



# Wisconsin residents and electronics recycling

*Results from the Wisconsin DNR's 2013 household electronics recycling survey*

April 2014

## Executive summary

Wisconsin's electronics recycling law requires the Wisconsin Department of Natural Resources to promote public participation in E-Cycle Wisconsin through education and outreach activities. To fulfill this mandate effectively, the DNR has conducted three statewide household surveys since the law passed asking residents what they have done with unwanted electronics, how many electronics are in their homes, what makes it difficult to recycle electronics and other related questions. We compare these results to a survey done in 2006 that serves as a baseline of electronics recycling in Wisconsin before the electronics recycling law.

When compared with earlier surveys, the 2013 survey shows that the number of electronics in Wisconsin homes is continuing to rise. Overall, people are making good choices when disposing of their old electronics, preferring recycling or reuse options to putting items in the trash. Awareness of the E-Cycle Wisconsin program is fairly low, at around 20 percent of the state's population, while awareness about the state's disposal ban hovers around 60 percent. These awareness levels are lower than the levels seen in 2011.

While awareness levels of E-Cycle Wisconsin and the disposal ban have changed since 2011, the demographic groups least aware of electronics recycling have not. The state's youngest adults remain the least aware of electronics recycling. Residents of the DNR's southeast region and northern region also have lower awareness levels than elsewhere in the state. Community sources and news stories remain the most important sources of information about e-cycling, while retailers (who are required to educate customers under the law) are still not major information sources.

Overall, the primary barrier precluding people from recycling electronics is a lack of knowledge about where or how to e-cycle, but certain regions of the state are still experiencing e-cycling differently than others. Over one-third of respondents from the northern region, for example, find inconvenience to be the biggest barrier to e-cycling. In the 2011 survey, expense was the overall primary barrier. While expense is no longer the biggest barrier, residents still prefer electronics collection to be free or less than five dollars. A gift card or coupon may make people more willing to pay to e-cycle.

## Survey background

Wisconsin's electronics recycling law was signed into law in October 2009 and took effect in January 2010, with a ban on landfilling and incinerating many consumer electronics taking effect Sept. 1, 2010. The law (s. 287.17, Wis. Stats.) establishes a statewide program, called E-Cycle Wisconsin, to collect and recycle certain electronics. It is based on a product stewardship approach, in which manufacturers fund collection and recycling programs for their products.

Wisconsin’s electronics recycling law specifically requires the DNR to promote public participation in the manufacturer-funded E-Cycle Wisconsin program through education and outreach activities. To gauge our success in fulfilling this requirement, the DNR’s Bureau of Waste and Materials Management has contracted the University of Wisconsin Survey Center to conduct household recycling surveys of Wisconsin residents in 2006, 2010, 2011 and 2013. The survey asks respondents to describe how they have disposed of electronics in the recent past, what they know about electronics recycling in the state, what prevents them from recycling electronics and how they have heard about recycling opportunities.

The DNR uses statistical analysis of the survey results and demographic information collected in the survey to: estimate the number of unused electronics in the state, understand electronics disposal trends in the state, determine awareness of the disposal ban and E-Cycle Wisconsin program, track the success of various outreach methods, and evaluate what is preventing residents from recycling their electronics. In this most recent survey, and in all previous surveys, DNR Science Services has provided survey analysis. The samples for all four surveys were random and statistically valid, allowing us to project the responses to the statewide population. The demographics of survey respondents across all four years are similar enough that it is reasonable to compare answers between years. For survey details and a discussion of demographics, see Appendix A. To view the survey instrument, see Appendix B.

## Number of electronics

The 2013 survey asked respondents how many computers, TVs and cell phones they had in their homes. Based on their answers, we estimate that Wisconsin households had a total of 8.2 million televisions, 5.8 million computers and 7.5 million cell phones. The number of electronics in each of these categories has been rising since our first survey in 2006, especially the cell phone category (see Figure 1).

The survey also asked how many of each of the electronic devices were currently not in use. More than 20 percent of the televisions, 30 percent of the computers and 40 percent of the cell phones in people’s homes were not being used (see Table 1). This means there were approximately 1.7 million televisions, 1.8 million

Figure 1: Estimated number of electronics in Wisconsin households over time, in millions

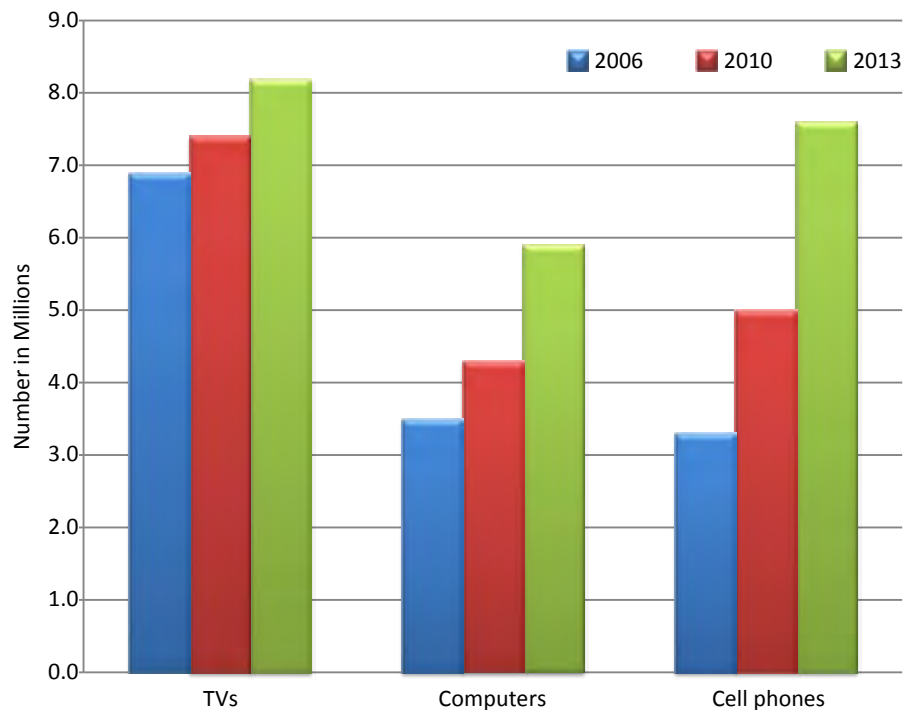
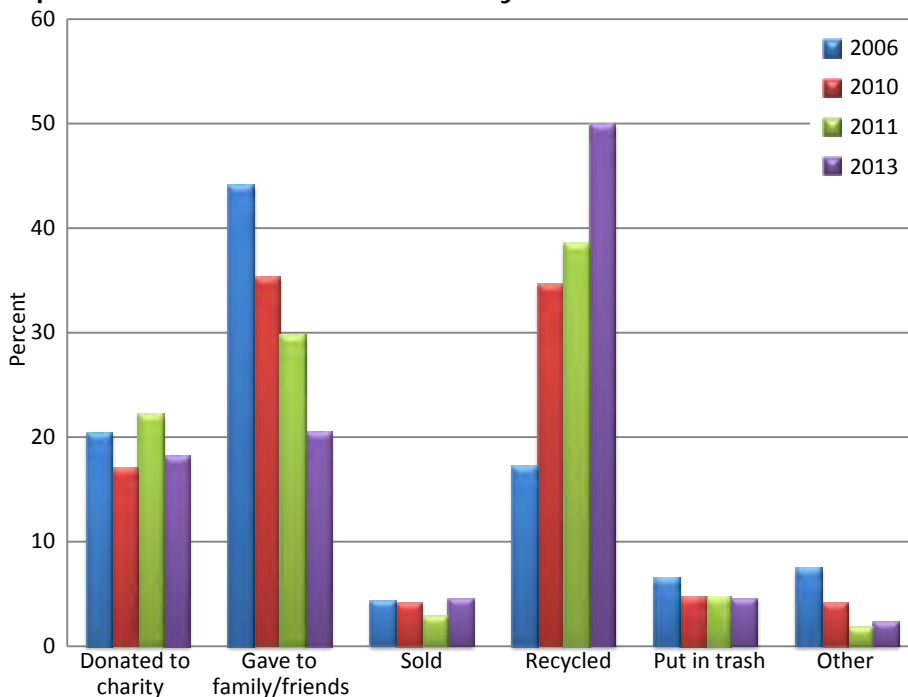


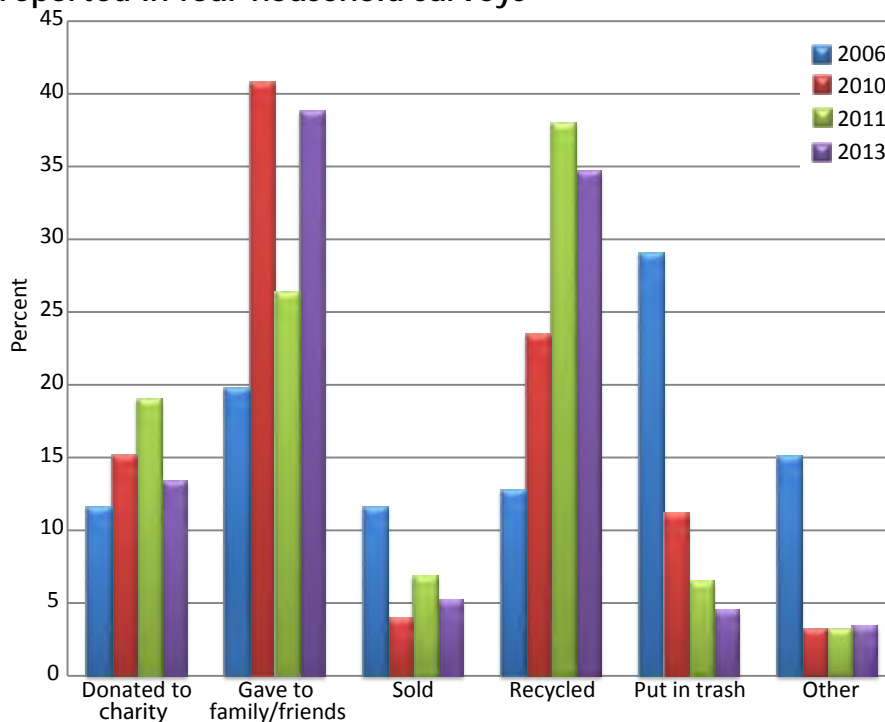
Table 1: Estimated number of electronics in Wisconsin households, 2013

Device	Avg. # per household	Total in state households	Total unused
TVs	3.47	8.2 million	1.7 million (21%)
Computers	2.48	5.9 million	1.8 million (31%)
Cell phones	3.21	7.6 million	3.3 million (44%)

**Figure 2: Computer disposal choices made by respondents, as reported in four household surveys**



**Figure 3: Television disposal choices made by respondents, as reported in four household surveys**



computers and 3.3 million cell phones ready for disposal of some sort. These nearly 7 million devices sitting unused reinforces the importance of making sure Wisconsin residents know how to follow the law and make responsible reuse or recycling choices.

## Disposal choices

In the 2011 survey, the trend for electronics disposal was toward an increasing rate of recycling and strong reuse rates for televisions, computers and cell phones. The 2013 survey showed that this trend continued for computers (see Figure 2), but was slightly different for televisions and cell phones. Among all three device types, recycling rates remained above 30 percent, and “put in trash” rates below 10 percent,

The percentage of televisions recycled in 2013 was slightly lower than in 2011. This drop in the recycling rate appears to be more than balanced by an increased percentage of televisions that were given away to family and friends. Each survey year has seen a lower percentage of unused televisions ending up in the trash (see Figure 3)

being recycled also declined slightly when compared with the 2011 survey. As with televisions, the percentage of phones given to family or friends has increased more than enough to cover the recycling drop. However, the “trash” rates for cell phones increased several percentage points between 2011 and 2013—though it was still well below 2010 levels (see Figure 4). Cell phones are not part of the E-Cycle Wisconsin program but are banned from landfills and incinerators.

The percentage of cell phones

Despite the slight drops in the percentage of people recycling televisions and cell phones, the “put in trash” rate for all three electronic device categories remained remarkably low. Recycling was

the most used method of disposal for computers and cell phones, and giving away to family and friends was the top choice for televisions. It is also worth noting that many of the electronics “donated to a charity” end up at a recycler if the charity does not choose to re-use them. The “donated to charity” category may be artificially lowering recycling rates.

### Public awareness

In 2011, it appeared that awareness of Wisconsin’s disposal ban and E-Cycle Wisconsin was on an upward trend. The 2013 survey, however, showed that public awareness was not growing. Instead, awareness of the disposal ban appeared to be hovering around 60 percent and awareness of E-Cycle Wisconsin was near 2010 levels of just over 20 percent (see Figure 5). We speculate that the high public profile of the E-Cycle Wisconsin program immediately after the electronics disposal ban went into effect (fall 2010) may have helped raise public awareness in 2011.

Respondents who knew about the disposal ban and/or E-Cycle Wisconsin were more likely to recycle their old computers and less likely to put them in the trash than respondents who were unaware of the ban/program.

This relationship, found in previous years with computers, televisions and cell phones, was only statistically significant with respect to computers this year (see Figure 6). In the cases of televisions and cell phones, statistical analysis found that the variances between those who recycled and those who did not were not different enough to say that ban awareness or lack of awareness influenced respondents’ disposal choices.

Figure 4: Cell phone disposal choices made by respondents, as reported in four household surveys

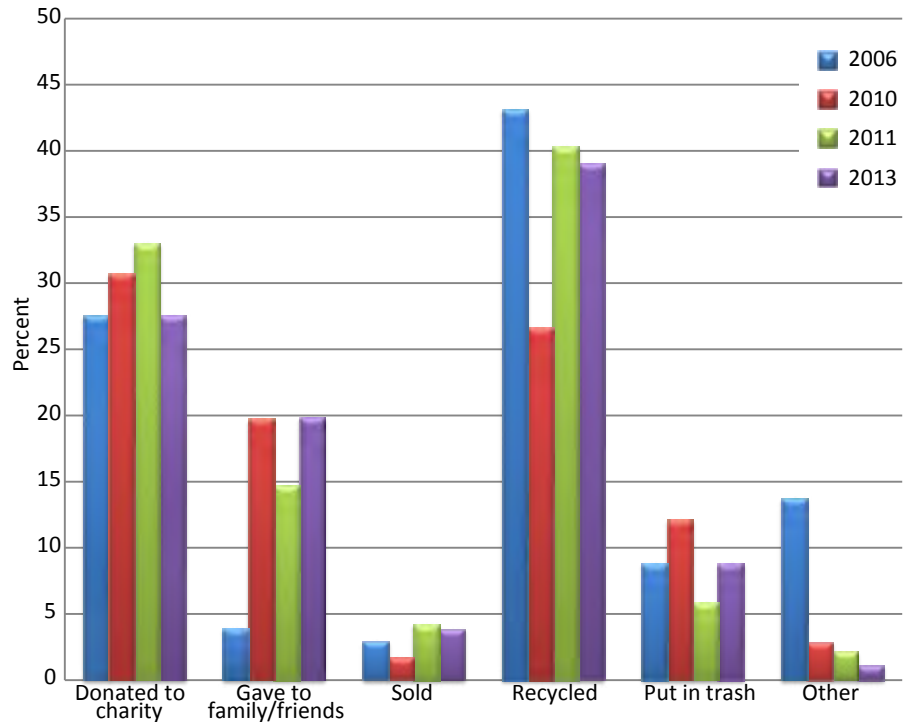


Figure 5: Awareness of electronics disposal ban and E-Cycle Wisconsin across three survey years

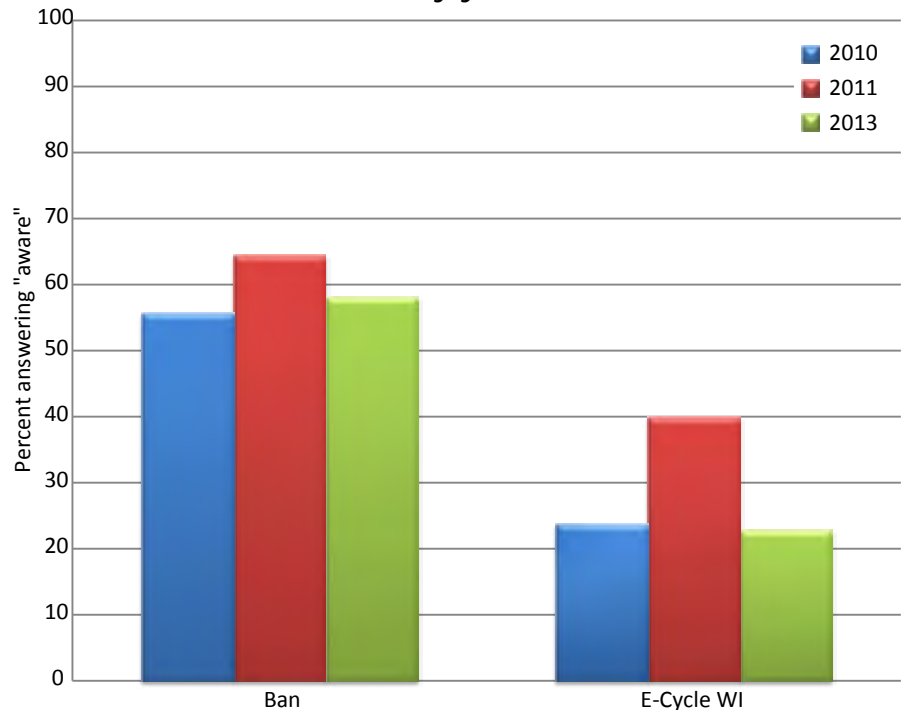
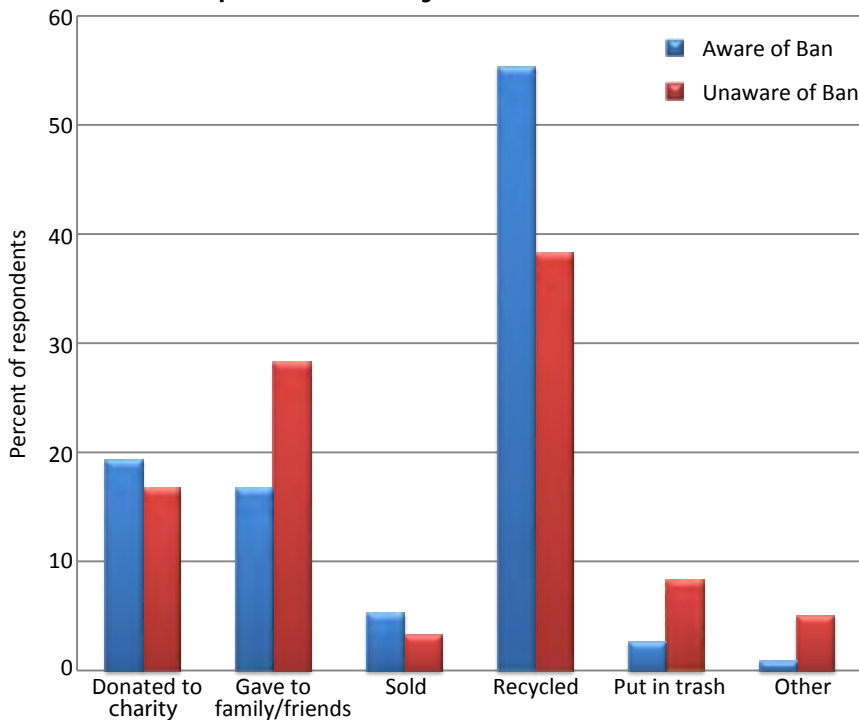
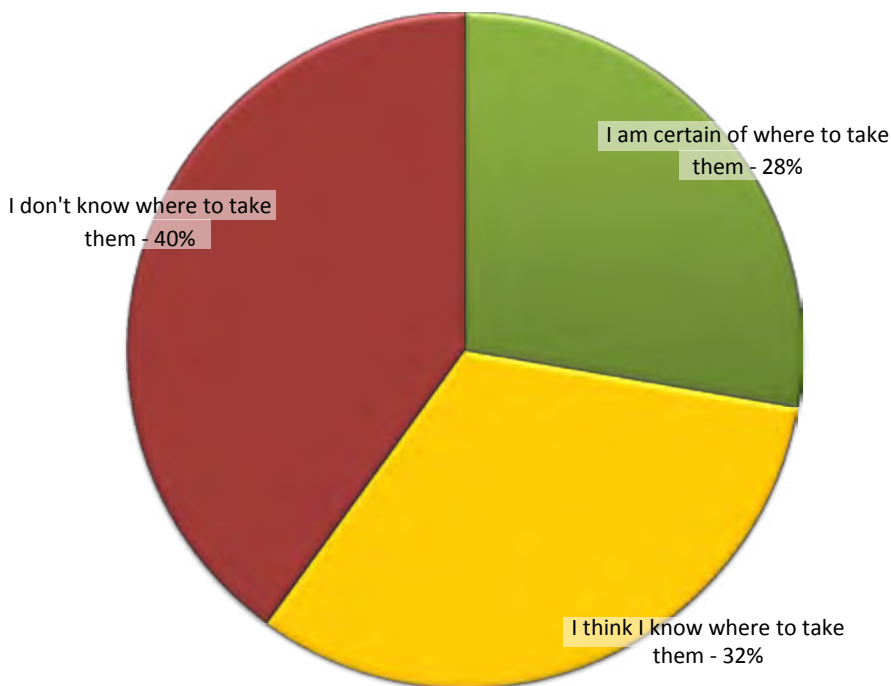


Figure 6: Method of computer disposal based on awareness of electronics disposal ban/E-Cycle Wisconsin in 2013



The 2013 household survey included an awareness question that was not on the 2010 or 2011 surveys. While our previous surveys asked people to report their awareness of the ban and E-Cycle Wisconsin, they did not ask the more basic question: Do you know where to recycle your electronics? The 2013 survey asked this question and provided the following multiple choice answers, “Yes, I am certain,” “I think so but am not certain” and “No, I do not know.” Sixty percent of respondents were either certain or thought they knew where to take their electronics (see Figure 7).

Figure 7: Awareness of where to recycle electronics, 2013



Though we have seen awareness of the ban and E-Cycle Wisconsin drop over the previous two years, it is promising to see that over half of state residents did think they knew where to take electronics for recycling. Even more reassuring is that respondents who knew about E-Cycle Wisconsin were more likely to know where to take their electronics for recycling than respondents who had not heard about E-Cycle Wisconsin (Figure 8). This suggests that if we can increase the number of people who know about E-Cycle Wisconsin, the number of people who are certain of where to take electronics should also rise.

## Awareness gaps

Identifying areas of the population that are not aware of the disposal ban or E-Cycle Wisconsin is one of our primary reasons for conducting a household survey. Knowledge of who is and is not aware of the disposal ban and E-Cycle Wisconsin helps us to focus our annual outreach

efforts on the geographic and demographic areas of the state most in need of attention.

In general, the populations with the lowest awareness around the state have not changed since the last survey. As in the 2010 and 2011 surveys, the 2013 survey showed that younger residents were least aware of the disposal ban and E-Cycle Wisconsin. Across all categories, the 18 to 30 age group was least aware (see Figures 9 and 10). Perhaps correspondingly, the lowest income bracket and respondents who rent their homes also showed low awareness of the ban and E-Cycle Wisconsin.

There is, as in previous years, a noticeable variation in awareness across regions of the state, with the DNR's southeast and northern regions having the lowest awareness of both the ban and E-Cycle Wisconsin and the northeast region having the highest. (Respondents were grouped by county. For a map showing DNR regions, see Appendix C). Residential setting (urban/rural) and household size did not have a relationship to awareness of the ban or E-Cycle Wisconsin. Awareness of E-Cycle Wisconsin did not exceed 35 percent among any of the demographic categories, while awareness of the disposal ban topped 60 percent among some groups.

Figure 8: Respondents' knowledge of where to recycle electronics based on whether they had heard of E-Cycle Wisconsin, 2013

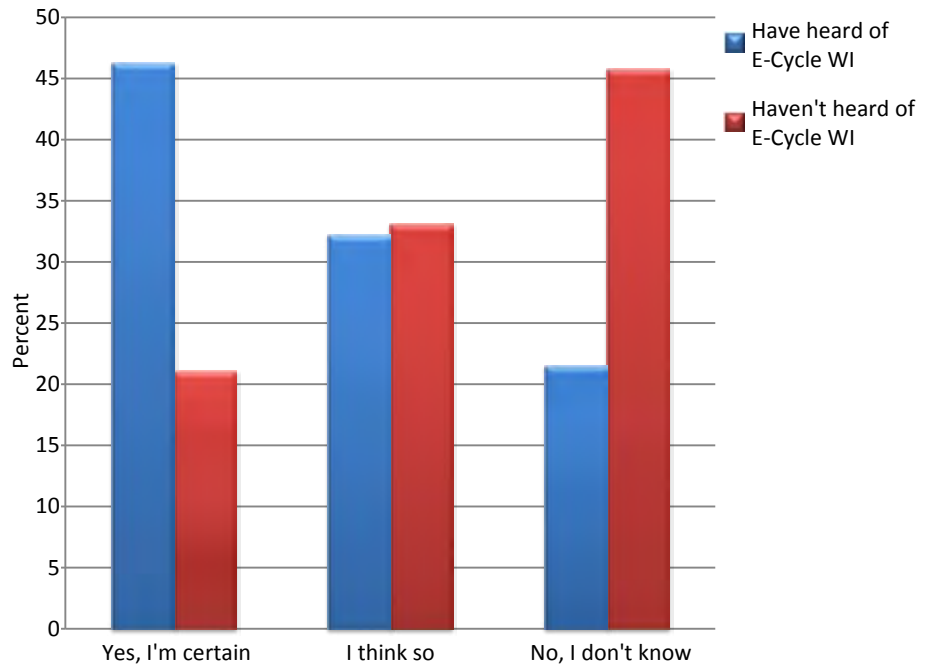
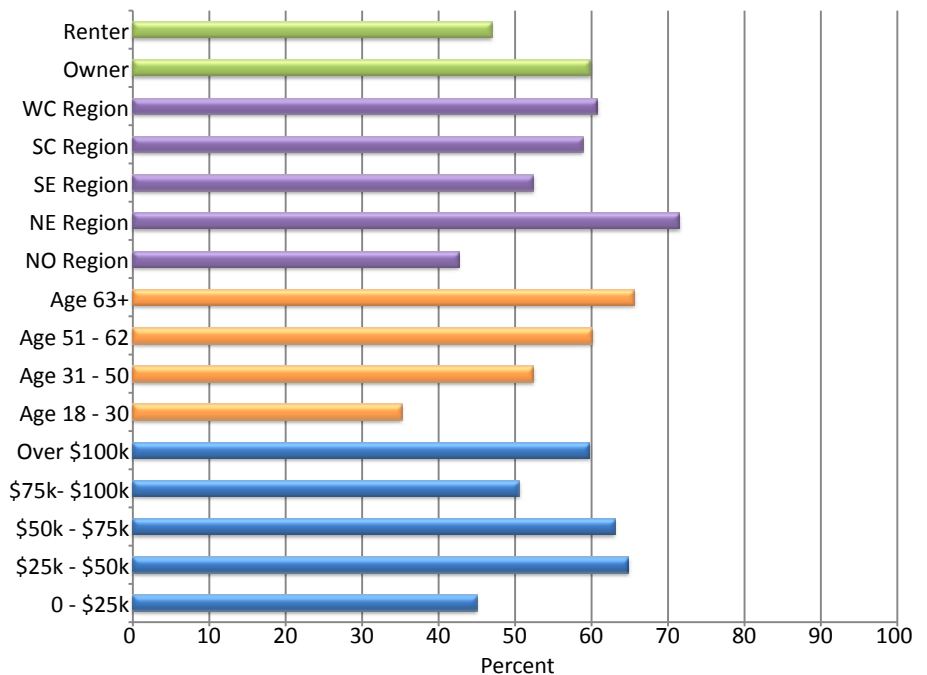
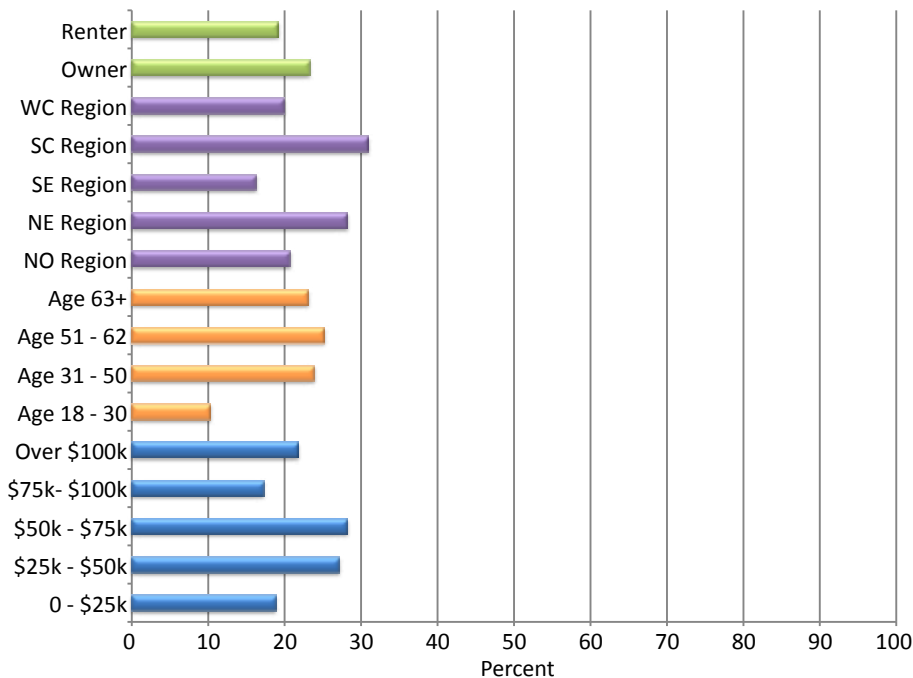


Figure 9: Awareness of electronics disposal ban within demographic and geographic groupings, 2013

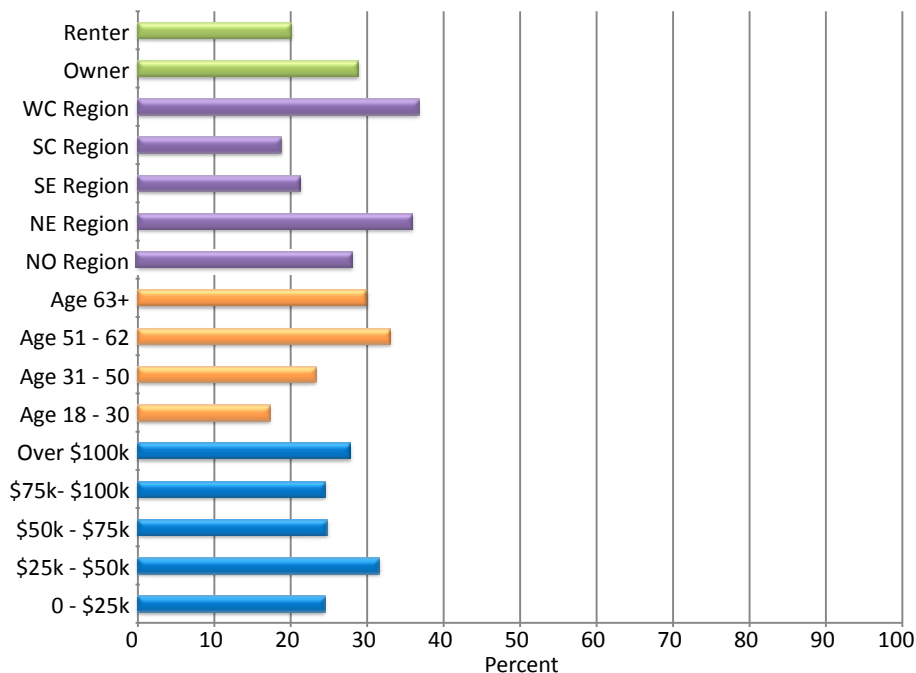


Looking at our new awareness question, “Do you know where to recycle electronics” by geographic area and various demographics reinforces our understanding that we need to target much of our future outreach at the 18 to 30 age range (see Figure 11). Only 17 percent of 18 to 30 year-olds were

**Figure 10: Awareness of E-Cycle Wisconsin across geographic and demographic groupings, 2013**



**Figure 11: Respondents certain of where to take electronics for recycling, by demographic and geographic groupings, 2013**



while communities are either the public’s first or second most important source of information on electronics recycling, electronics retailers are not currently filling that role.

When we sort these results by demographic and geographic categories, we can see that communities in certain regions of the state are doing a better job of educating their residents than others. West central and northeast region residents, who are overall much more aware of the ban than other

certain of where to recycle their electronics. Certainty of where to take electronics in other demographic categories also looks similar to the graphs of ban awareness and E-Cycle Wisconsin awareness with the exception of the geographic regions.

## Outreach tracking

The 2010, 2011 and 2013 surveys all asked “aware” respondents how they had heard about the disposal ban and E-Cycle Wisconsin. Answers to this question help us track which methods of outreach are having the most success. In 2013, for example, 57 percent of respondents who were aware of the ban or E-Cycle Wisconsin had received information about electronics recycling from their communities. Community sources and news stories have been important in raising awareness across all of our survey years; while other categories have shifted places over time (see Table 2).

In addition to requiring the DNR to educate the public on e-cycling, Wisconsin’s electronics recycling law requires communities and electronics retailers to do outreach on the disposal ban and E-Cycle Wisconsin. Our household surveys show that

regions of the state, may have an increased awareness due to the outreach work of their communities (see Figure 12).

As in previous years, it appears that younger Wisconsin residents were less likely than older residents to hear about electronics recycling from a waste hauler or community source (see Figure 13). We expect this, as younger residents are more likely to be renting their homes and may not receive all community and waste hauler communications sent to home owners. It is clear that we cannot rely on home owner-based systems to reach the state's youngest adults.

To help our outreach messages resonate with residents in Wisconsin, the 2013 survey asked respondents to rank how important the following reasons to e-cycle were: recycling reduces pollution, recycling creates jobs, recycling preserves landfill space, recycling reuses valuable materials, recycling meets the requirements of the law, or some other reason (fill in the blank). Respondents chose from these rankings: not at all, slightly, somewhat, very and extremely. The reason gathering the most “extremely important” responses was “recycling reduces pollution” (see Figure 14). However, if rankings of “very important” and “extremely important” are combined, the most highly ranked reason for recycling electronics was that it “reuses valuable materials.” Looking at this question by demographic groups yields similar results.

**Table 2: Relative importance of where respondents heard about electronics disposal ban/E-Cycle Wisconsin over time, with most important method on top\***

2010	2011	2013
News story	News story	Community
Community/Hauler	Community	Word of mouth
Radio ad	Radio ad	News story
Electronics retailer	Electronics retailer	Waste hauler
Word of mouth	Waste hauler	Radio ad
Other	Online	Electronics retailer
Online	Word of mouth	Online
	Other	Other

\*Table 2 shows a large increase in the importance of word of mouth in informing respondents about E-Cycle Wisconsin and the electronics disposal ban. 2013 was the first year that word of mouth was added as its own category on the household survey. In previous years, certain “other” responses were re-coded to word of mouth after the survey had been returned to us.

**Figure 12: Where respondents heard of the electronics disposal ban and E-Cycle Wisconsin by DNR region, 2013**

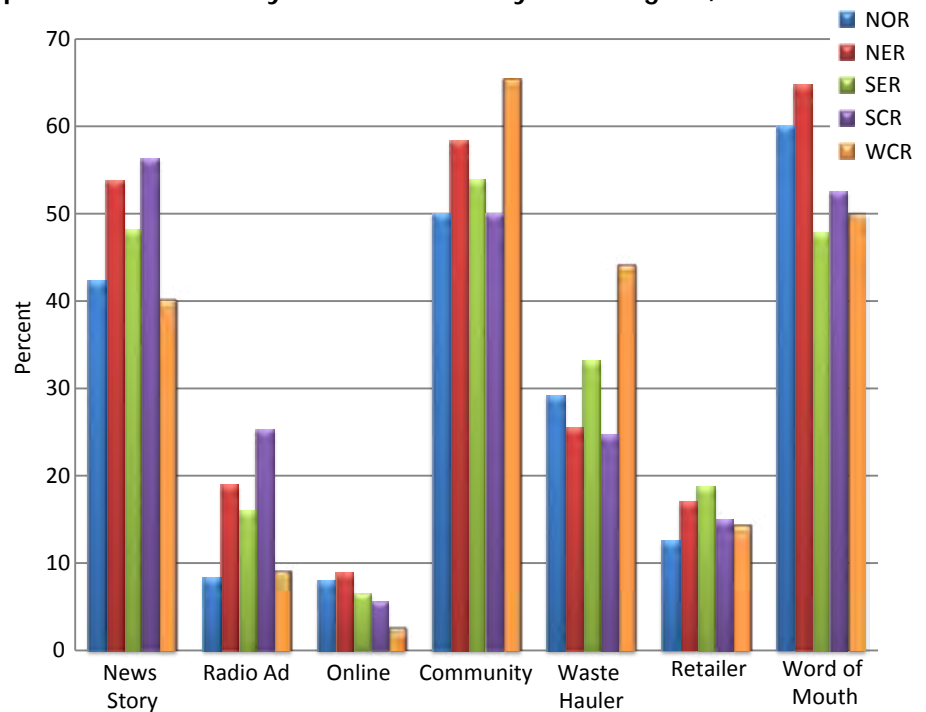




Figure 13: Where respondents heard of the electronics disposal ban and E-Cycle Wisconsin by age group, 2013

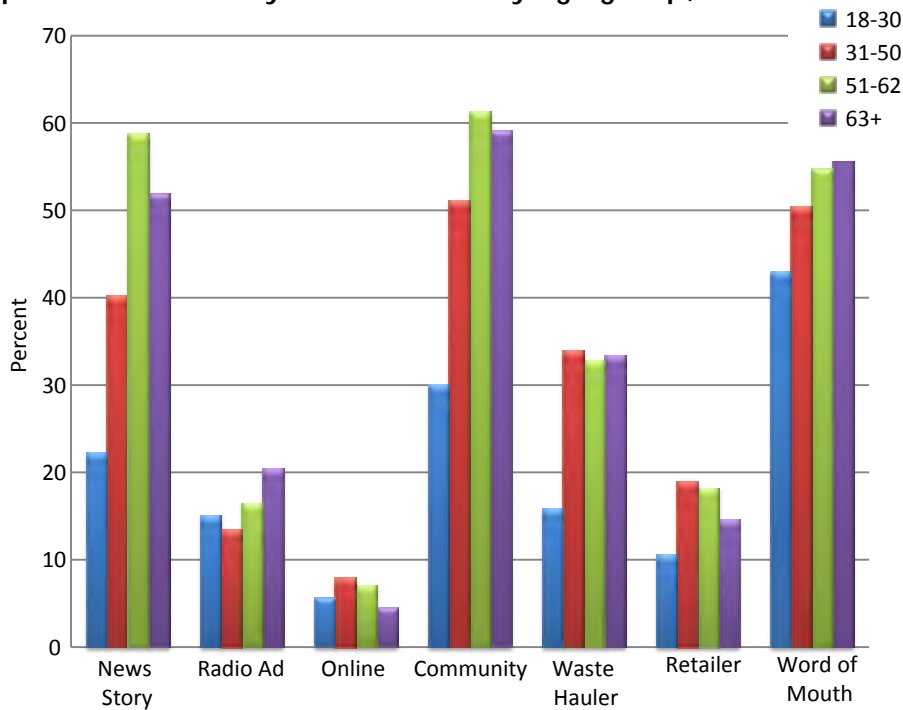
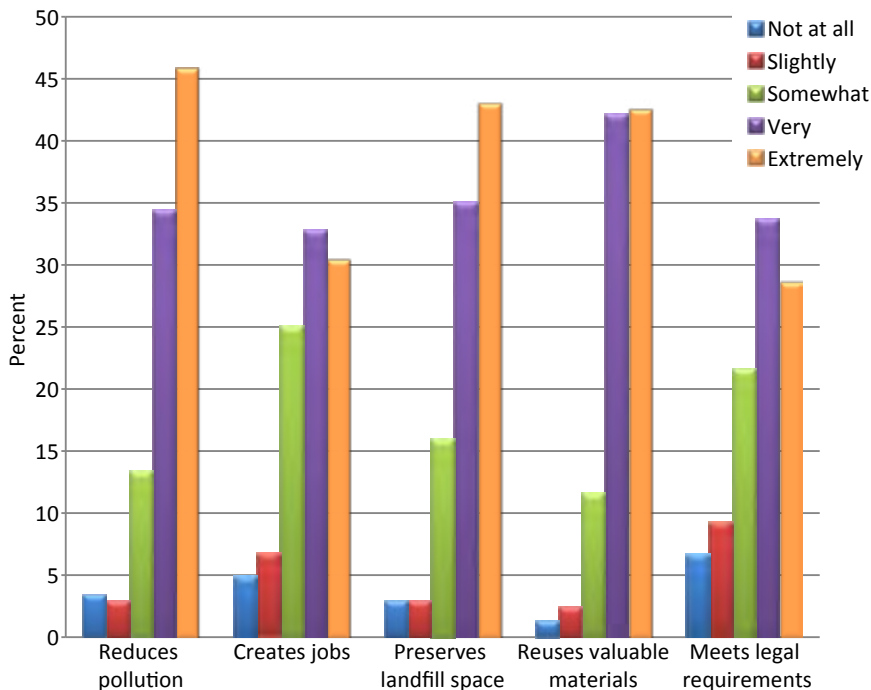


Figure 14: Relative importance of reasons to recycle electronics, as ranked on a scale of “not at all important” to “extremely important,” 2013



## Barriers to e-cycling

The household survey also allows the DNR to track and understand why people are unable to recycle their electronics or choose not to recycle their electronics. Knowledge of e-cycling barriers helps us focus our own outreach messages to fulfill our statutory mandate, and allows us to suggest policy adjustments that may be needed within the E-Cycle Wisconsin program. Knowledge of barriers also allows us to better advise collectors, communities and waste haulers on how to better serve their residents/customers.

The primary barrier to recycling electronics according to the 2013 survey is not knowing where or how to do so. Nearly 60 percent of respondents to this question listed a lack of knowledge as their reason for not recycling an electronic device. This is almost twice the number of respondents who chose the same answer in 2011 (see Figure 15). Only 11 percent of respondents named expense, 2011’s biggest barrier, as the primary reason they did not recycle their electronics.

Barriers to electronics recycling are not uniform across the state. While lack of knowledge was the primary barrier no matter where respondents lived, respondents from the west central part of the state were more likely than those from other regions to say electronics recycling was too expensive, and respondents from the northern part of the state still found it inconvenient to take their electronics to a collection point (see Figure 16). The resounding message from the survey’s barrier question, though, is that the biggest hurdle to recycling electronics is not knowing where to take them for recycling. This

result is supported by the drop in awareness of E-Cycle Wisconsin, which is a source of information on recycling options and locations for households.

## Willingness to pay

While expense is no longer the primary reason people don't recycle electronics, this does not mean that people are willing to pay more to do so. The amount people are willing to pay to recycle electronics has changed very little over the three surveys we have conducted (see Figure 17). In 2013, the majority of respondents were willing to pay nothing (43 percent) or up to \$5 (39 percent) to recycle. Most electronics collectors, on the other hand, still charge a fee for at least some of the electronic items they take. The average collector in Wisconsin charges \$15 to take cathode ray tube televisions and monitors (the items most likely to incur a charge).

To assist collectors in marketing their programs, the survey asked if respondents would be willing to pay more to recycle if they were given a gift card/coupon, given a guarantee of responsible recycling, offered electronics pickup at their residence and/

or received some other incentive. More than three-quarters of the respondents to this question (76 percent) said that they would be willing to pay more if given a gift card or coupon. Seventy percent of respondents said they would be willing to pay more if the recycler would pick the items up at their home, roughly 60 percent would pay more if they had a guarantee of responsible recycling and safe data destruction, and 24 percent would do so if they received some "other" benefit (Figure 18).

Figure 15: Most important reason why respondents could not recycle their electronics, over time

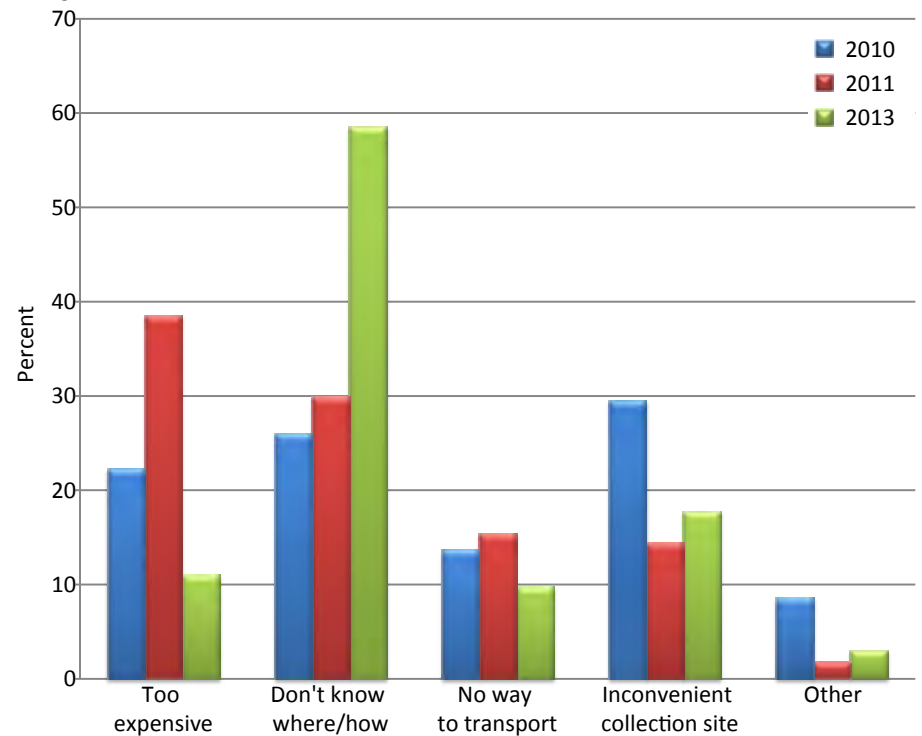
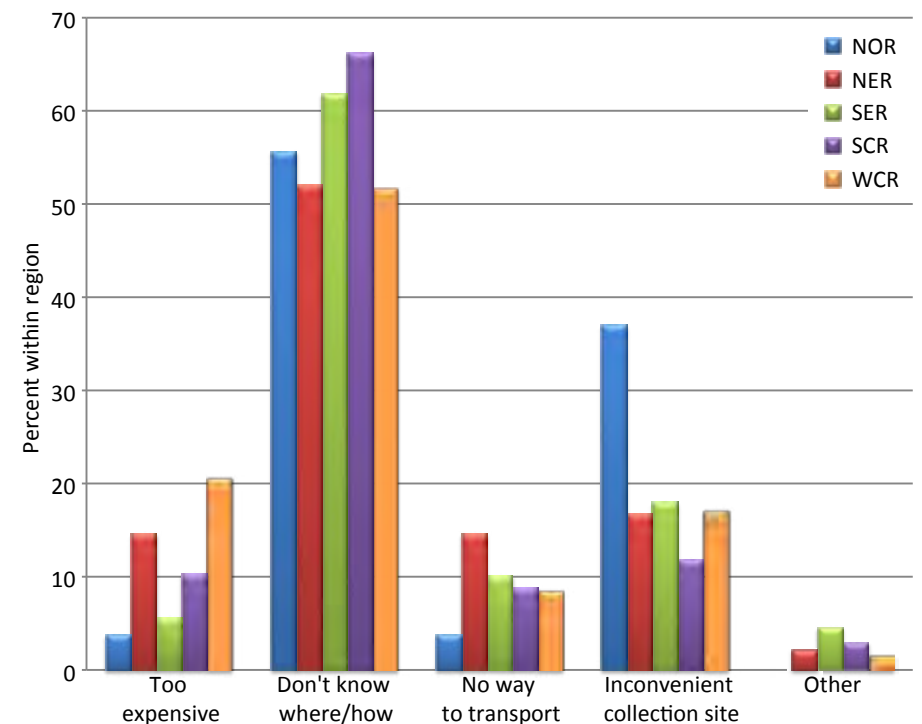


Figure 16: Reported barriers to e-cycling by DNR region, 2013



# Conclusions

The 2013 survey confirmed that overall, people in Wisconsin are making good choices with their old electronics. While awareness dropped from 2011 levels, and recycling rates declined slightly for some devices, in the big picture most used electronics in the state are destined for reuse or recycling. Very few electronics are placed in the trash, which is the primary goal of Wisconsin’s electronics recycling law.

Still, the DNR has reason to continue to do E-Cycle Wisconsin outreach. The number one reason people choose not to recycle electronics is that they do not know where or how to do so. As in previous surveys, the 2013 survey showed that knowledge of the disposal ban and E-Cycle Wisconsin is tied to a higher rate of electronics recycling. The survey results also link knowledge of E-Cycle Wisconsin to an increased level of certainty about where to take electronics for recycling. These relationships lead us to believe that continued outreach, which is required under the law, will help maintain the electronics recycling law’s goal of keeping electronics out of landfills. These survey results will help the DNR target specific demographic groups with relevant outreach messages to improve overall awareness levels.

Other E-Cycle Wisconsin participant groups should also continue to conduct outreach, as required by law. While communities appear to be doing a fairly good job of spreading knowledge about the disposal ban and e-cycling program, retailers are not. The 2013 survey showed that electronics retailers are not

Figure 17: Amount respondents are willing to pay to recycle electronics, as reported in three survey years

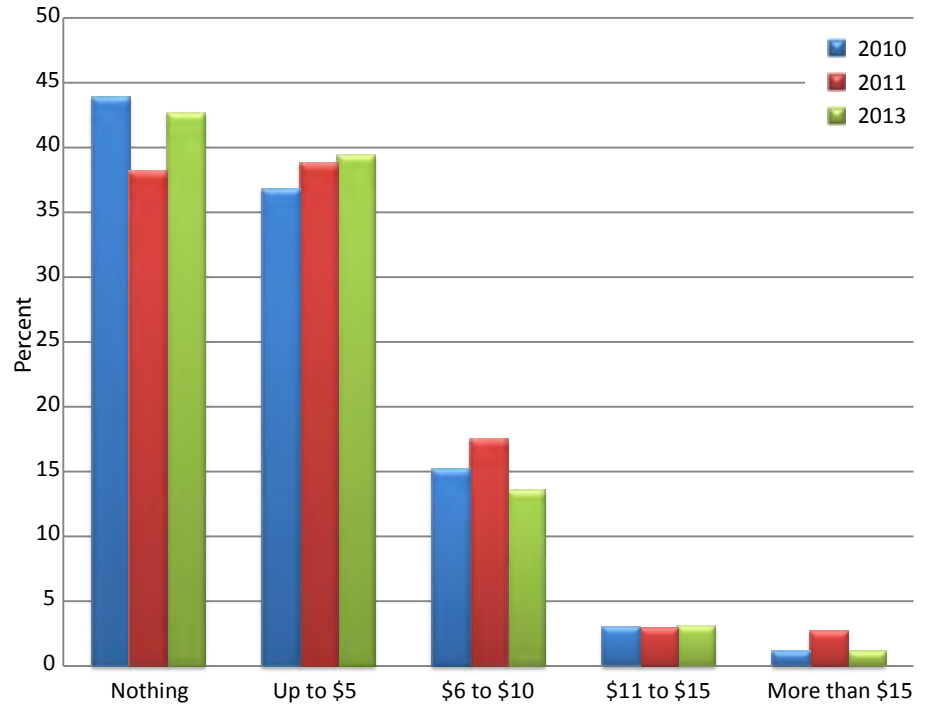
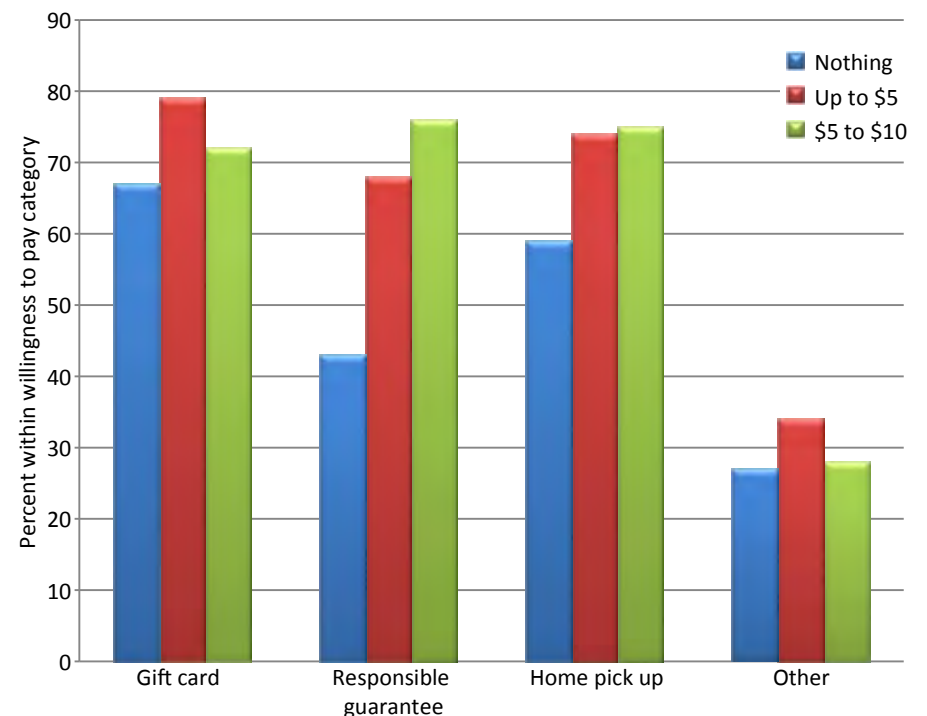


Figure 18: Incentives that would make respondents more willing to pay for e-cycling, sorted by response to “How much are you willing to pay to recycle your electronics?” 2013



currently an important source of information for most residents in the state. This result supports the DNR's decision to spend more time and effort reminding retailers of their obligation to educate their customers. We anticipate that our effort with retailers will lead to retailers becoming a more important source of electronics recycling information and higher overall awareness levels in the next statewide survey.

The 2013 "biggest barrier" question indicates that different regions of the state are still having different experiences with the electronics recycling law. Most noticeable, perhaps, is that many residents in the northern region of the state are still finding electronics recycling inconvenient. This finding supports the DNR's recommendation to the Legislature that Wisconsin consider creating a grant program to help encourage collection in the most underserved areas of the state.

By continuing to tweak our outreach methods to reach the regions and ages that currently have low awareness of electronics recycling, by targeting our messages to address the barriers respondents identify and by using other survey data to recommend program changes, the E-Cycle Wisconsin team aims to use the 2013 survey to increase recycling rates and awareness levels in the state and better fulfill the statutory mandate to promote E-Cycle Wisconsin.

## Appendix A: Survey background and demographics

The UW Survey Center mailed the four-page 2013 survey to 1,600 randomly drawn Wisconsin residential addresses in July. A reminder postcard and two subsequent survey mailings over the course of two and a half months yielded 816 completed surveys, a response rate of 51 percent. After removing ineligible or vacant addresses the response rate was 53 percent.

We compare the 2013 survey results with a Household Recycling Survey the Bureau of Waste and Materials Management contracted the UW Survey Center to conduct in fall 2011 and a Household Electronics Recycling Survey the Bureau of Waste and Materials Management contracted the UW Survey Center to conduct in fall 2010.

The 2011 survey was an eight-page survey concerning Wisconsin residents' opinions, behaviors and knowledge of household recycling with a subset of questions specifically related to electronics recycling. The UW Survey Center mailed the survey to 1,200 randomly drawn Wisconsin residential addresses in November 2011. Three full mailings and reminder postcards over two months yielded 638 completed surveys, a response rate of 53 percent. After removing ineligible or vacant addresses, the 2011 response rate was 56 percent.

The 2010 Household Electronics Recycling Survey was a four-page survey dealing entirely with electronics recycling. The survey was mailed to 1,600 randomly drawn Wisconsin residential addresses in October 2010. Three full waves of mailings and reminder postcards over two and a half months yielded 922 completed surveys, a response rate of 58 percent. After removing ineligible or vacant addresses, the 2010 response rate was 59 percent.

We also compared the 2013 survey results with a phone survey on household recycling the Bureau of Waste and Materials Management contracted the UW Survey Center to conduct in spring 2006. The UW Survey Center completed 555 telephone interviews of adult Wisconsin residents, a 44 percent response rate when adjusted for refusals and ineligible households. The 2006 survey contained 11 questions about the number of electronics in residents' homes and how unused electronics were disposed of. It serves as a baseline for how Wisconsin residents handled electronics before the passage of Wisconsin's electronics recycling law.

The demographics of the 2013, 2011 and 2010 survey respondents are well matched for comparisons. The percentage of respondents living in rural settings, the average household size and the distribution across DNR regions is very similar. Home ownership and income bracket also compare well. The 2013 survey had a lower number of young respondents (ages 18-30) compared with previous years. We do not have detailed demographic information for the 2006 survey.

The recycling survey demographics from all three years do differ from Wisconsin demographic data according to the 2010 U.S. Census. Eighty percent of 2013 respondents own their homes, while the U.S. Census assesses Wisconsin home ownership at 69.5 percent. More important for interpreting survey results are age and income distribution. The respondents to our survey tend to be older than the overall Wisconsin population as shown in the 2010 U.S. Census data (see Table X). Our survey also has a higher proportion of lower income respondents (particularly in the \$25,000-50,000 range) than the Wisconsin population as shown in the 2010 U.S. Census data (see Table Y). Household size between our survey and the U.S. Census data for Wisconsin are, however, exactly matched.

Table X: Survey respondent age group compared with 2010 U.S. Census data for Wisconsin

Current age	2010 survey (%)	2011 survey (%)	2013 survey (%)	Current age	2010 U.S. Census (%)
18-30	9.7	8.7	7.3	20-29	18.1
31-50	34.4	30.1	30.5	30-49	36.1
51-62	28.1	28.2	28.4	50-64	27.1
63+	27.8	33.0	33.8	65+	18.6

Table Y: Survey respondent income level compared with U.S. Census data for Wisconsin

Pre-tax income	2010 survey (%)	2011 survey (%)	2013 survey (%)	2010 U.S. Census (%)
Less than \$25,000	23.0	21.8	18.7	22.4
\$25,000 - \$50,000	31.2	30.6	31.3	26.0
\$50,001 - \$75,000	20.8	21.8	21.1	20.6
\$75,001 - \$100,000	10.4	12.4	13.4	13.7
More than \$100,000	14.6	13.3	15.5	17.3

# Appendix B: 2013 Household electronics recycling survey



**E-Cycle Wisconsin**

## Household Electronics Recycling Survey

In October 2009, Wisconsin passed a state electronics recycling law. The law bans many electronics from being put in the trash. The law also created a manufacturer-funded program called E-Cycle Wisconsin, to make it easier and more affordable to recycle certain electronics. The following questions ask about your use and disposal of household electronics.

### 1. Before reading the above statement, had you heard about...

	Yes	No
a. ...Wisconsin's landfill and incinerator ban on electronics?	<input type="radio"/>	<input type="radio"/>
b. ...E-Cycle Wisconsin, the statewide electronics recycling program?	<input type="radio"/>	<input type="radio"/>

### 2. Have you heard about the disposal ban or E-Cycle Wisconsin...

	Yes	No
a. ...in any type of news story?	<input type="radio"/>	<input type="radio"/>
b. ...in a radio advertisement or radio announcement?	<input type="radio"/>	<input type="radio"/>
c. ...in an online advertisement?	<input type="radio"/>	<input type="radio"/>
d. ...in information from your community?	<input type="radio"/>	<input type="radio"/>
e. ...in information from your waste hauler?	<input type="radio"/>	<input type="radio"/>
f. ...from an electronics retailer?	<input type="radio"/>	<input type="radio"/>
g. ...by word of mouth?	<input type="radio"/>	<input type="radio"/>
h. ...in any other way? → Please tell us: <input type="text"/>	<input type="radio"/>	<input type="radio"/>

### 3. Some recycling facilities charge a fee to recycle electronics. How much would you be willing to pay to recycle items such as televisions, computers and printers?

- Nothing
- Up to \$5 per item
- \$6 to \$10 per item
- \$11 to \$15 per item
- More than \$15 per item

### 4. Would you be willing to pay more to recycle electronics if...

	Yes	No
a. ...you received a gift card or coupon equal to some or all of the cost?	<input type="radio"/>	<input type="radio"/>
b. ...you had a guarantee of responsible recycling and safe data destruction?	<input type="radio"/>	<input type="radio"/>
c. ...a recycler would pick up electronics from your home?	<input type="radio"/>	<input type="radio"/>
d. ...you received some other benefit?	<input type="radio"/>	<input type="radio"/>
→ Please tell us: <input type="text"/>		

**5. Do you know where you can recycle electronics?**

- Yes, I am certain
- I think so but am not certain
- No, I do not know

**6a. Please think about all the computers in your home that are working and not working, in use and not in use (and don't forget about those in your basement, attic or garage). Excluding those owned by an employer, how many computers do you currently have in your home? Please include desktop, laptop, netbook and tablet computers.**

Number of computers

- None → Go to question 7a

**6b. How many of these computers are currently never used?**

Number of computers that are never used

- None

**7a. In the last 12 months, have you donated, given away, sold, recycled, thrown away, or otherwise removed at least one computer from your household?**

- Yes
- No → Go to question 8a

**7b. Which of the following best describes how you disposed of your last computer?**

- Donated to charity
- Gave away to family or friends
- Sold
- Recycled
- Put in trash
- Other method → Please tell us:

**8a. Please think about all the televisions in your home that are working and not working, in use and not in use (and don't forget about those in your basement, attic or garage). How many televisions do you currently have in your home?**

Number of televisions

- None → Go to question 9a

**8b. How many of these televisions are currently never used?**

Number of televisions that are never used

- None



**9a. In the last 12 months, have you donated, given away, sold, recycled, thrown away, or otherwise removed at least one television from your household?**

- Yes
- No → Go to question 10a

**9b. Which of the following best describes how you disposed of your last television?**

- Donated to charity
- Gave away to family or friends
- Sold
- Recycled
- Put in trash
- Other method → Please tell us:

**10a. Please think about all the cell phones in your home that are working and not working, in use and not in use (and don't forget about those in your basement, attic or garage). Excluding those owned by an employer, how many cell phones do you currently have in your home?**

- Number of cell phones
- None → Go to question 11a

**10b. How many of these cell phones are currently never used?**

- Number of cell phones that are never used
- None

**11a. In the last 12 months, have you donated, given away, sold, recycled, thrown away, or otherwise removed at least one cell phone from your household?**

- Yes
- No → Go to question 12a

**11b. Which of the following best describes how you disposed of your last cell phone?**

- Donated to charity
- Gave away to family or friends
- Sold
- Recycled/returned to retailer
- Put in trash
- Other method → Please tell us:

**12a. In the last 12 months, was there ever a time when you wanted to recycle electronics, but were unable to do so?**

- Yes
- No → Go to question 13

**12b. Which of the following best describes why you were unable to recycle the electronics?**

- Too expensive
- Inconvenient recycling location
- Unable to transport items to recycling location
- Didn't know where to recycle items
- Other reason → Please tell us:

**13. How important to you are each of the following reasons to recycle your electronics:**

	Not at All	Slightly	Somewhat	Very	Extremely
a. Recycling reduces pollution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Recycling creates jobs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Recycling preserves landfill space	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Recycling reuses valuable materials	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Recycling meets the requirements of the law	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Other reason to recycle → Please tell us: <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**14. The last few questions are about your background.**

**Do you currently live in a rural area or on a farm?**

- Yes
- No

**15. Which county do you currently live in?**

**16. Do you own or rent your home?**

- Own
- Rent
- Other

**17. What is your current age?**

**18. How many people live in your household, counting all adults and children, and including yourself?**

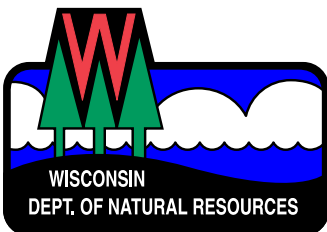
**19. What was your 2012 pre-tax income from all sources, including yourself and your partner or spouse if applicable?**

- Less than \$25,000
- \$25,000 to \$50,000
- \$50,001 to \$75,000
- \$75,001 to \$100,000
- Over \$100,000

**Thank you for your participation! Please return the questionnaire in the envelope provided.**

# Appendix C: DNR regions map

The map below shows the DNR regions used in the analysis of survey results.



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