

Electricity Outage and Reliability Study September 2010



Ontario Energy Board

POLLARA ●●●●

Contents

Methodology

Key Findings

Satisfaction with Distributors and System

Experience with Power Outages

Impact of Power Outages and Expectations

Cost Impacts and Price Sensitivity

Conclusions and Implications

Background and Methodology

- **On behalf of the Ontario Energy Board, Pollara conducted a study among Ontario residents and businesses about electricity outages and related reliability issues. The objectives of the research were to explore residential and business consumers' views on:**
 - Their perceptions regarding the number, duration, and frequency of power outages they have experienced;
 - Their reactions to and level of tolerance for power outages;
 - Their willingness to pay for fewer outages or higher reliability; and,
 - Measures of satisfaction with regard to distributor communications about power outages.

Background and Methodology

- **Among residents: telephone survey of 905 Ontarians from July 6 to 20, 2010. Of those surveyed, 634 Ontarians experienced at least one power outage in the last year.**
 - The overall margin of error for a sample of this size is estimated to be $\pm 3.3\%$, nineteen times out of twenty. Regional margins of error are greater.
 - The results among the subset of Ontarians who have experienced at least one unplanned outage in the past year (634) has an associated margin of error of $\pm 3.9\%$, nineteen times out of twenty.
- **Among businesses: telephone survey of 301 Businesses between July 8 and 21, 2010. Of those surveyed, 194 businesses experienced at least one power outage in the last year.**
 - The overall margin of error for a sample of this size is estimated to be $\pm 5.6\%$, nineteen times out of twenty. Consumption-rate margins of error are greater.
 - The results among the subset of Ontario businesses that have experienced at least one unplanned outage in the past year (194) has an associated margin of error of $\pm 7.0\%$, nineteen times out of twenty.

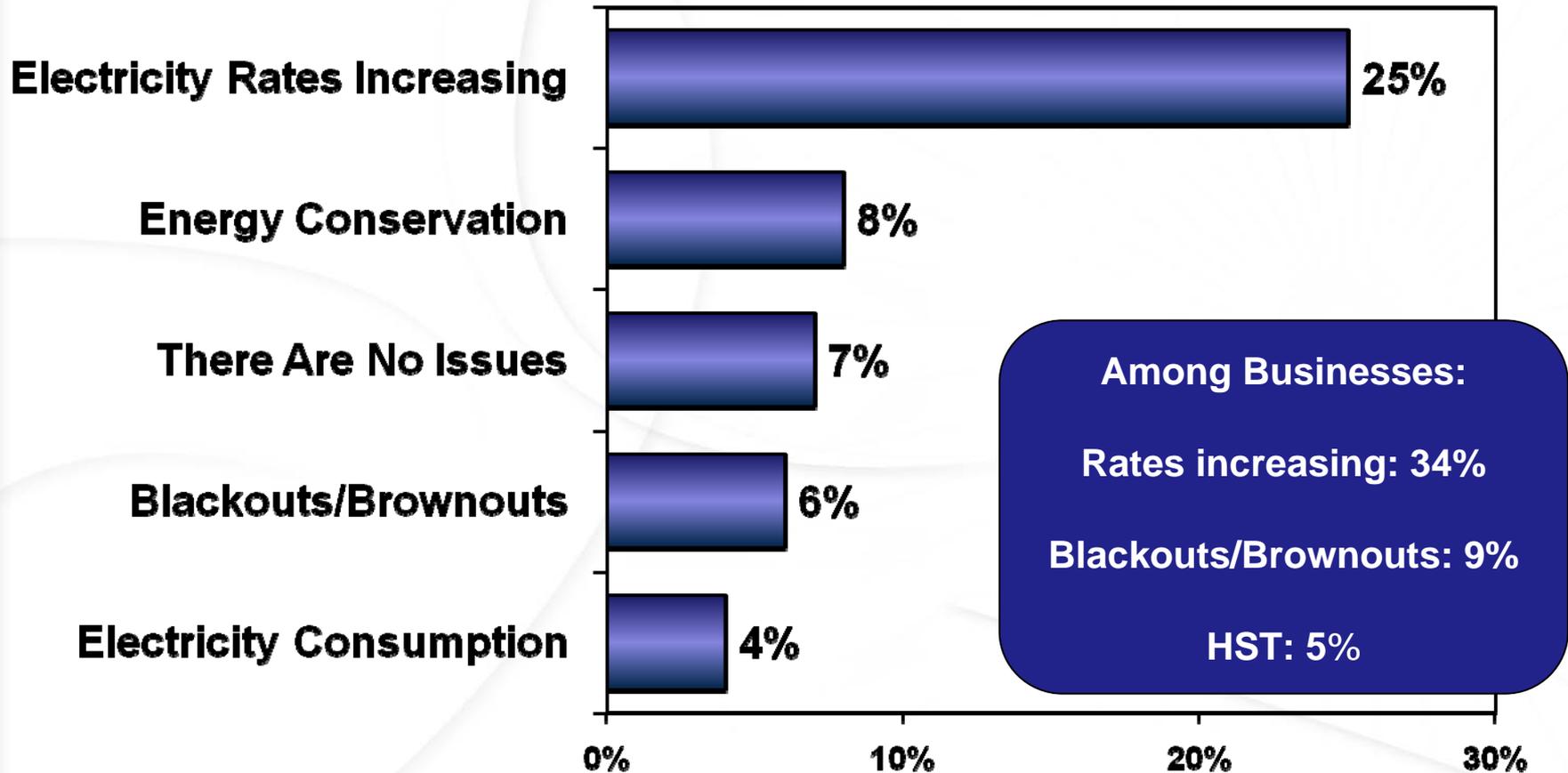
Key Findings: Context

- **Ontario's electricity consumers are highly tolerant, and adaptive to power outages.**
- **Ontario's electricity market is highly cost-conscious.**
- **Customer satisfaction levels, overall, are strong – with some caveats.**

Satisfaction with Distributors and System

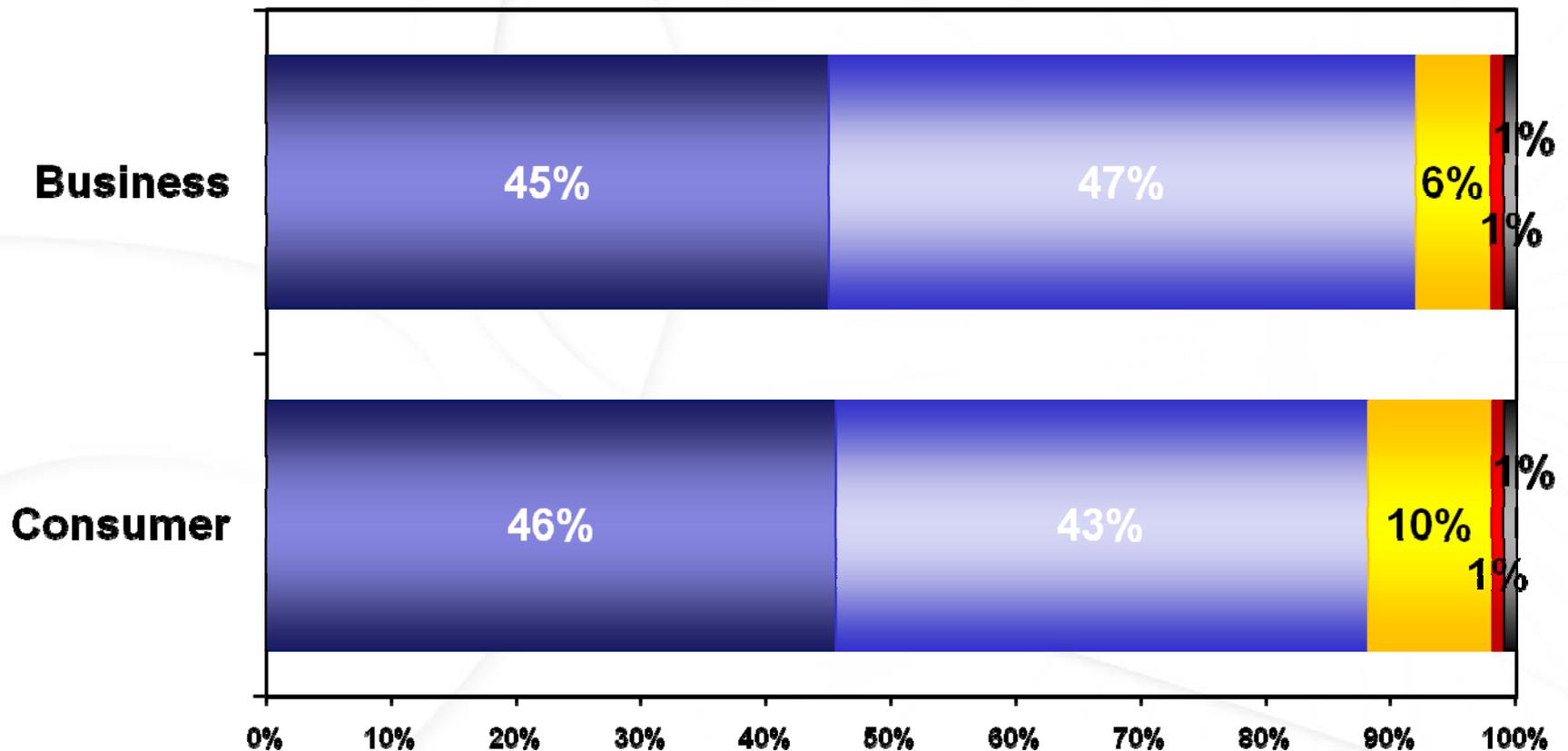
Context: Rate increases are most prevalent concern among consumers and businesses

Among Consumers



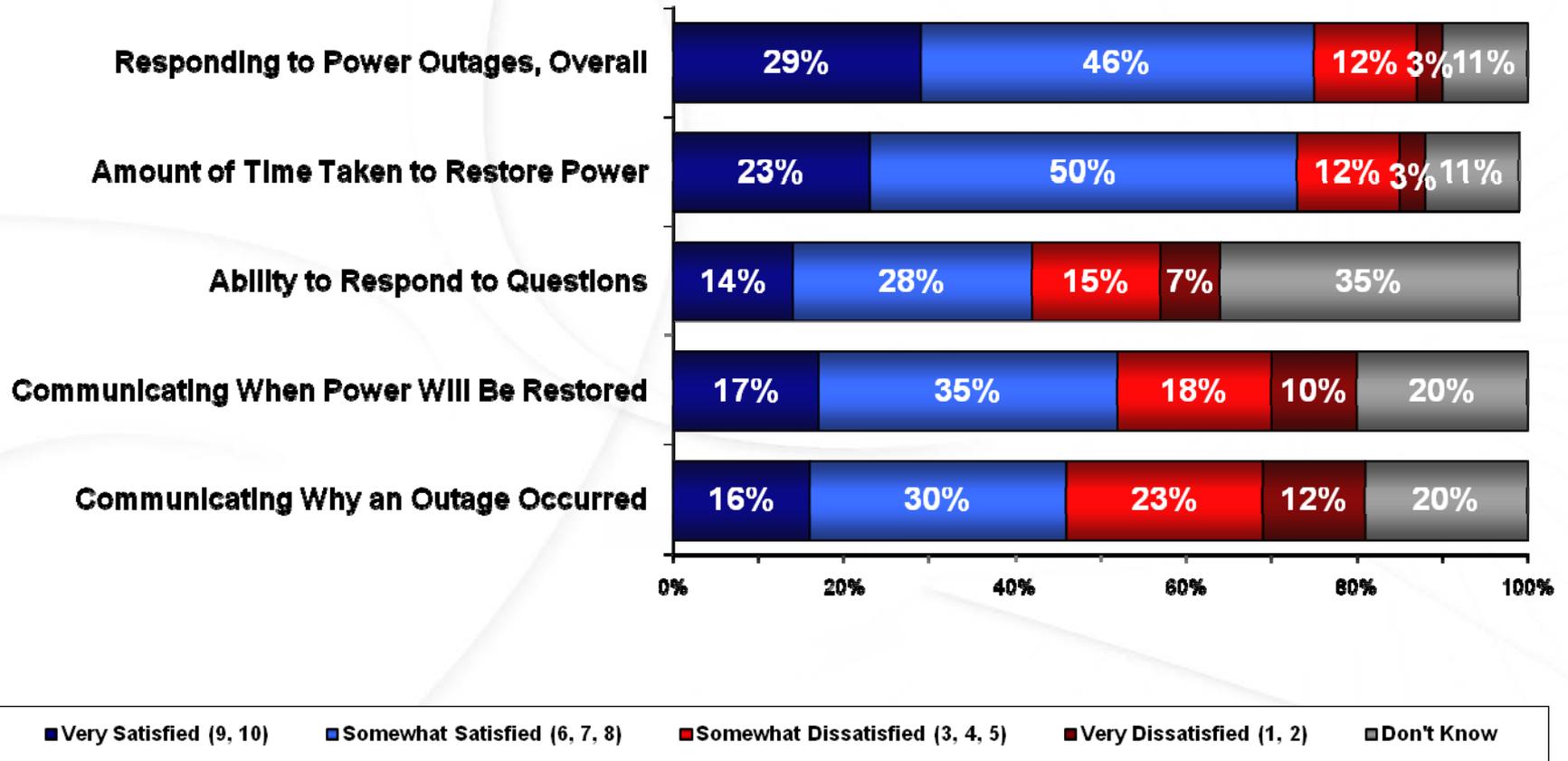
1. What would you say is the most important energy or electricity-related issue facing your local community today? [OPEN, ACCEPT 1] (N=905)

High levels of satisfaction overall with reliability of supply



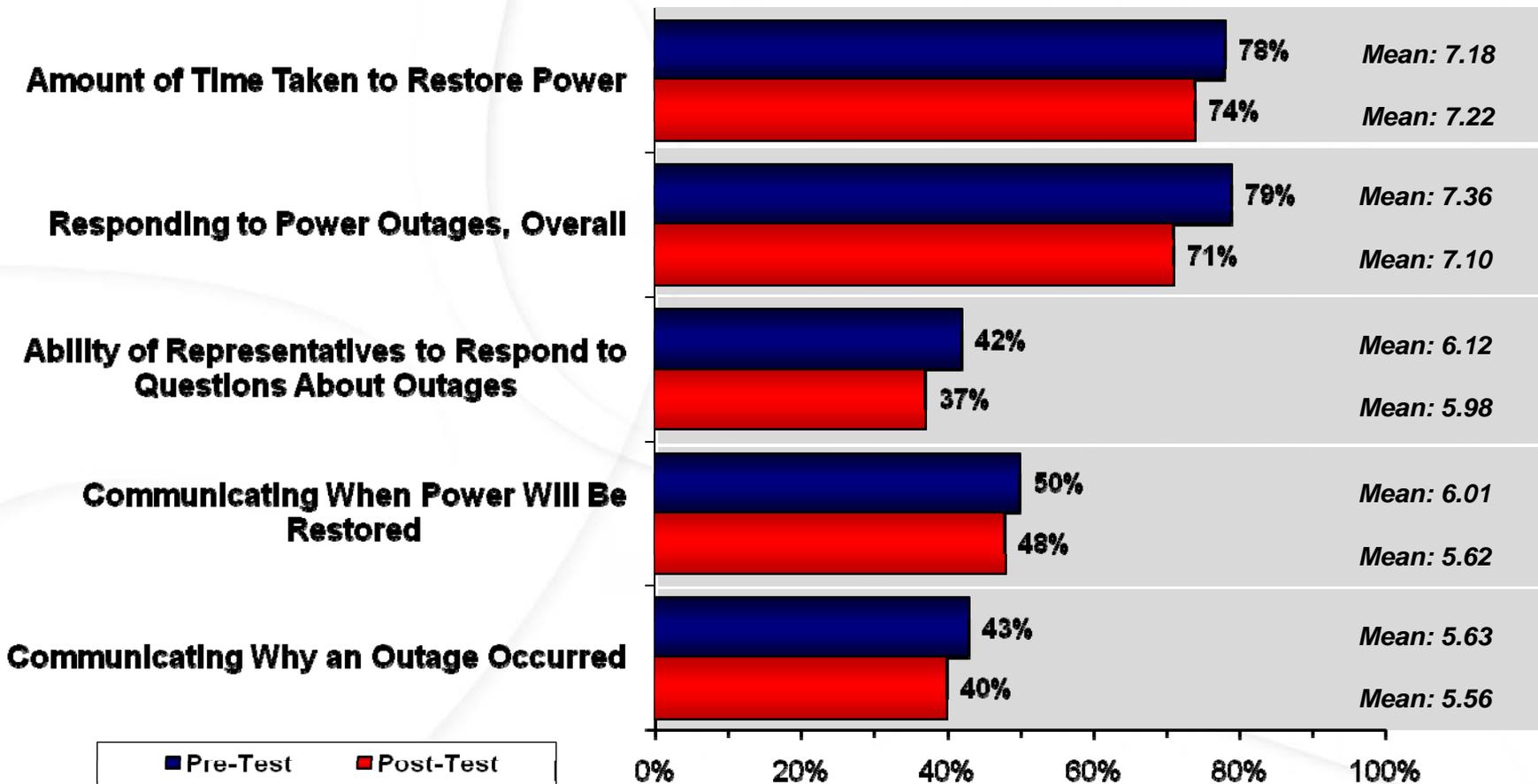
2. On a scale of 1 to 10, where 1 is “not at all satisfied” and 10 is “extremely satisfied”, how satisfied are you with the reliability of the electricity provided to you overall?

Among consumers: overall satisfaction ratings high; customer satisfaction ratings lag



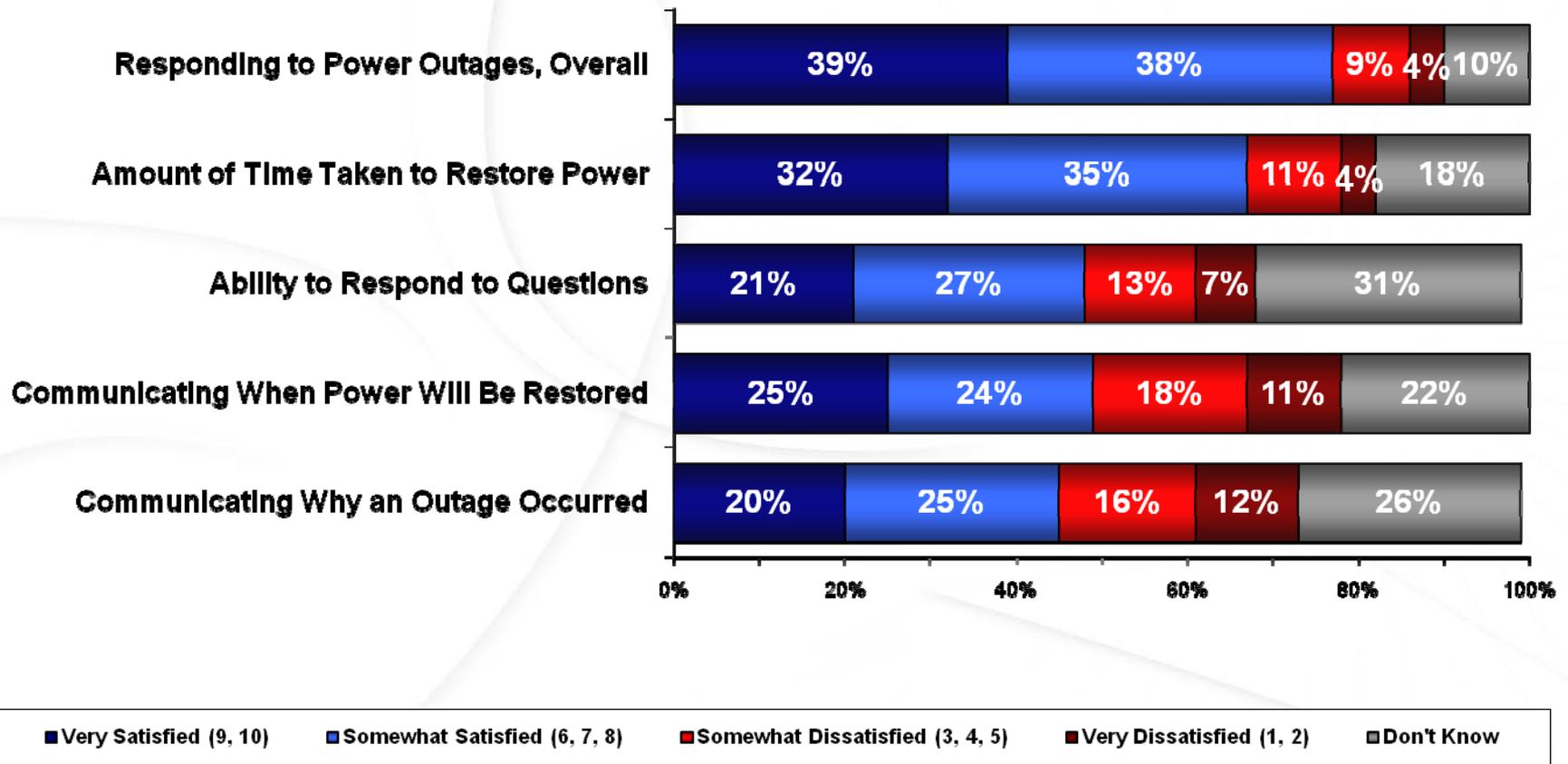
4-8. Now, I'd like to talk to you specifically about unplanned power outages. On a scale of 1 to 10, where 1 means "very dissatisfied" and 10 means "very satisfied", how satisfied are you with your electricity provider on the following, when it comes to unplanned power outages, overall? What about... [N for each = 905]

Among Consumers who Experienced Outage: Satisfaction with Provider, Before and After Discussion of Outage



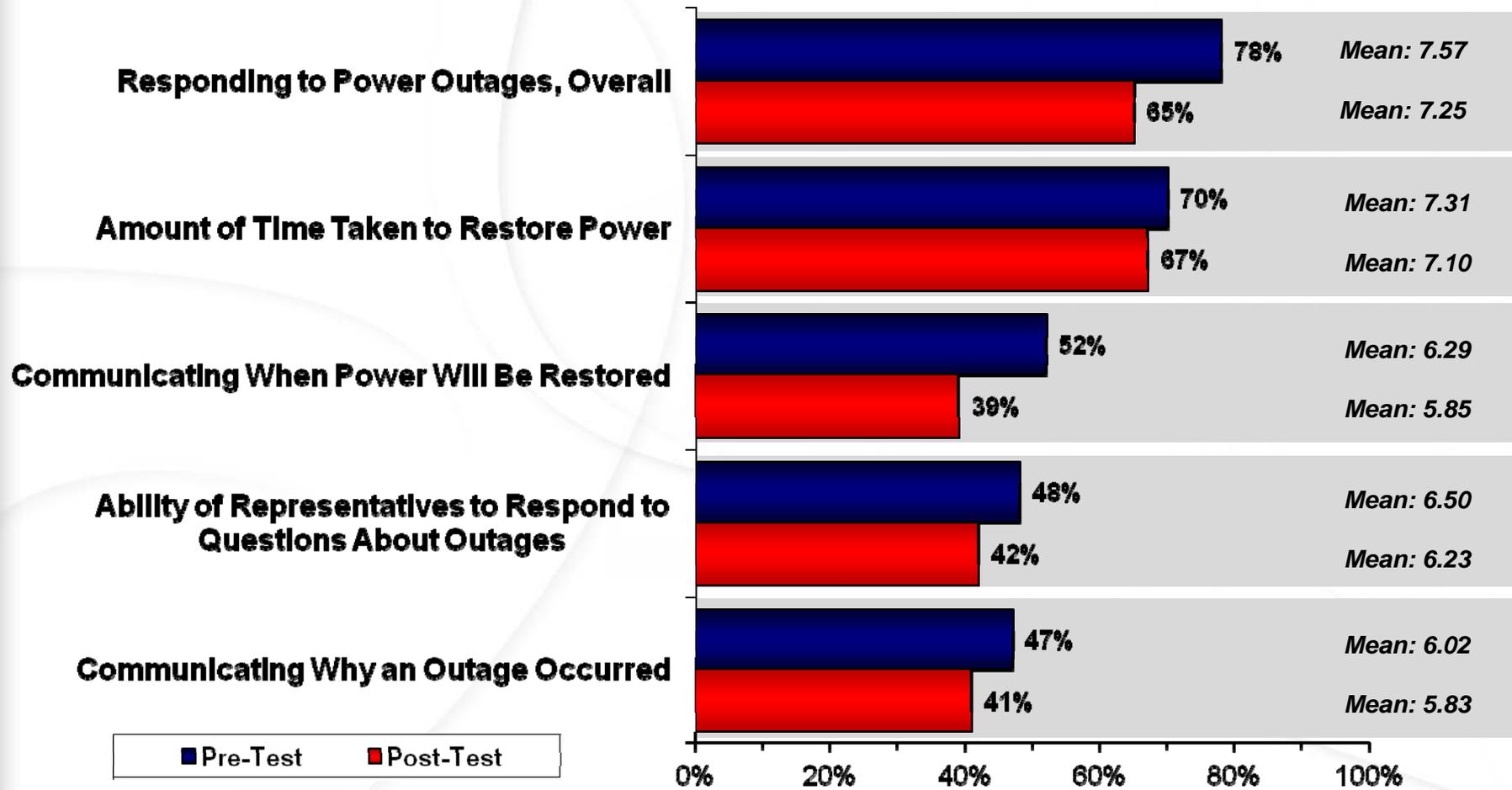
Among those who have experienced outage in the past year, Pre- to Post-Test (N=634) 4-8 and 35-39. Now, I'd like to talk to you specifically about unplanned power outages. On a scale of 1 to 10, where 1 means "very dissatisfied" and 10 means "very satisfied", how satisfied are you with your electricity provider on the following, when it comes to unplanned power outages, overall? What about...

Among businesses: overall satisfaction ratings high; customer satisfaction ratings lag



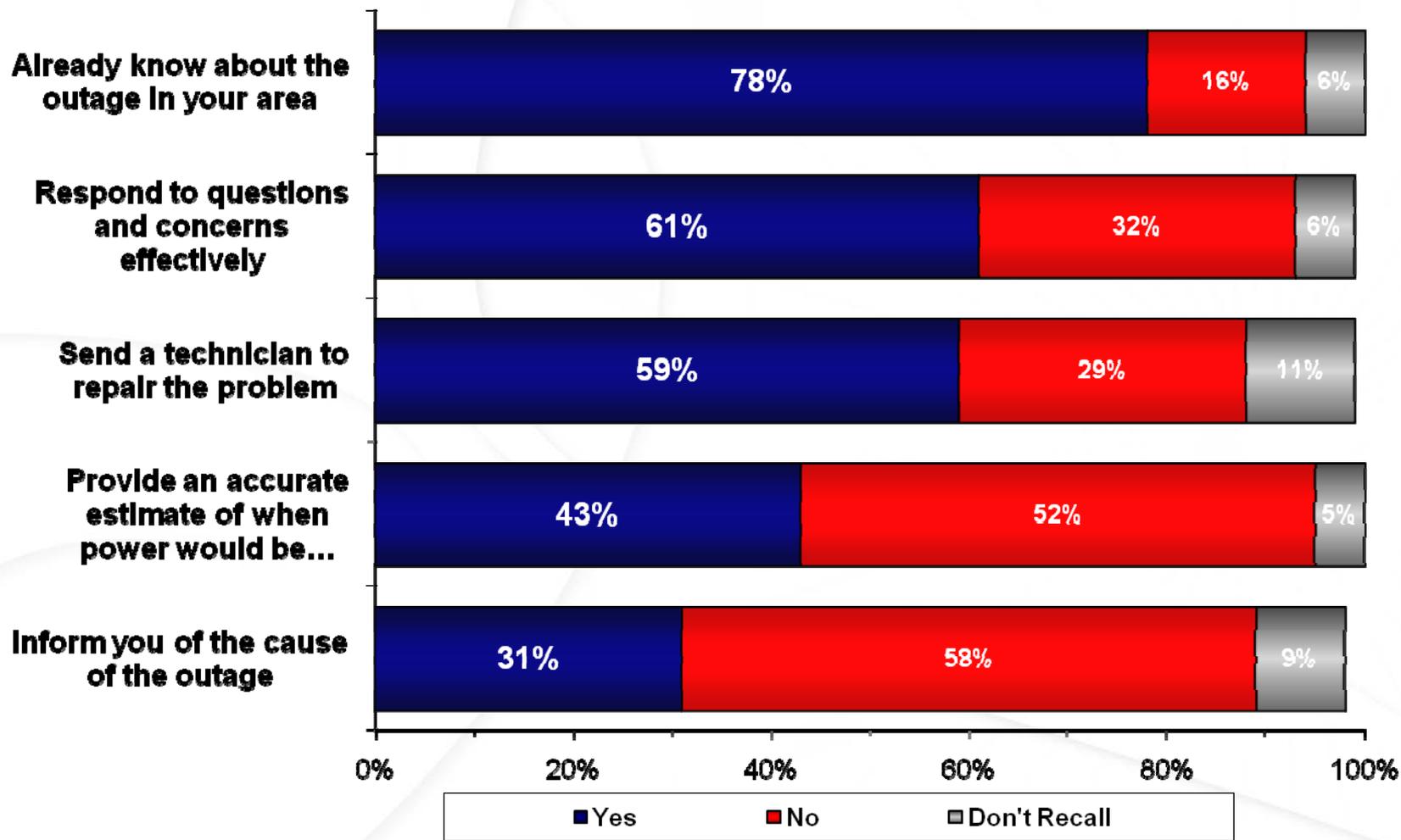
4-8. Now, I'd like to talk to you specifically about unplanned power outages. On a scale of 1 to 10, where 1 means "very dissatisfied" and 10 means "very satisfied", how satisfied are you with your electricity provider on the following, when it comes to unplanned power outages, overall? What about... [N for each = 301]

Among Businesses that Experienced an Outage: Satisfaction with Provider, Before and After Discussion



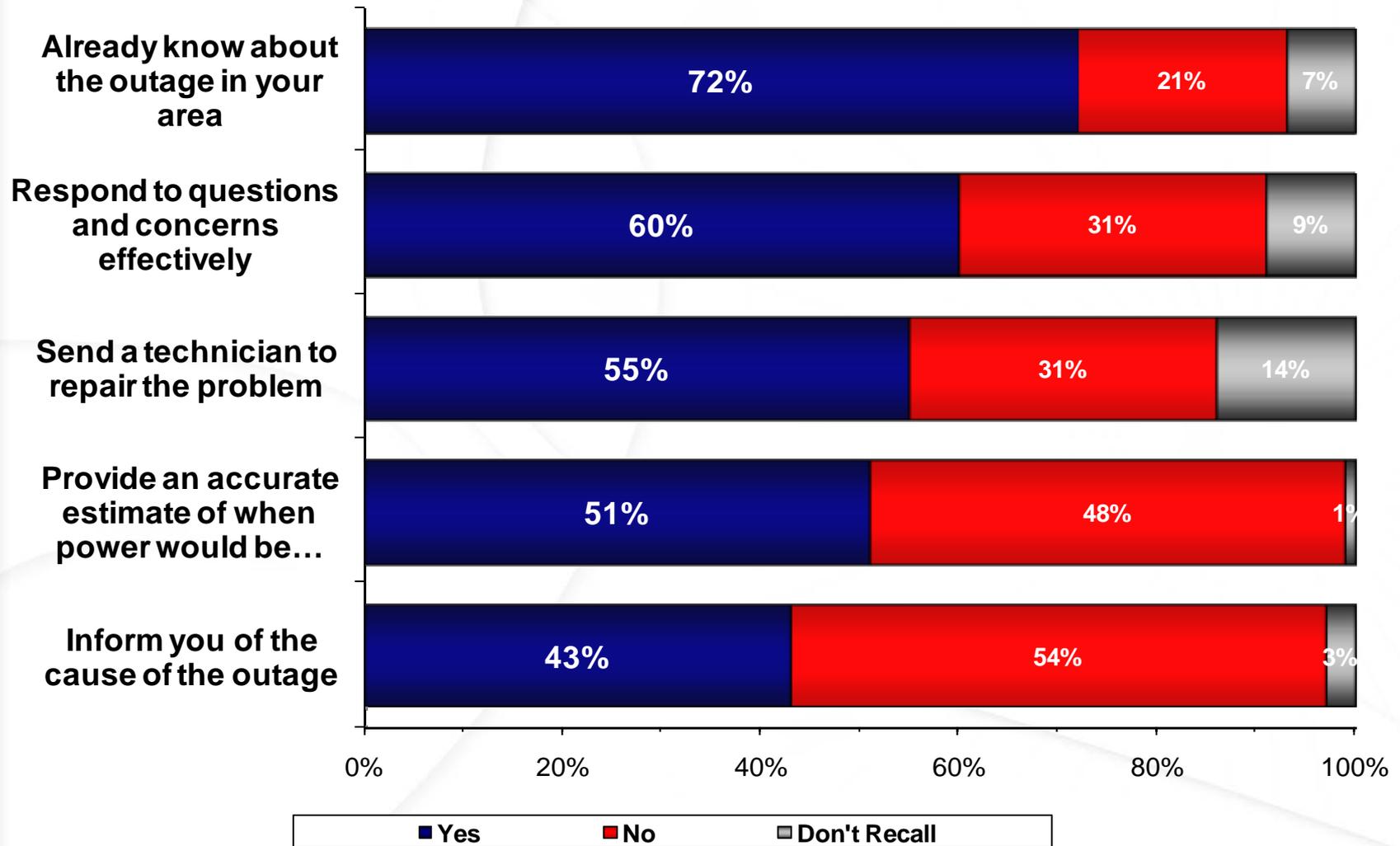
Among those who have experienced outage in the past year, Pre- to Post-Test (N=194) 4-8 and 37-41. Now, I'd like to talk to you specifically about unplanned power outages. On a scale of 1 to 10, where 1 means "very dissatisfied" and 10 means "very satisfied", how satisfied are you with your electricity provider on the following, when it comes to unplanned power outages, overall? What about...

Consumers: Customer Service when Contacted about Outage



29-33. And when you contacted your provider, did they...? [N for each=119]

Businesses: Customer Service when Contacted about Outage

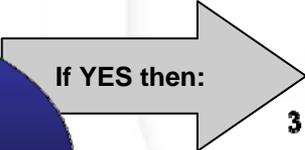
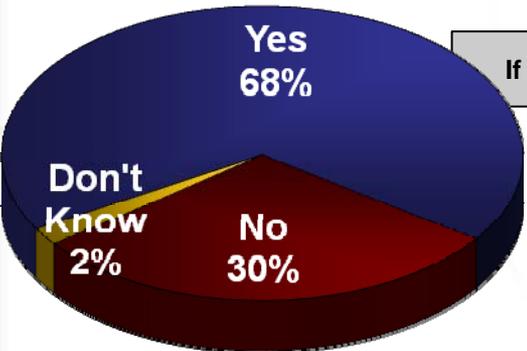


33-37. And when you contacted your provider, did they...? [N for each=67]

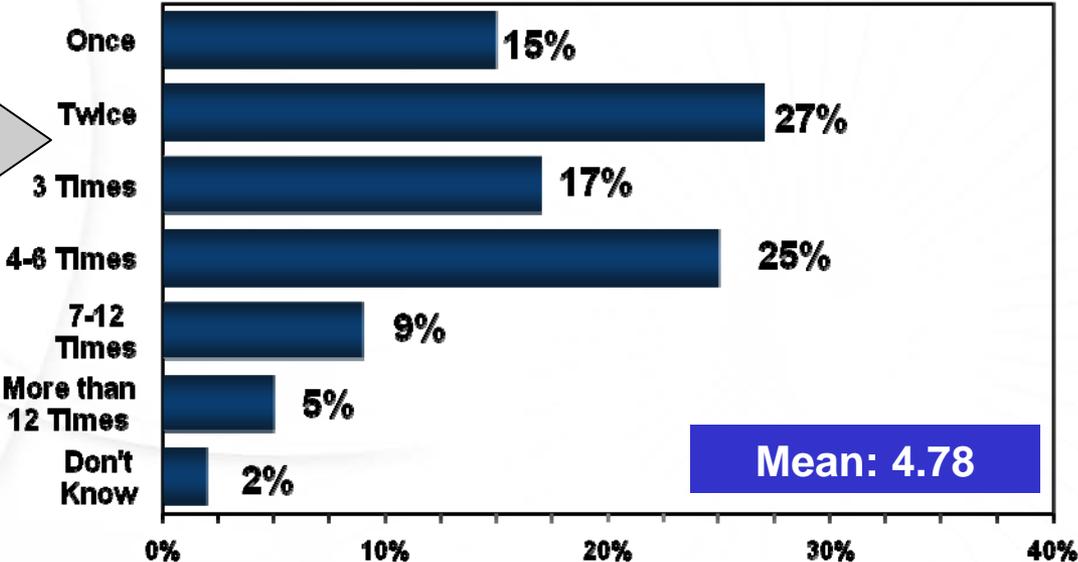
Experience with Power Outages

Consumers: Experience with Power Outages – Past Year

Has Home Lost Power in Past Year?



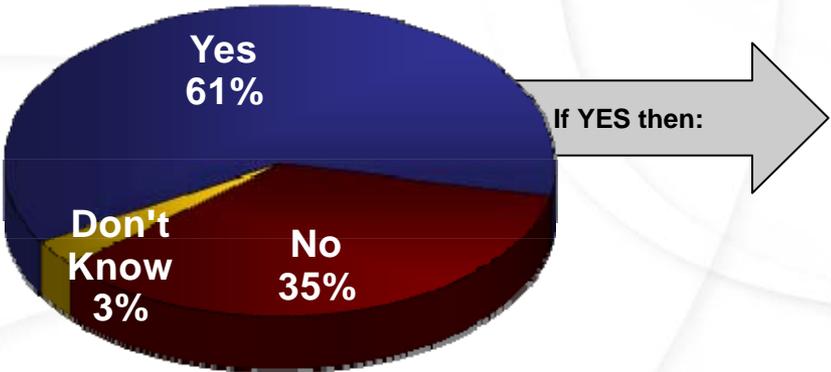
How Many Times in Past Year?
(Ontario, Overall)



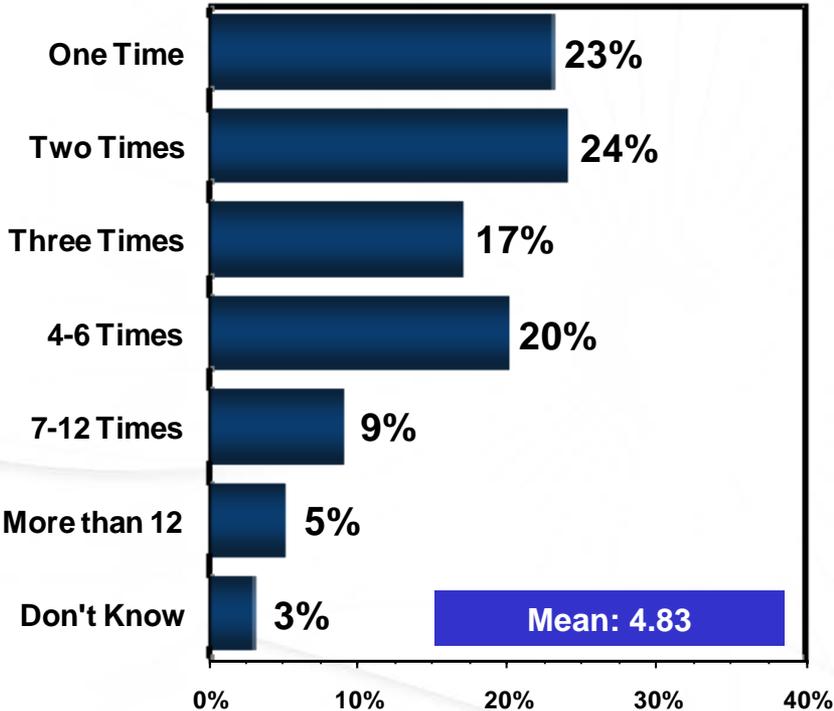
9. Thinking back over the past year, did your home ever experience a power outages? (N=905)
 10. [IF YES TO 9] Approximately how many times has your house lost power in the past year?
 [PROBE: Best estimate is fine.] (N=634)

Businesses: Experience with Power Outages – Past Year

Has Home Lost Power in Past Year?

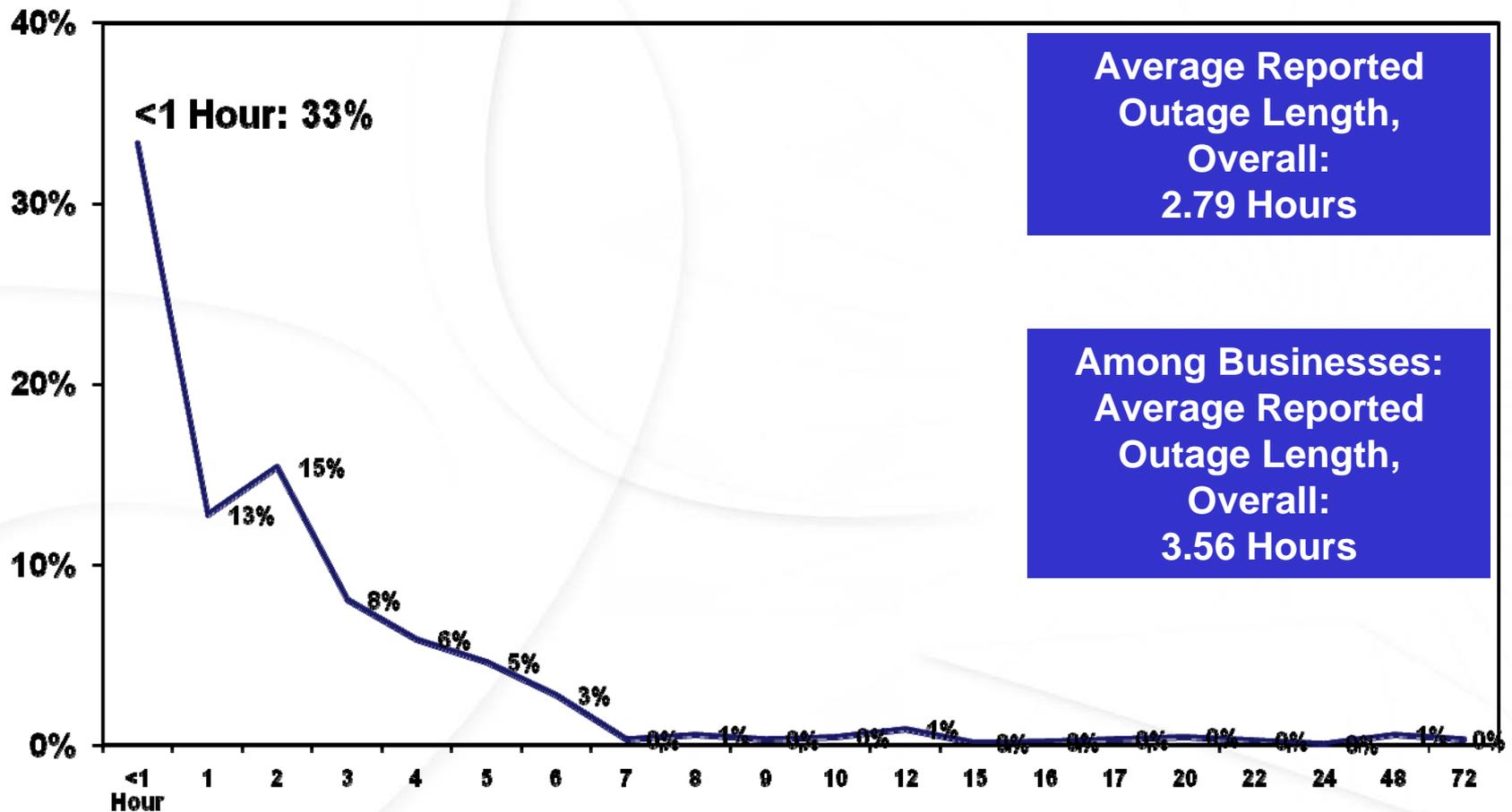


How Many Times in Past Year?
(Ontario, Overall)



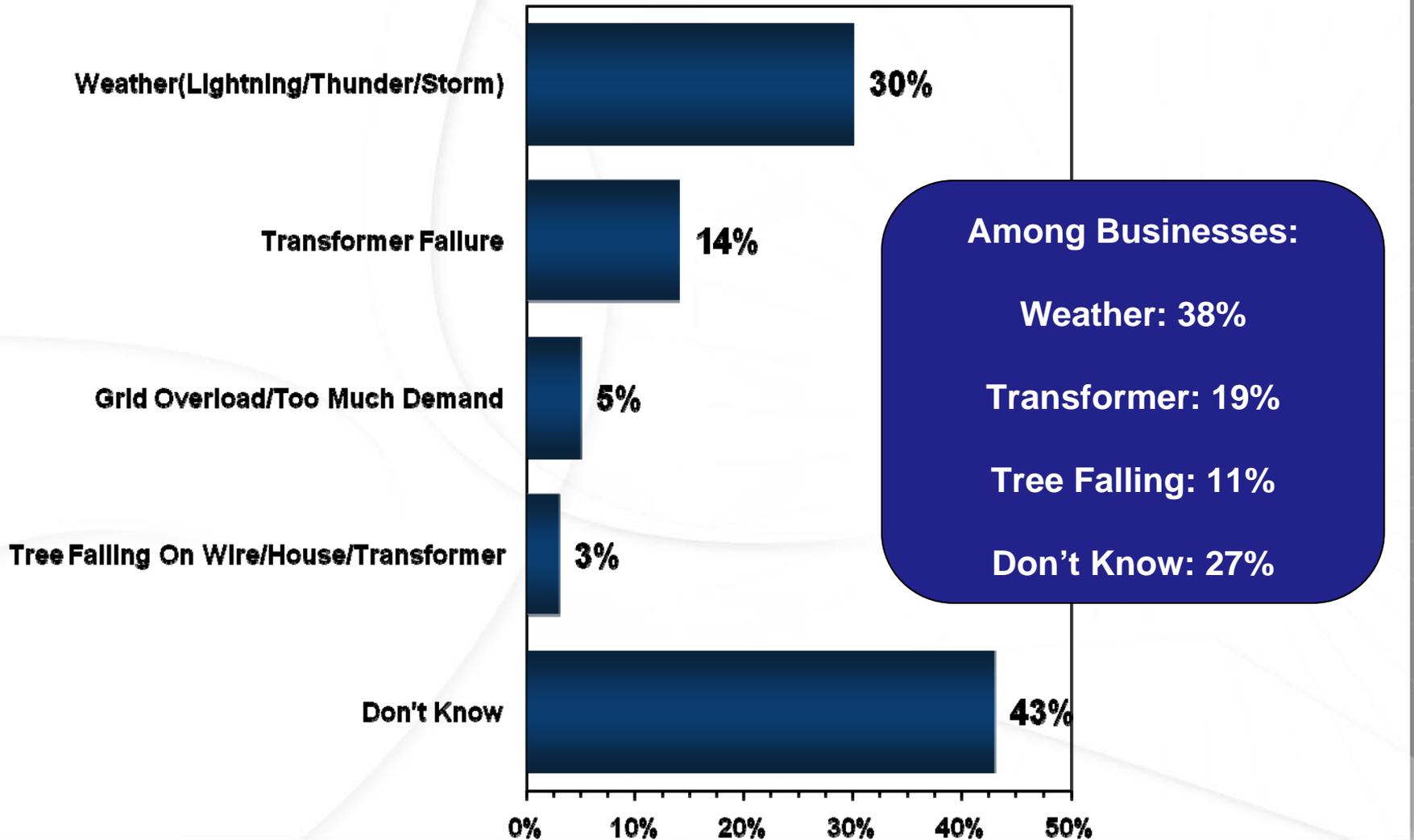
9. Thinking back over the past year, did your home ever experience a power outages? (N=301)
 11. [IF YES TO 9] Approximately how many times has your house lost power in the past year?
 [PROBE: Best estimate is fine.] (N=194)

Consumers: How Long Most Recent Outage Lasted



15H. Approximately how long (in hours) did the outage last? [COMBINED VARIABLE] (N=634).

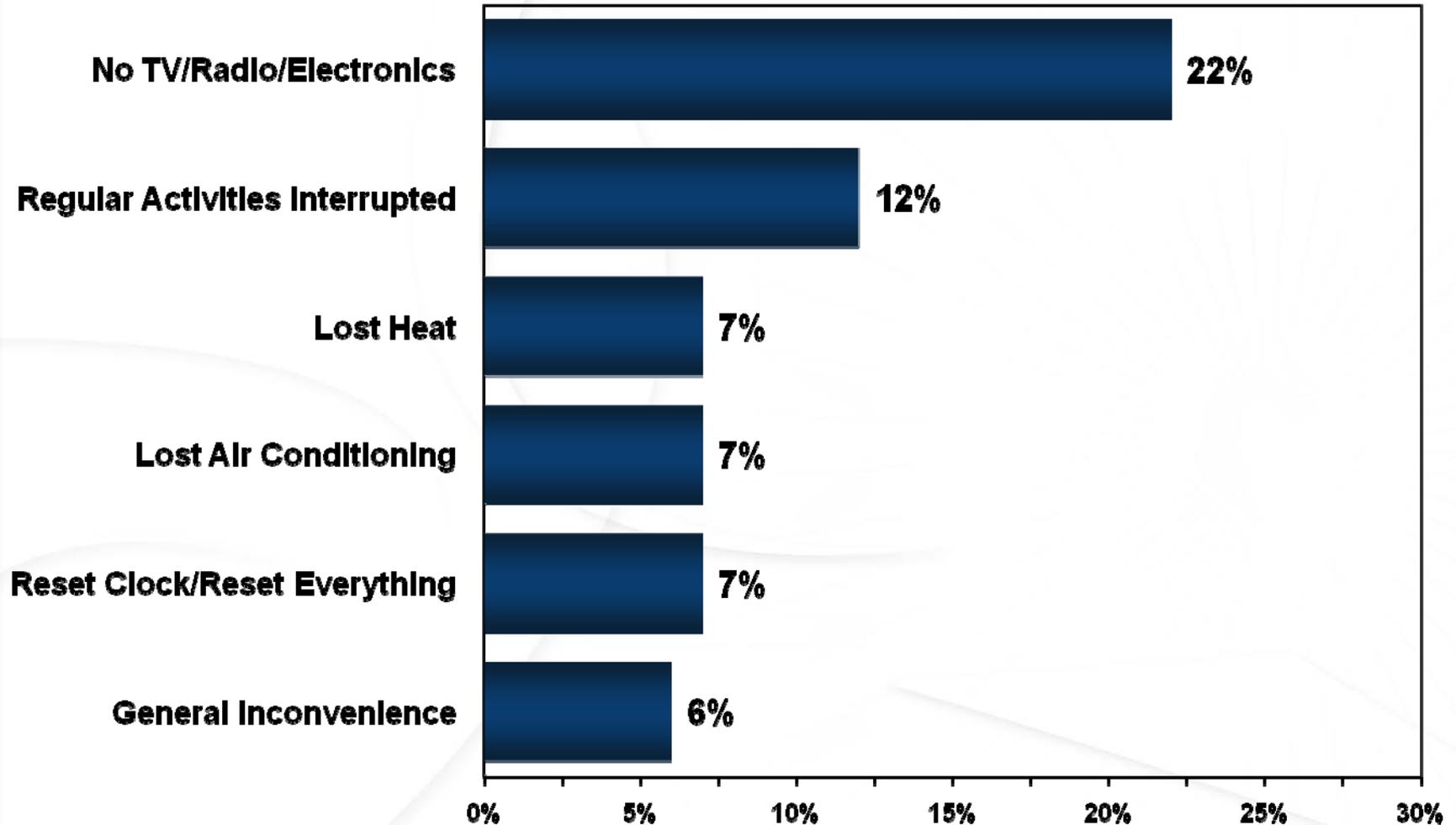
Consumers: Perceived Cause of Most Recent Outage



18. And, to the best of your knowledge, what caused the most recent power outage that you experienced? [OPEN, ACCEPT TWO; MULTIPLE MENTION COMBINED] (N=634)

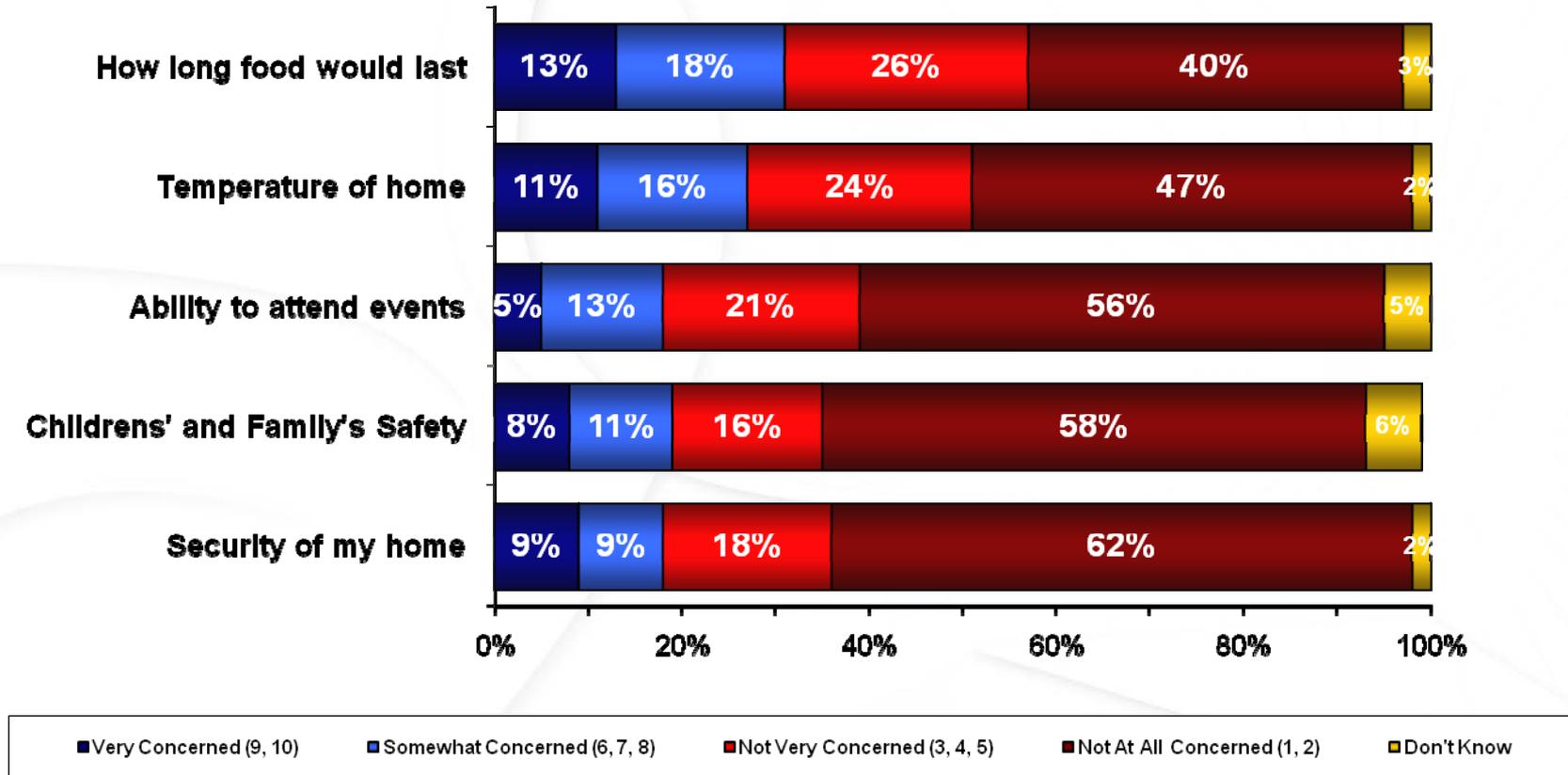
Impact of Power Outages and Expectations

Consumers: Household Impact of Outage



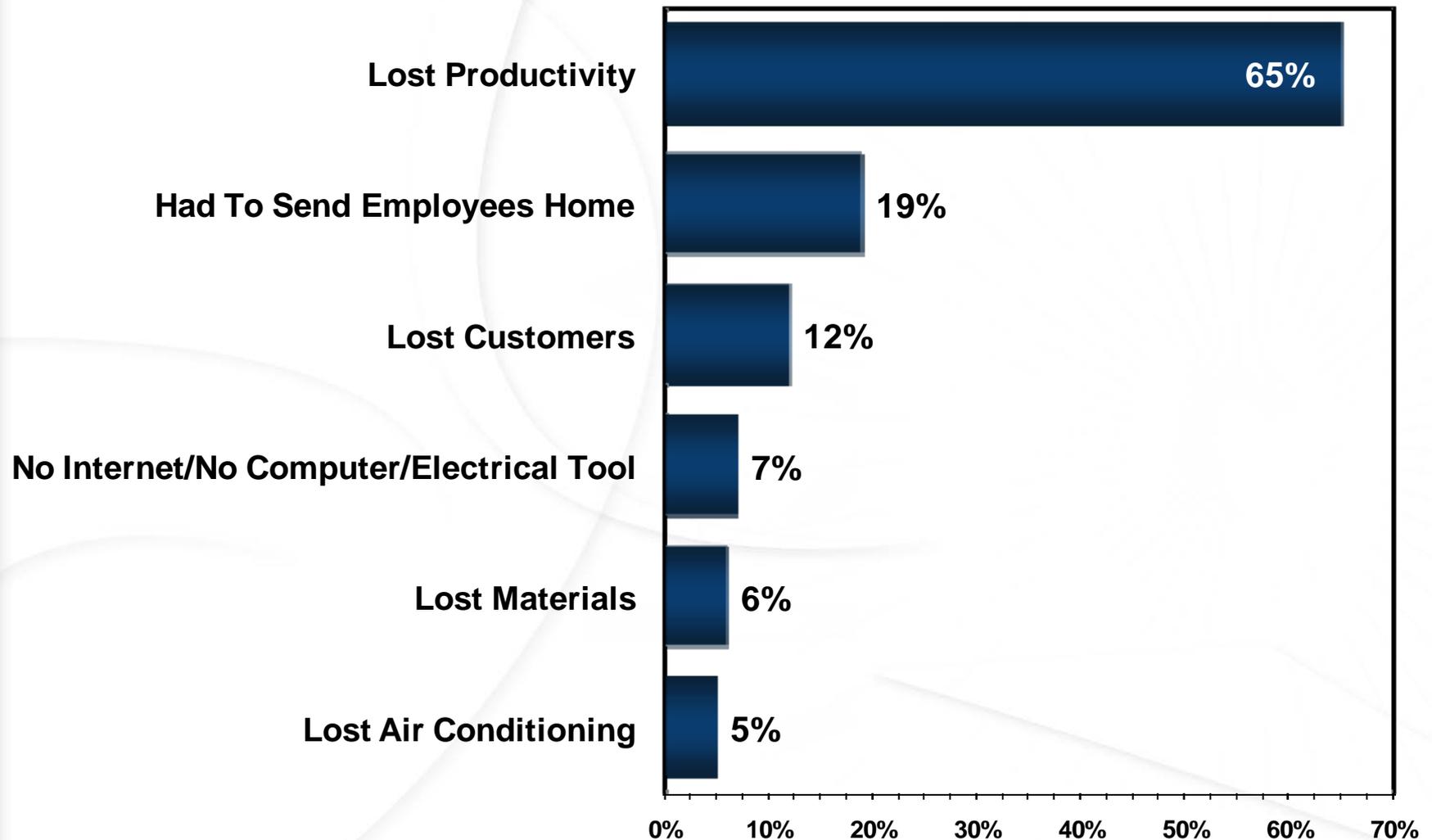
21. And, did it have any impact on you or your family? AMONG 29% "YES": What impact did it have?
[OPEN, ACCEPT THREE; MULTIPLE MENTION COMBINED] (N=182)

Consumers: Concern about Impact of Outage on Household



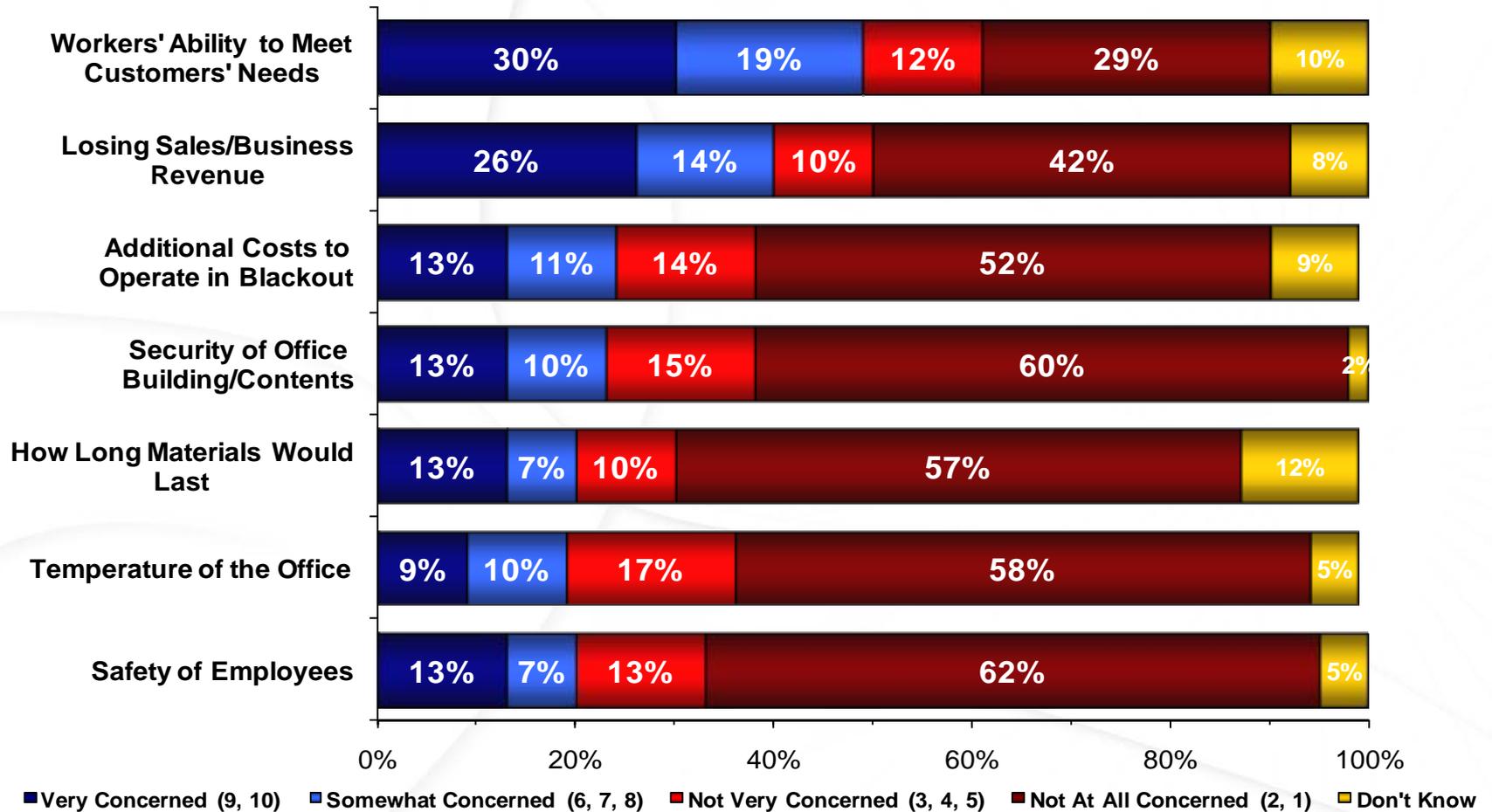
22-26. Thinking back to that most recent power outage again, and using a 1 to 10 scale where 1 is "not at all concerned" and 10 is "very concerned", how concerned were you about the following? What about...? [N for each = 634]

Impact of Outage on Business



23. And, did it have any impact on your business? AMONG 62% "YES": What impact did it have?
[OPEN, ACCEPT THREE; MULTIPLE MENTION COMBINED] (N=117)

Concern about Impact of Outage on Business

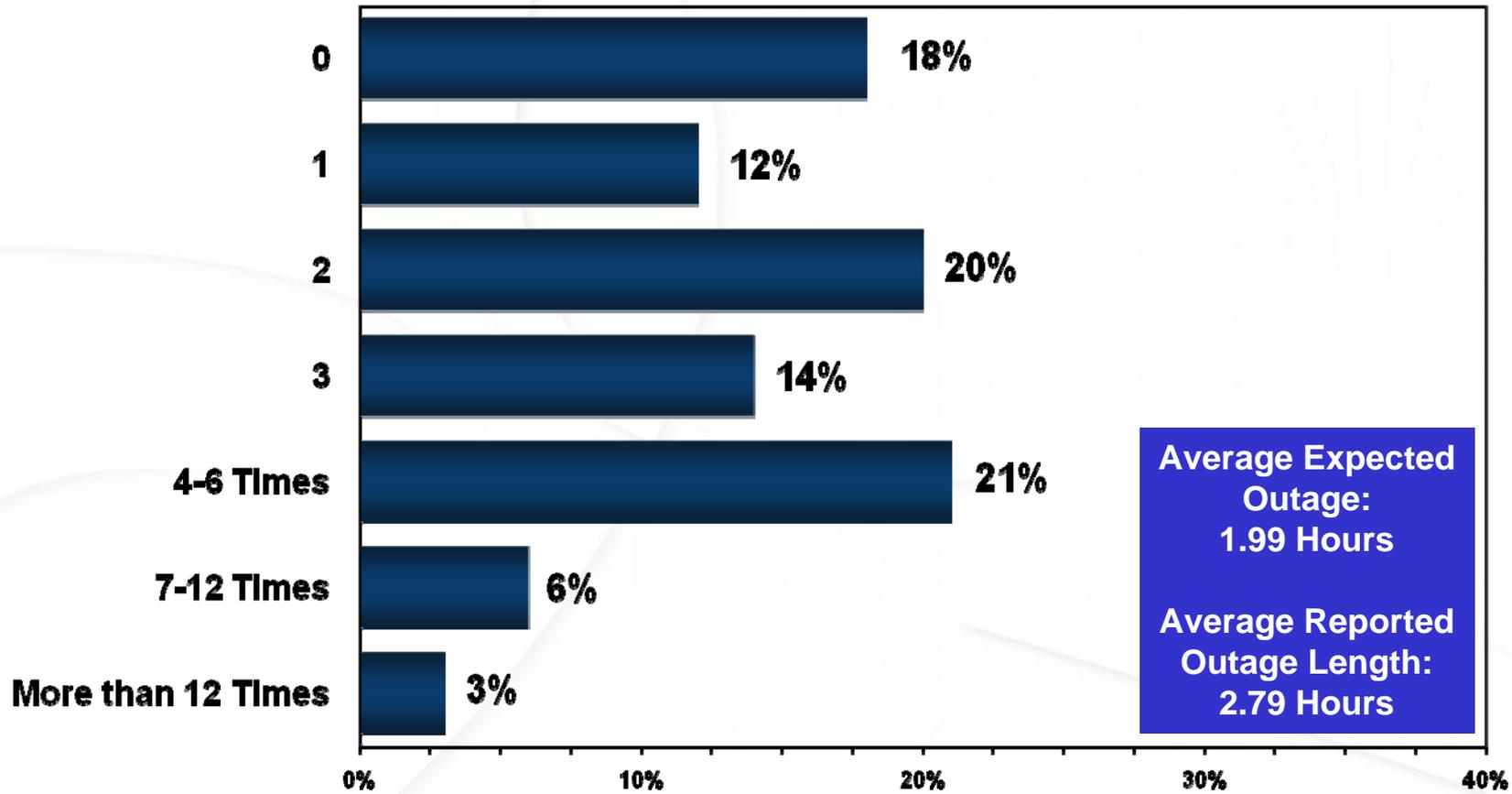


24-30. Thinking back to that most recent power outage again, and using a 1 to 10 scale where 1 is "not at all concerned" and 10 is "very concerned", how concerned were you about the following? What about...? [N for each = 194]

Consumers: Expectations for Number of Outages

Average number of anticipated outages: 3.43/annum

Average number of reported outages (current): 4.78/annum

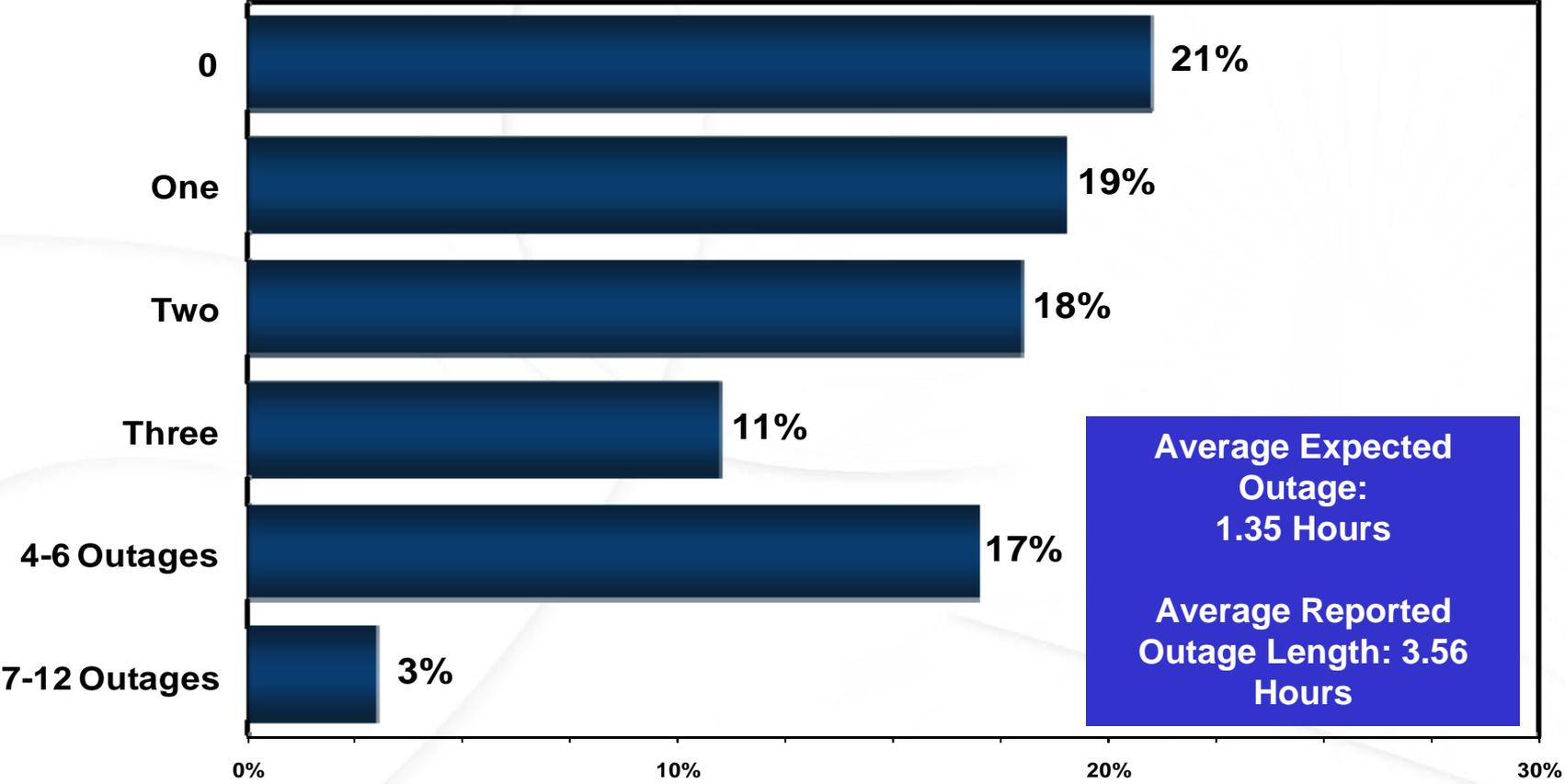


40. Now, thinking about the electricity distribution system in Ontario and your local electrical utility...How many unplanned power outages do you expect to happen at your home in a typical year?

Businesses: Expectations for Number of Outages

Average number of anticipated outages: 2.63/annum

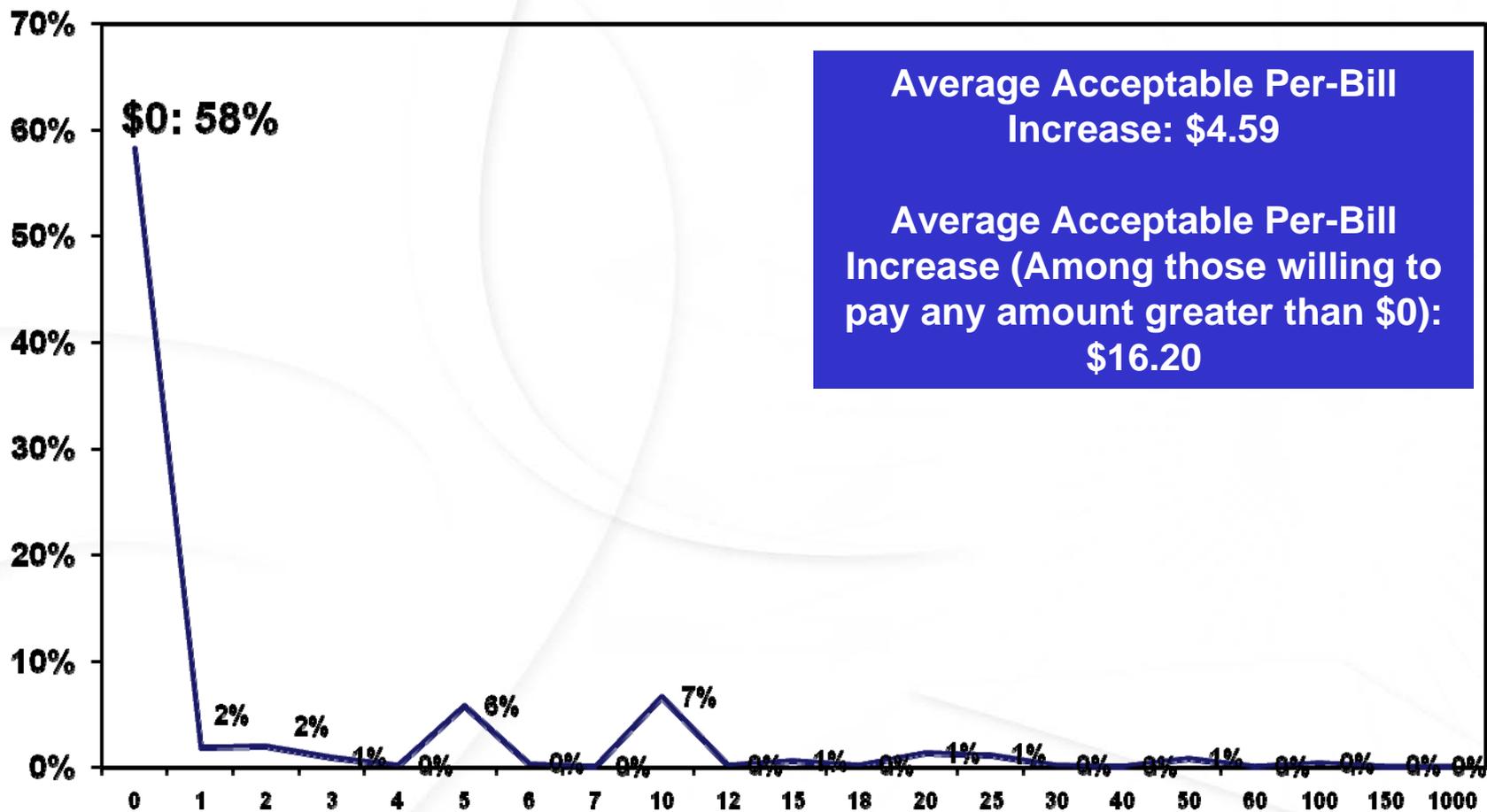
Average number of reported outages (current): 4.83/annum



44. Now, thinking about the electricity distribution system in Ontario and your local electrical utility...How many unplanned power outages do you expect to happen at your home in a typical year? [N=301]

Cost Impacts and Price Sensitivity

Consumers: Acceptable Bill Increase to Reduce Outages



48. And, if these improvements were made, what is the highest increase you would be willing to pay, if anything, on your electricity bill in order to pay for these improvements? (N=905)

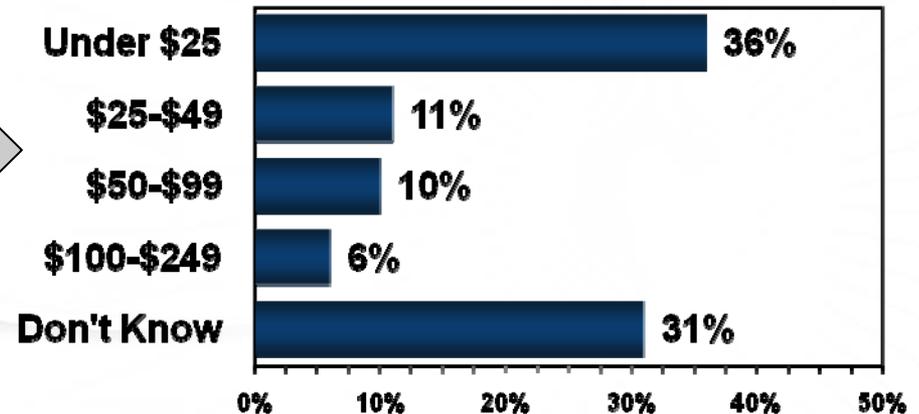
Consumers: Willingness to Accept More Outages for Lower Bill

Willing to accept more outages for lower bill?



If YES then:

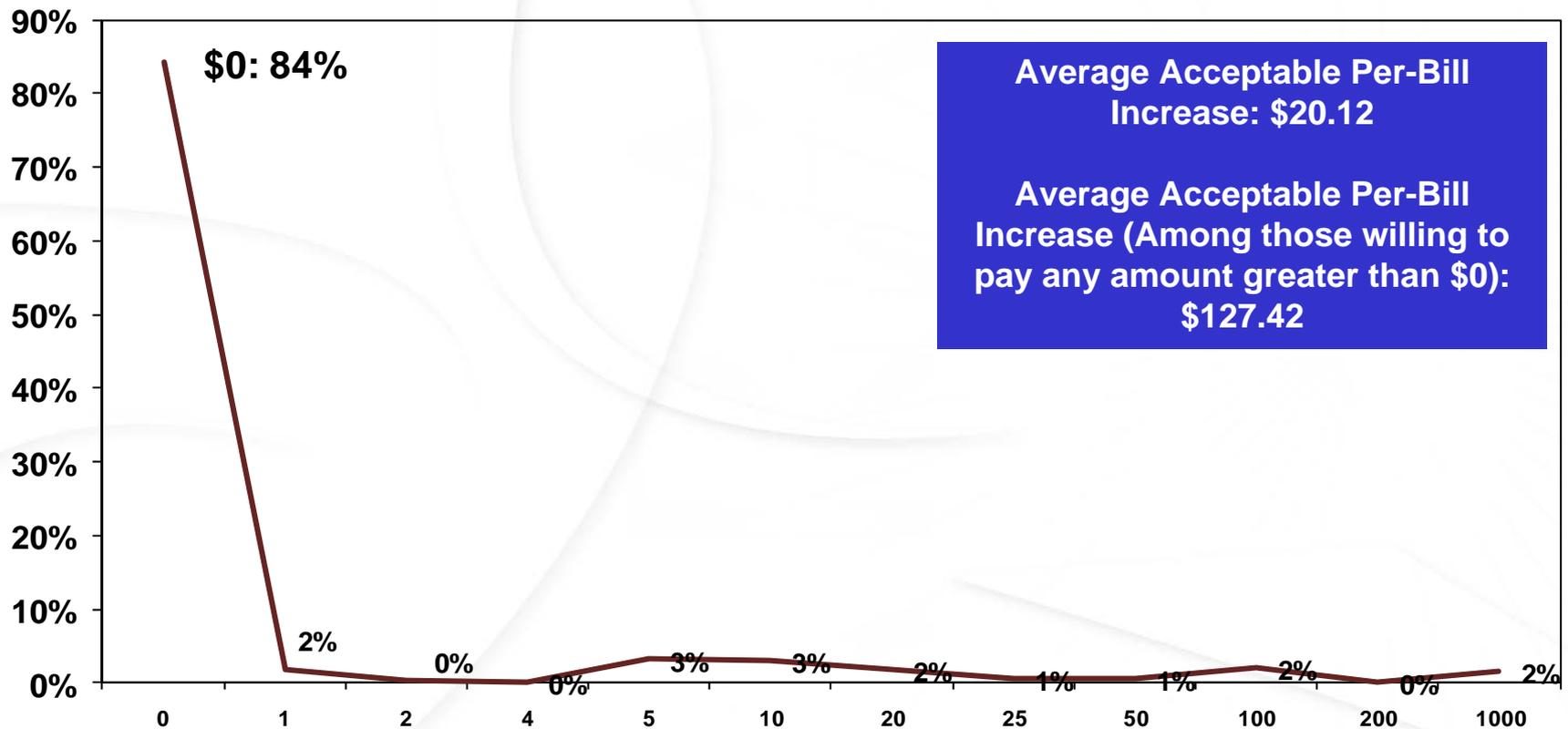
How much of a reduction required?



**Average Expected Bill Decrease:
\$27.85**

49. *Would you be willing to accept your provider not making these improvements, and therefore, having the number of unplanned outages increase, if it meant that you paid less on your electricity bill? (N=905)*
50. *[IF YES TO PREVIOUS] And by what amount must your bill decrease, in order to compensate for the increase in unplanned outages? In other words, what is the smallest reduction that you would accept on your bill? (N=283)*

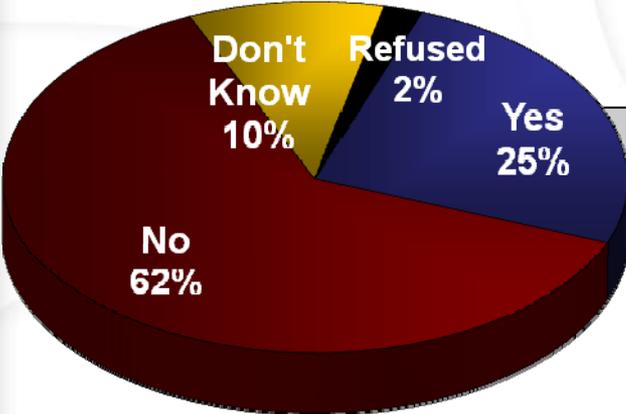
Businesses: Acceptable Bill Increase to Reduce Outages



52. And, if these improvements were made, what is the highest increase you would be willing to pay, if anything, on your electricity bill in order to pay for these improvements? (N=301)

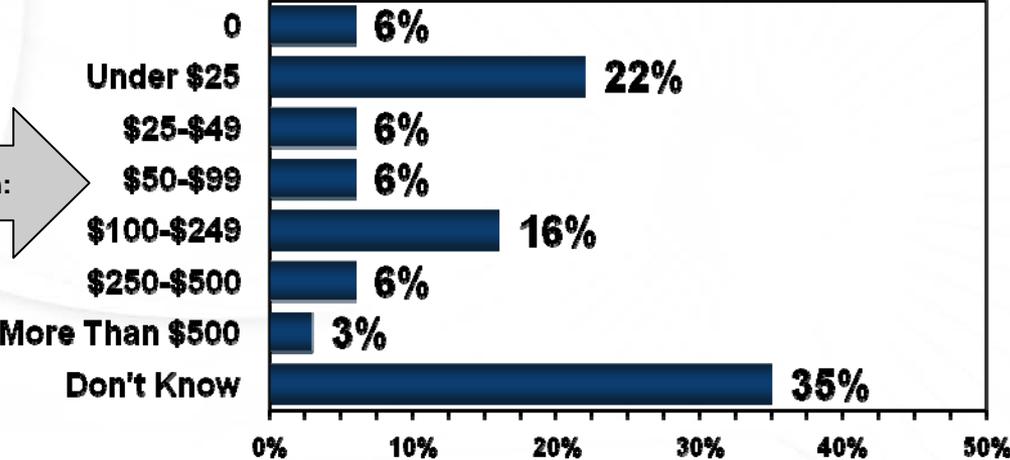
Businesses: Willingness to Accept More Outages for Lower Bill

Willing to accept more outages for lower bill?



If YES then:

How much of a reduction required?



**Average Expected Bill Decrease:
\$125.13**

53. Would you be willing to accept your provider not making these improvements, and therefore, having the number of unplanned outages increase, if it meant that you paid less on your electricity bill? (N=301)
 54. [IF YES TO PREVIOUS] And by what amount must your bill decrease, in order to compensate for the increase in unplanned outages? In other words, what is the smallest reduction that you would accept on your bill? (N=70)

Conclusions and Implications

Conclusions and Implications

- **Strengths: Tolerance of Electricity Consumers**
 - Generally speaking, both business and residential customers *do* expect to experience a few power outages a year.
 - Expectations of businesses are higher than those of residents
- **Weaknesses: Length of Outages, Regional Differences**
 - Ontarians in different parts of the province can have vastly different experiences with outages.
 - Urban/rural divides *do* exist, however are often accounted for in regional differences noted throughout.
 - Both residential and business consumers expect that their power outages will be shorter – in many cases, by an hour or more – than outages that are currently being reported.

Conclusions and Implications

- **Opportunities: Communications and Customer Service**
 - Ratings on individual aspects of service lag behind overall ratings among both business and residential consumers
- **Risks: A highly cost-conscious electricity market**
 - Rising electricity costs are a top electricity concern among businesses and residential customers
 - Majority of business and residential consumers not willing to pay any amount to reduce number of outages

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