

Evaluation of Illinois Energy Now Lights for
Learning® Program
June 2011 through May 2012

Prepared for:
Illinois Department of Commerce and Economic Opportunity

Prepared by:



ADM Associates, Inc.
3239 Ramos Circle
Sacramento, CA 95827
916.363.8383

Final Report: October 2013

Contact:

Donald Dohrmann, Ph.D., Principal

775.825.7079

dohrmann@admenergy.com

Prepared by:

Monika Jesionek

916.363.8383

monika@admenergy.com

Brian Harold

916.363.8383

brian.h@admenergy.com

Table of Contents

Executive Summary	ES-1
1. Introduction.....	1-1
2. Estimation of Gross Savings.....	2-1
3. Estimation of Net Savings	3-1
4. Process Evaluation.....	4-1
Appendix A: Questionnaire for Decision Maker Survey.....	A-1
Appendix B: Decision Maker Survey Responses	B-1

List of Figures

Figure 1-1 % of Utility Sponsorship.....	1-2
Figure 2-1 Distribution by Measure Type	2-5
Figure 2-2 Room of Installation of Installed CFLs.....	2-8

List of Tables

Table ES-1. Breakdown of Measures Sold and Distributed	ES-1
Table ES-2. Summary of Gross Savings for Lights for Learning® Program.....	ES-1
Table ES-3. Summary of Net Savings for Lights for Learning® Program	ES-2
Table 1-1 Summary of Activities Performed During Program Year	1-1
Table 1-2 Total Number of Products Sold and Distributed By Style	1-2
Table 2-1 Sources for Gross Impact Parameters.....	2-1
Table 2-2 Expected and Gross Realized kWh Savings for Lights for Learning® Program.....	2-4
Table 2-3 Expected and Gross Realized Peak kW Savings for Lights for Learning® Program .	2-4
Table 2-4 Baseline Wattage Table.....	2-6
Table 2-5 Daily Hours of Operation by Room Type – 2002 Metering Study	2-7
Table 2-6 Daily Hours of Operation by Room Type – 2002 Study.....	2-7
Table 2-7 Hours of Use Summary	2-9
Table 3-1 Free Ridership Scores for Combinations of Indicator Variable Responses	3-3
Table 3-2 Percentages of Indicator Variable Values	3-4
Table 3-3 Summary of Net kWh Savings	3-4
Table 3-4 Summary of Net Peak kW Savings	3-5
Table 4-1 Products Sold or Distributed Through Lights for Learning® Program	4-6
Table 4-2 How Participants Learned of the Lights for Learning® Program	4-7
Table 4-3 Participant Relationship to Student Selling Product to Participants	4-8
Table 4-4 Type of Product Participants Purchased.....	4-8
Table 4-5 Reasons for Purchasing Products	4-9
Table 4-6 Reported Program Influences on Quantity of Products Purchased by Whether There Were Plans to Install Equipment.....	4-10
Table 4-7 Reported Importance of Supporting Schools to Product Purchase Decision	4-11
Table 4-8 Experience with Purchase and Receipt of Products	4-11
Table 4-9 Prior Purchases of Similar Energy Efficient Products	4-12
Table 4-10 Participants who Previously Purchased Product by Product Type.....	4-12
Table 4-11 Prior Experience with Energy Efficient Products	4-12
Table 4-12 Participants who had not Previously Purchased or Used Product by Product Type	4-13
Table 4-13 Program Effect on Awareness of Energy Efficiency	4-13
Table 4-14 Participant Satisfaction with Selected Aspects of Program Experience	4-14

Table 4-15 Satisfaction with Product Performance by Product Purchased 4-14
Table 4-16 Satisfaction with Product Performance by Product Purchased 4-14

Executive Summary

This report presents the results of ADM Associates' measurement and verification (M&V) of the Illinois state Department of Commerce and Economic Opportunity's (DCEO) Lights for Learning® Program. The report reviews activity from program year four (PY4), the time period from June, 2011 to May, 2012. Lights for Learning® is an educational and fundraising opportunity for Illinois's K-12 schools which promotes the sale of ENERGY STAR qualified compact fluorescent lamps (CFLs) and other energy efficient products. In the fundraising process, students, teachers, and their communities are introduced to CFLs, other lighting applications, and energy concepts generally. The program increases awareness of energy efficient products available to consumers, with students functioning as a source of education for their families and communities.

Overall, the program sold and distributed 22,654 energy efficient bulbs and products during PY4. Table ES-1 shows the breakdown of lighting products sold and distributed.

Table ES-1. Breakdown of Measures Sold and Distributed

<i>Program</i>	<i>Total Number of Measures Sold</i>	<i>Total Number of Measures Distributed</i>	<i>Total Measures Sold and Distributed Through Program</i>
Lights for Learning® Program	22,216	438	22,654

The realized gross energy savings and realized gross peak kW savings for the Lights for Learning® Program during PY4 are summarized in Table ES-2. Annual realized gross energy savings are 689,388 kWh, making the gross realization rate for the program 88%. Realized gross peak kW savings total 62.2 kW.

Table ES-2. Summary of Gross Savings for Lights for Learning® Program

<i>Utility</i>	<i>Total Number of Products Sold</i>	<i>Realized Gross kW</i>	<i>Expected Gross kWh</i>	<i>Realized Gross kWh</i>	<i>Gross Realization Rate</i>
Ameren	2,751	8.44	-	90,640	-
ComEd	16,489	46.13	-	512,793	-
Non EEPS	2,976	7.66	-	85,955	-
Total	22,216	62.23	787,395	689,388	88%

The realized net kWh savings and realized net peak kW reductions of the Lights for Learning® Program during PY4 are summarized in Table ES-3. Annual realized net energy savings are

599,767 kW. Realized net peak kW savings total 54.1 kW. The net to gross ratio for the Lights for Learning® Program is 87%.

Table ES-3. Summary of Net Savings for Lights for Learning® Program

<i>Utility</i>	<i>Total Number of Products Sold</i>	<i>Realized Net kW Savings</i>	<i>Expected Net kW</i>	<i>Realized Net kW</i>	<i>Gross Realization Rate</i>
Ameren	2,751	7.34	-	78,857	-
ComEd	16,489	40.13	-	446,129	-
Non EEPS	2,976	6.66	-	74,781	-
Total	22,216	54.14	629,916	599,767	95%

Variances between ex ante and ex post gross savings estimates are attributable to an overestimation of ex ante lighting hours of use and installation rates of lamps from the program. Hours of operation and installation rates of energy efficient measures installed were calculated based on information obtained from participants who responded to a telephone survey. Participating respondents were asked about where they had installed the CFLs and LEDs; ADM used that response data, along with the results of a 2009 CFL monitoring study for the California Public Utilities Commission, to estimate hours of use by room type.

The Lights for Learning® Program was successful in meeting its goals for the program year; it reached its targeted participant base and steadily built momentum throughout the program year.

The following presents a selection of key findings from program year four:

- **High Levels of Program Satisfaction:** Participants reported high levels of satisfaction with the Lights for Learning® Program. Nearly all survey respondents stated that they were “satisfied” or “very satisfied” with the program, while very few respondents indicated dissatisfaction. In open ended responses, several participants stated that it was a beneficial and well-executed program, that they liked the products, and that the products were being sold for a good price.
- **Program is Well Promoted:** Program staff engage in a wide number of activities to promote the program and develop interest in the fundraising component among schools and other organizations. The program uses both a “top down” promotional strategy of presenting and speaking directly to organizational decision makers as well as a “bottom up” approach of stimulating interest in the program through presentations at community events attended by students and parents. Additionally, the program has developed processes for keeping contact with prior participants in the program to encourage repeat participation. These processes include a database to retain participant contact information and a newsletter to notify participants of program developments.
- **Products Sold Declined from Prior Year:** The number of products sold during PY4 was 22% less than the sales from the prior program year. This decline occurred despite a five

percent increase in the number of schools and other organizations participating in the program. The number of students engaged in fundraising, however, declined by 27%, which likely explains the lower level of program activity.

- **Program Product Selection Changed from Prior Year:** While many of the products offered during PY4 were similar to those offered during PY3 (June, 2010 through May, 2011), some changes were made. The new products added in PY4 were 72 watt and 53 watt halogen bulbs and a Belkin Conserve Socket. Although the program discontinued offering a color changing nightlight, the program added white LED nightlights.

The halogen bulbs and Belkin Conserve Socket sold reasonably well, but in lesser quantities than the other products offered. In total, these products accounted for three percent of the total products sold. Although halogen bulbs provide less energy savings than CFLs, adding the halogen bulbs offers an alternative to CFLs, which may appeal to prospective participants who are concerned about CFL mercury content.

- **Program is Increasing Familiarity with Energy Efficient Products and Awareness of Benefits:** Although the products sold through the program are generally widely available, a sizable share of participants (24%) reported that they had not previously purchased or used the products they purchased. This suggests that the program is encouraging some participants to purchase energy efficient products that they were unfamiliar with. Furthermore, a number of participants reported that they purchased the products through the program to support schools or support the student selling the product. This suggests that the program is utilizing participants' motivations to help others to encourage them to adopt energy efficient technologies.

Overall, the Lights for Learning® Program is operating well and there are few problems with program implementation. The following recommendations are offered in the interest of continuing to develop the program's strategic advantages during coming program years.

- **Improve Product Purchaser Tracking Data:** The Lights for Learning® Program does not currently track information on participant product purchases and contact information. The program developed a database of information for some product purchasers by offering a contest entry to product purchasers who completed a survey. This method resulted in contact information being collected for approximately 200 participants.

A more robust evaluation could be completed if the program tracked contact information for all participants who purchased products through the program. Specifically, at a minimum, the program should track participant name, telephone number, email address, and the quantities and types of products purchased. Additional information that may be helpful for program evaluation purposes includes date of product purchase, date of product shipment, the name of the fundraising organization through which the product was purchased, product purchase price, and the name of the student selling the product. Program staff reported that they are currently working on developing a data tracking system to capture this information.

- **Assume a Lower Installation Rate:** The 90% installation rate assumed by the program is somewhat higher than has been found for other programs which promote the purchase of

energy efficient light bulbs. It is also higher than the rate reported by survey respondents. ADM recommends that a more conservative installation rate of 75% be assumed for non-holiday lighting in order to improve the realization rate.

- **Consider Offering Additional Products:** Although few participants recommended that the program offer additional products, program staff should continue to consider additional offerings. For example, there is likely a limited market for LEDs, despite them costing more than CFLs. Along those lines, some participants suggested that the program again offer colored LED nightlights.

1. Introduction

This report presents the results of the impact and process evaluation of Illinois’s Lights for Learning® Program, offered by the Illinois Department of Commerce and Economic Opportunity (DCEO). This report presents results for activity during program year four (PY4), between June 2011 and May 2012.

1.1 Description of Program

Lights for Learning® is a unique, youth-oriented program that raises money for K-12 schools through the sale of energy efficient products such as ENERGY STAR qualified CFLs, LED strands and nightlights, power strips, conserve sockets, and kilowatt meters. The program helps increase awareness of energy efficient products available to consumers, using students as a means of educating to their families and local community. Children sell these products (rather than traditional school fundraising items such as candy and gift wrap) by utilizing take-home order forms, organized booth sales at school or community events, or permanent sales kiosks.

Participating schools and organizations receive 50% of the sales profit and host free educational assemblies/presentations to demonstrate to students, parents, and the educational community the environmental, economic, and energy efficiency benefits of various products and behaviors. Periodic contests encourage students to apply their creativity by producing videos and posters which promote energy efficiency.

The Lights for Learning® Program is funded by DCEO and administered by the Midwest Energy Efficiency Alliance (MEEA), with assistance from their implementation partner, Applied Proactive Technologies, Inc. Order fulfillment was provided by Energy Federation, Inc.

A summary of program activities performed during the course of the program year is shown in Table 1-1. During the June, 2011 through May, 2012 period, 176 organizations participated in the Lights for Learning® Program. The majority of the participating organizations were schools; a few other types of organizations - public libraries, Boy Scouts of America troops, etc. - also participated. In this period, 284 presentations were given which were attended by 22,018 students and other target audiences.

Table 1-1 Summary of Activities Performed During Program Year

<i>Program Activities</i>	<i>Quantity Performed</i>
Participating schools and organization	176
Student fundraising	1,898
Energy efficiency products sold or distributed	22,654
Fundraisers	183
Presentations	284
Attendance	22,018

Table 1-2 shows a breakdown of all 22,654 products that were sold or distributed during the PY4 program year.

Table 1-2 Total Number of Products Sold and Distributed By Style

<i>Style</i>	<i>Total Number of Products</i>
14 Watt Spiral CFL Bulb	4,640
19 Watt Spiral CFL Bulb	2,410
23 Watt Spiral CFL Bulb	2,535
Sample Pack CFL Bulbs (14 Watt, 19Watt, 23 Watt)	2,598
14 Watt R-30 Reflector	1,049
14 Watt Globe CFL	161
33 Watt 3 – Way	343
Desk Lamp	775
14 Watt A -Lamp (2 Pack)	1,766
5 Watt MiniCandelabra	239
53 Watt Halogen (2 Pack)	262
72 Watt Halogen (2 Pack)	238
19 Watt Spiral (3 Pack)	1,008
.25 Watt LED Nightlight	2,103
.25 Watt LED Nightlight (3 Pack)	594
3.4 Watt LED Holiday Lights (Warm White)	380
3.4 Watt LED Holiday Lights (Multicolor)	1,330
Conserve Socket	220
Bitz Power Strip	1
P3 International Kilowatt Meter	2
TOTAL	22,654

The sources of funding for the Lights for Learning® Program are displayed in Figure 1-1 below.

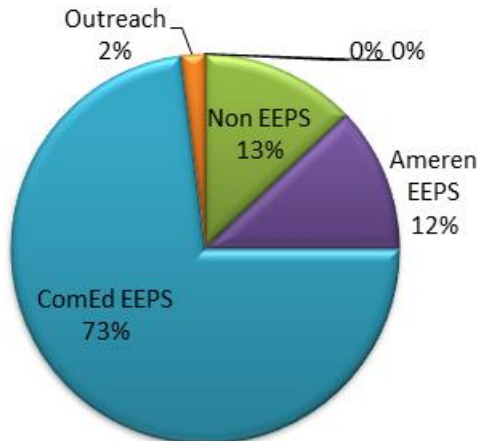


Figure 1-1 % of Utility Sponsorship

1.2 Overview of Evaluation Approach

The overall objective for the impact evaluation of the Lights for Learning® Program was to determine the gross and net energy (kWh) savings and peak demand (kW) reductions resulting from the energy efficient products sold and distributed during the program year.

The approach for the impact evaluation was based upon the following features:

- Available documentation (e.g., program reports, savings calculation work papers, etc.) was reviewed, with particular attention given to the calculation procedures and documentation for savings estimates;
- Gross savings were verified via analytical desk review; and
- A participant survey was conducted from a sample of program participants to gather information on their decision making, their likes and dislikes of the program, and other factors which play a role in determining net-to-gross savings ratios for the program.

1.3 Organization of Report

This report on the impact and process evaluation of the Lights for Learning® Program for the period June, 2011 through May, 2012 is organized as follows:

- Chapter 2 presents and discusses the analytical methods and results of estimating gross savings for measures installed under the program.
- Chapter 3 presents and discusses the analytical methods and results of estimating net savings of the program.
- Chapter 4 presents and discusses the analytical methods and results of the process evaluation of the program.
- Appendix A provides a copy of the questionnaire used for the survey of participants in the program.
- Appendix B provides the results of the survey of program participants.

2. Estimation of Gross Savings

This chapter addresses the estimation of gross kWh savings and peak kW reductions resulting from measures installed in homes of participants that purchased the items under the Lights for Learning® Program during program year four (PY4), the period from June, 2011 through May, 2012. Section 2.1 describes the methodology used for estimating gross savings. Section 2.2 presents the results from the calculation of savings for products sold and distributed through the program.

2.1 Methodology for Estimating Gross Savings

The M&V approach for the Lights for Learning® Program is aimed at the following:

- Verifying the number of CFLs, LED strands and nightlights, conserve sockets, power strips, and kilowatt meters purchased and distributed as a result of the program;
- Determining the percentage of purchased CFLs and LEDs (strands and nightlights) that are actually installed; and
- Estimating the extent to which installed CFLs and LEDs (strands and nightlights) are used.

Table 2-1 below summarizes the inputs needed for gross savings calculations and the source of each input.

Table 2-1 Sources for Gross Impact Parameters

<i>Parameter</i>	<i>Source</i>
Quantities & Specifications	Program tracking data
Location of Installation	Telephone follow-up surveys with energy efficient lighting/product purchasers
Hours of Use Per Day	California Residential Lighting Metering Study (KEMA, 2009)
Installation Rate	Telephone follow-up surveys with lighting/product purchasers
Baseline Wattage	Manufacturer's specifications for lumen equivalence by CFL size & configuration

2.1.1 Review of Documentation

DCEO's program implementation contractor, Midwest Energy Efficiency Alliance (MEEA), provided in-depth documentation pertaining to all measures offered through the program. The first step in the evaluation effort was to review this documentation and other relevant program materials.

For each energy efficient measures sold and distributed, the available documentation (e.g., quarterly reports, savings calculation work papers, etc.) was reviewed, with particular attention given to the calculation procedures and documentation for savings estimates.

Each report was reviewed to determine whether the following types of information had been provided:

- Documentation for the measures distributed as samples;
- Documentation for the measures sold; and
- Information about the savings calculation methodology, including (1) what methodology was used, (2) specifications of assumptions and sources for these specifications, and (3) accuracy of calculations.

2.1.2 Analytic Desk Review

ADM evaluation staff reviewed the energy savings algorithms to verify that the assumptions were reasonable and that the algorithm was correct for assigning ex ante gross kWh and kW savings per measure. ADM reviewed and verified the mathematical soundness of the savings calculations for each measure. The measure algorithms' components were verified with the savings assumptions provided by the Midwest Lights for Learning Alliance. The calculations were checked to ensure that the reported results could be replicated. Once the calculation methods were verified, the reasonableness of the calculation was assessed. The assessment of reasonableness of the savings estimates was based on relevant, reputable measure savings evaluations from other sources and ADM's own engineering calculators for similar measures.

2.1.3 Data Collection

A sampling plan for the evaluation of the Lights for Learning® Program was developed to capture a representative subset of total energy efficient lighting and products sold and distributed. Telephone surveying was conducted with a select number of participants from the program.

The survey provides useful data, including:

- Types of measures that were purchased;
- Rooms in which newly purchased CFL and LED bulbs were installed;
- To what extent the newly purchased CFL and LED bulbs are used;
- Insight into participant decision-making in purchasing products from the program;
- Changes in participant behavior after participating in the program; and
- Participant feedback on the program.

2.1.4 Procedures for Estimating Savings from Measures Installed through Lights for Learning® Projects

Savings were not calculated by the implementer for conserve sockets, bitz power strips, or P3 international kilowatt meters; therefore, ADM did not take these measures into account when calculating annual gross savings.

Gross savings estimates for the Lights for Learning® Program require the following parameters:

- Baseline wattage;
- Installation rate; and
- Hours of use.

These parameters are determined through the telephone survey administered to participants of the program. Equations used to determine savings for all lighting measures purchased through the program are listed below.

The equation used to calculate gross annual kWh savings is $[(\text{Delta watts} \times \# \text{ of Bulbs} \times \text{Installation Rate} \times \text{Number of Hours} \times \text{HVAC Energy Interactive Affect})/1000]$.

The equation used to calculate gross annual kW savings is $[\text{kW saved/fixture (Delta Watts)} \times \text{Number of Hours} \times \text{Installation Rate} \times \text{HVAC Energy Interactive Affect}) \times \text{Mean Load Coincidence Factor}]$.

The equation used to calculate lifetime kWh savings is $\text{annual gross kWh savings} \times \text{Years of life of bulb}$

The equation used to calculate lifetime kW savings is $\text{annual gross kW savings} \times \text{Years of life of bulb}$

2.2 Results of Gross Savings Estimation

ADM surveyed 64 respondents via telephone, inquiring as to the type of lighting purchased and the intended installation timeline and location. From this pool, ADM estimated hours of use, installation rates, and the net-to-gross ratio for the Lights for Learning® Program. The results of the gross kWh savings estimation for the Lights for Learning® Program during program year four are summarized in Table 2-2. Overall, the achieved gross savings of 689,388 kWh were equal to 88% of the expected savings.

Table 2-2 Expected and Gross Realized kWh Savings for Lights for Learning® Program

<i>Utility</i>	<i>Expected Gross kWh Savings</i>	<i>Realized Gross kWh Savings</i>	<i>Gross Realization Rate</i>
Ameren	-	90,640	-
ComEd	-	512,793	-
Non EEPS	-	85,955	-
Total	787,395	689,38	888%

The realized gross peak kW reductions of the Lights for Learning® Program during program year four are shown in Table 2-3. The achieved gross peak demand savings for the program are 62.23 kW. No ex ante peak kW savings estimates were developed.

Table 2-3 Expected and Gross Realized Peak kW Savings for Lights for Learning® Program

<i>Utility</i>	<i>Expected Gross kW Savings</i>	<i>Realized Gross kW Savings</i>
Ameren	-	8.44
ComEd	-	46.13
Non EEPS	-	7.66
Total	-	62.23

Impact evaluation efforts are detailed in the following subsections.

2.2.1 Database Review

The PY4 Lights for Learning® Program Year End Report reported that 22,645 energy efficient measures were sold and distributed through the program. ADM first examined the sold and distributed tracking database for systemic entry errors for each channel, i.e., duplicate entries and/or erroneous entries (such as data entered into improper columns). Verification of total sales of measures sold and distributed through the program was done through review of quarterly reports from MEEA, the two EEPS grants and the non-EEPS trust fund grant. These invoices were cross-checked with program tracking data in order to ensure that final claimed sales/distributions and associated savings matched sales data provided by MEEA. After extensive research, MEEA and ADM agree that the program sold and distributed a total of 22,654 measures. Ninety-nine percent of these products purchased or distributed were CFL and LED lighting purchases. Figure 2-1 below presents a summary of measures sold and distributed through the Lights for Learning® Program during PY4.

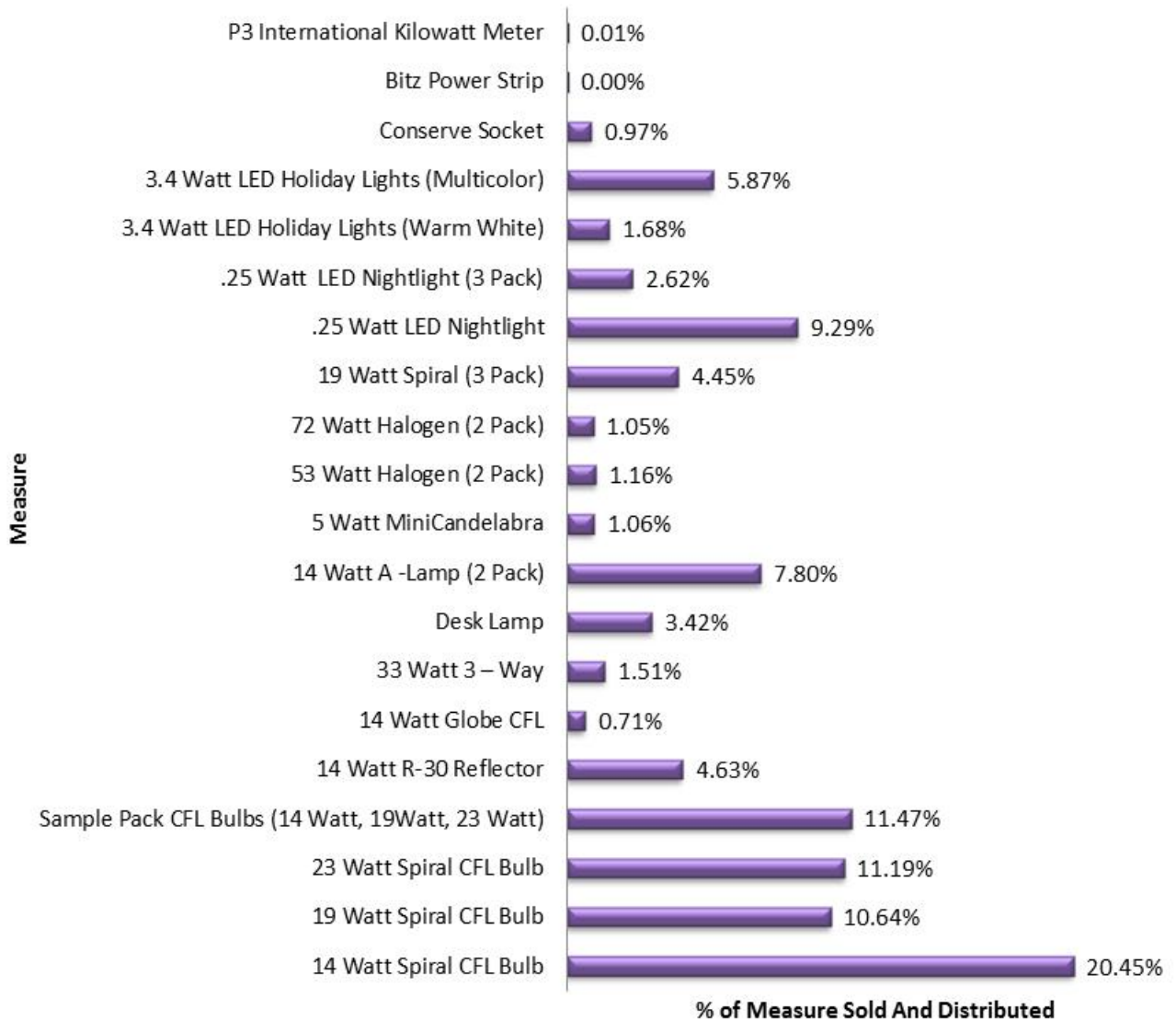


Figure 2-1 Distribution by Measure Type

2.2.2 Gross Annual kWh Savings and Peak kW Reduction Estimates

The program implementation contractor did not calculate savings for conserve sockets, bitz power strips, or P3 international kilowatt meters. Likewise, ADM did not calculate annual realized gross savings for these measures since they accounted for a very small amount of overall program activity, and there is relatively great uncertainty associated with savings estimates for them.

Gross savings estimates for residential CFL and LED bulbs require the following parameters:

- Baseline wattage;
- Installation rate; and

- Hours of use.

2.2.2.1. Baseline Wattage

Baseline wattage is dependent upon the CFL and LED wattage and configuration, i.e., spiral, flood, globe, or candelabra. ADM researched the SKU numbers of lighting sold and distributed to find the appropriate baseline for the model. These results are presented in Table 2-4 below.

Table 2-4 Baseline Wattage Table

<i>Bulb Wattage</i>	<i>Type of Bulb</i>	<i>Configuration</i>	<i>Ex Ante Baseline Wattage</i>	<i>Ex Post Baseline Wattage</i>
5	CFL	Candelabra	15	15
14	CFL	Spiral	60	60
14	CFL	Reflector	60	60
14	CFL	Globe	60	60
14	CFL	A-lamp	60	60
14	CFL	Spiral-Desk Lamp	60	60
19	CFL	Spiral	75	75
23	CFL	Spiral	100	100
33	CFL	Spiral	150	150
53	Halogen	-	22	22
72	Halogen	-	28	28
0.25	LED nightlight	-	3.2	3.2
3.4	LED Holiday Lights (Warm White)	-	89.6	89.6
3.4	LED Holiday Lights (Multicolor)	-	89.6	89.6

2.2.2.2. Installation Rate

Installation rate of the CFLs and LED measures purchased is determined by surveying of participants who purchased these measures, asking how many bulbs have been installed and how many are intended to be installed in the coming month. These values were summed and then divided by total lighting purchased in the respective category. (ADM divided CFLs, LED nightlights, and LED holiday strands into separate categories.) From the 64 surveys completed, ADM found an overall installation rate for CFLs (and Halogen bulbs) of 79%, 100% for LED holiday strands, and 78% for LED nightlights.

According to a 2010 California CFL metering study¹, two percent of total CFLs are never installed. This two percent non-installation rate was applied in calculating measure lifetime energy savings.

¹ KEMA, "CFL Metering Study", prepared for the California Public Utilities Commission, 2010

2.2.2.3. Hours of Use

In a 2009 California study of CFL hours of operation², CFL use was monitored in statistically significant samples by room type. The resulting average daily hours of operation by room type are summarized in Table 2-5 below.

Table 2-5 Daily Hours of Operation by Room Type – 2002 Metering Study

<i>Room Type</i>	<i>CFL Hours Per Day</i>
Kitchen	3.5
Living Room	3.3
Outdoor	3.1
Family Room	2.5
Garage	2.5
Bedroom	1.6
Bathroom	1.5
Hall/Entry	1.5
Laundry Room	1.2

The study is based upon a significant amount of residential monitored lighting runtime data, and ADM referenced this data to estimate lighting hours of operation for the applicable room types. However, the 2009 study did not provide information for all room types. There are room types from another study performed in 2002³ that ADM referenced to estimate hours of use. These hours are displayed in Table 2-6 below.

Table 2-6 Daily Hours of Operation by Room Type – 2002 Study

<i>Room Type</i>	<i>CFL Hours Per Day</i>
Utility Room	2.4
Dining Room	2.3
Office	1.9
Closet	1.4
Other	1.2

The results from these two studies provide a comprehensive depiction of hours of use by room type for a wide array of residential lighting measures. LED nightlights were assumed to be on 8 hours a day, while LED Holiday strands were assumed to be on for 4.6 hours a day for 30 days out of the year. ADM surveyed program participants to address the location of installation of purchased CFLs and Halogen bulbs. Figure 2-2 presents the survey results from the room of installation of CFLs purchased during the PY4 program year.

² KEMA, “CFL Metering Study”, prepared for the California Public Utilities Commission, 2009

³ US DOE, US Lighting Market Characterization, Navigant Consulting, 2002

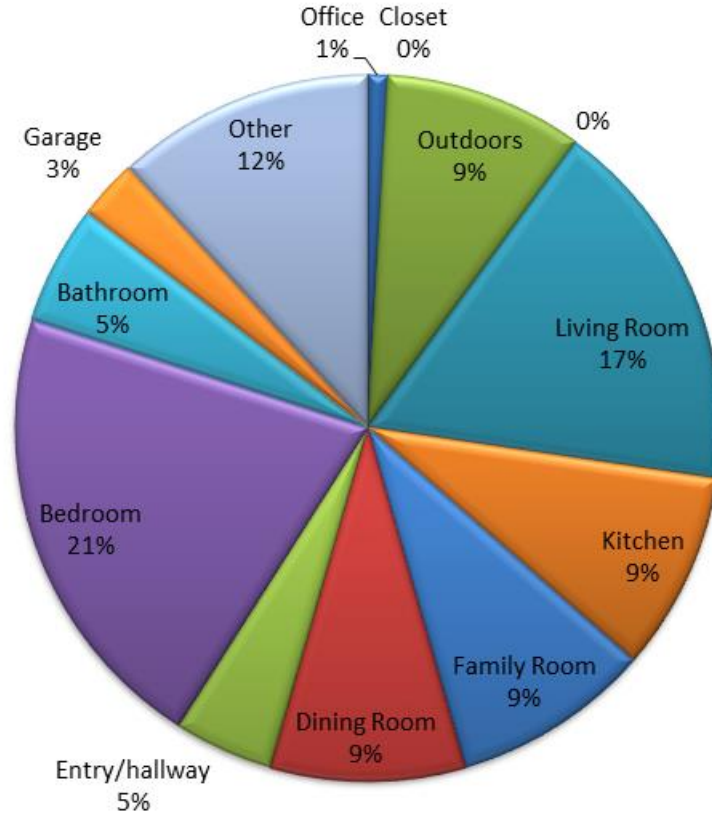


Figure 2-2 Room of Installation of Installed CFLs

ADM used the share of installations by room type from the telephone surveying, along with the values for hours of use by room type from the studies referenced above, to develop an average hours of use estimate for CFLs (and Halogen bulbs) distributed through the PY4 Lights for Learning® Program. Table 2-7 below presents a summary of hours of use values by room type and the share that they constitute of the Lights for Learning® Program CFL distribution.

Table 2-7 Hours of Use Summary

<i>Room Type</i>	<i>Hours of Use</i>	<i>% of CFLs</i>
Kitchen	3.5	9%
Living Room	3.3	17%
Outdoor	3.1	9%
Family Room	2.5	9%
Garage	2.5	3%
Basement	2.4	0%
Dining Room	2.3	8%
Office	1.9	1%
Bedroom	1.6	21%
Bathroom	1.5	6%
Hall/Entry	1.5	5%
Closet	1.4	0%
Laundry Room	1.2	0%
Other	1.2	12%

Using this information, a weighted average hours of use value of 2.31 per day was calculated for CFLs (and Halogens), or 845 hours annually. LED nightlights were assumed to be on 8 hours a day, or 2,920 hours annually. LED Holiday strands were assumed to be on for 4.6 hours a day for 30 days out of the year, or 140 hours annually.

2.2.2.4. Effective Useful Life (EUL)

California DEER 2008 effective useful life (EUL) estimates were referenced to determine EUL for bulbs purchased. Lifetime savings for PY4 were 12,354,590 kWh.

3. Estimation of Net Savings

This chapter reports the results of estimating the net impacts of the Lights for Learning® Program during the period June, 2011 through May, 2012, where net savings represents the portion of gross savings achieved by program that can be attributed to the effects of the program.

3.1 Procedures Used To Estimate Net Savings

Net savings are defined as the portion of gross savings that can be attributed to the effects of the program. Net savings may be less than gross savings as a result of free ridership. Free riders of a program are defined as those participants that would have implemented the same energy efficiency measures and achieved the observed energy changes, even in the absence of the program.

In general, net savings can be considered to be gross savings less the impact of free ridership. That is, because the energy savings realized by free riders are not induced by the program, these savings should not be included in the estimates of the program's actual (net) impacts. Without an adjustment for free ridership, some savings that would have occurred naturally would be incorrectly attributed to the program.

ADM performed a net savings analysis to estimate the impacts of the energy efficiency measures attributable to the Lights for Learning® Program that were net of free ridership. Information collected from a sample of program participants through a participant survey was used to estimate the extent of free ridership. Appendix A provides a copy of the survey instrument, and Appendix B presents tabulated responses for each survey question.

Based on a review of this information, the preponderance of evidence regarding free ridership inclinations was used to assess the likelihood of participant free ridership and, in turn, estimate net savings.

ADM applies a methodology that separates free ridership into three component parts. The three factors are:

- Plans and intentions of participant to install a measure even without support from the program;
- Influence that the program had on the participants decision to purchase and install a measure; and
- A participant's previous experience with similar energy efficient measures.

3.1.1 Plans and Intentions of Participant to Install Measures without Program

Participants are asked about their plans to purchase any of the energy efficient products, or if they had planned on purchasing fewer of the energy efficient products than they purchased

through the program. Two binary variables are constructed to account for participants' plans and intentions to install the energy efficient products. One, based on a more restrictive set of criteria, indicates a higher likelihood of free ridership, and a second, based on less restrictive criteria, indicates a relatively lower likelihood of free ridership.

The first, more restrictive criteria indicating participant plans and intentions to purchase the energy efficient products are as follows:

- If the respondent answered “yes” to the following two questions: “Did you have plans to purchase the energy efficient products prior to purchasing them through the Lights for Learning® Program?” and “Would you have gone ahead with this planned purchase even if you had not participated in the Lights for Learning® Program?”
- If the respondent answers “definitely would have purchased” to the following question: “If the energy efficient products had not been offered through the Lights for Learning® Program, how likely is it that you would have purchased them anyway?”
- If the respondent answers “no, did not purchase more products” to the question “Did you purchase more of the energy efficient products because they were sold through the Lights for Learning® Program than you otherwise would have?”

The second, less restrictive criteria accounting for participants' plans and intentions are as follows.

- If the respondent answers “yes” to the following two questions: “Did you have plans to purchase the energy efficient products prior to purchasing them through the Lights for Learning® Program?” and “Would you have gone ahead with this planned purchase even if you had not participated in the Lights for Learning® Program?”
- Either the respondent answers “definitely would have purchased” or “probably would have purchased” to the following question: “If the energy efficient products had not been offered through the Lights for Learning® Program, how likely is it that you would have purchased them anyway?”
- If the respondent answers “no, did not purchase more products” to the question “Did you purchase more of the energy efficient products because they were sold through the Lights for Learning® Program than you otherwise would have?”

3.1.2 Influence That Program Had On Participant Decision to Purchase and Install Measure

The second factor involves determining if experience with the program and the importance of supporting schools or students selling the product through the program influenced participants' decision to purchase the energy efficient products.

The criterion indicating program influence that may signify a lower level of free ridership is that the following condition is true:

- If the respondent answers “very important” to the following question: “How important was supporting schools of supporting the student selling the products to your decision to purchase the energy efficient products?”

3.1.3 Participant’s Previous Experience with Similar Energy Efficient Measures

The third factor requires determining if a participant in the program indicated that he or she had previous experience with similar energy efficiency products. A participant indicating that he or she had purchased and installed a similar measure is considered to have a higher likelihood of free ridership.

The criteria indicating that previous experience may signify a higher likelihood of free ridership are as follows:

- If the respondent answers “yes” to the following question: “Had you purchased similar energy efficient products in the last three years?”
- If the respondent answers “yes” to the following question: “Have you previously used energy efficient products similar to the ones you purchased through the Lights for Learning® Program?”

The three sets of rules just described were used to construct four different indicator variables that address free ridership behavior. For each participant, a free ridership value was assigned based on the combination of variables. With the four indicator variables, there were 11 applicable combinations for assigning free ridership scores for each respondent, depending on the combination of answers to the questions creating the indicator variables. Table 3-1 shows these values.

Table 3-1 Free Ridership Scores for Combinations of Indicator Variable Responses

<i>Indicator Variables</i>				<i>Free Ridership Score</i>
<i>Had Plans and Intentions to Install Measure without the program? (Definition 1)</i>	<i>Had Plans and Intentions to Install Measure without the program? (Definition 2)</i>	<i>Program had influence on Decision to Install Measure?</i>	<i>Had Previous Experience with Measure?</i>	
Y	N/A	Y	Y	100%
Y	N/A	N	N	100%
Y	N/A	N	Y	100%
Y	N/A	Y	N	67%
N	Y	N	Y	67%
N	N	N	Y	33%
N	Y	N	N	33%
N	Y	Y	N	0%
N	N	N	N	0%
N	N	Y	N	0%
N	N	Y	Y	0%

3.2 Results of Net Savings Estimation

The procedures described in the preceding section were used to estimate free ridership rates and net-to-gross ratios (NTGR) for the Lights for Learning® Program for program year four.

3.2.1 Realized Net kWh Savings

The data used to assign free ridership scores were collected through a survey of 64 participants who purchased lighting measures that were part of the program during the period June 2011 through May 2012.

Free ridership rates were estimated for the CFL portion and the LED portion of the program as one. No NTGR was calculated for conserve sockets, bitz power strips, and international kilowatt meters due to gross savings not being calculated.

Table 3-2 shows the percentage of survey respondents who relayed the following: they had plans and intentions to install the measures without any program incentive (under two alternative definitions as described in the preceding section), that the program influenced their decision to install the measure, and that they previously installed a similar energy efficiency measure without an energy efficiency program incentive during the last three years.

Table 3-2 Percentages of Indicator Variable Values

	<i>Had Plans and Intentions to Install Measure without the program (Definition 1)</i>	<i>Had Plans and Intentions to Install Measure without the program (Definition 2)</i>	<i>Program had influence on Decision to Install Measure</i>	<i>Had Previous Experience with Measure</i>
<i>Yes</i>	86%	84%	23%	27%
<i>No</i>	14%	16%	77%	73%

The realized energy savings of the Lights for Learning® Program during the period June 2011 through May 2012 are summarized in Table 3-3. During this period, realized net energy savings totaled 599,767.24 kWh. The net to gross ratio is 95%.

Table 3-3 Summary of Net kWh Savings

<i>Utility</i>	<i>Expected Net kWh Savings</i>	<i>Realized Net kWh Savings</i>	<i>Gross Realization Rate</i>
Ameren	-	78,857.07	-
ComEd	-	446,129.56	-
Non EEPS	-	74,780.61	-
Total	629,916	599,767.24	95%

3.2.2 Realized Net Peak kW Savings

The realized net peak kW reductions of the Lights for Learning® Program during the period June 2011 through May 2012 is summarized in Table 3-4. The achieved net peak demand savings are 54.14 kW.

Table 3-4 Summary of Net Peak kW Savings

<i>Utility</i>	<i>Expected Net kW Savings</i>	<i>Realized Net kW Savings</i>
Ameren	-	7.34
ComEd	-	40.13
Non EEPS	-	6.66
Total	-	54.14

4. Process Evaluation

This chapter presents the results of the process evaluation for the Lights for Learning® Program. The process evaluation focuses on the effectiveness of program policies and organization, as well as the program delivery framework. The purpose of the process evaluation is to assess the design and recent results of the program in order to determine how effectively it is achieving its intended outcomes. This evaluation is based upon analysis of program structure and interviews of program staff and program participants.

The chapter begins with a discussion of the overall progress of the program. This is followed by an examination of certain issues that are critical to the future success of the program. This chapter also presents strategic planning and process recommendations, and highlights key findings from the interviews of program staff and participants. The information in this chapter provides insight into participant decision making behaviors, and identifies any key issues that may be addressed for future program years. Conclusions, recommendations, and other findings from the process evaluation may be useful in comparing program years over time, and in conducting planning efforts for future program years.

4.1 Evaluation Objectives

The purpose of the process evaluation is to examine program operations and results throughout the program operating year, and to identify potential program improvements that may prospectively increase program efficiency or effectiveness in terms of levels of participation and program satisfaction. This process evaluation was designed to document the operations and delivery of the Lights for Learning® Program during the period of June 2011 to May 2012 (PY4).

Key research questions to be addressed by this evaluation of PY4 activity include:

- Did the Lights for Learning® Program achieve its energy savings goals?
- Was the Lights for Learning® Program delivery effective and successful?
- Did the Lights for Learning® Program promote the benefits of energy efficiency?
- Were program participants satisfied with the products purchased and their experience with the program?

During the evaluation, data and information from numerous sources are analyzed to achieve the stated research objectives. Insight into the participant experience with the Lights for Learning® Program is developed from a telephone survey of program participants.

4.2 Summary of Primary Data Collection

- **Participant Surveys:** Surveys of participants who purchased products through the program are the primary data source for many components of this process evaluation, and serve as the

foundation for understanding the participants' perspective. The participant surveys provide feedback and insight regarding their experiences with the Lights for Learning® Program. Respondents report on their satisfaction with the program, detail their motivations and the factors affecting their decision making process, and provide recommendations related to improving the program.

- **Program Staff Interviews:** Interviews with program staff provide an understanding of how the program operates, challenges the program has faced, the level of interest in the program, and changes planned for the program.
- **Program Documentation:** Review of program documents including the program website, reporting developed by program staff, and savings calculation spreadsheets provide additional insight into program operations.

4.3 Summary of Conclusions and Recommendations

The interviews and surveys that were conducted with Lights for Learning® Program participants and staff suggest that the program has been operating effectively. The following presents a selection of key findings from the PY4 program year:

- **High Program Satisfaction:** Participants reported high satisfaction with the Lights for Learning® Program. Nearly all survey respondents stated that they were “satisfied” or “very satisfied” with the program and very few respondents indicated dissatisfaction. In open ended responses, several participants stated that it was a good program, that they liked the products, and that the products were being sold for a good price.
- **Program is Well Promoted:** Program staff engage in a wide number of activities to promote the program and develop interest in the fundraising component among schools and other organizations. The program uses both a “top down” promotional strategy of presenting and speaking directly to organizational decision makers as well as a “bottom up” approach of stimulating interest in the program through presentations at community events attended by students and parents. Additionally, the program has developed processes for keeping contact with prior participants in the program to encourage repeat participation. These processes include a database for retaining participant contact information and a newsletter that keeps participants apprised of program developments.
- **Products Sold Declined from Prior Year:** The number of products sold during PY4 was 22% less than the sales from the prior program year. This decline occurred despite a five percent increase in the number of schools and other organizations participating in the program. The number of students engaged in fundraising, however, declined by 27% and likely explains the lower level of program activity.
- **Program Product Selection Changed from Prior Year:** While many of the products offered during PY4 were similar to those offered during PY3 (June 2010 through May 2011), some changes were made. The new products added in PY4 were 72 watt and 53 watt halogen bulbs and a Belkin Conserve Socket. Although the program discontinued offering a color changing nightlight, the program added white LED nightlights.

The halogen bulbs and Belkin Conserve Socket sold reasonably well, but in lesser quantities than the other products offered through the program. In total, these products accounted for three percent of the total products sold. Although halogen bulbs provide less energy savings than CFLs, adding the halogen bulbs offers an alternative to CFLs that may appeal to prospective participants who are concerned about CFL mercury content.

- **Program is Increasing Familiarity with Energy Efficient Products and Awareness of Benefits:** Although the products sold through the program are generally widely available, a sizable share of participants (24%) reported that they had not previously purchased or used the products they purchased. This suggests that the program is encouraging some participants to purchase energy efficient products that they were unfamiliar with. Furthermore, a number of participants reported that they purchased the products through the program to support schools or support the student selling the product. This suggests that the program is utilizing participants' motivations to help others to encourage them to adopt energy efficient technologies.

Overall, the Lights for Learning® Program is operating well and there are few problems with program implementation. The following recommendations are offered in the interest of continuing to develop the program's strategic advantages during coming program years.

- **Improve Product Purchaser Tracking Data:** The Lights for Learning® Program does not currently track information on participant product purchases and contact information. The program developed a database of information for some product purchasers by offering a contest entry to product purchasers who completed a survey. This method resulted in contact information being collected for approximately 200 participants.

A more robust evaluation could be completed if the program tracked contact information for all participants who purchased products through the program. Specifically, at a minimum the program should track participant name, telephone number, email address, and the number and type of product purchased. Additional information that may be helpful for program evaluation purposes includes date of product purchase, date of product shipment, the name of the fundraising organization through which the product was purchased, product purchase price, and the name of the student selling the product. Program staff reported that they are currently working on developing a data tracking system to capture this information.

- **Assume a Lower Installation Rate:** The 90% installation rate assumed by the program is somewhat higher than has been found for other programs promoting the purchase of energy efficient light bulbs and higher than the rate reported by survey respondents. ADM recommends that a more conservative installation rate of 75% (for CFLs, Halogens, and LED nightlights) and 100% for LED holiday lights be assumed by the program in order to increase the likelihood of a higher realization rate.
- **Consider Offering Additional Products:** Although few participants recommended that the program offer additional products, program staff should continue to consider additional offerings. While the cost of LED light bulbs remains high compared to other efficient

alternatives such as CFLs, there may be a limited market for these purchases. Additionally, some participants suggested that the program again offer colored LED nightlights.

4.4 Lights for Learning® Program Activities

The 2011-2012 program Year was the eighth year the Lights for Learning® Program has operated. The intent of the program is to produce energy efficiency through education and increased awareness of energy efficiency among students and their families who attend participating schools or are members of other participating organizations. The Lights for Learning® Program is funded by DCEO and administered by the Midwest Energy Efficiency Alliance (MEEA) with assistance from their implementation partner Applied Proactive Technologies, Inc. Order fulfillment was provided by Energy Federation, Inc.

The educational component of the program targets students on the theory that young people are responsive to the energy conservation message and that they will modify their behavior accordingly. Moreover, it is also assumed that students have an influence on their parents and can encourage energy efficient choices and behaviors in their households. The educational approach is multi-faceted and includes school assemblies and presentations, lesson plans that incorporate energy efficiency, and classroom or take home activities centered on energy efficiency. The program also seeks to strengthen student engagement in energy efficiency through a variety of student contests.

The fundraising component provides an inducement to schools to allow for the program's delivery of the educational activities. It also creates a means for the program to more directly generate energy savings through the distribution of energy efficient technologies. Students sell energy efficient product with the assumption that purchasers will use these technologies in place of less efficient options. The price of the products is bought down with DCEO funds, which allows students to sell them at market value and generate a 50% profit for the school.

Varied organizations participated during the program year. These organizations included elementary, middle, and high schools, community colleges, and other organizations such as the Boy Scouts of America, 4H Clubs, and church groups.

A summary of the key activities that occurred during the program year are as follows:

- 176 schools and organizations participated in the program;
- 183 fundraisers were held;
- 1,898 students participated in fundraising activities;
- 284 presentations with a total attendance of 22,018; and
- 22,654 products were sold or distributed.

Additional detail on these key program activities is discussed below.

4.4.1 Promotional Activities

A number of workshops and events were held to develop interest in the Lights for Learning® Program. Several of these events were targeted towards educators and school administrators. One type of event hosted by the program was workshops held in partnership with the National Energy Education Development (NEED) Project and ComEd. Twelve of these workshops were held that allowed attendees to view the curriculum and ask questions about the curriculum. Many of these presentations included the “energy bike,” which demonstrates the power required to produce light through different bulb types. The program also hosted a number of additional presentations for educators and administrators. These presentations provided prospective participant school staff an opportunity to ask questions and review the program materials. Twenty-four of these events were held during the year.

The program also participated in twelve community events that allowed for direct interaction with students and their parents. Direct communication with students and parents is intended to provide energy efficiency education and to drive interest in the fundraiser.

To facilitate participation in the fundraiser, the program maintains a direct number that is included on all program promotional materials.

4.4.2 Contests

The program holds a variety of contests to increase interest in the Lights for Learning® Program and to engage youths in energy efficiency and environmental issues. One of these activities was a poster contest where nearly 70 students from across the state submitted posters and the winning submission was used to promote the program’s fundraising activities. A poetry contest was also sponsored by the program and received over 500 environmentally themed poems submitted by students. For a third contest, students submitted video demonstrations of ways to save energy.

4.4.3 Educational Presentations and Assemblies

The Lights for Learning® Program hosts educational presentations on energy conservation for participating schools. These presentations are tailored to the number of students involved and their grade level. The presentations include a DVD slide presentation on environmental concerns and demonstrations of the power requirement of different types of light bulbs using the energy bike.

4.4.4 Energy Efficient Products Sold or Distributed

The numbers of products sold or distributed through the program are shown in Table 4-1.

Table 4-1 Products Sold or Distributed Through Lights for Learning® Program

<i>Style</i>	<i>Number Sold</i>	<i>Number Distributed</i>	<i>Total Sold and Distributed</i>	<i>Percent of Products Sold and Distributed</i>
14 Watt Spiral	4,569	71	4,640	20%
Sample Pack	2,577	21	2,598	11%
23 Watt Spiral	2,524	11	2,535	11%
19 Watt Spiral	2,344	66	2,410	11%
LED Nightlight	2,024	79	2,103	9%
14 Watt A -Lamp (2 Pack)	1,718	48	1,766	8%
LED Holiday Lights (Multicolor)	1,317	13	1,330	6%
14 Watt R-30 Reflector	1,037	12	1,049	5%
19 Watt Spiral (3 Pack)	981	27	1,008	4%
Desk Lamp	771	4	775	3%
LED Nightlight (3 Pack)	585	9	594	3%
LED Holiday Lights (Warm White)	368	12	380	2%
33 Watt 3 - Way	337	6	343	2%
53 Watt Halogen (2 Pack)	236	26	262	1%
5 Watt Mini Candelabra	235	4	239	1%
72 Watt Halogen (2 Pack)	212	26	238	1%
Conserve Socket	220	0	220	1%
14 Watt Globe	158	3	161	1%
P3 International Kilowatt Meter	2	-	2	<1%
Bitz Power Strip	1	-	1	<1%
Total	22,216	438	22,654	100%

The number of products sold and distributed through the program during the program year declined by 22% from the sales for the prior year. This decline occurred despite a five percent increase in the number of schools and other organizations participating in the program. The number of students engaged in fundraising, however, declined by 27% and likely explains the lower level of program activity.

4.5 Participant Outcomes

A telephone survey was conducted to collect information about the decision-making, preferences, and opinions of the Lights for Learning® Program of participants who purchased energy efficient products through the fundraising activity. Respondents purchased a variety of types of equipment through the program including CFLs, LED nightlights, and LED holiday lights.

Information in this section is intended to characterize participant decision making behaviors and identify notable trends within participant responses. Some of the comments and issues raised by participants are anecdotal in nature and may reflect individual participant opinions. The Conclusions and Recommendations section of the Process Evaluation chapter provides an overall distillation of key findings from the process evaluation activities that were performed for the Lights for Learning® Program.

4.5.1 How Participants Learn about the Program

Participants who purchased products through the Lights for Learning® Program were asked how they heard of the program. Their responses are shown in Table 4-2. Nearly one-half of participants learned of the program through the student selling the products. Seventeen percent reported that they received a brochure or flyer and eight percent learned of the program from a participating student. Twenty-two percent of participants reported hearing of the program from another source. These participants reported hearing of the program from a variety of sources including coworkers, parents of children selling the products, and relatives.

Table 4-2 How Participants Learned of the Lights for Learning® Program

	<i>Response</i>	<i>Percent of Respondents* (n=60)</i>
How did you hear about the Lights for Learning® Program?	From the student who sold the products	48%
	Received a brochure or flyer	17%
	From the school participating in the program	8%
	From a neighbor or friend	5%
	The Lights for Learning website	-
	A news story about the program	-
	An advertisement for the program	-
	Don't know	-
	Other	25%

**Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.*

Nearly all of the participants who responded to the survey (92%) reported that they knew the student who sold the product to them. The participant's relationship to the student selling the product is shown in Table 4-3. The majority of participants (73%) reported that the student was a family member. Additionally, 11% of respondents stated that the student was the child of a friend and another four percent said the student was a neighbor. Thirteen percent of respondents stated that the student had a relationship to them that was not included in the response options. These participants said that the student was a child of a coworker, a student in a teacher's class, or an acquaintance.

Table 4-3 Participant Relationship to Student Selling Product to Participants

	<i>Response</i>	<i>Percent of Respondents (n=55)</i>
What is the student's relationship to you?	The student is a family member	73%
	The student is the child of a friend	11%
	The student is a neighbor	4%
	Don't know	-
	Other	13%

4.5.2 Products Purchased through Program

Table 4-4 displays the types of products survey respondents purchased through the program. The relative share of products purchased through the program was similar to the shares of products sold through the program. CFL light bulbs (52%) and LED nightlights (25%) were the most frequently purchased products as reported by survey respondents, followed by holiday light strands (20%).

Table 4-4 Type of Product Participants Purchased

	<i>Response</i>	<i>Percent of Respondents* (n=60)</i>
Which energy efficient products did you purchase through the program?	CFL Light Bulb	52%
	LED Nightlight	25%
	Holiday LED Light Strand	20%
	13 Watt CFL Desk lamp	5%
	Halogen Light Bulb	2%
	Conserve Socket	-
	Don't know	22%
	Other	-

**Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.*

4.5.3 Product Purchasing Decisions

Survey respondents provided information on their reasons for purchasing the energy efficient products through the Lights for Learning® Program. Their responses are displayed in Table 4-5. The most frequently stated motivations to purchase the products were to support schools (45%) and to support the student who sold the product (35%). A relatively small share of participants reported that they purchased the products to save energy.

Table 4-5 Reasons for Purchasing Products

	Response	Percent of Respondents (n=55)
Why did you purchase these products?	To support schools	45%
	To support the student who sold the products	35%
	To save energy	15%
	To replace broken products already owned	5%
	Other	55%
	Don't Know	5%

**Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.*

A number of participants stated that they purchased the bulbs for reasons not listed. These participants most frequently stated that they the purchase the product because they needed them. Some examples of these comments are:

[We] Needed additional Christmas lights.

[We] Needed additional light bulbs in the household.

We needed new ones that you didn't have to change the light bulb all the time.

I like these light bulbs and they are what I use in my apartment.

Another frequently stated reason for purchasing the products was because the products were a good price. Examples of some of the remarks made by participants are:

It was something that we already purchase [at] a comparable price.

They were a good price.

Thought I was getting a good deal and was pleased with products previously purchased through program.

Four respondents stated that they purchased the bulbs because they wanted to try the product out. Additionally, another four respondents stated that they purchased the bulbs for environmental reasons or to save money.

Overall these responses demonstrate that the program is influencing the participants to purchase products that they might not otherwise purchase by appealing to their altruistic motivations. The most frequently mentioned reasons were to support schools or the student selling the product and relatively few participants indicated that they made the purchase because they needed the items.

Participants were asked about the influence of the program on their decision to purchase the energy efficient products. These questions addressed whether the participant had prior plans to purchase the product, whether they purchased more products through the program than they otherwise would have, and the importance of supporting schools to the purchase decision.

Seventeen of the respondents stated that they had prior plans to purchase the product and 15 of these respondents stated that they would have purchased the products elsewhere in the next month had they not participated in the program. Although these responses suggest that these participants would have purchased the products had they not been sold through the program, the program may have still influenced the quantity of products purchased and other considerations such as the importance of supporting schools may played a role in the decision to purchase the products. Consequently, these responses do not, in isolation, designate a specific level of free ridership. Responses to individual survey items may be used to characterize certain aspects of a participant's decision to purchase the products, but it is necessary to analyze the full set of a respondent's survey responses in order to estimate an accurate and reliable net-to-gross percentage. In addition, to gauging participants' preexisting plans and intentions, it is important to consider how the program affected the quantity of products purchased and the role that other considerations may have played in the purchase decision. Chapter 3 outlines the full net-to-gross estimation methodology that is applied to survey results for this evaluation.

In cases where decision makers reported that they had prior plans for the projects, the number of products purchased may have been influenced by the Lights for Learning® Program. Table 4-6 cross-tabulates the respondents who indicated that the quantity of products purchased was increased because of the program with whether the participant had plans to purchase the equipment before participating. Fifty-three percent of respondents who had plans to purchase the products prior to purchasing them through the Lights for Learning® Program indicated that they purchased more products because of their participation in the program.

Table 4-6 Reported Program Influences on Quantity of Products Purchased by Whether There Were Plans to Install Equipment

<i>Program Influence on Projects</i>	<i>Number of Responses</i>	<i>Had Plans to Purchase Products</i>
Yes, purchased more products because they were sold through the program	9	53%

Table 4-7 displays participants' ratings of the importance of supporting schools to their decision to purchase the energy efficient products sold through the program. Seventy-five percent of participants indicated that supporting schools was very important to the decision to purchase the products through the program and another 18% stated that it was somewhat important.

Table 4-7 Reported Importance of Supporting Schools to Product Purchase Decision

	<i>Response</i>	<i>Percent of Respondents (n=55)</i>
How important was supporting schools or supporting the student selling the products to your decision to purchase the energy efficient products?	Very important	75%
	Somewhat important	18%
	Only slightly important	3%
	Not at all important	3%
	Don't Know	-

4.5.4 Program Participation Process

Participants were asked about the experience with the ordering process and the receipt of the energy efficient products purchased through the Lights for Learning® Program. Table 4-8 displays survey respondents' answers to these questions. A small percentage of participants (3%) reported that there problems with ordering the products through the program. One of these participants stated that they did not have the product that they wanted to order and the other participant stated that they did not receive the purchased product.

Nearly all of the respondents (93%) reported that the products arrived in working condition. Three of the four participants who indicated that the products did not arrive in working condition reported that they did not receive the products. The other participant stated that one of the light bulbs ordered did not work.

Table 4-8 Experience with Purchase and Receipt of Products

<i>Question</i>	<i>Percent of Respondents Saying Yes</i>	<i>n</i>
Did you have any problems ordering the energy efficient products through the program?	3%	60
Did the products you ordered arrive in working condition?	93%	60

Overall, the process of ordering and delivering the products appears to be working well. However, there were some isolated reports of products not arriving. It is possible that some respondents reported that products did not arrive because another member of the household received the product.

4.5.5 Program Influence on Use and Awareness of Efficient Products

Survey respondents were asked about their previous experience with the energy efficient products sold through the program. As shown in Table 4-9, 61% of the survey respondents reported that they had previously purchased similar energy efficient products in the last three years.

Table 4-9 Prior Purchases of Similar Energy Efficient Products

	<i>Response</i>	<i>Percent of Respondents (n=59)</i>
Had you purchased similar energy efficient products in the last three years?	Yes	61%
	No	37%
	Don't know	2%

Table 4-10 displays participants' responses to whether or not they had previously purchased products similar to those purchased through the program for participants who reported purchasing CFL light bulbs, LED nightlights, and holiday LED light strands. The differences in shares of participants who had previously purchased the products did not vary substantially across product types. However, a somewhat larger share of participants who purchased holiday LED light strands reported having previously purchased this product than participants who purchased CFL light bulbs and LED nightlights.

Table 4-10 Participants who Previously Purchased Product by Product Type

<i>Product Purchased</i>	<i>Number of Responses</i>	<i>Had Previously Purchased</i>
CFL light bulb	21	68%
LED nightlight	10	67%
Holiday LED light strand	9	75%

Participants who had not previously purchased similar equipment were asked if they had previously used similar energy efficient products. As shown in Table 4-11, two-thirds of these participants stated that they had not previously used similar equipment.

Table 4-11 Prior Experience with Energy Efficient Products

	<i>Response</i>	<i>Percent of Respondents (n=22)</i>
Have you previously used energy efficient products similar to the ones you purchased through the Lights for Learning® Program?	Yes	32%
	No	64%
	Don't know	5%

To gauge whether or not the Lights for Learning® Program is encouraging participants to purchase products they had not previously used, the share of participants who had not purchased in the last three years or had experience with the products is displayed in Table 4-12. The results are shown for all participants as well as just those who purchased CFL light bulbs, LED nightlights, and holiday light strands. Overall, approximately one-quarter (24%) of survey respondents indicated that they had neither previously purchased, nor used, the products they ordered through the Lights for Learning® Program. Given that the products sold through the program are widely available and are being sold at market price, these findings suggest that the program is effective in encouraging participants to try products they have not previously used.

Table 4-12 Participants who had not Previously Purchased or Used Product by Product Type

<i>Energy Efficient Product Purchased</i>	<i>Number of Responses</i>	<i>Had Not Previously Purchased or Used</i>
CFL light bulb	6	32%
LED nightlight	2	27%
Holiday LED light strand	2	17%
All products	14	24%

Survey respondents were asked whether or not the program made them aware of the energy efficiency benefits of four of the products most frequently purchased through the program. Table 4-13 displays their responses. Participants most frequently reported that the program made them aware of the energy efficiency benefits of LED nightlights (43%) and least frequently for fluorescent light bulbs (22%).

Table 4-13 Program Effect on Awareness of Energy Efficiency

<i>Energy Efficient Product</i>	<i>Participants Made Aware of Energy Efficiency by Program (n=59)</i>
CFL bulbs	22%
Halogen light bulbs	29%
LED holiday lights	31%
LED nightlights	43%

The Lights for Learning® Program appears to be increasing participants' awareness of energy efficient equipment options for a number of participants. Nearly one-quarter of participants reported that they had not previously purchased or used the energy efficient product that they bought through the program. Furthermore, between approximately one- and two-fifths of the survey respondents reported that their awareness of the energy efficiency benefits of four of the most frequently purchased products had increased because of the program.

4.5.6 Participant Satisfaction

Respondents rated their levels of satisfaction with selected aspects of the program on a scale of 1 to 5 where 1 was very dissatisfied and 5 was very satisfied. Table 4-14 shows the results. Overall, satisfaction ratings were high, with few respondents indicating dissatisfaction. Respondents' satisfaction was fairly consistent across the different aspects of the program with no one aspect receiving particularly high or low satisfaction ratings. Fifty-four percent of respondents stated they were "very satisfied" with their overall experience and another 37% reported being satisfied.

Table 4-14 Participant Satisfaction with Selected Aspects of Program Experience

<i>Element of Program Experience</i>	<i>Very Satisfied</i>	<i>Somewhat Satisfied</i>	<i>Neither Satisfied nor Dissatisfied</i>	<i>Somewhat Dissatisfied</i>	<i>Very Dissatisfied</i>	<i>Don't Know</i>	<i>n</i>
The time it took to receive the products	46%	47%	-	2%	-	5%	59
The price of the products	41%	54%	2%	2%	-	2%	59
The performance of the products	51%	39%	3%	-	-	7%	59
Overall experience with the Lights for Learning® Program	54%	37%	3%	-	2%	3%	59

Few participants reported dissatisfaction with the program. Those participants who were dissatisfied with some aspect of the program or their overall experience were asked to elaborate on their reasons for dissatisfaction. The reasons for dissatisfaction given by participants were because they had not received the product, the product took a long time arrive, the bulbs were not as bright as they were expecting, and the products were expensive. Because few participants raised these concerns, these responses appear to reflect isolated incidents rather than systematic problems with the program delivery.

Table 4-15 presents the average level of satisfaction with the performance of the product by the type of product purchased. Satisfaction levels did not differ by the type of product purchased indicating that participants were equally satisfied with the different products purchased.

Table 4-15 Satisfaction with Product Performance by Product Purchased

<i>Energy Efficient Product Purchased</i>	<i>Average Satisfaction with Performance of Product</i>
CFL Light Bulb (n=31)	4.5
LED Nightlight (n=15)	4.5
Holiday LED Light Strand (n=12)	4.5

Participant satisfaction with the product purchased is shown in Table 4-16 for participants who had previous experience with the products and those who did not. Although participants who did not have previous experience with the products were somewhat less satisfied, their responses indicate that they were satisfied with the products.

Table 4-16 Satisfaction with Product Performance by Product Purchased

<i>Previous Experience with Purchased Product</i>	<i>Average Satisfaction with Performance of Product</i>
Had previously purchased or used (n=43)	4.4
Had not previously purchased or used (n=14)	4.2

4.5.7 Participant Recommendations and Overall Impressions

At various points in the survey, participants responded to open-ended questions and provided recommendations for the program or other remarks about their experiences with it. A few of these comments suggested that the program should offer additional products. Some examples of these comments include:

I wish they'd bring the multicolor nightlights come back, it was really, really nice. I like how it goes to many colors, I don't like that they went to all-white lights. The multicolor lights are a nice way to turn on the lights for the kids.

Just that I wish they'd sell the white light bulbs, the white daylight light bulbs that you can only get from Home Depot.

Some participants expressed their dislike of the energy efficient bulbs sold through the program. Some of these comments were:

Don't waste time selling LED's, I've tried them and I don't like them. They have a flicker to them and they turn me nauseous. It's a good program, keep it going.

Generally energy efficient light bulbs are dim; they don't produce the bright light. But I understand that that's part of their design.

No, they could make the nightlights I little brighter, but I don't think they can do that with LED. That's what I don't like about them.

However, the most frequently made remarks about the program indicated participant's satisfaction with the program or the products purchased. Some examples of these remarks include:

I think it's a good idea, I think it's good for the schools and the community.

I think it's a great product I hope the school does it every year it educates and is a great program. The school should also take the time to teach the students about the importance of them and the mercury in it.

I think it's a very good program, we're happy with everything we've gotten from them. We'll continue to get more.

I think it's a great program.

4.6 Program Operations Perspective

This section summarizes the core findings of interviews that were conducted with program staff of the Midwest Energy Efficiency Alliance (MEEA), DCEO's implementation partner.

In order to gather information regarding the operational efficiency and program delivery process for the Lights for Learning® Program, telephone interviews were conducted with key members of MEEA. These interviews were focused on overall process effectiveness and identifying potential improvements for future program activities. MEEA interview participants included the Director of programs and program associates.

Respondents shared their perspectives on how the program has taken shape since inception and specific performance of program Year 4. Interview questions related to the respondents' individual program roles as well as their perceptions of overall program strengths, weaknesses, and opportunities for the future.

Key program features and trends addressed by respondents include:

- **Program is Marketed in Multiple Ways:** The Lights for Learning® Program is marketed to potential participating organizations in a variety of ways. A primary means of marketing the program is through promotion at community events. Program implementation staff present information on the program at these events with the intent that parents, students, teachers, members of other participating organizations, such as the Girl Scouts of America and 4-H, will become interested in the program and want to utilize it as a fundraising activity. Additionally, the program is promoted at events attended by school board members and administrator.

The program seeks to retain organizations participation across multiple years. The primary way this is done is to maintain a list of past participant contacts and sending them monthly updates on the program to keep them informed of and engaged in the program's activities.

- **Concerns about the Program:** Although there have been few concerns raised about the program overall, a few issues have been noted by participating organizations and the parents of children participating in the fundraiser. For schools, the biggest areas of concern are their ability to designate a teacher to take the lead on the schools participation and how to customize the program to meet their needs. Another concern that has been raised by organizations operating in lower income areas is the ability of prospective purchasers to afford the energy efficient products. However, the products are priced at fair market value, a point noted by several of the participant survey respondents, and affordability issues are a common and largely unavoidable concern for fundraisers operating in low income areas.

A few parents have been concerned about the mercury content of the compact fluorescent lights (CFL) sold through the program. To mitigate these concerns, program staff has developed materials to educate parents about the level of mercury used in the CFLs, noting that it is a small quantity.

- **Schools Use of Funds:** The prices of the products sold through the program are bought down by DCEO so that they can be sold at fair market value while generating a 50% profit for participating organizations. Schools typically use these funds for classroom purchases, for green initiatives such as promoting recycling, or to host field trips with environmental or science, technology, engineering, and mathematics themes.
- **Educational Materials for Schools:** Participating schools are provided with educational materials intended to engage students and their families with energy efficiency issues. These materials are broken into three age levels, elementary, middle school, and high school. There are three types of activities provided: lesson plans for classroom instruction, classroom activities, and take home activities. For elementary students, some examples of the materials are story books that follow along with a PowerPoint presentation and a workbook of activities such as word games. For middle and high schools students, three day lesson plans are provided as well as other activities such as a take home audit that students can use to assess their homes energy efficiency and then discuss the results with their classmates.
- **Future Program Developments:** Program staff is considering ways of improving the Lights for Learning® Program. One of the developments they are considering is automating the

ordering process for the products. Automating the ordering process would have the advantage of capturing purchaser contact information and the number and type of products purchased. This information is not currently captured by the program and is vital to the evaluation effort.

Additionally the program launched a direct install component during PY5 (period between June 2012-May 2013). Through the direct install component of the program, qualified schools who participated in the fundraising component of the program can receive energy efficiency measures at no charge. These products include LED exit signs, green kitchen nozzles, power strips, CFLs, and low-flow aerators.

Appendix A: Questionnaire for Decision Maker Survey

1. Do you recall purchasing energy efficient products through the Lights for Learning® Program?

- Yes (if checked, skip to 2)
- No (if checked, go to 1A)

1A. These products included energy efficient light bulbs, nightlights, and holiday lights. A student would have sold them to you as part of a school fund raiser. Do you recall participating in the program now?

- Yes (if checked, go to question 2)
- No (thank and terminate interview)

2. Which energy efficient products did you purchase through the program (Don't read list, use as possible prompts):

- CFL Light Bulb
- Halogen Light Bulb
- Holiday LED Light Strand
- 13 Watt CFL Desk lamp
- Conserve Socket
- LED Nightlight
- Kill-A-Watt Meter or Bitz Powerstrip (no follow up questions)
- Don't know

2A. Do you know the type and wattage of the CFL bulbs that you purchased through the program? (Don't read list, use as possible prompts)

- 14 Watt Spiral CFL Bulb- 60 Watt Equivalent
- 19 Watt Spiral CFL Bulb or 19 Watt Spiral CFL Bulb 3 Pack- 85 Watt Equivalent
- 23 Watt Spiral CFL Bulb – 100 Watt Equivalent
- 13 Watt Capsule CFL- 2 Pack – 60 Watt Equivalents
- 33 Watt 3-Way CFL Spiral
- Sample CFL Pack (a 14 Watt, 19 Watt, and 23 Watt bulb)- 60W, 85W, 100W equivalents
- 14 Watt Globe Bulb
- 14 Watt R30 CFL Indoor Reflector
- Don't remember

2B. Do you remember what the wattage was for the halogen bulbs you purchased through the program?

- 53 Watt Halogen A – 2 Pack – 75W Equivalent
- 72 Watt Halogen A- 2 Pack – 100W Equivalent
- Don't remember

3. How did you hear about the Lights for Learning® Program? (Select all that apply. Don't read list)

- From the student who sold the products
- From the school participating in the program
- From a neighbor or friend
- The Lights for Learning® website
- A news story about the program
- An advertisement for the program
- Received a brochure or flyer
- Don't know
- Other (please specify)

4. Did you know the student who sold you the energy efficient products?

- Yes
- No
- Don't know (Do not read)

4A. What is the student's relationship to you? (Do not read list)

- The student is a family member
- The student is the child of a friend
- The student is a neighbor
- Don't know
- Other (please specify): _____

5. Did you have any problems ordering the energy efficient products through the program?

- Yes
- No
- Don't know (Do not read)

5A. What problems did you experience when ordering the products?

6. Did the products you ordered arrive in working condition?

- Yes
- No
- Don't know

6A. What was wrong with the products?

7. Why did you purchase these products? (Do not read list)

- To support schools
- To support the student who sold the products
- To save energy
- To replace broken products already owned
- Other (please specify)
- Don't know

8. Did you already have plans to purchase these energy efficient products before purchasing them through the Lights for Learning® Program?

- Yes
- No
- Don't know (Do not read)

8A. Would you have purchased these energy efficient products elsewhere in the next month if you had not participated in the Lights for Learning® Program?

- Yes
- No
- Don't know (Do not read)

9. If the energy efficient products had not been offered through the Lights for Learning® Program, how likely is it that you would have purchased them elsewhere?

- Definitely would have purchased elsewhere
- Probably would have purchased elsewhere
- Probably would not have purchased elsewhere
- Definitely would not have purchased elsewhere
- Don't know

10. Did you purchase more of the energy efficient products because they were sold through the Lights for Learning® Program than you otherwise would have?

- Yes, purchased more products than otherwise would have
- No, did not purchase more products
- Don't know (Do not read)

10A. How many more products did you purchase?

11. How important was supporting schools or supporting the student selling the products to your decision to purchase the energy efficient products?

- Very important
- Somewhat important
- Only slightly important
- Not at all important
- Don't know (Do not read)

12. Had you purchased similar energy efficient products in the last three years?

- Yes
- No
- Don't know

12A. Have you previously used energy efficient products similar to the ones you purchased through the Lights for Learning® program?

- Yes
- No
- Don't know (Do not read)

13. For each of the following products, please identify if the program made you aware of their energy efficiency, or if you knew about their energy efficiency benefits beforehand?

- Compact fluorescent light bulbs
- Halogen light bulbs
- LED holiday lights
- LED nightlights

14. Now I would like to ask you how satisfied or dissatisfied you were with different aspects of the program and the product(s) you purchased. How satisfied or dissatisfied were you with:

- The time it took to receive the products
- The price of the products
- The performance of the products
- Overall satisfaction with the Lights for Learning® Program

14A. What are the reasons for your dissatisfaction?

Now I would like to ask you a few questions about the energy efficient product(s) you purchased.

CFL14W1. How many of the 14 watt (60 Watt Equivalent) Spiral CFL Bulbs did you purchase?

CFL14W2. How many of the 14 watt (60 Watt Equivalent) Spiral CFL Bulbs did you install?

CFL14W3. [If some are not installed] How many do you expect to install during the next month?

CFL14W4. For the bulbs that you have installed, where did you install these bulbs? (Leave blank if they do not know where the bulbs were installed)

- _____ Living room
- _____ Kitchen
- _____ Family Room / Den
- _____ Dining Room
- _____ Entry/Hallway
- _____ Bedroom
- _____ Bathroom
- _____ Garage
- _____ Outdoors
- _____ Closet
- _____ Office
- _____ Other/Don't know location

CFL14W5. What type of bulb did the CFL replace?

- Replaced incandescent bulbs
- Replaced other CFLs
- Don't know (Don't read)
- Other (please specify)

CFL14W5A. Were the incandescent bulbs still operating when you removed them or were they burnt out?

- Still operating
- Burnt out
- Don't know (Do not read)

CFL19W1. How many of the 19 watt (85 Watt Equivalent) Spiral CFL Bulbs did you purchase?
[Count 3 bulbs for each 3 pack]

CFL19W2. How many of the 19 watt (85 Watt Equivalent) Spiral CFL Bulbs did you install?

CFL19W3. [If some are not installed] How many do you expect to install during the next month?

CFL19W4. For the bulbs that you have installed, where did you install these bulbs? (Leave blank if they do not know where the bulbs were installed)

- _____ Living room
- _____ Kitchen
- _____ Family Room / Den
- _____ Dining Room
- _____ Entry/Hallway
- _____ Bedroom
- _____ Bathroom
- _____ Garage
- _____ Outdoors
- _____ Closet
- _____ Office
- _____ Other/Don't know location

CFL19W5. What type of bulb did the CFL replace?

- Replaced incandescent bulbs
- Replaced other CFLs
- Don't know (Do not read)
- Other (please specify)

CFL19W5A. Were the incandescent bulbs still operating when you removed them or were they burnt out?

- Still operating
- Burnt out
- Don't know (Do not read)

CFL23W1. How many of the 23 watt (100 Watt Equivalent) Spiral CFL Bulbs did you purchase?

CFL23W2. How many of the 23 watt (100 Watt Equivalent) Spiral CFL Bulbs did you install?

CFL23W3. [If some are not installed] How many do you expect to install during the next month?

CFL23W4. For the bulbs that you have installed, where did you install these bulbs? (Leave blank if they do not know where the bulbs were installed)

- Living room
- Kitchen
- Family Room / Den
- Dining Room
- Entry/Hallway
- Bedroom
- Bathroom
- Garage
- Outdoors
- Closet
- Office
- Other/Don't know location

CFL23W5. What type of bulb did the CFL replace?

- Replaced incandescent bulbs
- Replaced other CFLs
- Don't know (Do not read)
- Other (please specify)

CFL23W5A. Were the incandescent bulbs still operating when you removed them or were they burnt out?

- Still operating
- Burnt out
- Don't know (Do not read)

CFL2PK1. How many of the 13W CFL two packs did you purchase?

CFL2PK2. How many of the 13W bulbs did you install?

CFL2PK3. [If some are not installed] How many do you expect to install during the next month?

CFL2PK4. For the bulbs that you have installed, where did you install these bulbs? (Leave blank if they do not know where the bulbs were installed)

- Living room
- Kitchen
- Family Room / Den
- Dining Room
- Entry/Hallway
- Bedroom
- Bathroom
- Garage
- Outdoors
- Closet

_____ Office
_____ Other/Don't know location

CFL2PK5. What type of bulb did the CFL replace?

- Replaced incandescent bulbs
- Replaced other CFLs
- Don't know (Do not read)
- Other (please specify)

CFL2PK5A. Were the incandescent bulbs still operating when you removed them or were they burnt out?

- Still operating
- Burnt out
- Don't know (Do not read)

3WAYCFL1. How many of the 3-Way CFL bulbs did you purchase?

3WAYCFL2. How many of the 3-Way CFL bulbs did you install?

3WAYCFL3. [If some are not installed] How many do you expect to install during the next month?

3WAYCFL4. For the bulbs that you have installed, where did you install these bulbs? (Leave blank if they do not know where the bulbs were installed)

_____ Living room
_____ Kitchen
_____ Family Room / Den
_____ Dining Room
_____ Entry/Hallway
_____ Bedroom
_____ Bathroom
_____ Garage
_____ Outdoors
_____ Closet
_____ Office
_____ Other/Don't know location

3WAYCFL5. What type of bulb did the CFL replace?

- Replaced incandescent bulbs
- Replaced other CFLs
- Don't know (Do not read)
- Other (please specify)

3WAYCFL5A. Were the incandescent bulbs still operating when you removed them or were they burnt out?

- Still operating

- Burnt out
 Don't know (Do not read)

SAMPCFL1. How many of the CFL sample packs that included a 14 Watt, 19 Watt, and 23 Watt bulb did you purchase?

SAMPCFL2A. How many of the 14 watt bulbs did you install?

SAMPCFL2B. How many of the 19 watt bulbs did you install?

SAMPCFL2C. How many of the 23 watt bulbs did you install?

SAMPCFL3. [If some are not installed] How many do you expect to install during the next month?

SAMPCFL4A. For the 14 watt bulbs that you have installed, where did you install these bulbs?
(Leave blank if they do not know where the bulbs were installed)

- Living room
 Kitchen
 Family Room / Den
 Dining Room
 Entry/Hallway
 Bedroom
 Bathroom
 Garage
 Outdoors
 Closet
 Office
 Other/Don't know location

SAMPCFL4B. For the 19 watt bulbs that you have installed, where did you install these bulbs?
(Leave blank if they do not know where the bulbs were installed)

- Living room
 Kitchen
 Family Room / Den
 Dining Room
 Entry/Hallway
 Bedroom
 Bathroom
 Garage
 Outdoors
 Closet
 Office
 Other/Don't know location

SAMPCFL4C. For the 23 watt bulbs that you have installed, where did you install these bulbs?
(Leave blank if they do not know where the bulbs were installed)

- Living room
- Kitchen
- Family Room / Den
- Dining Room
- Entry/Hallway
- Bedroom
- Bathroom
- Garage
- Outdoors
- Closet
- Office
- Other/Don't know location

SAMPCFL5. What type of bulb did the CFL replace?

- Replaced incandescent bulbs
- Replaced other CFLs
- Don't know (Do not read)
- Other (please specify)

SAMPCFL5A. Were the incandescent bulbs still operating when you removed them or were they burnt out?

- Still operating
- Burnt out
- Don't know (Do not read)

REFLCFL1. How many of the indoor reflector bulbs did you purchase?

REFLCFL2. How many of the bulbs did you install?

REFLCFL3. [If some are not installed] How many do you expect to install during the next month?

REFLCFL4. For the bulbs that you have installed, where did you install these bulbs? (Leave blank if they do not know where the bulbs were installed)

- Living room
- Kitchen
- Family Room / Den
- Dining Room
- Entry/Hallway
- Bedroom
- Bathroom
- Garage
- Outdoors
- Closet

_____ Office
_____ Other/Don't know location

REFLCFL5. What type of bulb did the CFL replace?

- Replaced incandescent bulbs
- Replaced other CFLs
- Don't know (Do not read)
- Other (please specify)

REFLCFL5A. Were the incandescent bulbs still operating when you removed them or were they burnt out?

- Still operating
- Burnt out
- Don't know (Do not read)

GLOBECFL1. How many of the CFL Globe bulbs did you purchase?

GLOBECFL2. How many of the bulbs did you install?

GLOBECFL3. [If some are not installed] How many do you plan to install in the next month?

GLOBECFL4. For the bulbs that you have installed, where did you install these bulbs? (Leave blank if they do not know where the bulbs were installed)

_____ Living room
_____ Kitchen
_____ Family Room / Den
_____ Dining Room
_____ Entry/Hallway
_____ Bedroom
_____ Bathroom
_____ Garage
_____ Outdoors
_____ Closet
_____ Office
_____ Other/Don't know location

GLOBECFL5. What type of bulb did the CFL replace?

- Replaced incandescent bulbs
- Replaced other CFLs
- Don't know (Do not read)
- Other (please specify)

GLOBECFL5A. Were the incandescent bulbs still operating when you removed them or were they burnt out?

- Still operating
- Burnt out

Don't know (Do not read)

CFL1. How many of the CFL bulbs did you purchase?

CFL2. How many of the bulbs did you install?

CFL3. [If some are not installed] How many do you expect to install during the next month?

CFL4. For the bulbs that you have installed, where did you install these bulbs? (Leave blank if they do not know where the bulbs were installed)

- Living room
- Kitchen
- Family Room / Den
- Dining Room
- Entry/Hallway
- Bedroom
- Bathroom
- Garage
- Outdoors
- Closet
- Office
- Other/Don't know location

CFL5. What type of bulb did the CFL replace?

- Replaced incandescent bulbs
- Replaced other CFLs
- Don't know (Do not read)
- Other (please specify)

CFL5A. Were the incandescent bulbs still operating when you removed them or were they burnt out?

- Still operating
- Burnt out
- Don't know (Do not read)

HAL53W1. How many of the 53 watt (75 Watt Equivalent) Halogen Bulb 2 Packs did you purchase?

HAL53W2. How many of the bulbs did you install?

HAL53W3. [If some are not installed] How many do you expect to install during the next month?

HAL53W4. For the bulbs that you have installed, where did you install these bulbs? (Leave blank if they do not know where the bulbs were installed)

- Living room

- _____ Kitchen
- _____ Family Room / Den
- _____ Dining Room
- _____ Entry/Hallway
- _____ Bedroom
- _____ Bathroom
- _____ Garage
- _____ Outdoors
- _____ Closet
- _____ Office
- _____ Other/Don't know location

HAL53W5. What type of bulb did the halogen bulb replace?

- Replaced incandescent bulbs
- Replaced other Halogens
- Replaced CFLs
- Don't know (Do not read)

HAL53W5A. Were the incandescent bulbs still operating when you removed them or were they burnt out?

- Still operating
- Burnt out
- Don't know (Do not read)

HAL72W1. How many of the 72 watt (100 Watt Equivalent) Halogen Bulbs did you purchase?

HAL72W2. How many of the bulbs did you install?

HAL72W3. [If some are not installed] How many do you expect to install during the next month?

HAL72W4. For the bulbs that you have installed, where did you install these bulbs? (Leave blank if they do not know where the bulbs were installed)

- _____ Living room
- _____ Kitchen
- _____ Family Room / Den
- _____ Dining Room
- _____ Entry/Hallway
- _____ Bedroom
- _____ Bathroom
- _____ Garage
- _____ Outdoors
- _____ Closet
- _____ Office
- _____ Other/Don't know location

HAL72W5. What type of bulb did the halogen bulb replace?

- Replaced incandescent bulbs
- Replaced other Halogens
- Replaced CFLs
- Don't know (Do not read)
- Other (please specify)

HAL72W5A. Were the incandescent bulbs still operating when you removed them or were they burnt out?

- Still operating
- Burnt out
- Don't know

HALOGEN1. How many of the Halogen Bulbs did you purchase?

HALOGEN2. How many of the bulbs did you install?

HALOGEN13. [If some are not installed] How many do you expect to install during the next month?

HALOGEN4. For the bulbs that you have installed, where did you install these bulbs? (Leave blank if they do not know where the bulbs were installed)

- _____ Living room
- _____ Kitchen
- _____ Family Room / Den
- _____ Dining Room
- _____ Entry/Hallway
- _____ Bedroom
- _____ Bathroom
- _____ Garage
- _____ Outdoors
- _____ Closet
- _____ Office
- _____ Other/Don't know location

HALOGEN5. What type of bulb did the halogen bulb replace?

- Replaced incandescent bulbs
- Replaced other Halogens
- Replaced CFLs
- Don't know (Do not read)
- Other (please specify)

HALOGEN5A. Were the incandescent bulbs still operating when you removed them or were they burnt out?

- Still operating

- Burnt out
- Don't know (Do not read)

HOLSTRND1. How many Holiday LED Light Strands did you purchase?

HOLSTRND2. Did the Holiday LED Light Strands replace any other light strands that you would have used instead?

- Yes
- No
- Don't know (Do not read)

HOLSTRND2A. What kind of light strands did they replace?

- Incandescent holiday lights
- LED holiday lights
- Don't know
- Other (please specify)

HOLSTRND3. When are the holiday light strands in use?

- Only during the holidays
- Year round
- Other (please specify): _____

HOLSTRND4. How many hours per day are the holiday lights turned on?

- All night
- 24 hours a day
- A few hours a night (How many hours?): _____
- Other:: _____
- Don't know (Do not read)

DSKLMP1. How many desk lamps did you purchase?

DSKLMP2. How many hours are the desk lamps on each day?

SOCKET1. How many conserve sockets did you purchase?

SOCKET2. How many conserve sockets are in use?

SOCKET3. What is connected to the socket?

SOCKET4. Before you purchased the socket, how many hours a day was the device that is now connected to the socket plugged in / turned on?

SOCKET5. Now that the device is plugged into the socket, how many hours a day is the socket supplying power to the device?

NGHTLGHT1. How many LED nightlights did you purchase?

NGHTLGHT2. How many LED nightlights are in use?

NGHTLGHT3. Did the LED nightlights replace other nightlights?

- Yes
- No
- Don't know (Do not read)

NGHTLGHT3A. What kind of nightlights did they replace?

- Incandescent nightlight
- LED nightlight
- Don't know (Do not read)
- Other (please specify)

15. Do you have any other comments that you would like to make regarding the Lights for Learning® program or energy efficient products?

Appendix B: Decision Maker Survey Responses

As part of the evaluation work effort, a survey was administered for a sample of purchasers of measures through the Lights for Learning® Program. That survey provided the information used in Chapter 3 to estimate the program net-to-gross ratio. However, the survey also provided information used to perform the program process evaluation.

Each participant was surveyed using the survey instrument provided in Appendix A. The surveys were conducted by telephone or internet. During the survey, a participant was asked questions about (1) his or her general decision making regarding purchasing and installing energy efficient equipment, (2) his or her knowledge of and satisfaction with the program, and (3) the influence that the program had on his or her decision to purchase and install measures.

The following tabulations summarize program participant survey responses. The first column presents the number of survey respondents (n). The second column presents the percentage of survey respondents (n).

	<i>Response</i>	<i>(n=64)</i>	<i>Percent of Respondents</i>
1. Do you recall purchasing energy efficient products through the Lights for Learning® Program?	Yes	58	91%
	No	6	9%

	<i>Response</i>	<i>(n=5)</i>	<i>Percent of Respondents</i>
1a. The products sold under the program included energy efficient light bulbs, nightlights, and holiday lights. A student would have sold them to you as part of a school fund raiser. Do you recall participating in the program now?	Yes	2	40%
	No	3	60%

	<i>Response</i>	<i>(n=60)</i>	<i>Percent of Respondents*</i>
2. Which energy efficient products did you purchase through the program (Don't read list, use as possible prompts):	CFL Light Bulb	31	52%
	Halogen Light Bulb	1	2%
	Holiday LED Light Strand	12	20%
	13 Watt CFL Desk lamp	3	5%
	Conserve Socket	0	0%
	LED Nightlight	15	25%
	Don't know	13	22%
	Other (please specify)	0	0%

*Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.

	<i>Response</i>	<i>(n=31)</i>	<i>Percent of Respondents*</i>
2a. Do you know the type and wattage of the CFL bulbs that you purchased through the program?	14 Watt Spiral CFL Bulb- 60 Watt Equivalent	1	3%
	19 Watt Spiral CFL Bulb or 19 Watt Spiral CFL Bulb 3 Pack- 85 Watt Equivalent	0	0%
	23 Watt Spiral CFL Bulb - 100 Watt Equivalent	2	6%
	13 Watt Capsule CFL- 2 Pack - 60 Watt Equivalents	6	19%
	33 Watt 3-Way CFL Spiral	1	3%
	Sample CFL Pack (14 Watt, 19 Watt, and 23 Watt bulbs)- 60W, 85W, 100W equivalents	5	16%
	14 Watt Globe Bulb	0	0%
	14 Watt R30 CFL Indoor Reflector	0	0%
	Don't remember	18	58%

*Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.

	<i>Response</i>	<i>(n=1)</i>	<i>Percent of Respondents*</i>
2b. Do you remember what the wattage was for the halogen bulbs you purchased through the program?	53 Watt Halogen A - 2 Pack - 75W Equivalent	0	0%
	72 Watt Halogen A - 2 Pack - 100W Equivalent	0	0%
	Don't remember	1	100%
	Other (please specify)	0	0%

*Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.

	<i>Response</i>	<i>(n=60)</i>	<i>Percent of Respondents*</i>
3. How did you hear about the Lights for Learning® Program? (Select all that apply. Don't read list)	From the student who sold the products	29	48%
	From the school participating in the program	5	8%
	From a neighbor or friend	3	5%
	The Lights for Learning® website	0	0%
	A news story about the program	0	0%
	An advertisement for the program	0	0%
	Received a brochure or flyer	10	17%
	Don't know	0	0%
	Other (please specify)	15	25%

*Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.

	<i>Response</i>	<i>(n=60)</i>	<i>Percent of Respondents</i>
4. Did you know the student who sold you the energy efficient products?	Yes	55	92%
	No	5	8%
	Don't know (Do not read)	0	0%

	<i>Response</i>	<i>(n=55)</i>	<i>Percent of Respondents</i>
4a. What is the student's relationship to you? (Do not read list)	The student is a family member	40	73%
	The student is the child of a friend	6	11%
	The student is a neighbor	2	4%
	Don't know	0	0%
	Other (please specify)	7	13%

	<i>Response</i>	<i>(n=60)</i>	<i>Percent of Respondents</i>
5. Did you have any problems ordering the energy efficient products through the program?	Yes	2	3%
	No	57	95%
	Don't know (Do not read)	1	2%

	<i>Response</i>	<i>(n=60)</i>	<i>Percent of Respondents</i>
6. Did the products you ordered arrive in working condition?	Yes	56	93%
	No	4	7%
	Don't know	0	0%

	<i>Response</i>	<i>(n=60)</i>	<i>Percent of Respondents*</i>
7. Why did you purchase these products? (Do not read list)	To support schools	27	45%
	To support the student who sold the products	21	35%
	To save energy	9	15%
	To replace broken products already owned	3	5%
	Other (please specify)	33	55%
	Don't know	3	5%

*Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.

	<i>Response</i>	<i>(n=60)</i>	<i>Percent of Respondents</i>
8. Did you already have plans to purchase these energy efficient products before purchasing them through the Lights for Learning® Program?	Yes	17	28%
	No	43	72%
	Don't know	0	0%

	<i>Response</i>	<i>(n=17)</i>	<i>Percent of Respondents</i>
8a. Would you have purchased these energy efficient products elsewhere in the next month if you had not participated in the Lights for Learning® Program?	Yes	15	88%
	No	2	12%
	Don't know (Do not read)	0	0%

	<i>Response</i>	<i>(n=60)</i>	<i>Percent of Respondents</i>
9. If the energy efficient products had not been offered through the Lights for Learning® Program, how likely is it that you would have purchased them elsewhere?	Definitely would have purchased elsewhere	18	30%
	Probably would have purchased elsewhere	18	30%
	Probably would not have purchased elsewhere	15	25%
	Definitely would not have purchased elsewhere	9	15%
	Don't know	0	0%

	<i>Response</i>	<i>(n=60)</i>	<i>Percent of Respondents</i>
10. Did you purchase more of the energy efficient products because they were sold through the Lights for Learning® Program than you otherwise would have?	Yes, purchased more products than otherwise would have	31	52%
	No, did not purchase more products	26	43%
	Don't know (Do not read)	3	5%

	<i>Response</i>	<i>(n=31)</i>	<i>Percent of Respondents</i>
10a. How many more products did you purchase?	1	3	10%
	2	5	16%
	3	5	16%
	4	2	6%
	5	3	10%
	6	3	10%
	7	0	0%
	8	1	3%
	9	0	0%
	10	2	6%
	Don't know	7	23%

	<i>Response</i>	<i>(n=60)</i>	<i>Percent of Respondents</i>
11. How important was supporting schools or supporting the student selling the products to your decision to purchase the energy efficient products?	Very important	45	75%
	Somewhat important	11	18%
	Only slightly important	2	3%
	Not at all important	2	3%
	Don't know (Do not read)	0	0%

	<i>Response</i>	<i>(n=59)</i>	<i>Percent of Respondents</i>
12. Had you purchased similar energy efficient products in the last three years?	Yes	36	61%
	No	22	37%
	Don't know	1	2%

	<i>Response</i>	<i>(n=22)</i>	<i>Percent of Respondents</i>
12a. Have you previously used energy efficient products similar to the ones you purchased through the Lights for Learning® program?	Yes	7	32%
	No	14	64%
	Don't know (Do not read)	1	5%

13a. For compact fluorescent light bulbs (CFLs), please identify if the program made you aware of their energy efficiency, or if you knew about their energy efficiency benefits beforehand?	<i>Response</i>	<i>(n=59)</i>	<i>Percent of Respondents</i>
	Previously aware of efficiency	42	71%
	Program made me aware of efficiency	13	22%
	Don't know	4	7%

13b. For halogen light bulbs, please identify if the program made you aware of their energy efficiency, or if you knew about their energy efficiency benefits beforehand?	<i>Response</i>	<i>(n=59)</i>	<i>Percent of Respondents</i>
	Previously aware of efficiency	37	63%
	Program made me aware of efficiency	17	29%
	Don't know	5	8%

13c. For LED holiday lights, please identify if the program made you aware of their energy efficiency, or if you knew about their energy efficiency benefits beforehand?	<i>Response</i>	<i>(n=59)</i>	<i>Percent of Respondents</i>
	Previously aware of efficiency	37	63%
	Program made me aware of efficiency	18	31%
	Don't know	4	7%

13d. For LED nightlights, please identify if the program made you aware of their energy efficiency, or if you knew about their energy efficiency benefits beforehand?	<i>Response</i>	<i>(n=58)</i>	<i>Percent of Respondents</i>
	Previously aware of efficiency	29	50%
	Program made me aware of efficiency	25	43%
	Don't know	4	7%

14a. Now I would like to ask you how satisfied or dissatisfied you were with different aspects of the program and the product(s) you purchased. How satisfied or dissatisfied were you with the time it took to receive the products?	<i>Response</i>	<i>(n=59)</i>	<i>Percent of Respondents*</i>
	5	27	46%
	4	28	47%
	3	0	0%
	2	1	2%
	1	0	0%
	Don't know	3	5%
	Average		4.4

*Each response was assigned a numerical value from one to five (5=Very Satisfied, 4=Satisfied, 3=Neither Satisfied nor Dissatisfied, 2=Dissatisfied, 1=Very Dissatisfied)

	<i>Response</i>	<i>(n=59)</i>	<i>Percent of Respondents*</i>
14b. Now I would like to ask you how satisfied or dissatisfied you were with different aspects of the program and the product(s) you purchased. How satisfied or dissatisfied were you with the price of the products?	5	24	41%
	4	32	54%
	3	1	2%
	2	1	2%
	1	0	0%
	Don't know	1	2%
	Average		4.4

**Each response was assigned a numerical value from one to five (5=Very Satisfied, 4=Satisfied, 3=Neither Satisfied nor Dissatisfied, 2=Dissatisfied, 1=Very Dissatisfied)*

	<i>Response</i>	<i>(n=59)</i>	<i>Percent of Respondents*</i>
14c. Now I would like to ask you how satisfied or dissatisfied you were with different aspects of the program and the product(s) you purchased. How satisfied or dissatisfied were you with the performance of the products?	5	30	51%
	4	23	39%
	3	2	3%
	2	0	0%
	1	0	0%
	Don't know	4	7%
	Average		4.5

**Each response was assigned a numerical value from one to five (5=Very Satisfied, 4=Satisfied, 3=Neither Satisfied nor Dissatisfied, 2=Dissatisfied, 1=Very Dissatisfied)*

	<i>Response</i>	<i>(n=59)</i>	<i>Percent of Respondents*</i>
14d. Now I would like to ask you how satisfied or dissatisfied you were with different aspects of the program and the product(s) you purchased. How satisfied or dissatisfied were you with your overall experience with the Lights for Learning® Program?	5	32	54%
	4	22	37%
	3	2	3%
	2	0	0%
	1	1	2%
	Don't know	2	3%
	Average		4.5

**Each response was assigned a numerical value from one to five (5=Very Satisfied, 4=Satisfied, 3=Neither Satisfied nor Dissatisfied, 2=Dissatisfied, 1=Very Dissatisfied)*

	<i>Total Count</i>
CFL14W1. How many of the 14 watt spiral CFL bulbs did you purchase?"	6
CFL14W2. How many of the 14 watt spiral CFL bulbs did you install?"	4
CFL14W3. How many do you expect to install in the next month?	0

	<i>Location</i>	<i>Total Count</i>
CFL14W4. For the bulbs that you have installed, where did you install these bulbs? 14 watt spiral CFL bulbs	Living room	0
	Kitchen	0
	Family room / den	0
	Dining room	0
	Entry / hallway	0
	Bedroom	0
	Bathroom	0
	Garage	0
	Outdoors	4
	Closet	0
	Office	0
	Other / Don't know location	0

		<i>(n=2)</i>	<i>Percent of Respondents</i>
CFL14W5. What type of bulb did the CFL replace? 14 watt spiral CFL bulbs	Replaced incandescent bulbs	1	50%
	Replaced other CFLs	2	100%
	Don't know	0	0%
	Other	0	0%

**Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.*

		<i>(n=1)</i>	<i>Percent of Respondents</i>
CFL14W5A. Were the incandescent bulbs still operating when you removed them or where they burnt out? 14 watt spiral CFL bulbs	Sill operating	1	100%
	Burnt out	0	0%
	Don't know	0	0%

**Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.*

	<i>Total Count</i>
CFL19W1. How many of the 19 watt spiral CFL bulbs did you purchase?"	0
CFL19W2. How many of the 19 watt spiral CFL bulbs did you install?"	0
CFL19W3. How many do you expect to install in the next month?"	0

	<i>Location</i>	<i>Total Count</i>
CFL19W4. For the bulbs that you have installed, where did you install these bulbs? 19 watt spiral CFL bulbs	Living room	0
	Kitchen	0
	Family room / den	0
	Dining room	0
	Entry / hallway	0
	Bedroom	0
	Bathroom	0
	Garage	0
	Outdoors	0
	Closet	0
	Office	0
	Other / Don't know location	0

		<i>(n=0)</i>	<i>Percent of Respondents*</i>
CFL19W5. What type of bulb did the CFL replace? 19 watt spiral CFL bulbs	Replaced incandescent bulbs	0	0%
	Replaced other CFLs	0	0%
	Don't know	0	0%
	Other	0	0%

**Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.*

		<i>(n=0)</i>	<i>Percent of Respondents*</i>
CFL19W5A. Were the incandescent bulbs still operating when you removed them or where they burnt out? 19 watt spiral CFL bulbs	Sill operating	0	0%
	Burnt out	0	0%
	Don't know	0	0%

**Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.*

	<i>Total Count</i>
CFL23W1. How many of the 23 watt spiral CFL bulbs did you purchase?"	10
CFL23W2. How many of the 23 watt spiral CFL bulbs did you install?"	3
CFL23W3. How many do you expect to install in the next month?"	0

	<i>Location</i>	<i>Total Count</i>
CFL23W4. For the bulbs that you have installed, where did you install these bulbs? 23 watt spiral CFL bulbs	Living room	0
	Kitchen	0
	Family room / den	0
	Dining room	1
	Entry / hallway	0
	Bedroom	0
	Bathroom	0
	Garage	0
	Outdoors	0
	Closet	0
	Office	0
	Other / Don't know location	2

		<i>(n=2)</i>	<i>Percent of Respondents</i>
CFL23W5. What type of bulb did the CFL replace? 23 watt spiral CFL bulbs	Replaced incandescent bulbs	2	100%
	Replaced other CFLs	0	0%
	Don't know	0	0%
	Other	0	0%

**Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.*

		<i>(n=2)</i>	<i>Percent of Respondents</i>
CFL23W5a. Were the incandescent bulbs still operating when you removed them or where they burnt out? 23 watt spiral CFL bulbs	Sill operating	0	0%
	Burnt out	2	100%
	Don't know	0	0%

**Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.*

	<i>Total Count</i>
CFL2PK1. How many of the 13 watt spiral CFL bulbs did you purchase?"	14
CFL2PK2. How many of the 13 watt spiral CFL bulbs did you install?"	27
CFL2PK3. How many do you expect to install in the next month?"	2

	<i>Location</i>	<i>Total Count</i>
CFL2PK4. For the bulbs that you have installed, where did you install these bulbs? 13 watt spiral CFL bulbs	Living room	5
	Kitchen	3
	Family room / den	7
	Dining room	0
	Entry / hallway	2
	Bedroom	4
	Bathroom	0
	Garage	2
	Outdoors	3
	Closet	0
	Office	0
	Other / Don't know location	1

		<i>(n=6)</i>	<i>Percent of Respondents</i>
CFL2PK5. What type of bulb did the CFL replace? 13 watt spiral CFL bulbs	Replaced incandescent bulbs	5	83%
	Replaced other CFLs	1	17%
	Don't know	0	0%
	Other	0	0%

**Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.*

		<i>(n=5)</i>	<i>Percent of Respondents</i>
CFL2PK5a. Were the incandescent bulbs still operating when you removed them or where they burnt out? 13 watt spiral CFL bulbs	Sill operating	2	40%
	Burnt out	3	60%
	Don't know	0	0%

**Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.*

	<i>Total Count</i>
3WAYCFL1. How many of the 3-way CFL bulbs did you purchase?"	1
3WAYCFL2. How many of the 3-way CFL bulbs did you install?"	1
3WAYCFL3. How many do you expect to install in the next month?"	0

	<i>Location</i>	<i>Total Count</i>
3WAYCFL4. For the bulbs that you have installed, where did you install these bulbs? 3-way CFL bulbs	Living room	0
	Kitchen	0
	Family room / den	0
	Dining room	0
	Entry / hallway	0
	Bedroom	0
	Bathroom	0
	Garage	0
	Outdoors	0
	Closet	0
	Office	1
	Other / Don't know location	0

		<i>(n=1)</i>	<i>Percent of Respondents*</i>
3WAYCFL5. What type of bulb did the CFL replace? 3-way CFL bulbs	Replaced incandescent bulbs	1	100%
	Replaced other CFLs	0	0%
	Don't know	0	0%
	Other	0	0%

**Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.*

		<i>(n=1)</i>	<i>Percent of Respondents*</i>
3WAYCFL5a. Were the incandescent bulbs still operating when you removed them or where they burnt out? 3-way CFL bulbs	Sill operating	0	0%
	Burnt out	1	100%
	Don't know	0	0%

**Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.*

	<i>Total Count</i>
SAMPCFL1. How many of the sample packs did you purchase?"	9
SAMPCFL2a. How many of the 14 watt CFLs did you install?"	2
SAMPCFL2b. How many of the 19 watt CFLs did you install?"	1
SAMPCFL2c. How many of the 23 watt CFLs did you install?"	2
SAMPCFL3. How many do you expect to install in the next month?"	0

	<i>Location</i>	<i>Total Count</i>
SAMPCFL4a. For the bulbs that you have installed, where did you install these bulbs? 14 watt	Living room	0
	Kitchen	0
	Family room / den	0
	Dining room	0
	Entry / hallway	0
	Bedroom	0
	Bathroom	2
	Garage	0
	Outdoors	0
	Closet	0
	Office	0
	Other / Don't know location	0

	<i>Location</i>	<i>Total Count</i>
SAMPCFL4b. For the bulbs that you have installed, where did you install these bulbs? 19 watt	Living room	0
	Kitchen	0
	Family room / den	1
	Dining room	0
	Entry / hallway	0
	Bedroom	0
	Bathroom	0
	Garage	0
	Outdoors	0
	Closet	0
	Office	0
	Other / Don't know location	0

	<i>Location</i>	<i>Total Count</i>
SAMPCFL4c. For the bulbs that you have installed, where did you install these bulbs? 23 watt	Living room	0
	Kitchen	0
	Family room / den	0
	Dining room	2
	Entry / hallway	0
	Bedroom	0
	Bathroom	0
	Garage	0
	Outdoors	0
	Closet	0
	Office	0
	Other / Don't know location	0

		<i>(n=5)</i>	<i>Percent of Respondents*</i>
SAMPCFL5. What type of bulb did the CFL replace? indoor reflector bulbs	Replaced incandescent bulbs	1	20%
	Replaced other CFLs	2	40%
	Don't know	0	0%
	Other	1	20%

**Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.*

		<i>(n=1)</i>	<i>Percent of Respondents*</i>
SAMPCFL5a. Were the incandescent bulbs still operating when you removed them or where they burnt out?	Still operating	0	0%
	Burnt out	1	100%
	Don't know	0	0%

**Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.*

	<i>Total Count</i>
REFLCFL1. How many of the indoor reflector bulbs did you purchase?"	0
REFLCFL2. How many of the indoor reflector bulbs did you install?"	0
REFLCFL3. How many do you expect to install in the next month?	0

	<i>Location</i>	<i>Total Count</i>
REFLCFL4. For the bulbs that you have installed, where did you install these bulbs? indoor reflector bulbs	Living room	0
	Kitchen	0
	Family room / den	0
	Dining room	0
	Entry / hallway	0
	Bedroom	0
	Bathroom	0
	Garage	0
	Outdoors	0
	Closet	0
	Office	0
	Other / Don't know location	0

		<i>(n=0)</i>	<i>Percent of Respondents*</i>
REFLCFL5. What type of bulb did the CFL replace? indoor reflector bulbs	Replaced incandescent bulbs	0	0%
	Replaced other CFLs	0	0%
	Don't know	0	0%
	Other	0	0%

**Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.*

		<i>(n=0)</i>	<i>Percent of Respondents*</i>
REFLCFL5a. Were the incandescent bulbs still operating when you removed them or where they burnt out? indoor reflector bulbs	Sill operating	0	0%
	Burnt out	0	0%
	Don't know	0	0%

**Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.*

	<i>Total Count</i>
GLOBECFL1. How many of the CFL globe bulbs did you purchase?"	0
GLOBECFL2. How many of the CFL globe bulbs did you install?"	0
GLOBECFL3. How many do you expect to install in the next month?"	0

	<i>Location</i>	<i>Total Count</i>
GLOBECFL4. For the bulbs that you have installed, where did you install these bulbs? CFL globe bulbs	Living room	0
	Kitchen	0
	Family room / den	0
	Dining room	0
	Entry / hallway	0
	Bedroom	0
	Bathroom	0
	Garage	0
	Outdoors	0
	Closet	0
	Office	0
	Other / Don't know location	0

		<i>(n=0)</i>	<i>Percent of Respondents</i>
GLOBECFL5. What type of bulb did the CFL replace? CFL globe bulbs	Replaced incandescent bulbs	0	0%
	Replaced other CFLs	0	0%
	Don't know	0	0%
	Other	0	0%

**Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.*

		<i>(n=0)</i>	<i>Percent of Respondents*</i>
GLOBECFL5a. Were the incandescent bulbs still operating when you removed them or where they burnt out? CFL globe bulbs	Sill operating	0	0%
	Burnt out	0	0%
	Don't know	0	0%

**Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.*

	<i>Total Count</i>
CFL1. How many of the CFL bulbs of unknown type did you purchase?"	78
CFL2. How many of the CFL bulbs of unknown type did you install?"	63
CFL3. How many do you expect to install in the next month?"	5

	<i>Location</i>	<i>Total Count</i>
CFL4. For the bulbs that you have installed, where did you install these bulbs? CFL bulbs of unknown type	Living room	11
	Kitchen	7
	Family room / den	2
	Dining room	6
	Entry / hallway	3
	Bedroom	19
	Bathroom	4
	Garage	1
	Outdoors	0
	Closet	0
	Office	0
	Other / Don't know location	10

		<i>(n=16)</i>	<i>Percent of Respondents*</i>
CFL5. What type of bulb did the CFL replace? CFL bulbs of unknown type	Replaced incandescent bulbs	6	0%
	Replaced other CFLs	4	0%
	Don't know	0	0%
	Other	4	0%

*Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.

		<i>(n=6)</i>	<i>Percent of Respondents*</i>
CFL5a. Were the incandescent bulbs still operating when you removed them or where they burnt out? CFL bulbs of unknown type	Sill operating	4	0%
	Burnt out	2	0%
	Don't know	0	0%

*Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.

	<i>Total Count</i>
HAL53W1. How many of the 53 watt halogeng bulb 2 packs did you purchase?"	0
HAL53W2. How many of the 53 watt halogeng bulb 2 packs did you install?"	0
HAL53W3. How many do you expect to install in the next month?	0

	<i>Location</i>	<i>Total Count</i>
HAL53W4. For the bulbs that you have installed, where did you install these bulbs? 53 watt halogeng bulb 2 packs	Living room	0
	Kitchen	0
	Family room / den	0
	Dining room	0
	Entry / hallway	0
	Bedroom	0
	Bathroom	0
	Garage	0
	Outdoors	0
	Closet	0
	Office	0
	Other / Don't know location	0

		<i>(n=0)</i>	<i>Percent of Respondents*</i>
HAL53W5. What type of bulb did the CFL replace? 53 watt halogeng bulb 2 packs	Replaced incandescent bulbs	0	0%
	Replace other halogens	0	0%
	Replaced CFLs	0	0%
	Don't know	0	0%

**Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.*

		<i>(n=0)</i>	<i>Percent of Respondents*</i>
HAL53W5a. Were the incandescent bulbs still operating when you removed them or where they burnt out? 53 watt halogeng bulb 2 packs	Sill operating	0	0%
	Burnt out	0	0%
	Don't know	0	0%

**Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.*

	<i>Total Count</i>
HAL72W1. How many of the 72 watt halogeng bulb 2 packs did you purchase?"	0
HAL72W2. How many of the 72 watt halogeng bulb 2 packs did you install?"	0
HAL72W3. How many do you expect to install in the next month?"	0

	<i>Location</i>	<i>Total Count</i>
HAL72W4. For the bulbs that you have installed, where did you install these bulbs? 72 watt halogeng bulb 2 packs	Living room	0
	Kitchen	0
	Family room / den	0
	Dining room	0
	Entry / hallway	0
	Bedroom	0
	Bathroom	0
	Garage	0
	Outdoors	0
	Closet	0
	Office	0
	Other / Don't know location	0

		<i>(n=0)</i>	<i>Percent of Respondents*</i>
HAL72W5. What type of bulb did the CFL replace? 72 watt halogeng bulb 2 packs	Replaced incandescent bulbs	0	0%
	Replaced other halogens	0	0%
	Replaced CFLs	0	0%
	Don't know	0	0%
	Other	0	0%

**Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.*

		<i>(n=0)</i>	<i>Percent of Respondents*</i>
HAL72W5a. Were the incandescent bulbs still operating when you removed them or where they burnt out? 72 watt halogeng bulb 2 packs	Sill operating	0	0%
	Burnt out	0	0%
	Don't know	0	0%

**Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.*

	<i>Total Count</i>
HALOGEN1. How many of the halogen bulb of unknown type did you purchase?"	0
HALOGEN2. How many of the halogen bulb of unknown type did you install?"	6
HALOGEN3. How many do you expect to install in the next month?"	0

	<i>Location</i>	<i>Total Count</i>
HALOGEN4. For the bulbs that you have installed, where did you install these bulbs? halogen bulb of unknown type	Living room	3
	Kitchen	0
	Family room / den	0
	Dining room	0
	Entry / hallway	0
	Bedroom	0
	Bathroom	0
	Garage	0
	Outdoors	3
	Closet	0
	Office	0
	Other / Don't know location	0

		<i>(n=1)</i>	<i>Percent of Respondents*</i>
HALOGEN5. What type of bulb did the CFL replace? halogen bulb of unknown type	Replaced incandescent bulbs	1	100%
	Replaced other halogens	0	0%
	Replaced CFLs	0	0%
	Don't know	0	0%
	Other	0	0%

**Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.*

		<i>(n=1)</i>	<i>Percent of Respondents*</i>
HALOGEN5a. Were the incandescent bulbs still operating when you removed them or where they burnt out? halogen bulb of unknown type	Sill operating	0	0%
	Burnt out	1	100%
	Don't know	0	0%

**Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.*

HOLSTRND1. How many of the LED light strands did you purchase?"	<i>Total Count</i>
	27

		<i>(n=11)</i>	<i>Percent of Respondents</i>
HOLSTRND2. Did the holiday LED light strands repalce any other light strands that you would have used instead?	Yes	8	73%
	No	3	27%
	Don't know	0	0%

		(n=8)	Percent of Respondents*
HOLSTRND2a. What kind of light strands did they replace?	Incandescent holiday lights	3	38%
	LED holiday lights	1	13%
	Don't know	1	13%
	Other	3	38%

*Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.

		(n=11)	Percent of Respondents
HOLSTRND3. When are the holiday light strands in use?	Only during the holidays	8	73%
	Year round	2	18%
	Other	1	9%

		(n=11)	Percent of Respondents
HOLSTRND4. How many hours per day are the holiday lights turned on?	All night	1	9%
	24 hours a day	1	9%
	A few hours a night	8	73%
	Other	1	9%
	Don't know	0	0%

HOLSTRND4a. How many hours per day are the holiday lights turned on?	Average Number of Hours (n=10)
	2.7

DSKLMP1. How many of the desk lamps did you purchase?"	Total Count
	4

DSKLMP2. How many hours are the desk lamps on each day?	Average Number of Hours (n=3)
	7.7

	Total Count
SOCKET1. How many of the conserve sockets did you purchase?"	0
SOCKET2. How many of the conserve sockets are in use?"	0

SOCKET4. Before you purchased the socket, how many hours a day was the device that is now connected to the socket plugged in / turned on?	<i>Average Number of Hours (n=0)</i>
	0

SOCKET5. Now that the device is plugged into the socket, how many hours a day is the socket supplying power to the device?	<i>Average Number of Hours (n=0)</i>
	0

NGHTLGHT1. How many of the LED nightlights did you purchase?" NGHTLGHT2. How many of the LED nightlights are in use?"	<i>Total Count</i>	
	31	
	24	

NGHTLGHT3. Did the LED nightlights replace other nightlights?		<i>(n=14)</i>	<i>Percent of Respondents</i>
	Yes	12	86%
	No	2	14%
	Don't know	0	0%

NGHTLGHT3a. What kind of nightlights did they replace?		<i>(n=12)</i>	<i>Percent of Respondents*</i>
	Incandescent nightlight	7	58%
	LED nightlight	1	8%
	Don't know	2	17%
	Other	3	25%