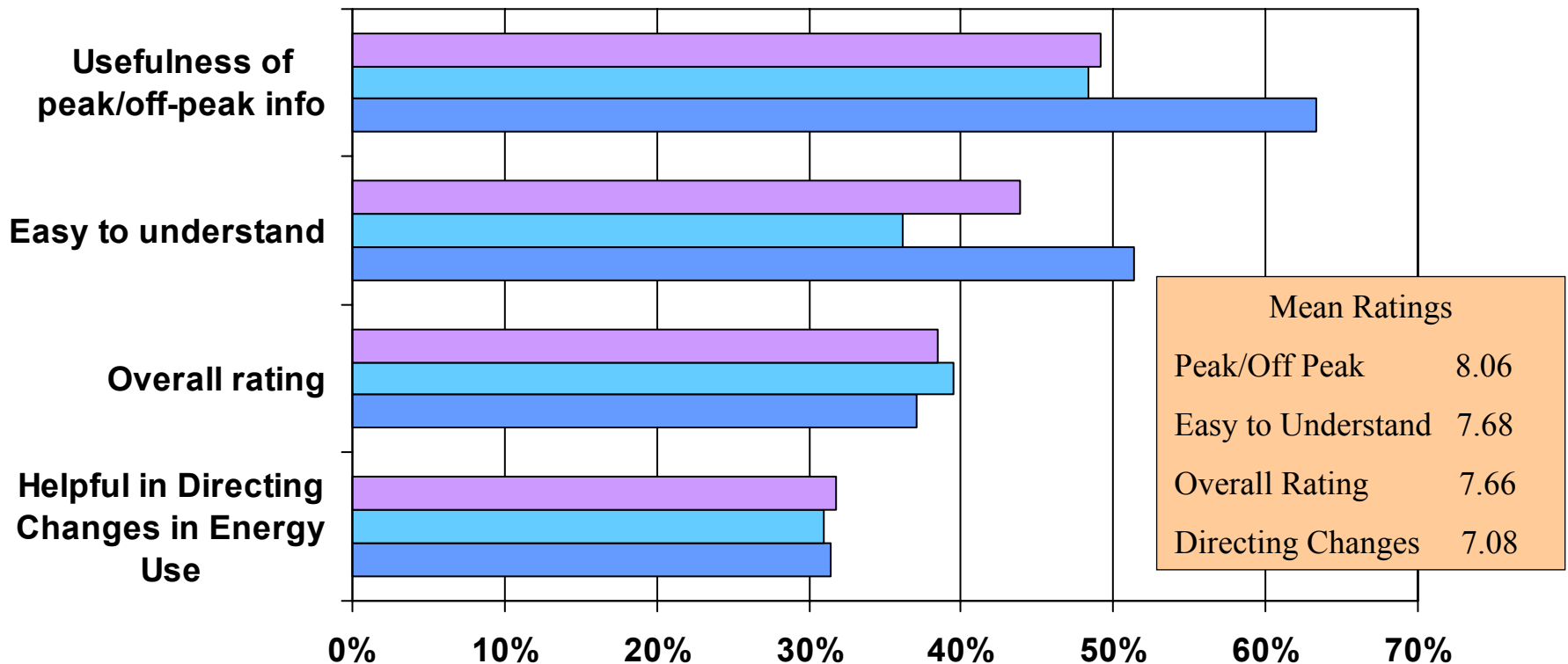
Why Do You Like the Design?

- Clear/Easy to Read 31%
- It's fine/just a bill 25%
- Good Information 7%

Q83: Next, Please think about the format and content of the new billing statements you receive under this plan. Do you:/Q84: Why do you feel that way?

CPP-V households gave more top ratings for “usefulness of peak/off-peak information” and “easy to understand,” while other ratings did not vary by condition

Residential Customer Top Box Ratings of New Bill Design Condition

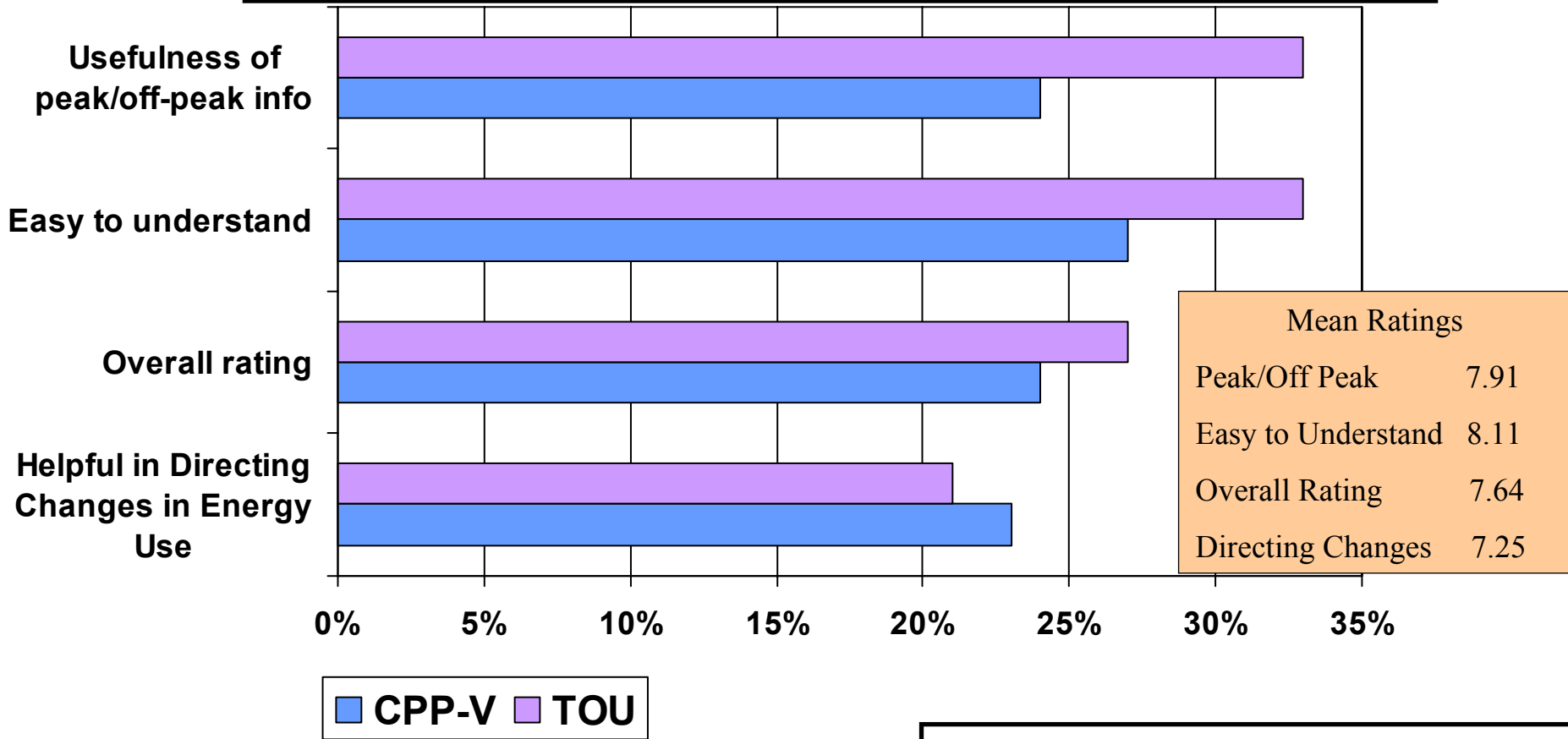


■ CPP-V ■ CPP-F ■ TOU

Q85A/Q85D: How would you rate the new billing format on the following factors: 1=Poor/10=Excellent

Overall, C&I customers gave fewer top scores, and unlike residential, TOU ratings were generally higher than CPP-V ratings

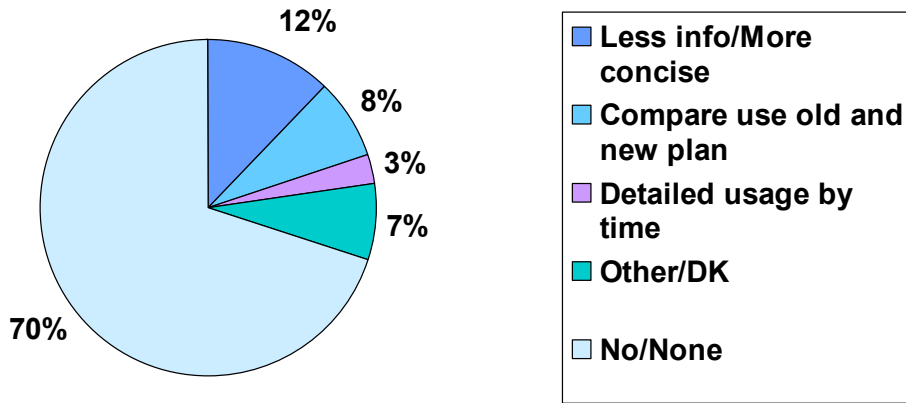
C&I Customer Top Box Ratings of New Bill Design Condition



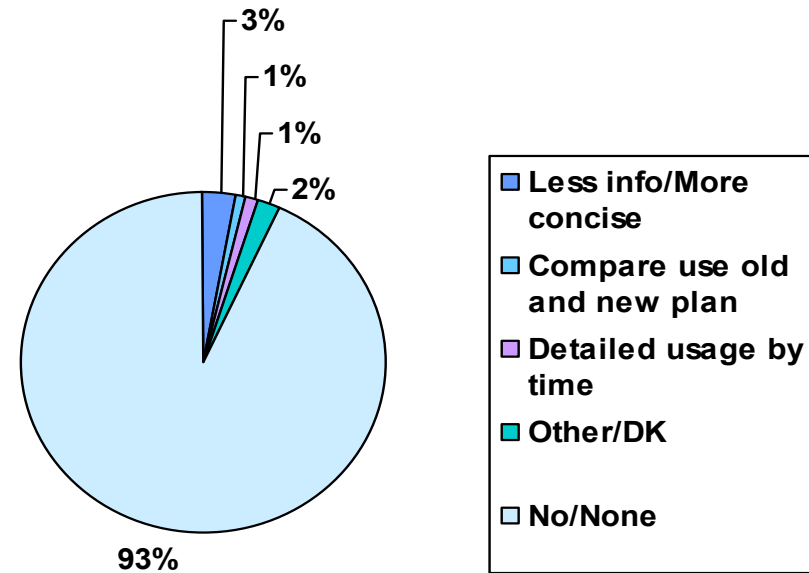
Most customers had no suggestions for improving the bill design; the most common suggestion was to provide less, more concise information

Suggestions for Improving New Bill Design

Residential



Commercial/Industrial



Q86: Do you have any suggestions for improving the bill content and/or format?

Notification and Perceptions of Super/Critical Peak Periods

- For both residential and C&I customers, telephone is the dominant method of providing notification for super/critical peak periods.
- Satisfaction with this method is high across all both customer types and all programs
- Participant perceptions of the adequacy of advance notice for super/critical peak periods is lower for those in the CPP-V program.
 - This could be expected due to the advance notice (4 hours) for this program
 - Participants desire a full day notice before a super/critical peak period
- Most participants did not know exactly how many super/critical peak periods had occurred during the pilot period.
 - Responses ranged from none to twenty-five super/critical peak periods

Telephone is main method for notifying residential customers of super/critical peak periods and a large majority are satisfied with their current method of notification

Residential: Satisfaction with Notification Methods

	% Using Notice Method	% Satisfied With Method	Preferred method if unsatisfied
By telephone	92%	93%	E-mail
By e-mail	20%	97%	Other
By cell phone	5%	92%	E-mail
By mail	3%	67%	Telephone, e-mail
Other/Pager	2%	100%	--

Q60: How were you notified about these Super/Critical Peak Periods?/Q61: Are you satisfied with this notification method or would you prefer some other form of notification?/Q62: What form of notification would you prefer?

Telephone is also the main method for notifying C&I customers of super/critical peak periods. All participants, except those receiving notice by mail, are satisfied with their chosen medium

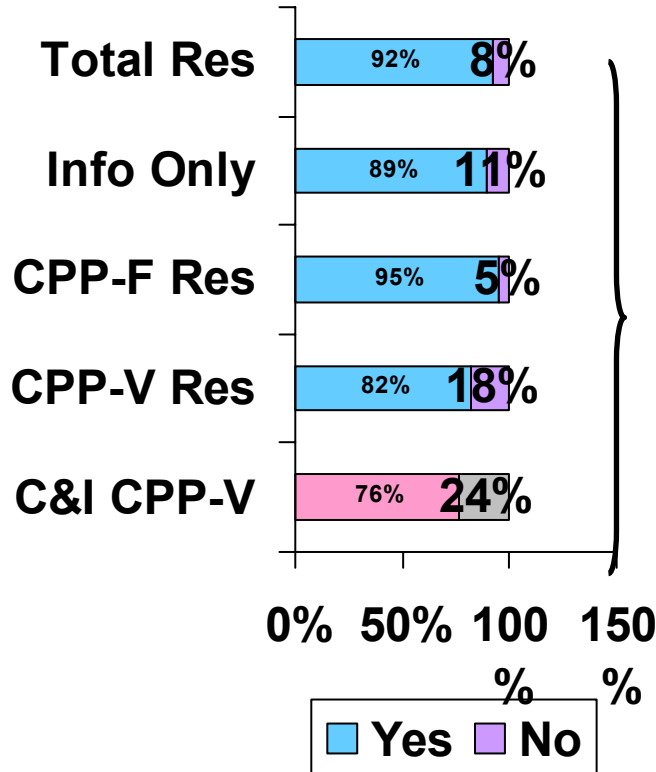
C&I: Satisfaction with Notification Methods

	% Using Notice Method	% Satisfied With Method	Preferred method if unsatisfied
By telephone	63%	100%	
By e-mail	20%	100%	
By cell phone	4%	100%	
By mail	19%	75%	Telephone
Fax/Pager	8%	100%	

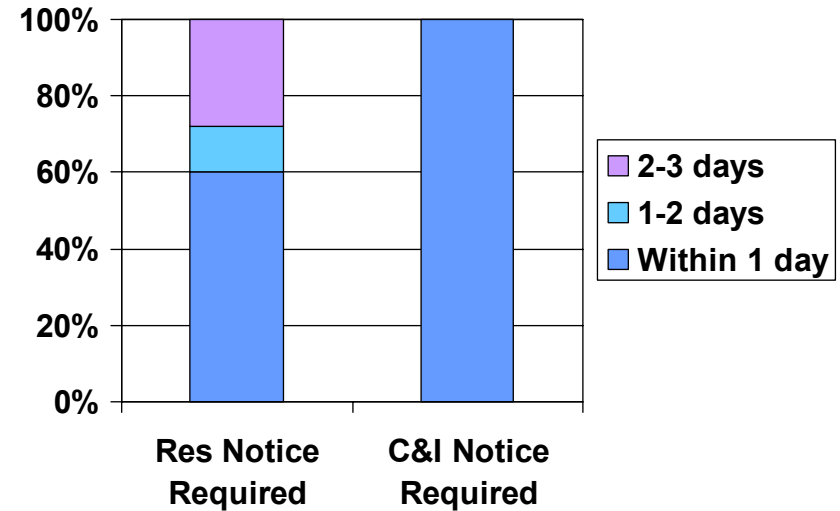
Q60: How were you notified about these Super/Critical Peak Periods?/Q61: Are you satisfied with this notification method or would you prefer some other form of notification?/Q62: What form of notification would you prefer?

Most customers considered their notice of super/critical peak periods adequate. CPP-V customers who received only 4-hours notice were less satisfied. For most, one day notice was required

Adequacy of Advance Notice



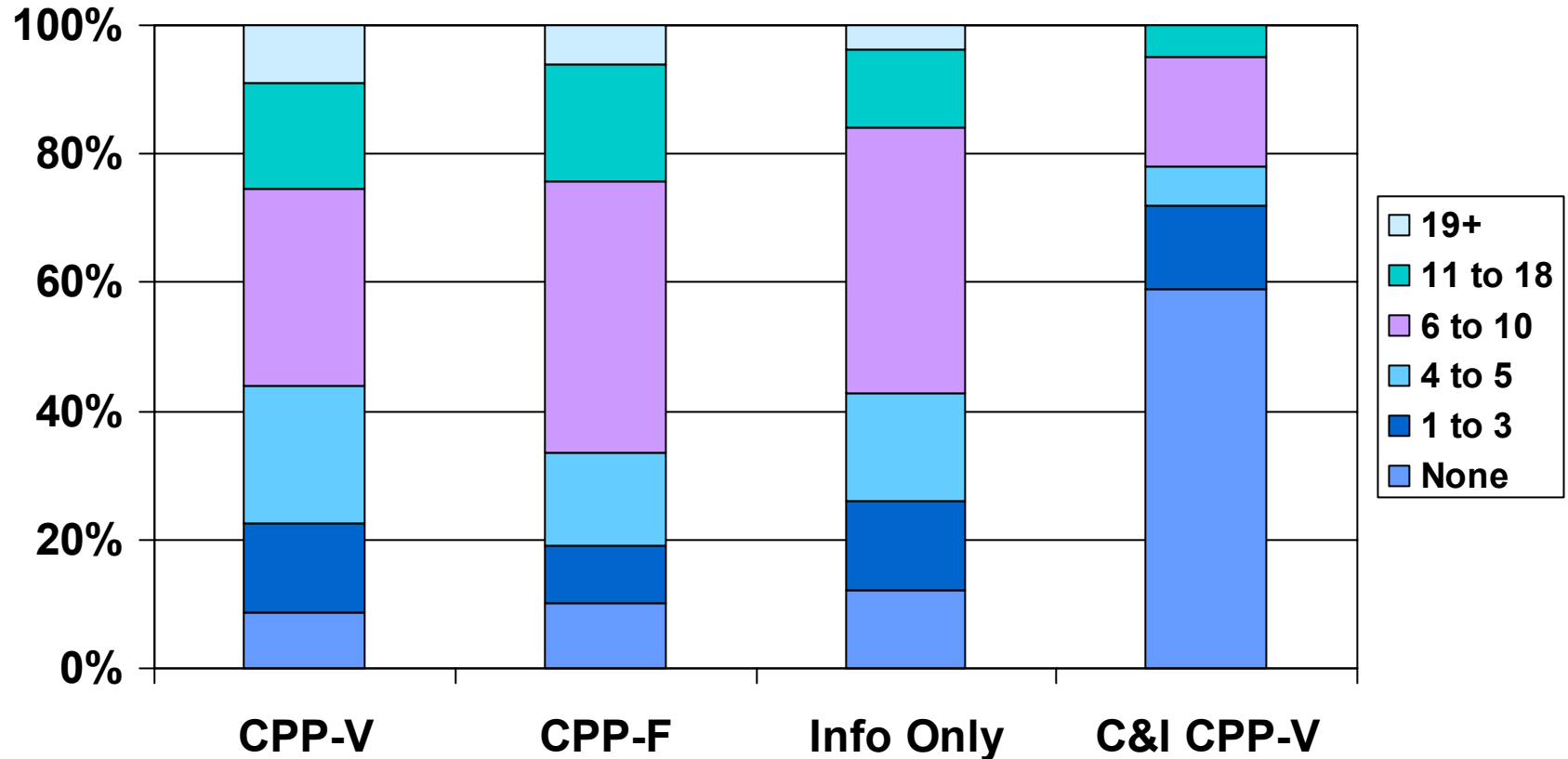
Required Notice



Q64: Were you given enough notice before Super Peak/Critical Peak periods to allow you to change your electricity use if you wanted to?/ (If not)/Q65: How much advanced notice do you need?

Regardless of the program, few participants knew exactly how many critical/super peak periods had occurred

Number of Super Peak Notices by Condition



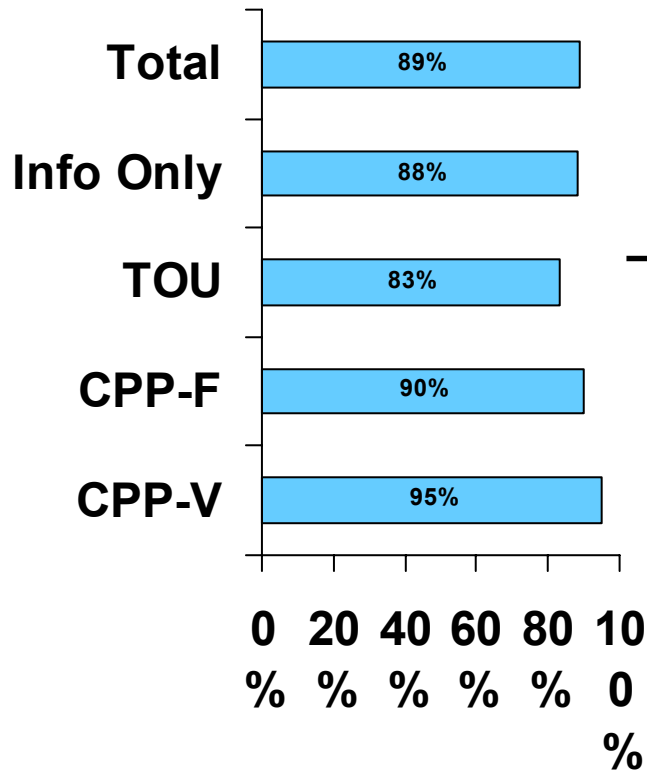
Q59: Since you started participating in the statewide pricing program, about how many Super/Critical Peak Alert Pricing notices did you receive?

Meter and Control Device Perceptions

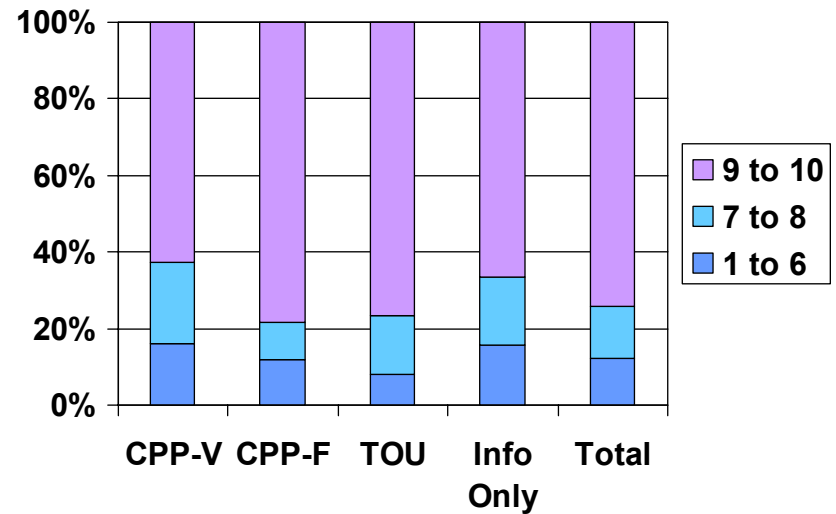
- A majority of residential participants reported having new meters installed while C&I customers were less aware of any new meters.
 - Satisfaction with the installation process was high for both customer types.
- Program participants typically did not check their electricity use on the new meter, but rather relied on the utility to accurately report usage
- Residential customers in the CPP-V program most often had programmable thermostats installed as their automated control device.
 - A majority of these customers were satisfied with how the device automatically adjusted use during super/critical peak periods.

Utilities installed new meters in most households and participants were usually very satisfied with the installation process

Percent with New Meter Installed



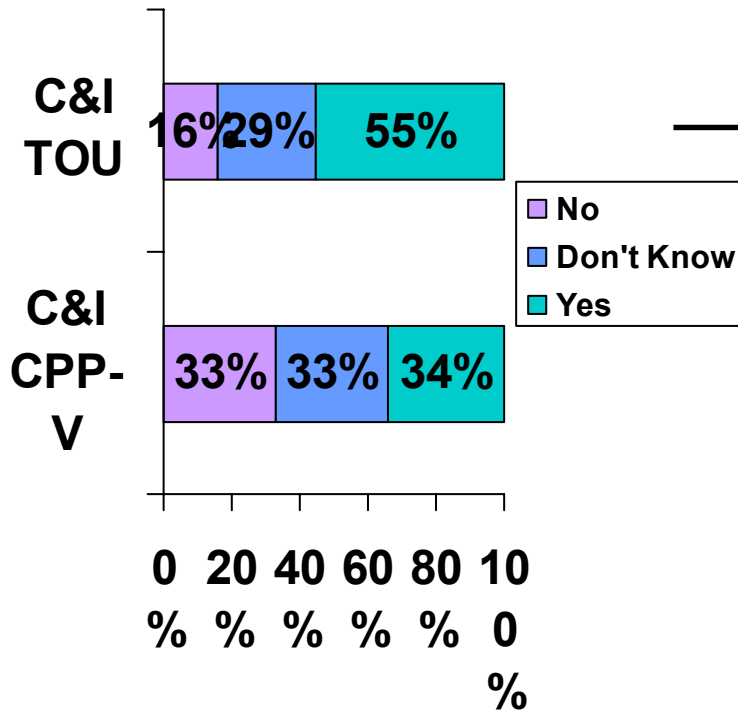
Level of Satisfaction with Installation Process
(scale: 1= Very Dissatisfied to 10 = Very Satisfied)



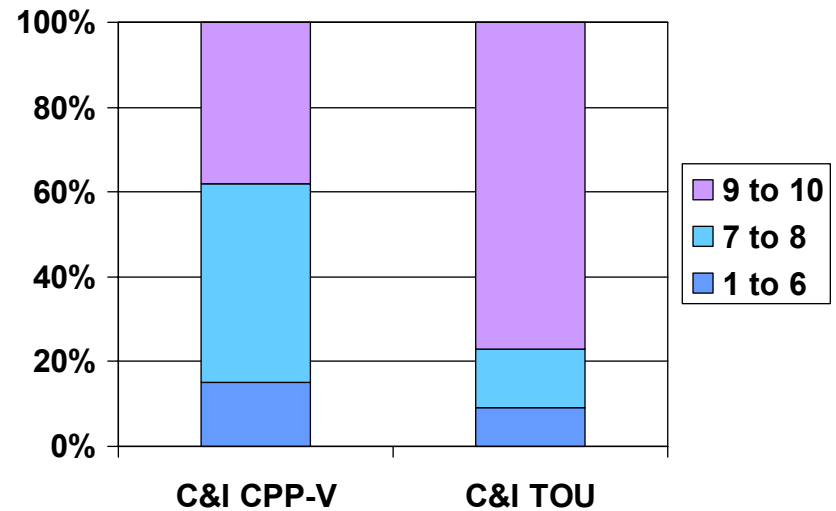
Q70: As part of the pilot program, did the utility install a new meter for your house? (If yes) Q71. How satisfied are you with the overall process for having this meter installed at your house?

Many C&I customers did not know if a new meter had been installed; CPP-V customers were less satisfied with the installation process

Was a Meter Installed?



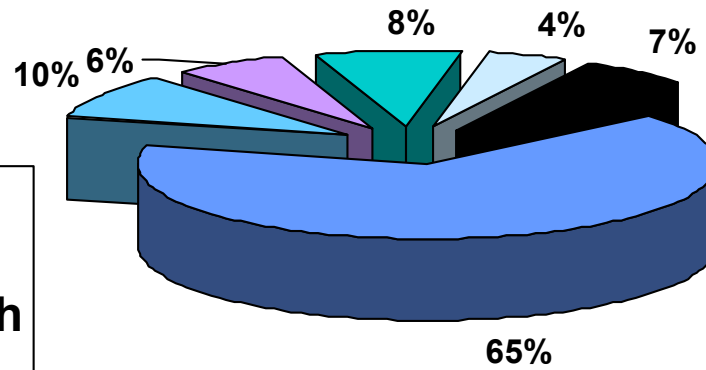
Level of Satisfaction with Installation
(scale: 1= Very Dissatisfied to 10 = Very Satisfied)



Q70: As part of the pilot program, did the utility install a new meter for your house? (If yes) Q71. How satisfied are you with the overall process for having this meter installed at your house?

Most residential participants did not check on their new electricity meter, but say they rely on the utility to accurately monitor usage

Residential Frequency of Checking New Meter



- Have Not checked
- Checked Once
- Checked < 1x month
- Checked 1 x month
- checked 1 x week
- Other

C&I results parallel the residential findings.

Reasons for Not checking

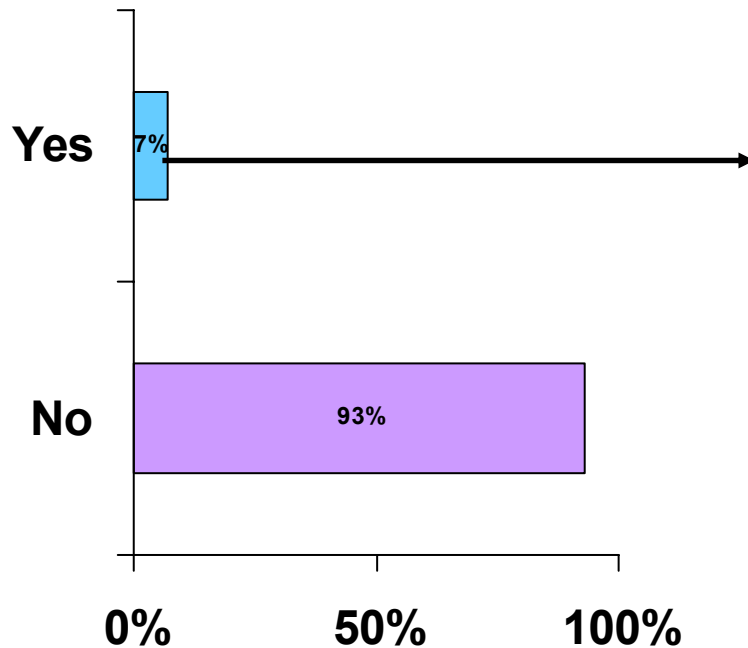
Don't know how	29%
No need/no reason	27%
No interest	18%
Trust it's accurate	16%
Inconvenient	9%
Just look at the bill	8%

Note: Multiple responses allowed

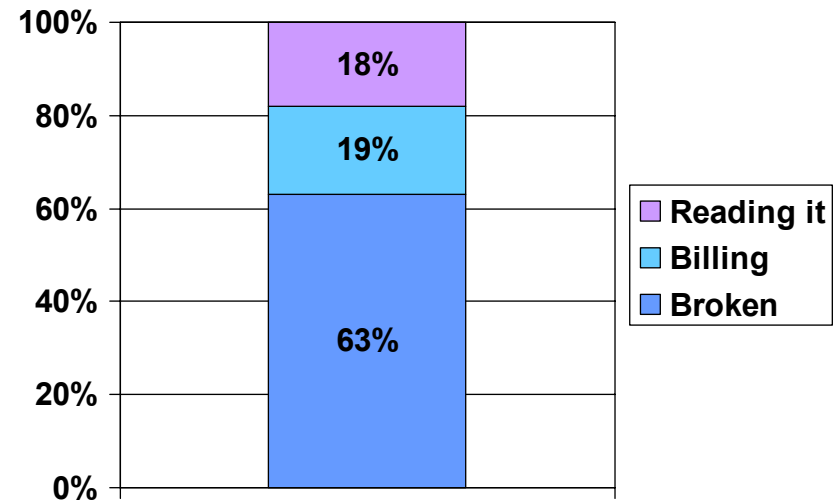
Q72: Since the new meter was installed, how often have you checked your electricity use by looking at the meter? (if never) Q73. Why haven't you checked your meter?

Few households and no businesses reported problems with the new meters; the most common problems that did occur were broken meters

Had Meter Problems



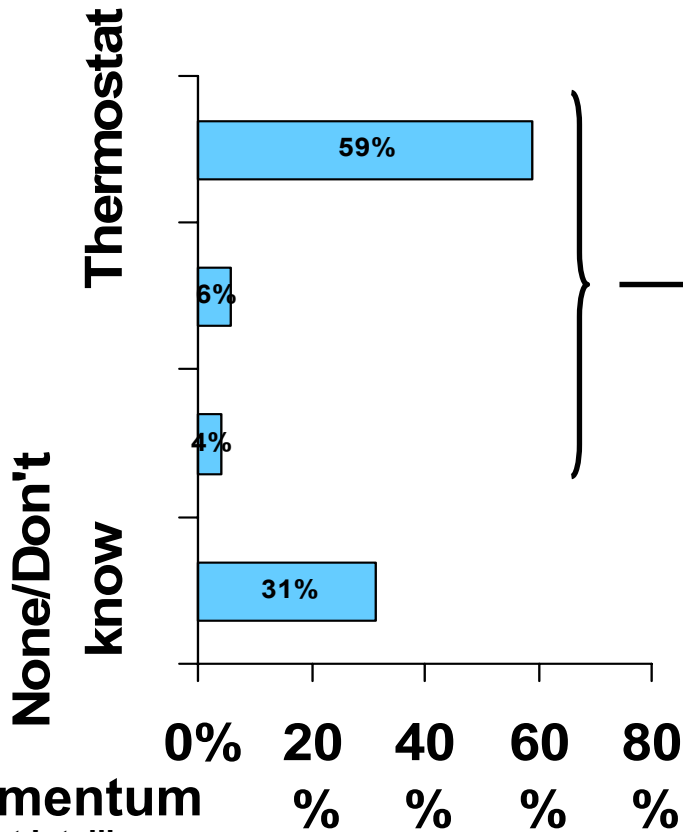
Type of Problem



Q75: Have you had any problems with the new meter? (if yes) Q76. What problems have you had with the new meter?

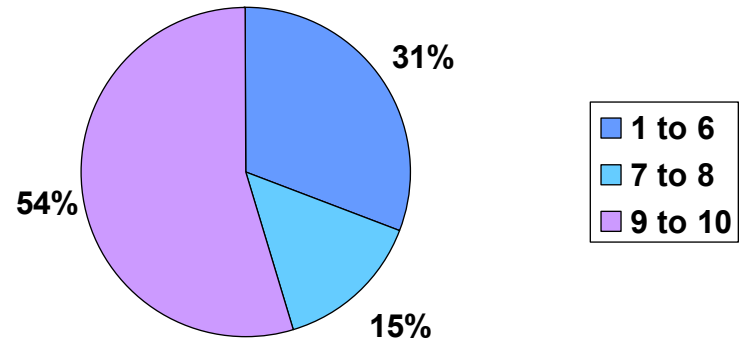
Programmable thermostats were chosen most by residential customers to automatically adjust electricity use; it is notable that one-third did not know what device had been installed or indicated that none was installed

**CPP-V Program:
Automated Control Device**



**Momentum
Market Intelligence**

Level of Satisfaction
(scale: 1= Very Dissatisfied to 10 = Very Satisfied)



While a majority of control device users were highly satisfied with its ability to regulate electricity use during peak periods, one-third gave scores suggesting that the device was not meeting their needs (scores 1-6).

Q77: Which of the following automated control devices was installed at your house as part of the smart shift & save pricing program? (If knew device) Q78: How satisfied are you with how this device has automatically adjusted your electricity usage during super/critical peak periods?

SPP End-Of-Summer Survey Report

Appendices

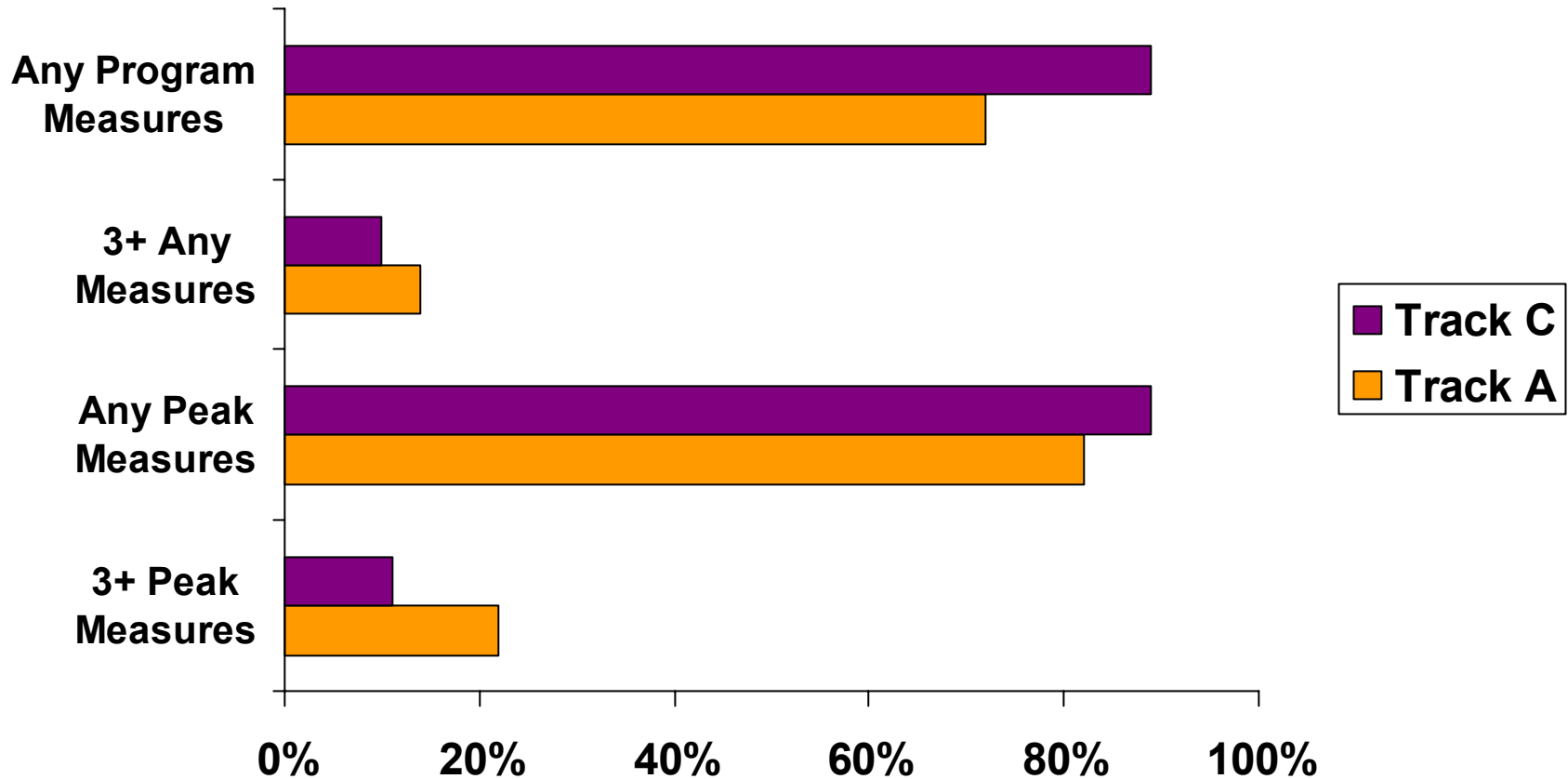
Appendices

- Appendix A: Comparing Perceptions and Reported Behavioral Changes for Track A and Track C CPP-V Residential Customers
- Appendix B: Detail of how indexes were created:
 - Perceived Effectiveness of Educational Materials Index
 - Accuracy of Understanding of Pricing Program Index

Appendix A: Comparing Perceptions and Reported Behavioral Changes for Track A and Track C CPP-V Residential Customers

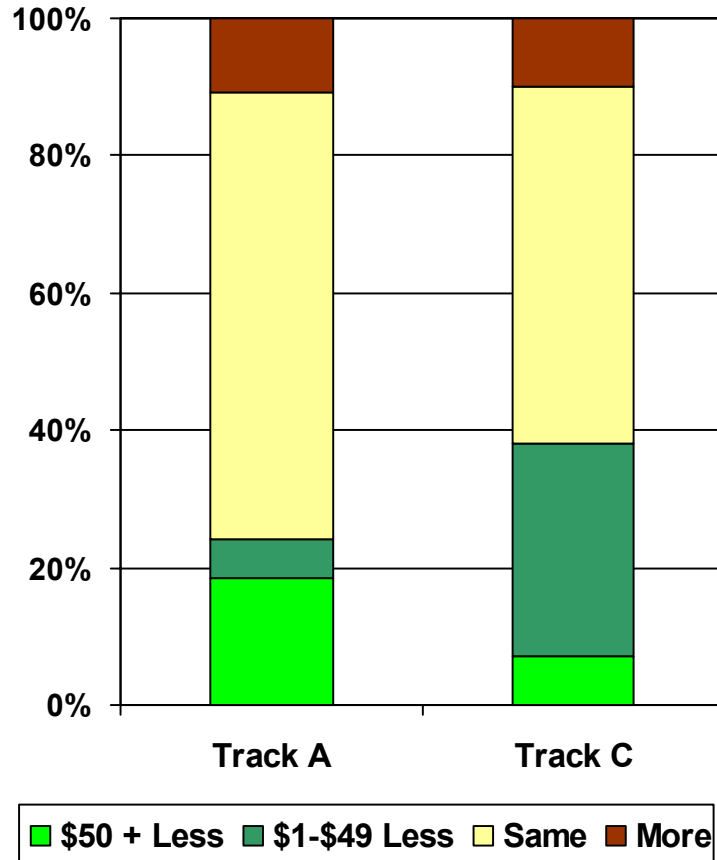
While Track C participants are more likely to report making any changes in energy use, Track A customers are more likely to make multiple changes

Reported Changes In Energy Use By Track

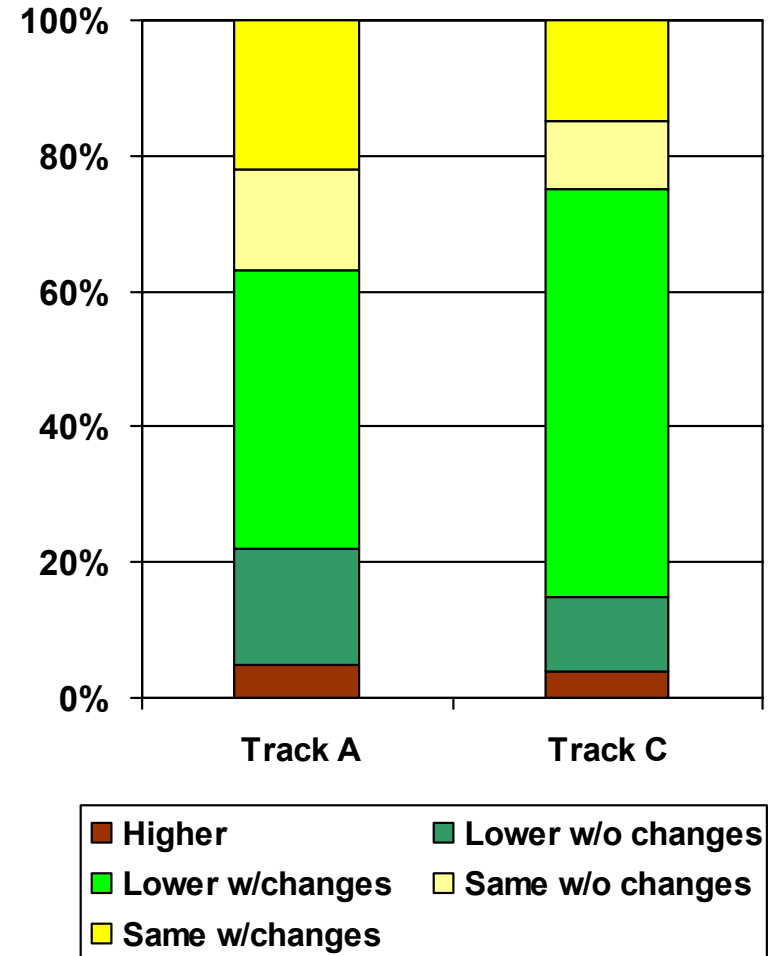


Track C participants were somewhat more likely to expect that their bill would go down AND more likely to report actual bill reductions

Perceived Bill Changes

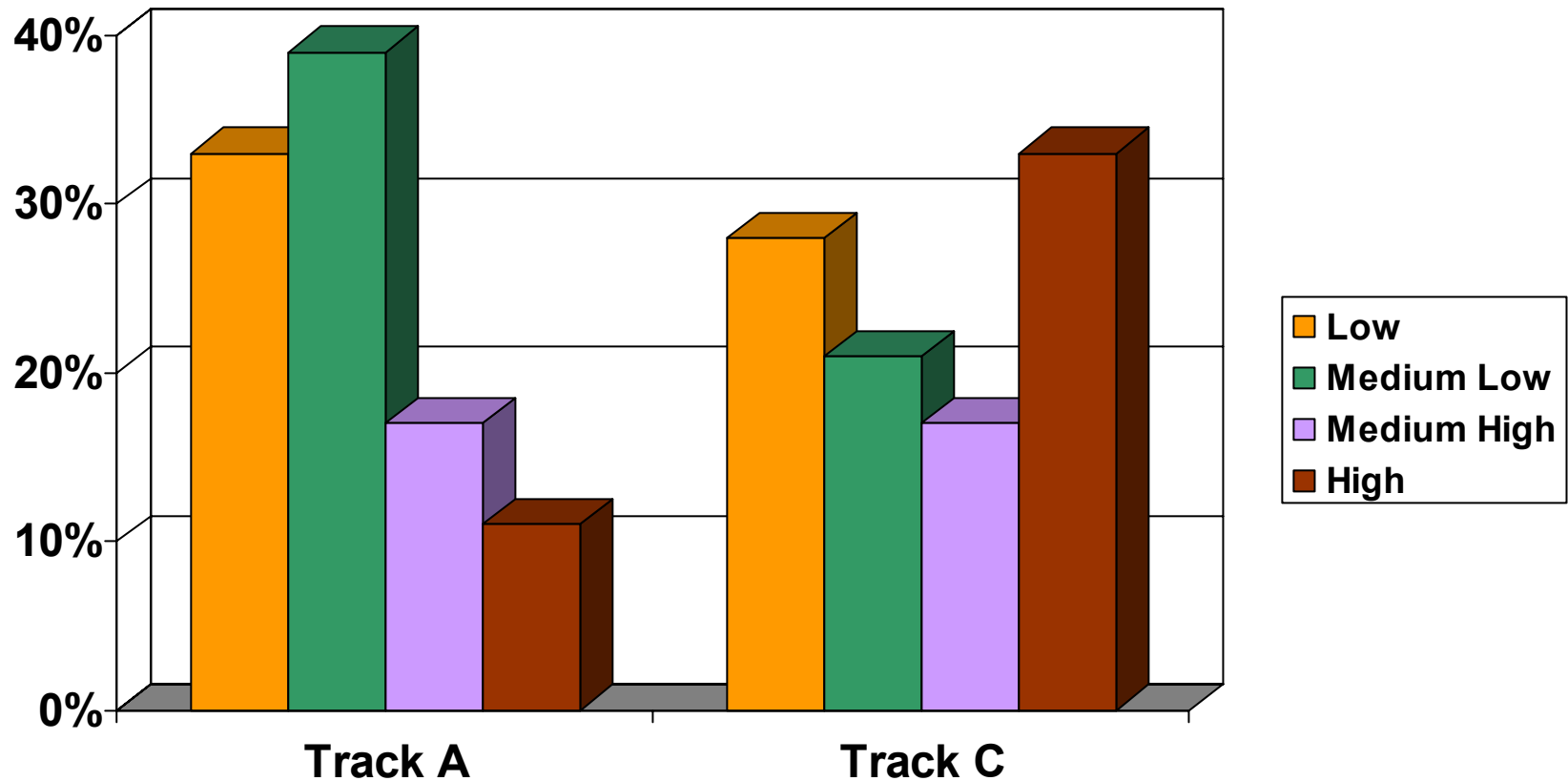


Expected Bill Changes

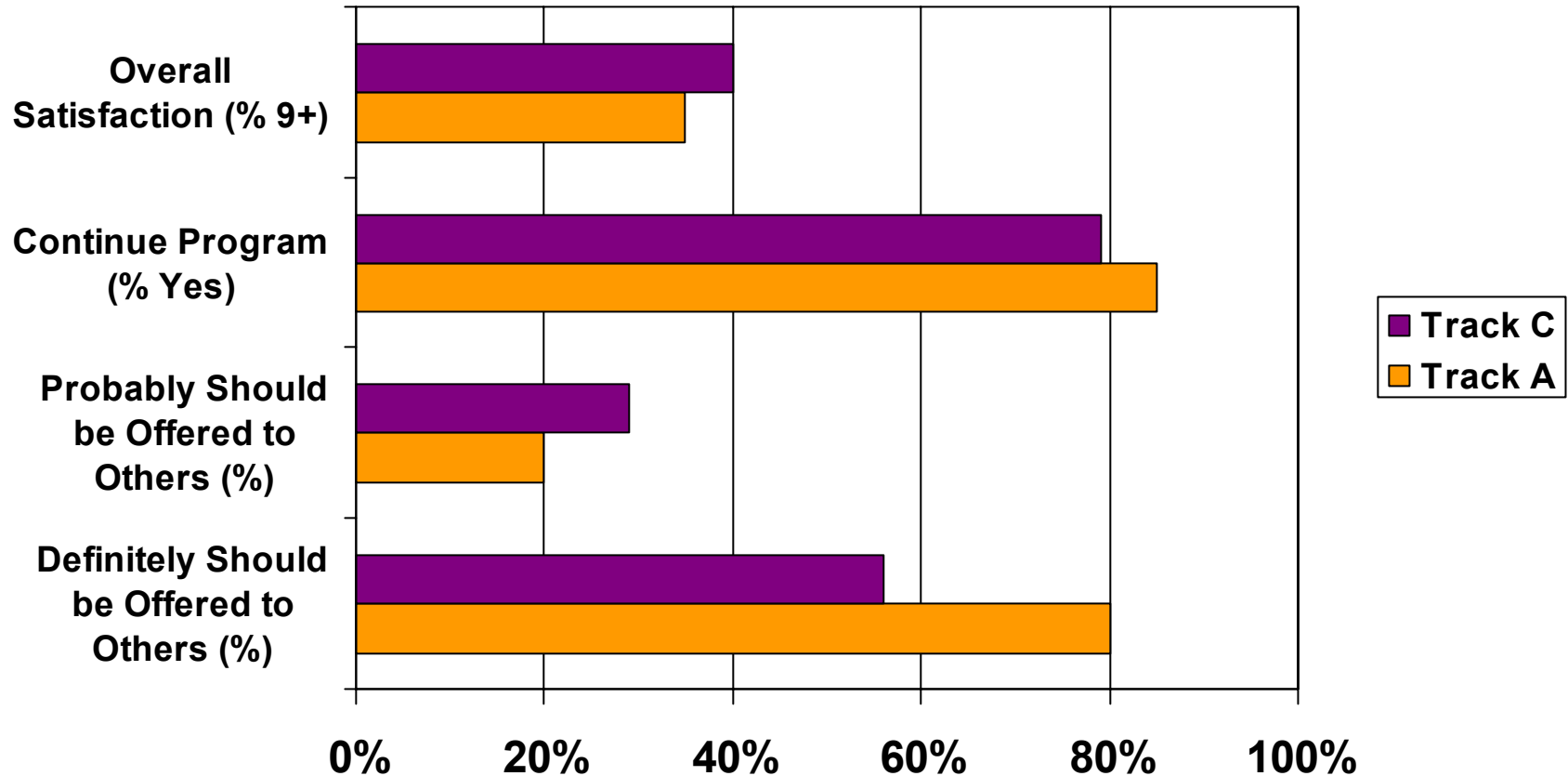


Track C participants were substantially more likely than Track A participants to score highly on the Educational Materials index, indicating that they said they read and responded positively to those materials

Response to Program Materials

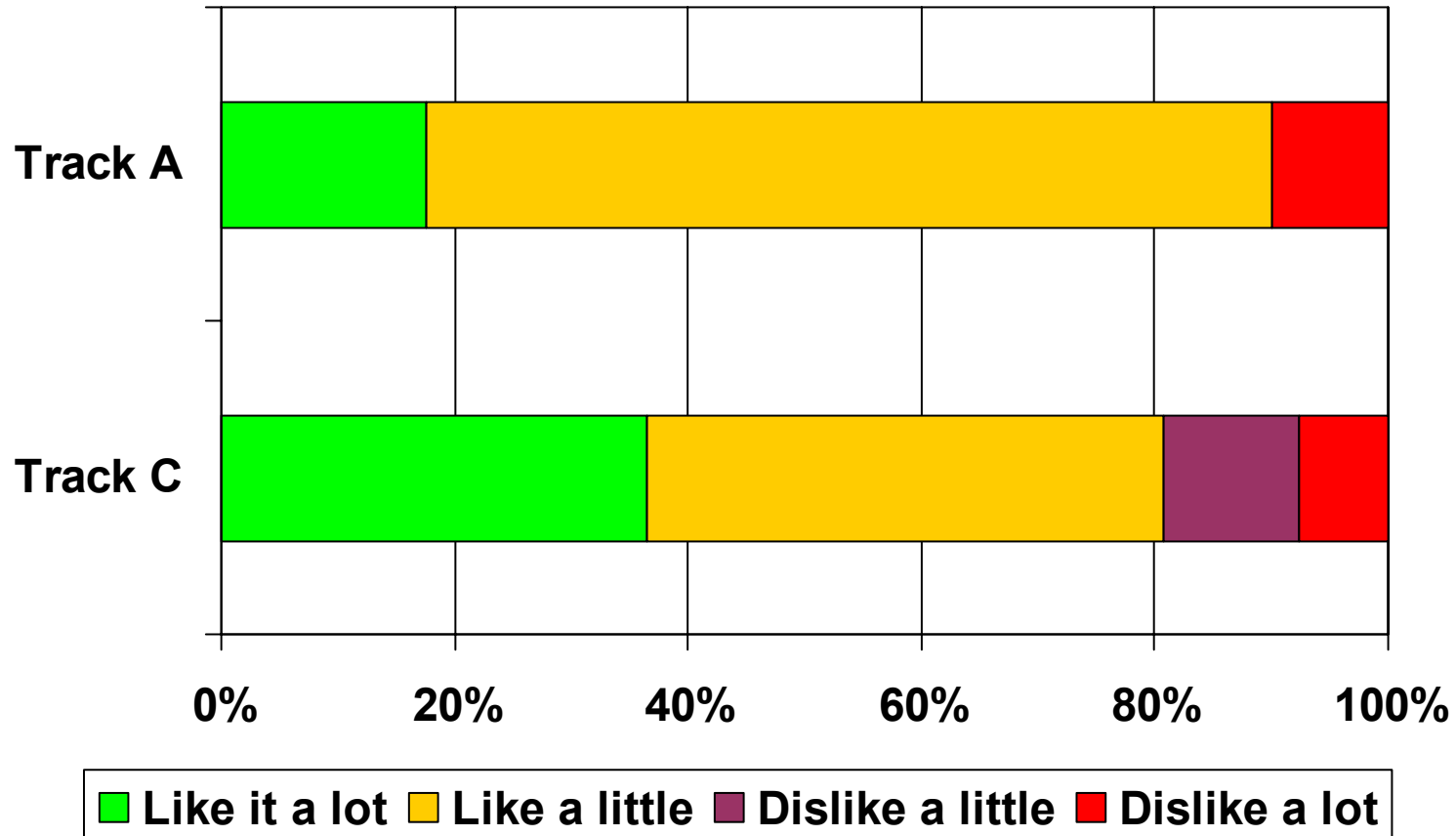


Track C customers are slightly higher in overall satisfaction, but somewhat less likely to say the pilot program should be extended



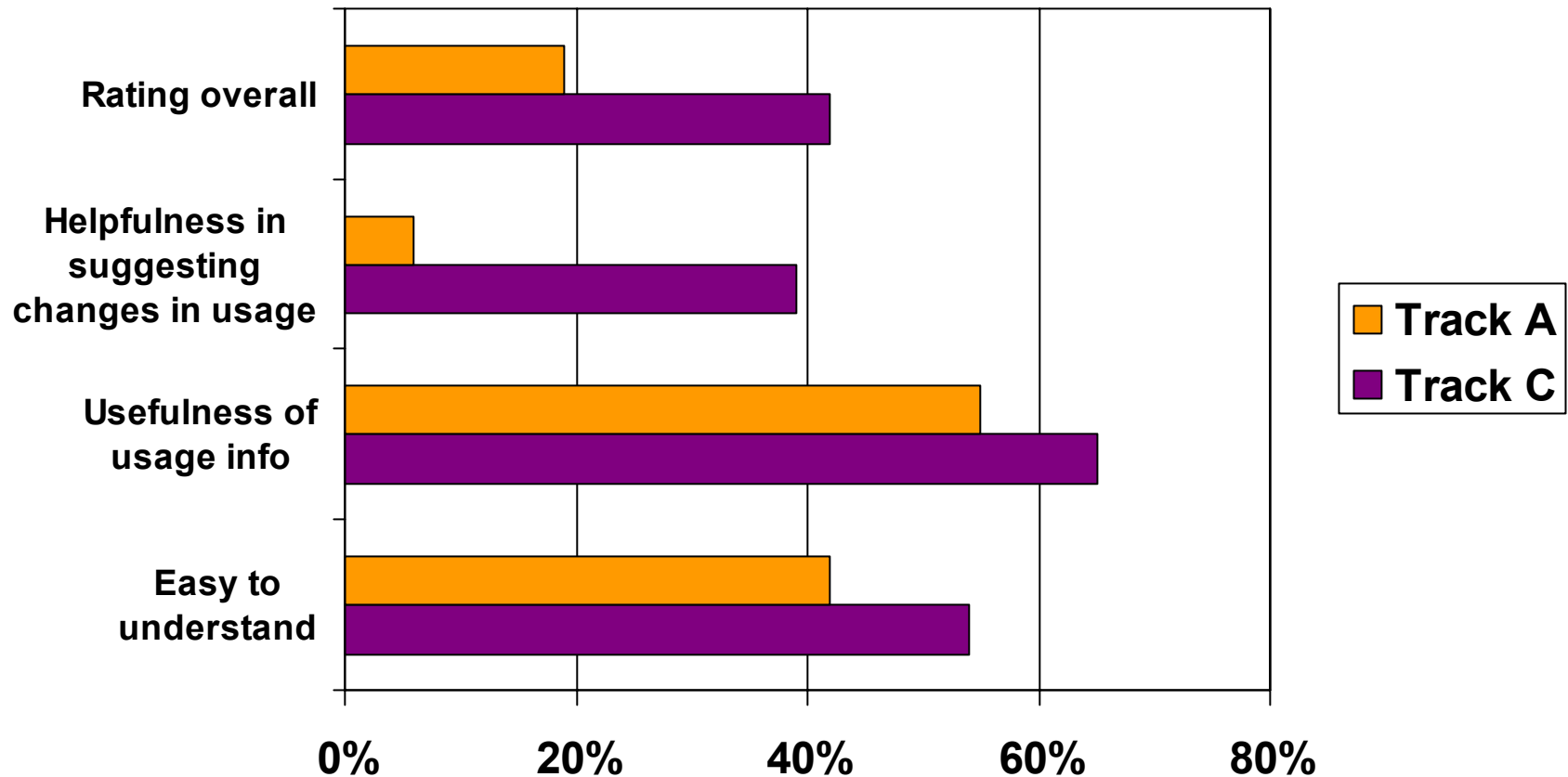
Track C customers are twice as likely as Track A participants to say they like the new bill design “a lot”

Reaction to New Bill Design



And Track C customers also rate the new bill higher than do Track A customers on the specific attributes

Rating of New Bill Design (% Rating 9+ on 1-10 Scale)



Appendix B:

Detail of created variable indexes

Perceived Effectiveness of Educational Materials Index

Accuracy of Understanding of Pricing Program Index

Appendix - B

Perceived Effectiveness of Educational Materials Index:

The pattern of answers used to create the index includes:

1. Ratings of Enrollment materials (1=performed poorly, 10=materials were excellent) (Q8)

- Easy to read (q8a)
 - How to save money (Q8d)
 - Motivate you to change your/business electrical use (q8e)
 - Explained how average bill might vary (q8h)
 - Notification materials overall (q8k)
 - **Points: 1 point for ratings of 9-10, 0 points for 1-8 ratings**
2. Received Welcome Package (q18): 1 point for yes
3. Read Welcome Package (q19): 1 point for reading the entire Welcome Package

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Appendix – B - Continued

Perceived Effectiveness of Educational Materials Index – continued:

4. Ratings of Welcome Package

- Easy to read (q22a)
- Accurate information (q22b)
- Useful information about how to manage energy use
- Useful examples (q22d)
- Explained costs of appliances (q22e) – RESIDENTIAL ONLY
- Motivated you to change your/business' electrical use (q22g)
- Provided information about pricing under new program (q22h)
- Welcome Package overall (q22j)
- **Points: 1 point for ratings of 9-10, 0 points for 1-8 ratings**
- **We created an index for perceived effectiveness of educational materials knowledge by counting the number of correct responses for each respondent. Four levels of “perceived effectiveness of educational materials” were examined in our analysis.**
 - Low = 0-3 points
 - Mod. Low = 4-7 points
 - Mod. High = 8-12 points
 - High = 13+ points

Appendix – B - Continued

- **Accuracy of Understanding of Pricing Program Index:**

The pattern of answers used to create the index includes:

CORRECT RESPONSE BY PROGRAM TYPE:

TOU	CPP-F	CPP-V	Info only	
Q1a	2	2	2	1
Q1b	1	1	1	1
Q1c	1	1	1	2
Q1d	1	1	1	2
Q1e	2	2	2	1
Q1f	2	1	1	2
Q3	1	3	3	4
Q4	2	2/3	2/3	1
Q5	2/3	4-7	4-8	0
Q6	[if Q5 = DK/NS then give 0.5 pts if yes to Q6]			

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Appendix – B - Continued

- **Accuracy of Understanding of Pricing Program Index continued:**

Q3 was asked as an open-ended question that allowed multiple responses from the pre-coded response options. For each program type only one response was actually correct. To account for the possibility of respondents giving both the “correct” response AND additional incorrect responses, we created a coding scheme to give partial credit as follows:

1 correct selection and no other responses = 1 point.

2 responses of which one was correct = .75

3 responses of which one was correct = .50

4 responses of which one was correct = .25

IF “0” correct = 0 points.

We created an index for program knowledge by counting the number of correct responses for each respondent. Scores can range from 0-9. Four levels of “program accuracy” were examined in our analysis.

- Low: ≤ 3
- Mod. Low: >3 to <5
- Mod. High: 5 to <6
- High: ≥ 6