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NATIONAL AWARENESS OF ENERGY STAR® FOR 2004

ANALYSIS OF CEE HOUSEHOLD SURVEY

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EXECUTIVE SUMMARY

In the fall of 2004, members of the Consortium for Energy Efficiency (CEE) sponsored the fifth 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, product purchases, and information sources used by consumers in their purchasing decisions. Some CEE members also chose to supplement the national sample in order to better gauge awareness in their local service territories. Additional survey cases were collected in Massachusetts, New York state (with the exception of Long Island), and New Hampshire. As in the four previous years, CEE and the sponsoring members made survey data publicly available.

This report discusses the results of the CEE 2004 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 use (or are influenced by) the label in their energy-related purchasing decisions. Research questions of interest included:

- Where do consumers see or hear about the ENERGY STAR label?
- How does increased publicity impact 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?

Key Findings at the National Level

- Sixty-four percent of households recognize the ENERGY STAR label (with a visual aid).
- Sixty-eight percent of households have a "high" or "general" understanding of the label. Furthermore, the proportion of households that demonstrate a general understanding is small compared with the proportion that demonstrate a high understanding, 13 percent versus 55 percent.
- Of households that recognized the ENERGY STAR label and purchased a product in the past twelve months, 67 percent purchased an ENERGY STAR-labeled product.
- Considering households that recognized the label and those that did not (i.e., all households), 30 percent of households knowingly purchased an ENERGY STAR-labeled product in the past twelve months.
- For 54 percent of households that knowingly purchased an ENERGY STAR-labeled product, the presence of the label influenced their purchasing decision "very much" or "somewhat."

For another 20 percent of households, the presence of the label influenced their purchasing decision "slightly."

- Twenty percent of households that knowingly purchased an ENERGY STAR-labeled product received a financial incentive. Eighty-two percent of these households would have been "very likely" (53 percent) or "somewhat likely" (29 percent) to purchase the labeled product without the financial incentive.

- Seventy-three percent of households that knowingly purchased an ENERGY STAR-labeled product would be "very likely" or "somewhat likely" to recommend labeled products to a friend, and another 18 percent would be "slightly likely."

Key Findings from Publicity-level Analyses

- A larger proportion of households in high- than in low-publicity areas recognize the ENERGY STAR label, both with and without a visual aid. With a visual aid, households in high-publicity areas recognized the ENERGY STAR label at 74 percent versus 54 percent in low-publicity areas. (High-publicity areas are areas with an active local ENERGY STAR program sponsored by a utility, state agency, or other organization for two or more continuous years.)

- Considering households that recognized the label (with a visual aid), a larger proportion of these households in high- than in low-publicity areas associate the ENERGY STAR label with appliances heavily promoted by regional program sponsors.

- A larger proportion of households in high- than in low-publicity areas have at least a general understanding of the ENERGY STAR label.

- A larger proportion of households in high- than in low-publicity areas associate the following messages with the ENERGY STAR label: "efficiency or energy savings," "saving money on operation," and "associating specific products with the ENERGY STAR label."

- Considering households that knowingly purchased an ENERGY STAR-labeled product, the purchasing decisions of larger proportions of these households in high- than in low-publicity areas were very much influenced and at least somewhat influenced by the ENERGY STAR label.

- Considering only households that recognized the label (with a visual aid), a larger proportion of these households in high- than in low-publicity areas have seen or heard something about ENERGY STAR via utility mailings or bill inserts, TV commercials, radio commercials, newspaper or magazine advertisements, and personal acquaintances.

Conclusions and Future Directions

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

- Substantial portions of the 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 (13 percent) compared with the proportion that exhibit a high understanding (55 percent).

- Publicity from active regional/local energy efficiency program sponsors increases recognition, understanding, and influence of the label.

Furthermore, between 2003 and 2004, household recognition of the ENERGY STAR label increased 8 percentage points, from 56 to 64 percent.

The results of the CEE 2004 ENERGY STAR survey indicate that activities to promote the ENERGY STAR label carried out by EPA, DOE, survey sponsors, and ENERGY STAR partners in 2004 were effective. In addition, a comparison of the sources that households recognizing the ENERGY STAR label consult for product information against the venues in which they reported seeing or hearing something about ENERGY STAR, suggests future ENERGY STAR activities should aim to:

- Increase positive exposure of ENERGY STAR in product-orientated magazines.

- Enhance efforts to train salespersons and contractors to actively and accurately deliver information about ENERGY STAR.

- Improve the availability and accessibility of ENERGY STAR information on the Internet.

- Continue cooperative efforts to include ENERGY STAR materials in utility mailings or bill inserts.

- Encourage consumers to recommend ENERGY STAR to friends, family, and colleagues.

INTRODUCTION

In the fall of 2004, members of the Consortium for Energy Efficiency (CEE) sponsored the fifth 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, product purchases, and information sources used by consumers in their purchasing decisions. Some CEE members also chose to supplement the national sample in order to better gauge label awareness in their local service territories. Additional survey cases were collected in Massachusetts, New York state (with the exception of Long Island), and New Hampshire. As in the four previous years, CEE and sponsoring members made the survey data publicly available.

This report discusses the results of the CEE 2004 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 use (or are influenced by) the label in their energy-related purchasing decisions. Research questions of interest included:

- Where do consumers see or hear about the ENERGY STAR label?
- How does increased publicity impact 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?

This report includes an Executive Summary, this introduction, a summary of methods, key findings in four sections, and three appendices. Appendix A is the detailed methodology, Appendix B considers demographic information from the 2004 WebTV/Internet survey, and Appendix C provides a copy of the 2004 WebTV/Internet questionnaire. Available separately are tables presenting the 2004 WebTV/Internet survey results by publicity category. In all cases, the results presented are properly weighted to obtain national estimates.

METHODOLOGY

From September through October 2004, CEE fielded a household survey to obtain information at the national level on consumer awareness of the ENERGY STAR label. The survey was fielded to a random sample of households that are part of a WebTV/Internet panel that is selected by random digit dial and recruited by telephone. The WebTV/Internet panel is designed to be representative of the U.S. population.

The survey was similar to the WebTV/Internet surveys fielded in the three previous years. As in the four previous years, CEE and its sponsoring members made the survey data publicly available.

The survey was a national survey. The sampling frame for the survey includes all households in the largest Nielsen Designated Market Areas® (DMAs) that account for about 70 percent of U.S. television households. In 2004, the 57 largest DMAs accounted for this proportion. In addition, some CEE members sponsored more intensive sampling (i.e., an oversample) for various states, which are referred to here as "sponsor areas." The sponsor areas were:

- Massachusetts
- New York state (with the exception of Long Island)
- New Hampshire

For each of the sponsor areas, the frame was not limited to the large DMAs, but included the entire sponsor area. Thus, the complete frame for the study was the combination of the largest DMAs and any portion of the sponsor areas that fell outside these DMAs.

To facilitate comparisons across years, the national results are based only on data collected from all respondents in the top 57 DMAs. Data collected from respondents not in the top 57 DMAs, but in a sponsor area, are not included in the analysis. Some of the top 57 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 top 57 DMAs, received the appropriate weight in the analysis to generate valid national results and comparisons against data from other years.

As in previous years' studies, to consider the effect of publicity on national awareness, the DMAs in the complete frame were classified by publicity category. The same publicity classification procedure used the past three 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 activities must include *sustained* promotions and publicity from non-federal activities.

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

- **Other:** All other DMAs.

[1] Between September 2003 and 2004, none of the top 57 DMAs changed publicity category

This classification provides clear and verifiable definitions. The key working definitions are:

- **Recent:** The two years of activity must include the time of the survey fielding.
- **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 and promotional efforts.

These definitions are sufficiently operational to be applicable to future survey efforts, and can be modified by simply increasing the duration of sustained high publicity.

The sample is stratified by area and within an area by publicity category. Each sponsor area is also further stratified by large versus non-large DMA as well as any stratification requested by the CEE member funding the oversample. There are four areas, three sponsor areas and a single area consisting of the largest or parts of the largest DMAs that were not in a sponsor area. The CEE members who funded the oversample for a sponsor area determined the number of sampling points allocated to the area as a whole. This total number of sampling points was then allocated across publicity categories present in a sponsor area proportional to population. In the single area consisting of the largest or parts of the largest DMAs that were not in a sponsor area, each publicity category was allocated approximately 333 sampling points.

This report presents the 2004 survey results at the national level and often by publicity category. The publicity category results provide evidence on the effectiveness of EPA's model to increase awareness of ENERGY STAR by supporting regional energy efficiency program sponsors. Results are presented on consumer recognition, understanding, and purchasing influence of the ENERGY STAR label, as well as on messaging, product purchases, and information sources used by consumers in their purchasing decisions.

KEY FINDINGS

RECOGNITION

In 2004, 64 percent of households recognized the ENERGY STAR mark when shown the label (i.e., aided recognition). Forty-one percent of households correctly assessed whether or not they had seen or heard of the ENERGY STAR label without first being shown the label (i.e., unaided recognition).

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

Recognition results for both this year's and last year's surveys are summarized in the next table. Aided recognition of the ENERGY STAR label is clearly higher this year than last year (the difference is statistically significant at the 1-percent level, p-value = 0.0006). Between 2003 and 2004, aided recognition increased 8 percentage points, from 56 to 64 percent. Unaided recognition is 8 percentage points higher this year than last year, 41 versus 33 percent (the difference is statistically significant at the 1-percent level, p-value = 0.0015).

Recognition of the ENERGY STAR Label
(Base = All respondents)

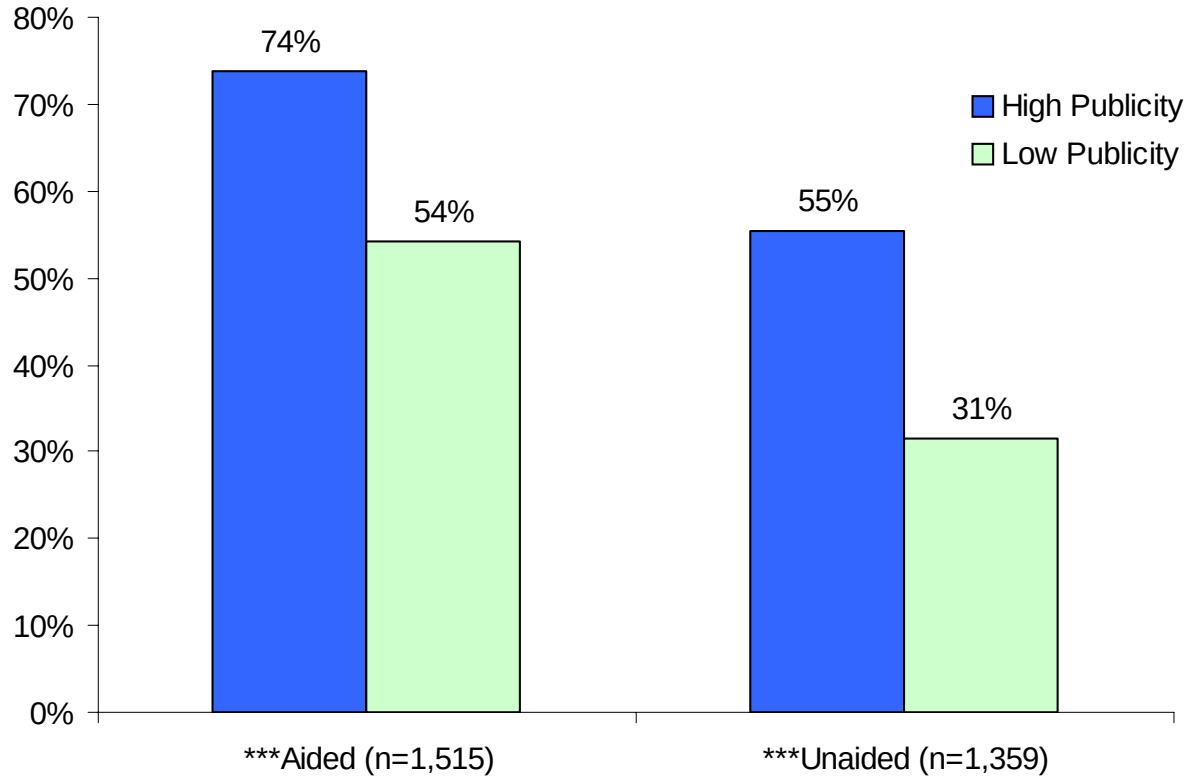
Recognize ENERGY STAR Label	2004		2003	
	Aided (n=1,515)	Unaided (n=1,359)	Aided (n=2,098)	Unaided (n=1,853)
Estimate (Yes)	64%	41%	56%	33%
Standard error	1.7%	1.8%	1.7%	1.7%

Note: The unaided recognition results for both years are based on the question ES1: "Have you ever seen or heard of the ENERGY STAR label?" The aided recognition results are based on five questions. (1) ES3A and (2) ES3B are asked if ES1 = "yes." ES3A: "Is this the label you have seen or heard of before?," whether the old or new label is shown is randomly determined. ES3B: "Have you seen or heard of this version of the ENERGY STAR label?," where the label shown is the one not shown previously. (3) ES3C and (4) ES3D are asked if ES1 = "no." ES3C: "Please look at the ENERGY STAR label on the left. Have you ever seen or heard of this label?," whether the old or new label is shown is randomly determined. ES3D: "Have you seen or heard of this version of the ENERGY STAR label?," where the label shown is the one not shown previously. (5) ES6 is asked if either ES1 = "no" or both ES3A and ES3B = "no." 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?," where both the old and new labels are shown.

Recognition by Publicity Category

Both aided and unaided recognition were higher in high-publicity areas (areas with an active local ENERGY STAR program sponsored by a utility, state agency, or other organization for two or more continuous years) than in low-publicity areas. Aided households in high-publicity areas recognized the ENERGY STAR label at 74 percent versus 54 percent in low-publicity areas. Unaided recognition was 55 percent in high-publicity areas compared with 31 percent in low-publicity areas.

Recognition of the ENERGY STAR Label by Publicity Category
(Base = All respondents)

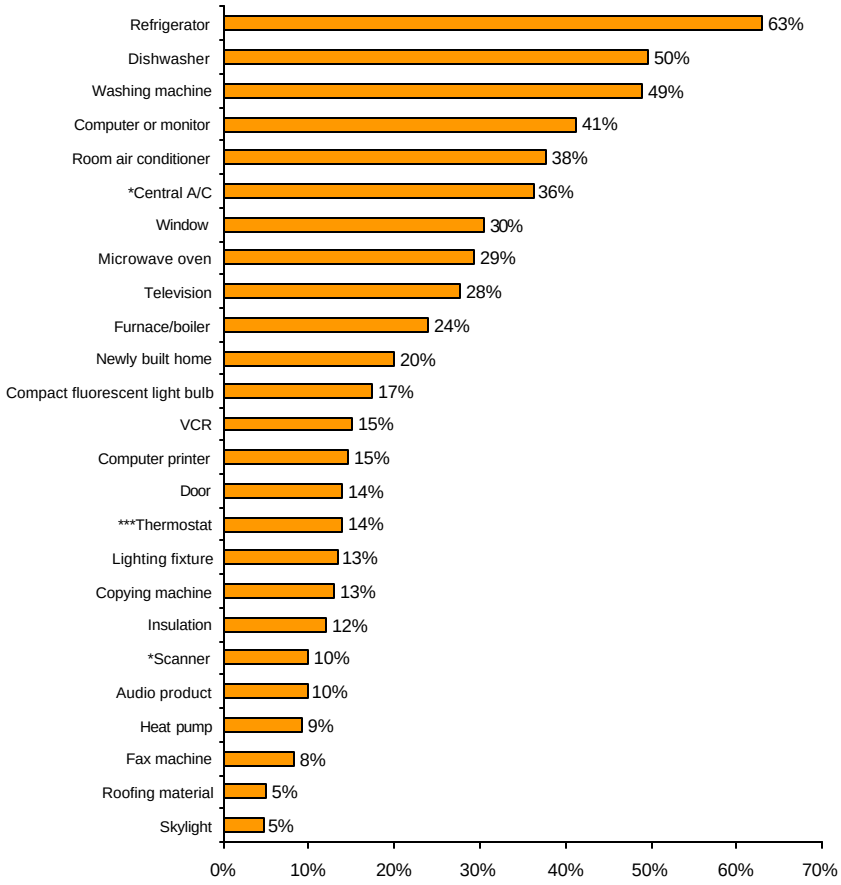


*** High- and low-publicity areas proportions are statistically different from each other at the 1-percent level of significance (p-value<=0.01).

Product Associations

Products supported by regional energy efficiency programs, such as refrigerators, dishwashers, washing machines, and room air conditioners show strong association with the ENERGY STAR label. Sixty-three percent of households have seen the ENERGY STAR label on refrigerators. At about 50 percent, dishwashers and washing machines were the next most commonly associated products with the label. Room and central air conditioners as well as computers were in the 35- to 40-percent range. The strong association of the label with computers is probably the combined effect of manufacturing labeling and the prevalence of these products in daily life. Twenty-nine percent of households associate the ENERGY STAR label with microwave ovens, which do not in fact have an ENERGY STAR specification. However, microwave ovens were the least recognized of all the appliances. Products that showed an increase in association with the ENERGY STAR label from 2003 to 2004 were central air conditioners, thermostats, and scanners.

Product Association With the ENERGY STAR Label
(Base = Recognize label aided, n=819)



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.

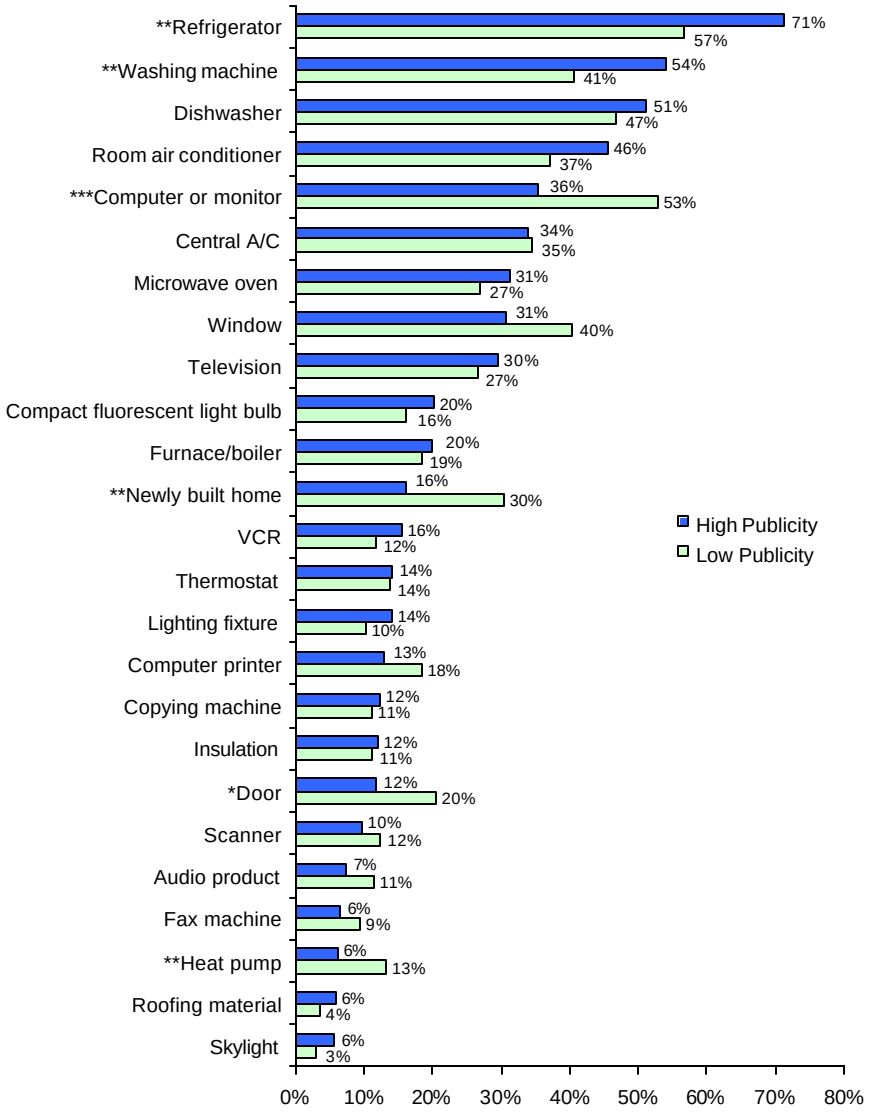
*** 2004 and 2003 proportions are statistically different from each other at the 1-percent level of significance (p-value≤0.01). Proportion of households in 2004 is larger than in 2003.

* 2004 and 2003 proportions are statistically different from each other at the 10-percent level of significance (p-value≤0.10). Proportion of households in 2004 is larger than in 2003.

Product Associations by Publicity Category

For refrigerators and washing machines, a larger proportion of households in high- than in low-publicity areas associated the product with the ENERGY STAR label. Regional energy efficiency program sponsors promoted these products heavily. On the other hand, for several products, a smaller proportion of households in high- than in low-publicity areas associated the product with the ENERGY STAR label. This was the case for computers, newly built homes, doors, and heat pumps. This result has been seen for computers in two of the three previous years.

Product Association With the ENERGY STAR Label by Publicity Category
(Base = Recognize label aided, n=819)



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

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

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

UNDERSTANDING

In 2004, 68 percent of households have at least a general understanding of the ENERGY STAR label. Furthermore, the proportion of households that exhibit only a general understanding is small compared with the proportion that exhibit a high understanding, 13 versus 55 percent. Understanding was probed by asking respondents what messages came to mind when they saw the ENERGY STAR label. Based on these messages, a respondent's understanding was classified as high, general, or no understanding.

The results on understanding of the ENERGY STAR label for both this year's and last year's surveys are provided in the next table. The proportion of households with at least a general understanding of the ENERGY STAR label was higher in 2004 than in 2003, 68 versus 62 percent (the difference is statistically significant at the 5-percent level, p-value=0.027).

Level of Understanding of the ENERGY STAR Label
(Base = All respondents)

Level of Understanding of the Label	2004 (n=1,579)	2003 (n=2,206)
High understanding	55%	50%
General understanding	13%	12%
No understanding	32%	38%
Total	100%	100%

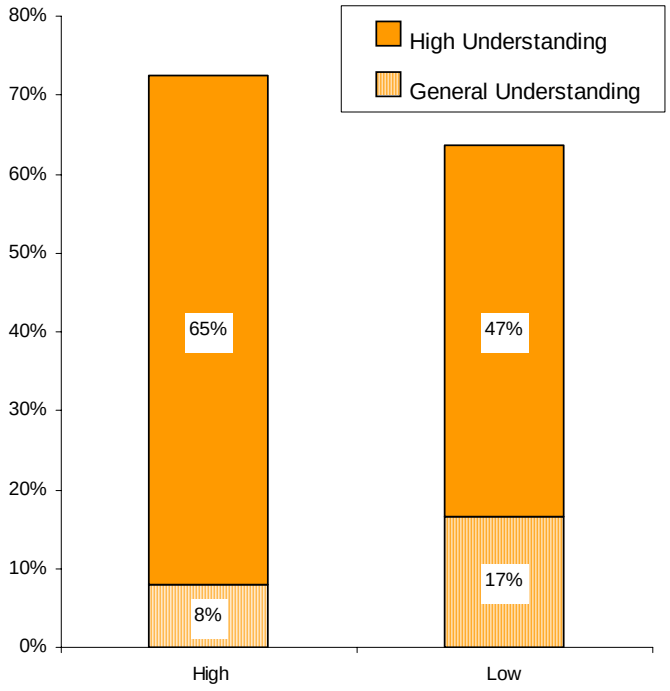
Note: The level of understanding of the label is based on two questions. (1) If respondent recognized the label unaided, ES2: "What does the ENERGY STAR label mean to you?" (2) If respondent did not recognize the label unaided, ES4A1: "Please look at the ENERGY STAR labels on the left. Type the messages that come to mind when you see the ENERGY STAR labels."

Understanding by Publicity Category

Understanding of the ENERGY STAR label was greater in high- than in low-publicity areas. Seventy-three percent of households in high-publicity areas had at least a general understanding of the label compared with 64 percent of households in low-publicity areas. (The difference is statistically significant at the 5-percent level, p-value = 0.022.)

In both publicity categories, among those households with at least a general understanding of the ENERGY STAR label, more respondents exhibited a high degree of understanding.

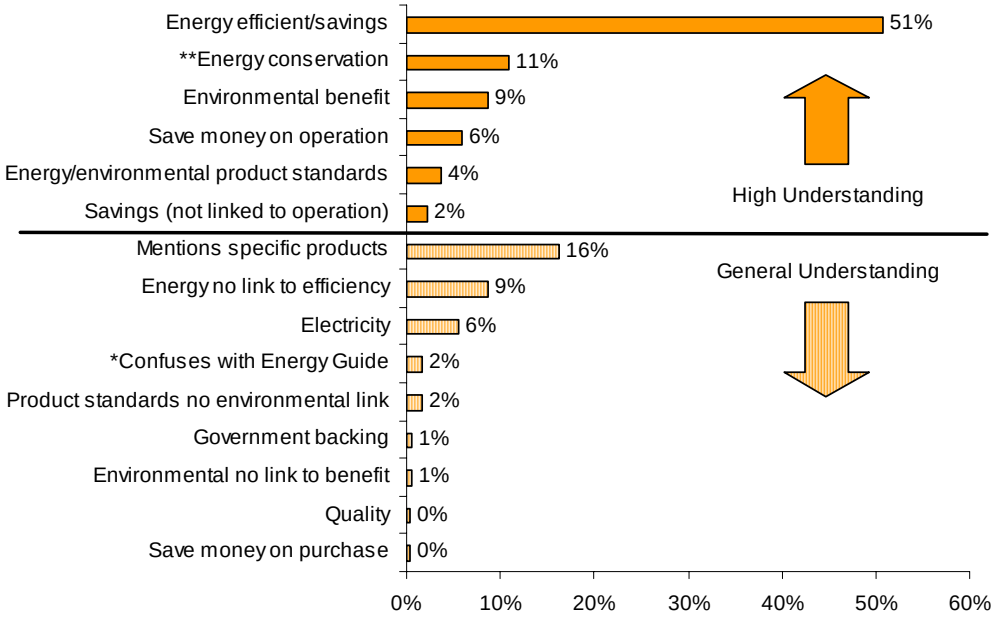
Understanding of the ENERGY STAR Label by Publicity Category
(Base = All respondents)



Label Messaging

Open-ended responses used to measure understanding are also an indicator of how effectively EPA communicates its messages through the ENERGY STAR label. By far, the most common message associated with the label is "energy efficiency or energy savings," which is considered high understanding of the label. Fifty-one percent of households associate the ENERGY STAR label with this message. The second most common message is "associating specific products with the ENERGY STAR label," at 16 percent of households. "Associating specific products with the ENERGY STAR label" is considered general understanding of the label.

Messages of the ENERGY STAR Label
(Base = All respondents)



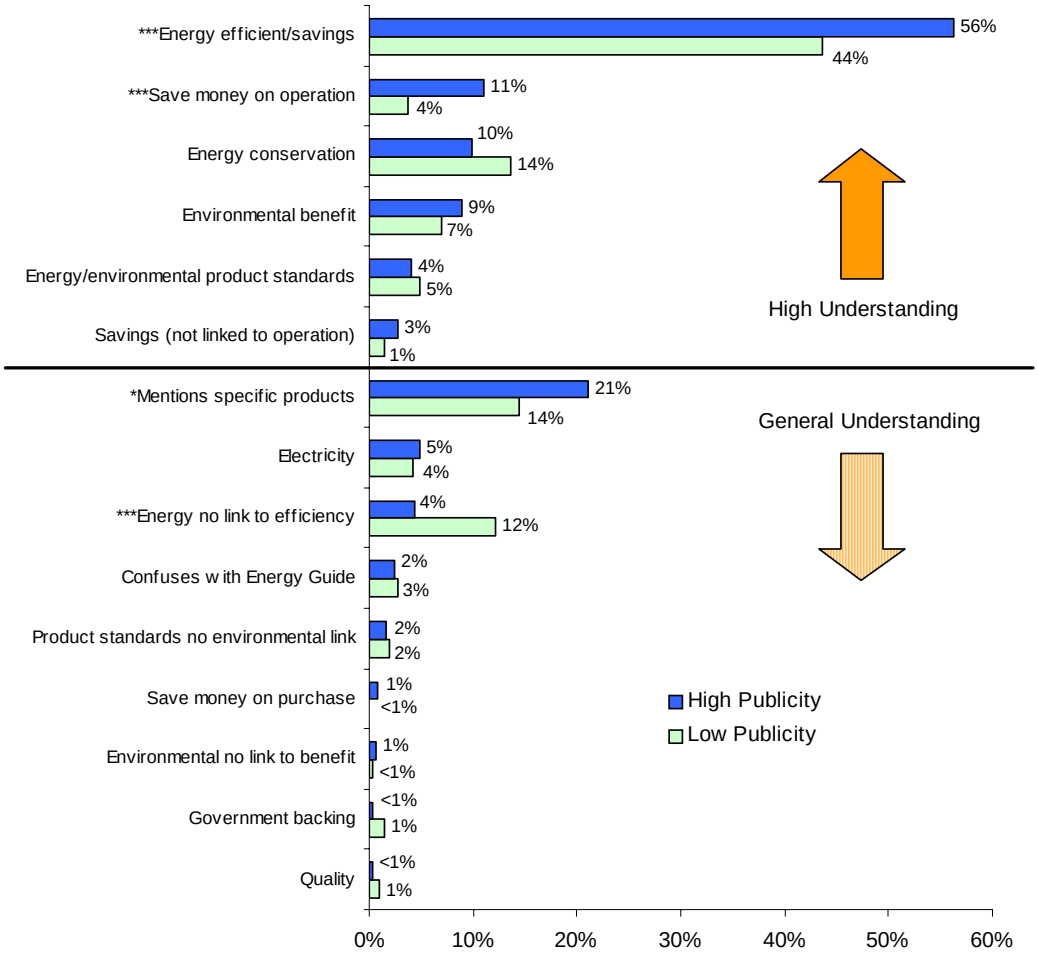
** 2004 and 2003 proportions are statistically different from each other at the 5-percent level of significance (p-value≤0.05). Proportion of households in 2004 is larger than in 2003.

* 2004 and 2003 proportions are statistically different from each other at the 10-percent level of significance (p-value≤0.10). Proportion of households in 2004 is smaller than in 2003.

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. For three messages, however, a larger proportion of households in high- than in low-publicity areas associated the messages with the label. These messages are "energy efficiency or energy savings," "save money on operation", and "associating specific products with the ENERGY STAR label." In addition, a smaller proportion of households in high- than in low-publicity areas associated the message "energy no link to efficiency" with the ENERGY STAR label. Associating either "energy efficiency or energy savings" or "save money on operation" with the ENERGY STAR label is considered high understanding of the label. Associating either specific products or "energy no link to efficiency" with the ENERGY STAR label is considered general understanding of the label.

Messages of the ENERGY STAR Label by Publicity Category
(Base = All respondents)



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

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

Understanding by Aided Recognition

Households that recognize the ENERGY STAR label with a visual aid are more likely to have at least a general understanding of the label than those who do not recognize the label. Among households that recognize the label, 76 percent have at least a general understanding of the label, compared with households that do not recognize the label at 52 percent.

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
Yes	76%
No	52%
Yes-No	24%
p-value	<0.0001

INFLUENCE

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

- The proportion of households, nationally, that recognize the ENERGY STAR label and knowingly purchased a labeled product.
- The influence of the label on purchasing decisions.
- The role of rebates or financing in decisions to buy ENERGY STAR products.
- The loyalty of ENERGY STAR purchasers.

Purchases of ENERGY STAR

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, the proportion that purchased a product.
- Of the households that recognized the label and purchased a product, the proportion that knowingly purchased an ENERGY STAR product.

The result is that 30 percent of all households knowingly purchased at least one qualifying ENERGY STAR product in the past twelve months. This proportion is 8 percentage points larger than it was last year, 30 versus 22 percent (the difference is statistically significant at the 1-percent level, p-value=0.006).

In 2004, considering only households that recognized the label and purchased a product, 67 percent purchased at least one qualifying ENERGY STAR product in the past twelve months. This proportion is 9 percentage points larger than it was last year, 67 versus 58 percent (the difference is statistically significant at the 5-percent level, p-value=0.034).

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

Purchased ENERGY STAR product	2004 (n=448)	2003 (n=565)
Estimate (yes)	67%	58%
Standard error	3.2%	3.3%

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 similar proportion of *all* households knowingly purchased an ENERGY STAR product in high- as in low-publicity areas, 31 and 28 percent, respectively.

National Household Market Penetration
of ENERGY STAR Products by Publicity Category
(Base = All respondents)

Publicity Category	% Households
High	31%
Low	28%
High-Low	3%
p-value	0.623

Influence of the ENERGY STAR Label

In 2004, for 54 percent of households that knowingly purchased an ENERGY STAR-labeled product, the presence of the label influenced their purchasing decision "very much" or "somewhat." For another 20 percent of households, the presence of the label influenced their purchasing decision "slightly."

The results on influence of the ENERGY STAR label for this year's and last year's surveys are provided in the following table. The proportions of households for which the ENERGY STAR label was at least somewhat influential in their purchasing decision were similar between 2004 and 2003, 54 and 52 percent, respectively.

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

Influence of the Label on Purchasing Decisions	2004 (n=300)	2003 (n=319)
Very much	27%	22%
Somewhat	27%	30%
Slightly	20%	14%
Not at all	26%	33%
Total	100%	100%

Note: Q8: "For any ENERGY STAR-labeled product(s) you purchased, how much did the presence or absence of the ENERGY STAR label influence your purchasing decision?"

Influence of the ENERGY STAR Label by Publicity Category

The purchasing decisions of larger proportions of households in high- than in low-publicity areas were very much influenced and at least somewhat influenced by the ENERGY STAR label. The purchasing decisions of 35 percent of households in high-publicity areas were very much influenced by the ENERGY STAR label, compared to 12 percent in low-publicity areas. Adding to these proportions the proportions of households for which the ENERGY STAR label was somewhat influential in their purchasing decisions, the proportion of households is still larger in high- than in low-publicity areas, 65 versus 49 percent. It is not until the proportions of households for which the ENERGY STAR label was slightly influential in their purchasing decisions are also included, that the proportions of households in high- and low-publicity areas are similar, 82 versus 78 percent.

Influence of the ENERGY STAR Label on Purchasing Decisions by Publicity Category
(Base = Recognize label aided and ENERGY STAR purchasers, n=300)

Publicity Category	Very much	Very much or somewhat	Very much, somewhat, or slightly
High	35%	65%	82%
Low	12%	49%	78%
High-Low	23%	17%	4%
p-value	< 0.001	0.087	0.627

Rebate and Financing Influence

Twenty percent of households that knowingly purchased an ENERGY STAR-labeled product received rebates or reduced-rate financing. The majority of these households (53 percent) would have been "very likely" to purchase the labeled product if financial incentives had not been available. Twenty-nine percent would have been "somewhat likely." This leaves only 18 percent that would have been "slightly likely" or "not at all likely," and it appears more would have been "slightly likely," 14 percent versus 4 percent.

Influence of Rebates and Financing on Purchasing Decisions
(Base = Recognize label aided, ENERGY STAR purchaser, and received an incentive, n=60)

Likelihood Purchase ENERGY STAR Product Without Financial Incentive	% Households
Very likely	53%
Somewhat likely	29%
Slightly likely	14%
Not at all likely	4%
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

In 2004, 73 percent of households that knowingly purchasing an ENERGY STAR-labeled product would be "very likely" or "somewhat likely" to recommend labeled products to a friend. Furthermore, only 9 percent would be "not at all likely."

The results on loyalty to the ENERGY STAR label for both this year's and last year's surveys are shown in the next table. The proportions of households at least somewhat likely to recommend labeled products to a friend were similar between 2004 and 2003, 73 and 66 percent, respectively (the difference is not statistically significant).[2]

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

Likelihood Recommend ENERGY STAR Products	2004 (n=268)	2003 (n=292)
Very likely	41%	35%
Somewhat likely	32%	31%
Slightly likely	18%	16%
Not at all likely	9%	18%
Total	100%	100%

Note: Q11: "How likely are you to recommend ENERGY STAR-labeled products to a friend?"

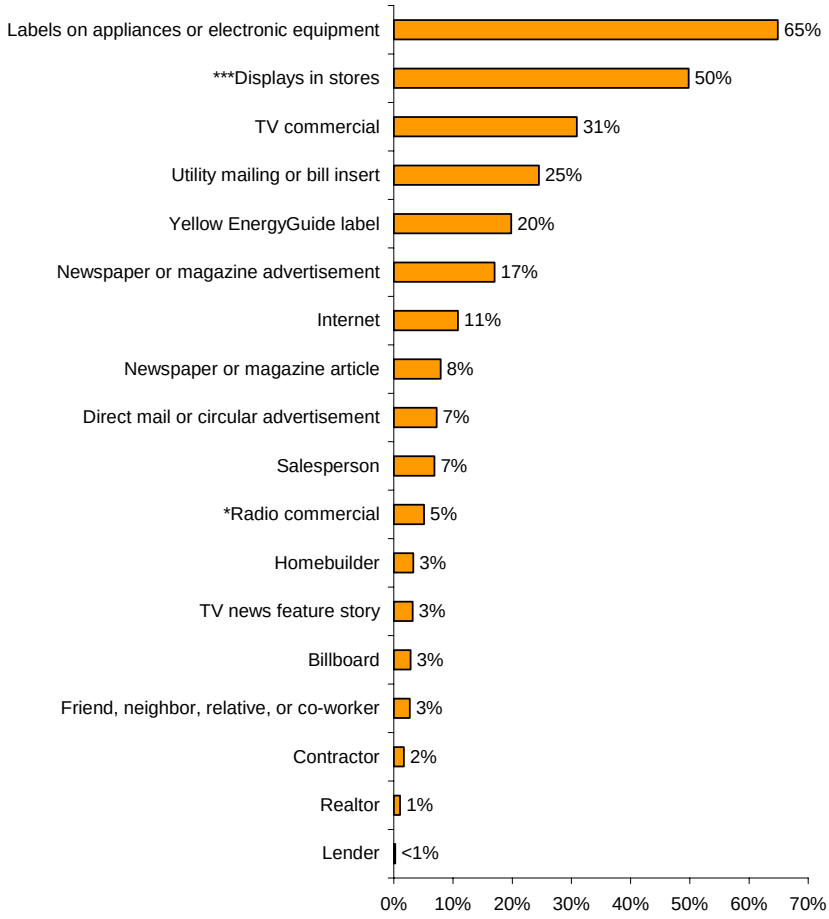
[2] Throughout this report, "not statistically significant" refers to not significant at the 10-percent level.

INFORMATION SOURCES

Sources Seen

Sixty-five percent of households have seen something about ENERGY STAR on appliance or electronic equipment labels, followed by store displays at 50 percent. Next, 31 percent of households have heard or seen something about ENERGY STAR on TV commercials. After these 3 sources, between 17 and 25 percent of households have seen something about ENERGY STAR on utility mailings or bill inserts, EnergyGuide labels, or in newspaper or magazine advertisements. A larger proportion of households in 2004 than in 2003 saw something about ENERGY STAR on store displays or heard something about ENERGY STAR in radio commercials.

Sources Saw or Heard Something About ENERGY STAR
(Base = Recognize label aided, n=772)

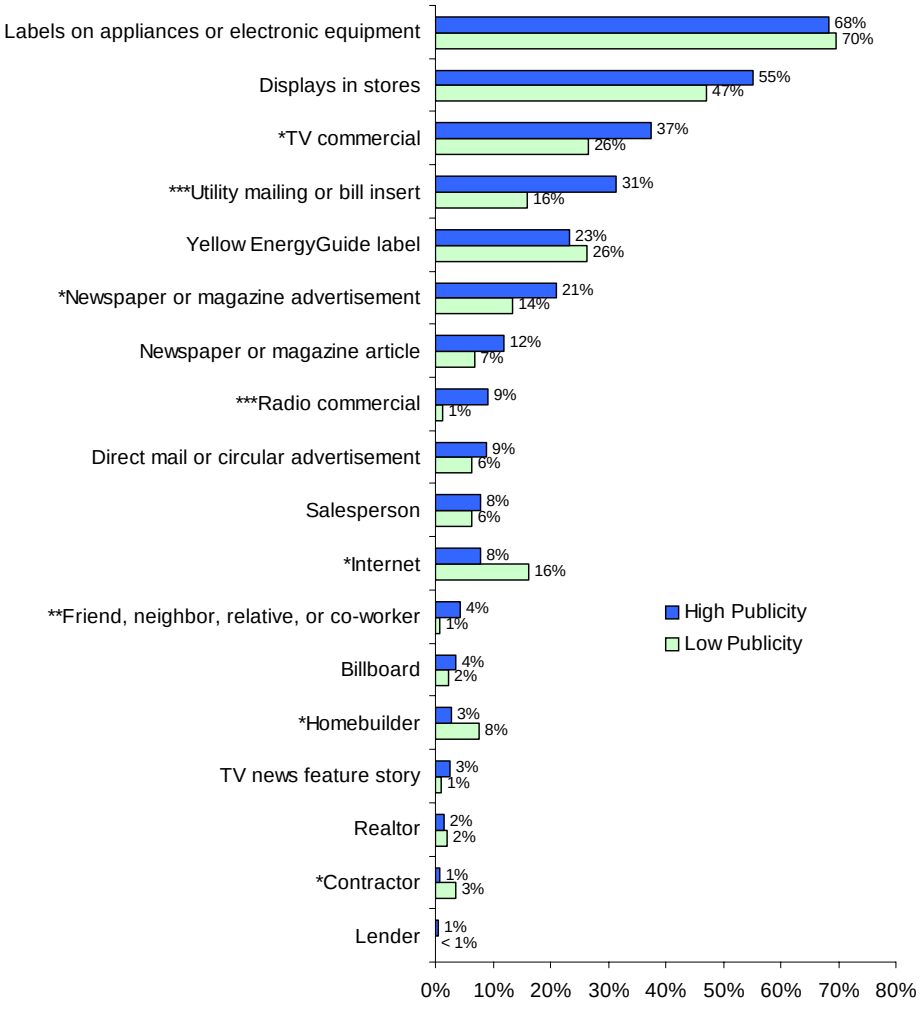


Note: SO1: "Where did you see or hear something about ENERGY STAR? Please mark all that apply."
*** 2004 and 2003 proportions are statistically different from each other at the 1-percent level of significance (p-value≤0.01). Proportion of households in 2004 is larger than in 2003.
* 2004 and 2003 proportions are statistically different from each other at the 10-percent level of significance (p-value≤0.10). Proportion of households in 2004 is larger than in 2003.

Sources seen by Publicity Category

For several sources, the proportion of households that have heard or seen something about ENERGY STAR was larger in high- than in low-publicity areas. This was the case for utility mailings or bill inserts; TV commercials; radio commercials; newspapers or magazine advertisements; and personal acquaintances. With the exception of personal acquaintances, these sources are means of mass communication. On the other hand, a smaller proportion of households in high- than in low-publicity areas have heard or seen something about ENERGY STAR from the Internet, homebuilders, and contractors. The popularity of homebuilders and contractors as sources of information about ENERGY STAR in low-publicity areas relative to high-publicity areas may explain the greater tendency in low-publicity areas to associate newly built homes, doors, and heat pumps with the ENERGY STAR label.

Sources Saw or Heard Something About ENERGY STAR by Publicity Category (Base = Recognize label aided, n=772)



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

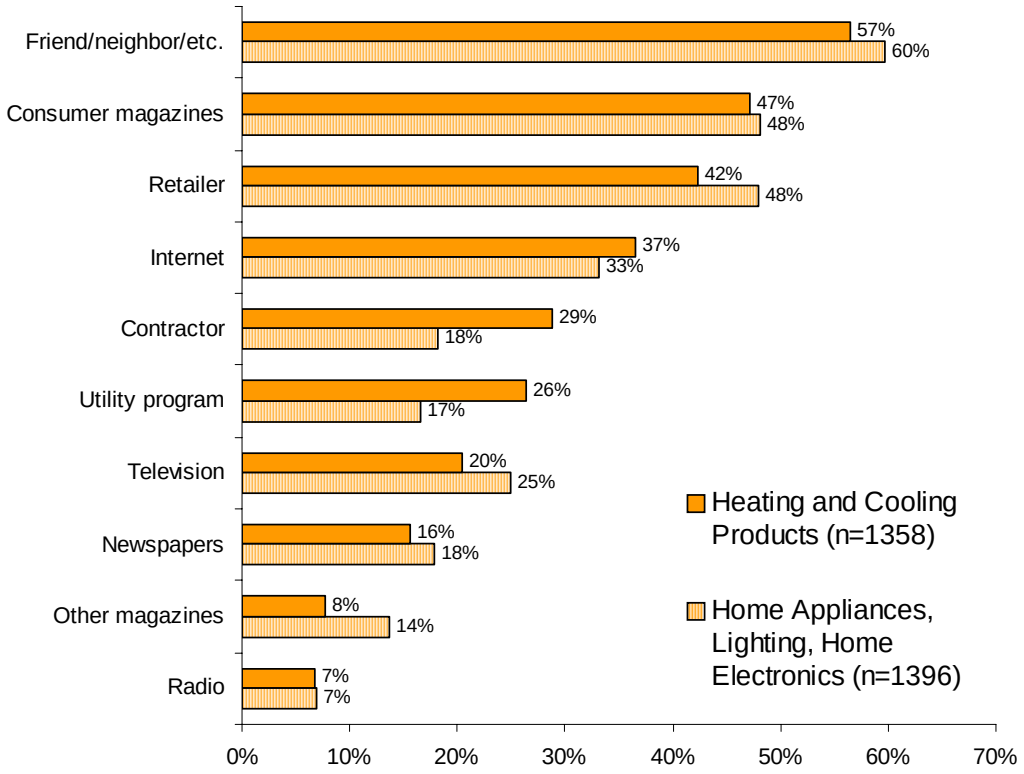
** High- and low-publicity areas proportions are statistically different from each other at the 5-percent level of significance (p-value≤0.05).

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

Sources Consumers Consult for Product Information

The survey asked about the sources consumers are most likely to use to obtain information about products covered by the ENERGY STAR program. The question was asked separately for two product groups: (1) heating and cooling products, and (2) home appliances, lighting, and home electronics. The results for the two product groups are similar. The top source was personal acquaintances at around 60 percent, followed by consumer magazines, retailers, and the Internet. On the other hand, households appear more likely to use contractors and utility programs as an information source for heating and cooling products than for home appliances, lighting, and home electronics.

Product Information Sources Consulted
(Base = All respondents)



Q13a: "Now, please think only about Heating and Cooling Products. Please select the source(s) of information you are most likely to use to obtain information about this product type. Please mark all that apply."
Q13b: "Now, please think only about Home Appliances\Lighting\Home Electronics. Please select the source(s) of information you are most likely to use to obtain information about this product type. Please mark all that apply."

Considering only households that recognized the ENERGY STAR label, there was some overlap as well as some differences between where they saw or heard something about ENERGY STAR and the sources they consult for product information. These households saw or heard something about ENERGY STAR primarily on TV commercials, utility mailings or bill inserts, in newspaper or magazine advertisements, or on the Internet. Each of these sources was among the primary sources these same households consult for product information. Other primary sources these households consult for product information were personal acquaintances, salespersons, and contractors. The overlap as well as the differences between where households saw or heard something about ENERGY STAR and the sources the consult for product information suggest future ENERGY STAR activities should aim to:

- Increase positive exposure of ENERGY STAR in product-orientated magazines.
- Enhance efforts to train salespersons and contractors to actively and accurately deliver information about ENERGY STAR.
- Improve the availability and accessibility of ENERGY STAR information on the Internet.
- Continue cooperative efforts to include ENERGY STAR materials in utility mailings or bill inserts.
- Encourage consumers to recommend ENERGY STAR to friends, family, and colleagues.

ENERGY STAR Sources Compared With Sources Consulted
(Base = Recognized aided)

Sources	ENERGY STAR Sources (n=772)	Sources Consulted			
		Heating and Cooling Products (n=904)		Home Appliance/Lighting/ Home Electronics (n=926)	
Newspaper or magazine advertisement	17%	Consumer Reports, other product-oriented magazines	51%	Consumer Reports, other product-oriented magazines	54%
Newspaper or magazine article	8%	Newspaper	13%	Newspaper	15%
		Other magazines	9%	Other magazines	14%
TV commercial	31%	19%		24%	
TV news feature story	3%				
Radio commercial	5%	6%		6%	
Utility mailing or bill insert	25%	29%		18%	
Internet	11%	42%		38%	
Salesperson	7%	43%		50%	
Contractor	2%	29%		19%	
Friend,neighbor,relative,or co-worker	3%	56%		62%	

APPENDIX A

DETAILED METHODOLOGY

From September through October 2004, the Consortium for Energy Efficiency (CEE) fielded a household survey to obtain information on consumer awareness of the ENERGY STAR label. The survey was fielded to a random sample of households that are part of a WebTV/Internet panel that is selected by random digit dial and recruited by telephone. The survey was similar to the WebTV/Internet surveys fielded in previous years (2001, 2002, 2003). As in the previous four years, CEE and its sponsoring members made the survey data publicly available. In 2001, a rigorous comparative analysis of mail survey and WebTV/Internet survey results was conducted. The results from both techniques were comparable for most major indicators.[1] Results in that time frame were also analogous to telephone surveys with aided recognition.

This report discusses the results of the CEE 2004 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 used (or were influenced by) the label in their energy-related purchasing decisions. Research questions of interest included:

- Where do consumers see or hear about the ENERGY STAR label?
- How does increased publicity impact 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 15 through October 12, 2004.

The remainder of Appendix A discusses the questionnaire design, sampling and weighting methodologies, data collection, and the national analysis.

1 Questionnaire Design

In 2004, CEE conducted the ENERGY STAR survey using a questionnaire designed to be delivered by WebTV/Internet. The 2004 WebTV/Internet questionnaire was used in a survey conducted via an interactive WebTV/Internet format in the homes of members of a WebTV/Internet panel. People on the panel were originally selected to participate in the panel by random digit dial and recruited by telephone. The panel is designed to be representative of the U.S. population. Panel members are provided with an Internet

[1] National Analysis of CEE 2001 ENERGY STAR Household Surveys.

appliance (WebTV) and Internet service connection, and surveys are fielded to them via Internet and WebTV. Panel members who already have Internet service receive other incentives to participate in the panel. Panel members receive three to four short surveys each month, and are expected to respond to a percentage of these.

Data collected using the 2004 WebTV/Internet questionnaire may be compared with data collected using any of the WebTV internet questionnaires fielded in previous years, for which CEE was also responsible. Sampling for the survey is discussed in Section 2, data collection is discussed in Section 3, and the national analysis is discussed in Section 4.

The committee had several broad objectives in designing the 2004 questionnaire including:

- To maintain consistency with the CEE 2000 and 2001 mail questionnaires and the WebTV/Internet questionnaires fielded in previous years.

- To fine-tune the questionnaire based on lessons learned from prior years' analyses of the CEE survey, focusing on achieving the greatest value from the analysis of the CEE 2003 survey.

The 2004 WebTV/Internet questionnaire addressed the following:

- Respondent recognition of the ENERGY STAR label.

- Understanding of, and key messages communicated by, the ENERGY STAR label.

- Sources of information consulted about ENERGY STAR.

- Products on which respondents have seen the label.

- Products that respondents have 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.

- Likely sources of information about product categories.

- Demographic questions. (Most of the demographic questions were not asked in the WebTV/Internet survey, because demographic characteristics of the respondents were already on file.)

- Likelihood of recommending ENERGY STAR-labeled products to a friend.

- Recognition and understanding of the yellow *EnergyGuide* labels.

The 2004 WebTV/Internet questionnaire is very similar to the 2003 questionnaire. In 2004, respondents who said they used the Internet to obtain information about products were asked about the type of Internet sources they were most likely to rely on for product information. An experimental question about consumer perceptions of ENERGY STAR-labeled products was also added. The results of these new questions are discussed later.

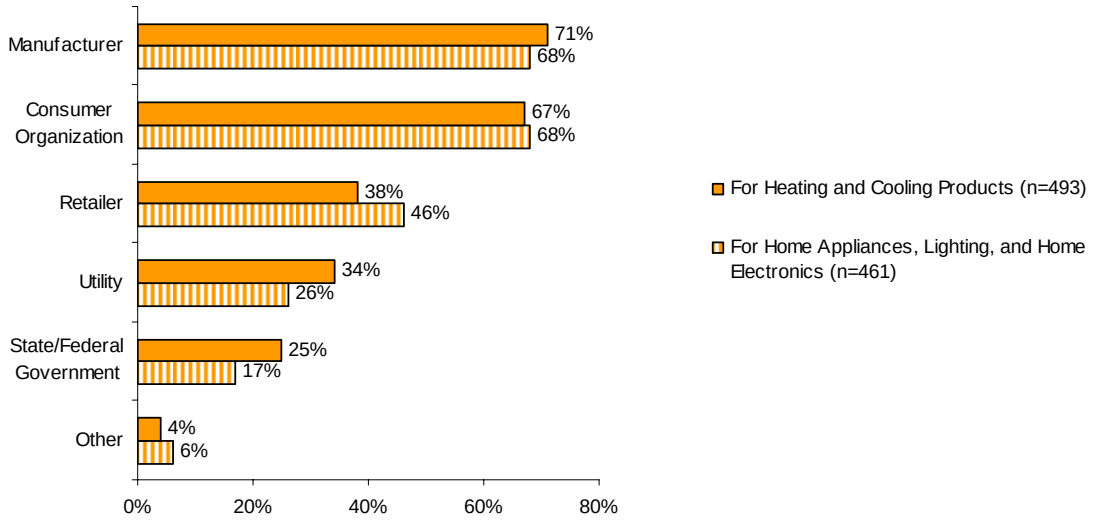
The interactive format of a WebTV/Internet questionnaire allows questions to be asked in a way that is not possible with a printed questionnaire. On printed questionnaires, respondents can see questions in advance. For example, while the 2000 and 2001 mail questionnaires begin by showing the ENERGY STAR label and asking about understanding and whether they recognize it before asking other questions, respondents can still potentially educate themselves in a limited way about the ENERGY STAR label by reading the survey before completing it, affecting their responses. The WebTV/Internet questionnaires (after questions about the yellow *EnergyGuide* label), however, ask respondents—without showing the 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 WebTV/Internet questionnaires then show the ENERGY STAR label(s) (which is obviously not possible with the telephone questionnaire) and ask again about recognition and understanding. Responses to these questions should thus be comparable to those obtained through the mail survey where respondents are shown the label. Other differences between the mail questionnaires and the WebTV/Internet questionnaires are that the latter—much like a telephone questionnaire using computer-assisted telephone interviewing (CATI)—can program lines of questions based on responses to earlier questions. For example, WebTV/Internet respondents 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.

Internet Sources

In 2004, respondents who said they used the Internet to obtain information about products covered by the ENERGY STAR program were asked about the type of Internet sources they were most likely to rely on for product information. This question was asked separately for two product groups: (1) heating and cooling products (Q13a1) and (2) home appliances, lighting, and home electronics (Q13a2). For both product groups the top two sources are manufacturer Web sites and consumer organization Web sites, each at about 70 percent. On the other hand, it appears more households rely on utility Web sites or state or federal government Web sites to obtain information about heating and cooling products than about home appliances, lighting, and home electronics. Also, it appears more households rely on retailer Web sites to obtain information about home appliances, lighting, and home electronics than about heating and cooling products.

Internet Sources for Product Information
(Base = Internet a source for product information)



Perceived Characteristics of ENERGY STAR-labeled Products

In 2004, an experimental question (Q15) about consumers' perceptions of ENERGY STAR-labeled products was asked as follows: "On the scale by each statement, please indicate how strongly you agree or disagree with the statement." The response scale was 1 = strongly disagree, 2 = somewhat disagree, 3 = neither agree nor disagree, 4 = somewhat agree, and 5 = strongly agree. The order in which the statements were presented was random. The statements were:

- Products with the ENERGY STAR label are better for the environment than products without the label.

- Products with the ENERGY STAR label cost less to use than products without the label.

- The U.S. government gives the ENERGY STAR label to products that meet energy efficiency guidelines.

- Products with the ENERGY STAR label are higher quality products than those without the label.

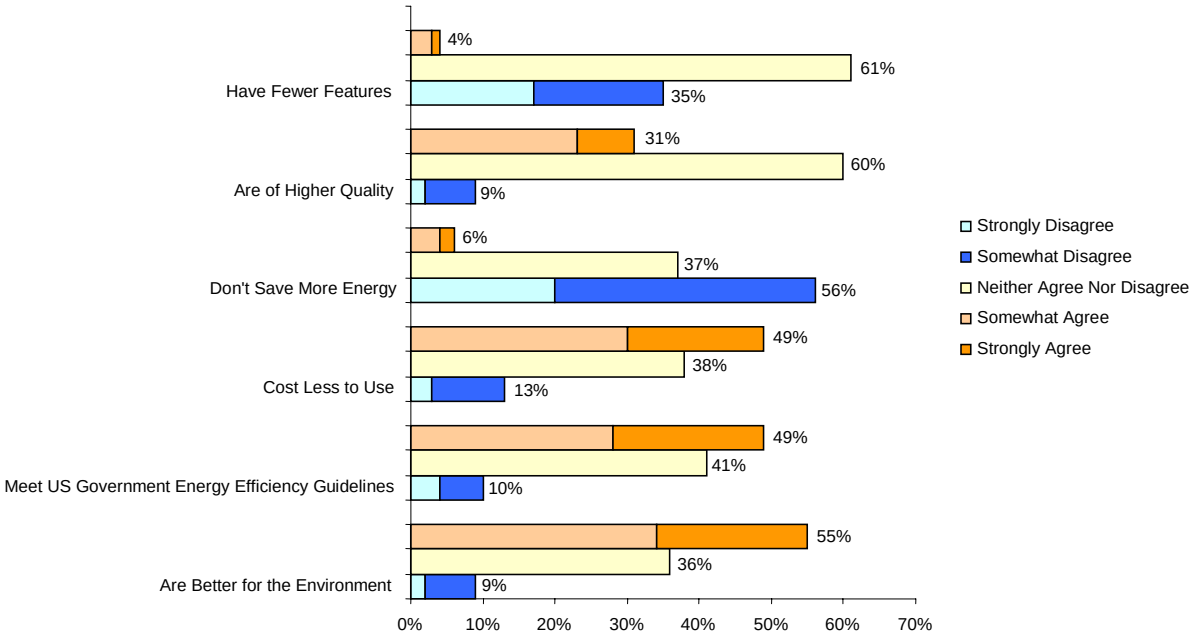
- Products with the ENERGY STAR label don't save any more energy than other new products.

- Products with the ENERGY STAR label have fewer features than products without the label.

Four of the statements address messages of the ENERGY STAR label: better for the environment, cost less to use, meets U.S. government energy efficiency guidelines, and save more energy. Each of these statements received a positive rating from between 49 and 56 percent of households that recognize the label. (The positive rating is the percentage of households that agreed—either somewhat or strongly—with a positive message or the percentage of households that disagreed—either somewhat or strongly—with a negative message.) At the same time, each of the statements that address a message of the ENERGY STAR label received a negative rating from between only 6 and 13 percent of households that recognized the label. Still, these negative ratings as well as the relatively large percentages of households that recognized the label and neither agree nor disagree with these statements, between 36 and 41 percent, suggest work remains to get the ENERGY STAR message across.

Two of the statements do not address specific messages of the ENERGY STAR label: higher quality and more features. Compared with the statements that clearly address messages of the ENERGY STAR label, these statements appear to receive smaller positive ratings and larger neutral ratings (neither agree nor disagree). The two statements that address more features and higher quality received positive ratings of 31 and 35 percent, respectively, and neutral ratings of about 60 percent.

Perceptions of ENERGY STAR Products
(Base = Recognize label aided, n=1007)



2 Sampling

2.1 Designated Marketing Areas Publicity Categories

The same publicity classification procedure used the past three years was used this year. 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 two or more continuous years. The activities must include *sustained* promotions and publicity from non-federal activities..

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

- **Other:** All other DMAs.

This classification procedure identifies three publicity categories and provides clear and verifiable definitions. The key working definitions are:

- **Recent:** The two years of activity must include the time of the survey fielding.

- **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 and promotional efforts.

These definitions are sufficiently operational to be applicable to future survey efforts, and can be modified by simply increasing the duration of sustained high publicity. The publicity-level assignments are detailed in the table below, followed by a table of supplemental CEE member sponsor areas.

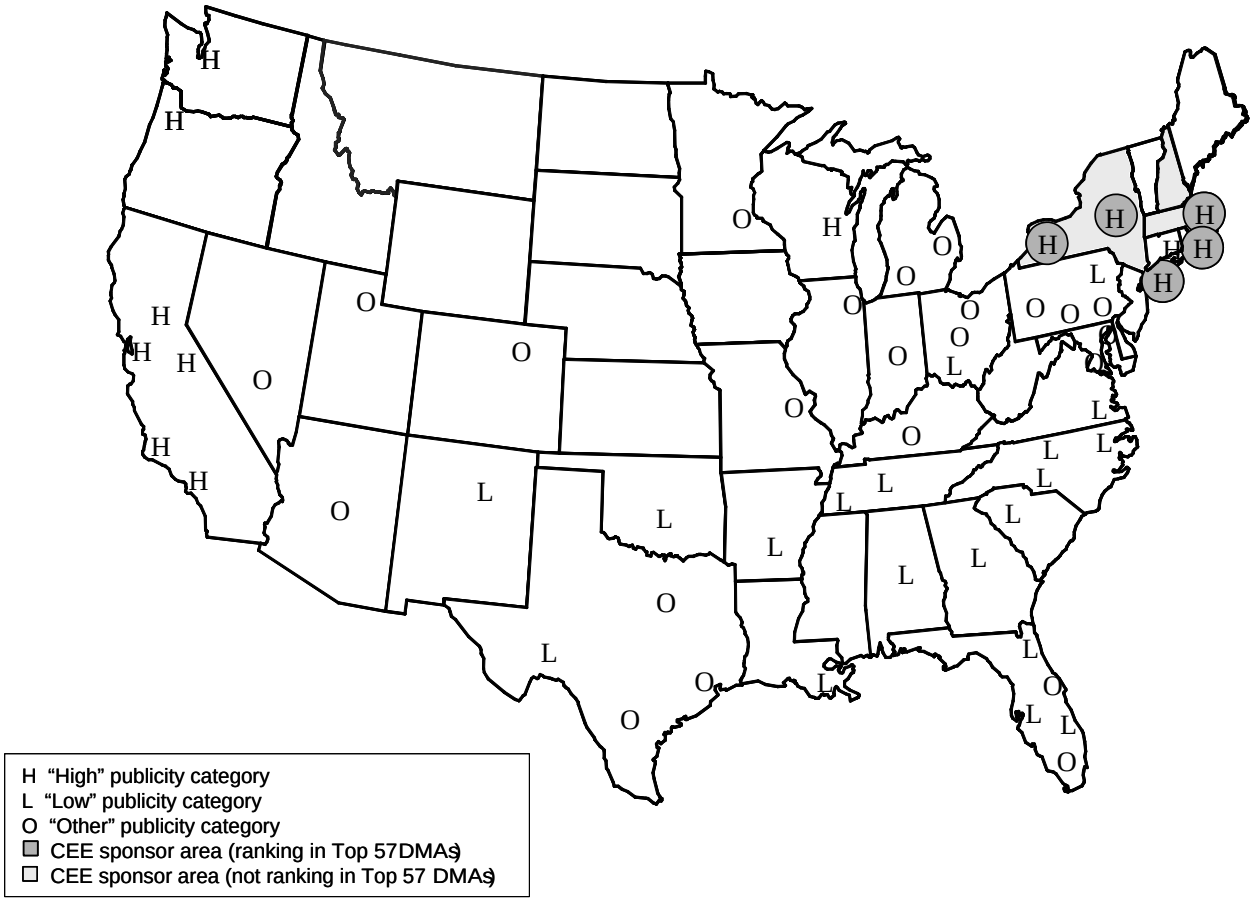
Top 57 Designated Market Areas

Rank	Designated Market Area (DMA)	# TV Households 2003-2004	% of US TV Households	Publicity Category
1	New York	7,376,330	680.4%	High
2	Los Angeles	5,402,260	498.3%	High
3	Chicago	3,399,460	313.6%	Other
4	Philadelphia	2,874,330	265.1%	Other
5	San Francisco-Oak-San Jose	2,440,920	225.2%	High
6	Boston (Manchester)	2,391,830	220.6%	High
7	Dallas-Ft. Worth	2,255,970	208.1%	Other
8	Washington, DC (Hagrstwn)	2,224,070	205.2%	Other
9	Atlanta	2,035,060	187.7%	Low
10	Detroit	1,923,230	177.4%	Other
11	Houston	1,848,770	170.5%	Other
12	Seattle-Tacoma	1,685,480	155.5%	High
13	Tampa-St. Pete (Sarasota)	1,644,270	151.7%	Low
14	Minneapolis-St. Paul	1,635,650	150.9%	Other
15	Phoenix	1,561,760	144.1%	Other
16	Cleveland-Akron (Canton)	1,542,970	142.3%	Other
17	Miami-Ft. Lauderdale	1,510,740	139.4%	Other
18	Denver	1,399,100	129.1%	Other
19	Sacramnto-Stktn-Modesto	1,278,430	117.9%	High
20	Orlando-Daytona Bch-Melbrn	1,263,900	116.6%	Other
21	St. Louis	1,202,170	110.9%	Other
22	Pittsburgh	1,175,410	108.4%	Other
23	Baltimore	1,083,030	99.9%	Other
24	Portland, OR	1,073,210	99.0%	High
25	Indianapolis	1,038,370	95.8%	Other
26	San Diego	1,029,210	94.9%	High
27	Hartford & New Haven	1,001,320	92.4%	High
28	Charlotte	986,830	91.0%	Low
29	Raleigh-Durham (Fayetvlle)	947,750	87.4%	Low
30	Nashville	904,380	83.4%	Low
31	Kansas City	875,090	80.7%	Other
32	Cincinnati	872,330	80.5%	Low
33	Milwaukee	871,490	80.4%	High
34	Columbus, OH	854,040	78.8%	Other
35	Greenvll-Spart-Ashevll-And	806,930	74.4%	Low
36	Salt Lake City	786,030	72.5%	Other
37	San Antonio	736,240	67.9%	Low
38	Grand Rapids-Kalmzoo-B.Crk	724,290	66.8%	Other
39	West Palm Beach-Ft. Pierce	709,290	65.4%	Low
40	Birmingham (Ann and Tusc)	697,570	64.3%	Low
41	Norfolk-Portsmth-Newpt Nws	693,660	64.0%	Low
42	New Orleans	665,190	61.4%	Low
43	Memphis	662,280	61.1%	Low
44	Buffalo	647,920	59.8%	High
45	Oklahoma City	647,390	59.7%	Low
46	Greensboro-H.Point-W.Salem	645,430	59.5%	Low
47	Harrisburg-Lncstr-Leb-York	637,240	58.8%	Other
48	Providence-New Bedford	635,610	58.6%	High
49	Albuquerque-Santa Fe	633,500	58.4%	Low
50	Louisville	624,470	57.6%	Other
51	Las Vegas	601,700	55.5%	Other
52	Jacksonville, Brunswick	598,070	55.2%	Low
53	Wilkes Barre-Scranton	590,100	54.4%	Low
54	Austin	577,740	53.3%	Other
55	Albany-Schenectady-Troy	542,670	50.1%	High
56	Little Rock-Pine Bluff	524,090	48.3%	Low
57	Fresno-Visalia	521,160	48.1%	High
	Tota	76,517,730	70.4%	

Sponsor Areas

Sponsor Area	Publicity Category	Top 57/Other DMAs
New York (with the exception of Long Island)	High	Top 57: parts of *New York DMA (Rank 1) *Buffalo DMA (Rank 44) *Albany-Schenectady-Troy DMA (Rank 55) Other: all of *Rochester (Rank 75) *Syracuse (Rank 79) *Binghamton (Rank 154) *Utica (Rank 167) *Watertown (Rank 177) Other: parts of *Burlington-Plattsburgh (Rank 89) *Elmira (Rank 173)
Massachusetts	High	Top 57: parts of *Boston DMA (Rank 6) *Providence-New Bedford (Rank 48) *Albany-Schenectady-Troy DMA (Rank 55) Other: all of Springfield-Holyoke DMA (Rank 106)
New Hampshire	High	Top 57: parts of *Boston DMA (Rank 6) Other: parts of Portland-Auburn (Rank 74) Burlington-Plattsburgh (Rank 89)

Map of Top 57 DMAs by Publicity Category and Sponsor Areas[4]



[4] Neither Alaska nor Hawaii contained DMAs ranking in the Top 57 DMAs.

2.2 Sample Design

The sample is a national sample. The sampling frame includes all households in the largest DMAs that account for about 70 percent of U.S. television households. In 2004, the 57 largest DMAs accounted for this proportion. In addition, some CEE members sponsored more intensive sampling (i.e., oversample) for various states, which are referred to here as "sponsor areas." For each sponsor area that is a state, the frame was not limited to the large DMAs, but included the entire sponsor area. Thus, the complete frame for the study was the combination of the 57 largest DMAs and any portion of the sponsor areas that fell outside these DMAs.

The sample is stratified by area and within an area by publicity category. Each sponsor area is also further stratified by large versus non-large DMA as well as any stratification requested by the CEE member funding the oversample. There are four areas, three sponsor areas and a single area consisting of the largest or parts of the largest DMAs that were not in a sponsor area. Further stratifying each sponsor area by publicity category, large versus non-large DMA as well as any stratification requested by the CEE member funding the oversample, results in 7 strata. Further stratifying the remaining area by publicity category results in 3 strata, for a total of 10 strata.

The CEE members who funded the oversample for a sponsor area determined the number of sampling points allocated to the area as a whole. This total number of sampling points was then allocated across publicity categories present in a sponsor area proportional to population. In the single area consisting of the largest or parts of the largest DMAs that were not in a sponsor area, each publicity category was allocated approximately 333 sampling points. For each stratum, a larger sample was selected to receive the survey to allow for nonresponse.

2.3 Weighting Procedures

The weights used in the analysis are the weights developed by Knowledge Networks, the company that provides the WebTV/Internet survey service. Knowledge Networks begins with a typical sampling weight that also accounts for differences between the WebTV/Internet panel and the U.S. population of households. This adjustment is based on geographic and demographic characteristics known for both the panel and the population. It is designed to scale up the groups that are underrepresented in the panel and scale down the groups that are over-represented in the panel so that they are more closely aligned with the basic demographic characteristics of the U.S. population of households.

The typical sampling weight is then corrected for survey nonresponse. The correction for survey nonresponse is analogous to the adjustment for differences in the WebTV/Internet panel from the U.S. population of households. The correction for survey nonresponse is based on geographic and demographic characteristics known for both the sample of panel completes and the entire sampling frame for the study. It scales up the under-represented groups and scales down the over-represented groups in the sample of panel completes.

3 Data Collection

3.1 Survey Implementation

The survey began on September 15 and closed on October 12, 2004.

3.2 Response Rates

For WebTV/Internet, the *return rate* is the ratio of the number of survey questionnaires completed to the number of panel members who were asked to complete the survey. For the CEE 2004 ENERGY STAR household survey, the return rate was 79 percent. While this number is quite high, it must be adjusted by the *recruitment rate*, that is, the number of households that agreed to participate in the WebTV/Internet panel as a proportion of the number of households asked to participate. Thus, the WebTV/Internet response rate is the product of the survey-specific return rate and the recruitment rate of 30 percent. This product is equivalent to the ratio of the number of surveys completed to the number of households that were offered the opportunity to be in the study. For the CEE 2004 ENERGY STAR household survey the response rate was 24 percent. This level of response is typical for a WebTV/Internet survey fielded to the Knowledge Networks panel.

Survey Response Rate

Sendout/requested	1,995
Completed	1,579
Return rate	79%
Recruitment rate	30%
Response rate	24%

4 National Analysis

To facilitate comparisons across years, the results presented in this report, which are national results, are based only on data collected from respondents in the 57 largest DMAs. Data collected from respondents not in the 57 largest DMAs, but in a sponsor area, are not included in the national 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 the appropriate weight in the analysis to generate valid national results.

APPENDIX B

DEMOGRAPHICS

The analysis presented in this appendix suggests the weighted survey results are a reasonable representation of the study population, which is 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. However, in any survey effort, the persons who respond to the survey tend to be different from those who do not respond. While Knowledge Networks, the company that maintains the WebTV/Internet panel, strives to create a representative panel for its WebTV/Internet frame, the respondent base will contain subjects and their associated biases that are receptive to the WebTV/Internet incentive-for-service tradeoff.

The weights used in the analysis attempt to account for differences between the WebTV/Internet panel and the U.S. population of households and for survey nonresponse. To the extent this effort is successful, the distribution of various demographic characteristics based on the weighted survey data will be similar to the distribution based on national Census data. For most demographic characteristics, the two distributions are similar. This suggests the weighted survey results are a reasonable representation of the study population. A summary of the demographic characteristics compared is provided in the table below, and the detailed comparisons are provided in the tables 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	One	-9.8%
Householder/respondent age	65 or older	-6.5%
Householder/respondent gender	Gender	+/- 2.0%
Dwelling type	Other	-2.3%
Own/rent	Own/rent	+/-4.8%
Household annual income	$25,000-$49,000	4.7%

The largest difference (in absolute value) between the weighted survey data and the national Census data is about 10 percentage points for one-person households, 17 versus 27 percent. The next largest difference is about 7 percentage points for householders 65 years or older, 14 versus 21 percent. Neither the under-representation of one-person households or householders 65 years or older is expected to bias the survey results in a particular direction. For the remaining demographic characteristics, the largest differences between the weighted survey data and the national census data range between 1 and 5 percentage points.

Household Size Distribution

Number of Persons in Household	Census % Dwelling Units[a]	Survey Estimate Minus Census % Dwelling Units
One	27%	-9.8%
Two	33%	2.8%
Three	16%	3.7%
Four	14%	1.8%
Five or more	10%	1.5%
Total (%)	100%	
Total (1,000s)	105,842	

[a] U.S. Census Bureau, American Housing Survey, 2003, Table 2-9.

Age Distribution

Householder/ Respondent Age	Census % Householders[a]	Survey Estimate Minus Census % Householders
18-24[b]	6%	5.9%
25-34	17%	2.1%
35-44	21%	1.5%
45-54	21%	-1.5%
55-64	15%	-1.5%
65 or older	21%	-6.5%
Total (%)	100%	
Total (1,000s)	112,000	

[a] U.S.Bureaus of Labor Statistics and the Census, Annual Demographic Survey (or March CPS Supplement), Selected Characteristics of Households, by Total Money Income in 2003, Table HINC-01.
[B] Census, 15-24 years; WebTV/Internet, 18-24 years.

Gender Distribution

Householder/ Respondent Gender	Census % Population[a]	Survey Estimate Minus Census % Population
Female	51%	2.0%
Male	49%	-2.0%
Total (%)	100%	

[a] U.S. Census Bureau, Census 2000.

Dwelling Type Distribution

Dwelling Type	Census % Dwelling Units[a]	Survey Estimate Minus Census % Dwelling Units
Single-family, unattached	61%	1.3%
Single-family, attached	6%	1.4%
Apt. bldg. (>=2 units)[b]	22%	0.3%
Mobile home	6%	-0.7%
Other	5%	-2.3%
Total (%)	100%	
Total (1,000s)	111,122	

[a] U.S. Census Bureau, American Housing Survey, 2003, Table 2-1.
[B] Census, 2 or more units; WebTV/Internet, 4 or more units.

Own/Rent Distribution

Own/Rent	Census % Households[a]	Survey Estimate Minus Census % Households
Own	68%	-4.8%
Rent	32%	4.8%
Total (%)	100%	
Total (1,000s)	105,842	

[a] U.S. Census Bureau, American Housing Survey, 2003, Table 2-1.

Income Distribution

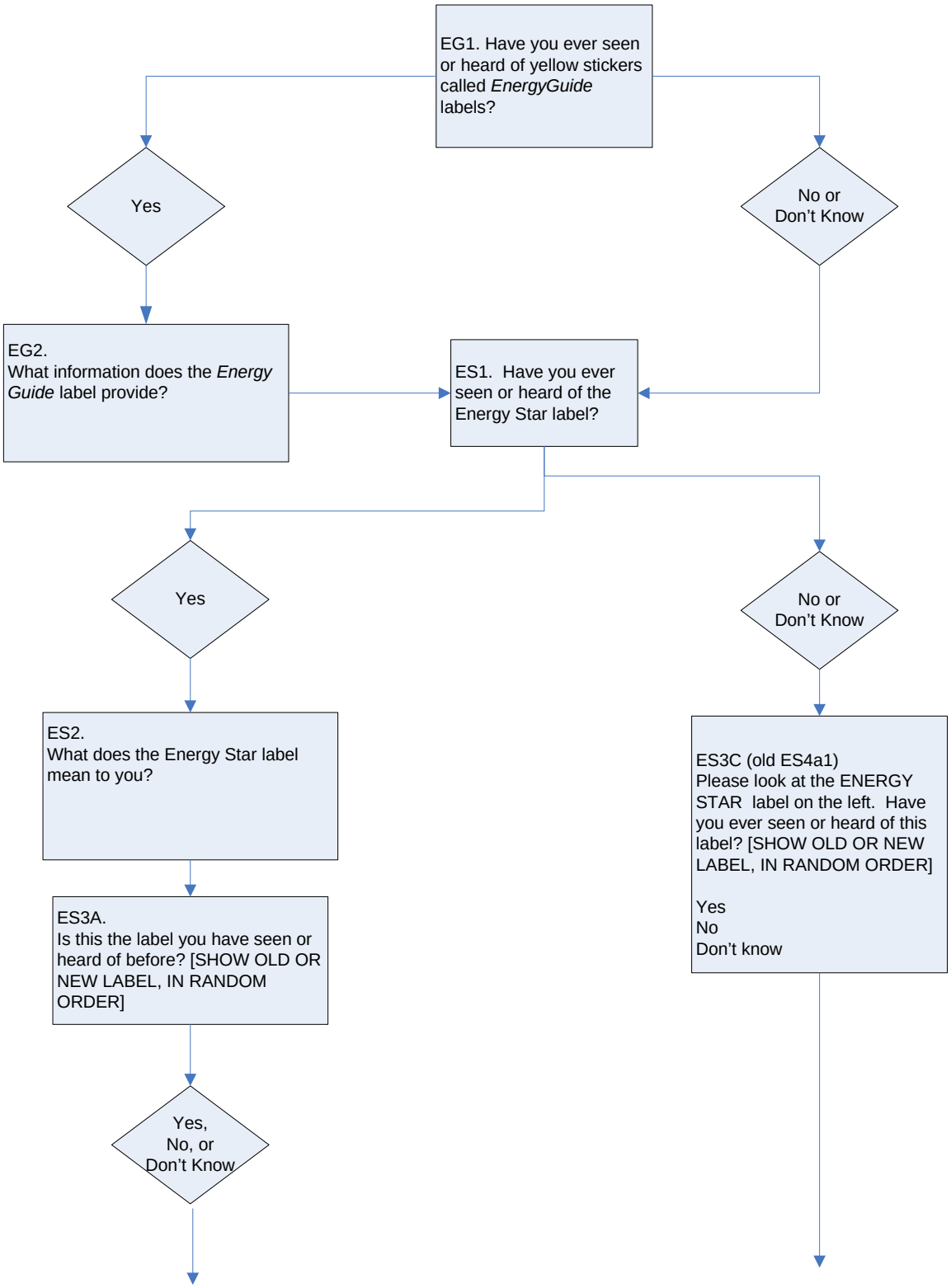
Total Household Annual Income (before taxes)	Census % Households	Survey Estimate Minus Census % Households
Less than $15,000	16%	-2.6%
$15,000-$24,999	13%	-1.9%
$25,000-$49,999	27%	4.7%
$50,000-$74,999	18%	3.5%
$75,000 and over	26%	-3.7%
Total (%)	100%	
Total (1,000s)	112,000	

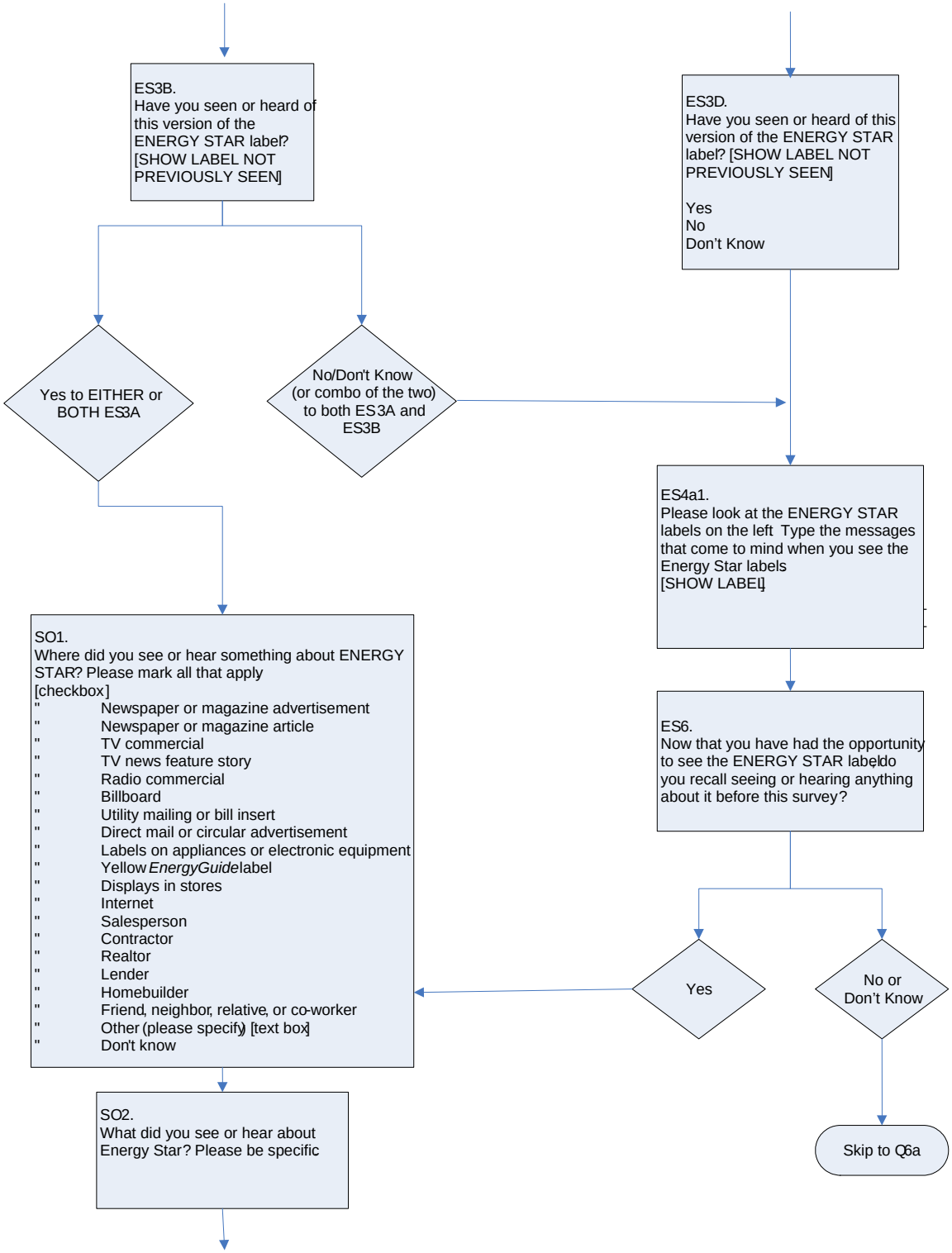
[a] U.S.Bureaus of Labor Statistics and the Census, Annual Demographic Survey (or March CPS Supplement), Selected Characteristics of Households, by Total Money Income in 2003, Table HINC-01.

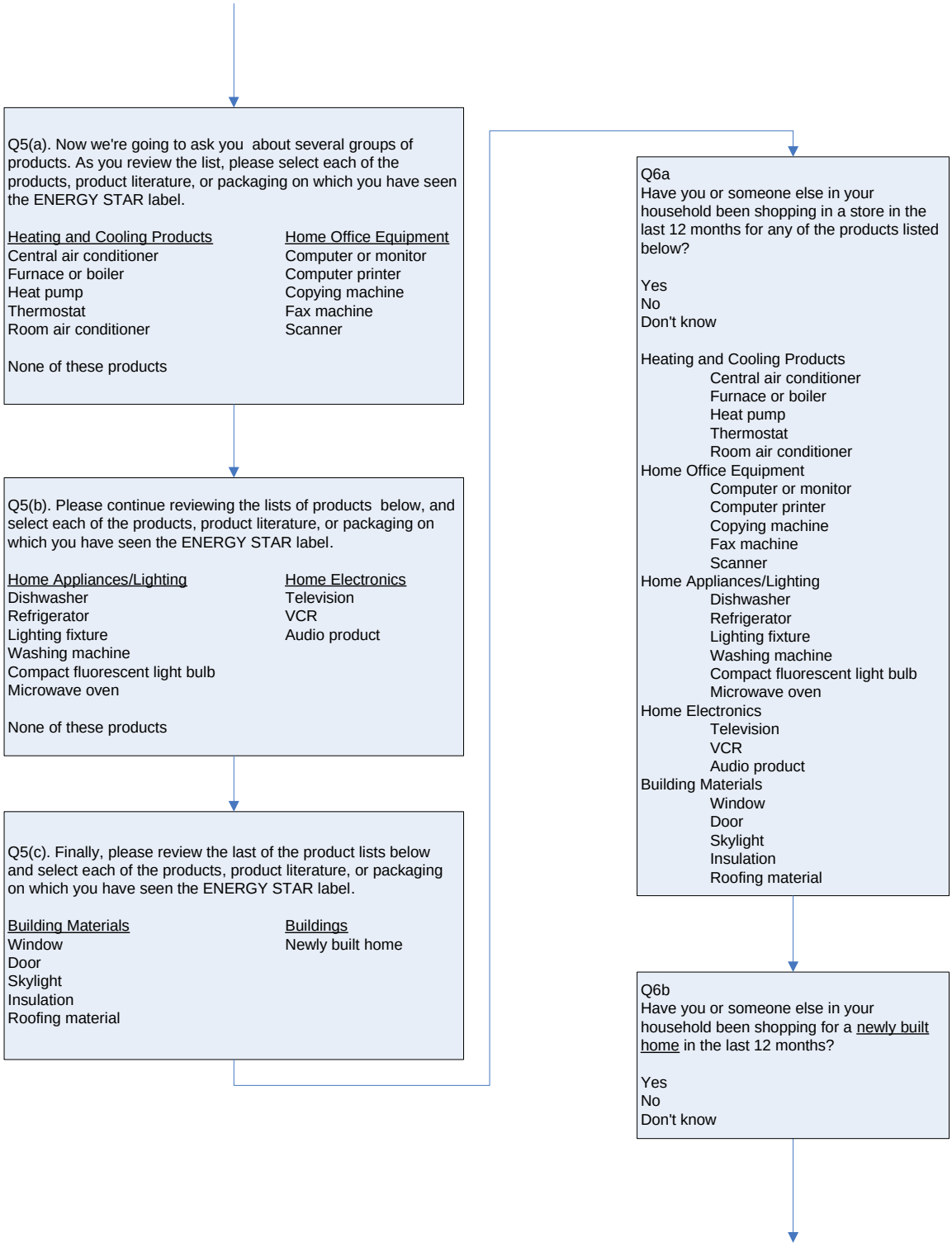
APPENDIX C

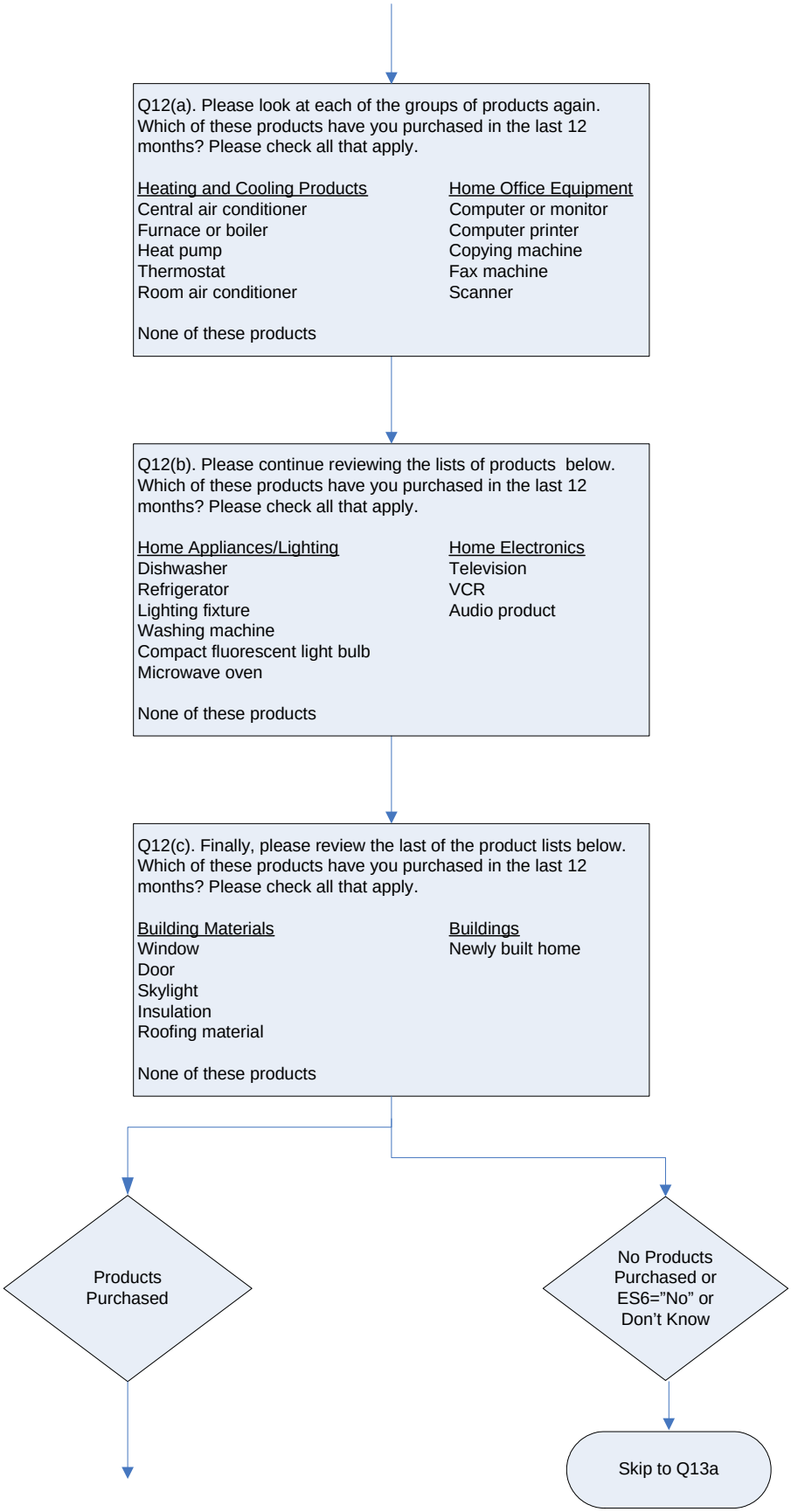
2004 CEE WEB TV/INTERNET QUESTIONNAIRE

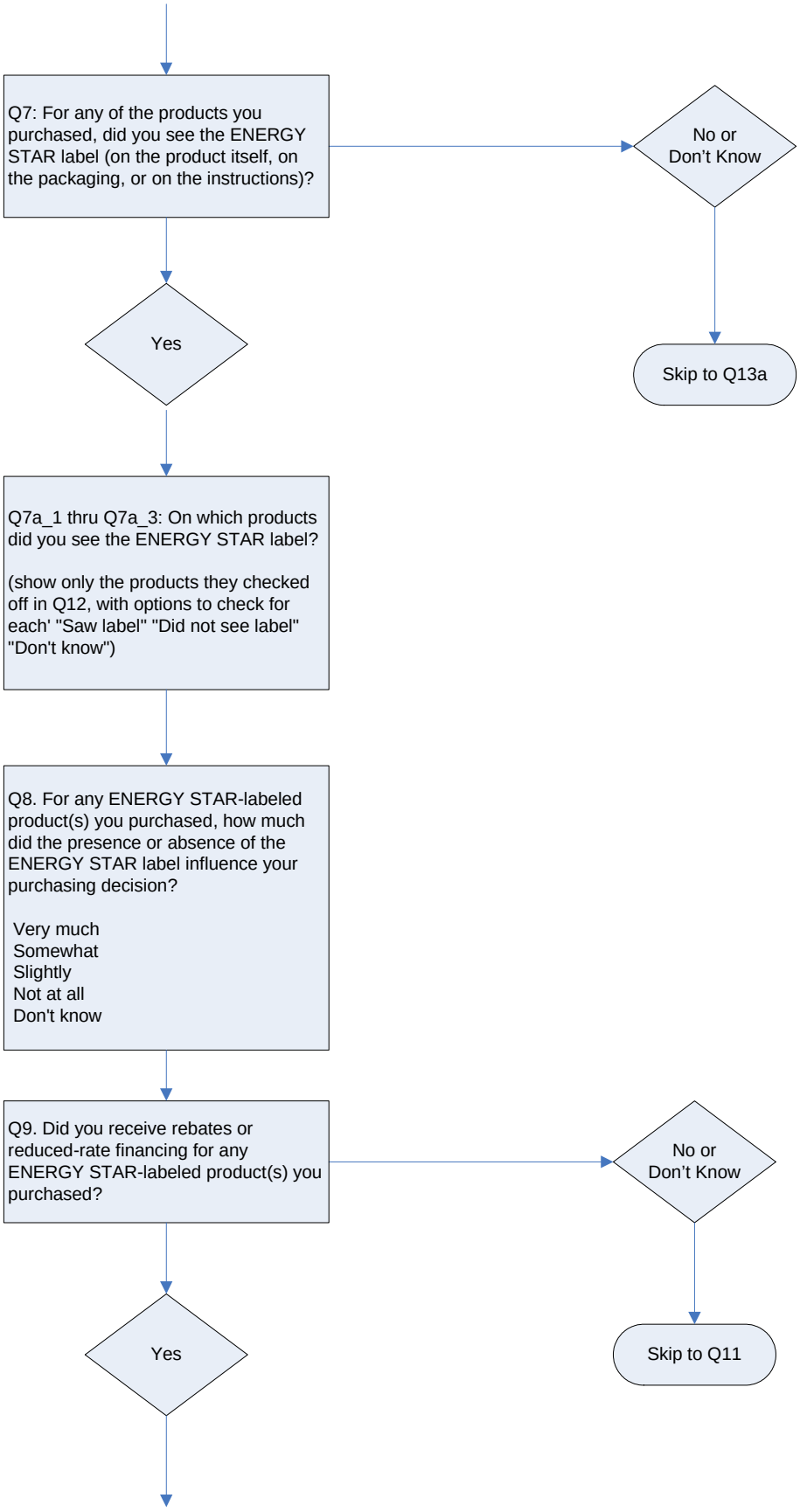
2004 CEE ENERGY STAR® Survey Flowchart August 20, 2004

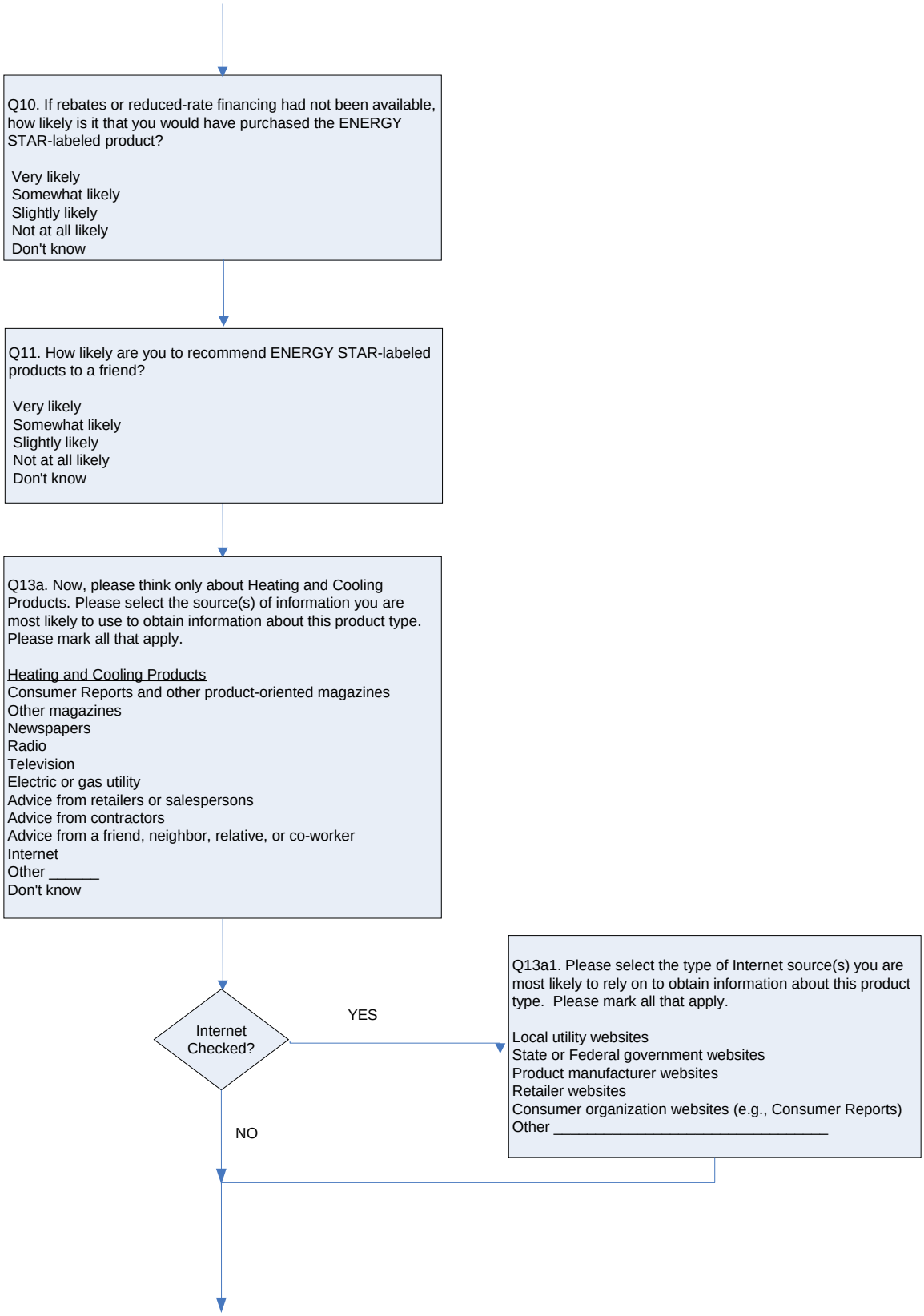


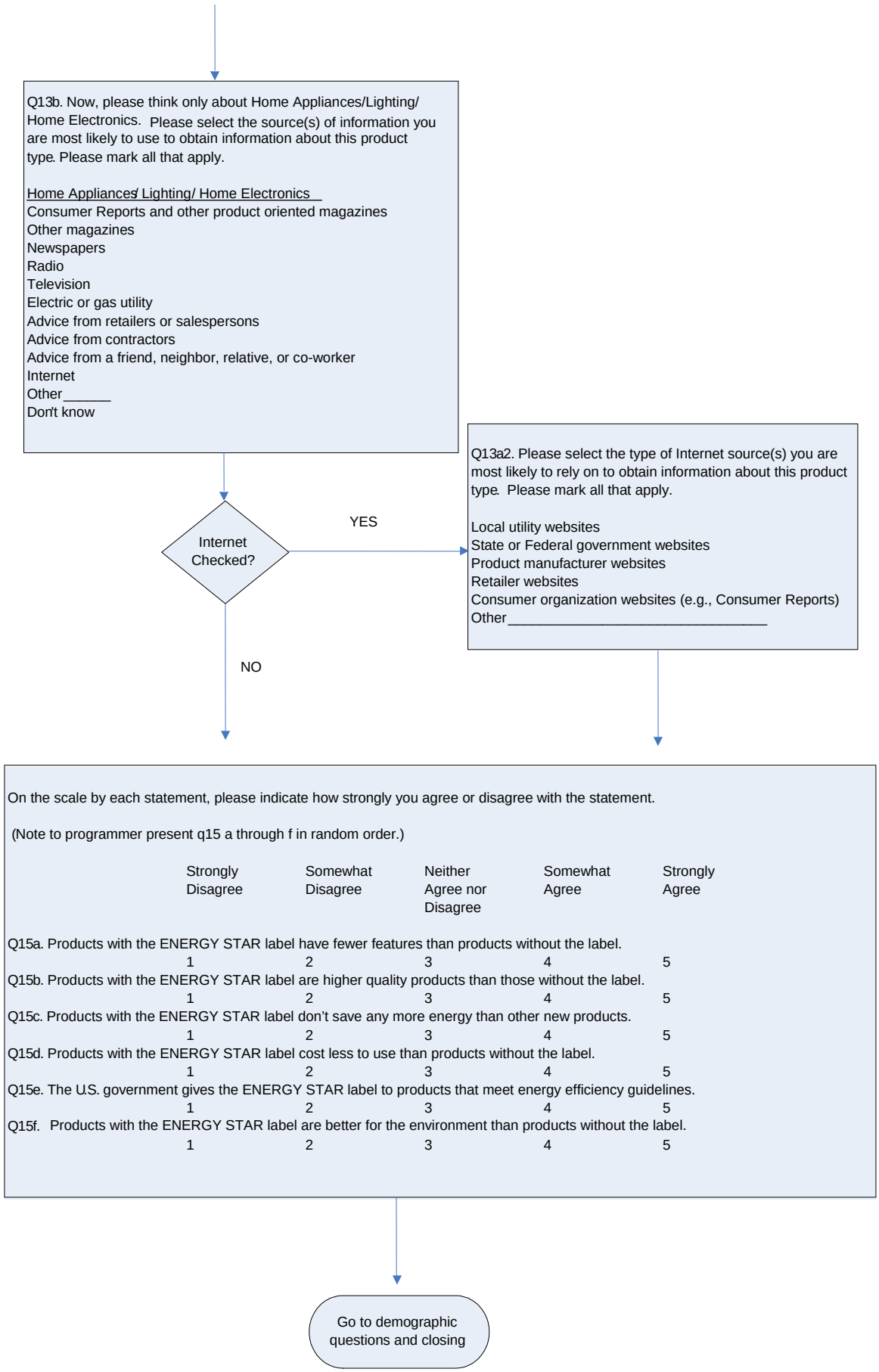

ES3B.
Have you seen or heard of this version of the ENERGY STAR label? [SHOW LABEL NOT PREVIOUSLY SEEN]
ES3D.
Have you seen or heard of this version of the ENERGY STAR label? [SHOW LABEL NOT PREVIOUSLY SEEN]
Yes
No
Don't Know
Yes to EITHER or BOTH ES3A
No/Don't Know (or combo of the two) to both ES3A and ES3B
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 LABEL]
SO1.
Where did you see or hear something about ENERGY STAR? Please mark all that apply
[checkbox]
" Newspaper or magazine advertisement
" Newspaper or magazine article
" TV commercial
" TV news feature story
" Radio commercial
" Billboard
" Utility mailing or bill insert
" Direct mail or circular advertisement
" Labels on appliances or electronic equipment
" Yellow *EnergyGuide* label
" Displays in stores
" Internet
" Salesperson
" Contractor
" Realtor
" Lender
" Homebuilder
" Friend, neighbor, relative, or co-worker
" Other (please specify) [text box]
" Don't know
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?
Yes
No or Don't Know
SO2.
What did you see or hear about Energy Star? Please be specific
Skip to Q6a


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.
Heating and Cooling Products
Central air conditioner
Furnace or boiler
Heat pump
Thermostat
Room air conditioner
Home Office Equipment
Computer or monitor
Computer printer
Copying machine
Fax machine
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.
Home Appliances/Lighting
Dishwasher
Refrigerator
Lighting fixture
Washing machine
Compact fluorescent light bulb
Microwave oven
Home Electronics
Television
VCR
Audio product
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.
Building Materials
Window
Door
Skylight
Insulation
Roofing material
Buildings
Newly built home
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
Central air conditioner
Furnace or boiler
Heat pump
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 newly built home in the last 12 months?
Yes
No
Don't know


Q12(a). Please look at each of the groups of products again. Which of these products have you purchased in the last 12 months? Please check all that apply.
Heating and Cooling Products
Central air conditioner
Furnace or boiler
Heat pump
Thermostat
Room air conditioner
None of these products
Home Office Equipment
Computer or monitor
Computer printer
Copying machine
Fax machine
Scanner
Q12(b). Please continue reviewing the lists of products below. Which of these products have you purchased in the last 12 months? Please check all that apply.
Home Appliances/Lighting
Dishwasher
Refrigerator
Lighting fixture
Washing machine
Compact fluorescent light bulb
Microwave oven
None of these products
Home Electronics
Television
VCR
Audio product
Q12(c). Finally, please review the last of the product lists below. Which of these products have you purchased in the last 12 months? Please check all that apply.
Building Materials
Window
Door
Skylight
Insulation
Roofing material
None of these products
Buildings
Newly built home
Products Purchased
No Products Purchased or ES6="No" or Don't Know
Skip to Q13a


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)?
No or Don't Know
Yes
Skip to Q13a
Q7a_1 thru Q7a_3: On which products did you see the ENERGY STAR label?
(show only the products they checked off in Q12, with options to check for each' "Saw label" "Did not see label" "Don't know")
Q8. For any ENERGY STAR-labeled product(s) you purchased, how much did the presence or absence of the ENERGY STAR label influence your purchasing decision?
Very much
Somewhat
Slightly
Not at all
Don't know
Q9. Did you receive rebates or reduced-rate financing for any ENERGY STAR-labeled product(s) you purchased?
No or Don't Know
Yes
Skip to Q11


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?
Very likely
Somewhat likely
Slightly likely
Not at all likely
Don't know
Q13a. Now, please think only about Heating and Cooling Products. Please select the source(s) of information you are most likely to use to obtain information about this product type. Please mark all that apply.
Heating and Cooling Products
Consumer Reports and other product-oriented magazines
Other magazines
Newspapers
Radio
Television
Electric or gas utility
Advice from retailers or salespersons
Advice from contractors
Advice from a friend, neighbor, relative, or co-worker
Internet
Other _____
Don't know
Internet Checked?
YES
NO
Q13a1. Please select the type of Internet source(s) you are most likely to rely on to obtain information about this product type. Please mark all that apply.
Local utility websites
State or Federal government websites
Product manufacturer websites
Retailer websites
Consumer organization websites (e.g., Consumer Reports)
Other _____


Q13b. Now, please think only about Home Appliances/Lighting/ Home Electronics. Please select the source(s) of information you are most likely to use to obtain information about this product type. Please mark all that apply.
Home Appliances/ Lighting/ Home Electronics
Consumer Reports and other product oriented magazines
Other magazines
Newspapers
Radio
Television
Electric or gas utility
Advice from retailers or salespersons
Advice from contractors
Advice from a friend, neighbor, relative, or co-worker
Internet
Other_____
Don't know
Internet Checked?
YES
NO
Q13a2. Please select the type of Internet source(s) you are most likely to rely on to obtain information about this product type. Please mark all that apply.
Local utility websites
State or Federal government websites
Product manufacturer websites
Retailer websites
Consumer organization websites (e.g., Consumer Reports)
Other _____
On the scale by each statement, please indicate how strongly you agree or disagree with the statement.
(Note to programmer present q15 a through f in random order.)
Strongly Disagree
Somewhat Disagree
Neither Agree nor Disagree
Somewhat Agree
Strongly Agree
Q15a. Products with the ENERGY STAR label have fewer features than products without the label.
1 2 3 4 5
Q15b. Products with the ENERGY STAR label are higher quality products than those without the label.
1 2 3 4 5
Q15c. Products with the ENERGY STAR label don't save any more energy than other new products.
1 2 3 4 5
Q15d. Products with the ENERGY STAR label cost less to use than products without the label.
1 2 3 4 5
Q15e. The U.S. government gives the ENERGY STAR label to products that meet energy efficiency guidelines.
1 2 3 4 5
Q15f. Products with the ENERGY STAR label are better for the environment than products without the label.
1 2 3 4 5
Go to demographic questions and closing