



LITTER EVALUATION SURVEY

August 2009



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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. While 60 percent of littering is deliberate, 40 percent occurs “accidentally” when items blow or fall off vehicles. Littering most often occurs when drivers are alone, and small items like cigarettes and candy wrappers are not typically considered 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.

Based on the research results, a strategy was developed that would utilize a “pride” message; focus on the 18 to 24 male demographic; target both deliberate and “accidental” litter; and include a variety of strategies and tactics within the areas of public relations, paid advertising, media outreach, school outreach, and the development of value-added partnerships.

While the primary goal of the *Don't Trash Arizona* program is to reduce freeway litter by increasing awareness about the problems litter causes and to change littering behavior, it was recognized early on that it would be difficult to rapidly “move the needle” when it comes to changing behavior. The communication team outlined a strategy to achieve results through a three-stage process: 1) increase awareness; 2) change attitudes; and 3) change 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. A year later, another follow-up study was conducted; however, this time it was focused on Maricopa County residents. That survey is the focus of this report.

Evaluative Survey

RIESTER, on behalf of its client, the Maricopa Association of Governments (MAG), commissioned WestGroup Research of Phoenix to conduct a telephone study with residents in Maricopa County. The purpose of the study was to evaluate overall awareness of and attitudes toward litter issues and explore littering behavior, and compare responses to the benchmark study, which was conducted in December 2006 and August 2008. It is important to note that the previous two studies were conducted with Arizona residents. To accurately compare the data from previous surveys to the current year, the 2006 and 2008 data shown in this report include only responses from Maricopa County residents.

Results are based on 637 fifteen-minute telephone interviews with Maricopa County residents. All respondents were randomly selected from a Random Digit Dial (RDD) database comprising phone numbers from the targeted zip codes. The margin of error for the survey is approximately $\pm 4.0\%$ at a 95% confidence level.

Below are some of the key findings of the survey.

Driver Characteristics

- In 2009, approximately two in five Valley residents (39%) reported driving or riding in a 4-door sedan, a slight decrease from 2008 when 44% of residents reported riding/driving in this type of vehicle.
- Maricopa County residents were significantly more likely to report having a litterbag or trash receptacle in their vehicle this year (66%; up from 56% in 2008 and 57% in 2006).
- Three in five residents (60%) who do not currently have a litterbag or trash receptacle in their car indicated they would consider keeping one in their vehicle in the future. This represents a significant increase from last year (50% in 2008).
- Similar to previous years, one in six Valley residents indicated they were smokers (15%). The majority of smokers reported that they use the ashtray in their vehicle (49%), use something else in their car (19%) or do not smoke in their vehicle (13%).
- One in six Maricopa County residents indicated they drive a pickup truck (16%); this is essentially the same percentage reported in 2008 and 2006 (15% for each year).
- Truck drivers reported that lawn debris and soda cans/bottles were the most common types of litter that would be found in the back of their truck (mentioned by 11% and 10%, respectively).

- Forty-four percent of truck drivers indicated they do not believe they put any type of litter in their truck bed; an additional 5% reported they were unsure if the items they put in the back of their truck were considered litter (compared to 23% in 2008 and 25% in 2006).
- Seven in ten truck drivers (70%) indicated that on average they “always” secure items in the back of their pick-up truck and an additional 11% report that they secure their load most of the time. Conversely, one in six (17%) do not frequently secure items in their truck bed, reporting they “sometimes,” “rarely,” or “never” secure items.

Litter Awareness and Behavior

- In 2009, the perception of littering along Maricopa County freeways was reported by more people overall as a “big” or “moderate” problem than in 2008, (67%, up from 64%). However, fewer residents ranked it in the more severe category as a “big” problem this year (20%; down from 23% in 2008 and 37% in 2006).
- When asked to itemize what items they thought they had littered in the past year, a majority of Valley residents insisted that they had not littered at all during the past year (69%); this was similar to the findings from the 2008 (67%) and 2006 study (69%).
- The number of males 18 to 34 who indicated they “had not littered in the past year” increased from 40% in 2006 to 44% in 2008 and to 45% in 2009 – an increase of 12% of the target population.
- More than half of the males aged 18 to 34 are admitted litterers (51%); however, that number has declined from 56% in 2006.
- Among those who indicated they had littered in the past year, food or organic material (including gum) was the most common type of litter (mentioned by 48%).
- As in prior years, residents who indicated they had littered in the past year were most likely to report that the littering happened while they were driving and/or riding in a vehicle (53%).
- Lack of convenient trash receptacles was the most common reason cited for littering when driving (mentioned by 16% of residents who have littered in the past year).
- Similar to prior years, residents were most likely to report that at some point in time they “noticed trash falling out of the vehicle” they were driving or riding in (26% within the past 3 months; 23% in 3+ months).
- One-half (50%) of Valley residents indicated they were familiar with the term “dangerous debris.” Overall, most residents thought the term referred to objects on

roadways that can cause damage to vehicles. Most residents believed these objects were large in scale, like tires, mattresses, or furniture (44%).

Campaign Awareness

- One in four residents (27%) indicated they had seen advertising related to litter or littering in the past three months, slightly higher than reported in 2008 (25%). For males aged 18 to 34, awareness increased from 25% in 2006 30% in 2009.
- When those aware of litter-related advertising were specifically asked what they remembered about the ads, most recalled information about the fines (mentioned by 27%).
- One in three residents who remembered seeing litter-related advertising in the past three months were able to recall some type of slogan/message (35%). Two of the most commonly recalled “slogans” were actually messages – “do not litter” (mentioned by 9%) and “you will be fined” (mentioned by 6%).
- One-half of Valley residents (50%) indicated they have heard the slogan “Don’t Trash Arizona.” While this represents a decline between 2008 and 2009 (decreasing from 56% in the prior year), awareness is still significantly higher than in 2006 (43%). Additionally, awareness was much higher among the target audience of males 18 to 34, with three-fifths (62%) of the target audience aware of the “Don’t Trash Arizona” slogan. This represents a 40% increase from 2006 (44%).
- Residents who were familiar with the “Don’t Trash Arizona” slogan reported seeing and/or hearing the slogan from a variety of sources – television (34%), radio (22%), billboards (18%), and street/highway signs (14%).
- This year, awareness of the Litter Hotline was significantly higher compared to last year (14%; up from 9% in 2008, an increase of 56%). Fifteen percent of males aged 18 to 34 were aware of the slogan, an increase of 66% over 2006.
- Twelve-percent (12%) of residents had heard of the litter Web site, www.DontTrashAZ.com; this was the same percentage as reported in 2008. However, there was a significant increase in awareness of the Web site among the target population, with 23% of males 18 to 34 aware of the Web site. This represents an overwhelming increase of 229% over the 2006 awareness level (7%).
- Seven-percent (7%) of Valley residents aware of the litter Web site reported that they have visited the site; this was up slightly from 4% in 2008.
- When Valley residents were asked if they saw someone littering how likely they would be to report this behavior, three-fifths (60%) of residents indicated they would be at least “somewhat” likely to call (23% “very likely” and 37% “somewhat likely”). This is a significant increase compared to 2008 (53%).

- Valley residents indicated they would primarily go to the Internet if they wanted more information about litter or littering (mentioned by 49%; up significantly from 26% in 2008).
- Approximately one in six residents specifically mentioned the “Don’t Trash Arizona” Web site as a resource to go to if they wanted more information about littering (18%). Three-fifths (61%) of males between the ages of 18 to 34 indicated they would go to the Internet for litter information and 28% specifically mentioned that they would go to www.DontTrashArizona.com.

KEY FINDINGS AND RECOMMENDATIONS

Some of the most significant findings of the survey were many positive changes in awareness and behavior among the target demographic of males aged 18 to 34, with additional positive changes among the overall population in several areas.

Overall, the survey continues to show success in the program's first objective of increasing awareness about litter issues, with half of Arizona residents indicating they have heard the slogan, *Don't Trash Arizona*. Overall awareness of the slogan increased from 43% in 2006 to 50% in 2009. Furthermore, awareness of the slogan was especially high among the target demographic of younger males, with 62 percent of males aged 18 to 34 stating awareness, an increase of 20 percent over 2008.

More than one in four (27%) respondents indicated they had seen advertising related to litter in the past three months. Again, this was even higher among the target group (30%) of younger males. These findings are likely due to a strategic marketing, education and outreach campaign targeting males aged 18-34.

Another positive finding of the study was a significant increase in the number of respondents aware of litter resources. Awareness of the Litter Hotline, which allows motorists to report someone littering from a vehicle, was significantly higher, increasing to 14 percent in 2009 from nine percent in 2008, an increase of 56%. Among the target population, the increase in awareness of the hotline jumped from 9% in 2006 and 10% in 2008 to 15% in 2009, a 66% increase in awareness levels from the inception of the campaign. Awareness of the litter Web site, *DontTrashArizona.com*, among younger males increased even more significantly (229%) over the 2006 awareness level.

Another key finding of the survey came in unaided recall of two specific litter radio messages. When asked if they remembered seeing ads related to littering in the past three months, respondents specifically referenced the two radio advertisements that had been produced through the *Don't Trash Arizona* program, including specific details about the spots. These included an ad in which two male roommates discuss a \$502 burger, the extra \$500 coming from a fine one of them received from throwing his food wrapper out the car window. The roommates then discuss the costs and hazards associated with litter. The second involves a young man discussing his litter "addiction," how he started littering small things when he was young, which grew larger as he grew older. Eventually he was caught and fined, and has now been "clean" for three months. The humor of both ads was recalled by many respondents. It is exceptional for such specific details to be so widely recalled without prompting.

As in prior years, the study finds that it continues to be more difficult to change behavior. While 69% of Arizona residents reported that they had not littered at all during the past year, this number remained unchanged from the initial 2006 survey. However, more positive changes were reported among the target population, with admitted litterers among males aged 18 to 34 declining from 56% in 2006 to 51% in 2009. Those

in this group who stated they had not littered within the past year also increased (to 45% from a reported 40% in 2006).

Although the changes in behavior are highly encouraging, it is important to note that more than half (51%) of this group still admit to littering. Thirty-six percent of respondents in this group have also experienced “accidental” littering, in which items blow out of or fall from vehicles.

Accidental littering remains a significant area of concern. Twenty-six percent of Arizonans admitted to having trash blow out of or fall from their vehicle in 2009 in just the past three months, with another 23 percent reporting that occurrence in 3+ months. Another area of concern continues to be the littering of cigarette butts, a circumstance cited by 21% of residents (8% in the past 3 months and 13% in 3+ months).

Among Maricopa County residents in general, there was a shift in perception of litter as a big problem, decreasing from 37% in 2006 to 23% in 2008 and to 20% today. While it is impossible to determine whether this is a result in increased litter pickup under the Regional Transportation Plan or whether in fact fewer individuals are littering, the improving perception of the cleanliness of our roadways is a positive trend.

A final finding that shows promise involved a question asked for the first time in this survey. It involves an emerging key message for the campaign, and that is the issue of dangerous road debris. The Maricopa Association of Governments has been working over the past few months to encourage broadcast stations to use the term “dangerous debris” when referring to items that fall from vehicles into the roadway, creating a safety hazard. One half (50%) of Valley residents indicated they were familiar with the term “dangerous debris,” and recognized that this usually involved objects on roadways that can cause damage to vehicles. Residents who were also aware of anti-litter advertising were significantly more likely to be aware of the term (61% vs 46%).

The above findings and observations indicate several approaches for continuing litter prevention and education efforts. The research confirms that males aged 18 to 34 continue to be among the most common litter offenders. The survey also indicates that the current campaign focusing on this demographic is having a positive impact in reducing littering behavior. The significant recall of the ads appears to confirm that the current advertising messages are resonating with this audience, and may want to be pursued. The messaging surrounding dangerous debris appears early on to be working. Since this is the first time the question regarding the term “dangerous debris” has been asked, this is a trend that will continue to be monitored in future surveys for comparison. An opportunity exists to continue educational efforts that roadway debris can pose serious safety hazards and to use this awareness to encourage motorists to secure items with tarps or tie-downs when hauling vehicle loads.

In conclusion, there seems to be momentum in terms of increasing awareness of litter issues and perhaps the beginning indicators of changing attitudes. There were even a number of positive results in changing litter behavior among the targeted portion of the

population who are historically the worst offenders. These results would seem to indicate that the current strategy of combining paid advertising efforts with public relations efforts and other targeted messaging is appropriate.

I. INTRODUCTION

A. Background and Methodology

RIESTER, on behalf of its client Maricopa Association of Governments (MAG), commissioned WestGroup Research of Phoenix to conduct a telephone study with residents age 18 and older living in Maricopa County. The purpose of the study was to evaluate overall awareness of and attitudes toward litter issues and explore littering behavior, and compare responses to the benchmark study, which was conducted in December 2006 and July/August 2008.

Results are based on 637 fifteen-minute telephone interviews conducted with 322 male and 315 female residents. Respondents were randomly selected from a Random Digit Dial (RDD) database comprised of phone numbers from targeted zip codes. The margin of error for the survey is approximately $\pm 4.0\%$ at a 95% confidence level. Twenty-seven interviews (4%) were conducted in Spanish.

It is important to note that the previous two telephone studies were conducted with Arizona residents: those living in Maricopa County, Pima County, and outlying areas. The 2009 study was only conducted with Maricopa County residents. To accurately compare the data from previous studies to the current year, the 2006 and 2008 data shown in this report only includes responses from Maricopa County residents.

B. Demographics

Per established quotas, 50% of Maricopa County residents interviewed were males and 50% were females. The average age of the residents was 46 and 59% were married. The majority had at least some college experience (75%), 59% were employed either full or part-time, and one-third (32%) report a household income of more than \$75,000. Approximately three in four residents are Caucasian (76%), while 74% report that “only English” is spoken in their home.

Additional detail on the demographic profile of the respondents is provided in Tables 1a and 1b while Table 2 provides a breakdown of the city of residence represented in the sample.

Table 1a: Respondent Demographics

Characteristic	2009 Maricopa (n=637)	2008 Maricopa (n=744)	2006 Maricopa (n=748)
Male	50%	50%	50%
Female	50	50	50
Age			
18-24	10%	10%	9%
25-34	16	16	23
35-44	20	20	24
45-54	23	25	16
55-65	14	12	12
66+	17	16	16
Average	46.3 yrs	46.1 yrs	44.3 yrs
Marital Status			
Married	59%	56%	61%
Single	25	27	26
Widowed	7	7	6
Divorced	6	8	5
Separated	1	-	1
Refused	2		2
Education			
Less than high school	4%	8%	7%
High school graduate	19	19	16
Some college	33	31	35
College graduate	29	24	27
Graduate degree	13	17	13
Ethnicity			
White	76%	72%	79%
Hispanic	13	15	9
Native American	1	2	--
African American	2	4	3
Asian	2	2	2
Other/Refused	6	5	4

Table 1b: Respondent Demographics

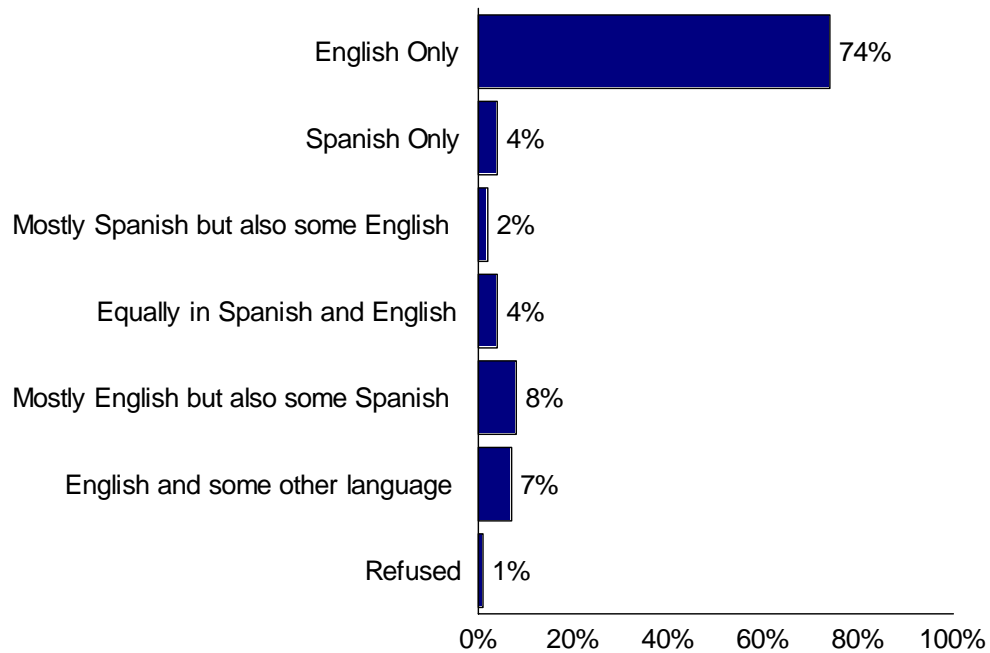
Characteristic	2009 Maricopa (n=637)	2008 Maricopa (n=744)	2006 Maricopa (n=748)
Household Income			
<\$10,000	7%	5%	3%
\$10-\$20,000	7	5	6
\$20-\$30,000	6	7	8
\$30-\$40,000	6	7	7
\$40-\$50,000	7	8	8
\$50-\$60,000	6	8	7
\$60-\$75,000	8	10	9
\$75-\$100,000	12	12	12
\$100,000+	20	18	18
Refused	21	21	22
Average	\$66,530	\$66,420	\$66,620
Employment Status			
Full-time	50%	55%	51%
Retired	21	20	21
Part-time	9	8	10
Unemployed	8	7	4
Homemaker	7	6	8
Student	3	3	4
Profession			
White collar/mgmt	32%	24%	16%
Professional (medical/legal)	20	22	10
Blue collar	15	14	9
Self-employed	8	12	5
Clerical/admin	8	10	5
Education	7	8	6
Trade	6	6	7

Table 2: Sample Breakdown by City

City	2009 Maricopa (n=637)	2008 Maricopa (n=744)	2006 Maricopa (n=748)
Phoenix	29%	32%	28%
Mesa	15	12	14
Glendale	9	8	8
Chandler	8	6	7
Peoria	7	4	6
Gilbert	6	4	5
Scottsdale	6	6	7
Surprise	3	3	4
Tempe	3	3	3
Sun City	2	2	3
Buckeye	1	1	-
Apache Junction	-	1	-
Avondale	-	1	-
Goodyear	-	-	2
Laveen	-	1	-
Queen Creek	-	3	-
Other (includes 1% or less of consensus)	8%	11%	13%
Refused	2	2	2

One in seven Maricopa County residents interviewed (14%) reported that at least some Spanish was spoken in their home.

Language Use in Home



II. DRIVER CHARACTERISTICS

A. Driving Habits

In 2009, approximately two in five Valley residents (39%) reported driving or riding in a 4-door sedan, a slight decrease from 2008 when 44% of residents reported riding/driving in this type of vehicle. As in the past, sports utility vehicles (SUV) and pick-up trucks were the next most frequently mentioned vehicles driven by residents (20% and 16%).

Table 3: Type of Vehicle

Items	2009 Maricopa (n=637)	2008 Maricopa (n=744)	2006 Maricopa (n=748)
Sedan (4-door)	39%	44%	38%
Sports utility	20	18	21
Pick-up truck	16	15	15
Van/mini-van	11	8	12
Coupe (2-door)	7	8	8
Motorcycle	1	1	--
Other	1	1	1
Don't drive	5	4	4
Don't know/ refused	--	1	1

Q8: Which of the following best describes the type of vehicle you drive or ride in...

B. Litterbag Use

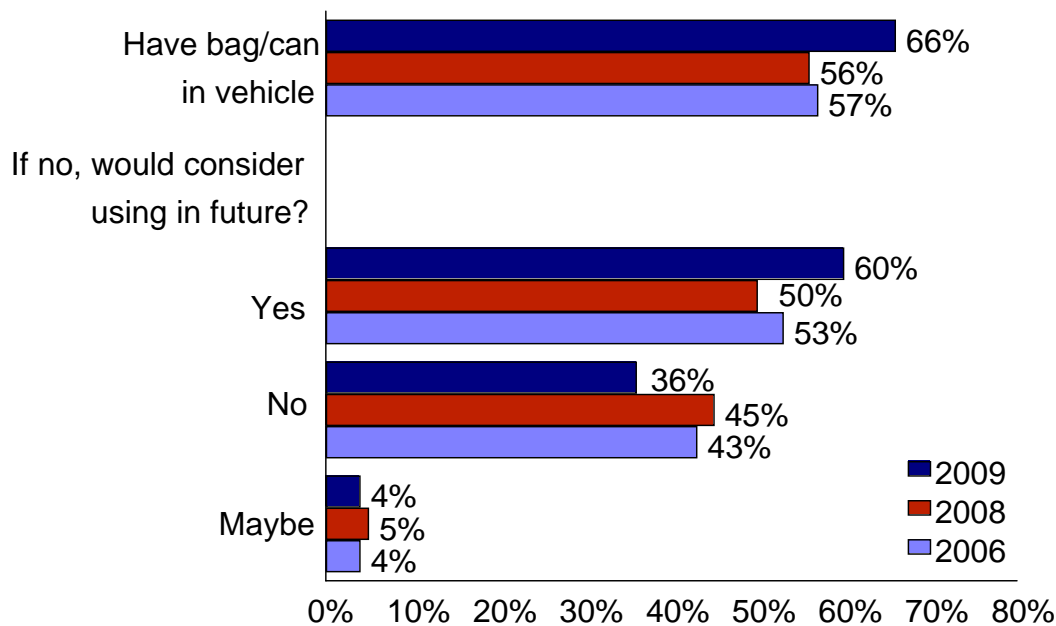
This year, Maricopa County residents were significantly more likely to report having a litterbag or trash receptacle in their vehicle (66%; up from 56% in 2008 and 57% in 2006). Those most likely to report having a litterbag were women (72% vs. 61% for men) and residents over the age of 35 (70% vs. 57% for those <35).

Three in five residents (60%) who do not currently have a litterbag or trash receptacle in their car indicated they would consider keeping one in their vehicle in the future. This represents a significant increase from last year when 50% of Maricopa residents were likely to consider it.

Those most agreeable to putting a litter bag or trash receptacle in their vehicle are:

- Females (71% vs. 52% for males).
- Younger residents (79% for those <35 vs. 50% for those older).
- Non-Caucasians (74% vs. 56% of Caucasians).
- Those without college experience (71% vs. 56% for those with college experience).
- Lower income residents (75% for those with household income <\$50,000 vs. 53%).

Litter Bag or Trash Receptacle Use in Vehicle



2009 Maricopa n=637; 2008 Maricopa n= 744; 2006 Maricopa n=748

C. Smokers

Similar to previous years, one in six Valley residents indicated they were smokers (15%). Residents with household incomes of less than \$50,000 (21%) and those without any college experience (18%) were more likely than those in comparative groups to admit they were smokers.

The majority of smokers reported that they use the ashtray in their vehicle (49%), use something else in their car (19%) or do not smoke in their vehicle (13%). Residents under the age of 35 were significantly less likely than older residents to report using an ashtray in their car (33% vs. 55%) and were more likely than older residents to indicate that the way they dispose of cigarette butts varies (22% vs. 4%).

Table 4: Smoking Habits and Disposing of Cigarette Butts
Among those indicating they smoke

Response	2009 Maricopa (n=97)	2008 Maricopa (n=109)	2006 Maricopa (n=121)
Smoker	15%	15%	16%
	(n=97)	(n=109)	(n=121)
Ashtray in vehicle	49%	55%	46%
Something else in vehicle	19	11	13
Don't smoke in the car	13	12	16
It varies	9	6	12
Throwing out window	7	6	5
Other (<1% consensus)	-	2	2
Don't know/refused	3	8	5

Q11: When you are in a vehicle, do you USUALLY dispose of cigarette butts...?

D. Truck Drivers

One in six Maricopa County residents indicated they drive a pickup truck (16%); this is essentially the same percentage reported in 2008 and 2006 (15% for each year). Truck drivers are most likely to be male (24%) and between the ages of 35-44 (20%).

Table 5: Pick-Up Truck Drivers

Response	2009 Maricopa (n=637)	2008 Maricopa (n=744)	2006 Maricopa (n=748)
Drive a pick-up truck	16%	15%	15%

Q8: Drive a pick-up truck.

Truck drivers reported that lawn debris and soda cans/bottles were the most common types of litter that would be found in the back of their truck (mentioned by 11% and 10%). Trash in general rounds out the top three most common types of litter found in the back of pick-up trucks (7%). In addition, plastic bags, cups, and food were also mentioned (all types mentioned by 5%).

More than two in five truck drivers (44%) indicated they do not believe they put any type of litter in their truck bed; an additional 5% reported they were unsure if the items they put in the back of their truck were considered litter. The combined 49% is only slightly higher than the percentages from previous years (40% in 2008 and 39% in 2006). The difference this year is that truck drivers were more likely to report putting “nothing” in their truck bed (44%; compared to 17% in 2008 and 14% in 2006) and less likely to say they did not know if the items were considered litter (5%; compared to 23% in 2008 and 25% in 2006).

Table 6: Litter Via Truck Bed – Total Responses
Among those who indicate they drive a truck

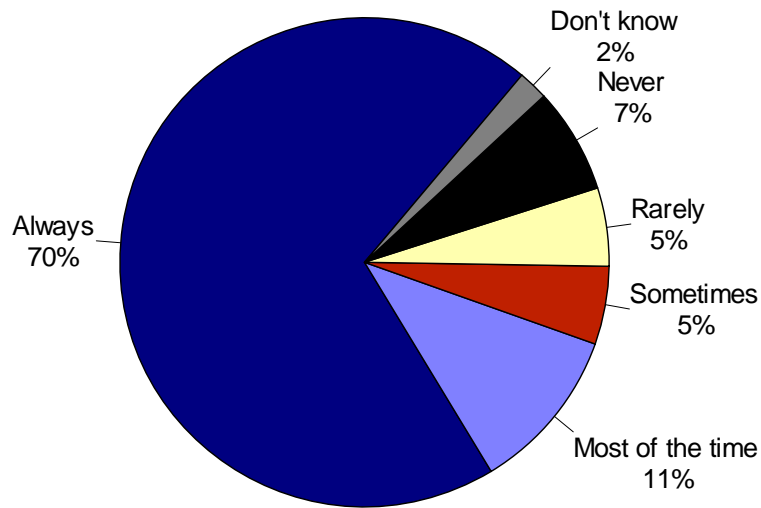
Items	2009 Maricopa (n=97)	2008 Maricopa (n=107)	2006 Maricopa (n=97)
Nothing	44%	17%	14%
Lawn debris	11	9	9
Soda cans/bottles	10	11	16
Trash/non biodegradable (unspecified)	7	5	--
Plastic bags/other plastic	5	11	7
Cups (Styrofoam, plastic, paper)	5	--	--
Food/organic material	5	4	4
Construction debris	4	9	9
Beer cans/bottles	4	2	4
Construction debris	4	--	9
Water bottles	3	6	1
Cardboard	3	5	2
Fast food wrappers	1	6	8
Other food wrappers	1	2	3
Small pieces of paper	--	4	6
Wood	--	1	1
Paper/ newspaper/ napkins	--	2	4
Furniture	--	1	--
Litter that falls out accidentally	--	--	2
Tires	--	--	1
Car parts/ batteries	--	1	2
Other	5%	8%	8%
Don't know	5	23	25

Q18: What types of items do you ever put into your truck bed that you consider to be litter or trash? What else?

Seven in ten truck drivers (70%) indicated that on average they “always” secure items in the back of their pick-up truck and an additional 11% report that they secure their load most of the time. Conversely, one in six truck drivers (17%) do not frequently secure items in their truck bed, reporting that they “sometimes,” “rarely,” or “never” secure items. Older residents (55+) were most likely to indicate that they always secure their load (86% vs. 65% for those younger).

How Often Truck Drivers Secure Load

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.)?



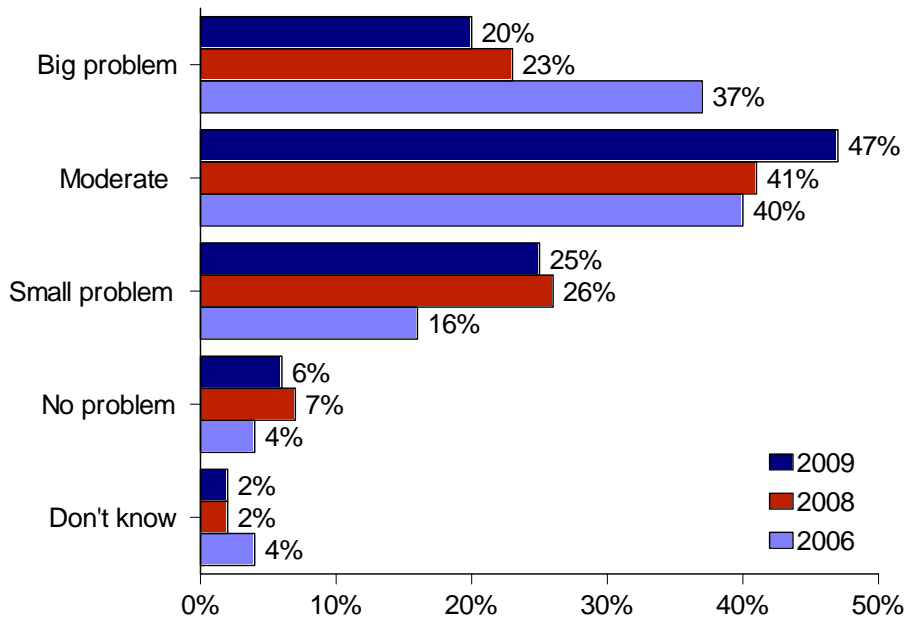
Truck drivers: n=97

III. LITTER AWARENESS AND BEHAVIOR

A. Perception of Litter as Problem along Freeways

In 2009, the perception of littering along Maricopa County freeways was reported by more people overall as a problem than in 2008 (67% rate it as a “big” or “moderate” problem; up from 64%). However, residents were less likely to see it as a “big” problem this year (20%; down from 23% in 2008 and 37% in 2006). Approximately one in three Maricopa residents felt that litter along “their county” freeways is either a “small” problem or not a problem at all (31%).

Perception of Litter along Maricopa County Freeways



2009 Maricopa n= 637; 2008 Maricopa n=744; 2006 Maricopa n=748

Table 7: Freeway Litter as a Problem in Maricopa County

Rating	2009 Maricopa (n=637)	2008 Maricopa (n=744)	2006 Maricopa (n=748)
Big problem	20%	23%	37%
Moderate problem	47	41	40
Small problem	25	26	16
Not a problem at all	6	7	4
Don't know	2	2	4

Q9: *In your opinion, how big of a problem is litter along freeways in Maricopa County? Would you say it is a...*

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

B. Personal Littering

When asked to itemize what items they thought they had littered in the past year, a majority of Valley residents insisted that they had not littered at all during the past year (69%); this was similar to the findings from the 2008 and 2006 study when 67% and 69%, respectively, had reported not littering. An additional 3% said they "did not know" if they had littered or not.

The number of males aged 18 to 34 who indicated they "had not littered in the past year" increased from 40% in 2006 to 44% in 2008 and to 45% in 2009 – an increase of 12% of the target population.

Those most likely to claim they have not littered included:

- Females (71% vs. 66% for males).
- Older residents (71% for those 35-54 and 81% for 55+ vs. 50% < 35).
- Caucasian residents (70% vs. 60% for other ethnicities).

Among those who indicated they had littered in the past year, food or organic material (including gum) was the most common type of litter (mentioned by 48%). This was also the most common type of litter listed in the previous two studies (mentioned by 39% in 2008 and 41% in 2006). Small pieces of paper were the second most common items discarded (mentioned by 22%); this was also similar to 2008 and 2006 (mentioned by 26% and 21%).

Those most likely to list food and organic materials as items they have personally discarded were:

- Females (59% vs. 39% for males).
- Residents 35 –54 years old (55% vs. 33% of those 55+).
- Caucasian residents (56% vs. 31% for other ethnicities).
- College-degreed residents (56% vs. 37% of those with high school diploma or less).

Table 8: Items Personally Discarded as Litter – Total Responses

Items	2009 Maricopa (n=637)	2008 Maricopa (n=744)	2006 Maricopa (n=748)
Have not littered in past yr.	69%	67%	69%
	(n=180)	(n=209)	(n=206)
Food/organic material	48%	39%	41%
Small pieces of paper	22	26	21
Cigarette butts	8	10	15
Other food wrappers	8	8	8
Paper/newspaper/napkins	3	6	4
Soda cans/bottles	4	5	7
Plastic bags/other plastic	4	5	1
Fast food wrappers/paper bags	1	4	2
Beer cans and beer bottles	1	2	1
Cups (Styrofoam, plastic, paper)	2	2	-
Hair/dog hair	3	-	-
Thread, string	2	-	-
Cardboard, boxes	1	1	-
Wood	2	-	2
Rocks/dirt	1	-	-
Clothes/shoes	2	-	-
Lawn debris	1	1	-
Bottles (unspecified)	1	1	-
Water bottles	3	2	2
Other (<1% consensus)	4	7	12
Don't know	3%	-	13%

Q13: 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?

C. Littering Circumstances

As in prior years, residents who indicated they had littered in the past year were most likely to report that the littering happened while they were driving and/or riding in a vehicle (53%). This year, however, there is a significant increase in the percentage of residents reporting they littered while traveling in a vehicle (up 19 percentage points from 34% in 2008). Other admitted litterers reported they littered while walking outside or because there was no trashcan around (8% and 5%).

Two-thirds (68%) of male litterers between the ages of 18 and 34 reported that they discarded items while in a car, significantly higher than the total percentage of 53%.

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

Items	2009 Maricopa (n=195)	2008 Maricopa (n=247)	2006 Maricopa (n=231)
Driving/riding/traveling in vehicle	53%	34%	47%
Walking outside	8	12	16
No trashcan around	5	15	8
Opened door/window – flew out	4	5	3
Don't consider it litter/biodegradable stuff	2	--	--
I didn't litter	3	3	1
In the desert/ middle of nowhere	2	1	1
Flew out of truck bed	--	2	2
Just threw it/anywhere I could	3	2	--
In the park	1	2	--
At home	1	1	1
Camping/hiking	--	2	--
In a parking lot	4	2	--
Cleaning out car	2	--	1
Leaving it for animals	2	--	--
Eating food/chewing gum	--	1	2
Partying/drinking	--	--	--
Other (<1% consensus)	9%	8%	7%
Don't know/can't remember	11%	19%	15%

Q14: To the best of your knowledge, what were the general circumstances in terms of where and what you were doing when you discarded litter?

D. Reasons for Littering when Driving

Lack of convenient trash receptacles was the most common reason cited for littering when driving (mentioned by 16% of residents who have littered in the past year). One in 10 claimed they littered while driving because they simply did not want it in their car (11%, respectively). Others littered because they felt it was easy to do (8%), they do not consider small wrappers or cigarette butts litter (5%), or they were lazy (3%). **More than one third of those who litter claim they do not litter when driving (36%).**

Residents under the age of 35 were most likely to claim that they littered because there were no convenient trash receptacles (25%), they did not want to keep it in their car (13%), and because littering is easy to do (12%).

Table 10: Reasons for Littering when Driving – Total Responses

Among those who indicated they have littered in the past year

Items	2009 Total (n=195)
I don't litter when driving	36%
No trash receptacles are convenient	16
I don't want to keep it in my car	11
It's easy	8
I don't consider throwing out gum, small wrappers, cigarette butts litter	5
It was an accident/unintentional	5
I'm lazy	3
Cigarettes stink up car, easier to throw out window	1
I litter when I'm in a hurry/a rush	1
Other	3%
Don't know	10%

Q15: Why do you litter WHEN DRIVING?

E. Personal Experience with Specific Littering Situations

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

Similar to 2008 and 2006, residents were most likely to report that at some point in time they “noticed trash falling out of the vehicle” they were driving or riding in (26% within the past 3 months; 23% in 3+ months). Younger residents were significantly more likely than older residents to have experienced this situation within the past three months (30% for those under 55 vs. 16% for those 55+).

The next most commonly experienced litter situation was throwing a small item (i.e. candy wrapper, scrap paper) out of a vehicle (8% within the past 3 months, 16% in more than 3 months). Residents most likely to have experienced this situation in the past three months were:

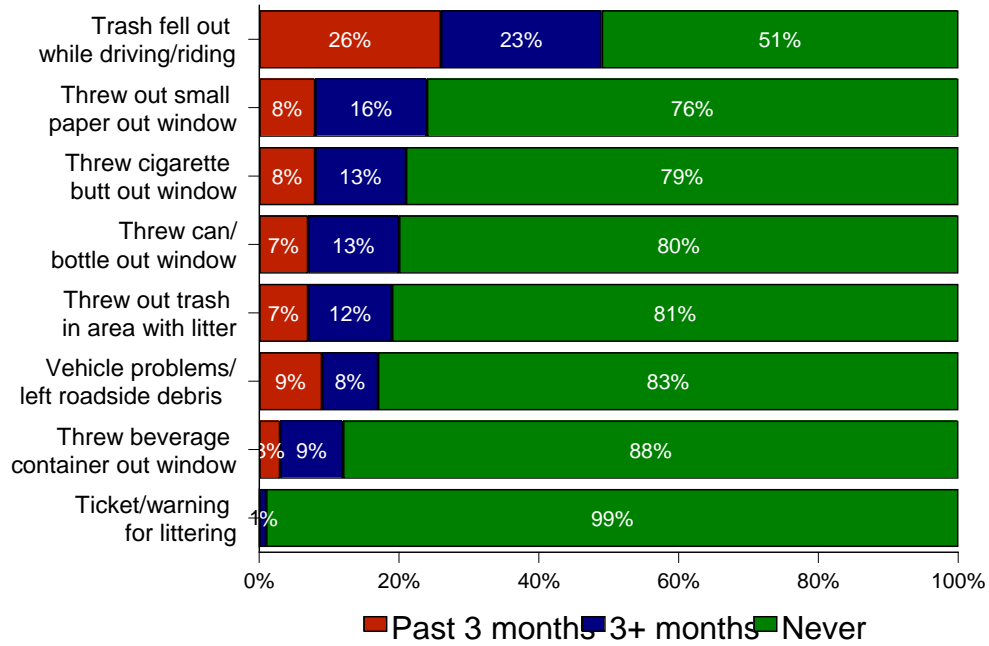
- Males (10%).
- Residents under 35 (17%).
- Non-Caucasians (19%).
- Those without college experience (13%).
- Residents with household income below \$50,000 (12%).

Throwing or having a cigarette butt thrown out of the window rounds out the top three littering situations residents have most often experienced (8% within the past 3 months, 13% in more than 3 months). Male residents and those under 35 were the most likely to report that this situation has happened in the past three months (11% and 17%).

Residents were least likely to have been in a vehicle where a beverage container was thrown out (11% reported having ever experienced) or to have received a warning or ticket for littering (only 2% reported having ever experienced).

In general, residents under age 35 and those with a household income below \$55,000 were more likely than those in comparative groups to report having experiences with the specific littering situations that were queried.

2009 Experience with Littering Situations



2009 n=637

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

Circumstance	2009 Maricopa (n=637)	2008 Maricopa (n=744)	2006 Maricopa (748)
You noticed that some trash fell out of a pick-up or other vehicle you were driving in.	26%	23%	19%
You had problems with a vehicle and left debris like tire, part of a tire, or other stuff on the roadside.	9%	9%	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.	8%	10%	11%
You threw out a small item from your vehicle like a candy wrapper, scrap paper, etc.	8%	8%	7%
Someone in a vehicle you were in threw out a can, bottle or litter out onto the side of the road.	7%	9%	6%
Someone in a vehicle you were in threw trash out in an area that already had lots of litter.	7%	6%	6%
Rather than keep a beverage container in the car, you, or someone in a vehicle you were in, threw out a can or bottle.	3%	5%	4%
You or someone you were with got a ticket or warning for littering.	-	1%	-

Q12: 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.”

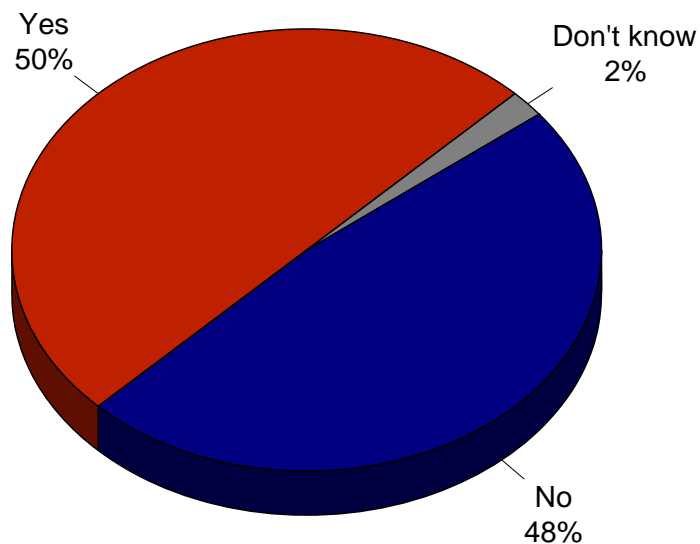
F. Awareness of Dangerous Debris

One-half (50%) of Valley residents indicated they were familiar with the term “dangerous debris.” Residents aware of anti-litter advertising were significantly more likely to be aware of the term (61% vs. 46%).

Overall, most residents thought the term “dangerous debris” referred to objects on roadways that can cause damage to vehicles. Most residents believed these objects were large in scale like tires, mattresses, or furniture (44%). One in five residents (22%) thought dangerous debris could also be small items that can harm a car like glass, nails, or metal. An additional 20% felt the term means anything in general that is hazardous or could cause an accident.

Awareness of Dangerous Debris

Are you familiar with the term “dangerous debris?”



2009 n=637

Table 12: Meaning of Dangerous Debris

Response	2009 Total (n=637)
Large objects/something that can damage a vehicle (tire, brick, mattress, auto parts, furniture)	44%
Small objects (glass, nails, rocks, metal)	22
Something that could cause an accident/be a hazard/dangerous (unspecified)	20
Bad for the environment (toxic material, antifreeze, oil)	12
Things falling out of cars/trucks (unspecified)	9
Something explosive/could start a fire (match, lighter, cigarette)	9
Something that can harm a person (unspecified)	6
Can/bottle	4
Tumbleweeds/landscaping debris	4
Something flying through the air that obstructs vision (plastic bag, paper)	2
Construction debris	2
Box/cardboard	2
Other	1%
Don't know	7%

Q17: What does the term "dangerous debris" mean to you?

IV. CAMPAIGN AWARENESS

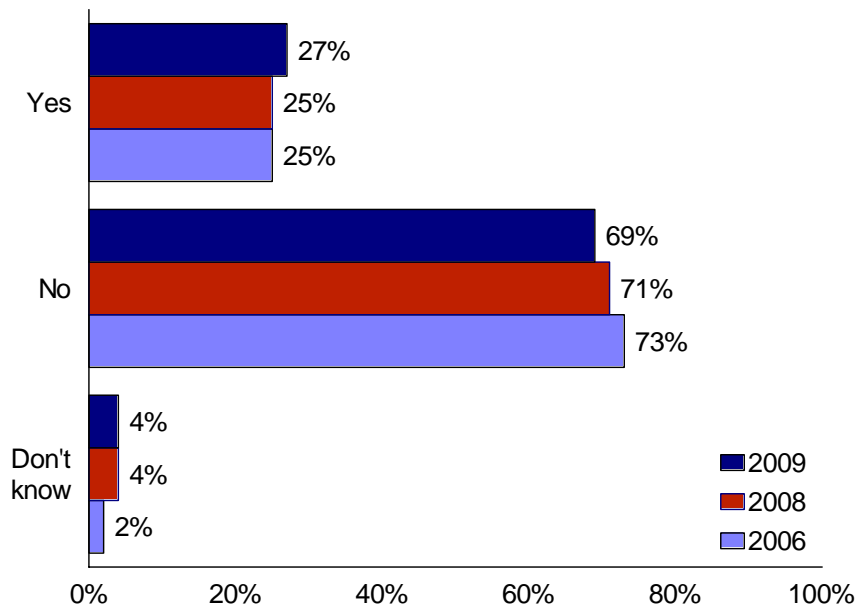
A. Awareness of Campaign

1. General Awareness

One in four residents (27%) indicated they had seen advertising related to litter or littering in the past three months, slightly higher than reported in 2008 and 2006 when 25% of residents had recalled seeing advertising about litter. Thirty percent (30%) of males between the ages of 18 and 34 indicated they have seen or heard litter advertising in the past three months (up from 25% in 2006).

Have Seen Ads for Litter

Within last 3 months



2. *Recalled Messages and Slogans*

When those aware of litter-related advertising were specifically asked what they remembered about the ads, most recalled information about the fines (mentioned by 27%). “Don’t litter” or “Keep Arizona clean” was the second most common message recalled (mentioned by 16%). This reverses a trend seen in the previous two telephone studies when “Don’t litter” or “Keep Arizona clean” had been the main message recalled; the number of mentions this year was significantly lower compared to last year (down 12 percentage points).

Other messages recalled included information about littering being unlawful (4%), hamburger wrappers being a \$500 fine (4%), and to use ashtrays because cigarettes can cause fires (4%). Other residents could only report the type of advertising they recalled such as billboards or signs along the road (15%), television (8%), or heard it on the radio (4%).

Residents under the age of 35 were most likely to report seeing the messages on billboards (30%).

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

Responses	2009 Maricopa (n=170)	2008 Maricopa (n=186)	2006 Maricopa (n=188)
The fines	27%	24%	17%
Don't litter/keep Arizona clean	16	28	29
It was a sign along the road/billboard	15	15	11
Saw on TV/commercial/public service announcement	8	4	5
Littering is unlawful/can get a ticket	4	7	9
Heard on radio	4	-	4
A hamburger wrapper being a 500 dollar fine/ a five hundred dollar burger	4	-	-
Use ashtray/cigarettes cause fires	4	2	-
Keep highways clean	4	1	-
Litter is bad for the environment/bad for wildlife	3	4	2
Clean up efforts/Adopt a highway	3	4	4
A funny commercial where the guy is addicted to littering	3	-	-
Prisoners picking up trash	2	-	8
Recycling	2	4	
Litter causes car accidents	2	-	-
Littering is unsightly/litter is ugly	2	-	-
People littering out of their vehicle	2	-	-
Litter causes car accidents	2	-	-
Call a number to report littering	1	-	2
Read article in newspaper	1	1	2
Man following man/shows litter, makes pyramid/tree/robot	1	2	-
Littering/dumping things in desert by illegal immigrants	1	-	3
Landfills are filling up	1	-	-
Washes/Trash ends up in washes	1	-	-
It's a big problem/becoming an issue	1	-	2
Grocers getting rid of plastic bags	-	1	-
Indian crying	-	2	2
Cost of cleaning up/tax dollars	-	2	4
Date commercial	-	2	-
Other (1% or less of consensus)	14%	13%	13%
Don't know	10	19	10

Q23? What specifically do you remember about the ads related to litter or littering?

One in three residents who remembered seeing litter-related advertising in the past three months were able to recall some type of slogan/message (35%). Two of the most commonly recalled “slogans” were actually messages – “do not litter” (mentioned by 9%) and “you will be fined” (mentioned by 6%). “Littering is unlawful” was the third most commonly recalled message (mentioned by 4%). Actual slogans that were recalled were “Don’t Trash Arizona” (2%), “Arizona Clean and Beautiful” (3%) and “Keep Arizona Beautiful” (1%). The messages “Don’t be a litterbug” and “Go Green” were mentioned for the first time this year (3% and 2%).

Table 14: Main Slogan of Recalled Advertising
Among those who indicated they remember seeing ads related to litter or littering in the past 3 months

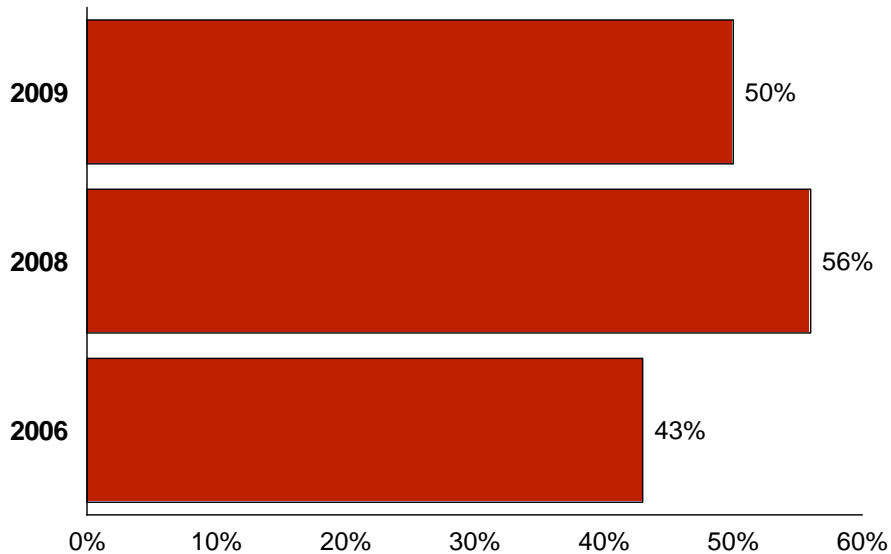
Responses	2009 Maricopa (n=170)	2008 Maricopa (n=186)	2006 Maricopa (n=188)
Do not litter	9%	12%	13%
You will be fined	6	3	6
Littering is unlawful	4	3	3
Don't be a litterbug	3	-	-
Don't Trash Arizona	2	6	5
Go Green	2	-	-
Adopt a highway	2	-	1
Arizona Clean and Beautiful	1	3	2
Keep Arizona Beautiful	1	2	3
There was no slogan/ it was a sign/ gave information	1	3	2
\$500 fine for throwing out hamburger wrapper	1	-	-
Litter hurts everyone	1	-	2
Keep our freeways clean	1	1	1
Litter costs everyone	-	-	3
Recycle, reduce, reuse	-	2	-
Don't mess with Texas	-	1	1
Give a hoot, don't pollute	-	-	1
Other	5%	6%	3%
Don't know	65	62	70

Q24? What was the main slogan used in the ads?

B. Don't Trash Arizona Awareness

One-half of Valley residents indicated they have heard the slogan “Don't Trash Arizona.” This represents a decline between 2008 and 2009, decreasing from 56% in the prior year. However, awareness still remains higher than the 43% reported in 2006. Overall awareness of the slogan was highest among males (57% vs. 43% of females), residents under 55 (53% vs. 42%) and those who have seen advertising related to littering in the past three months (58% vs. 47%). In fact, more than three-fifths (62%) of males between the ages of 18 and 34 were aware of the “Don't Trash Arizona” slogan (up from 44% in 2006).

Total Awareness
Have Heard Slogan “Don't Trash Arizona”
(Aided + Unaided)



2009 Maricopa n=637; 2008 Maricopa n=744; 2006 Maricopa n=748

Residents who were familiar with the “Don’t Trash Arizona” slogan reported seeing and/or hearing the slogan from a variety of sources – television (34%), radio (22%), billboards (18%), and street/highway signs (14%).

Younger residents were more likely than those over age 55 to remember hearing the slogan on radio (20% for those <35 and 30% for 35-54 vs. 9% for 55+). Those most likely to have seen the slogan on billboards were under the age of 35 (27%).

Table 15: Where Saw “Don’t Trash Arizona” Slogan

Total responses among those indicating they had heard the slogan

Media	2009 Maricopa (n=319)	2008 Maricopa (n=417)	2006 Maricopa (n=322)
Television	34%	30%	26%
Radio	22	21	14
Billboards	18	24	20
Street/highway signs	14	16	12
Newspaper	6	6	5
Magazines	2	2	-
Internet	2	-	-
Other (1% or less of consensus)	5	5%	6%
Don’t know	20	25	25

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

Seven in ten residents were unable to name a sponsor for the “Don’t Trash Arizona” slogan (70%). Approximately one in 10 correctly identified the Arizona Department of Transportation (9%) and 14% generically cited the “state” or “local” government. Residents under the age of 55 were most likely to mention ADOT (12%); as were those with a college degree (13%).

Table 16: Who Sponsors “Don’t Trash Arizona” Slogan
Among those indicating they had heard the slogan

Sponsor	2009 Maricopa (n=319)	2008 Maricopa (n=417)	2006 Maricopa (n=322)
State/local government	14%	17%	14%
ADOT	9%	9%	12%
Other (<1% consensus)	6%	6%	5%
Don’t know	70%	65%	70%

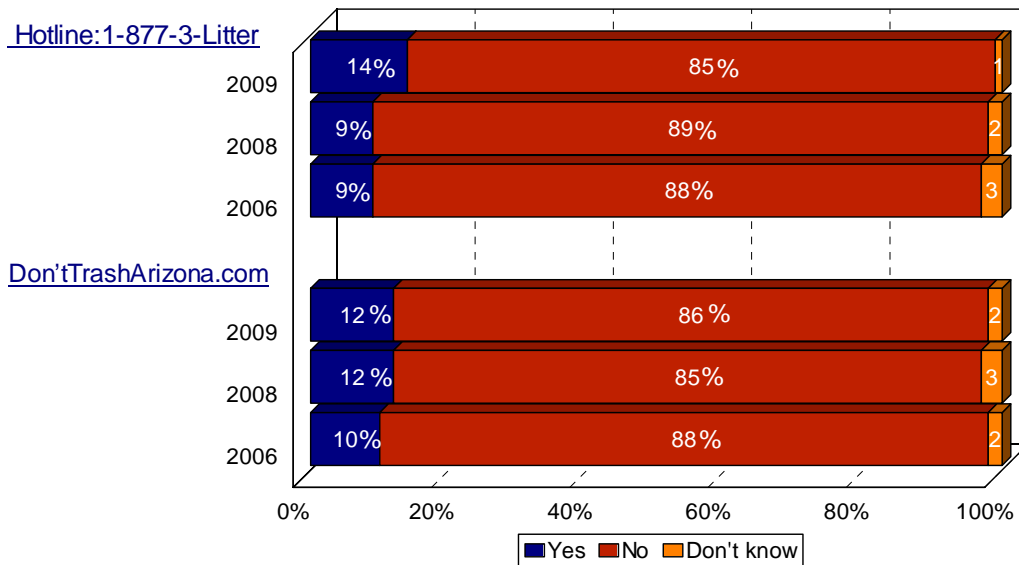
Q27: Who sponsors the “Don’t Trash Arizona” advertisements?

C. Awareness of Litter Resources

When Valley residents were specifically asked their awareness of the Litter Hotline and the “Don’t Trash Arizona Web Site,” the majority of residents had not heard of either of them. **This year, however, awareness of the Litter Hotline was significantly higher compared to last year; 14% of residents indicated they had heard of this source, up from 9% in 2008.** Awareness of the hotline was highest among males (17%), residents who are 55 years or older (18%), and those who have seen litter advertising in the past three months (20%). Among the target group of males, aged 18 to 34, awareness increased 66% since 2006 (9% to 15%).

Twelve-percent (12%) of residents had heard of the “Don’t Trash Arizona” Web site; this was the same percentage as reported in 2008. Awareness of the Web site is highest among younger residents (18% of those <35 and 12% for those 35-54) and those aware of litter advertising (21%). **More than one-fifth (23%) of males between 18 and 34 have heard of www.DontTrashArizona.com, up from 7% in 2006.**

Aided Awareness - Litter Resources

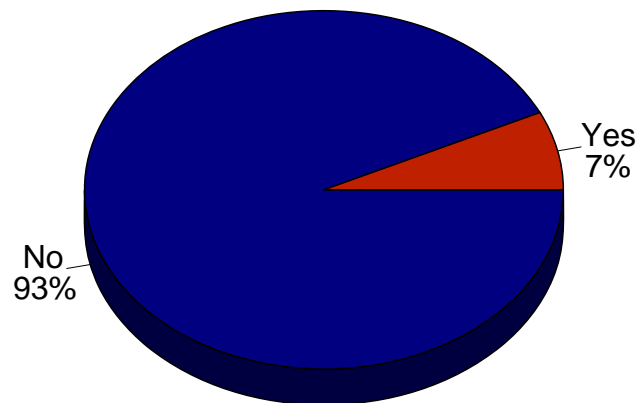


2009 Maricopa n= 637; 2008 Maricopa n=744; 2006 Maricopa n=748

Seven-percent (7%) of Valley residents aware of the “Don’t Trash Arizona” Web site reported that they have visited the site; this was up slightly from 4% in 2008.

Don’t Trash Arizona Web Site Visitation

Have you ever visited the “Don’t Trash Arizona” Web site?



Among those aware of Web site: n=73

D. Likelihood to Report Littering

When Valley residents were asked if they saw someone littering how likely they would be to report this behavior, three-fifths (60%) of residents indicated they would be at least “somewhat” likely to call (23% “very likely” and 37% “somewhat likely”). This is a significant increase compared to 2008 when 53% indicated they would be at least “somewhat” likely to report it. Female residents and those between the ages of 35 and 54 were most likely to report they were “very likely” or “somewhat likely” to report a violation (64% and 65%).

Likelihood to Report Littering

If you were to see someone litter, how likely would you be to report this behavior to the Litter Hotline or the Web site in the future?

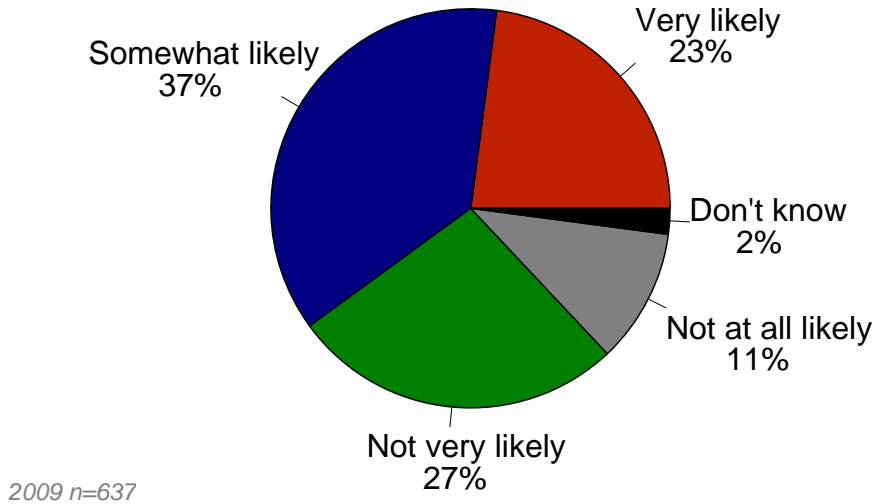


Table 17: Likelihood to Report Littering

Likelihood	2009 Maricopa (n=637)	2008 Maricopa (n=744)	2006* Maricopa (n=748)
NET likely (Very + somewhat)	60%	53%	62%
Very likely	23%	24%	27%
Somewhat likely	37	29	35
Not very likely	27	26	22
Not at all likely	11	16	13
Don't know	2	5	3

Q31: *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?*

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

E. Additional Litter Resources

Valley residents indicated they would primarily go to the Internet if they wanted more information about litter or littering (mentioned by 49%). This was a significant increase from 2008, when 26% reported they would use the Internet as a resource. Approximately one in six residents specifically mentioned the “Don’t Trash Arizona” Web site as a resource to go to if they wanted more information about littering (18%); this is significantly lower than the 35% measure in 2008. However, it is important to note that in 2009 the format of the question from the interviewer perspective was different – a pre-coded list was provided (specifically listing “Internet” and the “Don’t Trash Arizona” Web site – whereas in previous years no pre-coded categories were provided and in all likelihood the response “Internet” was probed for the specific name of the Web site visited.

Three-fifths (61%) of males between the ages of 18 to 34 indicated they would go to the Internet for litter information and 28% specifically mentioned that they would go to www.DontTrashArizona.com. Residents under the age of 55 were more likely than older residents to go to the Internet to find information about littering (57% vs. 29%).

Table 18: Source for Litter/Littering Information

Source	2009 Maricopa (n=637)	2008 Maricopa (n=744)	2006 Maricopa (n=748)
Internet	49%	26%	59%
Don't Trash AZ Web site	18	35	-
Litter hotline	5	6	4
The “city”	5	5	5
Police/ highway patrol/DPS	3	1	4
ADOT/highway dept.	2	4	2
Phonebook/ yellow pages	2	2	4
The state/governor	2	3	3
Friend/ neighbor/ family member/ teacher	2	2	1
Waste Management/ garbage company	1	1	2
I wouldn't need that information/ wouldn't contact anyone	2	3	3
City council/councilmen	-	-	1
Newspaper	-	-	1
Other (<1% consensus)	5%	7%	8%
Don't know	16	12	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%

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 (28% 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 (44% 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 (28% of the total population).

Overall, 28% of Maricopa County residents are categorized as “Admitted Litterers”; the same as reported in 2008.

More than half over of the males aged 18 to 34 are admitted litters (51%); however, this number has declined from 56% in 2006).

In addition, in 2009, Admitted Litterers were most likely to be:

- Younger residents (average age 39 yrs. old vs. 46 and 53 for the other two groups).
- Non-Caucasian (29% vs. 19% of the other two groups).
- Those that spoke another language in the household (31% vs. 25% and 19% of the other two groups).

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

Table 19a: Demographic Comparison based on Littering Behavior

Characteristic	2009			2008		
	Admitted Litterers (n=180)	Accidental Litterers (n=280)	Non-Litterers (n=177)	Admitted Litterers (n=215)	Accidental Litterers (n=307)	Non-Litterers (n=222)
Gender						
Male	52%	50%	50%	51%	53%	43%
Female	48	50	50	49	47	57
Age						
18-24	22%	8%	1%	22%	6%	4%
25-34	21	15	14	22	19	7
35-44	22	23	15	24	16	23
45-54	20	25	23	21	30	22
55-65	8	15	17	7	12	17
66+	7	14	30	4	17	27
Average	39.3 yrs	46.5 yrs	53.2 yrs	37.3 yrs	47.8 yrs	52.4 yrs
Marital Status						
Married	58%	56%	66%	56%	56%	56%
Single	31	29	10	35	25	20
Widowed	3	6	12	1	8	11
Divorced	5	6	7	6	9	10
Separated	2	-	1	-	1	1
Don't know or Refused	1	3	4	2	1	2
Education						
Less than high school	5%	3%	5%	12%	4%	7%
High school graduate	19	19	18	21	17	20
Some college	33	34	32	29	31	33
College graduate	31	29	26	21	27	22
Graduate degree	12	12	16	15	19	15

Table 19b: Demographic Comparison based on Littering Behavior

Characteristic	2009			2008		
	Admitted Litterers (n=180)	Accidental Litterers (n=280)	Non-Litterers (n=177)	Admitted Litterers (n=215)	Accidental Litterers (n=307)	Non-Litterers (n=222)
Ethnicity						
White	70%	75%	77%	66%	76%	74%
Hispanic	18	11	11	20	14	12
African-American	3	1	2	7	3	4
Asian	2	2	3	2	1	2
Native American	-	2	-	4	1	2
Other	6	3	3	-	1	-
Refused	1	6	4	-	1	-
Household Income						
<\$10,000	7%	7%	7%	7%	2%	6%
\$10-\$20,000	6	7	6	6	5	4
\$20-\$30,000	5	6	8	7	7	4
\$30-\$40,000	9	5	6	6	7	7
\$40-\$50,000	9	8	5	7	8	8
\$50-\$60,000	6	6	6	7	9	7
\$60-\$75,000	8	8	8	9	11	10
\$75-\$100,000	12	14	8	11	15	10
\$100,000+	23	18	22	20	17	17
Refused	14	22	25	19	19	27
Employment						
Full-time	52%	53%	44%	54%	62%	46%
Part-time	15	8	6	11	6	7
Retired	8	20	35	6	20	35
Homemaker	9	6	6	10	3	6
Student	6	2	1	6	3	1
Unemployed	9	10	6	11	6	4
Household Language*						
English only	69%	74%	80%	n/a	n/a	n/a
Spanish only	3	5	3	n/a	n/a	n/a
Mostly Spanish + some English	3	2	2	n/a	n/a	n/a
Equally in Spanish and English	7	3	3	n/a	n/a	n/a
Mostly English + some Spanish	9	8	5	n/a	n/a	n/a
English + Other	9	7	6	n/a	n/a	n/a
Refused	-	1	1	n/a	n/a	n/a

*Question worded differently in 2009

APPENDIX A

QUESTIONNAIRE

Benchmark Study

Client: Maricopa Association of Governments
Subject: Telephone Survey
Date: July 2009
Version: FINAL

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 24
 - c. 25 to 34
 - d. 35 to 44
 - e. 45 to 54
 - f. 55 to 65
 - g. 66 or older
 - h. Refused (DO NOT READ)
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 Arizona...? READ LIST; ALLOW ONLY ONE RESPONSE
 - a. Full time, 12 months a year CONTINUE WITH Q6
 - b. Part time or seasonally, less than 12 months a year - ASK Q5
 - c. Do not live in Arizona (DO NOT READ) - ASK Q5
 - d. Refused (DO NOT READ) THANK AND TERMINATE
5. IF b or c in Q4: May I please speak to someone in the household who lives in Arizona full-time, 12 months a year?
6. RECORD GENDER (DO NOT ASK; RECORD BY OBSERVATION)
 - a. Male
 - b. Female

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

8. Which of the following best describes the type of vehicle you drive or ride in...?
- Sedan
 - Pick-up truck
 - Sports utility vehicle
 - Coupe
 - Van / Minivan
 - Motorcycle
 - Other _____
 - Don't drive
 - Don't know / Refused (DO NOT READ)

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.

9. In your opinion, how big of a problem is litter along freeways in Maricopa County?
Would you say it is a...
- Big problem
 - Moderate problem
 - Small problem
 - Not a problem at all
 - Don't know / Refused (DO NOT READ)
10. Do you smoke?
- Yes
 - No
 - Don't know / Refused

11. IF YES in Q10: When you are in a vehicle, do you USUALLY dispose of cigarette butts...? READ LIST – ONE RESPONSE ONLY
- By using an ashtray inside the vehicle
 - By using something else you have inside the vehicle
 - By throwing it out the window
 - Or does it vary
 - DO NOT READ: Other means of disposal _____
 - Don't know / Refused (DO NOT READ)
12. 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."
- You noticed that some trash fell out of a pick-up or other vehicle you were driving or riding in.
 - Someone in a vehicle you were in threw out trash in an area that already had lots of litter
 - Someone in a vehicle you were in threw out a can, bottle, or other litter out onto the side of the road.
 - You had problems with a vehicle and left debris like a tire, part of a tire, or other stuff on the roadside
 - Rather than keep a beverage container in the car, you, or someone in a vehicle you were in, threw out a can or bottle.
 - You threw out a small item from your vehicle, like a candy wrapper, scrap paper or something like that.
 - You or someone you were with got a ticket or warning for littering.
 - 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

13. 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.
- Beer cans and beer bottles
 - 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
 - Fast food wrappers
 - Other food wrappers (chip bags/candy)
 - Cardboard
 - Food / organic material, raw food
 - Litter that falls out of pickup trucks accidentally
 - Other _____
 - Have not littered in past year – SKIP TO: Q20
 - Don't know

14. 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)
 - Flew out of truck bed
 - Partying / drinking
 - Other _____
 - Don't know/Can't remember / don't recall
15. 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
 - Someone else can pick it up
 - I don't care
 - Gives someone else something to do
 - I won't get into trouble for littering so I do it
 - I litter only in areas where there already is a lot of litter, so it does not matter
 - I don't consider throwing out gum, small wrappers, cig butts litter
 - It was an accident/unintentional
 - I only litter when I'm alone
 - I don't litter when driving
16. Are you familiar with the term "dangerous debris"?
- Yes
 - No
17. What does the term "dangerous debris" mean to you? _____
(Record Response)
18. 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.
- Beer cans and beer bottles
 - 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
 - Fast food wrappers
 - Other food wrappers (chip bags/candy)

- j. Cardboard
 - k. Food / organic material, raw food
 - l. Litter that falls out of pickup trucks accidentally
 - m. Other _____
 - n. Don't know
19. 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)?
- a. Always
 - b. Most of the time
 - c. Only sometimes
 - d. Rarely
 - e. Never
 - f. If never – WHY NOT? _____

ASK ALL:

20. Do you have a litter bag or trash can in your vehicle?
- a. Yes
 - b. No
 - c. Don't know / Refused
21. IF NO IN Q20: Would you consider keeping a litter bag or trash can in your vehicle?
- a. Yes
 - b. No
 - c. Don't know / Refused

Litter Campaign Awareness

22. In the past three months, have you seen, heard or read any advertisements related to litter or littering?
- a. Yes
 - b. No
 - c. Don't know / Refused
23. IF YES in Q22: What specifically do you remember about the ads related to litter or littering? PROBE THOROUGHLY AND RECORD VERBATIM
24. IF YES IN Q22: What was the main slogan used in the ads? DO NOT READ LIST. MULTIPLE RESPONSES ALLOWED.
- a. Don't Trash Arizona
 - b. Keep Arizona Beautiful
 - c. Arizona Clean and Beautiful
 - d. Other _____
 - e. Don't know / Refused
25. IF NOT MENTIONED IN Q24 "a": Have you seen or heard the slogan, "Don't Trash Arizona?"
- a. Yes

- b. No
 - c. Don't know / Refused
26. IF mentioned in Q24a or YES IN Q25: Where have you seen, heard or read the slogan, "Don't Trash Arizona?" PROBE: Where else? DO NOT READ LIST. MULTIPLE RESPONSES ALLOWED.
- a. Television
 - b. Radio
 - c. Billboards
 - d. Street or highway signs
 - e. Newspaper
 - f. Bus signs
 - g. Trash cans
 - h. Litter bags
 - i. Other _____
 - j. Don't know / Refused
27. IF mentioned in Q24a or YES IN Q25: Who sponsors the "Don't Trash Arizona" advertisements? DO NOT READ LIST. ONE RESPONSE ONLY.
- a. State / Local Government
 - b. Arizona Department of Transportation
 - c. Maricopa Association of Governments (MAG)
 - d. Other _____
 - e. Don't know / Refused
28. Have you heard about the Litter Hotline, 1-877-3-Litter, where you can report someone who litters?
- a. Yes
 - b. No
 - c. Don't know / Refused
29. Have you heard of www.donttrasharizona.com?
- a. Yes
 - b. No
 - c. Not sure/DK
30. If YES IN Q29 "a": Have you ever visited the "Don't Trash Arizona Website"?
- a. Yes
 - b. No
 - c. Don't know
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?
- a. Very likely
 - b. Somewhat likely
 - c. Not very likely
 - d. Not at all likely

- e. 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.
- a. Don't Trash AZ website
 - b. Internet
 - c. Litter hotline
 - d. The "city"
 - e. I wouldn't need that information/ wouldn't contact anyone
 - f. ADOT/highway dept.
 - g. Police/ highway patrol/DPS
 - h. Phonebook/ yellow pages
 - i. The state/governor
 - j. Waste Management/ garbage company
 - k. Friend/ neighbor/ family member/ teacher

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)*
- a. Single*
 - b. Married*
 - c. Divorced*
 - d. Separated*
 - e. Widowed*
 - f. Don't know*
 - g. 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?

- a. White collar/management
- b. Blue collar
- c. Trade profession
- d. Professional (medical/legal)
- e. Educational
- f. Clerical/administrative
- g. Homemaker
- h. Self-employed
- i. Retired
- j. Student
- k. Unemployed
- l. Other (SPECIFY) _____
- m. Don't know
- n. Refused

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. 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. Don't know/refused

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

- 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.