



DON'T TRASH ARIZONA

LITTER EVALUATION SURVEY

September 2012
Prepared for:



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EXECUTIVE SUMMARY

Background

In August 2006, the Maricopa Association of Governments (MAG) launched a litter prevention and education program known as *Don't Trash Arizona!* The purpose of the program is to reduce litter on the regional freeway system by developing a strategy to increase public awareness and change behavior. The scope of work for the program additionally mandated that an evaluative process be included to measure the success of the program.

First, “secondary” research was conducted to review existing litter campaigns, not only in other regions and states, but globally. This was accomplished through Web research and targeted interviews with account managers of litter campaigns in other states.

The secondary research found that litterers were predominately single males, aged 18 to 24—with a secondary tier of litterers aged 25 to 34. They tend to be smokers, eat/buy fast food two times per week or more, frequent bars and nightclubs, and drive pickup trucks. According to the Transportation Research Board, 55 percent of littering is deliberate, while 45 percent occurs “accidentally” when items blow or fall off vehicles. Littering most often takes place when drivers are alone, and many reported that they did not consider small items like cigarettes and candy wrappers to be litter.

Following the secondary research, a benchmark survey was conducted in December 2006 to determine initial attitudes and awareness of litter issues in Arizona and to evaluate littering behavior. A follow-up, evaluative survey was then conducted in July 2008, at the end of the first two years of the campaign, to determine if any changes in awareness, attitudes or behavior were realized. Annual surveys have been conducted in subsequent years; however, these studies focused on Maricopa County residents. To accurately compare the data from the 2006 and 2008 surveys to more recent years, the 2006 and 2008 data shown in this report include only responses from Maricopa County residents. The 2012 survey is the focus of this report.

Communication strategies are developed each year based on the survey results. These strategies primarily target the 18 to 24 male demographic, with a secondary demographic of male residents aged 25 to 35. Messages targeted toward both accidental and deliberate littering are included, and a variety of strategies and tactics are employed utilizing public relations, paid advertising, school outreach and the development of value-added partnerships. The survey includes questions to help evaluate the effectiveness of various tactics and campaign messaging, so that outreach efforts can be refined each year for best results.

Evaluative Survey

The Maricopa Association of Governments (MAG), through Olson Communications, commissioned WestGroup Research of Phoenix to conduct a telephone study with residents aged 18 and older living in Maricopa County. The purpose of the study was to evaluate overall awareness of and attitudes toward litter issues, explore littering behavior, and compare responses to the December 2006 benchmark and subsequent studies, which were conducted August 2008, August 2009, August 2010, and August 2011.

Results for the 2012 Litter Evaluation Survey are based on 600 fifteen-minute telephone interviews with Maricopa County residents. The margin of error for the survey is approximately $\pm 4.1\%$ at a 95% confidence level. This year, the survey was again conducted by using a supplemental cell phone database in addition to "land line" telephone calls, due to the number of younger respondents with cell-phone-only access.

Below are some of the findings of the survey.

Driver Characteristics

- In 2012, approximately 44% of residents surveyed indicated driving a 4-door sedan. This represents a significant increase from the previous year (36%). As in previous years, pickup trucks and sport utility vehicles (SUVs) were the next most often mentioned vehicle types (16% and 14%, respectively).
- Approximately 66% of residents surveyed indicated that they have a litter bag or can for use in their vehicle, which is consistent with the 65% who reported litterbag usage in the previous year.
- Nearly two thirds (64%) of residents who reported that they do not currently have a litterbag or trash receptacle in their car indicated they would consider keeping one in their vehicle in the future, which is consistent with recent years (67% in 2011 and 64% in 2010).
- Approximately 14% of residents surveyed indicated they smoke.
- Half (51%) of smokers surveyed reported that they use an ashtray in their vehicles, reversing a decline seen between 2010 and 2011 (53% down to 43%). Approximately 16% of smokers indicated that they do not smoke in the car at all, representing a 700 percent increase from the previous year (2%).
- Pickup truck drivers reported that soda cans/bottles and lawn debris were the most common items they might put in their truck bed that they consider to be litter or trash (mentioned by 18% and 11%, respectively).

- Half (52%) of truck drivers indicated that they do not believe they put any type of litter in their truck bed. While this is a higher percentage than the 44% recorded in the previous year, the difference is not statistically significant.
- This year, a significantly larger proportion of pickup truck drivers indicated that, on average, they “always” secure items in the back of their pickup truck (71%, up from 54% in 2011), an increase of 31 percent.
- Consistent with the previous year, approximately 64% of residents indicated that they “never” drive in a vehicle that hauls items in an open-air trailer or strapped to a luggage rack. Approximately 27% claimed to do so a few times a year, and 4% claim to do so one to two times a month.
- Approximately 85% of residents who mentioned that they drive or ride in a vehicle which transports items in a trailer or luggage rack least a few times a year indicated that they “always” secure the load that they are hauling.

Litter Awareness and Behavior

- Approximately 67% of residents surveyed indicated that they feel litter along Maricopa County freeways is a “big” or “moderate” problem, which is consistent with recent years.
- Two thirds (65%) of residents surveyed insisted that they have not littered in the past year. This represents a decrease from recent years (70% in 2011 and 74% in 2010).
- Among those who indicated they had littered in the past year, food or organic material continues to be the most common type of litter mentioned (mentioned by 40%).
- The most common reason mentioned for littering when driving in the past year was that no trash receptacles were nearby or convenient (13%). In recent years, this reason was the second most mentioned reason behind littering food scraps because they are biodegradable (mentioned by 11%).
- Similar to previous years, residents reported that the most common littering situation they have experienced in the past three months is “trash falling out of the vehicle” (28%).
- Approximately 14% of residents indicated that in the past three months they experienced a beverage container being thrown out the window.

- In general, residents ages 18 to 34 were more likely than those in other age groups to report having recent experiences with the specific littering situations that were queried.
- Only 4% of smokers indicated they toss cigarette butts out of vehicle windows, which is nine percentage points lower than last year from 13% (a 69% decrease in mentions).
- This year, an increase occurred in the percentage of residents who identified themselves as “Admitted Litterers” (33%, up from 26% in 2011). However, the number of admitted litterers who littered while driving decreased by 16 percent.
- The percentage of residents who admit to littering soda cans, bottles and cigarette butts decreased by half from the previous year (6% vs. 13% for soda cans and bottles and 5% vs. 12% for cigarette butts).
- 46% of litterers discarded trash while driving or riding in a vehicle.
- Males between the ages of 18 and 34 are still the main litterers in Maricopa County, with 51% admitting to having littered in the past year. However, this is a decrease of five percentage points compared to the previous year (56%), a decrease of nine percent.
- The percent of pickup truck drivers who report they “always” secure their load increased by 31%.
- Among those who indicated they had littered in the past year, food or organic material continues to be the most common type of litter mentioned (mentioned by 40%).

Campaign Awareness

- Approximately 25% of residents surveyed indicated they had seen advertising related to litter or littering in the past three months, representing a significant decrease from 2011 (32%).
- When those aware of litter-related advertising were specifically asked what they remembered about the ads, the most recalled information surrounded the messages, “Don’t litter” or “Keep Arizona clean” (mentioned by 24%).
- Approximately 45% of residents surveyed who indicated seeing litter-related advertising in the past three months also recalled what they believed to be the advertising slogan (consistent with 44% in the previous year).
- Approximately 48% of residents surveyed indicated having seen or heard the slogan, “Don’t Trash Arizona”, consistent with recent years. One in five

residents (19%) surveyed indicated having seen or heard the slogan, “No cups, can or butts! Don’t Trash Arizona.”

- Residents who were familiar with “Don’t Trash Arizona” or “No cups, cans or butts! Don’t Trash Arizona” reported seeing and/or hearing the slogan from a variety of sources, the most common of which were television (25%, though down significantly from 36% in 2011), street/highway signs (23%), and billboards (21%).
- Residents’ awareness remained consistent for the litter hotline, compared to the previous year (12%). Awareness of the DontTrashArizona.com website was consistent with the 2011 figure (11%).
- This year, four percent (4%) of Valley residents who were aware of the *Don’t Trash Arizona* website reported that they have actually visited the site.
- When residents were asked how likely they would be to report littering behavior if they saw someone littering, approximately 59% indicated they would be at least “somewhat” likely to report littering (24% “very likely” and 35% “somewhat likely”). This is similar to previous years.
- When asked where they would go to find more information about litter or littering, residents most often mentioned the Internet (47%). This is consistent with the previous year.
- Facebook remains the most commonly mentioned method used to communicate or stay in touch with others (36%), followed by the utilization of search engines such as Google/Yahoo (28%). The percentage of residents who mentioned e-mail using a cell phone or handheld device rose to 25% (from 17% in 2011).
- Male residents are more likely than females to have seen advertising related to litter or littering in the past three month (32% vs. 18%).
- Residents under the age of 35 recalled the “No cups, can or butts! Don’t Trash Arizona” slogan more so than older residents (26% vs. 16%).

Profile of Litterers

- Approximately half of the males aged 18 to 34 are admitted litterers (51%), which is similar to recent years (56% in 2011 and 51% in 2010).
- Males between the ages of 18 and 34 are still the main litterers in Maricopa County, with 51% admitting to having littered in the past year. However, this

is a decrease of five percentage points (or a decrease of 9%) compared to the previous year (56%).

SUMMARY OF KEY FINDINGS

- The percentage of residents that admit to littering soda cans, bottles and cigarette butts decreased by half from the previous year (6% vs. 13% for soda cans and bottles and 5% vs. 12% for cigarette butts).
- Only 4% of smokers indicated they toss cigarette butts out of vehicle windows, which is nine percentage points lower than last year from 13% (a 69% decrease in mentions).
- 46% of admitted litterers discarded trash while driving or riding in a vehicle.
- 38% of admitted litterers do not litter when driving, which is an increase from 33% in 2011. In other words, the number of admitted litterers who littered while driving decreased by 16 percent.
- Males between the ages of 18 and 34 are still the main litterers in Maricopa County, with 51% admitting to have littered in the past year. However, this is a decrease of five percentage points compared to the previous year (56%).
- Residents under the age of 35 recalled the “No cups, can or butts! Don’t Trash Arizona” slogan more so than older residents. (26% vs. 16%). Male residents are more likely than females to have seen advertising related to litter or littering in the past three month (32% vs. 18%). These statistics are potentially a result of advertising targeted to a younger male demographic.
- The percent of pickup truck drivers who report they “always” secure their load increased by 31%.

I. INTRODUCTION

A. Background and Methodology

The Maricopa Association of Governments (MAG), through Olson Communications, commissioned WestGroup Research to conduct a telephone study with residents aged 18 and older living in Maricopa County. The purpose of the study was to evaluate overall awareness of and attitudes toward litter issues and behaviors, as well as compare responses to the benchmark and subsequent studies, which were conducted in December 2006, August 2008, August 2009, August 2010, and August 2011. For comparison purposes, it is important to note that the first two studies were conducted with Arizona residents. In order to accurately compare the data from surveys in 2009 through the current year to previous data, the 2006 and 2008 data shown in this report include only responses from Maricopa County residents.

For surveys prior to 2011, interviewing was conducted using a Random Digit Dial (RDD) database comprised of “landline” phone numbers from targeted zip codes. This year (and in 2011), interviewing was conducted using both a Random Digit Dial (RDD) with landline phone numbers, as well as a supplemental cell phone database. Cell phone sample is necessary both to speak with cell-phone only residents, and to fulfill quotas among younger residents, particularly the target demographic of 18 to 34 year old males.

To ensure an accurate representation of Maricopa County residents, both age and gender quotas were established.

Age	Quota
18 to 34 years old	28%
35 to 54 years old	43%
55+ years old	29%
Male	50%
Female	50%

Results are based on 600 fifteen-minute telephone interviews conducted with 300 male and 300 female residents. The margin of error for the survey is approximately $\pm 4.1\%$ at a 95% confidence level.

B. Demographics

Per established quotas, 50% of residents surveyed were males and 50% were females. The average age of the residents was 43.8 years old (consistent with the previous year) and 53% were married. Approximately three quarters (74%), had at least some college experience and half (51%) were employed full time. Approximately 10% were unemployed. Three in ten (30%) residents reported annual incomes of at least \$75,000 per year. Approximately 68% of residents surveyed were Caucasian, and 16% were Hispanic.

One in five (19%) residents reported that at least some Spanish was spoken in their home, and while consistent with the previous year (17%), is significantly higher than the 2010 figure (14%).

After declining from 2010 to 2011, the average reported annual income increased to \$61,989. This figure is still lower than the average incomes reported in years prior to 2011 (a range of \$63,446 to \$66,620).

Additional detail on the demographic profile of the respondents is provided in Tables 1a and 1b.

Table 1a: Respondent Demographics

Characteristic	2012 Maricopa (n=600)	2011 Maricopa (n=602)	2010 Maricopa (n=601)	2009 Maricopa (n=637)	2006 Maricopa (n=748)
Male	50%	50%	50%	50%	50%
Female	50%	50%	50%	50%	50%
Age**					
18 to 34	28%	28%	28%	36%	32%
35 to 54	43%	43%	43%	43%	40%
55+	29%	29%	29%	31%	28%
Average	43.8 yrs	43.8 yrs	45.9 yrs	46.3 yrs	44.3 yrs
Marital Status					
Married	53%	53%	58%	59%	61%
Single	30%	30%	25%	25%	26%
Widowed	5%	6%	7%	7%	6%
Divorced	7%	7%	7%	6%	5%
Separated	2%	1%	--	1%	1%
Refused	3%	3%	3%	2%	2%
Education					
Less than high school	5%	6%	5%	4%	7%
High school graduate	18%	17%	18%	19%	16%
Some college	34%	35%	33%	33%	35%
College graduate	25%	24%	23%	29%	27%
Graduate degree	15%	15%	18%	13%	13%
Ethnicity					
White	68%	72%	71%	76%	79%
Hispanic	16%	12%	14%	13%	9%
African American	4%	4%	5%	2%	3%
Native American	2%	1%	2%	1%	--
Asian	2%	3%	1%	2%	2%
Other/Refused	9%	8%	7%	6%	4%

***Bold** indicates significantly different percentages than 2011 at the 95% confidence level

**Age categories condensed in 2011.

Table 1b: Respondent Demographics

Characteristic	2012 Maricopa (n=600)	2011 Maricopa (n=602)	2010 Maricopa (n=601)	2009 Maricopa (n=637)	2006 Maricopa (n=748)
Household Income					
<\$10,000	8%	10%	7%	7%	3%
\$10-\$20,000	7%	7%	7%	7%	6%
\$20-\$30,000	7%	8%	8%	6%	8%
\$30-\$40,000	9%	8%	7%	6%	7%
\$40-\$50,000	7%	6%	5%	7%	8%
\$50-\$60,000	4%	7%	6%	6%	7%
\$60-\$75,000	7%	9%	6%	8%	9%
\$75-\$100,000	12%	10%	13%	12%	12%
\$100,000+	18%	16%	18%	20%	18%
Refused	20%	20%	23%	21%	22%
Average	\$61,989	\$58,838	\$63,477	\$66,530	\$66,620
Employment Status					
Full-time	51%	45%	48%	50%	51%
Part-time	8%	10%	7%	9%	10%
Unemployed	10%	12%	13%	8%	4%
Retired	18%	22%	19%	21%	21%
Housespouse	6%	4%	6%	7%	8%
Student	4%	4%	4%	3%	4%
Profession					
White collar/mgmt	23%	23%	23%	32%	16%
Other professional	25%	16%	23%	20%	10%
Blue collar	11%	15%	14%	15%	9%
Education	10%	8%	12%	7%	6%
Trade	8%	10%	10%	6%	7%
Self-employed	7%	6%	5%	8%	5%
Clerical/admin	10%	9%	6%	8%	5%
Language spoken at home					
English only	72%	72%	72%	74%	85%
Spanish only	1%	1%	3%	4%	1%
Mostly Spanish but some English	3%	1%	2%	2%	**
Equally in both languages	3%	4%	4%	4%	8%
Mostly English but some Spanish	12%	11%	6%	8%	**
English and other language	7%	8%	9%	7%	4%
Refused	3%	3%	2%	1%	2%

***Bold** indicates significantly different percentages than 2011 data at the 95% confidence level.

II. DRIVER CHARACTERISTICS

A. Driving Habits

In 2012, approximately 44% of residents surveyed indicated driving a 4-door sedan. This represents a significant increase from the previous year (36%). As in previous years, pickup trucks and sport utility vehicles (SUVs) were the next most often mentioned vehicle types (16% and 14%, respectively).

Some demographic differences observed include:

- Residents aged 18 to 34 were more likely than those aged 35 to 54 to report driving sedans (51% vs. 40%).
- Males were more likely than females to report driving pickup trucks (24% vs. 8%).
- Female residents were more likely than male residents to report driving SUVs (18% vs. 11%).
- Residents with annual household incomes of \$50,000 per year or more were more likely than residents with lower incomes to report driving SUVs (19% vs. 10%).

Table 2: Type of Vehicle

Items	2012 Maricopa (n=600)	2011 Maricopa (n=602)	2010 Maricopa (n=601)	2009 Maricopa (n=637)	2006 Maricopa (n=748)
Sedan (4-door)	44%	36%	42%	39%	38%
Pickup truck	16%	13%	16%	16%	15%
Sports utility	14%	18%	19%	20%	21%
Van/mini-van	7%	7%	7%	11%	12%
Coupe (2-door)	7%	4%	7%	7%	8%
Don't drive	5%	7%	6%	5%	4%
Station wagon	2%	--	--	--	--
Car (unspecified)	1%	10%	--	--	--
Motorcycle	1%	1%	1%	1%	--
Other	3%	2%	1%	1%	1%
Don't know/ refused	1%	2%	1%	--	1%

Q7: What type of vehicle do you most often drive or ride in?

***Bold** indicates significantly different percentages than 2011 data at the 95% confidence level.

Note: Question wording modified in 2011 to an open-ended question instead of a list that was read to residents.

B. Litterbag Use

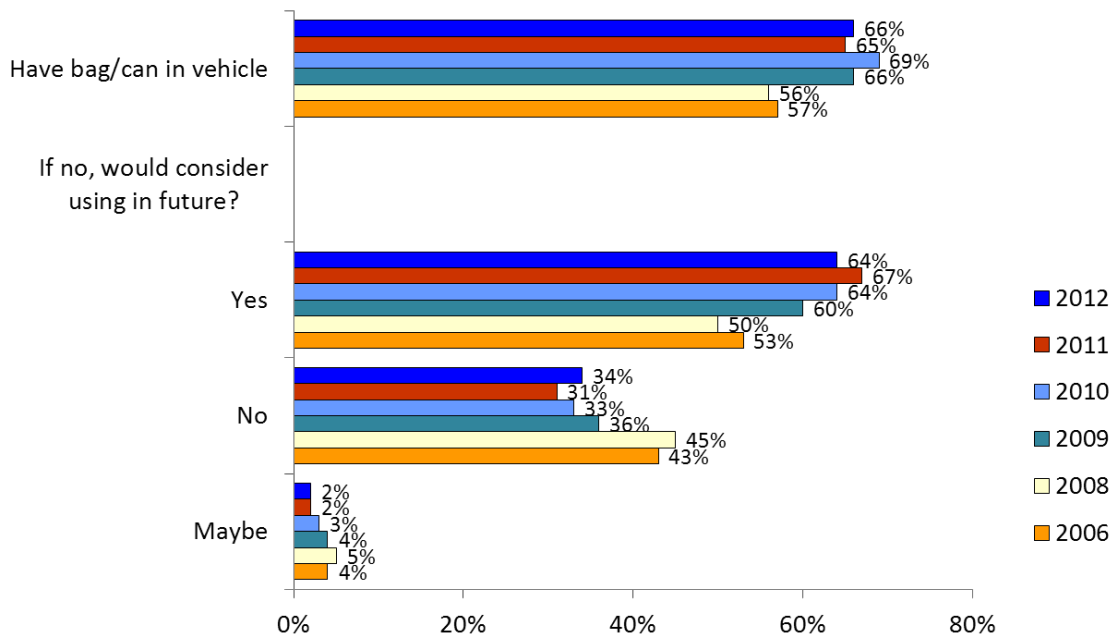
Approximately 66% of residents surveyed indicated that they have a litter bag or can for use in their vehicle, which is consistent with the 65% who reported litterbag usage in the previous year. Residents ages 35 and older were more likely than younger residents to indicate having a litterbag or a trash can in their vehicle (70% vs. 55%).

Nearly two thirds (64%) of residents who reported that they do not currently have a litterbag or trash receptacle in their car indicated they would consider keeping one in their vehicle in the future, which is consistent with recent years (67% in 2011 and 64% in 2010).

Among those who do not currently have a litterbag for use in their vehicle, the following groups were more likely to indicate willingness to keep a vehicle litterbag in the future:

- Non-Caucasian residents vs. Caucasian residents (78% vs. 62%).
- Residents with annual household incomes between \$50,000 to \$100,000 per year vs. residents with lower or higher incomes (85% vs. 67% and 55%, respectively).

Litterbag or Trashcan Use in Vehicle



2012 Maricopa n=600; 2011 Maricopa n=602; 2010 Maricopa n=601; 2009 Maricopa n=637; 2008 Maricopa n=744; 2006 Maricopa n=748

C. Smokers

Approximately 14% of residents surveyed indicated they smoke.

Those more likely to indicate that they smoke include:

- Residents with less than a college degree vs. residents with at least a college degree (18% vs. 8%).
- Residents with annual household incomes of less than \$50,000 per year vs. residents with annual household incomes of \$100,000 or more (18% vs. 8%).

Approximately half (51%) of smokers reported that they use an ashtray in their vehicles, reversing a decline seen between 2010 and 2011 (53% down to 43%). Approximately 16% of smokers indicated that they do not smoke in the car at all, representing a significant increase from the previous year (2%).

Table 3: Smoking Habits and Disposing of Cigarette Butts
Among those indicating they smoke

Response	2012 Maricopa (n=600)	2011 Maricopa (n=602)	2010 Maricopa (n=601)	2009 Maricopa (n=637)	2006 Maricopa (n=748)
Smoker	14%	17%	18%	15%	16%
	(n=83)	(n=101)	(n=105)	(n=97)	(n=121)
Ashtray in vehicle.	51%	43%	53%	49%	46%
Something else in vehicle.	18%	10%	13%	19%	13%
Don't smoke in the car.	16%	2%	7%	13%	16%
It varies.	12%	7%	9%	9%	12%
Throwing out window.	4%	13%	5%	7%	5%
Other (<1% consensus)	--	--	1%	--	2%
Don't know/refused.	--	25%	12%	3%	5%

Q10: When you are in a vehicle, do you USUALLY dispose of cigarette butts...?

***Bold** indicates significantly different percentages than 2011 data at the 95% confidence level.

D. Truck Drivers

Approximately 16% of residents surveyed indicated that they drive a pickup truck, and this is statistically consistent with previous years.

Pickup truck drivers were more likely to be male than female (24% vs. 8%).

Table 4: Pickup Truck Drivers

Response	2012 Maricopa (n=600)	2011 Maricopa (n=602)	2010 Maricopa (n=601)	2009 Maricopa (n=637)	2006 Maricopa (n=748)
Drive pickup truck	16%	13%	16%	16%	15%

Q7: What type of vehicle do you most often drive or ride in?

Pickup truck drivers reported that soda cans/bottles and lawn debris were the most common items they might put in their truck bed that they consider to be litter or trash (mentioned by 17% and 11%, respectively). The next most often mentioned items include unspecified non-biodegradable trash, construction debris and small pieces of paper (each mentioned by 6% of respondents).

Half (52%) of truck drivers indicated that they do not believe they put any type of litter in their truck bed. While this percentage is higher than the 44% recorded in the previous year, the difference is not statistically significant.

Table 5: Litter via Truck Bed – Total Responses
Among those who indicate they drive a truck

Items	2012 Maricopa (n=86)	2011 Maricopa (n=59)	2010 Maricopa (n=94)	2009 Maricopa (n=97)	2006 Maricopa (n=97)
Nothing	52%	44%	48%	44%	14%
Soda cans/bottles	17%	17%	10%	10%	16%
Lawn debris	11%	14%	7%	11%	9%
Trash/non biodegradable (unspecified)	6%	10%	5%	7%	--
Construction debris	6%	5%	3%	4%	9%
Small pieces of paper	6%	5%	5%	--	6%
Water cans/bottles	5%	7%	8%	3%	1%
Paper/ newspaper/ napkins	5%	5%	2%	--	4%
Plastic bags/other plastic	4%	8%	3%	5%	7%
Cigarette packs/butts	1%	2%	--	--	--
Cardboard	1%	2%	2%	3%	2%
Everything/anything/ all of it	1%	2%	--	--	--
Food/organic material	1%	--	2%	5%	4%
Tires	1%	--	--	--	--
Wood/toothpick	1%	--	--	--	--
Cigarette packs	1%	--	--	--	--
Car parts/ batteries	--	--	1%	--	2%
Beer cans/bottles	--	2%	1%	4%	4%
Fast food wrappers	--	2%	1%	1%	8%
Furniture	--	2%	--	--	--
Other food wrappers	--	2%	1%	1%	3%
Cups (Styrofoam, plastic, paper)	--	2%	--	5%	--
Appliances	--	2%	--	--	--
Aluminum cans	--	2%	--	--	--
Bottles/containers (unspecified)	--	2%	--	--	--
Other	2%	2%	6%	5%	12%
Don't know	1%	2%	3%	5%	25%

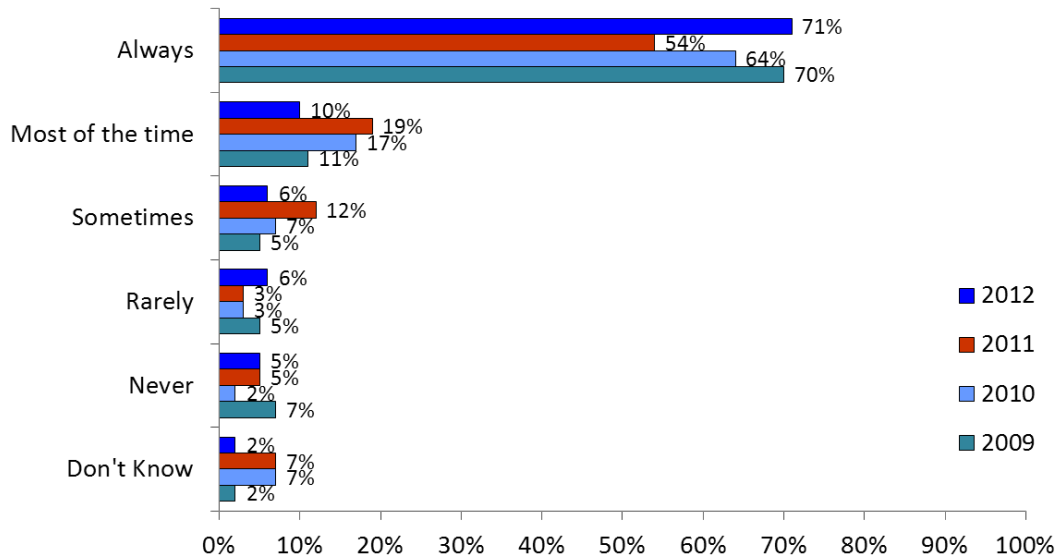
Q15: What types of items do you ever put into your truck bed that you consider to be litter or trash? What else?

***Bold** indicates significantly different percentages than 2011 data at the 95% confidence level

This year, a larger proportion of pickup truck drivers indicated that, on average, they “always” secure items in the back of their pickup truck (71%, up from 54% in 2011). Just over one in ten (11%) pick-up truck drivers do not frequently secure items in their truck bed (reporting that they “rarely” or “never” secure items).

How Often Truck Drivers Secure Loads

When putting items into the bed of your truck, how often, on average, do you secure your load (either with ties, bungees, a tarp, etc.)?



Truck Drivers: 2012 n=86; 2011 n=54; 2010 n=94; 2009 n=97 Note: Question added in 2009

Table 6: How often Truck Drivers Secure Loads

Frequency	2012 Maricopa (n=86)	2011 Maricopa (n=54)	2010 Maricopa (n=94)	2009 Maricopa (n=97)
NET likely (Always + Most)	81%	73%	81%	81%
Always	71%	54%	64%	70%
Most of the time	10%	19%	17%	11%
Sometimes	6%	12%	7%	5%
Rarely	6%	3%	3%	5%
Never	5%	5%	2%	7%
Don't know	2%	7%	7%	2%

Q16: *When putting items into the bed of your truck, how often, on average, do you secure your load (either with ties, bungees, a tarp, etc.)?*

New question in 2009

**Bold indicates significantly different percentages than 2011 data at the 95% confidence level.*

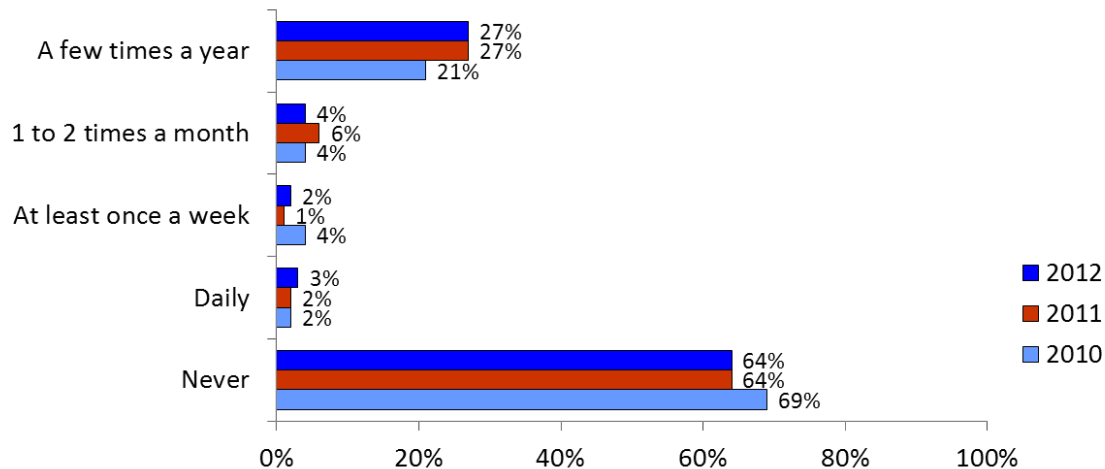
Consistent with the previous year, approximately 64% of residents indicated that they “never” drive in a vehicle that hauls items in an open-air trailer or strapped to a luggage rack. Approximately 27% claim to do so a few times a year, and 4% claim to do so one to two times a month. Only 3% of residents who haul items in an open-air trailer or strapped to a luggage rack reported that they do so on a daily basis.

Those most likely to report hauling items include:

- Males vs. females; daily (4% vs. 1%), 1-2 times a month (6% vs. 2%), and a few times a year (32% vs. 22%).
- Residents younger than 55 vs. residents ages 55 and older; 1-2 times a month (5% vs. 1%), and a few times a year (31% vs. 19%).
- Residents with annual household incomes of \$50,000 or more vs. residents with incomes of less than \$50,000; a few times a year (36% vs. 24%).

Frequency of Traveling with Trailers or Luggage Racks

How often do you drive or ride in a vehicle that transports items that are not carried within the vehicle or trunk, such as hauling items in an open-air trailer or strapped to a luggage rack?



2012 Maricopa n=600; 2011 Maricopa n=602; 2010 Maricopa n=587

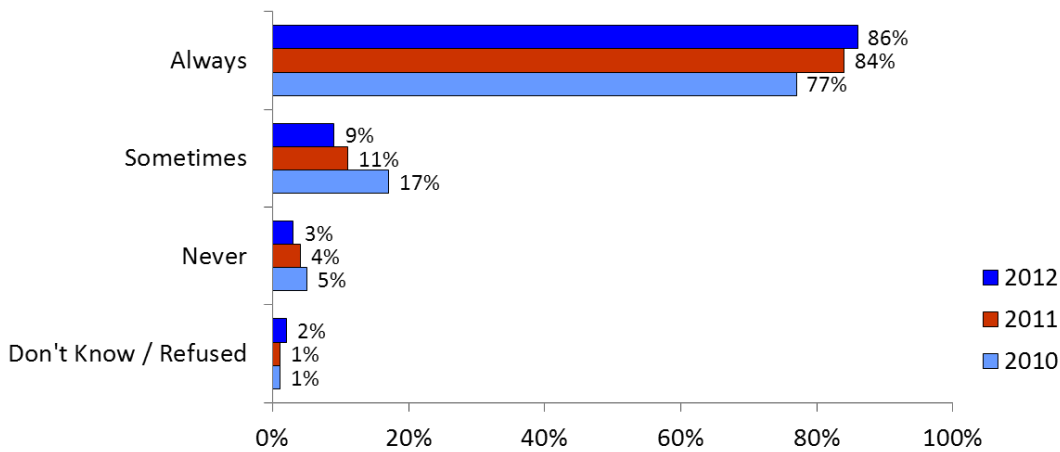
Note: Question added in 2010

Approximately 86% of residents who mentioned that they drive or ride in a vehicle which transports items in a trailer or luggage rack least a few times a year indicated that they “always” secure the load that they are hauling.

Consistent with previous years, among the drivers who mentioned “rarely” or “never” securing their load, the top reason mentioned for not securing loads was “it’s heavy enough so it doesn’t fly out.”

How Often Those with Trailers or Luggage Racks Secure Loads

On average, how often do you secure the loads that you are hauling (either with ties, bungees, a tarp, etc.)?



Open-air trailer/luggage rack users: 2012 n=218; 2011 n=219; 2010 n=184

Note: Data is not completely comparable from 2010 to 2011/2012 – in 2010, users were offered ‘sometimes’ and ‘most of the time’, which for comparison purposes were combined as ‘sometimes’ on the chart above. Likewise, in 2010, users were offered ‘rarely’ and ‘never’, which for comparison purposes were combined as ‘never’ on the chart above.

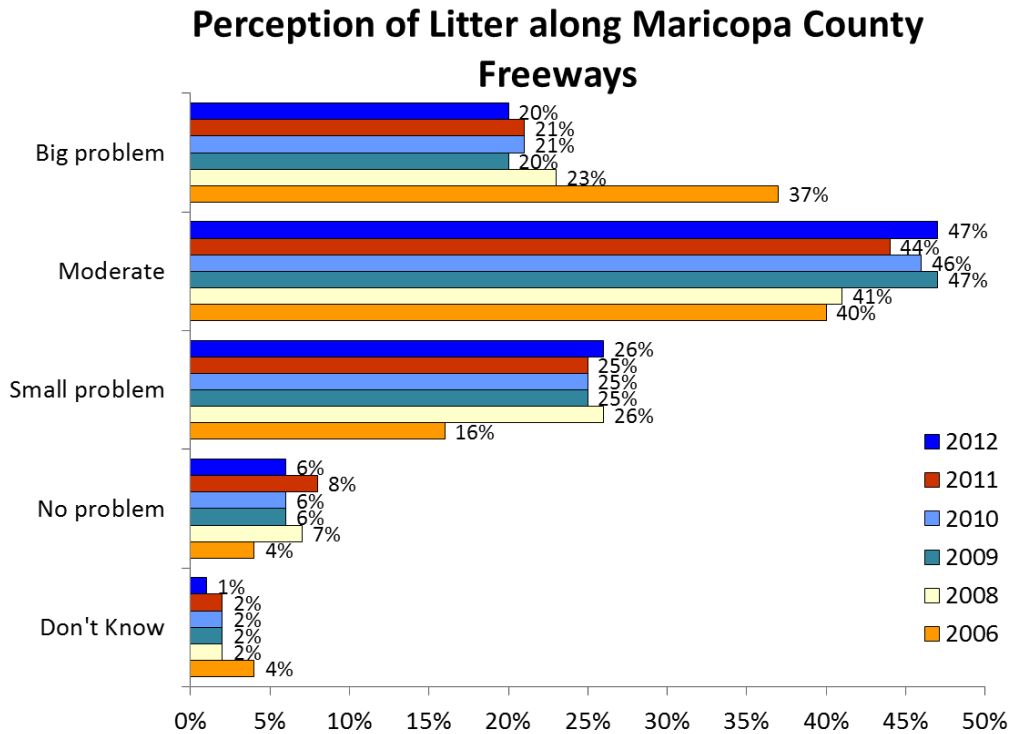
III. LITTER AWARENESS AND BEHAVIOR

A. Perception of Litter as Problem along Freeways

Approximately 67% of residents surveyed indicated that they feel litter along Maricopa County freeways is a “big” or “moderate” problem, which is consistent with recent years. One in three (32%) residents surveyed feel that litter along county freeways is either a “small problem” or “not a problem at all.”

Those more likely to indicate that they believe litter along Maricopa County freeways is a “big” problem include:

- Residents over the age of 34 vs. younger residents (23% vs. 13%).
- Residents with a high-school education or less vs. residents with at least some college coursework completed (30% vs. 18%).
- Residents with annual household incomes of less than \$50,000 vs. residents with annual household incomes of \$100,000 or more (24% vs. 13%).



2012 Maricopa n=600; 2011 Maricopa n=602; 2010 Maricopa n=601; 2009 Maricopa n=637; 2008 Maricopa n=744; 2006 Maricopa n=748

Table 7: Freeway Litter as a Problem in Maricopa County

Rating	2012 Maricopa (n=600)	2011 Maricopa (n=602)	2010 Maricopa (n=601)	2009 Maricopa (n=637)	2006 Maricopa (n=748)
Big problem	20%	21%	21%	20%	37%
Moderate problem	47%	44%	46%	47%	40%
Small problem	26%	25%	25%	25%	16%
Not a problem at all	6%	8%	6%	6%	4%
Don't know	1%	2%	2%	2%	4%

Q8: In your opinion, how big of a problem is litter along freeways in Maricopa County?

Would you say it is a...

***Bold** indicates significantly different percentages than 2011 data at the 95% confidence level

**In 2009 question was changed to "Maricopa County" where previously it was "in your county."

B. Personal Littering

Two thirds (65%) of residents surveyed insisted that they have not littered in the past year. This represents a decrease from recent years (70% in 2011 and 74% in 2010).

Those more likely to indicate that they have not littered in the past year include:

- Residents ages 35 or older vs. younger residents (72% vs. 47%).

Among those who indicated they had littered in the past year, food or organic material continues to be the most common type of litter mentioned (40%). Small pieces of paper were the second most common type of litter mentioned (31%).

Among the total sample, those groups most likely to indicate that they littered food/organic material include:

- Residents ages 35 to 54 vs. residents ages 55 and older (16% vs. 9%).
- Residents with at least some college coursework completed vs. residents with less education (16% vs. 7%).
- Residents with annual household incomes of \$100,000 or more vs. residents with annual household incomes of \$50,000 or less (20% vs. 11%).

Table 8: Items Personally Discarded as Litter – Total Responses

Items	2012 Maricopa (n=600)	2011 Maricopa (n=602)	2010 Maricopa (n=601)	2009 Maricopa (n=637)	2006 Maricopa (n=748)
Have not littered in past year.	65%	70%	74%	69%	69%
	(n=211)	(n=181)	(n=141)	(n=180)	(n=206)
Food/organic material.	40%	41%	44%	48%	41%
Small pieces of paper.	31%	29%	23%	22%	21%
Water bottles.	14%	10%	1%	3%	2%
Other food wrappers.	13%	10%	11%	8%	8%
Soda cans/bottles.	6%	13%	4%	4%	7%
Cigarette butts.	5%	12%	11%	8%	15%
Wood/toothpick.	2%	--	2%	2%	2%
Bottles (unspecified).	2%	--	--	1%	--
Hair/dog hair.	1%	1%	1%	3%	--
Liquids (unspecified)	1%	--	--	--	--
Cups (Styrofoam, plastic, paper).	1%	--	1%	2%	--
Lawn debris.	1%	--	1%	1%	--
Paper/newspaper/napkins.	--	3%	2%	3%	4%
Plastic bags/other plastic.	--	1%	4%	4%	1%
Fast food wrappers/paper bags.	--	--	1%	1%	2%
Beer cans and beer bottles.	--	--	1%	1%	1%
Thread, string.	--	--	--	2%	--
Cardboard, boxes.	--	--	--	1%	--
Rocks/dirt.	--	--	--	1%	--
Other (<1% consensus).	4%	7%	4%	4%	12%
Don't know.	8%	4%	2%	3%	13%

Q12: Can you think of items that you yourself might have discarded as litter (by litter we mean items you did not put in a trash receptacle) in the past year?

***Bold** indicates significantly different percentages than the previous 2011 data at the 95% confidence level.

C. Littering Circumstances

Approximately 46% of those who indicated they have littered in the past year indicated that they did so while driving/riding in a vehicle. This is similar to recent years (47% in 2011 and 48% in 2010). Others commonly reported they littered while walking outside (10%) or because they were “cleaning out their car” (8%).

Additional detail on the profile of residents’ littering situations is provided below in Table 9.

Table 9: Littering Situation – Total Responses
Among those who indicated they have littered in the past year

Top situations	2012 Maricopa (n=211)	2011 Maricopa (n=177)	2010 Maricopa (n=149)	2009 Maricopa (n=195)	2006 Maricopa (n=231)
Driving/riding/traveling in vehicle.	46%	47%	48%	53%	47%
Walking outside.	10%	11%	11%	8%	16%
Cleaning out car.	8%	2%	3%	2%	1%
Just threw it/anywhere I could.	6%	6%	3%	3%	--
No trash can around.	6%	5%	6%	5%	8%
Opened door/window–flew out.	4%	4%	5%	4%	3%
Eating food/chewing gum.	4%	2%	--	--	2%
In a hurry.	2%	2%	--	--	--
Flew out of truck bed.	1%	2%	--	--	2%
Smoking/discarded cigarettes.	1%	1%	--	--	--
In a parking lot.	1%	--	--	--	--
I didn't litter.	--	4%	1%	3%	1%
Don't consider it litter/biodegradable stuff.	--	2%	1%	2%	--
In the desert/ middle of nowhere.	--	2%	1%	2%	1%
Shopping.	--	2%	--	--	--
My kid/grandkid did it.	--	2%	1%	2%	--
At work/working.	--	1%	--	--	--
Camping/hiking.	--	--	1%	--	--
Let the animals eat it.	--	1%	--	--	--
Wouldn't fit in the trash.	--	1%	--	--	--
Other (<1% consensus).	9%	5%	9%	9%	7%
Don't know/can't remember.	15%	12%	13%	11%	15%

Q13: To the best of your knowledge, what were the general circumstances in terms of where and what you were doing when you discarded litter?

***Bold** indicates significantly different percentages than 2011 data at the 95% confidence level.

D. Reasons for Littering When Driving

The most common reason mentioned for littering when driving in the past year was that no trash receptacles were nearby or convenient (13%). In previous recent years, this reason was the second most mentioned reason behind littering food scraps because they are biodegradable (mentioned by 11%).

Those more likely to indicate that they do not litter when driving include:

- Residents who have completed a college degree vs. residents with less education (49% vs. 31%).

Table 10: Reasons for Littering when Driving – Total Responses
Among those who indicated they have littered in the past year

Top Responses	2012 Total (n=211)	2011 Total (n=181)	2010 Total (n=147)	2009 Total (n=195)
I don't litter when driving.	38%	33%	32%	36%
No trash receptacles are convenient.	13%	10%	14%	16%
I only litter food scraps – they are biodegradable.	11%	13%	17%	3%
It was an accident/unintentional.	9%	9%	5%	5%
I don't want to keep it in my car.	8%	8%	3%	11%
It's easy.	4%	5%	3%	8%
I don't consider throwing out gum, small wrappers, cigarette butts litter.	3%	4%	3%	5%
I'm lazy.	1%	3%	3%	3%
Didn't want it anymore/tired of chewing it.	1%	--	--	--
Don't know.	9%	9%	13%	10%

Q14: Why do you litter WHEN DRIVING?

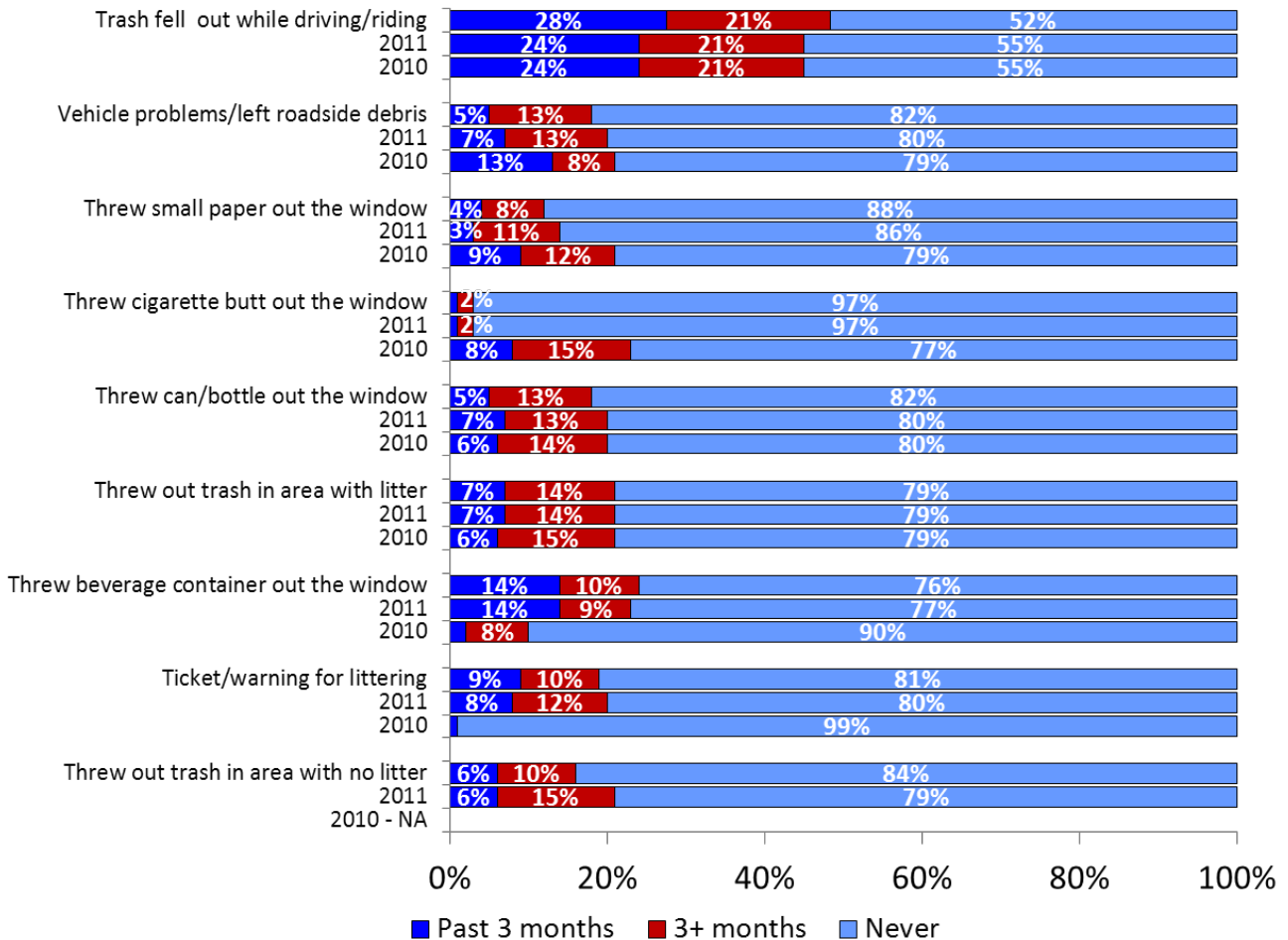
***Bold** indicates significantly different percentages than 2011 data at the 95% confidence level.

E. Personal Experience with Specific Littering Situations

Residents were read a list of nine specific littering situations and were asked to indicate if they had personally experienced that littering situation in the past three months, more than three months ago, or had never experienced that specific situation.

Similar to previous years, residents reported that the most common littering situation they have experienced in the past three months is “trash falling out of the vehicle” (28%). Approximately 14% of residents indicated that in the past three months they experienced a beverage container being thrown out the window.

2012 Experience with Littering Situations



2012 n=600; 2011 n=602; 2010 n=601

In general, residents ages 18 to 34 were more likely than those in other age groups to report having recent experiences with the specific littering situations that were queried.

**Table 11: Personal Experience with Littering Circumstances
Past 3 Months**

Circumstance	2012 Maricopa (n=600)	2011 Maricopa (n=602)	2010 Maricopa (n=601)	2009 Maricopa (n=637)	2006 Maricopa (748)
You noticed that some trash fell out of a pickup or other vehicle you were driving in.	28%	24%	24%	26%	19%
Rather than keep a beverage container in the car, you, or someone in a vehicle you were in, threw out a can or bottle.	14%	14%	2%	3%	4%
Someone in a vehicle you were in threw trash out in an area that already had lots of litter.	7%	7%	6%	7%	6%
Someone in a vehicle you were in threw trash out in an area that had no litter	6%	7%	--	--	--
You had problems with a vehicle and left debris like tire, part of a tire, or other stuff on the roadside.	5%	7%	13%	9%	7%
Someone in a vehicle you were in threw out a can, bottle or litter out onto the side of the road.	5%	6%	6%	7%	6%
You threw out a small item from your vehicle like a candy wrapper, scrap paper, etc.	4%	3%	9%	8%	7%
Rather than keep a cigarette butt in the car, you or someone in the vehicle you were in threw the cigarette butt out the window.	1%	1%	8%	8%	11%
You or someone you were with got a ticket or warning for littering.	9%	8%	2%	--	--

Q11: I am going to read you a few statements pertaining to your litter awareness. For each of the following statements, please respond by telling me if this is something you –“Have experienced in the past 3 months,” “Have experienced over 3 months ago,” or “have never experienced.”

***Bold** indicates significantly different percentages than 2011 data at the 95% confidence level.

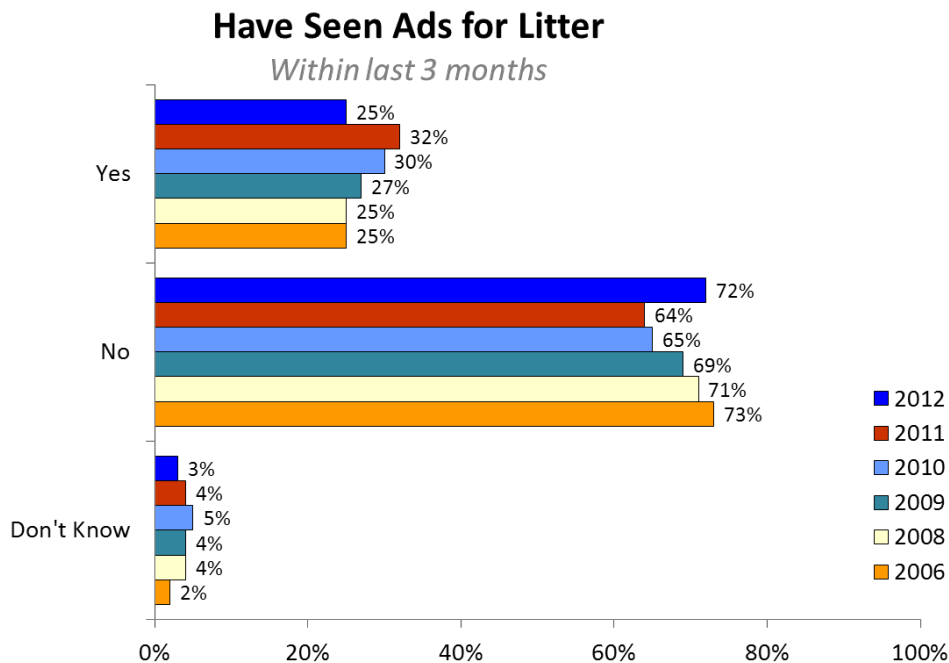
IV. CAMPAIGN AWARENESS

A. Awareness of Campaign

1. General Awareness

Approximately 25% of residents surveyed indicated they had seen advertising related to litter or littering in the past three months, representing a significant decrease from 2011 (32%).

Male residents were more likely than female residents to answer “yes” to whether they have seen advertising related to littering in the past three months (32% vs. 18%).



2012 Maricopa n=600; 2011 Maricopa n=602; 2010 Maricopa n=601; 2009 Maricopa n=637; 2008 Maricopa n=744; 2006 Maricopa n=748

2. Recalled Messages and Slogans

When those aware of litter-related advertising were specifically asked what they remembered about the ads, the most recalled information surrounded the message, “Don’t litter” or “Keep Arizona clean” (mentioned by 24%). The second most cited message was “the fines” (mentioned by 19%).

Table 12: Recalled Messages of Litter-Related Advertising

Among those who indicated they remember seeing ads related to litter or littering in the past 3 months

Top Responses	2012 Maricopa (n=150)	2011 Maricopa (n=194)	2010 Maricopa (n=183)	2009 Maricopa (n=170)	2006 Maricopa (n=188)
Don't litter/keep Arizona clean.	24%	18%	21%	16%	17%
The fines.	19%	16%	24%	7%	29%
It was a sign along the road/billboard.	15%	12%	6%	15%	11%
Just because it's a freeway doesn't mean you are free to litter on it.	9%	7%	--	--	--
Use ashtray/cigarettes cause fires.	6%	5%	6%	4%	--
A hamburger wrapper being a 500 dollar fine/ a five hundred dollar burger.	5%	2%	9%	4%	--
Littering is unlawful/can get a ticket.	4%	5%	4%	4%	9%
Saw on TV/commercial/public service announcement.	3%	8%	1%	8%	5%
Recycling.	3%	4%	4%	2%	--
Littering is unsightly/litter is ugly.	3%		1%	2%	--
Put litter in its place/use the trash.	3%	--	--	--	--
About how a mother can't pick up after you/her kids.	2%	11%	--	--	--
Don't Trash Arizona.	2%	5%	--	--	--
Prisoners picking up trash.	2%	3%	1%	2%	8%
"Don't mess with Texas" ad.	2%	--	--	--	--
Diamond-backs player PSA.	2%	--	--	--	--
Heard on radio.	1%	7%	3%	4%	4%
Make the earth greener/go green.	1%	3%	2%	--	--
Litter is bad for the environment/bad for wildlife.	1%	2%	3%	3%	2%
Clean up efforts/Adopt a Highway.	1%	2%	3%	3%	4%
Tires coming apart on the road/tires along the road way.	1%	1%	3%	--	--
Littering can be hazardous on the road.	1%	--	--	--	--
Indian crying.	1%	--	--	--	--
At the river they give out trash bags to put your trash in.	1%	1%	--	--	-
Cost of cleaning up/tax dollars.	1%	--	2%	--	4%
People littering out of their vehicle.	1%	--	2%	2%	-
Don't know.	14%	13%	15%	10%	10%

Q22? What specifically do you remember about the ads related to litter or littering?

***Bold** indicates significantly different percentages than 2011 data at the 95% confidence level.

Approximately 45% of residents surveyed who indicated seeing litter-related advertising in the past three months also recalled what they believed to be the slogan (consistent with 44% in 2011). Recall for specific slogans remained generally consistent with the previous year. While 15% of residents recalled “do not litter,” compared with 22% in 2011, the difference is not considered statistically significant due to small sample sizes.

Table 13: Main Slogan of Recalled Advertising
Among those who indicated they remember seeing ads related to litter or littering in the past 3 months

Responses	2012 Maricopa (n=150)	2011 Maricopa (n=194)	2010 Maricopa (n=183)	2009 Maricopa (n=170)	2006 Maricopa (n=188)
Do not litter.	15%	22%	5%	9%	13%
You will be fined.	5%	3%	4%	6%	6%
Littering is unlawful.	5%	3%	3%	4%	3%
Keep our freeways clean.	5%	3%	3%	1%	1%
Don't Trash Arizona.	3%	2%	4%	2%	5%
Don't throw cigarette butts out the window.	2%	--	--	--	--
Arizona Clean and Beautiful.	2%	2%	--	1%	2%
Recycle, reduce, reuse.	2%	1%	--	--	--
Don't mess with Texas.	2%	1%	--	--	1%
Keep Arizona Beautiful.	2%	--	2%	1%	3%
Give a hoot, don't pollute.	1%	--	--	--	1%
There was no slogan/ it was a sign/ gave information.	1%	2%	2%	1%	2%
\$500 fine for throwing out hamburger wrapper.	1%	1%	2%	1%	--
It is your environment.	1%	1%	--	--	--
No cups cans or butts.	1%	--	--	--	--
No dumping.	1%	--	--	--	--
Adopt a highway.	1%	--	2%	2%	1%
If you pack it in, pack it out.	1%	--	--	--	--
Go Green.	--	1%	2%	2%	--
Don't be a litterbug.	--	--	1%	3%	--
Litter hurts everyone.	--	--	1%	1%	2%
Litter costs everyone.	--	--	1%	-	3%
Other	6%	7%	2%	5%	3%
Don't know.	55%	56%	70%	65%	70%

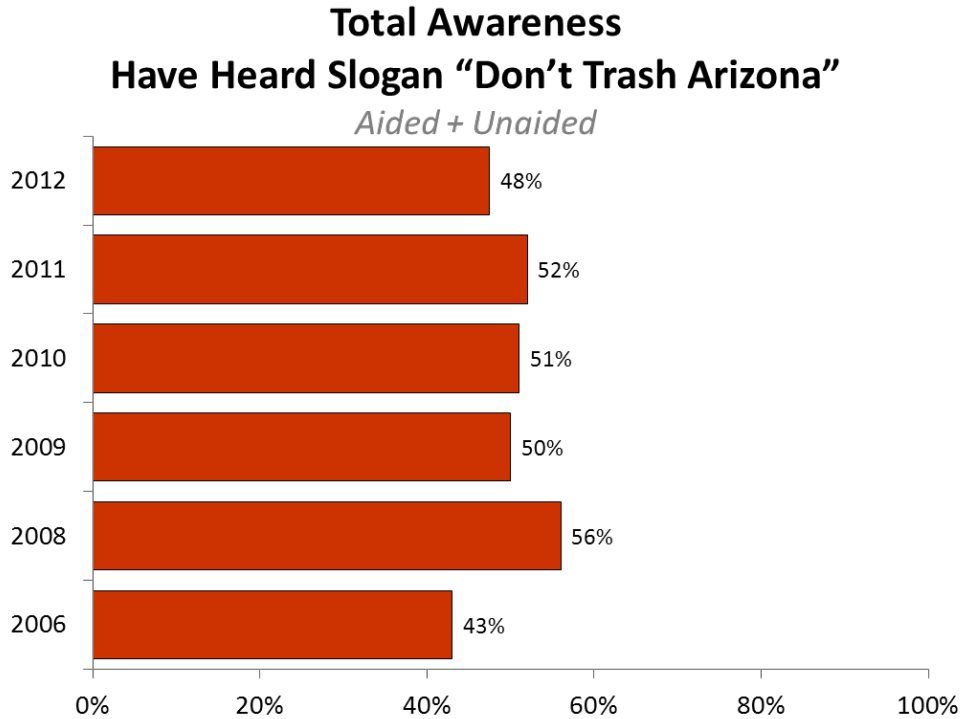
Q23: What was the main slogan used in the ads?

Note: Although not read to respondents, Grow Up, Don't Litter was added to the pre-coded list in 2011.

***Bold** indicates significantly different percentages than 2011 data at the 95% confidence level

B. “Don’t Trash Arizona” Awareness

Approximately 48% of residents surveyed indicated having seen or heard the slogan, “Don’t Trash Arizona.”

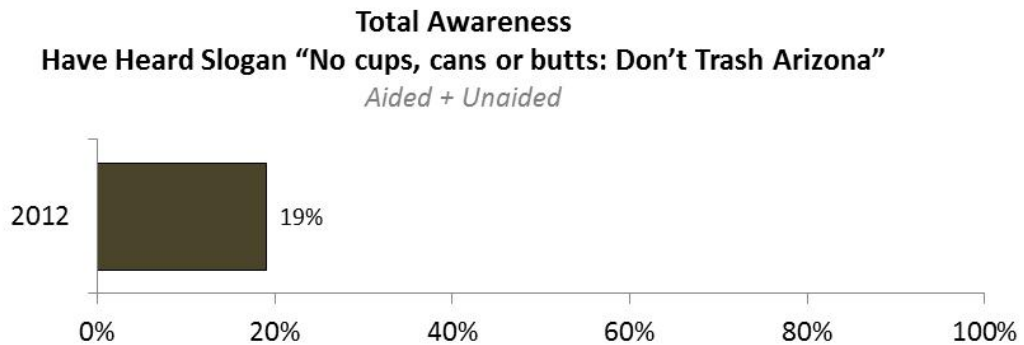


2012 Maricopa n=600; 2011 Maricopa n=602; 2010 Maricopa n=601; 2009 Maricopa n=637; 2008 Maricopa n=744; 2006 Maricopa n=748

C. “No cups, cans or butts! Don’t Trash Arizona” Awareness

One in five residents (19%) surveyed indicated having seen or heard the slogan, “No cups, cans or butts! Don’t Trash Arizona.” Those groups most likely to report having seen or heard this slogan include:

- Residents under the age of 35 vs. older residents (26% vs. 16%).
- Non-Caucasian residents vs. Caucasian residents (25% vs. 16%).
- Residents who have not completed a college degree vs. residents with at least a college degree (24% vs. 10%).



2012 Maricopa n=600

Residents who were familiar with “Don’t Trash Arizona” or “No cups, cans or butts! Don’t Trash Arizona” reported seeing and/or hearing the slogan from a variety of sources, the most common of which were television (25%, though down significantly from 36% in 2011), street/highway signs (23%), and billboards (21%).

The percentage of residents mentioning the radio decreased significantly from 2011 (16%, down from 24%).

Note: in previous years, source recognition was asked about only for the slogan “Don’t Trash Arizona.”

Table 14: Where Saw *Don’t Trash Arizona* Slogan
Total responses among those indicating they had heard the slogan

Media	2012 Maricopa (n=321)	2011 Maricopa (n=313)	2010 Maricopa (n=308)	2009 Maricopa (n=319)	2006 Maricopa (n=322)
Television	25%	36%	31%	34%	26%
Street/highway signs	23%	19%	16%	14%	12%
Billboards	21%	21%	20%	18%	20%
Radio	16%	24%	21%	22%	14%
Newspaper	4%	5%	4%	6%	5%
Parks	3%	1%	--	--	--
School	2%	--	--	--	--
Magazines	1%	1%	--	2%	--
Bus signs	1%	1%	--	--	--
Shopping	1%	--	--	--	--
Internet	1%	--	2%	2%	--
Signs around lakes	1%	--	--	--	--
Friends/family/word of mouth	1%	--	--	--	--
Bumper sticker	--	1%	--	--	--
Light Rail Train	--	1%	--	--	--
Other (1% or less of consensus)	4%	6%	7%	5%	6%
Don't know	22%	18%	24%	20%	25%

Q26: Where have you seen, heard or read the slogan “Don’t Trash Arizona?”

***Bold** indicates significantly different percentages than 2011 data at the 95% confidence level.

Approximately 69% of residents who were aware of Don't Trash Arizona advertising were unable to name a sponsor for the advertisements (consistent with previous years). As with recent years, the percentage of residents who correctly identified ADOT was 8%.

Females were more likely than males to mention "state/local government" as the sponsor (17% vs. 8%).

Table 15: Who Sponsors Don't Trash Arizona Slogan
Among those indicating they had heard the slogan

Sponsor	2012 Maricopa (n=321)	2011 Maricopa (n=313)	2010 Maricopa (n=308)	2009 Maricopa (n=319)	2006 Maricopa (n=322)
State/local government	12%	13%	17%	14%	14%
ADOT	8%	8%	7%	9%	12%
City of Phoenix	2%	2%	2%	--	--
Sanitation department/ department of waste	1%	3%	3%	--	--
Department of Public Safety	--	1%	--	--	--
Maricopa Association of Governments	--	--	Na	Na	Na
Other (<1% consensus)	6%	3%	3%	6%	5%
Don't know	69%	70%	69%	70%	70%

Q27: Who sponsors the Don't Trash Arizona advertisements?

Note: Although not read to respondents, the Maricopa Association of Governments was added to the pre-coded list in 2011

***Bold** indicates significantly different percentages than 2011 data at the 95% confidence level.

D. Awareness of Litter Resources

Residents' awareness remained consistent for the litter hotline, compared to the previous year (12%). Awareness for the Don'tTrashArizona.com website, was consistent with the 2011 figure (11%).

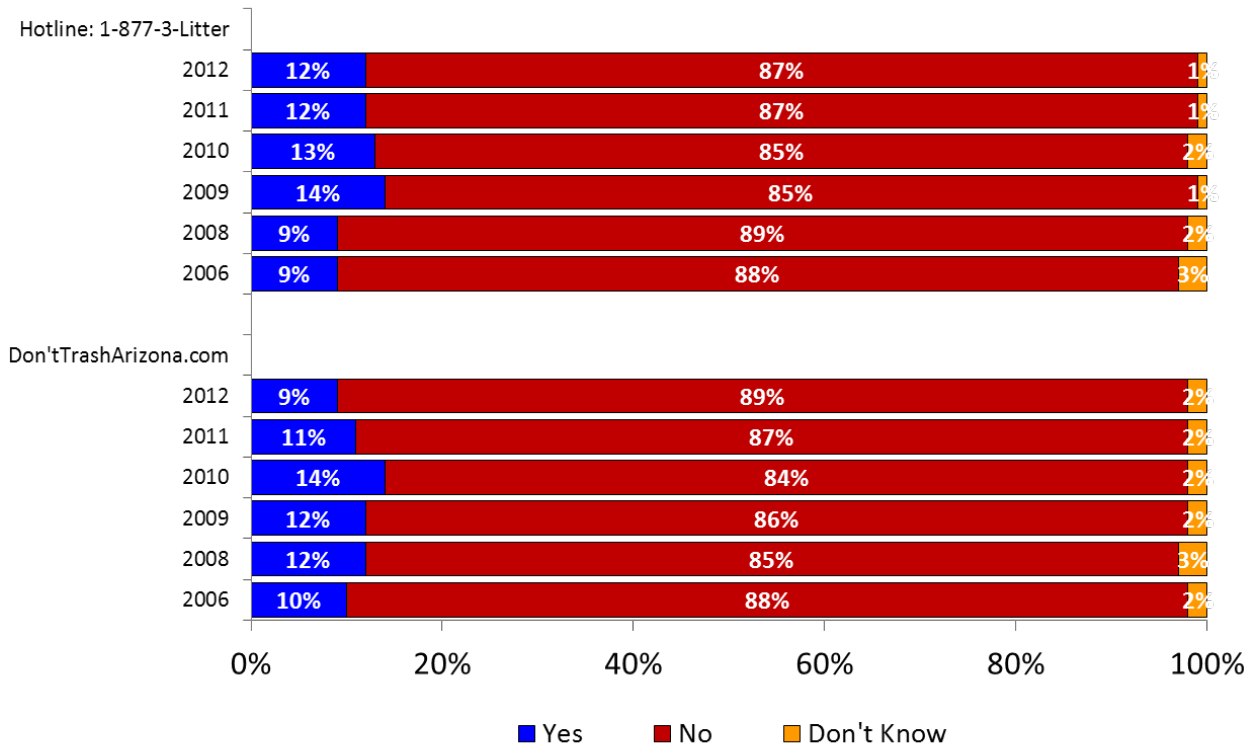
Those groups more likely to be aware of the litter hotline include:

- Residents ages 55 and older vs. younger residents (18% vs. 10%).
- Residents with annual household incomes of less than \$50,000 vs. residents with higher annual household incomes (17% vs. 9%).

Those groups more likely to be aware of the Don'tTrashArizona.com website include:

- Residents with a high school diploma or less education vs. residents with at least a college degree (15% vs. 6%).
- Residents with annual household incomes of less than \$50,000 vs. residents with higher annual household incomes (12% vs. 5%).

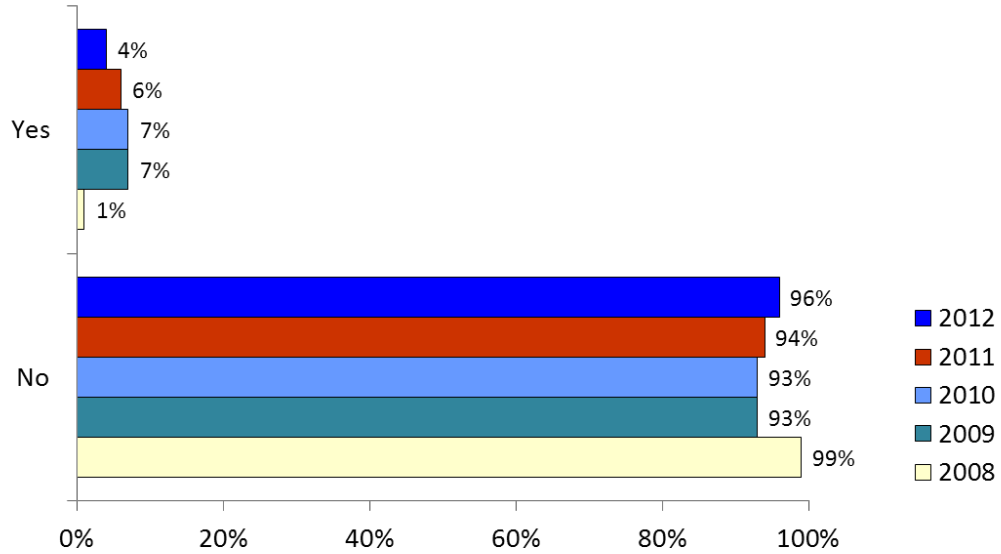
Aided Awareness – Litter Resources



This year, four-percent (4%) of Valley residents aware of the *Don't Trash Arizona* website reported that they have actually visited the site.

Don't Trash Arizona Website Visitation

Have you ever visited the *Don't Trash Arizona* website?



Among those aware of website: 2012 n=53; 2011 n=67; 2010 n=83; 2009 n=73; 2008 n=72

E. Likelihood to Report Littering

When Valley residents were asked how likely they would be to report littering behavior if they saw someone littering, approximately 59% indicated they would be at least “somewhat” likely to report littering (24% “very likely” and 35% “somewhat likely”). This is similar to previous years.

Those groups more likely to be “very” or “somewhat” likely to report littering include:

- Female residents vs. male residents (66% vs. 53%).
- Residents ages 35 to 54 vs. younger and older residents (66% vs. 53% and 56%, respectively).

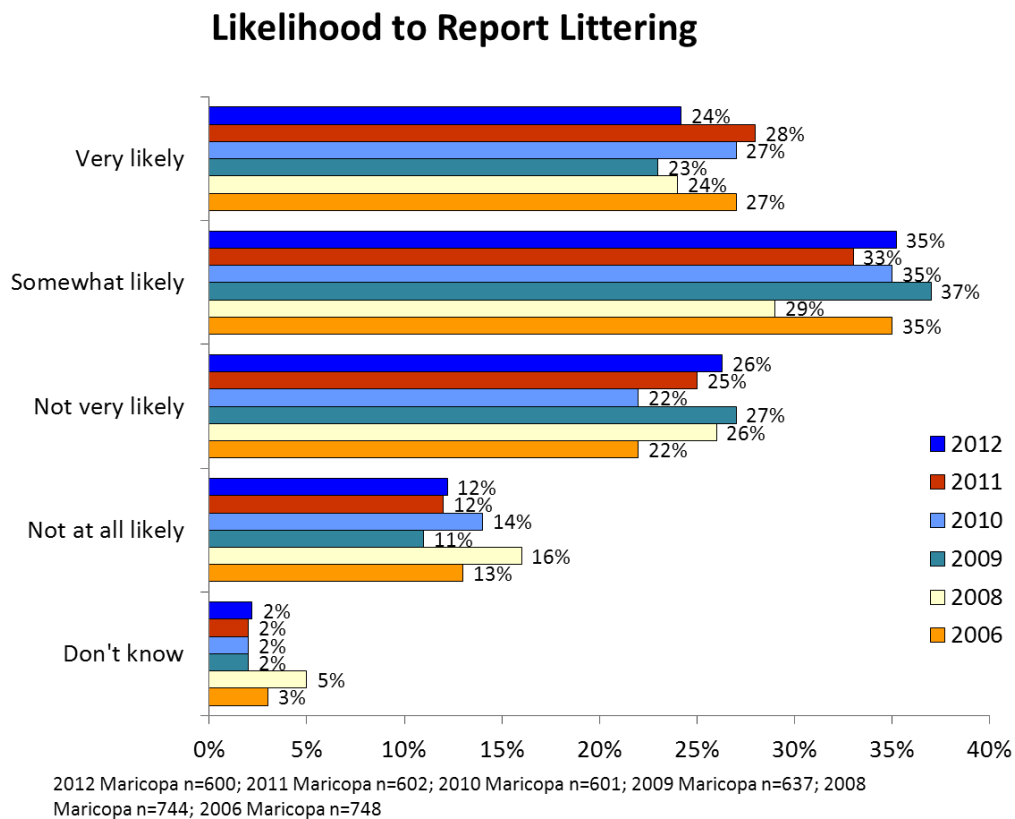


Table 16: Likelihood to Report Littering

Likelihood	2012 Maricopa (n=600)	2011 Maricopa (n=602)	2010 Maricopa (n=601)	2009 Maricopa (n=637)	2006* Maricopa (n=748)
NET likely (Very + somewhat)	59%	61%	62%	60%	62%
Very likely	24%	28%	27%	23%	27%
Somewhat likely	35%	33%	35%	37%	35%
Not very likely	26%	25%	22%	27%	22%
Not at all likely	12%	12%	14%	11%	13%
Don't know	2%	2%	2%	2%	3%

Q31: If you were to see someone litter, how likely are you to report this behavior to the Litter Hotline or the website in the future?

In 2006 and 2008, the question asked how likely they would be to report littering by calling the litter hotline.

***Bold** indicates significantly different percentages than 2011 data at the 95% confidence level.

F. Additional Litter Resources

When asked where they would go to find more information about litter or littering, should they need to, residents most often mentioned the Internet (47%). This is consistent with the previous year. Also consistent with the previous year, one in five (18%) residents surveyed specifically mentioned the Don'tTrashArizona.com website as a resource to go to if they wanted more information about littering.

Those groups more likely to mention the Don'tTrashArizona.com website include:

- Residents under the age of 55 vs. residents ages 55 and older (22% vs. 10%).
- Residents with at least some college coursework completed vs. residents with a high school diploma or less education (21% vs. 10%).

Table 17 below contains additional information about residents' preferred sources for litter information.

Table 17: Source for Litter/Littering Information

Source	2012 Maricopa (n=600)	2011 Maricopa (n=602)	2010 Maricopa (n=601)	2009 Maricopa (n=637)	2006 Maricopa (n=748)
Internet	47%	46%	49%	49%	59%
Don't Trash AZ website	18%	18%	14%	18%	--
The "city"	8%	7%	5%	5%	5%
Litter hotline	5%	5%	5%	5%	4%
Police/ highway patrol/DPS	3%	2%	3%	3%	4%
I wouldn't need that information/ wouldn't contact anyone	2%	3%	3%	2%	3%
ADOT/highway dept.	2%	2%	2%	2%	2%
The state/governor	2%	2%	2%	2%	3%
Waste Management/ garbage company	2%	2%	2%	1%	2%
Phonebook/ yellow pages	1%	2%	2%	2%	4%
Friend/ neighbor/family member/ teacher	1%	1%	1%	2%	1%
Newspaper	1%	1%	--	--	1%
Arizona.gov	1%	--	--	--	--
Other (<1% consensus)	6%	6%	3%	5%	8%
Don't know	15%	15%	19%	16%	13%

Q32: If you wanted to find out more information about litter or littering, where would you go or who would you contact to find that information? *All mentions less than 1%

***Bold** indicates significantly different percentages than 2011 data at the 95% confidence level.

G. Communication Preferences

Facebook remains the most commonly mentioned method used to communicate or stay in touch with others (36%), followed by the utilization of search engines such as Google/Yahoo (28%). The percentage of residents who mentioned e-mail using a cell phone or handheld device rose to 25% (from 17% in 2011), while the percentage who mentioned e-mail using a computer decreased to 15% (from 20% in 2011).

Facebook is more likely to be used by residents ages 18 to 34 vs. older residents (61% vs. 27%).

Table 18: Electronic Communications Preferences

Electronic Communication Preferences	2012 Maricopa (n=600)	2011 Maricopa (n=602)
Facebook web page.	36%	32%
Google/AOL/Yahoo/etc.	28%	27%
E-mail using a cell phone or handheld device	25%	17%
Website	21%	26%
E-mail using computer	15%	20%
Text Messages using a cell phone or handheld device	15%	6%
Phone (unspecified)	13%	19%
Nothing	11%	12%
Internet	6%	6%
Twitter	5%	3%
Word of mouth	2%	2%
Television	1%	1%
Other	7%	5%
Don't know/NA	1%	3%

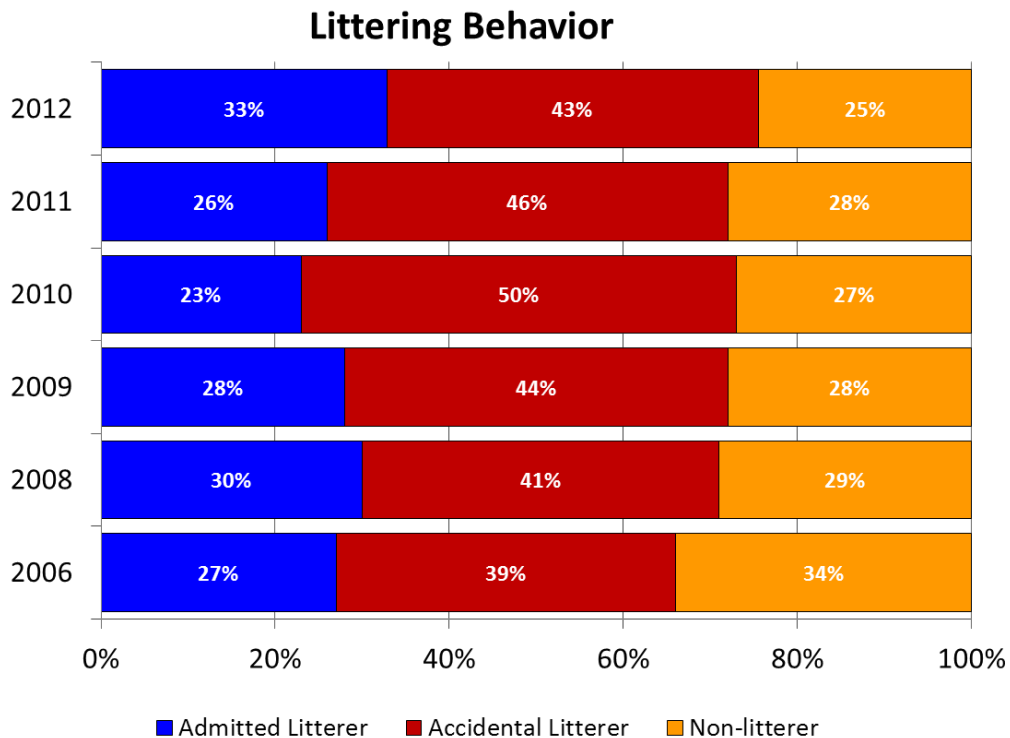
Q33: People use many different resources to communicate and stay in touch with others. What applications or websites do you use to gather information or communicate with others? Note: Question added in 2011.

***Bold** indicates significantly different percentages than 2011 data at the 95% confidence level.

V. PROFILES OF LITTERERS

Residents were segmented into three categories based on their reported littering behavior. **“Admitted Litterers”** are defined as those who specifically mentioned items that they recall littering (33% of the total population). **“Accidental Litterers”** are defined as residents who indicated that they had never littered themselves, but reported being in a vehicle when littering occurred (43% of the total population). **“Non-Litterers”** are those who indicated they had never littered themselves and also indicated they had never experienced other littering situations (25% of the total population).

This year, a significant increase occurred in the percentage of residents who identified as “Admitted Litterers” (33%, up from 26% in 2011).



Approximately half of the male residents aged 18 to 34 surveyed are admitted litterers (51%), consistent with recent years (56% in 2011, and 51% in 2010). In general, residents ages 18 to 34 are more likely than residents over age 55 to be admitted litterers (48% vs. 20%).

Tables 19a and 19b show the demographic characteristics of each of these groups.

Table 19a: Demographic Comparison Based on Littering Behavior

Characteristic	2012			2011		
	Admitted Litterers (n=197)	Accidental Litterers (n=256)	Non-Litterers (n=147)	Admitted Litterers (n=157)	Accidental Litterers (n=276)	Non-Litterers (n=169)
Gender						
Male	55%	51%	42%	60%	49%	43%
Female	45%	49%	58%	40%	51%	57%
Age						
18 to 34	41%	26%	14%	49%	23%	16%
35 to 54	41%	42%	48%	38%	47%	41%
55+	17%	33%	38%	13%	30%	43%
Average	39.5	44.8	47.8	37.4	44.8	48.2
Marital Status						
Married	51%	56%	53%	46%	54%	56%
Single	35%	28%	24%	40%	29%	24%
Widowed	4%	4%	10%	1%	6%	10%
Divorced	5%	9%	7%	8%	8%	6%
Separated	3%	1%	1%	1%	--	1%
Don't know or Refused	4%	2%	6%	4%	3%	4%
Education						
Less than high school	2%	6%	7%	7%	6%	4%
High school graduate	20%	18%	14%	14%	18%	18%
Some college	38%	33%	31%	36%	38%	28%
College graduate	24%	25%	24%	27%	21%	27%
Graduate degree	13%	16%	15%	13%	14%	20%

***Bold** indicates significantly different percentages than 2011 data at the 95% confidence level.

Table 19b: Demographic Comparison Based on Littering Behavior

Characteristic	2012			2011		
	Admitted Litterers (n=197)	Accidental Litterers (n=256)	Non-Litterers (n=147)	Admitted Litterers (n=157)	Accidental Litterers (n=276)	Non-Litterers (n=169)
Ethnicity						
White	67%	72%	62%	70%	73%	73%
Hispanic	15%	14%	19%	13%	12%	11%
African-American	6%	4%	3%	5%	4%	3%
Asian	1%	2%	1%	4%	3%	1%
Native American	2%	3%	1%	-	1%	1%
Other	4%	2%	4%	5%	2%	5%
Refused	5%	3%	11%	3%	5%	6%
Household Income						
<\$10,000	8%	9%	6%	8%	11%	10%
\$10-\$20,000	6%	9%	7%	7%	19%	3%
\$20-\$30,000	8%	6%	8%	10%	8%	5%
\$30-\$40,000	11%	11%	4%	7%	8%	7%
\$40-\$50,000	8%	8%	4%	6%	6%	5%
\$50-\$60,000	2%	4%	7%	11%	5%	7%
\$60-\$75,000	11%	6%	5%	6%	9%	11%
\$75-\$100,000	12%	14%	7%	11%	10%	8%
\$100,000+	19%	16%	19%	18%	14%	17%
Refused**	15%	17%	33%	16%	17%	28%
Employment						
Full-time	53%	52%	46%	51%	43%	44%
Part-time	14%	5%	5%	13%	9%	8%
Retired	8%	20%	26%	9%	22%	33%
Housespouse	6%	6%	5%	6%	5%	3%
Student	7%	4%	3%	6%	4%	1%
Unemployed	11%	10%	10%	13%	13%	8%
Household Language*						
English only	74%	74%	65%	73%	74%	69%
Spanish only	--	<1%	3%	--	1%	1%
Mostly Spanish + some English	3%	2%	4%	--	2%	2%
Equally in Spanish and English	3%	4%	3%	5%	4%	2%
Mostly English + some Spanish	11%	12%	11%	12%	10%	11%
English + Other	7%	6%	7%	8%	6%	12%
Refused	2%	2%	7%	2%	3%	3%

***Bold** indicates significantly different percentages than 2011 data at the 95% confidence level.

APPENDIX A

QUESTIONNAIRE

Client: Maricopa Association of Governments
Subject: Litter Survey 2012
Date: July 2012

Introduction

Hello, my name is _____, and I am calling from WestGroup Research an independent research company. We are conducting a brief survey on the topic of litter and would appreciate your input. All information given will remain confidential. No sales calls will result from this interview.

1. First, are you or is any member of your family currently employed in any of the following...? READ LIST; IF YES TO ANY: THANK AND TERMINATE
 - a. Advertising or marketing research
 - b. Arizona Department of Transportation
 - c. Maricopa Association of Governments
 - d. A professional waste collection or recycling company
 - e. The waste management industry

2. Please tell me which of the following age categories includes your age? Please stop me when I read the correct category. READ LIST; ALLOW ONLY ONE RESPONSE
 - a. Under 18
 - b. 18 to 34
 - c. 35 to 54
 - d. 55+
 - e. Refused

3. *If "Under 18" or "Refused," continue with:* May I please speak to someone in the household who is between the ages of 18 and 65?

4. Do you live in Maricopa County? If no, ask to speak to someone who does.

5. RECORD GENDER (DO NOT ASK; RECORD BY OBSERVATION)
 - a. Male
 - b. Female

6. For classification purposes, may I have the Zip Code in which you live?

7. What type of vehicle do you most often drive or ride in..? DO NOT READ LIST
- a. Sedan
 - b. Pick-up truck
 - c. Sports utility vehicle
 - d. Coupe
 - e. Van / Minivan
 - f. Motorcycle
 - g. Other
 - h. Don't drive
 - i. Don't know/Refused

Litter Awareness

Today, I would like to talk to you specifically about the topic of litter. When answering the following questions, please be open and accurate about your opinions and actions. We are trying to understand what people really think about litter. All of your responses will remain confidential.

8. In your opinion, how big of a problem is litter along freeways in Maricopa County? Would you say it is a....
- a. Big problem
 - b. Moderate problem
 - c. Small problem
 - d. Not a problem at all
 - e. Don't know / Refused (DO NOT READ)
9. Do you smoke?
- a. Yes
 - b. No
 - c. Don't know / Refused
10. IF YES in Q10: When you are in a vehicle, do you USUALLY dispose of cigarette butts...? READ LIST – ONE RESPONSE ONLY
- a. By using an ashtray inside the vehicle
 - b. By using something else you have inside the vehicle
 - c. By throwing it out the window
 - d. Or does it vary
 - e. DO NOT READ: Other means of disposal
 - f. Do not smoke in car (added)
 - g. Don't know / Refused (DO NOT READ)

11. I am going to read you a few statements pertaining to your litter awareness. For each of the following statements, please respond by telling me if this is something you "Have experienced within the past 3 months," Have experienced over 3 months ago," or "Have never experienced."
- a. You noticed that some trash fell out of a pick-up or other vehicle you were driving or riding in.
 - b. Someone in a vehicle you were in threw out trash in an area that already had lots of litter
 - c. Someone in a vehicle you were in threw out trash in an area that did not have any litter
 - d. Someone in a vehicle you were in threw out a can, bottle, or other litter out onto the side of the road.
 - e. You had problems with a vehicle and left debris like a tire, part of a tire, or other stuff on the roadside
 - f. Rather than keep a beverage container in the car, you, or someone in a vehicle you were in, threw out a can or bottle.
 - g. You threw out a small item from your vehicle, like a candy wrapper, scrap paper or something like that.
 - h. You or someone you were with got a ticket or warning for littering.
 - i. Rather than keep a cigarette butt in the car, you or someone in the vehicle you were in threw the cigarette butt out the window.

Littering Behavior

12. Can you think of items that you yourself might have discarded as litter (by litter we mean items that you did not put in a trash receptacle) in the past year? MULTIPLE RESPONSES ALLOW UP TO THREE. DO NOT READ LIST.
- a. Small pieces of paper (receipts, lottery tickets, gum wrappers)
 - b. Cigarette butts
 - c. Other food wrappers (chip bags/candy)
 - d. Food / organic material, raw food
 - e. Other
 - f. Have not littered in past year – TRUCK DRIVERS SKIP TO Q15, ALL OTHERS SKIP TO: Q17
 - g. Don't know

13. To the best of your knowledge, what were the general circumstances in terms of where and what you were doing when you discard litter? PROBE: Any other circumstances? DO NOT READ. MULTIPLE RESPONSES ALLOWED UP TO THREE.
- Driving / riding in / traveling in vehicle
 - Walking outside
 - Opened door and it flew out / flew out of window / flew out of cab
 - No trash can around (not while in car)
 - Cleaning out car
 - In parking lot
 - Just threw it out / got rid of it anywhere I could
 - Other
 - Don't know/Can't remember / don't recall
14. Why do you litter WHEN DRIVING? (*Do **not** read list, mark all that apply*)
- I'm lazy
 - It's easy
 - No trash receptacles are convenient
 - Cigarettes stink up car, easier to throw out window
 - Only litter food scraps – they are biodegradable
 - I don't care
 - I don't consider throwing out gum, small wrappers, cig butts litter
 - It was an accident/unintentional
 - I don't want to keep it in my car
 - I don't litter when driving
 - Other _____
 - Dk/Refused
15. TRUCK DRIVERS ONLY: What types of items do you ever put into your truck bed that you consider to be litter or trash? PROBE: What else? MULTIPLE RESPONSES ALLOW UP TO THREE. DO NOT READ LIST.
- Soda cans and soda bottles
 - Water cans and water bottles
 - Small pieces of paper (receipts, lottery tickets, gum wrappers)
 - Plastic bags / other plastic
 - Cigarette butts
 - Construction debris
 - Cardboard
 - Food / organic material, raw food
 - Lawn debris
 - Trash / no biodegradable stuff (unspecified)
 - Paper / newspaper / Kleenex / mail
 - Other
 - Don't know
 - Nothing

16. TRUCK DRIVERS ONLY: When putting items into the bed of your truck, how often, on average, do you secure your load (either with ties, bungees, a tarp, etc)?
- Always
 - Most of the time
 - Only sometimes
 - Rarely
 - Never
 - DK/Refused
 - If never – WHY NOT?

ASK ALL:

17. How often do you drive or ride in a vehicle that transports items that are not carried within the vehicle or trunk, such as hauling items in an open-air trailer or strapped to a luggage rack or trunk?
- Daily
 - At least once a week
 - 1-2 times a Month
 - A few times a year
 - Never

SKIP TO Q19

18. (If selected a, b, c, d on question 17) On average, how often do you secure the load that you are hauling (either with ties, bungees, a tarp, etc)?
- Always
 - Sometimes
 - Never

18a: If sometimes or never – Why don't you secure your loads all of the time?

19. Do you have a litter bag or trash can in your vehicle?
- Yes
 - No
 - Don't know / Refused

20. IF NO IN Q19: Would you consider keeping a litter bag or trash can in your vehicle?
- Yes
 - No
 - Don't know / Refused

Litter Campaign Awareness

21. In the past three months, have you seen, heard or read any advertisements related to litter or littering?
- Yes
 - No
 - Don't know / Refused

22. IF YES in Q21: What specifically do you remember about the ads related to litter or littering?

23. IF YES IN Q21: What was the main slogan used in the ads? DO NOT READ LIST. MULTIPLE RESPONSES ALLOWED.

- a. Don't Trash Arizona
- b. No cups cans or butts
- c. Keep Arizona Beautiful
- d. Do not litter
- e. You will be fined
- f. Littering is unlawful
- g. Go green
- h. Grow up. Don't Litter
- i. Adopt a highway
- j. It is your environment
- k. Keep our freeways clean
- l. None
- m. Other _____
- n. Don't know / Refused

24. IF NOT MENTIONED IN Q23 "a": Have you seen or heard the slogan, "Don't Trash Arizona?"

- a. Yes
- b. No
- c. Don't know / Refused

25. IF NOT MENTIONED IN Q23 "b": Have you seen or heard the slogan, "No cups, cans or butts! Don't Trash Arizona?"

- a. Yes
- b. No
- c. Don't know / Refused

26. IF mentioned in Q23a or Q23b or YES IN Q24 or Q25: Where have you seen, heard or read the slogans, "Don't Trash Arizona" or "No cups, cans or butts: Don't Trash Arizona?" PROBE: Where else? DO NOT READ LIST. MULTIPLE RESPONSES ALLOWED.

- a. Television
- b. Radio
- c. Billboards
- d. Convenience stores
- e. Mobile advertising truck
- f. Movie theaters
- g. Events around the valley/materials given away at events
- h. Street or highway signs
- i. Newspaper
- j. Online
- k. Other
- l. Don't know / Refused

27. IF mentioned in Q23a or Q23b or YES IN Q24 or Q25: Who sponsors the “Don’t Trash Arizona” advertisements? DO NOT READ LIST. ONE RESPONSE ONLY.
- State / Local Government
 - Arizona Department of Transportation
 - Sanitation department
 - City of Phoenix
 - Maricopa Association of Governments
 - Other
 - Don’t know / Refused
28. Have you heard of www.DontTrashArizona.com?
- Yes
 - No
 - Not sure/DK
29. If YES IN Q28 “a”: Have you ever visited the “Don’t Trash Arizona Website?”
- Yes
 - No
 - Don’t know
- 29a. IF YES: What were you looking for when you went to the Don’t Trash Arizona website?
30. Have you heard about the Litter Hotline, 1-877-3-Litter, where you can report someone who litters? NOTE: QUESTION MOVED WITHIN SURVEY
- Yes
 - No
 - Don’t know / Refused
31. If you were to see someone litter, how likely are you to report this behavior to the Litter Hotline or the Web site in the future?
- Very likely
 - Somewhat likely
 - Not very likely
 - Not at all likely
 - Don’t know / Refused (DO NOT READ)

32. If you wanted to find out more information about litter or littering, where would you go or who would you contact to find that information? DO NOT READ LIST, SELECT ALL THAT APPLY.
- Don't Trash AZ website
 - Internet
 - Litter hotline
 - The "city"
 - I wouldn't need that information/wouldn't contact anyone
 - ADOT/highway dept.
 - Police/ highway patrol/DPS
 - Phonebook/ yellow pages
 - Waste Management/ garbage company
 - That state/governor
 - Other
 - Don't know/refused
33. People use many different resources to communicate and stay in touch with others. What applications or web sites do you use to gather information or communicate with others? DO NOT READ LIST MULTIPLE RESPONSES ALLOWED
- Nothing
 - Text messages using a cell phone or handheld device
 - e-mail using a cell phone or hand held device
 - MySpace web page
 - FaceBook web page
 - Using Twitter (also known as "tweeting")
 - Website: Specify _____
 - Other: Specify _____

Demographics

Now I have a few final questions that are for classification purposes only.

D1. What is your present marital status? (ASK AS OPEN END; ACCEPT ONE MENTION)

- Single
- Married
- Divorced
- Separated
- Widowed
- Don't know
- Refused/NA

D2. What was the last year of education you have completed?

- a. Grammar school (8 years or less)
- b. Some high school (9-11 years)
- c. Graduated high school (12 years)
- d. Some post-high school training/some college
- e. Graduated from four-year college (B.A./B.S.)
- f. Graduate Degree
- g. Don't Know
- h. Refused

D3. Are you employed full-time, employed part-time, retired, a housewife, a student or unemployed?

- a. Full-time
- b. Part-time
- c. Retired
- d. Housewife
- e. Student
- f. Unemployed
- g. Refused/NA

D4. Which of the following best classifies your profession? Read List

- a. White collar/management
- b. Blue collar
- c. Trade profession
- d. Professional (medical/legal)
- e. Educational
- f. Clerical/administrative
- g. Sales
- h. Self-employed
- i. Other (SPECIFY)
- j. Don't know

D5. How would you describe your ethnic heritage? Would you say you are... (READ CODES 1-5; ACCEPT ONE MENTION)

- a. White
- b. African-American
- c. Hispanic
- d. Asian, or
- e. Something Else [SPECIFY]:
- f. Native American
- g. Refused

D6. Thinking about your personal language use including in home and away from home, would you say you speak...? READ LIST; ALLOW ONLY ONE RESPONSE)

- a. English Only
- b. Only Spanish
- c. Mostly Spanish, but also some English
- d. Equally in Spanish and English
- e. Mostly English, but also some Spanish
- f. English plus some other language
- g. Don't know/refused

D7. Was your annual household income before taxes last year: Read List

- a. Less than \$10,000
- b. \$10,000 to less than \$20,000
- c. \$20,000 to less than \$30,000
- d. \$30,000 to less than \$40,000
- e. \$40,000 to less than \$50,000
- f. \$50,000 to less than \$60,000
- g. \$60,000 to less than \$75,000
- h. \$75,000 to less than \$100,000
- i. More than \$100,000
- j. No answer

Thank you very much – those are all my questions.