



NATIONAL AWARENESS OF ENERGY STAR® FOR 2007

ANALYSIS OF CEE HOUSEHOLD SURVEY



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EXECUTIVE SUMMARY

In the fall of 2007, members of the Consortium for Energy Efficiency (CEE) sponsored the eighth national household survey of consumer awareness of ENERGY STAR. Each year, the survey objectives have largely been the same: to collect national data on consumer recognition, understanding, and purchasing influence of the ENERGY STAR label, as well as data on messaging and product purchases. CEE members may choose to supplement the national sample in order to assess label awareness in their local service territories. In 2007, additional surveys were conducted in Entergy's service territory in parts of Arkansas, Louisiana, Mississippi, and Texas. As in the seven previous years, CEE and sponsoring members made the survey data publicly available.

This report discusses the results of the CEE 2007 ENERGY STAR Household Survey, building on prior years' survey results and focusing on the extent to which consumers recognize the ENERGY STAR label, understand its intended messages, and utilize (or are influenced by) the label in their energy-related purchase decisions. Research questions of interest included:

- Where do consumers see or hear about the ENERGY STAR label?
- How does increased publicity affect recognition, understanding, and influence of the ENERGY STAR label?
- Which key messages about the ENERGY STAR label are consumers retaining?
- Do consumers demonstrate loyalty to the ENERGY STAR label?

Key Findings at the National Level

- Seventy-four percent of households recognized the ENERGY STAR label when shown the label.
- Seventy-six percent of households had a *high* or *general* understanding of the label's purpose. Furthermore, the proportion of households that demonstrated a general understanding was small compared with the proportion that demonstrated a high understanding (11 percent versus 65 percent).
- Sixty-two percent of households associated the ENERGY STAR label with "efficiency or energy savings."
- Of households that recognized the ENERGY STAR label and purchased a product in a relevant product category within the past 12 months, 68 percent purchased an ENERGY STAR-labeled product.
- Among all households, 37 percent knowingly purchased an ENERGY STAR-labeled product in the past 12 months.

- For 73 percent of the households that knowingly purchased an ENERGY STAR-labeled product, the label influenced at least one of their purchase decisions “very much” or “somewhat.” For another 12 percent of these households, the label influenced their purchase decisions “slightly.”
- Twenty-one percent of households that knowingly purchased an ENERGY STAR-labeled product received a financial incentive for doing so. Seventy-seven percent of these households would have been “very likely” (44 percent) or “somewhat likely” (33 percent) to purchase the labeled product without the financial incentive.
- Eighty percent of households that recognized the label and purchased a product in a category where ENERGY STAR-specified products are an option were likely to recommend ENERGY STAR-labeled products to a friend; 29 percent of these households reported that they were “extremely” likely to recommend ENERGY STAR-labeled products.

Key Findings from Publicity-Level Analyses

- A larger proportion of households in high- than in low-publicity areas recognized the ENERGY STAR label, both with and without being shown the label. With a visual aid, 79 percent of households in high-publicity areas recognized the label versus 65 percent in low-publicity areas. (*High-publicity areas* are areas with an active local ENERGY STAR program that has been sponsored by a utility, state agency, or other organization for two or more continuous years.)
- Among households that recognized the ENERGY STAR label (with a visual aid), a larger proportion in high- than in low-publicity areas associated the label with most of the appliances that have historically been heavily promoted by regional program sponsors.
- A larger proportion of households in high- than in low-publicity areas had at least a general understanding of the label.
- Among households that knowingly purchased an ENERGY STAR-labeled product, a larger proportion in high- than in low-publicity areas reported that their purchase decisions were influenced “very much” or “somewhat” by the ENERGY STAR label.
- Considering only households that recognized the label (with a visual aid), a larger proportion of households in high- than in low-publicity areas heard or saw something about ENERGY STAR via TV and radio commercials, newspaper or magazine advertisements, the internet, or billboards.

Conclusions

This eighth national study of household awareness of the ENERGY STAR label confirms key findings from the previous years' surveys:

- Substantial portions of U.S. households in the surveyed population recognize, understand, and are influenced by the ENERGY STAR label.
- The proportion of households that exhibit only a general understanding of the label is small (11 percent) compared with the proportion of households that exhibit a high understanding (65 percent).
- Publicity efforts of active regional/local energy efficiency program sponsors increase recognition, understanding, and influence of the label.

INTRODUCTION

In the fall of 2007, members of the Consortium for Energy Efficiency (CEE) sponsored the eighth national household survey of consumer awareness of ENERGY STAR. Each year, the survey objectives have largely been the same: to collect national data on consumer recognition, understanding, and purchasing influence of the ENERGY STAR label, as well as data on messaging and product purchases. CEE members may choose to supplement the national sample in order to assess label awareness in their local service territories. To this end, in 2007 additional surveys were conducted in the Entergy service territory in parts of Arkansas, Louisiana, Mississippi, and Texas. As in the seven previous years, CEE and sponsoring members made the survey data publicly available.

This report discusses the results of the CEE 2007 ENERGY STAR Household Survey, building on prior years' survey results and focusing on the extent to which consumers recognize the ENERGY STAR label, understand its intended messages, and utilize (or are influenced by) the label in their energy-related purchase decisions. Research questions of interest included the following:

- Where do consumers see or hear about the ENERGY STAR label?
- How does increased publicity affect recognition, understanding, and influence of the ENERGY STAR label?
- Which key messages about the ENERGY STAR label are consumers retaining?
- Do consumers demonstrate loyalty to the ENERGY STAR label?

The remainder of this report summarizes the survey and analysis methodology; provides key findings regarding ENERGY STAR label recognition, understanding, influence, and information sources; and contains appendices presenting detailed survey methodology (Appendix A), demographic information (Appendix B), additional questions from the 2007 survey (Appendix C), and a copy of the 2007 questionnaire (Appendix D). The results presented in this report were in all cases weighted to obtain results applicable at the national level (please refer to Appendix A for details on the weighting methodology).

METHODOLOGY OVERVIEW

During September 2007, CEE fielded a questionnaire to obtain information at the national level on consumer awareness of the ENERGY STAR label (please refer to Appendix A for a more detailed outline of the survey methodology). A random sample of households that are members of an Internet/WebTV panel was surveyed. Both the Internet/WebTV panel as a whole and the sample of households completing the survey were selected by random digit dial and recruited by telephone. The panel is designed to be representative of the U.S. population.

The questionnaire was similar to the questionnaires CEE fielded in previous years. As in previous years, CEE and its sponsoring members made the survey data publicly available.

The survey was a national survey. The sampling frame for this national survey included all households in the largest Nielsen Designated Market Areas[®] (DMAs) that together accounted for about 70 percent of U.S. television households. In 2007, this encompassed the 57 largest DMAs. In addition, CEE members may choose to sponsor more intensive sampling (i.e., an oversample) in selected localities, referred to here as *sponsor areas*. In 2007, Entergy sponsored additional surveys in its service territory in parts of Arkansas, Louisiana, Mississippi, and Texas.

Sponsor areas are not limited to the 57 largest DMAs. Thus, the complete frame for the study was the combination of the largest DMAs and any portion of the sponsor areas that fell outside the 57 largest DMAs.

To facilitate comparisons across years, the national results were based only on data collected from respondents from the 57 largest DMAs. Data collected from respondents not in the 57 largest DMAs, but in a sponsor area, are not included in this analysis. Some of the 57 largest DMAs are also included in the sponsor areas and therefore were oversampled. The data from these respondents (as well as from the other respondents in the 57 largest DMAs) received an appropriate weight in the analysis in order to generate valid national results and facilitate comparison with data from other years.

As in previous years' studies, the DMAs in the sampling frame were classified by publicity category, so that the effect of local energy efficiency program publicity on national awareness could be considered. The same publicity classification procedure used in the past 6 years was used this year.¹ A DMA was classified as *high publicity*, *low publicity*, or *other* using the following criteria:

- **High publicity:** Active local ENERGY STAR program *recently* sponsored by a utility, state agency, or other organization for two or more continuous years. The

¹ Between September 2006 and 2007, 4 of the 57 largest DMAs changed publicity category: Chicago, Louisville, Salt Lake City, and Washington DC. All four changed from "Other" to "High".

activities must include *sustained* promotions and publicity from non-federal sources.

- **Low publicity:** Federal campaign activities only and no *significant* regional program sponsor activities.
- **Other:** All other DMAs.

This classification was designed to provide clear and verifiable definitions. The key working definitions are below:

- **Recent:** The two years of activity must include the time period during which the survey was in the field.
- **Sustained:** The two years of activity must be continuous.
- **Significant:** In addition to any direct federal publicity efforts, publicity efforts must include a deliberate and multifaceted regional program sponsor investment in ENERGY STAR programming, such as direct marketing efforts or the creation and distribution of promotional material.

These definitions were constructed to be sufficiently operational to be applicable to future survey efforts; they can be modified by simply increasing the duration of sustained high publicity.

The sample was stratified by publicity category and sponsor area. The sample consisted of the following four strata:

1. High Publicity Category within the 57 Largest DMAs;
2. Low Publicity Category within the 57 Largest DMAs;
3. Other Publicity Category within the 57 Largest DMAs; and
4. Entergy Service Territory within All DMAs.

Entergy requested a simple random sample across all DMAs in its sponsor area. CEE members who fund oversamples for a sponsor area determine the total number of sampling points allocated to the sponsor area as a whole. One hundred sample points were allocated to the Entergy service territory stratum. Among the top 57 DMAs, for areas located outside the sponsor area, each publicity category was allocated approximately 333 sampling points.

This report presents the 2007 survey results at the national level and by publicity category. The publicity category results provide evidence of the effectiveness of EPA's model for increasing awareness, understanding, and use of ENERGY STAR by supporting regional energy efficiency program sponsors. Results are presented on consumer recognition and understanding, and purchasing influence of the ENERGY STAR label, as well as on messaging, product purchases, and information sources consumers use in their purchasing decisions.

In this report, the following terminology is used in comparing results across years or sub-categories: (1) The term “significant” implies statistical significance. In other words, differences between proportions that are described as “significant” are at least statistically different at the 10-percent level of significance. In some cases, the p-values are given to provide the exact level of statistical significance. (2) Unless stated otherwise, terms such as “smaller,” “larger,” “increase,” or “decrease” refer to changes that are statistically significant at the 10-percent level or better. (3) The term “similar” implies that there is no statistical difference between the results being compared at the 10-percent level of significance. In other words, the difference between the results is within the bounds that would be expected from chance variation in a random sample.

KEY FINDINGS

RECOGNITION

In 2007, 74 percent of households recognized the ENERGY STAR label when shown the label (i.e., *aided recognition*). Fifty-eight percent of households recalled seeing or hearing of the ENERGY STAR label without first being shown the label (i.e., *unaided recognition*).

For purposes of this analysis, respondents were said to recognize the ENERGY STAR label if they had seen or heard of the label before the survey. Recognition of the label was explored in two ways. Unaided recognition was measured by asking if the respondent had seen or heard of the ENERGY STAR label without showing the label. Delivery of the survey by Internet/WebTV made it possible to measure unaided recognition. Aided recognition was measured by showing respondents the ENERGY STAR label and then asking if they had seen or heard of the label. Both methods are useful measurements of label recognition, although unaided recognition is the more conservative of the two.

Recognition results for both the 2007 and 2006 surveys are summarized in the following table. Both aided and unaided recognition of the ENERGY STAR label in 2007 were greater than in 2006. For aided recognition, the 2007 and 2006 proportions are statistically different from each other at the 5-percent level of significance (p-value = 0.024). For unaided recognition, results for the two years were also significantly different at the 5-percent level (p-value = 0.014).

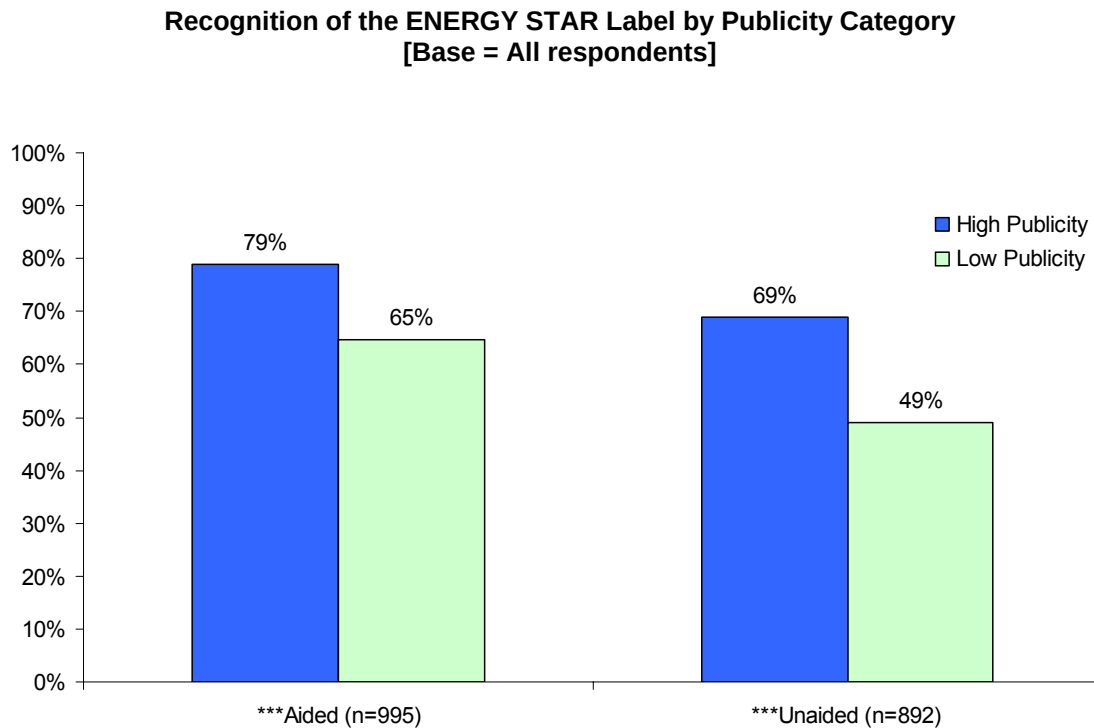
Recognition of the ENERGY STAR Label
[Base = All respondents]

Recognize ENERGY STAR Label	2007		2006	
	Aided (n=995)	Unaided (n=892)	Aided (n=2,176)	Unaided (n=1,900)
Yes	74%	58%	68%	51%
Standard error	1.7%	2.1%	1.7%	1.9%

Note: The unaided recognition results for both 2006 and 2007 are based on the question ES1: "Have you ever seen or heard of the ENERGY STAR label?" The sequence and numbering of questions on which the aided recognition results are based, however, was slightly different in 2007 than it was in 2006. A more detailed explanation of the differences between the 2007 and 2006 question sequence and numbering is located Appendix A, Section 1.3.4—Effects on Aided Recognition and Understanding.

Recognition by Publicity Category

Both aided and unaided recognition were higher in high-publicity areas than in low-publicity areas. After being shown the ENERGY STAR label, 79 percent of households in high-publicity areas recognized the label versus 65 percent in low-publicity areas. Unaided recognition was 69 percent in high-publicity areas compared with 49 percent in low-publicity areas.



*** High- and low-publicity area proportions are statistically different from each other at the 1-percent level of significance ($p\text{-value} \leq 0.01$).

Product Associations

Households who recognized the ENERGY STAR label (aided) indicate strong association between products historically supported by regional energy efficiency programs (refrigerators, washing machines, dishwashers, compact fluorescent light bulbs, etc.) and the ENERGY STAR label.

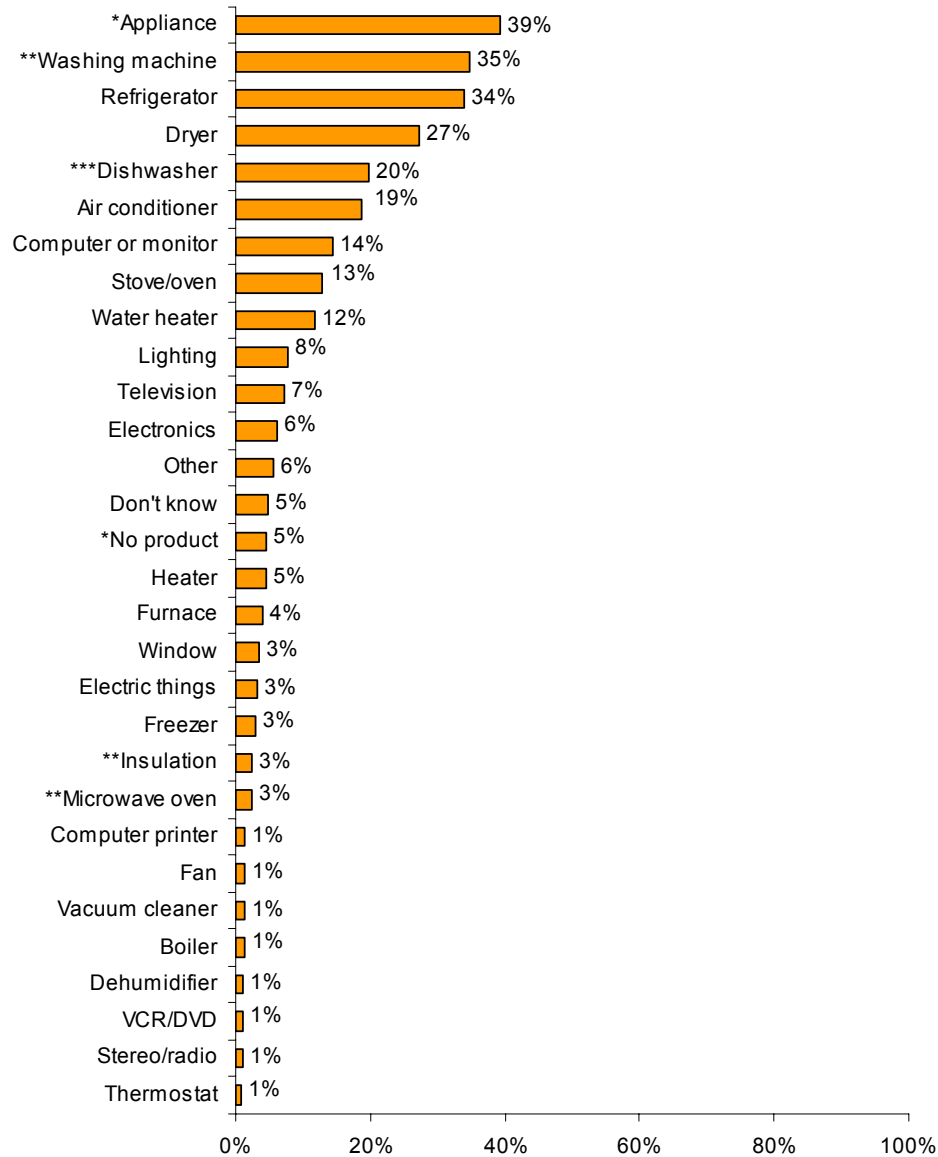
Survey respondents that recognized the ENERGY STAR label (aided) were asked, “What types of products, goods, and services do you think of when you think of the ENERGY STAR label?” (survey question QA). The figure on the next page presents the results for this question, which indicate *unprompted* product associations.

Unprompted, appliances, washing machines and refrigerators showed the strongest association with the label at 34 to 39 percent. Clothes dryers followed at 27 percent. The next most strongly associated unprompted products were air conditioners and dishwashers at 19 and 20 percent, respectively.

Most products that showed a strong association with the ENERGY STAR label unprompted also showed a strong association with the label when prompted. However, the list of products mentioned by households without being prompted also includes several products that do not have an ENERGY STAR specification: clothes dryers, water heaters, microwave ovens, and stoves or ovens.

When prompted, eighty percent of households had seen the label on refrigerators. At about 70 percent, washing machines and dishwashers were the next products most commonly associated with the ENERGY STAR label. Windows, room and central air conditioners followed at 49 percent. However, 39 percent of households associated microwave ovens with the ENERGY STAR label, although they do not in fact have an ENERGY STAR specification. (Nevertheless, of all appliances, microwave ovens were the least often associated with the label). Seven products showed a significant increase in prompted association with the ENERGY STAR label from 2006 to 2007: refrigerators, washing machines, dishwashers, windows, compact fluorescent light bulbs, doors, and insulation.

Product Association with the ENERGY STAR Label Unprompted
[Base = Recognize label (aided), n = 540]



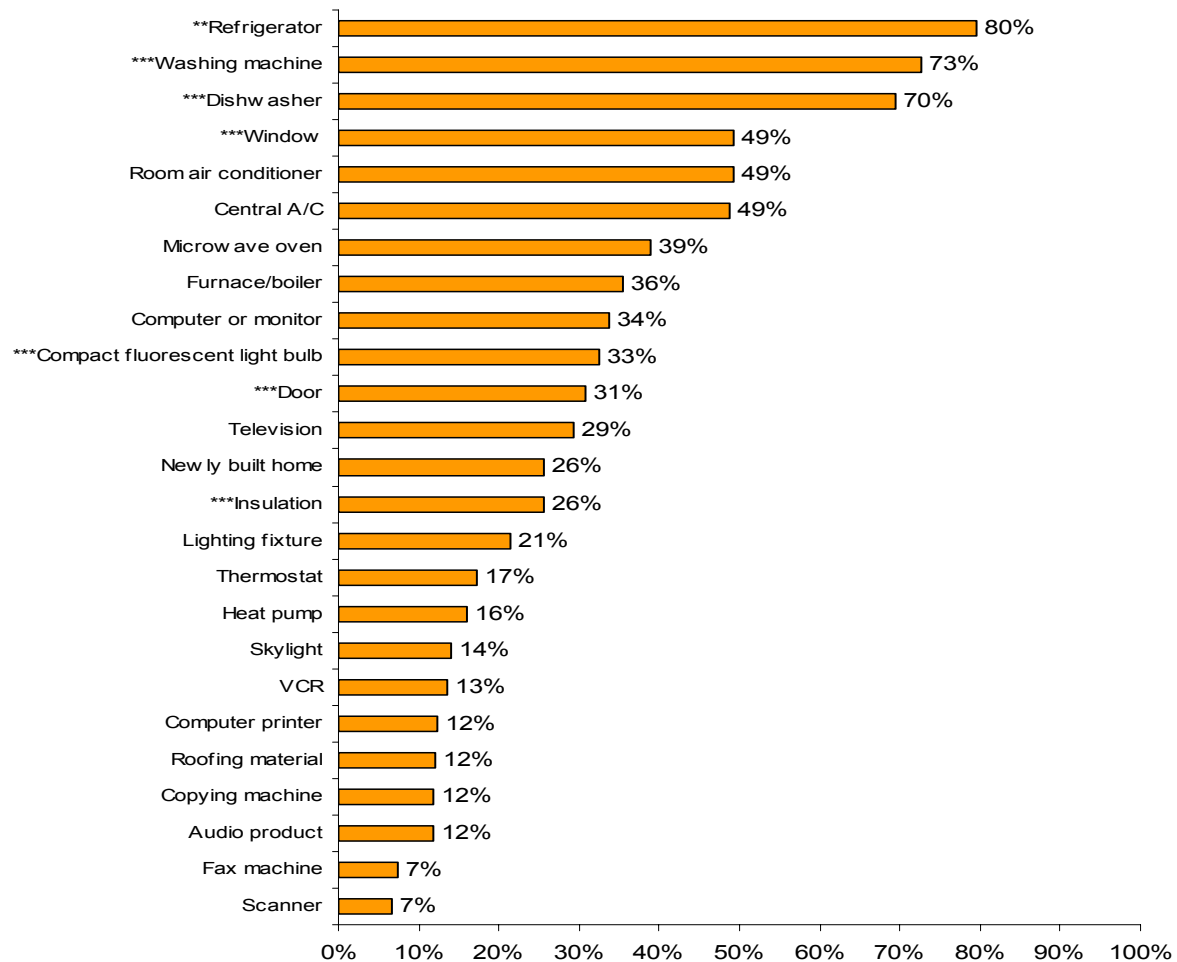
Note: QA: "What types of products, goods, or services do you think of when you think of the ENERGY STAR label? Please write your answers below."

*** 2007 and 2006 proportions are statistically different from each other at the 1-percent level of significance (p-value $\leq$ 0.01). The proportion of households in 2007 is larger than in 2006.

** 2007 and 2006 proportions are statistically different from each other at the 5-percent level of significance (p-value $\leq$ 0.05). The proportion of households in 2007 is larger than in 2006 for Washing Machines and Insulation. The proportion of households in 2007 is smaller than in 2006 for Microwave Oven.

* 2007 and 2006 proportions are statistically different from each other at the 10-percent level of significance (p-value $\leq$ 0.10). The proportion of households in 2007 is larger than in 2006 for Appliance. The proportion of households in 2007 is smaller than in 2006 for No Product.

Prompted Product Association with the ENERGY STAR Label
[Base = Recognize label (aided)²]



Note: Q5 (a, b, and c): "Now we're going to ask you about several groups of products. As you review the list, please select each of the products, product literature, or packaging on which you have seen the ENERGY STAR label."

*** 2007 and 2006 proportions are statistically different from each other at the 1-percent level of significance ($p\text{-value} \leq 0.01$). The proportion of households in 2007 is larger than in 2006.

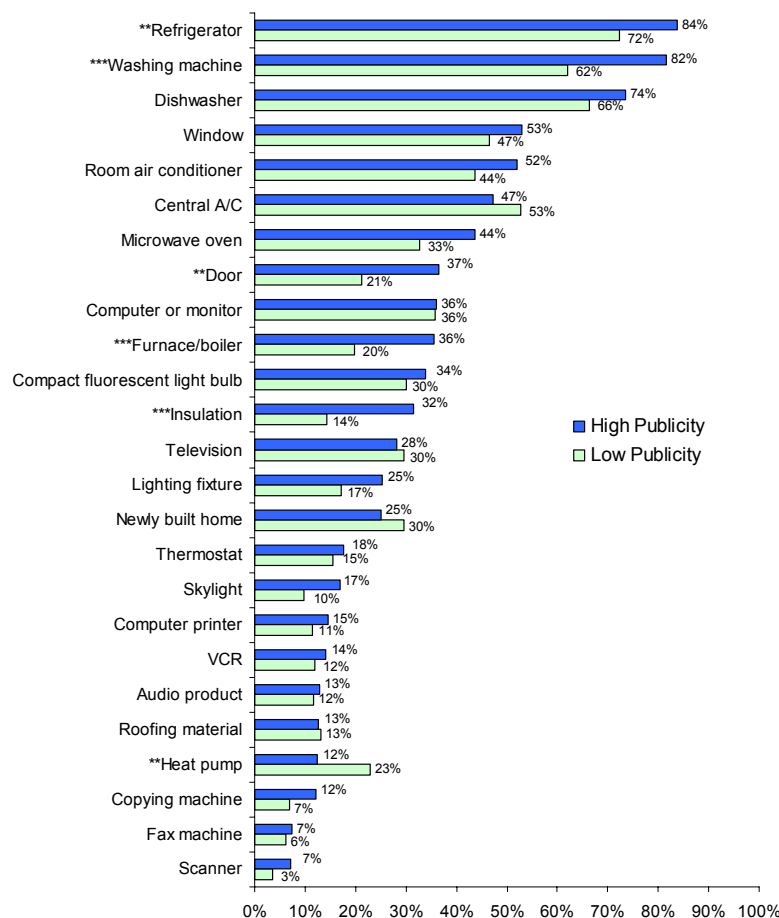
** 2007 and 2006 proportions are statistically different from each other at the 5-percent level of significance ($p\text{-value} \leq 0.05$). The proportion of households in 2007 is larger than in 2006.

² Respondents were asked about three sets of product groupings: (1) Heating and Cooling Products and Home Office Equipment, (2) Home Appliances/Lighting and Home Electronics, and (3) Building Materials and Buildings. The sample size, n , for each of these sets of product groupings is 559; 554; and 528; respectively.

Product Associations by Publicity Category

For refrigerators, washing machines, doors, furnace/boilers, and insulation, a larger proportion of households in high- than low-publicity areas associated these products with the ENERGY STAR label when prompted. Regional energy efficiency program sponsors promoted refrigerators, washing machines, and room air conditioners heavily. A significantly smaller proportion of households associated heat pumps in high- than in low-publicity areas in 2007. This result was seen for heat pumps in each of the previous three years.

Prompted Product Association with the ENERGY STAR Label by Publicity Category
[Base = Recognize label (aided)]³



*** High- and low-publicity area proportions are statistically different from each other at the 1-percent level of significance ($p\text{-value} \leq 0.01$).

** High- and low-publicity area proportions are statistically different from each other at the 5-percent level of significance ($p\text{-value} \leq 0.05$).

³ As discussed in Footnote 2, respondents were asked about three sets of product groupings. For high- and low- publicity areas, the sample sizes for Heating and Cooling Products and Home Office Equipment were 200 and 169, respectively. For Home Appliances/Lighting and Home Electronics, sample sizes for high and low publicity areas were 200 and 165, respectively. For Building Materials and Buildings, the corresponding sample sizes were 191 and 160, respectively.

UNDERSTANDING

In 2007, 76 percent of households had at least a general understanding of the ENERGY STAR label. Furthermore, the proportion of households that exhibited only a general understanding (11 percent) was small compared with the proportion that exhibited a high understanding (65 percent). The level of understanding was investigated by asking respondents what messages came to mind when they saw the ENERGY STAR label. Based on the reported messages, a respondent's understanding was classified as *high*, *general*, or *no understanding*.

The 2007 and 2006 survey results on the level of understanding of the ENERGY STAR label are provided in the following table. Due to changes in the survey skip patterns in 2006, the base of respondents who were asked questions related to their level of understanding was different than in previous years. In 2007, the survey reverted back to the skip patterns used prior to 2006; therefore the 2007 results can only be directly compared to results from years prior to 2006.

Level of Understanding of the ENERGY STAR Label
[Base = All respondents]

Level of Understanding of the Label	2007 (n=1,051)	2006 (n=1,755)
High understanding	65%	61%
General understanding	11%	12%
No understanding	24%	27%
Total	100%	100%

Note: The Level of Understanding of the ENERGY STAR Label is determined using the open-ended responses to two questions (1) ES2: "What does the ENERGY STAR label mean to you?", and (2) ES4A1: "Please look at the ENERGY STAR labels on the left. Type the messages that come to mind when you see the ENERGY STAR labels."

In 2007 and years prior to 2006, all respondents were asked either ES2 or ES4A1, depending on their answers to ES1. Respondents that answered "Yes" to ES1 were then asked ES2, while all other respondents were asked ES4A1. In the 2006 survey, respondents that answered "No" or "Don't Know" to ES1 and "Yes" to either of the "shown label" questions that followed (ES3B or ES3C in 2006) were not asked ES4A1.

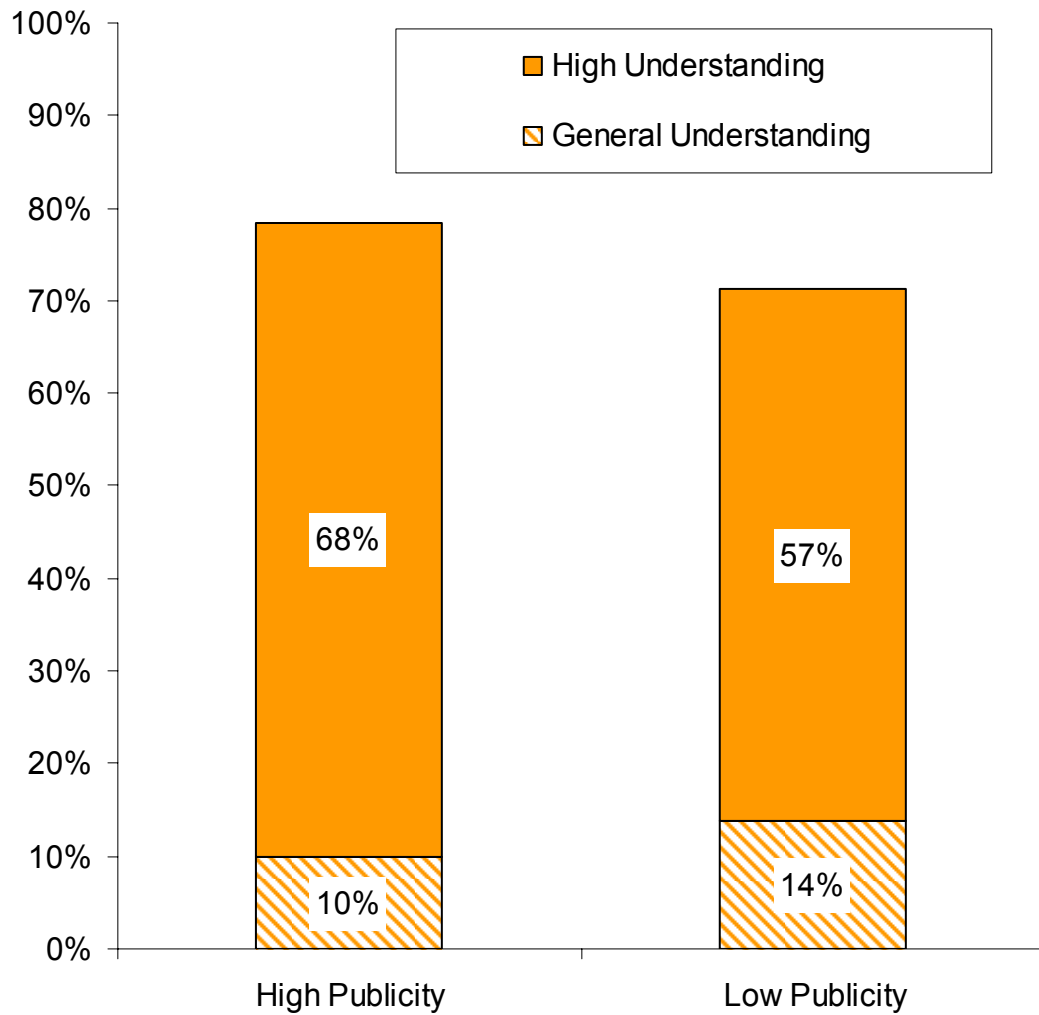
Understanding by Publicity Category

The level of understanding of the ENERGY STAR label was greater in high- than in low-publicity areas. Seventy-eight percent of households in high-publicity areas had at least a general understanding of the label compared with 71 percent of households in low-publicity areas. This difference is statistically significant at the 10-percent level (p-value = 0.075). Among those households with at least a general understanding of the ENERGY STAR label, more households exhibited a high degree of understanding in both publicity categories.

Understanding of the ENERGY STAR Label by Publicity Category
[Base = All respondents]

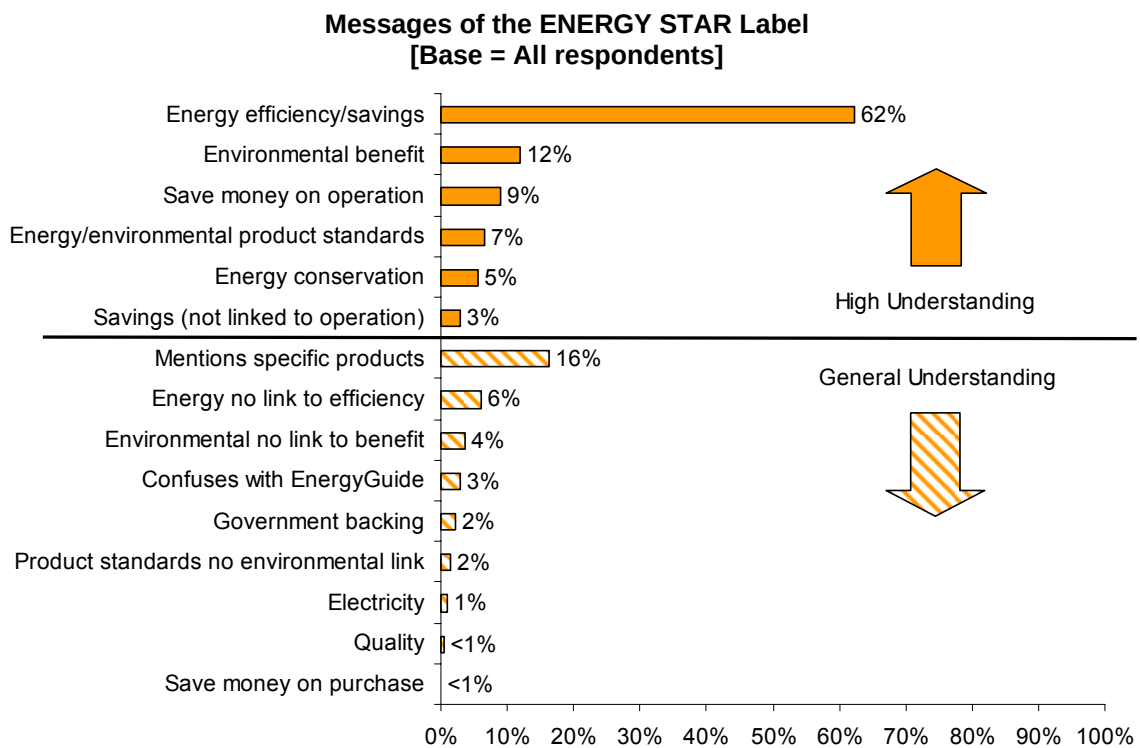
Publicity Category	At Least General Understanding of Label
High	78%
Low	71%
Difference (High minus Low)	7%
p-value	0.075

Understanding of the ENERGY STAR Label by Publicity Category
[Base = All respondents]



Label Messaging

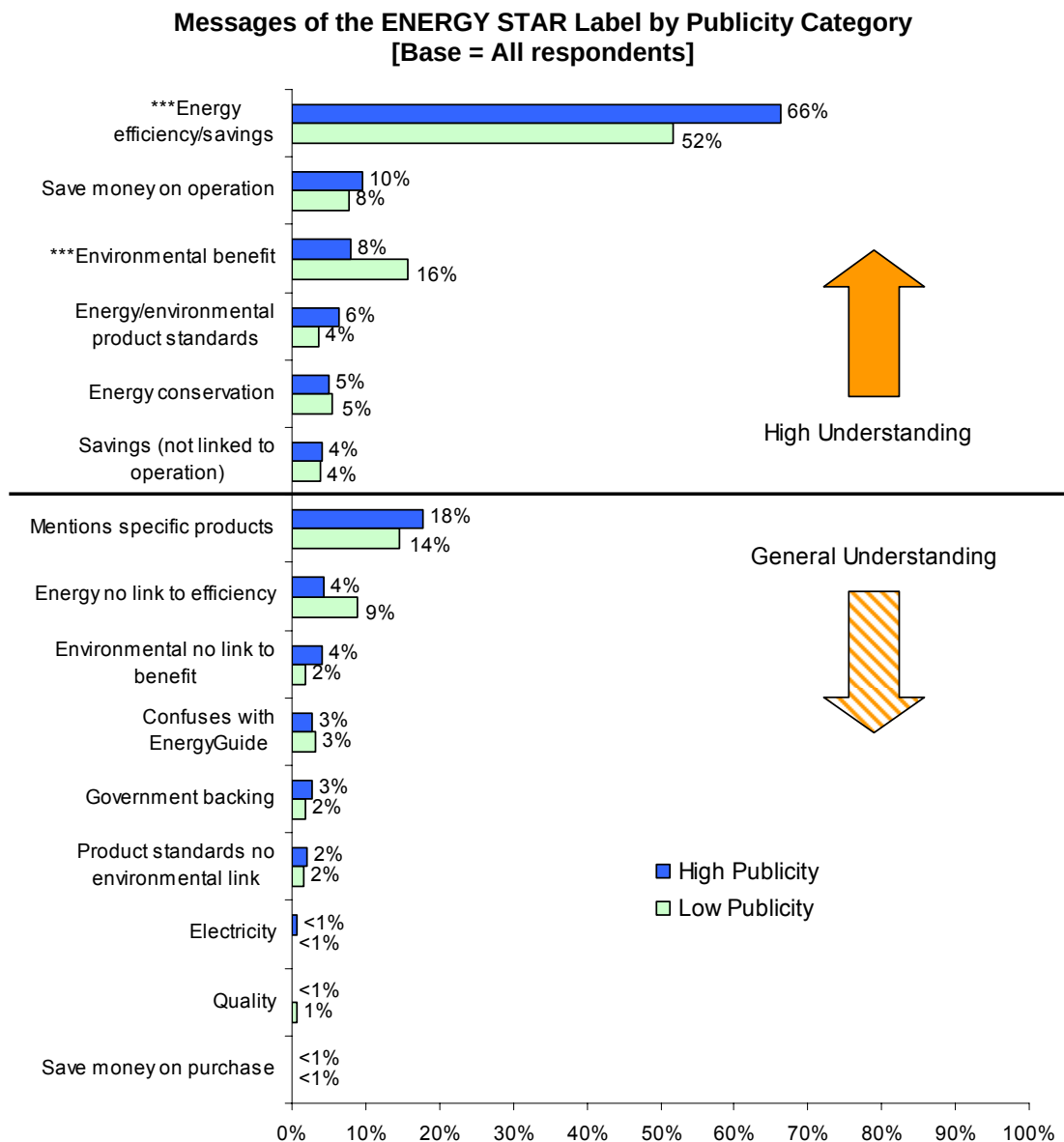
Open-ended responses to the questions on the level of understanding of the ENERGY STAR label are an indicator of how effectively EPA communicates its messages through the label. These responses are used in the analysis of understanding in the previous section. By far, the most common message associated with the label was “energy efficiency or energy savings,” which is considered high understanding of the label. Sixty-two percent of households surveyed associated the ENERGY STAR label with this message. The second most common response was “associating specific products with the ENERGY STAR label,” at 16 percent of households, which classified as general understanding of the label.⁴



⁴ A discussion of differences in the label messaging results across years is not included here. Due to changes in the 2006 survey, the base of respondents who were asked questions related to their level of understanding was different than in previous years. Therefore the 2007 and 2006 results related to a household's understanding of the ENERGY STAR label are not directly comparable.

Messaging by Publicity Category

For most messages, the proportion of households that associated the message with the ENERGY STAR label was similar for high- and low-publicity areas. However, for the “Energy efficiency/savings” message, a significantly larger proportion of households in high- than in low-publicity areas associated the message with the label. A larger proportion of households in the low- than in high-publicity areas associated the “Environmental benefit” message with the label.



*** High- and low-publicity area proportions are statistically different from each other at the 1-percent level of significance (p-values≤0.01).

Understanding by Aided Recognition

Households that recognized the ENERGY STAR label when shown the label were more likely to have at least a general understanding of the label than those that did not recognize the label. In 2007, 82 percent of households that recognized the ENERGY STAR label had at least a general understanding of it, while among households that did not recognize the label, 59 percent had at least a general understanding of it. Although the table below also provides the 2006 results, a direct comparison of the 2007 and 2006 findings is not appropriate due to differences in the survey across these years.⁵

Understanding of the ENERGY STAR Label by Aided Recognition of the Label
[Base = All respondents]

Recognize ENERGY STAR Label Aided	At Least General Understanding of Label	
	2007	2006
Yes	82%	86%
No	58%	56%
Difference (Yes minus No)	24%	30%
p-value	<0.0001	<0.0001

⁵ A discussion of differences in the label messaging results across years is not included here. Due to changes in the 2006 survey, the base of respondents who were asked questions related to their level of understanding was different than in previous years. Therefore the 2007 and 2006 results related to a household's understanding of the ENERGY STAR label are not directly comparable.

INFLUENCE

The survey provided some insight into consumers' decisions to purchase ENERGY STAR-labeled products, including the following:

- The proportion of households nationwide that recognized the ENERGY STAR label and knowingly purchased an ENERGY STAR-labeled product
- The influence of the label on purchase decisions
- The role of rebates or financing in decisions to buy ENERGY STAR products
- The loyalty of purchasers to ENERGY STAR products

Purchases of ENERGY STAR Products

In order to estimate the proportion of *all* households that knowingly purchased an ENERGY STAR product, the following three proportions were multiplied:

- The proportion of all households that recognized the ENERGY STAR label (aided)
- Of the households that recognized the label (aided), the proportion that purchased a product in a product category that has an ENERGY STAR specification
- Of the households that recognized the label (aided) and purchased a product in a relevant category, the proportion that knowingly purchased an ENERGY STAR product

The result is that 37 percent of all households knowingly purchased an ENERGY STAR product in the past twelve months. This proportion is 6 percentage points higher than it was in 2006, at 37 versus 31 percent. This difference is statistically significant at the 10-percent level (p -value = 0.070).

**Purchased ENERGY STAR
(Base = All respondents)**

Purchased ENERGY STAR product	2007 (n=995)	2006 (n=2,176)
Estimate (yes)	37%	31%
Standard Error	2.6%	2.0%

An increase in the proportion of all households that knowingly purchased an ENERGY STAR product could be due to an increase in any of the three proportions listed above between 2006 and 2007. A close look at the survey results shows that two of the three proportions increased from 2006 and 2007: (1) the proportion of all

households that recognized the ENERGY STAR label (aided), and (2) of the households that recognized the label (aided), the proportion that purchased a product in a product category that has an ENERGY STAR specification. The increase in these two proportions was significant at the 10-percent level.

In 2007, considering only households that recognized the label and purchased a product in a relevant category, 68 percent knowingly purchased an ENERGY STAR product in the past twelve months. This proportion is similar to the 66 percent measured in 2006.

Purchased ENERGY STAR
[Base = Recognize label (aided) and purchaser]

Purchased ENERGY STAR product	2007 (n=376)	2006 (n=808)
Estimate (yes)	68%	66%
Standard error	3.1%	2.9%

Note: Q7: "For any of the products you purchased, did you see the ENERGY STAR label (on the product itself, on the packaging, or on the instructions)?"

Purchases of ENERGY STAR by Publicity Category

A significantly greater proportion ($p = .019$) of *all* households knowingly purchased an ENERGY STAR product in high- versus low-publicity areas, 43 and 29 percent, respectively.

National Household Market Penetration of ENERGY STAR
Products by Publicity Category
[Base = All respondents]

Publicity Category	% Households
High	43%
Low	29%
Difference (High minus Low)	13%
p-value	0.019

Influence of the ENERGY STAR Label

In 2007, for 73 percent of households that knowingly purchased an ENERGY STAR-labeled product, the label influenced at least one of their purchase decisions "very much" or "somewhat." This is a significant increase compared to the 2006 result of 63 percent ($p\text{-value} = 0.097$).

For 12 percent of households, the label influenced their purchase decisions "slightly." Sixteen percent of households said the presence of the ENERGY STAR label had no influence on their purchase. These findings are not significantly different from those of 2006.

Influence of the ENERGY STAR Label on Purchase Decisions
[Base = Recognize label (aided) and ENERGY STAR purchasers]

Influence of the Label on Purchasing Decisions	2007 (n=234) Maximum	2006 (n=524) Maximum
Very much	40%	34%
Somewhat	32%	30%
Slightly	12%	16%
Not at all	16%	20%
Total	100%	100%

Note: Q8: "For each ENERGY STAR-labeled product you purchased, how much did the ENERGY STAR label influence your purchase decision?"

Influence of the ENERGY STAR Label by Publicity Category

The purchase decisions of 39 percent of households in high-publicity areas were influenced "very much" by the ENERGY STAR label, compared to 28 percent in low-publicity areas. Similarly, when these proportions are added to the proportions of households for which the ENERGY STAR label was "somewhat" influential in their purchasing decisions, the high- to low-publicity comparison is 75 to 67 percent, respectively. None of these proportions, however, are statistically different from each other at the 10-percent level of significance.

**Maximum Influence of the ENERGY STAR Label on Purchase Decisions
by Publicity Category**

[Base = Recognize label (aided) and ENERGY STAR purchasers, n = 234]

Publicity Category	Very much	Very much or somewhat
High	39%	75%
Low	28%	67%
Difference (High minus Low)	11%	8%
p-value	0.192	0.358

Rebate and Financing Influence

Twenty-one percent of households that knowingly purchased an ENERGY STAR-labeled product received rebates or reduced-rate financing. This is not a significant decline from the 26 percent of households that received rebates or reduced-rate financing in 2006 (p-value = 0.315). Of these households in 2007, 44 percent would have been “very likely” to purchase the ENERGY STAR product if financial incentives had not been available. Another 33 percent would have been “somewhat likely.” This leaves 23 percent that would have been “slightly likely” and 0 percent “not at all likely”. These results are not statistically different at the 10-percent level from the results reported in 2006.

Received Financial Incentive for an ENERGY STAR Product Purchased
[Base = Recognize label (aided) and ENERGY STAR purchaser]

Received Financial Incentive for an ENERGY STAR Product Purchased	% Households	
	2007 (n=220)	2006 (n=483)
Yes	21%	26%
No	79%	74%
Total	100%	100%

Note: Q9: “Did you receive rebates or reduced-rate financing for any ENERGY STAR-labeled product(s) you purchased?”

Influence of Rebates and Financing on Purchasing Decisions
[Base = Recognize label (aided), ENERGY STAR purchaser, and received an incentive, n = 39]

Likelihood Purchase ENERGY STAR Product Without Financial Incentive	% Households
Very likely	44%
Somewhat likely	33%
Slightly likely	23%
Not at all likely	0%
Total	100%

Note: Q10: “If rebates or reduced-rate financing had not been available, how likely is it that you would have purchased the ENERGY STAR-labeled product?”

Loyalty to ENERGY STAR

Loyalty to ENERGY STAR is investigated by asking respondents who knowingly purchased an ENERGY STAR-labeled product how likely they would be to recommend ENERGY STAR products to a friend. Respondents were asked to report this likelihood on a scale of 0 to 10, where 0 means “extremely unlikely” and 10 means “extremely likely.” As can be seen in the table below, 29 percent of households who knowingly purchased an ENERGY STAR-labeled product reported they would be “extremely likely” to recommend ENERGY STAR products to a friend.

The likelihood of recommending ENERGY STAR products to a friend is greater than “6” for 80 percent of these households. This is 9 percentage points greater than the result for 2006. The difference between years is significant at the 10-percent level (p-value = 0.051).

Loyalty to ENERGY STAR
[Base = Recognize label (aided) and purchasers]

Likelihood Recommend ENERGY STAR Products	% Households	
	2007 (n=247)	2006 (n=554)
10 - Extremely likely	29%	29%
9	19%	17%
8	21%	14%
7	11%	11%
6	4%	6%
5	9%	17%
4	1%	1%
3	1%	1%
2	<1%	1%
1	1%	<1%
0 - Extremely unlikely	3%	2%
Total	100%	100%

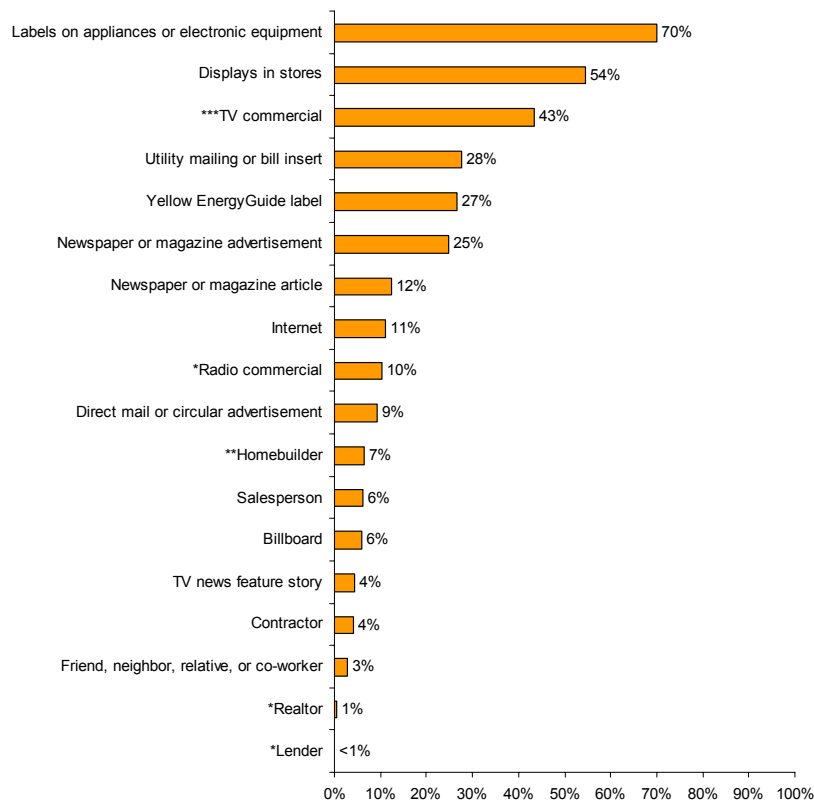
Notes: Q11: “How likely are you to recommend ENERGY STAR-labeled products to a friend?” is measured on an 11-point scale, where 0 = “Extremely unlikely” and 10 = “Extremely likely.”

INFORMATION SOURCES

Sources Seen

Seventy percent of households have seen something about ENERGY STAR on appliance or electronic equipment labels, followed by store displays at 54 percent. Forty-three percent of households heard or saw something about ENERGY STAR on TV commercials. Between 25 and 28 percent of households saw something about ENERGY STAR on or in utility mailings or bill inserts, EnergyGuide labels, or in newspaper or magazine advertisements. A larger proportion of households in 2007 than in 2006 heard something about ENERGY STAR from TV (p-value = 0.007) and radio (p-value = 0.091) commercials, and from homebuilders (p-value = 0.028). The proportion of households that heard something about the label from a realtor (p-value = 0.090) or lender (p-value = 0.069) decreased since 2006.

Sources Saw or Heard Something About ENERGY STAR
[Base = Recognize label (aided), n = 520]



Note: SO1: "Where did you see or hear something about ENERGY STAR? Please mark all that apply."

*** 2007 and 2006 proportions are statistically different from each other at the 1-percent level of significance (p-value≤0.01). The proportion of households in 2007 is larger than in 2006.

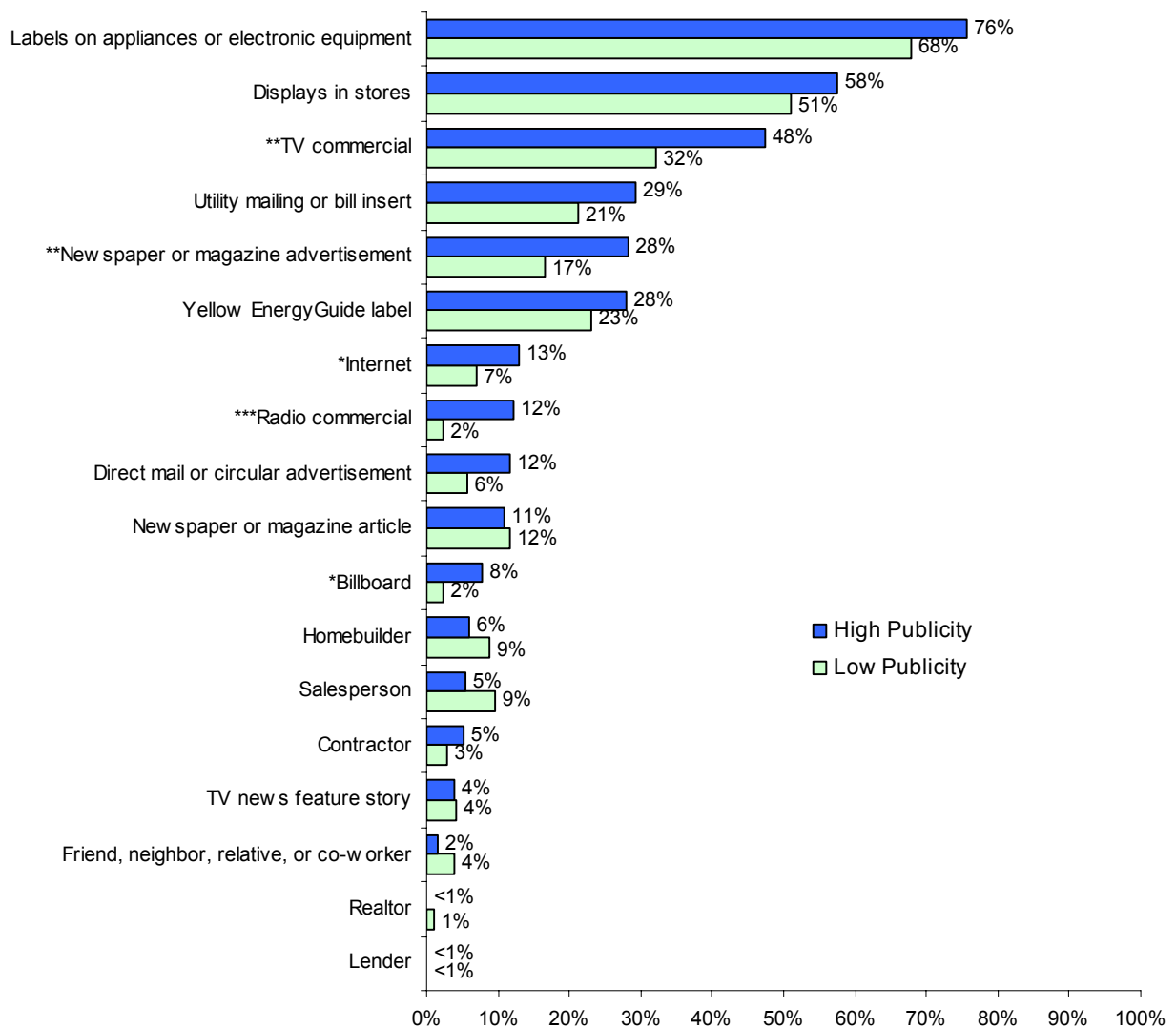
** 2007 and 2006 proportions are statistically different from each other at the 5-percent level of significance (p-value≤0.05). The proportion of households in 2007 is larger than in 2006.

* 2007 and 2006 proportions are statistically different from each other at the 10-percent level of significance (p-value≤0.10). The proportion of households in 2007 is larger than in 2006 for radio commercials. The proportion of households in 2007 is smaller than in 2006 for realtor and lender.

Sources Seen by Publicity Category

For several sources, the proportion of households that heard or saw something about ENERGY STAR was significantly larger in high- than in low-publicity areas. This was the case for TV and radio commercials, newspaper or magazine advertisement, the internet, and billboards. All of these sources involve means of mass communication.

Sources Saw or Heard Something About ENERGY STAR by Publicity Category
[Base = Recognize label (aided), n = 520]



*** High- and low-publicity area proportions are statistically different from each other at the 1-percent level of significance (p-value ≤ 0.01).

** High- and low-publicity area proportions are statistically different from each other at the 5-percent level of significance (p-value ≤ 0.05).

* High- and low-publicity area proportions are statistically different from each other at the 10-percent level of significance (p-value ≤ 0.10).

APPENDIX A: DETAILED METHODOLOGY

During September and October 2007, the Consortium for Energy Efficiency (CEE) fielded a questionnaire to obtain information at the national level on consumer awareness and understanding of the ENERGY STAR label, the value accrued to the label in the eyes of consumers, satisfaction with labeled products, and other ENERGY STAR-related items. The questionnaire was similar to the Internet/WebTV-based questionnaires fielded in previous years (2001 through 2006). As in the 7 previous years, CEE and its members sponsoring the survey made the survey data publicly available. In 2001, a rigorous comparative analysis of the results obtained via a mail survey versus an Internet/WebTV survey was conducted. The results from the two survey methods were comparable for most major indicators.⁶ Results from that time frame were also analogous to telephone surveys for aided recognition.⁷

This report discusses the results of the 2007 CEE ENERGY STAR Household Survey, building on prior years' survey results and focusing on the extent to which consumers recognized the ENERGY STAR label, understood its intended messages, and utilized (or were influenced by) the label in their energy-related purchase decisions. Research questions of interest included:

- Where do consumers see or hear about the ENERGY STAR label?
- How does increased publicity impact consumer ENERGY STAR label recognition, understanding, and influence?
- Which key messages about the ENERGY STAR label are consumers retaining?
- Do consumers demonstrate loyalty to the ENERGY STAR label?

The survey was fielded from September 19 through October 2, 2007.

The remainder of Appendix A discusses the questionnaire design, sampling and weighting methodologies, data collection, and the national analysis. See Appendix D for survey questions.

1 QUESTIONNAIRE DESIGN

In 2007, CEE conducted the ENERGY STAR survey using a questionnaire designed to be delivered by Internet/WebTV. The survey was conducted via an interactive Internet/WebTV format with a random sample of households that are members of an Internet/WebTV panel. Households were selected to participate in the panel by random digit dial and recruited by telephone. Participants in this survey were then randomly selected from the panel. Only one member per household in the random

⁶ National Analysis of CEE 2001 ENERGY STAR Household Surveys. U.S. EPA, 2002.

⁷ Tannenbaum, Bobbi and Shel Feldman. "ENERGY STAR Awareness as a Function of Survey Method." IEPEC, 2001.

sample was contacted. Households selected for previous years' surveys were not eligible to participate in the 2007 survey.

The panel is designed to be representative of the U.S. population. Panel members are provided with an Internet appliance (WebTV) and an Internet service connection. Households that already have Internet service receive other incentives to participate in the panel. Panel members respond to questionnaires administered to them via the Internet and WebTV. They receive no more than three to four short questionnaires each month, and are expected to respond to a certain percentage of them.

Data collected using the 2007 Internet/WebTV questionnaire may in most cases be compared with data collected using the Internet/WebTV questionnaires fielded in previous years, for which CEE was also responsible.

1.1 Survey Objectives

CEE had several broad objectives in designing the 2007 questionnaire, including:

- To maintain consistency with the CEE 2000 and 2001 mail questionnaires and the Internet/WebTV questionnaires fielded in 2001 and subsequent years
- To fine-tune the questionnaire based on lessons learned from prior years' analyses of the CEE survey while maintaining the ability to analyze the results of the 2007 survey against those from the 2006 CEE survey

The 2007 Internet/WebTV questionnaire addressed the following:

- Respondent recognition of the ENERGY STAR label
- Understanding of and key messages communicated by the ENERGY STAR label
- Products on which respondents have seen the label
- Products that respondents have shopped for or purchased in the past year
- Products that respondents have purchased on which they have seen the label (or on whose packaging or instructions they have seen the label)
- Influence of the presence or absence of the label on the purchase decision
- Whether purchases of ENERGY STAR-labeled products involved rebates or reduced-rate financing
- Likelihood of having purchased ENERGY STAR-labeled products in the absence of rebates or reduced-rate financing

- Likelihood of recommending ENERGY STAR-labeled products to a friend and other measures of loyalty to the ENERGY STAR label
- Satisfaction with ENERGY STAR-labeled products versus products without the ENERGY STAR label
- Demographic questions (most of the demographic questions were not asked in the Internet/WebTV survey as the demographic characteristics of the respondents were already on file.)
- Recognition and understanding of the yellow *Energy Guide* labels

1.2 Internet/WebTV Questionnaire

The interactive format of an Internet/WebTV questionnaire allows questions to be asked in a way that is not possible with a printed questionnaire. On printed questionnaires respondents can see questions in advance and may be tempted to read the entire questionnaire before completing it, potentially educating themselves in a limited way about the subject and affecting their responses.

The Internet/WebTV questionnaires (after questions about the yellow *Energy Guide* label) ask respondents—without showing the ENERGY STAR label—whether they have ever seen or heard of the ENERGY STAR label. Responses to this question should thus be comparable to those obtained through a telephone survey. The Internet/WebTV questionnaires then show the ENERGY STAR label(s) (which is obviously not possible with a telephone survey) and ask again about recognition and understanding. Responses to these questions should thus be comparable to those obtained through a mail survey where respondents are shown the label.

Another difference between a mail questionnaire and an Internet/WebTV questionnaire is that the latter—like a telephone questionnaire using computer-assisted telephone interviewing (CATI)—can program lines of questions based on responses to earlier questions. For example, respondents to an Internet/WebTV questionnaire who say they have bought a given product in the past year can then be asked whether that specific product (or its packaging or instructions) had the ENERGY STAR label.

Thus, the Internet/Web TV survey is able to combine some of the attributes of both print and telephone surveys.

1.3 Changes to 2007 Questionnaire

The 2007 Internet/WebTV questionnaire was very similar to the 2006 questionnaire. One change to the 2007 survey is discussed below in detail.

As noted following the *Recognition of the ENERGY STAR Label* table on page 5 of the report, the sequence and numbering of questions on which the *aided* recognition results are based changed slightly in 2007. Changes to the sequence and numbering of these questions were made in 2006 that resulted in a subset of respondents not being asked the questions used in the determination of the *Level of Understanding of the ENERGY STAR Label* (page eleven of the report). The 2007 survey reverts back to the sequence and numbering of questions used in the 2005 survey so that all respondents are asked the questions that determine *understanding* results.

This section provides further explanation of these changes. Although there is no effect on the determination of aided recognition, the changes to this sequence do have an effect on the determination of the *Level of Understanding of the ENERGY STAR Label*.

1.3.1. 2007 (2005) Survey Method

In the 2007 analysis the determination of *aided* recognition was based on the responses to five questions. This is the same sequence and numbering used in the 2005 survey. Specifically:

ES3A: Is this the label you have seen or heard of before? (Respondents were randomly shown either the old or new ENERGY STAR label. This question was asked to respondents who said they had seen or heard of the ENERGY STAR label.)

ES3B: Have you seen or heard of this version of the ENERGY STAR label? (In this question, asked after ES3A, respondents were shown the label not shown in the previous question.)

ES3C: Please look at the ENERGY STAR label on the left. Have you ever seen or heard of this label? (Respondents were randomly shown either the old or new ENERGY STAR label. This question was asked to respondents who said they had not seen or heard of or didn't know whether they had seen or heard of ENERGY STAR.)

ES3D: Have you seen or heard of this version of the ENERGY STAR label? (In this question, asked after ES3C, respondents were shown the label not shown in the previous question.)

ES6: Now that you had the opportunity to see the ENERGY STAR label, do you recall seeing or hearing anything about it before this survey? (This question was asked to respondents who answered "no" or "don't know" to ES3A and ES3B. It was also asked to all respondents who answered ES3C and ES3D.)

- Respondents who answered ES3A, ES3B, ES3C, ES3D, or ES6 “yes” were categorized as recognizing the ENERGY STAR label (aided).
- Respondents who did not answer ES3A, ES3B, ES3C, or ES3D “yes” and answered ES6 “no,” were categorized as not recognizing the label (aided).
- Respondents who did not answer ES3A, ES3B, ES3C, or ES3D “yes” and answered ES6 “don’t know” or refused to answer ES6 were not included in the analysis of aided recognition. (Their data were set to missing.)

1.3.2. 2006 Survey Method

In the 2006 analysis, the determination of *aided* recognition was based on the responses to four questions. Specifically:

ES3C: Please look at the ENERGY STAR label on the left. Have you ever seen or heard of this label? (Respondents were randomly shown either the old or new ENERGY STAR label. This question was asked to respondents who said they had not seen or heard of or didn’t know whether they had seen or heard of ENERGY STAR.)

ES3A: Is this the label you have seen or heard of before? (Respondents were randomly shown either the old or new ENERGY STAR label. This question was asked to respondents who said they had seen or heard of the ENERGY STAR label.)

ES3B: Have you seen or heard of this version of the ENERGY STAR label? (In this question, asked after ES3C or ES3A, respondents were shown the label not shown in the previous question.)

ES6: Now that you had the opportunity to see the ENERGY STAR label, do you recall seeing or hearing anything about it before this survey? (This question was asked to respondents who answered “no” or “don’t know” to ES3A and ES3B or to ES3C and ES3B.)

- Respondents who answered ES3A, ES3B, ES3C, or ES6 “yes,” were categorized as recognizing the ENERGY STAR label (aided).
- Respondents who did not answer ES3A, ES3B, or ES3C “yes” and answered ES6 “no,” were categorized as not recognizing the label (aided).
- Respondents who did not answer ES3A, ES3B, or ES3C “yes” and answered ES6 “don’t know” or refused to answer ES6 were not included in the analysis of aided recognition. (Their data were set to missing.)

1.3.3. Sequence and Numbering Changes

In 2007(2005), survey respondents who answered “yes” to question ES1: “Have you ever seen or heard of the ENERGY STAR label?” were asked the same series of

questions as in 2006. After being asked ES1, these respondents were subsequently asked ES3A and ES3B, where they were shown each of the versions of the label and specifically asked if they had ever seen or heard of either of them (“Is this the label you have seen or heard of before” and “Have you seen or heard of this version of the ENERGY STAR label?”, respectively).⁸ If, after being shown both versions of the label, these individuals responded that they had seen or heard of at least one of them, they were considered to recognize the ENERGY STAR label (aided). If, however, these individuals responded that they had not seen or heard of either of the two versions of the ENERGY STAR label,⁹ they were asked ES6: “Now that you have had the opportunity to see the ENERGY STAR label, do you recall seeing or hearing anything about it before this survey?” If they answered yes, they were categorized as recognizing the ENERGY STAR (aided).

The series of questions asked of survey respondents who answered “no” to question ES1 in 2007(2005) was different than that asked of respondents who answered “no” in 2006. In 2007(2005), respondents who answered “no” to question ES1: “Have you ever seen or heard of the ENERGY STAR label?”¹⁰ were asked the corresponding questions ES3C and ES3D (“Please look at the label on the left. Have you ever seen or heard of this label?” and “Have you seen or heard of this version of the ENERGY STAR label?,” respectively).¹¹ Regardless of their responses to these questions, all of the respondents that did not answer “yes” to ES1 were subsequently asked ES6: “Now that you have had the opportunity to see the ENERGY STAR label, do you recall seeing or hearing anything about it before this survey?” In 2006, those answering “no” to ES1 were subsequently asked questions ES3C and ES3B (“Please look at the label on the left; have you ever seen or heard of this label?” and “Have you seen or heard of this version of the ENERGY STAR label?,” respectively). Unlike the 2007(2005) survey, the 2006 survey required these respondents to answer “no” or “don’t know” to both ES3C and ES3B in order to be asked ES6: “Now that you have had the opportunity to see the ENERGY STAR label, do you recall seeing or hearing anything about it before this survey?”

⁸ ES3A and ES3B were asked such that each respondent was asked about each of the two versions of the ENERGY STAR label, but in random order.

⁹ Or if they did not know or refused to answer whether they had seen or heard of the either of the labels.

¹⁰ In this discussion, references to a “no” response to question ES1 also includes responses of “don’t know” or refused to answer.

¹¹ As with ES3A and ES3B, ES3C and ES3D were asked such that each respondent was asked about each of the two versions of the ENERGY STAR label, but in random order.

1.3.4. Effects on Aided Recognition and Understanding

The question numbering and sequence changes described in the previous section have no substantive effect on the determination of aided recognition. Despite changes to the numbering and sequence, the 2007 survey collects the same information collected with the 2006 survey to determine aided recognition.

The question numbering and sequence changes described in the previous section do affect the base of respondents used to determine understanding of the ENERGY STAR label. More specifically, the base of respondents who were asked questions related to their Level of Understanding of the ENERGY STAR label is different than in 2006, but consistent with the 2005 and previous years.

The following two questions are used to determine a participant's level of understanding of the label.

ES4a1: "Please look at the ENERGY STAR labels on the left. Type the messages that come to mind when you see the ENERGY STAR labels. [SHOW LABELS]"

ES2: "What does the ENERGY STAR label mean to you?"

In 2007 *all* respondents were asked either ES4a1 or ES2. With the exception of 2006 this is consistent with previous years. In 2006 respondents who answered "no" to ES1 and "yes" to either ES3C or ES3B were not asked either of the two understanding questions.

2 SAMPLING

2.1 Designated Marketing Areas' Publicity Categories

The same publicity classification procedure used in the past 7 years was used in 2007. A Nielsen Designated Marketing Area® (DMA) was classified as *high publicity*, *low publicity*, or *other* using the following criteria:

- **High publicity:** Active local ENERGY STAR program *recently* sponsored by a utility, state agency, or other organization for 2 or more continuous years. The activities must include *sustained* promotions and publicity from non-federal sources.
- **Low publicity:** Federal campaign activities only and no *significant* regional program sponsor activities.
- **Other:** All other DMAs.

This classification procedure was designed to identify three publicity categories and provide clear and verifiable definitions. The key working definitions are:

- **Recent:** The 2 years of activity must include the time period during which the survey was in the field.
- **Sustained:** The 2 years of activity must be continuous.
- **Significant:** In addition to any direct federal publicity efforts, publicity efforts must include a deliberate and multifaceted regional program sponsor investment in ENERGY STAR programming, such as direct marketing efforts or the creation and distribution of promotional material.

These definitions were constructed to be applicable to future survey efforts; they can be modified by simply increasing the duration of sustained high publicity.

2.2 Sample Design

The sample was a national sample. The sampling frame included all households in the largest DMAs, which together accounted for about 70 percent of U.S. television households. In 2007, this encompassed the 57 largest DMAs. In addition, CEE members may sponsor more intensive sampling (i.e., an over sample) in selected localities, which are referred to here as *sponsor areas*. In 2007, one CEE member elected to fund a sponsor area. The sponsor area is the Entergy service territory in parts of Arkansas, Louisiana, Mississippi, and Texas.

Sponsor areas are not limited to the 57 largest DMAs. Thus, the complete frame for the study was the combination of the largest DMAs and any portion of the sponsor areas that fell outside those DMAs. The sample consisted of the following four strata:

1. High Publicity Category within the 57 Largest DMAs;
2. Low Publicity Category within the 57 Largest DMAs; and
3. Other Publicity Category within the 57 Largest DMAs;
4. Entergy Service Territory within All DMAs.

The CEE member sponsoring the over sample requested a simple random sample across all DMAs in its sponsor area. The CEE members who fund the oversample for a sponsor area determine the total number of sampling points allocated to the sponsor area as a whole. One hundred sample points were allocated to the Entergy Service Territory stratum.

Among the top 57 DMAs located outside the sponsor areas, each publicity category was allocated approximately 333 sampling points. In order to achieve the target number of sampling points, a larger sample was selected to receive the survey to allow for non-response.

A list of the large DMAs and their publicity category assignments is provided in the table below.¹² A list of the DMAs included in the sponsor area and their publicity category assignments follows. Lastly, the large DMAs and the DMAs in the sponsor areas are shown on a map along with their publicity categories.

Large (Top 57) DMAs

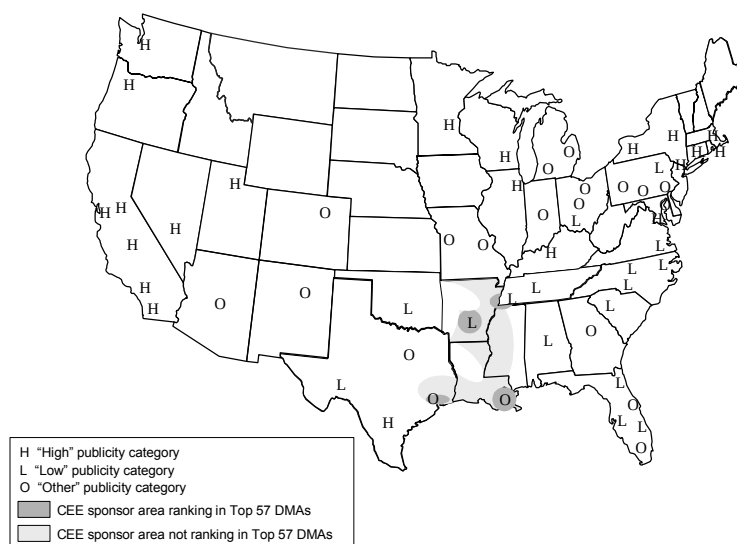
Rank	DMA	TV Households 2006-2007		Publicity Category
		Number	% of US	
1	New York	7,366,950	6.616	High
2	Los Angeles	5,611,110	5.039	High
3	Chicago	3,455,020	3.103	High
4	Philadelphia	2,941,450	2.642	Other
5	San Francisco-Oak-San Jose	2,383,570	2.141	High
6	Dallas-Ft. Worth	2,378,660	2.136	Other
7	Boston (Manchester)	2,372,030	2.130	High
8	Washington, DC (Hagrstwn)	2,272,120	2.041	High
9	Atlanta	2,205,510	1.981	Other
10	Houston	1,982,120	1.780	Other
11	Detroit	1,938,320	1.741	Other
12	Tampa-St. Pete (Sarasota)	1,755,750	1.577	Low
13	Phoenix (Prescott)	1,725,000	1.549	Other
14	Seattle-Tacoma	1,724,450	1.549	High
15	Minneapolis-St. Paul	1,678,430	1.507	High
16	Miami-Ft. Lauderdale	1,538,620	1.382	Other
17	Cleveland-Akron (Canton)	1,537,500	1.381	Other
18	Denver	1,431,910	1.286	Other
19	Orlando-Daytona Bch-Melbrn	1,395,830	1.254	Other
20	Sacramnto-Stkton-Modesto	1,368,680	1.229	High
21	St. Louis	1,228,980	1.104	Other
22	Pittsburgh	1,163,150	1.045	Other
23	Portland, OR	1,117,990	1.004	High
24	Baltimore	1,097,290	0.985	Other
25	Indianapolis	1,060,550	0.952	Other
26	Charlotte	1,045,240	0.939	Low
27	San Diego	1,030,020	0.925	High
28	Hartford & New Haven	1,014,630	0.911	High
29	Raleigh-Durham (Fayetteville)	1,006,330	0.904	Low
30	Nashville	944,100	0.848	Low
31	Kansas City	913,280	0.820	Other
32	Columbus, OH	898,030	0.807	Other
33	Cincinnati	886,910	0.797	Low
34	Milwaukee	882,990	0.793	High
35	Salt Lake City	839,170	0.754	High
36	Greenvll-Spart-Ashevl-And	826,290	0.742	Low
37	San Antonio	774,470	0.696	Low
38	West Palm Beach-Ft. Pierce	772,140	0.693	Low
39	Grand Rapids-Kalmzoo-B.Crk	734,670	0.660	Other
40	Birmingham (Ann, Tusc)	723,210	0.650	Low
41	Harrisburg-Lncstr-Leb-York	713,960	0.641	Other
42	Norfolk-Portsmth-Newpt Nws	712,790	0.640	Low
43	Las Vegas	671,630	0.603	High
44	Memphis	664,290	0.597	Low
45	Oklahoma City	662,380	0.595	Low
45	Albuquerque-Santa Fe	662,380	0.595	Other
47	Greensboro-H.Point-W.Salem	660,570	0.593	Low
48	Louisville	648,190	0.582	High
49	Buffalo	639,990	0.575	High
50	Jacksonville	639,110	0.574	Low
51	Providence-New Bedford	633,950	0.569	High
52	Austin	602,340	0.541	High
53	Wilkes Barre-Scranton	590,170	0.530	Low
54	New Orleans	566,960	0.509	Other
55	Fresno-Visalia	557,380	0.501	High
56	Albany-Schenectady-Troy	554,970	0.498	High
57	Little Rock-Pine Bluff	539,900	0.485	Low
Total		78,743,430	70.721	

¹² Between September 2006 and 2007, 4 of the 57 largest DMAs changed publicity category: Chicago, Louisville, Salt Lake City, and Washington DC. All four changed from "Other" to "High".

Sponsor Areas

Sponsor Area	Publicity Category	DMA (Large and Small)
Entergy Service Territory	Other	Large: parts of *Houston DMA (Rank 10) *New Orleans DMA (Rank 54)
	Low	Large: parts of *Memphis DMA (Rank 44) *Little Rock-Pine Bluff DMA (Rank 57) Small: parts of *Springfield, MO DMA (Rank 76) *Shreveport DMA (Rank 81) *Jackson, MS DMA (Rank 87) *Baton Rouge DMA (Rank 93) *Waco-Temple-Bryan DMA (Rank 95) *Ft. Smith-Fay-Sprngdl-Rgrs DMA (Rank 102) *Tyler-Longview(lfkn&Ncgd) DMA (Rank 111) *Lafayette, LA DMA (Rank 123) *Columbus-Tulepo-West Point DMA (Rank 132) *Monroe-El Dorado DMA (Rank 135) *Beaumont-Port Arthur DMA (Rank 140) *Hattiesburg-Laurel DMA (Rank 165) *Lake Charles DMA (Rank 175) *Alexandria, LA DMA (Rank 179) *Jonesboro DMA (Rank 180) *Greenwood-Greenville DMA (Rank 184)

Large (Top 57) DMAs and Sponsor Areas by Publicity Category¹³



2.3 Weighting Procedures

Knowledge Networks, the company that provided the Internet/WebTV survey service, developed the weights used in the analysis. Knowledge Networks first adjusted its panel members for known disproportions due to the panel's original selection and recruitment design and then proceeded with a post-stratification weighting that accounted for differences between the Internet/WebTV panel and the U.S. population. The adjustment to this typical sampling weight approach was based on geographic and demographic characteristics known for both the panel and the population (refer to Appendix B). It effectively scales up under-represented population dimensions in the panel and scales down dimensions that are over-represented in the panel. This more closely aligned the panel with the basic demographic characteristics of the U.S. population.

After the field data are collected, Knowledge Networks further adjusted the sampling weight to account for survey non-response. The correction for survey non-response is analogous to the adjustment for differences in the Internet/WebTV panel from the U.S. population. It was based on geographic and demographic characteristics known for both the sample of panel survey completes and the entire sampling frame for the study. The weighting scaled up under-represented population dimensions and scaled down over-represented dimensions in the sample of survey completes. This more closely aligned the sample of survey completes with the basic demographic characteristics of the entire sampling frame for the study.

¹³ There were no large DMAs or sponsor areas in either Alaska or Hawaii.

3 DATA COLLECTION

3.1 Survey Fielding Period

The survey began on September 19 and closed on October 2, 2007.

3.2 Response Rate

The overall response rate was 17 percent for the CEE 2007 ENERGY STAR Household Survey. This level of response is typical for Knowledge Networks' surveys.

For an Internet/WebTV survey, the response rate is defined as the product of the *return rate*, which is survey-specific, and the *recruitment rate*. The *return rate* is the ratio of the number of questionnaires completed to the number of panel members asked to complete the questionnaire. For the CEE 2007 ENERGY STAR Household Survey, the return rate was 65 percent. While this number is quite high, it must be adjusted by the *recruitment rate*, which is the number of households that agreed to participate in the Internet/WebTV panel as a proportion of the number of households asked to participate. The recruitment rate was 25 percent. Thus, the response rate for the CEE 2007 ENERGY STAR Household survey was the product of the survey-specific return rate of 65 percent and the recruitment rate of 25 percent. This product is equivalent to the ratio of the number of questionnaires completed to the number of households that were offered the opportunity to be in the study.

Survey Response Rate

Sendout/requested	1,609
Completed	1,051
Return rate	65%
Recruitment rate	25%
Response rate	17%

4 NATIONAL ANALYSIS

4.1 DMAs Included

To facilitate comparisons across years, the national results were based only on data collected from respondents from the 57 largest DMAs. Data collected from respondents not in the 57 largest DMAs, but in a sponsor area, are not included in this analysis. Some of the 57 largest DMAs are also included in the sponsor areas and therefore were oversampled. The data from these respondents, as well as from the other respondents in the 57 largest DMAs, received an appropriate weight in the analysis in order to generate valid national results and comparison with data from other years.

4.2 Treatment of “Don’t Know” Responses and Refusals

For most questions, how “don’t know” responses or refusals are handled has a negligible effect on the results. Still, it is necessary to make a decision as to how they should be handled. The results presented in this report for a given question do not include “don’t know” responses or refusal to answer (i.e., the results for a given question were calculated after any “don’t know” responses to that question or refusals to answer that question were set to missing).

APPENDIX B: DEMOGRAPHICS

This appendix presents the relationship between the demographic characteristics found in the weighted survey data and the corresponding characteristics in the study population of all U.S. households. Professional survey and data collection firms make significant efforts to ensure the rigor of their methods and to produce the highest quality results. Each year, Knowledge Networks—the company that maintains the Internet/WebTV survey panel used in this analysis—strives to create a panel that is representative of the U.S. population. However, as in any survey effort, those who respond to surveys tend to be different from those who do not. In this case, the panel used for the ENERGY STAR survey may contain subjects that are receptive to the Internet/WebTV incentive-for-service tradeoff and introduce associated biases.

Weighting used in the analyses of this report are applied to account for differences between the Internet/WebTV panel and the U.S. population. If weighting was accomplished perfectly, the distribution of various demographic characteristics in the weighted survey data would be the same as the distribution of those characteristics in national Census data. For most demographic characteristics, the two distributions are quite similar. This suggests the weighted survey results are a reasonable representation of the study population. A summary of the comparisons of demographic characteristics is provided in the table below. Detailed comparisons are provided in tables presented at the end of this appendix.

Summary of Distribution Comparisons

Demographic Characteristic	Largest Difference (Absolute Value): Survey Estimate Less Census %	
Number of persons in household	Three	5.7%
Householder/respondent age	65 or older	-5.9%
Householder/respondent gender	Gender	+/- 0.7%
Dwelling type	Single-family, attached	2.7%
Own/rent	Own/rent	+/- 4.9%
Household annual income	\$75,000 and over	-6.1%

The largest differences (in absolute value) between the weighted survey data and national Census data, at around six percentage points, are in the proportions of number of households with three persons per household, households with annual income of \$75,000 or more, and the proportion of householders 65 years of age or older. The difference in the proportion of households that own or rent is next largest, at about five percentage points. The combined under-representation of households with three persons per household, householders 65 years or older and households with annual incomes of \$75,000 or more, as well as the somewhat inaccurate mix of those who own versus rent, are not expected to bias the survey results in any particular direction. Differences between the weighted survey data and Census data for other demographic characteristics of the population—gender and dwelling type—are all quite small, at less than about three percentage points.

Household Size Distribution

Number of Persons in Household	Census % Dwelling Units ^a	Survey Estimate Minus Census % Dwelling Units
One	27%	-4.2%
Two	33%	0.3%
Three	16%	4.3%
Four	15%	1.2%
Five or more	10%	-1.6%
Total (%)	100%	
Total (1,000s)	108,871	

^a U.S. Census Bureau, American Housing Survey, 2005, Table 2-9.

Age Distribution

Householder/ Respondent Age	Census % Householders ^a	Survey Estimate Minus Census % Householders
18-24 ^b	6%	4.2%
25-34	17%	0.3%
35-44	21%	2.2%
45-54	21%	-2.2%
55-64	16%	1.4%
65 or older	20%	-5.9%
Total (%)	100%	
Total (1,000s)	108,871	

^a U.S. Census Bureau, American Housing Survey, 2005, Table 2-9.

^b Census, Under 25 years; WebTV/Internet, 18-24 years.

Gender Distribution

Householder/ Respondent Gender	Census % Population ^a	Survey Estimate Minus Census % Population
Female	51%	0.7%
Male	49%	-0.7%
Total (%)	100%	

^a U.S. Census Bureau, The Population Profile of the United States: Dynamic Version, Part I: Population Dynamics, Age and Sex Distribution in 2005.

Dwelling Type Distribution

Dwelling Type	Census % Dwelling Units ^a	Survey Estimate Minus Census % Dwelling Units
Single-family, unattached	61%	0.4%
Single-family, attached	5%	2.7%
Apt. bldg. (>=2 units)	23%	-2.0%
Mobile home	6%	1.1%
Other	5%	-2.1%
Total (%)	100%	
Total (1,000s)	114,505	

^a U.S. Census Bureau, American Housing Survey, 2005, Table 2-1.

Own/Rent Distribution

Own/Rent	Census % Households ^a	Survey Estimate Minus Census % Households
Own	69%	-4.9%
Rent	31%	4.9%
Total (%)	100%	
Total (1,000s)	108,871	

^a U.S. Census Bureau, American Housing Survey, 2005, Table 2-1.

Income Distribution

Total Household Annual Income (before taxes)	Census % Households ^a	Survey Estimate Minus Census % Households
Less than \$15,000	13%	0.6%
\$15,000-\$24,999	11%	-0.2%
\$25,000-\$49,999	26%	3.5%
\$50,000-\$74,999	18%	3.0%
\$75,000 and over	30%	-6.1%
Total (%)	99%	
Total (1,000s)	113,146	

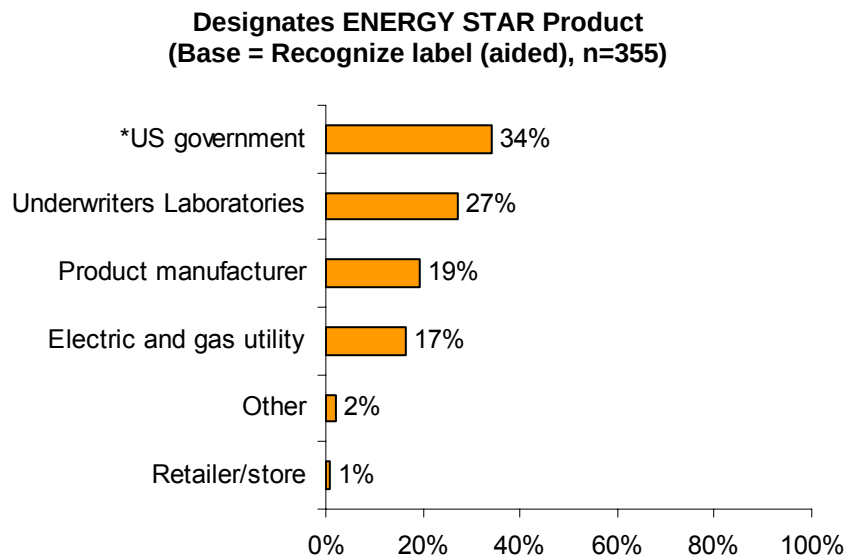
^a CPS Annual Demographic Survey March Supplement, Table HINC-01 Selected Characteristics of Households, by Total Money Income in 2006

APPENDIX C: ADDITIONAL QUESTIONS FROM 2007 SURVEY

This appendix presents the results of additional ENERGY STAR-related questions that were added by CEE in 2005 and were not discussed in the main body of the report.

1 ENERGY STAR DESIGNATION

Thirty-four percent of households that recognized the ENERGY STAR label (aided) thought that the U.S. government decides if a product deserves the label. This is seven percentage points larger than the proportion noted in 2006. The difference is significant at the 10-percent level ($p\text{-value} = 0.095$). Twenty-seven percent of households thought the Underwriters Laboratories makes this decision, while 19 percent thought product manufacturers make the decision.

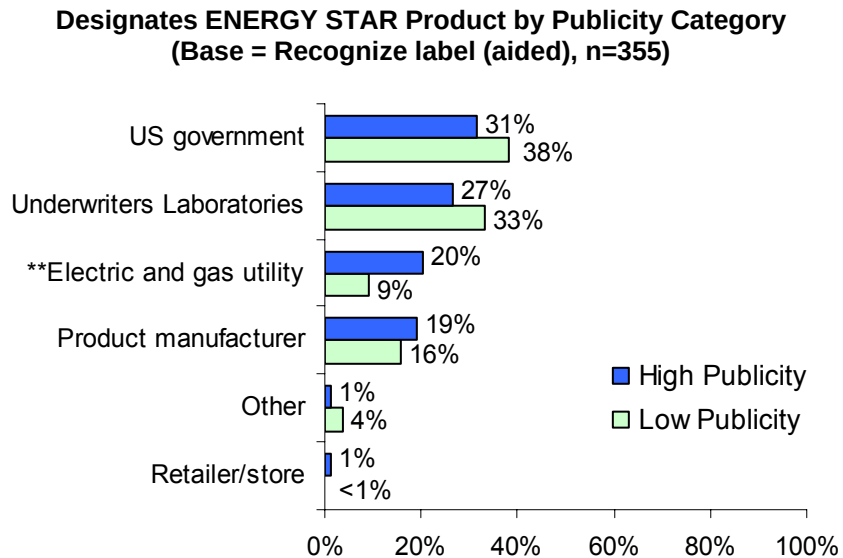


Note: QB: "As far as you know, who decides if a product deserves the ENERGY STAR label?"

- * 2007 and 2006 proportions are statistically different from each other at the 10-percent level of significance ($p\text{-value} \leq 0.10$). The proportion of households in 2007 is larger than in 2006.

ENERGY STAR Designation by Publicity Category

Similar to the 2006 results, a significantly larger proportion of households in high- than in low-publicity areas thought that electric and gas utilities make this decision, 20 percent compared with 9 percent. This difference is significant at the 5-percent level ($p\text{-value} = 0.027$). This result is not surprising given the role electric and gas utilities often play in promoting ENERGY STAR products in high-publicity areas. Thirty-one percent of households in high- and 38 percent of households in low-publicity areas thought that the U.S. Government decides if a product deserves the ENERGY STAR label. This difference is not statistically significant at the 10-percent level.



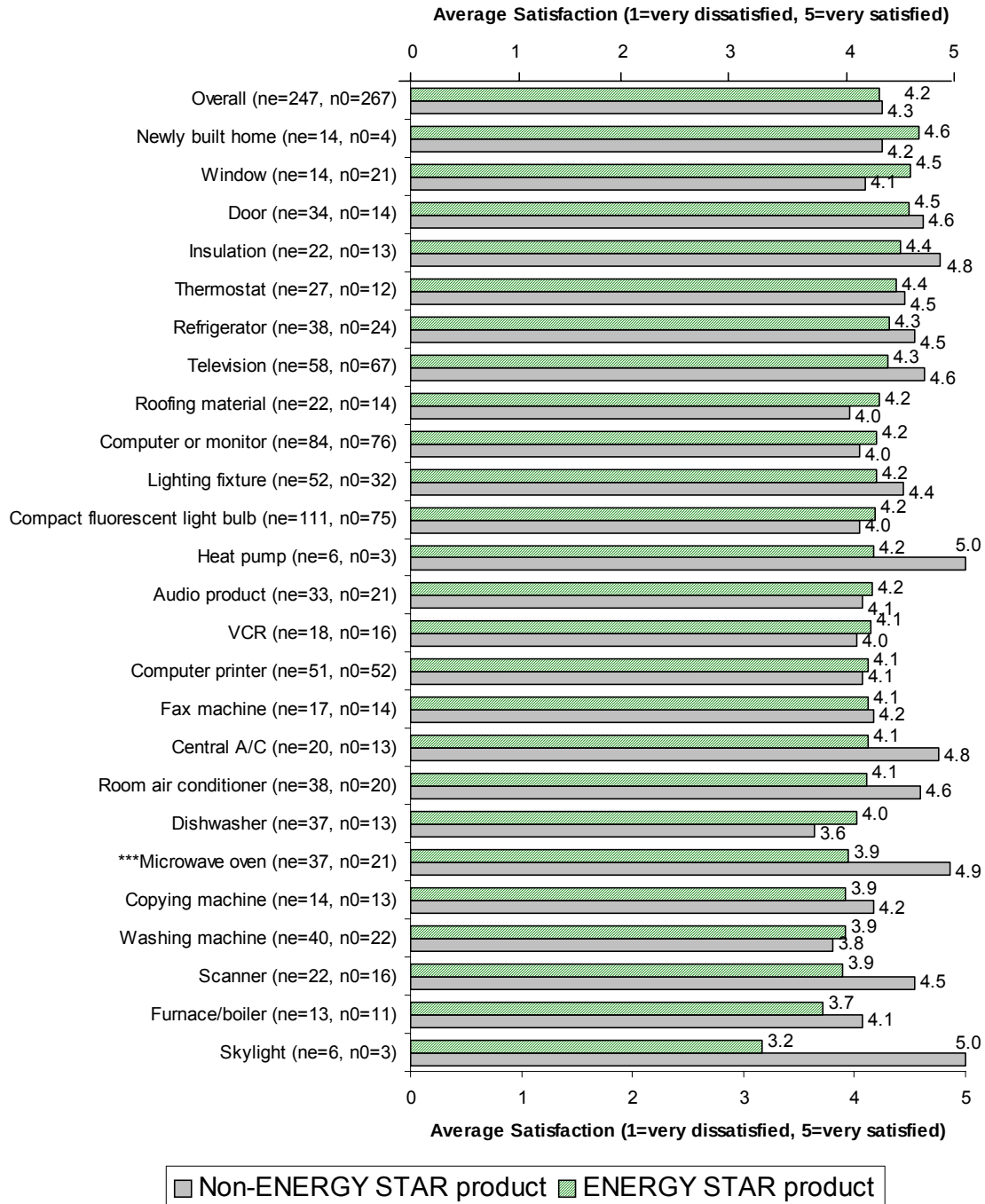
** High- and low-publicity areas proportions are statistically different from each other at the 5-percent level of significance ($p\text{-value} \leq 0.05$).

2 ENERGY STAR PRODUCT SATISFACTION

Household satisfaction with a given product in a product category that has an ENERGY STAR specification does not appear to vary based on whether or not the product had an ENERGY STAR label. On a scale of 1 to 5, where 1 means “very dissatisfied” and 5 means “very satisfied,” products with and without the ENERGY STAR label had an average satisfaction rating between 4.2 and 4.3. At the 10-percent level of significance, no product with the ENERGY STAR label received a higher satisfaction rating compared with products without the label. Households that purchased a microwave oven without the label were more satisfied than their counterparts that knowingly purchased models with the label. As mentioned previously in this report, microwave ovens do not in fact have an ENERGY STAR specification.

There were no significant ($p\text{-value} \leq 0.10$) changes in product satisfaction between 2006 and 2007 for households that knowingly purchased a product with the ENERGY STAR label. There were many significant changes in product satisfaction between years for households that knowingly purchased a product without the ENERGY STAR label. These include: refrigerator ($p\text{-value} = 0.099$), washing machine ($p\text{-value} = 0.037$), microwave oven ($p\text{-value} = 0.056$), furnace/boiler ($p\text{-value} = 0.061$), window ($p\text{-value} = 0.071$), skylight ($p\text{-value} = 0.020$), insulation ($p\text{-value} = 0.031$), and room air conditioner ($p\text{-value} = 0.086$).

ENERGY STAR vs. Non-ENERGY STAR Product Satisfaction
(Bases = Recognize label (aided) and purchased specified product¹⁴)



*** ENERGY STAR and Non-ENERGY STAR product proportions are statistically different from each other at the 1-percent level of significance ($p\text{-value} \leq 0.01$). However, microwave ovens are not a product category that is eligible for the ENERGY STAR label.

¹⁴ ne = number of respondents that recognized the label (aided) and purchased this product with an ENERGY STAR label
 n0 = number of respondents that recognized the label (aided) and purchased this product without an ENERGY STAR label

3 CONSUMER PERCEPTIONS

Survey respondents that recognized the ENERGY STAR label (aided) were asked to indicate how strongly they agree or disagree with a number of attitudinal statements about ENERGY STAR-labeled products.¹⁵ The statements were shown to respondents in random order.

For purposes of discussion the statements are grouped into three categories:

- Environmental and social responsibility messaging
- Purchasing preference
- Product attributes and performance

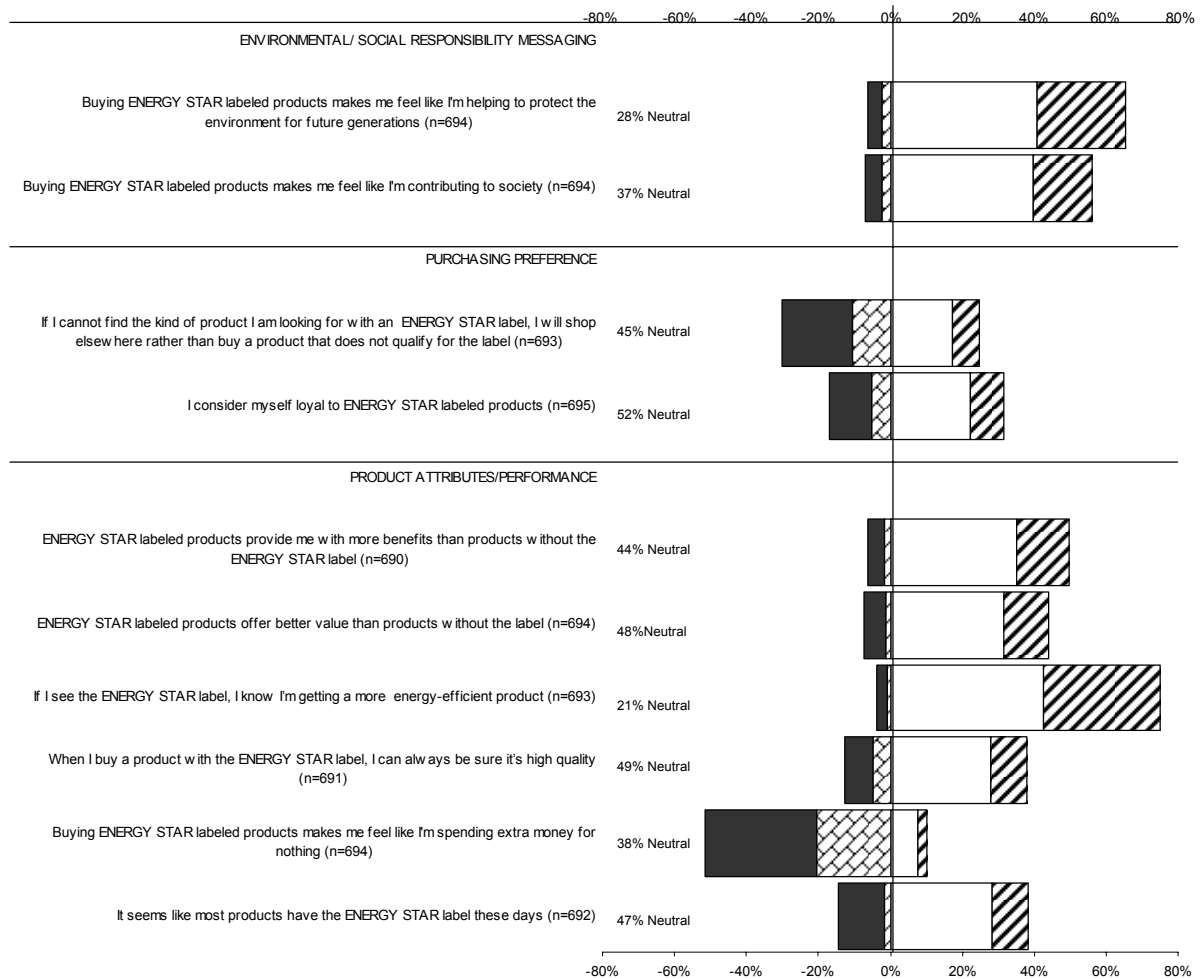
The 2007 survey results indicate that households generally agree with positive statements about the ENERGY STAR label and disagree with negative statements about the label.¹⁶ Similar to the 2006 results, few statements elicit strong agreement or strong disagreement among substantial proportions of households; in contrast, a number of statements generated neutral responses from a sizeable proportion of households. A more detailed discussion of the findings regarding the attitudinal statements is provided below.

¹⁵ These statements are numbered Q16a through Q16p in the survey.

¹⁶ In this discussion, the term “agree” is used to correspond to survey responses of “strongly agree” or “somewhat agree.” Similarly, the term “disagree” corresponds to survey responses of “strongly disagree” or “somewhat disagree.”

Response to Categorical Statements Regarding Messaging, Purchasing, and Product Attributes (Base = Recognize label (aided))

☒ Strongly disagree ■ Somewhat disagree □ Somewhat agree ▨ Strongly agree



For each attitudinal statement, respondents were asked whether they strongly agreed, somewhat agreed, neither agreed nor disagreed, somewhat disagreed, or strongly disagreed. The response of “neither agree nor disagree” is described as “Neutral” in the chart above and the discussion that follows. In the chart, the results for the “Neutral” response category are shown in text and not depicted in the bar graph. The results for the other four response categories are depicted in the bar graph.

3.1 Environmental and Social Responsibility Messaging

The development of the environmental and social responsibility messaging of the ENERGY STAR label has been a strong focus of the national ENERGY STAR education campaign. In the 2007 survey, two statements addressed the label's messaging in these areas: "Buying ENERGY STAR labeled products makes me feel like I'm helping to protect the environment for future generations" and "Buying ENERGY STAR labeled products makes me feel like I'm contributing to society."

Of the ten statements that explore consumer attitudes toward the ENERGY STAR label and products, these two ranked second and third in terms of the proportion of households who agree with the statements. These two statements had the same ranking in 2006. Of households that recognize the ENERGY STAR label, 65 percent either strongly or somewhat agree with the statement that by buying ENERGY STAR labeled products they feel they are helping protect the environment. Fifty six percent of ENERGY STAR aware households strongly or somewhat agree that by purchasing ENERGY STAR products they feel they are contributing to society. Both of these proportions are significantly larger than the 2006 findings at the 1-percent level (p-value = 0.001 and <0.001, respectively).

3.2 Purchasing Preferences

Increasing consumers' preferences for purchasing ENERGY STAR-labeled products is also an intended outcome of the national campaign. In the 2007 survey, two separate statements were included to investigate households' views of their purchasing preferences with respect to ENERGY STAR-labeled products. Twenty-five percent of households either strongly or somewhat agree with the statement "If I cannot find the kind of product I am looking for with an ENERGY STAR label, I will shop elsewhere rather than buy a product that does not qualify for the label." This proportion is larger than the 2006 result of 17 percent (p-value = <0.001). More households (30 percent) either strongly or somewhat disagree. However, the largest proportion of households—45 percent—are neutral in their level of agreement or disagreement with this statement of their purchasing behavior.

In 2007, 31 percent of households agree with the second statement addressing households' views of their purchasing preferences: "I consider myself loyal to ENERGY STAR products." This is nine percentage points larger than the portion of households that agreed with the statement in 2006. The difference is significant at the 1-percent level (p-value = <0.001).

3.3 Product Attributes and Performance

A third goal of the national ENERGY STAR education campaign has been to inform consumers that ENERGY STAR qualifying products are more energy efficient than non-qualifying models. The degree to which this goal is being accomplished is addressed in the 2007 survey by asking respondents their level of agreement or

disagreement with the statement “If I see the ENERGY STAR label, I know I’m getting a much more energy-efficient product.” Nearly 75 percent of respondents either strongly or somewhat agree with this statement. This indicates a high perception among consumers that the ENERGY-STAR label indicates superior performance with respect to energy efficiency relative to products without the label. The proportion of households that agree with the statement increased significantly at the 5-percent level ($p\text{-value} = 0.029$).

The survey addressed perceptions of product quality. Survey respondents were asked the level at which they agreed or disagreed with the statement “When I buy a product with the ENERGY STAR label, I can always be sure it’s high quality.” The results show that 38 percent of households either strongly or somewhat agree with this statement—three times as many as those who strongly or somewhat disagree—49 percent are neutral. The proportion of households that agree with this statement is seven percentage points greater than the 2006 survey results. This difference is significant at the 5-percent level ($p\text{-value} = 0.014$).

A number of attitudinal statements were included in the survey to measure consumers’ perceptions of ENERGY STAR product value. Two such statements are “ENERGY STAR products provide me with more benefits than products without the ENERGY STAR label” and “ENERGY STAR-labeled products offer better value than products without the label.” The results show that almost half of households (49 percent and 44 percent, respectively) either strongly or somewhat agree with these statements. The remaining of households were for the most part neutral (44 percent and 48 percent, respectively). The 2006 to 2007 increase in the proportion of households that agreed with these statement were significant at the 1-percent level ($p\text{-value} = <0.001$ and $p\text{-value} = 0.008$, respectively). These results indicate increasing consumers’ perceptions of the value of ENERGY STAR products relative to products without the label.

The results related to the statement “Buying ENERGY STAR-labeled products makes me feel like I’m spending extra money for nothing” provide additional information on perceptions of product value. Here, over half (52 percent) of all households who recognize the ENERGY STAR label strongly or somewhat disagree with the statement, while 38 percent of households are neutral. Only 10 percent agree with this statement. The proportions of households that agree and disagree with this statement in 2007 are similar to the 2006 results.

3.4 Consumer Perceptions by Publicity Category

The 2007 results also suggest that local and regional efforts to publicize ENERGY STAR have been successful in affecting consumer perception of the label. For most of the attitudinal statements, the level of consumers’ agreement or disagreement is significantly different in high- and low-publicity areas in the expected direction. For example, with respect to the environmental and social messaging of the ENERGY STAR label, a significantly higher proportion of consumers in high- than in low-

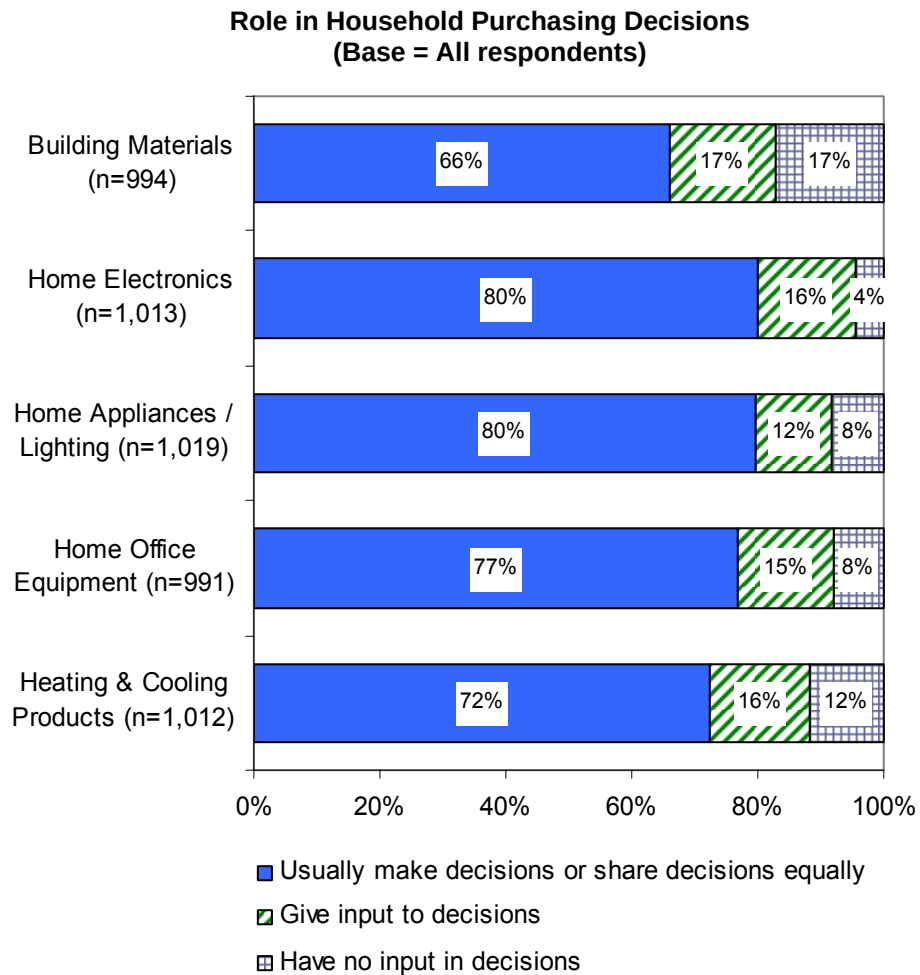
publicity areas strongly or somewhat agree with the statement that buying ENERGY STAR-labeled products makes them feel like they are contributing to society (p-value = 0.034). With regards to purchasing preference, a larger proportion in high- than low-publicity areas agree with the statements that they will shop elsewhere if they cannot find a product with the label (p-value = 0.055) and that they consider themselves loyal to ENERGY STAR-labeled products (p-value = 0.011). Lastly with respect to the product attributes and performance statements, a larger proportion of high- than low-publicity area consumers agree that ENERGY-STAR-labeled products offer better value than products without the label (p-value = 0.028). Similarly, a significantly higher proportion of households in high- than in low-publicity areas strongly or somewhat disagree with the statements that buying ENERGY STAR-labeled products makes them feel like they are spending extra money for nothing (p-value = 0.079) and that it seems like most products have the ENERGY STAR label (p-value = 0.011).

The level of consumers' agreement, disagreement, and neutrality is similar in high- and low-publicity areas for the following statements:

- "Buying ENERGY STAR labeled products makes me feel like I'm helping to protect the environment for future generations."
- "ENERGY STAR products provide me with more benefits than products without the ENERGY STAR label."
- "When I buy a product with the ENERGY STAR label, I can always be sure it's high quality."
- "If I see the ENERGY STAR label, I know I'm getting a much more energy-efficient product."

4 PURCHASING DECISIONS

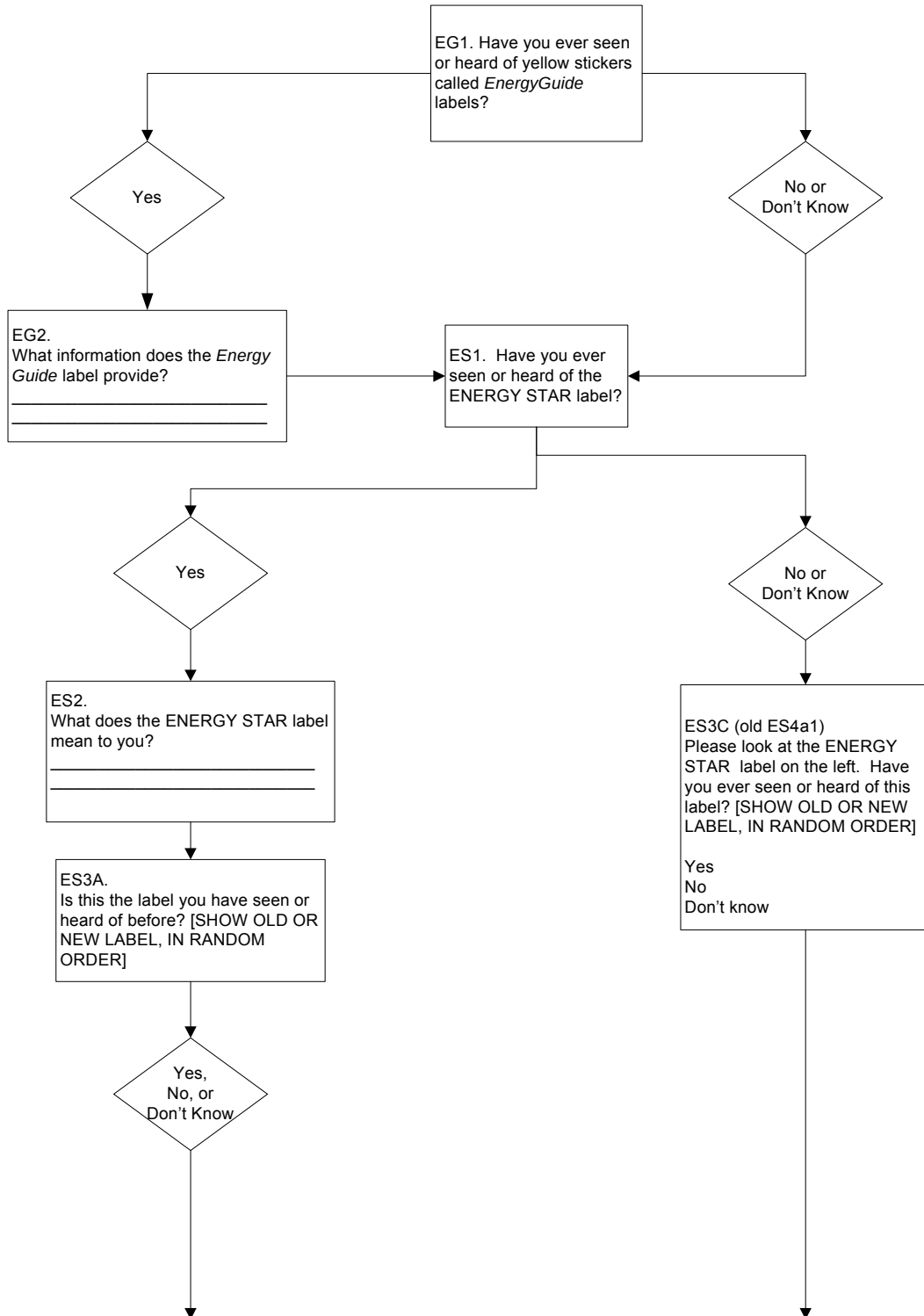
At the end of the survey each respondent was asked to characterize their role in the household purchasing decisions. The results indicate that the vast majority of those represented are primary decision makers, meaning they usually make household purchasing decisions alone or share equally in these decisions. As can be seen below, this varies little across product categories. Eighty percent of individuals were primary decision makers for their household's home appliances/lighting purchases, whereas this was true for 66 percent for purchases of building materials.

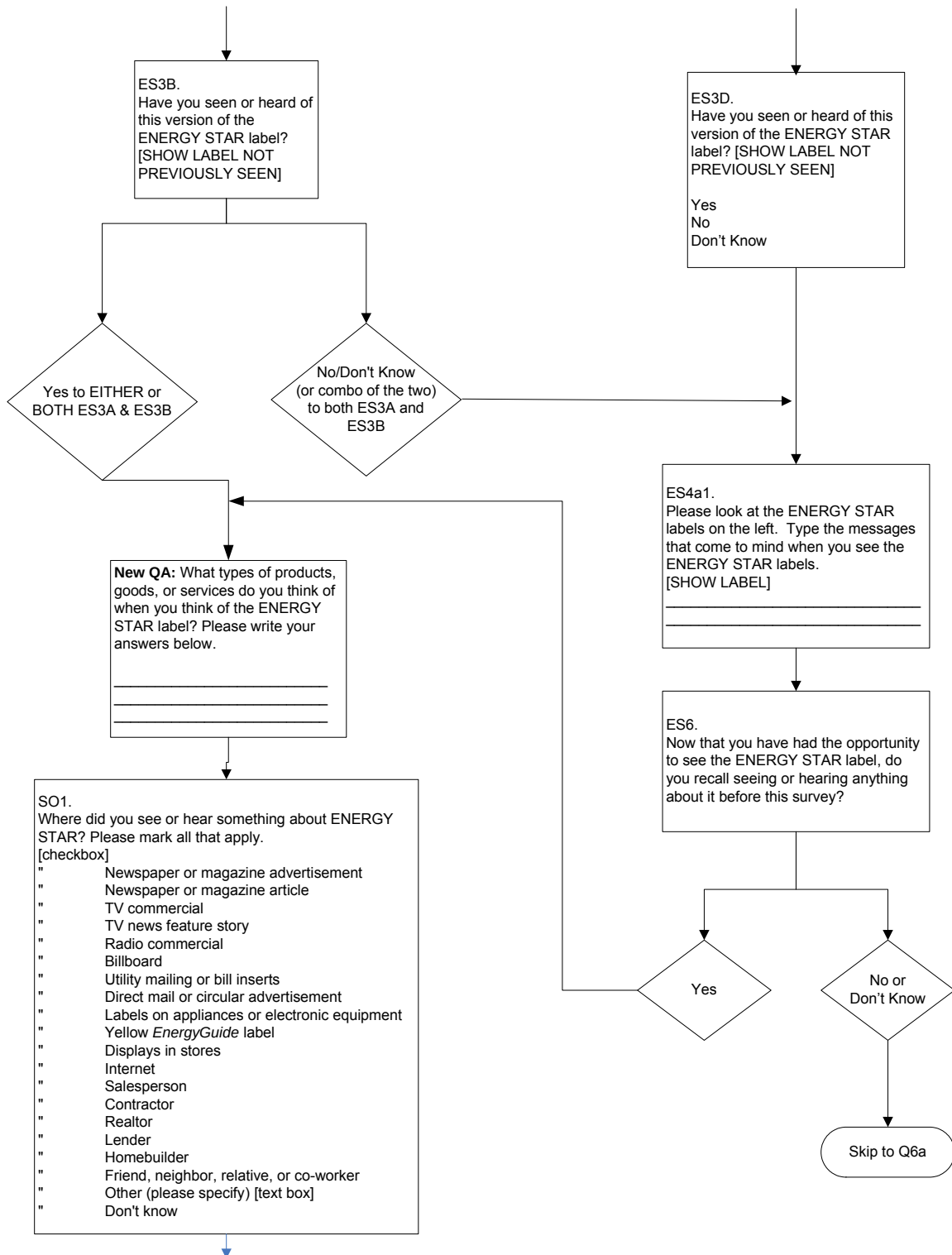


APPENDIX D: 2007 SURVEY QUESTIONS AND FLOW CHART

2007 ENERGY STAR SURVEY

Final Survey Instrument





SO2.
What did you see or hear about ENERGY STAR? Please be specific.

New QB: As far as you know, who decides if a product deserves the ENERGY STAR label? Select one answer only.

Product manufacturers
Retailers/stores
US Government
Underwriters Laboratories
Electric & gas utilities
Other: _____
Don't know

Q5(a). Now we're going to ask you about several groups of products. As you review the list, please select each of the products, product literature, or packaging on which you have seen the ENERGY STAR label.

<u>Heating and Cooling Products</u>	<u>Home Office Equipment</u>
Central air conditioner	Computer or monitor
Furnace or boiler	Computer printer
Heat pump	Copying machine
Thermostat	Fax machine
Room air conditioner	Scanner
None of these products	

Q5(b). Please continue reviewing the lists of products below, and select each of the products, product literature, or packaging on which you have seen the ENERGY STAR label.

<u>Home Appliances/Lighting</u>	<u>Home Electronics</u>
Dishwasher	Television
Refrigerator	VCR
Lighting fixture	Audio product
Washing machine	
Compact fluorescent light bulb	
Microwave oven	
None of these products	

Q5(c). Finally, please review the last of the product lists below and select each of the products, product literature, or packaging on which you have seen the ENERGY STAR label.

<u>Building Materials</u>	<u>Buildings</u>
Window	Newly built home
Door	
Skylight	
Insulation	
Roofing material	

Q6a
Have you or someone else in your household been shopping in a store in the last 12 months for any of the products listed below?

Yes
No
Don't know

Heating and Cooling Products
Thermostat
Room air conditioner

Home Office Equipment
Computer or monitor
Computer printer
Copying machine
Fax machine
Scanner

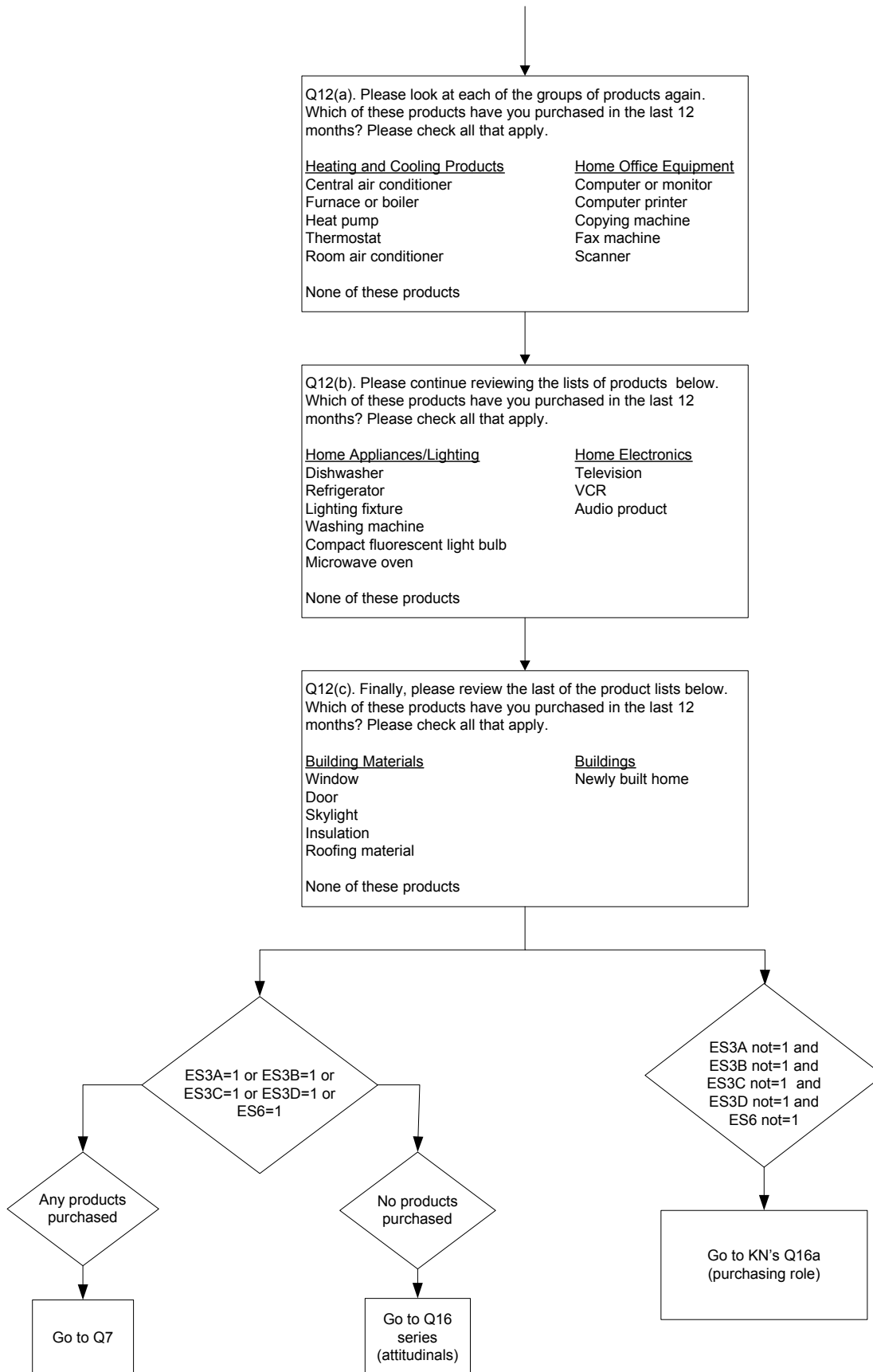
Home Appliances/Lighting
Dishwasher
Refrigerator
Lighting fixture
Washing machine
Compact fluorescent light bulb
Microwave oven

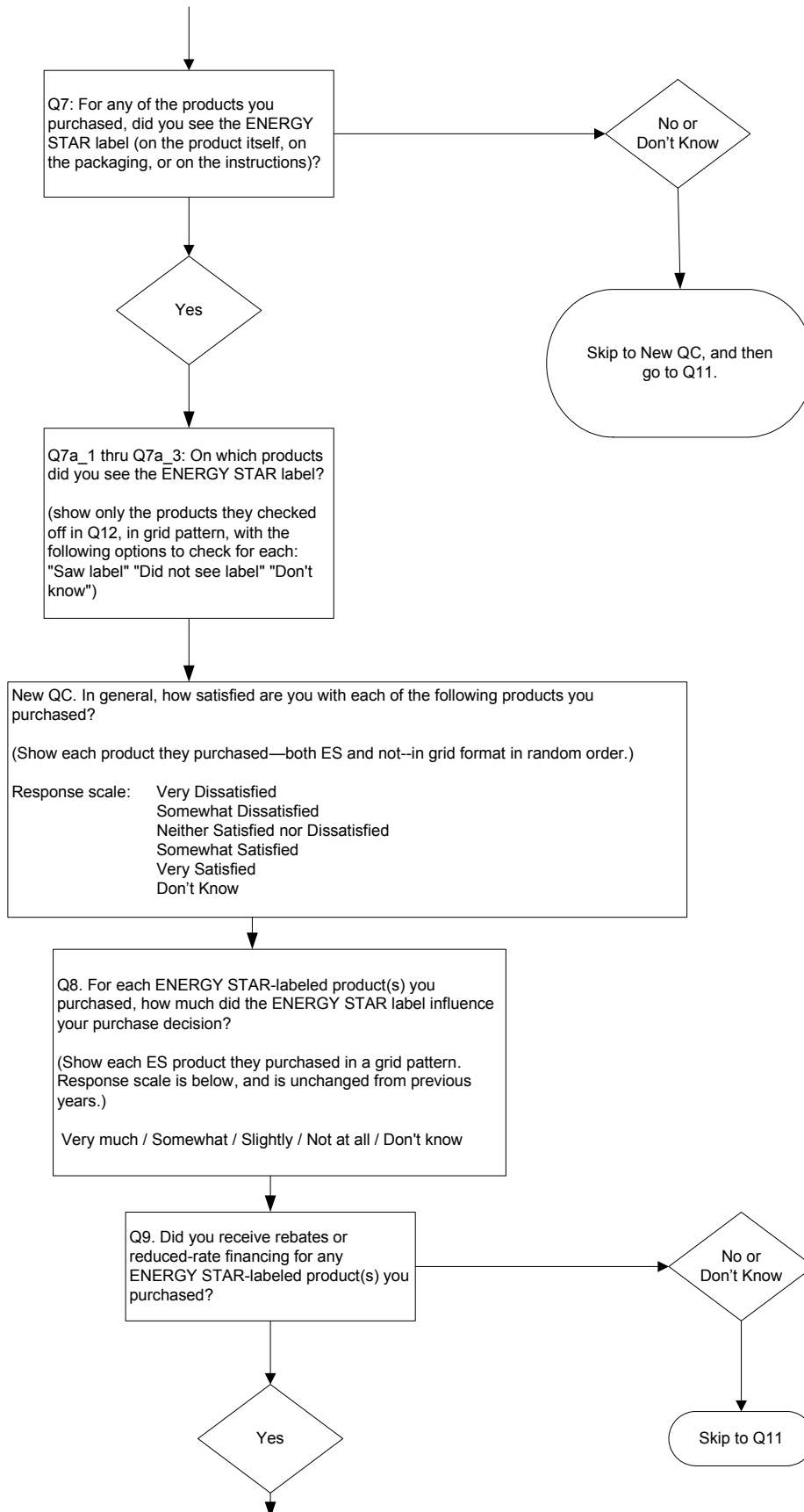
Home Electronics
Television
VCR
Audio product

Building Materials
Window
Door
Skylight
Insulation
Roofing material

Q6b
Have you or someone else in your household been shopping for a central air conditioner, furnace or boiler, heat pump or newly built home in the last 12 months?

Yes
No
Don't know





Q10. If rebates or reduced-rate financing had not been available, how likely is it that you would have purchased the ENERGY STAR-labeled product?

Very likely
Somewhat likely
Slightly likely
Not at all likely
Don't know

Q11. How likely are you to recommend ENERGY STAR-labeled products to a friend?

Sliding 11-point horizontal scale, with only endpoints marked.
Endpoints:
0=Extremely Unlikely
10=Extremely Likely

On the scale by each statement, please indicate how strongly you agree or disagree with the statement.

(Note to programmer: present q16a through p in random order for each respondent.)

	Strongly Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree
Q16a. ENERGY STAR-labeled products provide me with more benefits than products without the ENERGY STAR label.	1	2	3	4	5
Q16c. ENERGY STAR-labeled products offer better value than products without the label.	1	2	3	4	5
Q16d. If I cannot find the kind of product I am looking for with an ENERGY STAR label, I will shop elsewhere rather than buy a product that does not qualify for the label.	1	2	3	4	5
Q16f. Buying ENERGY STAR-labeled products makes me feel like I'm helping to protect the environment for future generations.	1	2	3	4	5
Q16h. Buying ENERGY STAR-labeled products makes me feel like I'm contributing to society.	1	2	3	4	5
Q16i. Buying ENERGY STAR-labeled products makes me feel like I'm spending extra money for nothing.	1	2	3	4	5
Q16l. I consider myself loyal to ENERGY STAR-labeled products.	1	2	3	4	5
Q16n. It seems like most products have the ENERGY STAR label these days.	1	2	3	4	5
Q16o. If I see the ENERGY STAR label, I know I'm getting a more energy-efficient product.	1	2	3	4	5
Q16p. When I buy a product with the ENERGY STAR label, I can always be sure it's high quality.	1	2	3	4	5

Q16a. Please tell us about your role in your household's purchasing decisions. For each of the product groups listed below, do you usually make the purchasing decisions, do you share the decision-making equally with another household member, does someone else usually make the decisions but you have some input, or do you have no input in the decision-making?

	I usually make the decisions	I share the decision-making equally	Someone else usually makes the decisions, but I have some input	I have no input in decision- making	I'm not sure
Heating and Cooling Products	?	?	?	?	?
Home Office Equipment	?	?	?	?	?
Home Appliances/Lighting	?	?	?	?	?
Home Electronics	?	?	?	?	?
Building Materials	?	?	?	?	?

Go to demographic
questions and closing