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# LITTER EVALUATION SURVEY

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August 2008



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## EXECUTIVE SUMMARY

### Background

There are 6,000 miles of freeways in Arizona accommodating a population of more than six million people. The exponential increase in lane miles and the higher volume of people traveling on state and Valley freeways make it extremely challenging for litter abatement services to keep pace with the increasing amount of litter.

Concern over freeway litter led elected officials to include \$279 million for landscape maintenance and litter control (pickup and sweeping) in the Regional Transportation Plan approved by voters in 2004, including funding for litter prevention.

In 2006, litter prevention and education efforts were begun by the Maricopa Association of Governments (MAG) and the Arizona Department of Transportation (ADOT) to address roadway litter. The slogan *Don't Trash Arizona!* was selected and is used cooperatively by MAG and ADOT to increase public awareness of the roadway litter condition, and the agencies work together on efforts to decrease roadway litter. ADOT oversees the state's litter prevention efforts, while the regional effort is overseen by MAG. The regional program is funded through the Regional Transportation Plan approved by voters as Proposition 400.

The purpose of *Don't Trash Arizona!* is to reduce litter on regional and state freeways. With a focus on education, awareness and partner participation, MAG and ADOT develop strategies to increase public awareness and change behavior. The scope of the work for the program additionally mandated that an evaluative process be included to measure the success of prevention efforts.

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, age 16 to 24 - with a secondary tier of litterers who are age 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 takes place when drivers are alone, many of whom do not consider small items such as cigarettes and candy wrappers as litter.

Following the secondary research, a benchmark survey was conducted by MAG and ADOT in December of 2006. The purpose of the baseline survey was to

determine initial attitudes and awareness of litter issues in Arizona and to evaluate littering behavior.

Based on the research results, strategies were 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. A strategy was developed that is designed to achieve results through a three-stage process: 1) increase awareness, 2) change attitudes, and 3) change behavior.

It was determined that a follow-up, evaluative survey would be conducted at the end of the first two years of the campaign to determine if any changes in awareness, attitudes or behavior were realized. That evaluative survey is the focus of this report.

## **Evaluative Survey**

The Maricopa Association of Governments and the Arizona Department of Transportation commissioned WestGroup Research of Phoenix to conduct a telephone study with residents in the state of Arizona. The purpose of the study was to evaluate awareness of and attitudes toward litter issues, explore littering behavior, and compare responses to the benchmark study conducted in December 2006.

Results are based on 1,233 fifteen-minute telephone interviews with Arizona 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  $\pm 2.8\%$  at a 95% confidence level.

Below are some of the key findings of the survey.

### **➤ Driver Characteristics**

- On average, Arizona residents drive more than 22 miles per day, slightly higher than the reported average of 21 miles reported in 2006.
- In 2008, residents were less likely to report having a litterbag or trashcan in their vehicle than in 2006 (indicated by 58%, down from 62%).

- Those who do not currently have a litterbag or trashcan in their car were asked if they would consider keeping one in their vehicle; approximately half (52%) answered in the affirmative.
- As Arizona residents reported in 2006, the most common type of trash that accumulates in their vehicles is small pieces of paper such as gum wrappers, receipts and lottery tickets (mentioned by 29%).
- Similar to 2006 results, one in six Arizona residents indicated they are smokers (16%). Of those who currently smoke, most understood that throwing cigarette butts out the window is a type of littering, with only 6% expressing the belief that such action is *not* a type of littering. The same percentage (6%) reported that they actually throw their cigarette butts out the window.
- One in six Arizona residents indicated they drive a pickup truck (16%). This percentage is highest in the outlying areas of the state (22%). Pickup truck owners are significantly more like than others to indicate they noticed trash falling out of their vehicle in the past three months (36% vs. 19% to 22% of drivers of other vehicles). Truck drivers indicated that soda cans and soda bottles were the most common types of litter found in the back of their truck (mentioned by 14%).

#### ➤ **Litter Awareness**

- In 2008, littering along Arizona freeways was seen as less of a problem than in 2006. Approximately three in ten residents indicated litter along the freeways throughout the state of Arizona was a “big” problem (31%, down from 38%) or “moderate” problem (43%, up slightly from 42%).
- Two in three residents reported littering along their county freeways as a problem this year (66% “big” + “moderate”) compared to three in four residents who saw it as a problem in 2006 (74% “big” + “moderate”).
- Residents were less likely to see litter as a “big” or “moderate” problem along their county freeways than along Arizona freeways in general (66% “big” + “moderate” vs. 74% for Arizona freeways).
- Residents were asked to respond with the first thought that came to mind when they heard the word “litter.” The most common definition offered was “trash” or “garbage” or “junk” (mentioned by 31%). More descriptive definitions included such word choices as “dirty,” “disgusting,” “filthy,” “ugly,” and “irresponsible.”
- When Arizona residents were asked what types of materials they would consider a “serious” litter problem, plastic bags and other plastic items topped

the list (mentioned by 32%, increasing from 27% in 2006). However, when looking at it from a broader scope, more than three in five residents (64%) identified beverage cans and bottles as serious litter problems (soda cans/bottles-28%, beer cans/bottles-23%, and water bottles-13%).

- The same three items that topped the list of “minor litter” in 2006 were again the most mentioned this year – small pieces of paper such as receipts, lottery tickets and gum wrappers (19%) biodegradable items such as food and gum (17%), and cigarette butts (12%). These are the same types of litter that residents cited as most likely to accumulate in their vehicle.

### ➤ **Littering Behavior**

- When asked to itemize what items they thought they had littered in the past year, a majority of Arizona residents insisted that they had not littered at all during the past year (67%) – this was similar to the findings from the 2006 study when 69% claimed they had not littered.
- Among those who indicated they had littered in the past year, food or organic material (including gum) was the most common type of litter (listed by 39%), followed by small pieces of paper (25%) and cigarette butts (10%).
- As was reported in 2006, 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 (mentioned by 36%, down from 46% reported in 2006).
- Approximately four in nine residents who reportedly littered in the past year indicated that they were alone when the littering occurred (45%), similar to results found in 2006 (47%).
- The vast majority of those who admitted they had littered in the past do *not* believe they will get caught for littering at some point in the future (69%).
- When asked why they do not believe they will get caught littering, three in five of those who had previously indicated that they had littered replied, “I don’t litter” (60% up from 49% reported in 2006). Others felt they would not get caught because they only litter things that are biodegradable (8%; 3% do not think gum is littering), they are careful to make sure no one is looking (7%); while others believed enforcement is lax and officers have better things to do (5%).
- 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 (22% within the past 3 months; 21% within 3+ months). The next most commonly experienced litter situation was throwing or having a cigarette butt thrown out of the

## ➤ Campaign Awareness

- One in four residents (25%) indicated they had seen advertising related to litter or littering in the past three months, almost the same percentage reported in 2006 when 26% of residents had recalled seeing advertising about litter. Younger residents (under the age of 35) were more likely than older residents to be aware of “litter” advertising (30% vs. 24% of those between 35-54 years old and 20% of those 55 or older).
- “Don’t litter” or “Keep Arizona clean” was the main message residents recalled from litter-related advertising (mentioned by 29%). This was also the primary message recalled by residents in 2006. In addition, there was an increase in mentions of messages about fines for littering (21% up from 15%) and the need to recycle (4% up from no mentions in 2006).
- Three in eight residents who remember seeing litter-related advertising in the past three months were able to recall some type of slogan (38%).
- More than half of Arizona residents indicated they have heard the slogan “Don’t Trash Arizona” (54%). Awareness of the slogan has increased significantly between 2006 and 2008, increasing by 12 percentage points or 29%. The largest increase in awareness was among residents under age 35 (up 18 points from 40% to 58%; 35-54 up 7 points; 55+ up 14 points).
- The vast majority of residents who recall hearing the “Don’t Trash Arizona” slogan identify the main message of the slogan as simply “don’t litter” (61%).
- Residents who were familiar with the “Don’t Trash Arizona” slogan reported seeing and/or hearing the slogan from a variety of sources – television (30%), billboards (24%), radio (21%), and street/highway signs (16%).
- Two in three residents were unable to name a sponsor for the “Don’t Trash Arizona” slogan (67%).
- Similar to results reported in 2006, the primary meaning associated with the slogan was to not litter and put trash where it belongs (mentioned by 61%).
- Five in six Arizona residents do not know where to report a litter violation (83%). Fourteen-percent (14%) of residents, however, reported that they would know where to go if they needed to report a violation



- More than one-half of those who indicated they knew where to report a litter violation would call the non-emergency number for the police station or highway patrol (51%).
- When specifically asked about awareness for three sources for information about litter (including the ADOT complaint line, the MAG Web site, and the litter hotline), the ADOT complaint line had the highest awareness, with 15% indicating they had heard of this source. Thirteen percent of Arizonans were aware of the *Don't Trash Arizona* Web site, with awareness highest among the target demographic(s) of males and younger residents.
- When Arizona residents were asked if they saw someone littering how likely they would be to report this behavior, more than half of residents indicate they would be at least “somewhat” likely to call (24% “very likely” and 30% “somewhat likely”).
- Residents who gave some indication that they would possibly report a littering violation were specifically asked if they would call the litter hotline or go through the *Don't Trash Arizona* Web site. More than half of these residents (54%) would call the litter hotline.
- When asked to describe what they would say to someone to convince them not to litter, the largest proportion of Arizona residents indicate they would either tell the person something to make them feel ashamed or guilty about littering (29%) and/or they would simply tell the person “don't litter” (28%).
- Arizona residents indicated they would primarily turn to the *Don't Trash Arizona* Web site if they wanted more information about litter or littering (mentioned by 35%). Approximately one in four residents (26%) mentioned the Internet in general as a resource to go to if they wanted more information about littering

## Findings and Recommendations

The evaluative survey indicates significant success in the program's first objective of increasing awareness about litter issues. The survey shows that awareness of the *Don't Trash Arizona* campaign has increased dramatically (29%) over the past two years. More significantly, the greatest increase in awareness is seen within the target demographic(s)—a 23% increase in awareness among males and a 45% increase in awareness among residents under age 35. This is likely due to a comprehensive radio advertising campaign that is targeted toward male listeners aged 18 to 35.

As anticipated, the study also finds that it has been more difficult to “move the needle” in terms of changing behavior. While 67% of Arizona residents reported that they had not littered at all during the past year, this was a disappointing



reduction from the 69% who stated they had not littered in the 2006 survey. While statistically the number of non-litterers is about the same, the ultimate goal is to increase this number as more people refrain from littering in the future. There were, however, some positive trends noted in terms of reducing the number of admitted litterers within the target demographic. The number of those under the age of 25 who admitted to littering fell from 27% in 2006 to 21% in 2008, an encouraging trend.

Accidental littering remains a significant area of concern. Twenty-two percent of Arizonans admitted to having trash blow out of or fall from their vehicle in just the past three months, with another 21 percent reporting that occurrence in 3+ months. Another area of concern continues to be the littering of cigarette butts, a circumstance cited by 26% of residents. It is recommended that these issues continue to be targeted in campaign messages.

There are a number of areas that hold promise for the program. For example, the number of residents who see litter as a “big” problem is down (31%, down from 38%). This is likely due to a significant increase in funding for litter pickup in the region and increased efforts by ADOT to address litter issues. While 58% of residents say they already carry a litterbag in their vehicle, more than half (52%) who do not stated that they are willing to do so. More than half of Arizona residents also indicated they would be at least “somewhat” likely to report littering behavior. And, while many were unaware of the *Don't Trash Arizona* Web site, 35% said that is a resource they would turn to for more information about littering.

Another finding of note is that residents who were familiar with the “Don't Trash Arizona” slogan reported seeing and/or hearing the slogan from a variety of sources, including television and billboards, despite the fact that paid advertising was limited almost exclusively to less expensive radio buys. However, there were approximately 14 million audience impressions recorded as a result of public relations activities and other events due to coverage by the news media.

Approximately 24 percent of respondents said they had seen the slogan on billboards. Only one billboard was purchased as part of a targeted mall campaign, although the message did appear on electronic message boards along the freeway system. The distribution of responses across venues 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**

The Maricopa Association of Governments and the Arizona Department of Transportation commissioned WestGroup Research of Phoenix to conduct a telephone study with residents aged 16 and older living in the state of Arizona. The purpose of the study was to evaluate overall awareness of and attitudes toward litter issues and explore littering behavior, which was conducted in December 2006.

Results are based on 1,233 fifteen-minute telephone interviews conducted with 610 male and 623 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  $\pm 2.8\%$  at a 95% confidence level. Thirty-one interviews (3%) were conducted in Spanish.

Data is reported by total sample as well as by the three areas identified by MAG – Maricopa County, Pima County, and outlying areas. Quotas were set by region: 60% Maricopa County, 20% Pima County, and 20% outlying areas of the state. Comparisons to the 2006 benchmark study data are also provided throughout the report.

### **B. Demographics**

Per established quotas, 50% of Arizona residents interviewed were males and 50% were females. The average age of the residents was 46, 57% were married, and 44% had children under the age of 18 living in their household. The majority had at least some college experience (69%), 61% were employed either full or part-time, and more than a quarter (27%) report a household income of more than \$75,000. Approximately five in seven residents are Caucasian (72%), while 80% 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	2008 Total (n=1,233)	2006 Total (n=1,233)	2008 By Area		
			Maricopa (n=744)	Pima (n=244)	Outlying (n=245)
Male	50%	50%	50%	50%	49%
Female	50	50	50	50	51
<b>Age</b>					
>21	5%	6%	5%	6%	6%
21-24	5	4	5	7	4
25-34	18	19	16	23	19
35-44	20	20	20	20	18
45-54	22	20	25	12	20
55-65	14	14	12	17	15
66+	16	17	16	15	18
<b>Average</b>	<b>45.7 yrs</b>	<b>45.6 yrs</b>	<b>46.1 yrs</b>	<b>44.3 yrs</b>	<b>46.3 yrs</b>
<b>Marital Status</b>					
Married	57%	60%	56%	57%	60%
Single	26	25	27	26	23
Divorced	8	6	8	5	9
Widowed	7	5	7	7	7
Separated	1	1	-	1	-
<b>Education</b>					
Less than H.S.	7%	8%	8%	6%	9%
H.S. graduate	22	18	19	25	28
Some college	32	34	31	32	34
College graduate	22	25	24	18	21
Graduate degree	15	13	17	16	7
<b>Ethnicity</b>					
White	74%	76%	72%	75%	80%
Hispanic	14	11	15	15	9
Native American	3	2	2	4	7
African American	3	3	4	3	-
Asian	1	1	2	-	2
Other/Refused	5	7	5	3	2
<b>HH w/ children &lt;18</b>	<b>44%</b>	<b>44%</b>	<b>44%</b>	<b>48%</b>	<b>38%</b>

**Table 1b: Respondent Demographics**

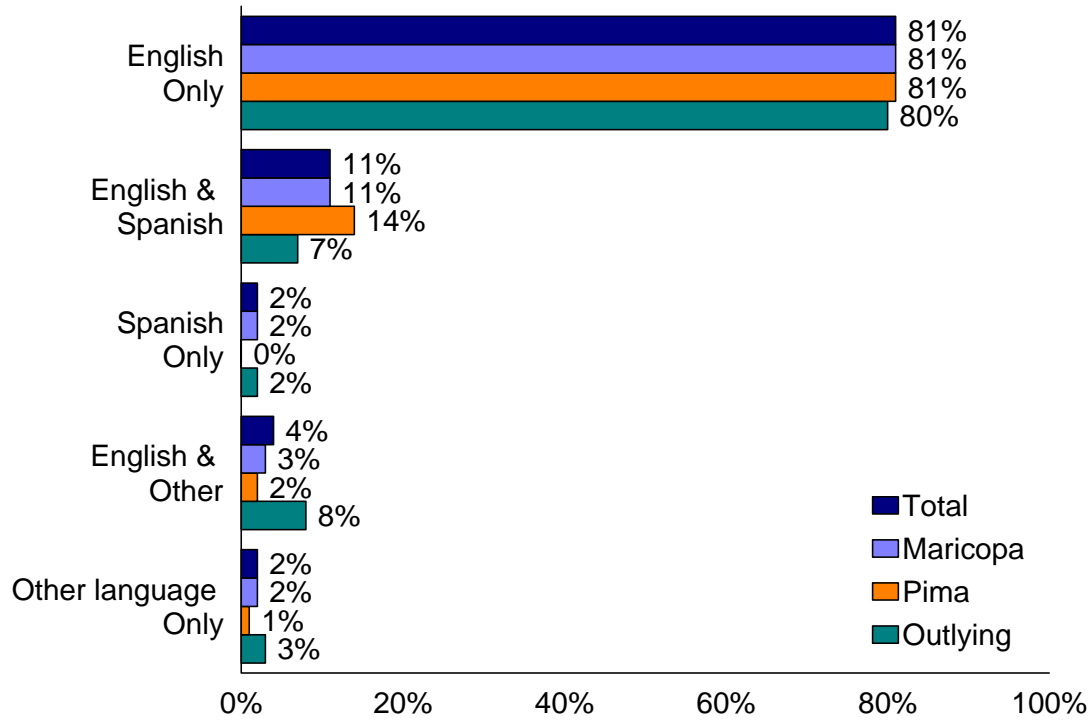
Characteristic	2008 Total (n=1,233)	2006 Total (n=1,233)	2008 By Area		
			Maricopa (n=744)	Pima (n=244)	Outlying (n=245)
<b>HH Income</b>					
<\$10,000	5%	4%	5%	6%	5%
\$10-\$20,000	7	7	5	8	12
\$20-\$30,000	7	9	7	7	10
\$30-\$40,000	8	8	7	11	9
\$40-\$50,000	8	9	8	7	9
\$50-\$60,000	8	6	8	5	10
\$60-\$75,000	10	9	10	11	9
\$75-\$100,000	11	11	12	12	9
\$100,000+	16	15	18	16	9
Refused	20	23	21	18	19
<b>Average</b>	<b>\$77,400</b>	<b>\$61,900</b>	<b>\$83,500</b>	<b>\$77,200</b>	<b>\$59,500</b>
<b>Employment Status</b>					
Full-time	53%	49%	55%	53%	47%
Retired	22	24	20	21	25
Part-time	8	9	8	8	8
Unemployed	7	4	7	4	7
Homemaker	6	8	6	7	7
Student	4	4	3	5	5
<b>Profession</b>					
White collar/mgmt	23%	14%	24%	24%	19%
Professional (medical/legal)	18	9	22	15	17
Trade	13	8	14	16	14
Blue collar	11	9	12	17	16
Education	9	6	10	5	10
Self-employed	8	5	8	10	6
Clerical/admin	7	5	6	9	10
<b>HH Language</b>					
English only	80%	82%	81%	80%	79%
English & Spanish	11	10	11	14	7
Spanish only	1	1	1	-	2
English + other language	4	4	3	2	8
Other language only	2	2	2	1	3

**Table 2: Sample Breakdown by City**  
 Frequencies reported, NOT percentages

City	2008 Total (n=1,233)	2006 Total (n=1,233)
Apache Junction	16	9
Avondale	9	12
Buckeye	8	8
Carefree	2	1
Cave Creek	6	5
Chandler	46	49
El Mirage	-	6
Flagstaff	7	16
Fountain Hills	3	7
Gilbert	23	41
Glendale	56	58
Goodyear	5	13
Green Valley	-	13
Kingman	22	16
Laveen	7	2
Litchfield Park	7	5
Mesa	89	107
New River	-	1
Nogales	2	-
Payson	2	5
Page	4	3
Peoria	29	42
Phoenix	242	210
Prescott	20	10
Queen Creek	32	8
Scottsdale	50	49
Sedona	6	-
Show Low	4	6
Sierra Vista	-	17
Sun City	12	23
Sun Lakes	4	2
Surprise	21	26
Tempe	20	23
Tolleson	4	1
Tucson	169	205
Yuma	21	20
Other	246	181
Refused	28	33

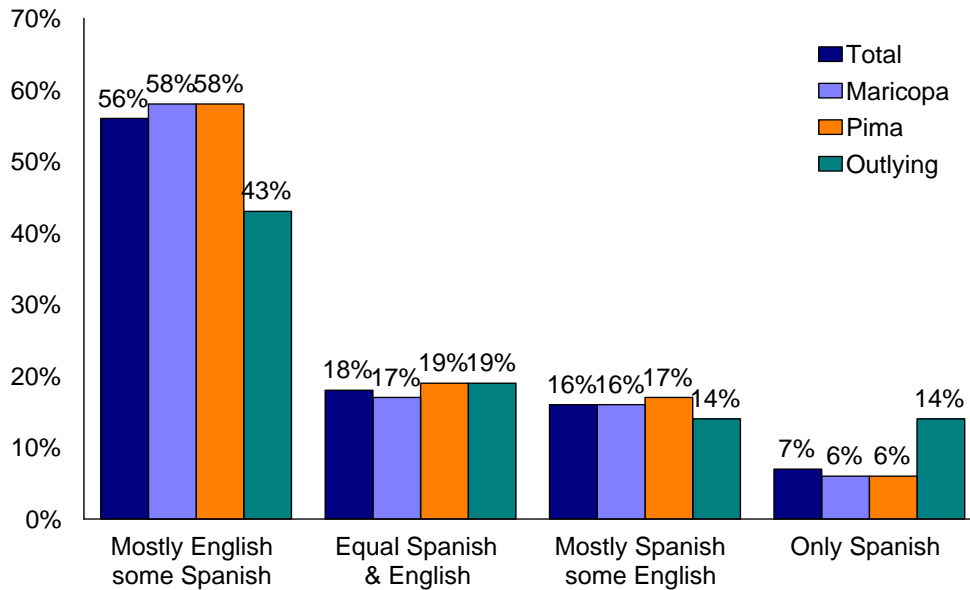
Approximately one in eight Arizona residents interviewed (13%) reported that Spanish was spoken in their home. This percentage was highest in Pima County (15%).

## Language Use in Home



More than half of the Spanish-speaking Arizona residents (56%) indicate they speak “mostly English and some Spanish,” and another 18% report to speak the two languages equally.

## Amount of Spanish Spoken



Total n=151; Maricopa n=744; Pima n=244; Outlying n=245

As seen in 2006, slightly more than two in five Spanish-speaking residents indicated they watch and/or listen to Spanish TV and radio regularly (33% daily and 13% two to five times a week).

**Table 3: Spanish TV & Radio – Viewing Habits**  
Among those indicating they speak Spanish at home

Frequency	2008 Total (n=151)	2006 Total (n=125)	2008 By Area		
			Maricopa (n=94)	Pima (n=36)	Outlying (n=21)
Daily	33%	33%	32%	33%	33%
Regularly (2-5x per week)	13%	11%	13%	11%	19%
Occasionally (1x every 1-2 weeks)	24%	23%	29%	19%	14%
Rarely (less than 1x every 2-5 weeks)	30%	33%	27%	36%	33%

QD7B: Thinking about your habits in regard to Spanish television and radio, would you say you watch Spanish television...?



## II. DRIVER CHARACTERISTICS

### A. Driving Habits

On average, Arizona residents reported driving more than 22 miles per day, slightly higher than the average of 21 miles reported in 2006. Males reported more average daily miles driven (26.2 vs. 18.7 for females), as did residents under the age of 55 (25.1 vs. 16.2 for 55+), those with children (25.7 vs. 20 for those without), and residents with a household income below \$50,000 (19.7 vs. 27 for HH>\$50K).

**Table 4: Average Miles Driven**  
(On Average Day)

Average Miles	2008 Total (n=1,233)	2006 Total (n=1,233)	2008 By Area		
			Maricopa (n=744)	Pima (n=244)	Outlying (n=245)
0-10 miles	37%	41%	37%	33%	40%
11-20 miles	21	20	19	24	22
21-30 miles	13	13	15	13	11
31-50 miles	12	12	12	14	11
50+ miles	14	12	14	14	13
<b>Average miles</b>	<b>22.4</b>	<b>21.0</b>	<b>22.5</b>	<b>23.5</b>	<b>21.3</b>
Don't know	3%	2%	3%	2%	3%

Q8: In a typical day, how many miles do you drive or ride in a motor vehicle?

**In 2008, approximately two in five residents (41%) reported driving or riding in a 4-door sedan, a slight increase from 2006 when 38% of residents reported riding/driving in this type of vehicle.** Sports Utility Vehicles (SUV) and pick-up trucks were the next most frequently mentioned vehicles driven by Arizona residents (20% and 16%, respectively).

While the 4-door sedan was the most common vehicle mentioned statewide, Maricopa County residents were more likely than those living in outlying areas to report driving or riding in this type of vehicle (44% vs. 32%). Residents living in Pima County and outlying areas are more likely to drive or ride in an SUV (23% vs. 18%). Those most likely to indicate that they drive or ride in a pick-up truck live in outlying areas of the state (22% vs.15%).

**Table 5: Type of Vehicle**

Items	2008 Total (n=1,233)	2006 Total (n=1,233)	2008 By Area		
			Maricopa (n=744)	Pima (n=244)	Outlying (n=245)
Sedan (4-door)	41%	38%	44%	39%	32%
Sports utility	20	20	18	24	22
Pick-up truck	16	18	15	16	22
Van/mini-van	8	11	8	9	7
Coupe (2-door)	8	7	8	6	9
Motorcycle	2	-	1	1	3
Other	2	2	1	2	2
Don't drive	4	3	4	2	3
Don't know/ refused	1	-	1	1	-

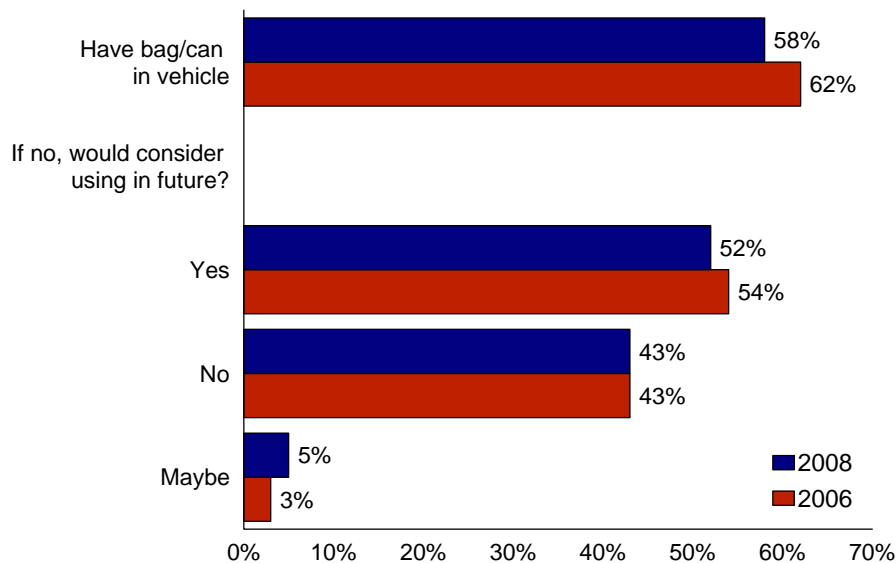
*Q9: Which of the following best describes the type of vehicle you drive or ride in...*

## B. Litterbag Use

In 2008, residents were less likely to report having a litterbag or trashcan in their vehicle (indicated by 58%, down from 62% in 2006). Interestingly, Maricopa and Pima County residents were significantly less likely to have a litterbag or trashcan in their vehicles than residents living in the outlying areas of the state (56% and 55% vs. 69%). Female residents were most likely to report having a litterbag or trashcan in their vehicle (63%), as were older residents (67% of those age 55 or older).

Those who do not currently have a litterbag or trashcan in their car were asked if they would consider keeping one in their vehicle; approximately half (52%) answered in the affirmative. Female residents were more amenable to putting a litterbag in their vehicle (62% vs. 43% for males), as were residents with children (58% vs. 47% without children).

### Litter Bag or Trashcan Use in Vehicle

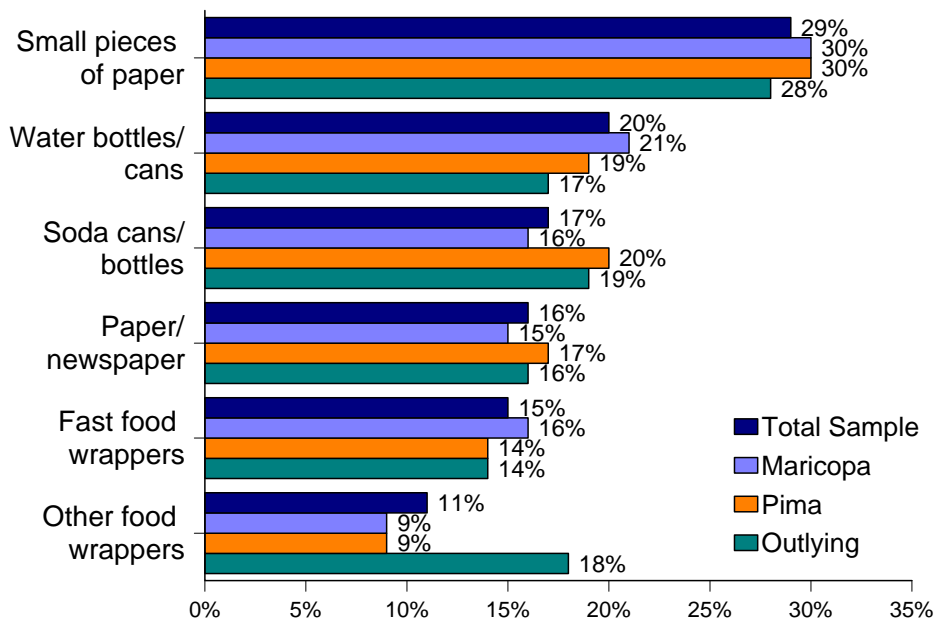


2006 n= 1,233; 2008 n= 1,233

### C. Trash Accumulating Inside Vehicle

As Valley residents reported in 2006, the most common type of trash that accumulates in their vehicles was small pieces of paper such as gum wrappers, receipts and lottery tickets (mentioned by 29%). The next two most commonly reported items were beverage items, i.e., water bottles (20%) and soda cans/bottles (17%). Followed by reported accumulation of paper/newspapers (16%), fast food wrappers (15%), and other types of food wrappers (11%). One in four residents, however, indicated that they always remove trash from their vehicle so nothing accumulates (25%).

## Six Most Common Types of Trash Inside Vehicle



Total sample n=1,233; Maricopa n=744; Pima n=244; Outlying n=245

In general, residents under the age of 35 were significantly more likely than residents 55 years and older, to report all types of trash in their vehicle (17% report “nothing” vs. 39%). Not surprisingly, residents without children were more likely than those with children to report having litter-free interiors (35% report “nothing” vs. 17%). Females were more likely than males to report an accumulation of paper/newspaper items (20% vs. 12%).

**Table 6: Trash Accumulated in Vehicle – Total Responses**

Items	2008 Total (n=1,233)	2006 Total (n=1,233)	2008 By Area		
			Maricopa (n=744)	Pima (n=244)	Outlying (n=245)
Small pieces of paper (receipts, lottery tickets, gum wrappers)	29%	34%	30%	30%	28%
Water cans/bottles	20	15	21	19	17
Soda cans/bottles	17	19	16	20	19
Paper/newspaper/napkins	16	14	15	17	16
Fast food wrappers	15	17	16	14	14
Other food wrappers	11	12	9	9	18
Plastic bags/other plastic	8	7	9	5	6
Cups (Styrofoam, plastic, paper)	5	4	6	5	4
Food/organic material	3	3	3	4	3
Cigarette butts	3	3	3	1	5
Beer cans/bottles	1	1	2	-	1
Kid's stuff/toys etc.	1	-	1	1	1
Nothing/always clean out vehicle	27	25	27	28	28
Other (<1% consensus)	6%	7%	7%	6%	5%
Don't know	2	2	2	2	1

Q26: What kinds of trash tend to accumulate *INSIDE* your vehicle?

## D. Smokers

**As in 2006, one in six Arizona residents indicated they were smokers (16%).** Although not statistically significant, this percentage was slightly higher among residents in outlying areas of the state than those in Maricopa or Pima Counties (19% vs. 15%). Males (18%), those with household incomes of less than \$50K (20%), those without any college experience (21%), and residents younger than 55 (18%) were more likely than those in comparative groups to admit they were smokers.

**Of those who currently smoke, only 6% did not feel that throwing cigarette butts out the window was littering and 6% also admitted that they actually throw their cigarette butts out the window.** The primary reason smokers reported throwing their cigarettes out the window was because they did not want their vehicle to smell (mentioned by 5 of the 11 respondents) followed by three residents who reported they were just lazy, and two residents who reported that they did not have an ashtray in their car.

The majority of smokers reported that they either use the ashtray in their vehicle (57%), use something else in their car (12%) or do not smoke in their vehicle (11%). Residents living in outlying areas were more likely than residents living in other areas to use an ashtray in their vehicle to dispose their cigarettes (70% vs. 55% for Maricopa residents and 46% for Pima residents).

**Table 7: Smoking Habits**

Response	2008 Total (n=1,233)	2006 Total (n=1,233)	2008 By Area		
			Maricopa (n=744)	Pima (n=244)	Outlying (n=245)
<b>Smoker</b>	16%	17%	15%	15%	19%
	(n=193)	(n=205)	(n=109)	(n=37)	(n=47)
Agree throwing cig. butts out window is littering	94%	95%	95%	95%	92%

*Q13: Do you smoke? Q14: If yes, in your opinion, is throwing cigarette butts out the window or on the ground littering?*

**Table 8: Disposing of Cigarette Butts**  
Among those indicating they smoke

Response	2008 Total (n=193)	2006 Total (n=205)	2008 By Area		
			Maricopa (n=109)	Pima (n=37)	Outlying (n=47)
Ashtray in vehicle	57%	56%	55%	46%	70%
Something else in vehicle	12	12	11	16	11
Don't smoke in the car	11	14	12	8	11
It varies	6	8	6	14	-
Throwing out window	6	3	6	11	2
Other (<1% consensus)	2	2	2	-	2
Don't know/refused	7	5	8	5	4

Q15: When you are in a vehicle, do you USUALLY dispose of cigarette butts...?

**Table 9: Primary Reason for Disposing Cigarette Butts Out the Window**  
Among those indicating they smoke and throw cigarette butts out the window

Reason	2008 Total (n=11)
Don't want vehicle to smell	46% (5)
Lazy/don't care	27% (3)
Don't have ashtray in vehicle	18% (2)
Don't know	9% (1)

Q16: What is the primary reason that you toss your cigarette butts out the window?



## E. Truck Drivers

One in six Arizona residents indicated they drive a pickup truck (16%). This percentage was highest in the outlying areas of the state (22%). Overall, 77% of truck drivers reported that they put things in the bed of the truck, significantly higher this year compared to 62% of residents who reported this in 2006. Although not statistically significant, drivers in Pima County were the most likely to report storing things in their truck beds than truck drivers in other areas of the state (84% vs. 76% in Maricopa and 75% in outlying areas).

**Table 10: Pick-Up Truck Drivers**

Response	2008 Total (n=1,233)	2006 Total (n=1,233)	2008 By Area		
			Maricopa (n=744)	Pima (n=244)	Outlying (n=245)
<b>Drive a pick-up truck</b>	16%	18%	15%	16%	22%
	(n=196)	(n=186)	(n=107)	(n=37)	(n=52)
Put things in truck bed	77%	62%	76%	84%	75%

*Q9: Drive a pick-up truck. Q24: TRUCK DRIVERS ONLY – Do you ever put anything in your truck bed?*

**Truck drivers were most likely to report that soda cans and soda bottles were the most common types of litter that would be found in the back of their truck (mentioned by 14%).** Approximately one in ten truck drivers indicated that they put plastic bags and other plastic items in the back of their truck (9%). In addition, construction materials, lawn debris, water bottles, as well as trash in general were among the other types of litter that can be found in truck beds (all types mentioned by 7%). Slightly more than one in six (17%) indicated that they do not believe they put any type of litter in the bed of their truck; this is up from 12% in 2006.

**Table 11: Litter Via Truck Bed – Total Responses**  
Among those who indicate they drive a truck

Items	2008 Total (n=196)	2006 Total (n=173)	2008 By Area		
			Maricopa (n=107)	Pima (n=37)	Outlying (n=52)
Nothing	17%	12%	17%	19%	15%
Soda cans/bottles	14	20	11	16	17
Plastic bags/other plastic	9	11	11	5	8
Construction debris	7	10	9	3	6
Lawn debris	7	7	9	3	6
Water bottles	7	2	6	11	8
Trash/non biodegradable (unspecified)	7	--	5	5	14
Fast food wrappers	5	6	6	3	4
Food/organic material	5	5	4	8	6
Cardboard	5	3	5	5	6
Sm. pieces of paper	3	9	4	--	2
Wood	3	2	1	5	4
Paper/ newspaper/ napkins	2	4	2	3	2
Beer cans/bottles	2	4	2	5	--
Furniture	2	--	1	5	--
Other food wrappers	--	3	--	--	--
Litter that falls out accidentally	--	2	--	--	--
Tires	--	2	--	--	--
Car parts/ batteries	--	2	--	--	--
Cigarette butts	--	-	--	--	--
Other	11%	10%	11%	8%	14%
Don't know	22	25	23	22	21

*Q25b: What types of items do you ever put into your truck bed that you consider to be litter or trash? What else?*

### III. LITTER AWARENESS

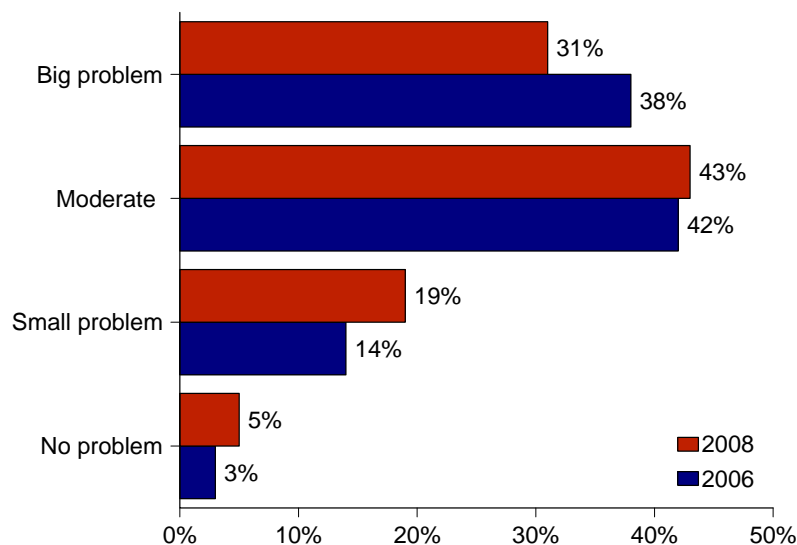
#### A. Perception of Litter as Problem along Freeways

In 2008, the perception of littering along Arizona freeways was seen as less of a problem than in 2006 (74% down significantly from 80%). Approximately three in ten residents indicated they believe that litter along the freeways throughout the state of Arizona was a “big” problem (31% down from 38%) or “moderate” problem (43% compared to 42% in 2006). Residents in Pima County and in outlying areas of the state were significantly more likely than residents living in Maricopa County to describe the litter problem as a “big” problem (35% and 37% vs. 28%).

In addition, those most likely to consider litter along freeways as a “big” problem were:

- Those with lower household incomes (36% of those with incomes under \$50K vs. 29% of those with higher household incomes)
- Residents who were aware of anti-litter advertising (37% vs. 29%)
- Residents without any college education (39% vs. 28% with at least some college experience).
- Pickup truck drivers (39% vs. 28% to 32% of others)

#### Perception of Litter along AZ Freeways



2006 n=1,233; 2008 n=1,233

**Table 12: Freeway Litter as A Problem in Arizona**

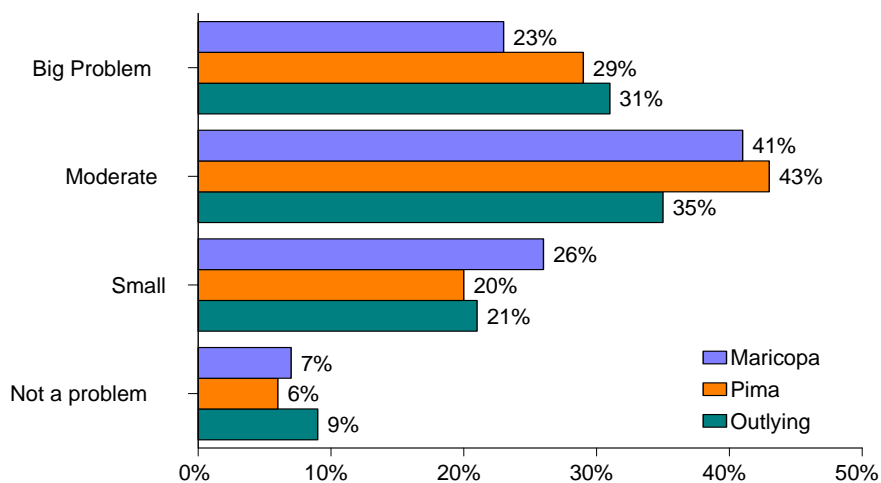
Rating	2008 Total (n=1,233)	2006 Total (n=1,233)	2008 By Area		
			Maricopa (n=744)	Pima (n=244)	Other (n=245)
Big problem	31%	38%	28%	35%	37%
Moderate problem	43	42	43	43	43
Small problem	19	14	22	16	11
Not a problem at all	5	3	5	4	5
Don't know	2	3	2	2	4

*Q10: In your opinion, how big of a problem is litter along freeways in Arizona? Would you say it is a...*

In addition to their perceptions of litter along Arizona freeways in general, residents were also asked to indicate their perception of the litter specifically along the freeways in the county where they live. Similar to the perception of litter along Arizona freeways, residents were less likely to see litter as a problem along their county freeways this year compared to previous years. **Two in three residents reported littering along their county freeways as a problem this year (66% “big” + “moderate”) compared to three in four residents who saw it as a problem in 2006 (74% “big” + “moderate”).**

Residents living in outlying areas of the state were more likely to indicate that litter along the freeways in that county was a “big” problem than residents in Maricopa County (31% vs. 23%).

### Perception of Litter along Freeways in Specific County



Total sample n=1,233; Maricopa n=744; Pima n=244. Outlying n=245

**Table 13: Freeway Litter as A Problem in County of Residence**

Rating	2008 Total (n=1,233)	2006 Total (n=1,233)	2008 By Area		
			Maricopa (n=744)	Pima (n=244)	Other (n=245)
Big problem	26%	33%	23%	29%	31%
Moderate problem	40	41	41	43	35
Small problem	24	16	26	20	21
Not a problem at all	7	5	7	6	9
Don't know	3	6	2	2	5

*Q11: In your opinion, how big of a problem is litter along freeways in your County? Would you say it is a...*

## **B. Littering Material**

### **1. Definitions of Litter**

Residents were asked to respond with the first thought that came to mind when they heard the word “litter.” The most common definition offered was “trash” or “garbage” or “junk” (mentioned by 31%). The next most common definitions related to where they see littering, “along roads and freeways” or a description of the action of littering “people throwing things out car windows and not using receptacles” (13% and 12%). While several definitions described the different types of litter, some comments reflected back on the behavior of the individual who litters (irresponsible – 8%; lazy/slobs – 5%). A few residents referred to the way litter looks (dirty/disgusting – 8%; ugly/unsightly – 4%), the effects of littering (pollution/bad for environment-3%) or the way it makes them feel (angry/upset – 3%).

**Table 14: Definition of “Litter”**

Items	2008 Total (n=1,233)	2006 Total (n=1,233)	2008 By Area		
			Maricopa (n=744)	Pima (n=244)	Outlying (n=245)
Trash/garbage/junk/mess	31%	38%	30%	38%	32%
Along roads/freeways	13	2	12	12	14
People throwing things out car windows/not using receptacles	12	6	13	9	11
Paper/fast food wrappers	10	6	11	8	8
Empty cans/bottles/cups	9	4	8	10	13
Irresponsible/disrespectful/ careless/inconsiderate	8	5	10	4	5
Dirty/disgusting/filthy	8	5	8	10	6
Lazy/slobs/pigs/messy people	5	3	5	5	6
Plastic bags	5	2	3	5	10
Cigarette butts	4	2	5	2	2
Ugly/looks bad/unsightly	4	3	3	4	5
Pollution/bad for environment	3	1	3	2	5
Anger/makes me upset	3	2	3	5	3
Should be cleaned up/ problem needs to be fixed	3	2	3	2	3
Fast food bags	2	-	3	1	2
Tires	2	-	2	1	1
Things flying out of trucks	1	-	1	1	1
Other (<1% consensus)	13%	14%	11%	13%	16%
Don't know	3%	2%	1%	-	8%

Q12: What is the first thought that comes to your mind when you hear the word “litter”?

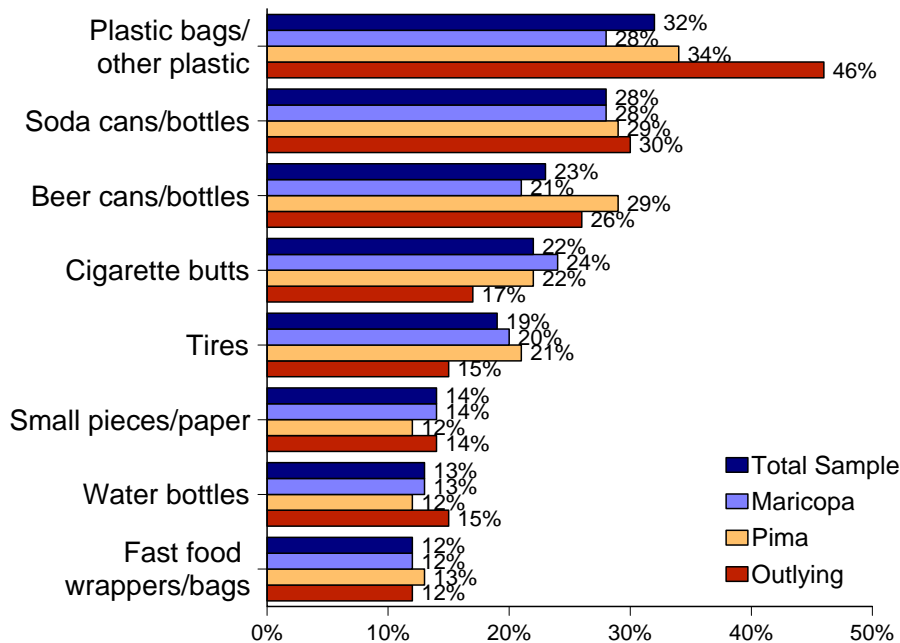
## 2. Perceptions on Types of Litter

When Arizona residents were asked what types of materials they would consider “serious” litter problems, plastic bags and other plastic items topped the list (mentioned by 32% increasing from 27% in 2006). However, when looking at it from a broader scope, a notable proportion of residents identified beverage cans and bottles as a serious litter problem (soda cans/bottles-28%, beer cans/bottles-23%, and water bottles-13%).

Other mentions included cigarette butts (22%), tires (19%) and small pieces of paper (14%).

Residents living in outlying areas of the state were significantly more likely than Maricopa and Pima County residents to list plastic bags and other plastic items as a serious litter problem (46% vs. 28% and 34%). Beer cans and beer bottles were most likely listed by Pima County residents and those living in outlying areas (29% and 26% vs. 21%). Maricopa County residents, on the other hand, were more likely than residents in outlying areas of the state to cite cigarette butts (24% vs. 17%) as serious litter problems.

### Most Common Types of Trash Labeled as a “Serious Problem”



Total sample n=1,233; Maricopa n=744; Pima n=244. Outlying n=245



**Table 15: Litter Perceived as a SERIOUS Problem – Total Answers**

Items	2008 Total (n=1,233)	2006 Total (n=1,233)	2008 By Area		
			Maricopa (n=744)	Pima (n=244)	Outlying (n=245)
Plastic bags/other plastic	32%	27%	28%	34%	46%
Soda cans/bottles	28	34	28	29	30
Beer cans/bottles	23	31	21	29	26
Cigarette butts	22	22	24	22	17
Tires	19	16	20	21	15
Small pieces of paper	14	18	14	12	14
Water cans/bottles	13	12	13	12	15
Fast food wrappers	12	16	12	13	12
Paper/newspaper/napkins	6	6	7	7	6
Glass	6	4	6	8	6
Construction debris	6	8	8	3	5
Trash (non- biodegradable)	5	6	4	7	4
Other food wrappers	4	4	4	4	4
Diapers/baby wipes	4	3	3	4	5
Aluminum cans	4	2	3	4	5
Cups (Styrofoam, plastic, paper)	3	3	4	2	2
Everything	3	4	4	2	2
Litter that falls out of pick up trucks accidentally	3	7	3	2	3
Furniture (couches, beds)	3	3	3	3	2
Car parts/batteries/motor oil	3	3	3	3	2
Cardboard	2	2	2	2	2
Bottles/containers (unspecified)	2	2	2	5	1
Cardboard	2	2	2	2	2
Food/organic material	2	2	2	-	3
Chemicals/toxic stuff	2	-	2	2	1
Metal/steel	2	-	2	2	-
Lawn debris	2	-	2	-	-
Objects in/along road	1	-	2	1	1
Styrofoam	1	-	1	1	2
Other (<1% consensus)	6%	10%	6%	5%	6%
Don't know	3%	4%	3%	3%	3%

Q18: What types of materials do you think are a serious litter problem?

After discussing the items they considered to be “serious” litter problems, residents were asked to list additional items they considered to be “minor” problems. **The same three items that topped the list of “minor litter” in 2006, were again the most mentioned –small pieces of paper such as receipts, lottery tickets and gum wrappers (19%) biodegradable items, such as food and gum (17%) and cigarette butts (12%).** Interestingly, Maricopa and Pima County residents were more likely than those living in outlying areas of the state to include cigarette butts on the “minor” list (13% and 14% vs. 7%).

**Table 16: Litter Perceived as a MINOR Problem – Total Answers**

Items	2008 Total (n=1,233)	2006 Total (n=1,233)	2008 By Area		
			Maricopa (n=744)	Pima (n=244)	Outlying (n=245)
Small pieces of paper (receipts, lottery tickets, gum wrappers)	19%	19%	19%	20%	20%
Food/organic material	17	19	16	16	20
There isn't minor litter/ all litter is major	12	18	10	14	16
Cigarette butts	12	13	13	14	7
Paper/ newspaper/ napkins	5	4	5	5	5
Soda cans/bottles	5	4	5	5	4
Other food wrappers (chip bags, candy wrappers)	4	4	4	2	5
Plastic bags/other plastic	4	2	4	3	4
Beer cans/bottles	3	3	4	3	2
Fast food wrappers	2	3	3	2	2
Lawn debris	2	2	3	3	1
Water bottles	2	-	2	1	2
Everything/any of it	2	-	2	1	2
Nothing	2	-	3	1	2
Tires	2	2	1	4	1
Cardboard	1	1	1	1	-
Other	8%	11%	8%	7%	6%
Don't know	21%	22%	22%	19%	23%

Q19: What types of materials do you think are a minor litter problem?

## IV. LITTERING BEHAVIOR

### A. Personal Littering

When asked to itemize what items they thought they had littered in the past year, a majority of Arizona residents insisted that they had not littered at all during the past year (67%) – this was similar to the findings from the 2006 study when 69% claimed they had not littered. An additional 5% said they “did not know” if they had littered or not.

Those most likely to claim they have not littered included:

- Females (71% vs. 63% for males)
- Older residents (70% for 35-54 year olds and 83% over 55 vs. 45% under 35).
- Those without children (75% vs. 55% with children)
- Caucasian residents (70% vs. 56% for other ethnicities)
- Higher educated residents (69% with at least some college education vs. 61% of those without).

Among those who indicated they had littered in the past year, food or organic material (including gum) was the most common type of litter (listed by 39%). This was also the most common type of litter listed in 2006. Pima County residents are more likely than residents in outlying areas of the state to report that they have discarded cigarette butts (18% vs. 5%).

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

- Females (44% vs. 33% for males)
- Those 35 years or older (44% vs. 33% of those under 35).
- Residents with a HH income above \$50K (53% vs. 25% with HH income below \$50K)
- Caucasian residents (44% vs. 23% for other ethnicities)
- College-degreed residents (61% vs. 16% of those with HS degree or less)

**Table 17: Items Personally Discarded as Litter – Total Responses**

Items	2008 Total (n=1,233)	2006 Total (n=1,233)	2008 By Area		
			Maricopa (n=744)	Pima (n=244)	Outlying (n=245)
<b>Have not littered in past yr.</b>	<b>67%</b>	<b>69%</b>	<b>67%</b>	<b>70%</b>	<b>64%</b>
	(n=354)	(n=328)	(n=209)	(n=61)	(n=84)
Food/organic material	38%	39%	39%	36%	39%
Small pieces of paper	25	23	26	25	24
Cigarette butts	10	12	10	18	5
Other food wrappers	7	10	8	3	7
Paper/newspaper/napkins	6	4	6	8	6
Soda cans/bottles	6	6	5	8	7
Plastic bags/other plastic	4	2	5	3	4
Nothing	2	--	--	--	10
Fast food wrappers/paper bags	3	--	4	--	2
Beer cans and beer bottles	2	--	2	5	--
Cups (Styrofoam, plastic, paper)	2	--	2	2	--
Cardboard, boxes	1	--	1	2	1
Lawn debris	1	--	1	--	2
Bottles (unspecified)	1	--	1	2	2
Water bottles	1	--	2	2	--
Other (<1% consensus)	6	11	7	8	4
Don't know	--	16%	--	--	--

*Q20: 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?*

## B. Littering Circumstances

As was reported in 2006, 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 (mentioned by 36% down from 46% reported in 2006). One in ten admitted litterers reported they littered while walking outside or because there was no trashcan around (11% and 10% respectively).

Pima County residents were slightly more likely than those living in other areas to report that the littering happened while they were driving or riding in a car (46% vs. 33%). Maricopa County litterers were significantly more likely than those living in Pima County or outlying areas of the state to admit they littered because they did not see a trashcan (15% vs. 4% and 2%).

**Table 18: Littering Situation – Total Responses**  
Among those who indicated they have littered in the past year

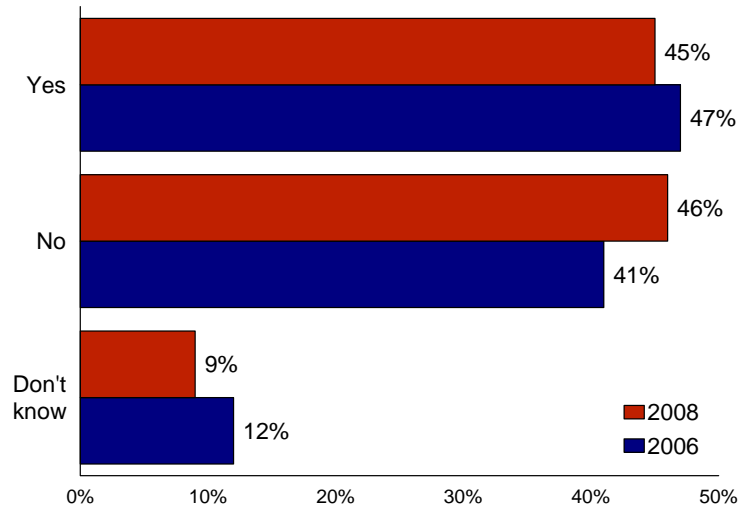
Items	2008 Total (n=408)	2006 Total (n=378)	2008 By Area		
			Maricopa (n=247)	Pima (n=72)	Outlying (n=89)
Driving/riding/traveling in vehicle	36%	46%	34%	46%	33%
Walking outside	11	15	12	7	12
No trash can around	10	7	15	4	2
Opened door/window – flew out	5	4	5	6	7
I didn't litter	5	2	3	8	7
In the desert/ middle of nowhere	3	1	1	6	6
Flew out of truck bed	2	2	2	1	5
Just threw it/anywhere I could	2	-	2	-	3
In the park	2	-	2	3	1
At home	2	1	1	1	3
Camping/hiking	2	-	2	-	3
In a parking lot	2	-	2	3	-
Eating food/chewing gum	2	2	1	4	-
Partying/drinking	1	-	-	1	3
Other (<1% consensus)	9%	7%	8%	6%	14%
Don't know/can't remember	15%	16%	19%	12%	8%

*Q21: To the best of your knowledge, what were the general circumstances in terms of where and what you were doing when you discard litter?*

Approximately four in nine residents who reportedly littered in the past year indicated they were alone when the littering occurred (45%), similar to results found in 2006 (47%). Older residents (55+) were the most likely to indicate they were alone when littering occurred (58%) as well as those living in Maricopa County (49%).

## Tend to Be Alone When Littering

Among those who said they littered in the past year



2006 n=378; 2008 n= 408

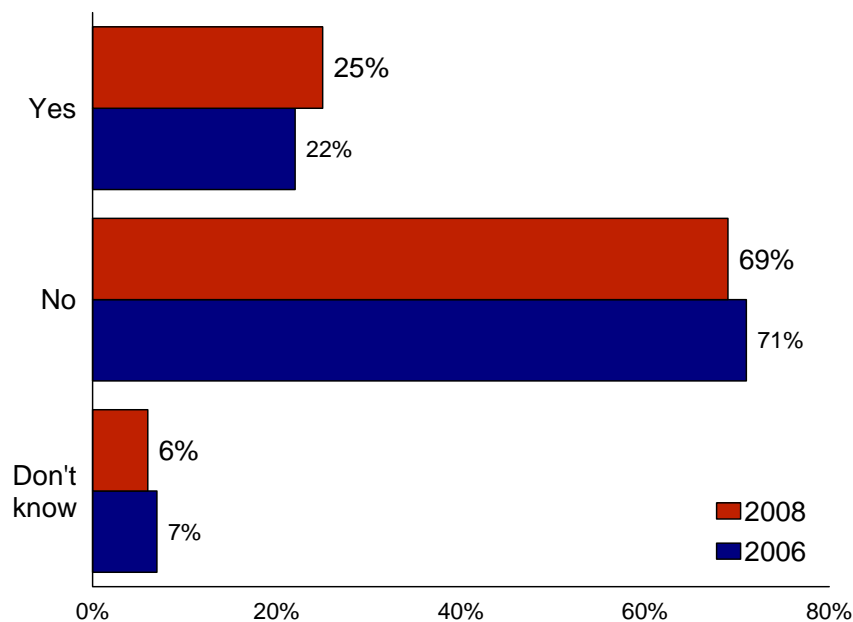
### C. Perception of Accountability

The vast majority of those who admitted they have littered in the past do *not* believe they will get caught for littering at some point in the future (69%). Residents most likely to believe that they may get caught for littering included:

- Younger residents (35% of those under age 35 vs. 17% of those older)
- Those with children in the household (32% vs. 17%)
- Those with lower household incomes (36% of those with incomes under \$50K vs. 17% of those with incomes greater than \$50K)
- Residents with a high school or less education (38% vs. 18% of those with at least some college education)
- Minority residents (35% vs. 20% of Caucasian residents)

## Believe Will Get Caught for Littering

Among those who said they littered in the past year



2006 n=378; 2008 n= 408



When asked why they do not believe they will get caught littering, three in five of those who previously indicated they had littered replied, “I don’t litter” (60% up from 49% reported in 2006) and an additional 14% indicated they do not litter “very often.” A small percentage believed they will not be caught littering because they are careful (7%), or they only throw away things that will disintegrate like food (8%), or gum (2%), or small things (2%). Others do not believe littering laws are enforced (5%).

**Table 19: Reasons Why People Believe They Will Not Get Caught Littering**  
Among those who have littered in the past year/believe they will not get caught

Responses	2008 Total (n=281)	2006 Total (n=269)	2008 By Area		
			Maricopa (n=169)	Pima (n=50)	Outlying (n=62)
I don't litter	60%	49%	55%	66%	68%
I don't litter very often	14	19	16	12	11
Only litter food/ things that will disintegrate	8	6	8	12	6
I'm cautious/ careful/ make sure no one is looking	7	8	10	2	2
Nobody gets caught/ not enforced/ other things for cops to do	5	7	6	4	3
I carry a trash container in the car/ hold on to it and throw it away later	4	2	3	6	3
I don't think a piece of gum is littering	3	2	4	2	2
I don't throw out anything big	2	2	2	5	2
It's not a big deal/ nobody cares	1	3	1	--	--
Cigarette butts aren't a big thing	--	2	--	--	--
Other	2%	2%	2%	2%	3%
Don't know/refused	2%	4%	2%	--	6%

Q23a: Why don't you believe you will ever get caught for littering?

#### D. 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.*

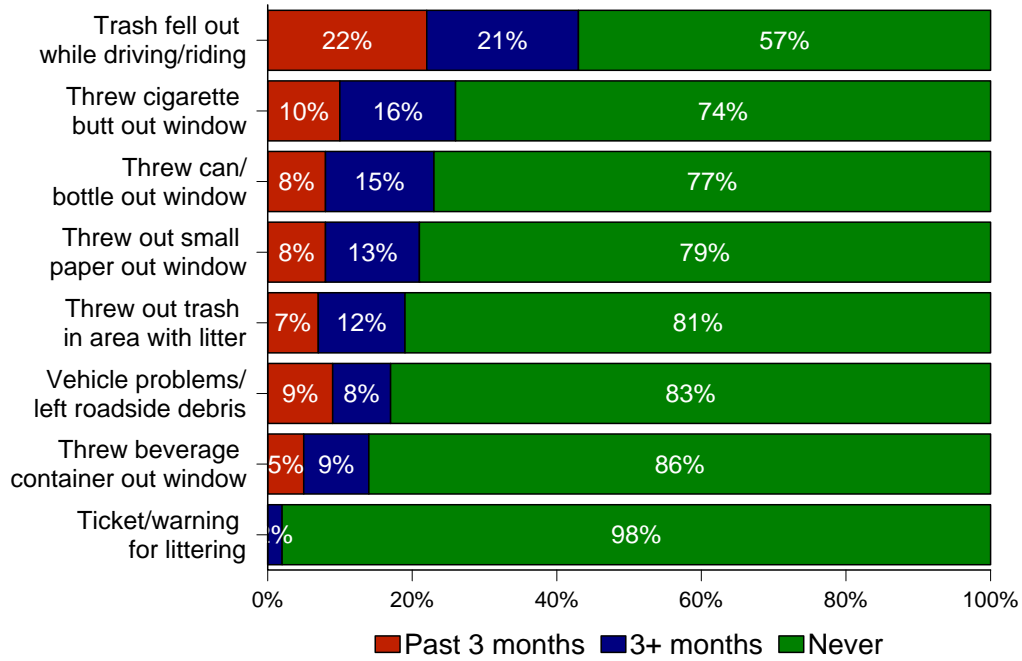
**Similar to 2006, residents were most likely to report that at some point in time they “noticed trash falling out of the vehicle” they were driving or riding in** (22% within the past 3 months; 21% 3+ months). In particular, Maricopa County residents and those living in outlying areas of the county were more likely than Pima County residents to indicate they had experienced this in the past three months (23% vs. 18%).

**The next most commonly experienced litter situation was throwing or having a cigarette butt thrown out of the window** (10% within the past 3 months, 16% more than 3 months). Residents living in Pima County were more likely to have experienced this situation in the past three months compared to those living in outlying areas of the state (13% vs. 7%).

Slightly less than one in ten residents (9%) had a problem with their vehicle and because of that problem had left debris on the roadside, such as parts of their tire. Other residents indicated they had been in a vehicle where an item was thrown out of the window; these items included small items like candy wrappers (8%), cans or bottles (8%), and beverage containers (5%). Seven percent (7%) of residents indicated they were in a car when someone threw out trash in an area that already had litter. Only 2% reported receiving a warning or ticket for littering.

In general, males, residents under age 35, those children in the household, and those with a high school education or less were more likely than those in comparative groups to report having experiences with the specific littering situations that were queried.

## 2008 Experience with Littering Situations



**Table 20: Personal Experience with Littering Circumstances  
Past 3 Months**

Circumstance	2008 Total (n=1,233)	2006 Total (1,233)	2008 By Area		
			Maricopa (n=744)	Pima (n=244)	Outlying (n=245)
You noticed that some trash fell out of a pick-up or other vehicle you were driving in.	22%	19%	23%	23%	18%
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.	10%	10%	10%	13%	7%
You had problems with a vehicle and left debris like tire, part of a tire, or other stuff on the roadside.	9%	7%	9%	10%	9%
You threw out a small item from your vehicle like a candy wrapper, scrap paper, etc.	8%	7%	8%	8%	9%
Someone in a vehicle you were in threw out a can, bottle or litter out onto the side of the road.	8%	6%	9%	8%	7%
Someone in a vehicle you were in threw trash out in an area that already had lots of litter.	7%	6%	6%	10%	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.	5%	4%	5%	5%	3%
You or someone you were with got a ticket or warning for littering.	-	-	1%	-	-

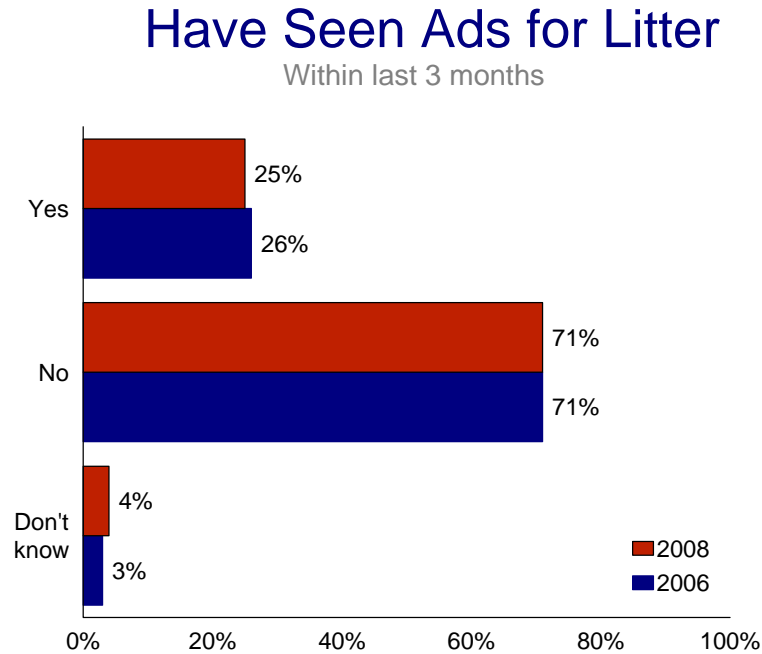
*Q17: I am going to read you a few statements pertaining to your litter awareness. For each of the following statements, please respond by telling me if this is something you –“Have experienced in the past 3 months,” “Have experienced over 3 months ago,” or “have never experienced.”*

## V. CAMPAIGN AWARENESS

### A. Awareness of Campaign

#### 1. General Awareness

One in four residents (25%) indicated they had seen advertising related to litter or littering in the past three months, essentially the same percentage reported in 2006 when 26% of residents had recalled seeing advertising about litter. Younger residents (under the age of 35) were more likely than older residents to be aware of “litter” advertising (30% vs. 24% of those between 35-54 years old and 20% of those 55 or older). This was a slight (non-significant) increase in awareness among residents in this age category (25% in 2006); awareness among older residents stayed the same or decreased.



## 2. *Recalled Messages and Slogans*

**“Don’t litter” or “Keep Arizona clean” was the main message residents recalled from litter-related advertising (mentioned by 29%). This was also the primary message recalled by residents in 2006, however this year there were slightly fewer mentions (29% vs. 32%).** Other messages recalled included information about the fines for littering (21%), littering is unlawful (9%), and littering is bad for the environment and wildlife (6%). Other residents could only report the type of advertising they recalled such as billboards or signs along the road (15%), television (5%), or read about in the newspaper (3%). Residents also mentioned messages associated with ways to reduce litter or clean it up, mentions include highway clean-up efforts such as “Adopt a highway” (4%), recycling (4%), keeping highways clean (2%) and getting rid of plastic bags at grocery stores (2%).

Maricopa County residents were more likely to recall information about fines than Pima County residents (24% vs. 13%). Males were more likely to remember seeing information about fines for littering (29% vs. 14% of females), as were residents under the age of 55 (24% vs. 12% of those 55+).

**Table 21: 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	2008 Total (n=307)	2006 Total (n=315)	2008 By Area		
			Maricopa (n=186)	Pima (n=66)	Outlying (n=55)
Don't litter/ keep Arizona clean	29%	32%	28%	33%	29%
The fines	21	15	24	13	21
It was a sign along the road/billboard	15	13	15	11	17
Littering is unlawful/ can get a ticket	9	9	7	16	11
Litter is bad for the environment/ bad for wildlife	6	3	4	11	9
Saw on TV/ commercial/ public service announcement	5	5	4	6	5
Recycling	4	-	4	6	3
Clean up efforts/ Adopt a highway	4	5	4	2	3
Read article in newspaper	3	2	1	2	9
Man following man/shows litter, makes pyramid/tree/robot	2	-	2	-	5
Use ashtray/cig. cause fires	2	-	2	4	3
Grocers getting rid of plastic bags	2	-	1	-	6
Indian crying	2	2	2	2	2
Cost of cleaning up / tax dollars	2	4	2	2	-
It's a big problem/ becoming an issue	--	4	--	--	--
Keep highways clean	2	-	1	4	3
Date commercial	1	-	2	-	-
Other (<2% consensus)	14%	17%	13%	18%	11%
Don't know	16	10	19	15	8

Q30? What specifically do you remember about the ads related to litter or littering?

**Three in eight residents who remembered seeing litter-related advertising in the past three months were able to recall some type of slogan/message (38%).** Two of the most commonly recalled “slogans” were actually messages – “do not litter” (mentioned by 13%) and “you will be fined” (mentioned by 5%). Actual slogans that were most frequently recalled were “Don’t Trash Arizona” (5%), “Arizona Clean and Beautiful” (3%) and “Keep Arizona Beautiful” (3%). The message “recycle, reduce, reuse” was mentioned for the first time this year (3%). Younger residents (under the age of 35) were more likely than older residents to recall the slogan “Don’t Trash Arizona” (8%). Interestingly, this is a reversal from 2006 when the youngest age group was least likely to be aware of the “Don’t Trash Arizona” slogan (3%).

**Table 22: Main Slogan of Recalled Advertising**  
Among those who indicated they remember seeing ads related to litter or littering in the past 3 months

Responses	2008 Total (n=307)	2006 Total (n=315)	2008 By Area		
			Maricopa (n=186)	Pima (n=55)	Outlying (n=66)
Do not litter	13%	14%	12%	15%	12%
Don’t Trash Arizona	5	6	6	4	3
You will be fined	5	5	3	2	11
Littering is unlawful	4	2	3	2	8
Arizona Clean and Beautiful	3	4	3	4	2
Keep Arizona Beautiful	3	4	2	6	3
There was no slogan/ it was a sign/ gave information	3	2	3	4	5
Recycle, reduce, reuse	3	-	2	6	3
Don’t mess with Texas	1	1	1	2	3
Keep our freeways clean	1	1	1	2	2
Other	7%	3%	6%	6%	9%
Don’t know	59	68	62	58	50

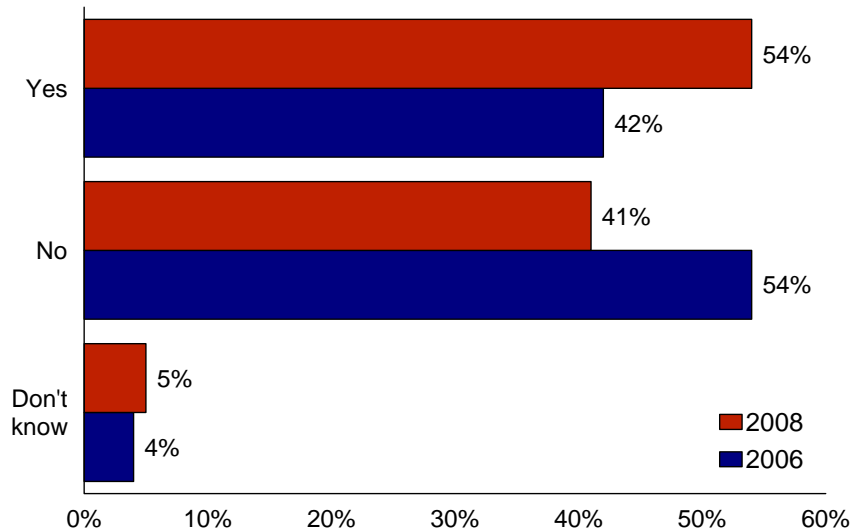
Q31? What was the main slogan used in the ads?



## B. Don't Trash Arizona Awareness

Awareness of the slogan “Don't Trash Arizona” increased significantly between 2006 and 2008, going up 12 percentage points or 29%. Currently, more than half of Arizona residents indicated they have heard the slogan “Don't Trash Arizona” (54%). Overall awareness of the slogan was highest among males (58% vs. 50% of females; up from 47% in 2006) and those who have seen advertising related to littering in the past three months (61% vs. 51%). The largest increase in awareness was among residents under age 35 (up 18 points from 40% to 58%; 35-54 up 7 points; 55+ up 14 points).

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



2006 n=1,233; 2008 n=1,288

The vast majority of residents who recalled hearing the “Don’t Trash Arizona” slogan identified the main message of the slogan as simply “don’t litter” (61%). Considerably fewer residents felt the message of the slogan was about keeping Arizona clean and beautiful (6%), having pride in Arizona and in your community (4%), and overall littering harms the environment (2%). Almost one-third of those who recalled hearing the slogan were unable to conjure up a main message (32%).

**Table 23: Main Message of “Don’t Trash Arizona” Campaign**  
Total responses among those indicating they had heard the slogan

Message	2008 Total (n=671)	2008 By Area		
		Maricopa (n=417)	Pima (n=133)	Outlying (n=121)
Don’t litter/throw things on street, ground, roads	61%	65%	55%	56%
Keep AZ clean/beautiful	6	6	5	7
Have pride in AZ, community, yourself	4	3	4	6
Littering hurts the environment/ unhealthy	2	2	1	3
Secure/tied down loads	1	1	1	1
\$500 fine	1	1	1	1
Other (1% or less consensus)	3%	4%	3%	1%
Don’t know	32%	28%	38%	41%

Q34: What was the main message of the “Don’t Trash Arizona campaign?”

Residents who were familiar with the “Don’t Trash Arizona” slogan reported seeing and/or hearing the slogan from a variety of sources – television (30%), billboards (24%), radio (21%), and street/highway signs (16%). Maricopa and Pima County residents were more likely than those living in outlying areas of the state to report seeing the slogan on billboards (24% and 29% vs. 16%).

Residents under age 35 and those with a household income below \$50K (35% and 32%) were more likely to remember seeing the slogan on television than residents in their comparative groups. Those most likely to have seen the slogan on billboards were under the age of 55 (28%) residents with a household income above \$100K (33%) and those without children in the home (28%).

**Table 24: Where Saw “Don’t Trash Arizona” Slogan**  
Total responses among those indicating they had heard the slogan

Media	2008 Total (n=671)	2006 Total (n=522)	2008 By Area		
			Maricopa (n=417)	Pima (n=133)	Outlying (n=121)
Television	30%	26%	30%	30%	28%
Billboards	24	22	24	29	16
Radio	21	14	21	17	24
Street/highway signs	16	12	16	11	17
Newspaper	6	5	6	5	7
Magazines	2	-	2	2	1
Other (<1% consensus)	6%	5%	5%	9%	7%
Don't know	25	25	25	24	26

Q35: Where have you seen, heard or read the slogan “Don’t Trash Arizona?”

**Two in three residents were unable to name a sponsor for the “Don’t Trash Arizona” slogan (67%).** One in ten correctly identified the Arizona Department of Transportation (10%) and 14% generically cited the “state” or “local” government. Residents under the age of 35 were significantly more likely than those in their comparative groups to mention ADOT (15%) as were those with a college degree (14%) and those with an income between \$50K-\$100K (14%).

**Table 25: Who Sponsors “Don’t Trash Arizona” Slogan**  
Among those indicating they had heard the slogan

Sponsor	2008 Total (n=671)	2006 Total (n=522)	2008 By Area		
			Maricopa (n=417)	Pima (n=133)	Outlying (n=121)
State/local government	14%	12%	17%	20%	8%
ADOT	10%	10%	9%	11%	13%
Other (<1% consensus)	6%	5%	6%	3%	10%
Don’t know	67%	72%	65%	78%	63%

*Q36: Who sponsors the “Don’t Trash Arizona” advertisements?*

All residents, whether they were aware of the slogan or not, were asked to indicate what the slogan “Don’t Trash Arizona” meant to them. Similar to results reported in 2006, **the primary meaning associated with the slogan was to not litter and put trash where it belongs (mentioned by 61%)**. More than three in ten residents assigned an environmental meaning to the slogan – do not ruin our state/keep it beautiful (25%) or have respect for and protect the environment (6%). Other meanings included “do not throw trash out the window” and “keep roads clean” (22%) or “take care of your own trash” (8%).

**Table 26: Meaning of “Don’t Trash Arizona”**

	2008 Total (n=1233)	2006 Total (n=1233)	2008 By Area		
			Maricopa (n=744)	Pima (n=244)	Outlying (n=245)
Don’t litter/ put trash where it belongs/ don’t make a mess	61%	59%	61%	66%	57%
Don’t ruin our state/ keep it beautiful/ take care of it	25	18	25	28	24
Don’t throw trash out the window/ keep roads clean	22	18	21	20	23
Pick up after yourself/ take care of your own trash/ be responsible	8	6	7	7	12
Have respect for the environment/ protect environment/ take pride in the state	6	6	6	4	9
It means what it says/self-explanatory	4	4	4	3	5
Litter makes AZ look bad/ look like a trashcan	2	2	2	-	1
Do your part/ pick up trash when you see it	2	2	2	2	1
Recycle	2	-	2	2	-
Don’t graffiti/ vandalize	1	2	1	2	2
Clean up after camping	1	-	1	-	2
Keep your property/yard clean	1	-	1	3	-
Other (<1% consensus)	4%	6%	4%	3%	4%
Don’t know	3%	4%	3%	3%	3%

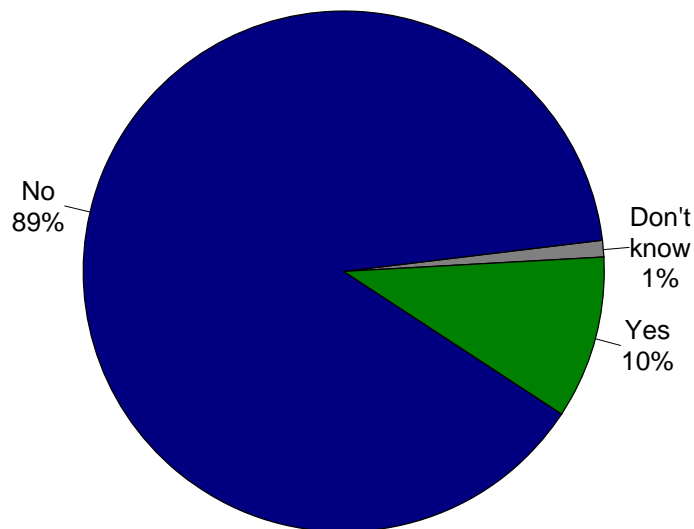
Q38: In your own words, please tell me what the slogan “Don’t Trash Arizona” means to you?

### C. Radio Advertisement Awareness

Arizona residents were given a description of a radio advertisement, where a girl talks about her blind date with “Eddie” who caused problems because he littered. After hearing this description, one in ten residents (10%) indicated they recalled hearing this advertisement. Maricopa County residents were most likely to recall the radio ad (13%) as well as those under the age of 35 (15%) and residents with household incomes between \$50K-\$100K (14%).

## Awareness of Radio Advertisement

Recalled ad where girl describes blind date with “Eddie” who littered

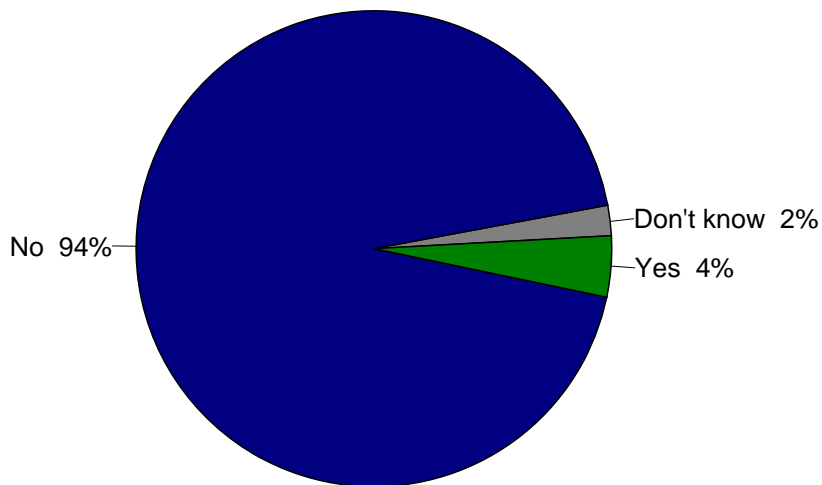


2008 n=1,233

#### D. MAG “Hot Spot” Event Awareness

The majority of Arizona residents (94%) indicated they did not see or hear anything about the “Hot Spot” event hosted by the Maricopa Association of Governments. Four percent (4%) of the residents recalled hearing or seeing anything about the event.

### Recall Seeing or Hearing About MAG “Hot Spot” Event



2008 n=1,233

**Table 27: Recall of “Hot Spot” Event**

Sponsor	2008 Total (n=1,233)	2008 By Area		
		Maricopa (n=744)	Pima (n=244)	Outlying (n=145)
Yes	4%	4%	4%	4%
No	94%	93%	95%	95%
Don't know	2%	3%	1%	1%

Q37. In April 2007, the Maricopa Association of Governments hosted a “hot spots” event with Governor Napolitano that focused on the top 10 litter hot spots in the state. Do you recall seeing or hearing anything about this event?

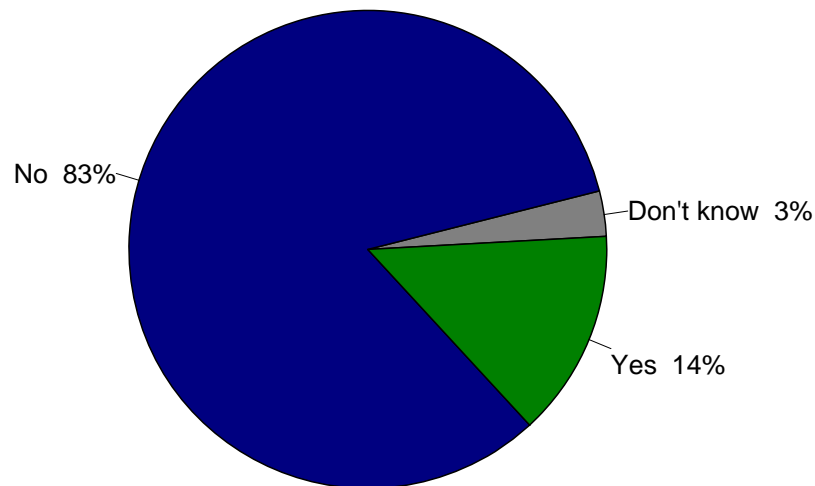
## E. Awareness of Litter Resources

### 1. Unaided Awareness

Five in six Arizona residents reported they do not know where to report a litter violation (83%). Fourteen-percent (14%) of residents indicated that they would know where to go if they needed to report a violation, this is particularly high among residents living in outlying areas of the state (20%).

## Awareness of Litter Resources

*Do you know where you can report a litter violation?*



2008 n=1,233



More than one-half of those who indicated they knew where to report a litter violation would call the non-emergency number for the police station or highway patrol (51%). Slightly fewer than one in five would call their local city/county/state government agency or the Maricopa Association of Government (19%). One in ten mentioned the litter hotline and 7% mentioned ADOT. The “Don’t Trash AZ” Web site was mentioned by one-percent of residents. Almost one-third of residents that said they knew where to report a violation were unable to name a resource (32%).

**Table 28: Unaided Awareness – Litter Resources**  
(Among those who know where to report a litter violation)

Response	2008 Total (n=176)	2008 By Area		
		Maricopa (n=89)	Pima (n=38)	Outlying (n=49)
Police non-emergency number /highway patrol	51%	49%	40%	61%
Government agency (city, state, county, MAG)	19	15	21	25
Litter hotline	10	11	21	-
ADOT	7	6	18	2
911	6	7	-	10
Property Mgr/HOA	2	3	-	-
Environmental agency	2	1	3	2
Waste Management/sanitation	1	2	-	-
Don't Trash AZ Web site	1	2	-	-
AZ Clean & Beautiful	1	1	-	-
Other	6%	7%	3%	8%
Don't know	32%	33%	45%	22%

Q39: Do you know where you can report a litter violation? Q40: Where?

Residents were asked if they were aware of a litter hotline they could call to report littering, and 12% of Arizona residents were aware of a litter hotline.

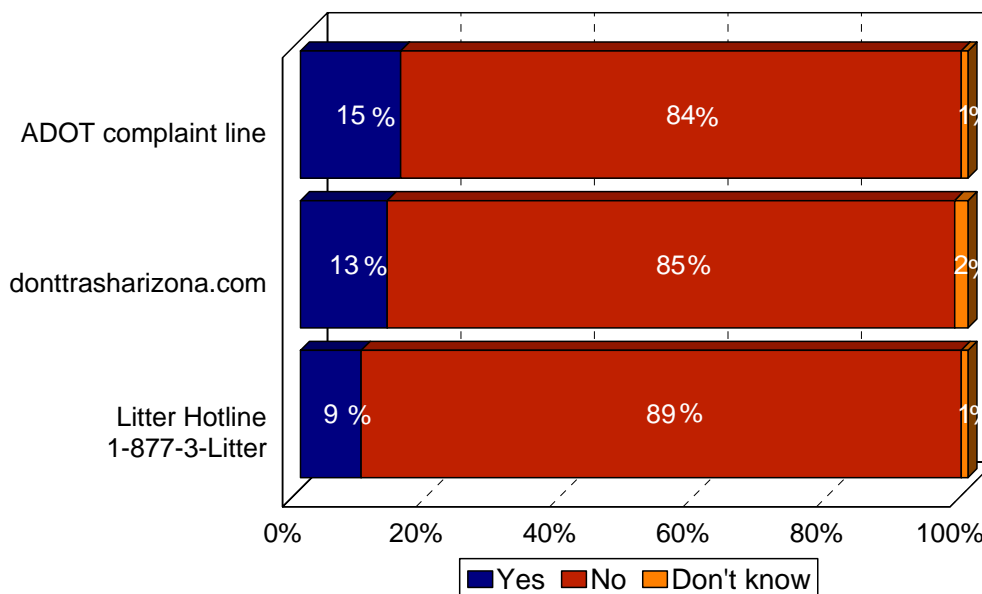
## 2. Aided Awareness

When specifically asked their awareness of three specific sources for information about litter, the majority of residents had not heard of any of them. The ADOT complaint line had the highest awareness, with 15% of the residents indicating they had heard of this source. Thirteen-percent (13%) of residents had heard of the “Don’t Trash Arizona” Web site and only one in ten residents (10%) were aware of the 1-877-3Litter hotline. Not surprisingly, awareness of all three information sources was highest among those that have seen advertising related to litter in the past three months (ADOT complaint line-20%, donttrasharizona.com-23%, litter hotline-14%). Additional demographic differences are listed below:

- Awareness of the ADOT complaint line was highest among those with a household income above \$100K (21% vs. 13% with household income below \$50K).
- Awareness of the Web site was highest among males (17% vs. 9% females) and younger residents (17% of those under 35 vs. 12% of those older)
- Awareness of the litter hotline was highest among males (11% vs. 6% for females).

In addition to being asked if they were aware of the “Don’t Trash Arizona” Web site, residents were also asked if they had ever visited the Web site. **The vast majority (99%) reported that they had never visited the [www.donttrashaz.com](http://www.donttrashaz.com) Web site.**

## Aided Awareness - Litter Resources



**Table 29: Aided Awareness - Litter Hotline**  
Those indicating awareness

Source	2008 Total (n=1,233)	2006 Total (n=1,233)	2008 By Area		
			Maricopa (n=744)	Pima (n=244)	Outlying (n=245)
ADOT complaint line	15%	n/a	15%	14%	16%
Don't trash Arizona.com	13%	11%	12%	13%	14%
Litter Hotline 1-877-3-LITTER	9%	10%	9%	9%	9%

Q41: Have you heard of the following information sources?

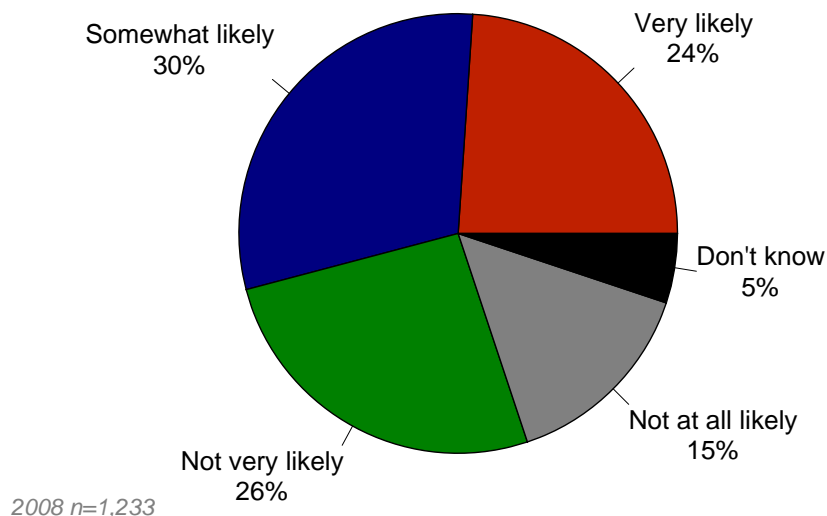
## F. Likelihood to Report Littering

When Arizona residents were asked if they saw someone littering how likely they would be to report this behavior, more than half of residents indicated they would be at least “somewhat” likely to call (24% “very likely” and 30% “somewhat likely”). Residents who were most likely to indicate they were “very likely” or “somewhat likely” to report a violation included:

- Residents who have seen advertising related to littering (62% vs. 54%)
- Residents ages 35 to 54 (62% vs. 50% of those under 35 and 53% of those 55 or older)
- Non-Caucasian residents (62% vs. 54% of Caucasians)

## Likelihood to Report Littering

*If you were to see someone litter, how likely would you be to report this behavior?*



**Table 30: Likelihood to Report Littering**

Likelihood	2008 Total (n=1,233)	2006* Total (n=1233)	2008 By Area		
			Maricopa (n=744)	Pima (n=244)	Outlying (n=245)
<b>NET likely (Very + somewhat)</b>	54%	63%	53%	55%	53%
Very likely	24%	31%	24%	21%	26%
Somewhat likely	30	32	29	34	27
Not very likely	27	2	26	28	26
Not at all likely	15	13	16	13	15
Don't know	5	3	5	4	6

Q44: If you were to see someone litter, how likely are you to report this behavior?

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

Residents that gave some indication that they would possibly report a littering violation were specifically asked if they would call the litter hotline or go through the “Don’t Trash Arizona” Web site. More than half of these residents (54%) indicated they would call the litter hotline. Three in eight (38%) said they would report the violation on the “Don’t Trash Arizona” Web site.

**Table 31: Preferred Methods for Report Littering**

Among those likely to report littering

Method	2008 Total (n=986)	2008 By Area		
		Maricopa (n=587)	Pima (n=204)	Outlying (n=195)
Call Litter hotline	54%	54%	54%	56%
Don't Trash Arizona Web site	38	38	40	36
No Preference	4	5	3	3
Would not report litter violations	3	3	3	3
Don't know	2	2	2	3

Q45: If “a”, “b”, or “c” in Q44, You can report littering violations by calling the litter hotline or through the Don’t Trash Arizona Web site. Which of these two methods are you most likely to use to report litter violations?

## G. Personal Litter Messages

When asked to describe what they would say to someone to convince them not to litter, the largest proportion of Arizona residents indicated they would either tell the person something to make them feel ashamed or guilty about littering (29%; see Table 31) and/or they would simply tell the person “don’t litter” (28%). Interestingly, the percentage of residents who indicated they would say something to make the person feel guilty increased from 18% to 29%, whereas the percentage reporting they would tell the person not to litter or trash Arizona decreased slightly (34% to 28%).

Other direct messages included telling people to just “pick it up” and “put it in the trash” (15% and 9%). A proportion of residents would point out the ramifications of littering either on the person who litters (“you will get fined – 4%), the environment (10%), other people (“think of future generations” – 2%; someone has to pick it up – 2%).

**Table 32: Personal Message to People Who Litter**

Message	2008 Total (n=1,233)	2006 Total (n=1,233)	2008 By Area		
			Maricopa (n=744)	Pima (n=244)	Outlying (n=245)
Something to make them feel guilty/ make them feel ashamed/ don't be lazy/ do you do that at your house?/ It's disrespectful, why did you do that?	29%	18%	28%	34%	28%
Don't do it/ Don't litter/ Don't trash Arizona	28	34	29	26	27
Pick it up/ Clean up after yourself	15	10	14	16	17
Explain harmful effects to the environment	10	7	10	12	7
Put it in the trash	9	12	10	8	8
It looks trashy/ messy	8	9	8	9	7
I wouldn't tell them anything	5	5	5	3	9
Something graphic/ would cuss them out	4	2	3	6	6
You will get fined for that/ its illegal	4	5	5	3	3
Someone has to pick it up/ who's going to pick that ups?	2	2	4	1	1
I would just pick it up/ I would take care of it	2	1	3	3	1
Money spent to pick up trash/ could be put to use somewhere else	2	2	2	3	-
I would report them	2	-	2	2	2
Think of the next generation/ the future	2	2	1	2	3
Depends if I knew them, if not I wouldn't say anything	2	-	2	1	-
It could start a fire/fire hazard	1	-	1	1	2
Other (<1% consensus)	2%	6%	2%	2%	3%
Don't know	8%	8%	8%	8%	9%

Q47: In your own words, please tell me what would you say to someone to convince them not to litter?

## H. Additional Litter Resources

**Arizona residents indicated they would primarily turn to the “Don’t Trash Arizona” Web site if they wanted more information about litter or littering (mentioned by 35%).** This was a significant increase from 2006, when no one had mentioned the Web site as a source. Approximately one in four residents (26%) mentioned the Internet in general as a resource to go to if they wanted more information about littering, significantly fewer mentioned this source this year compared to 2006, but this is again because residents were more likely to mention the “Don’t Trash Arizona” Web site, which was not specifically listed as a response category in the 2006 survey.

In general, residents under the age of 55 were more likely than older residents to go to [www.donttrashaz.com](http://www.donttrashaz.com) (41% vs. 23%) or browse the Internet (30% vs. 18%) to find information about littering. Residents living in Pima County were more likely to indicate they would visit the “Don’t Trash Arizona” Web site than residents living in other areas of the state (40% compared to 35% of Maricopa County residents and 30% of residents in outlying areas).

**Table 33: Source for Litter/Littering Information**

Source	2008 Total (n=1,233)	2006 Total (n=1,233)	2008 By Area		
			Maricopa (n=744)	Pima (n=244)	Outlying (n=245)
Don't Trash AZ Web site	35%	-	35%	40%	30%
Internet	26	53%	26	27	26
Litter hotline	6	4	6	7	6
The "city"	3	4	5	1	2
I wouldn't need that information/ wouldn't contact anyone	3	3	3	2	4
ADOT/highway dept.	3	3	4	4	2
Police/ highway patrol/DPS	2	5	1	3	6
Phonebook/ yellow pages	2	4	2	2	2
The state/governor	2	3	3	1	2
Waste Management/ garbage company	2	2	1	2	2
Friend/ neighbor/ family member/ teacher	2	2	2	3	1
Other (<1% consensus)	8%	9%	7%	7%	9%
Don't know	12	16	12	11	16

Q46: 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%



## VI. 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 (30% of the total population). **“Accidental Litterers”** are defined as residents who indicated they had never littered themselves, but reported being in a vehicle when littering occurred (41% 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 (29% of the total population).

Tables 34a and 34b shows the demographic characteristics of each of these groups.

In 2008, Admitted Litterers were most likely to be:

- Younger residents (avg. age 36 yrs. old vs. 48 and 51 for the other two groups)
- Single (33% vs. 24% and 21% of those in the other groups)
- Have a high school education or less (35% vs. 26% and 30% of the other groups)
- Non-Caucasian (32% vs. 22% and 24% of the other two groups)
- Live in households with children (58% vs. 41% and 33% of those in other two groups)
- Speak English and Spanish or Spanish only in the household (17% vs. 12% and 9% of the other two groups)

**Table 34a: Demographic Comparison based on Littering Behavior**

Characteristic	2008			2006		
	Admitted Litterers (n=371)	Accidental Litterers (n=503)	Non-Litterers (n=359)	Admitted Litterers (n=335)	Accidental Litterers (n=478)	Non-Litterers (n=420)
<b>Gender</b>						
Male	52%	53%	42%	59%	51%	41%
Female	48	47	58	41	49	59
<b>Age</b>						
>21	12%	3%	2%	16%	3%	1%
21-24	9	4	2	11	3	-
25-34	25	20	9	23	22	13
35-44	24	16	21	21	21	18
45-54	16	25	22	16	22	21
55-65	8	15	17	8	14	17
66+	6	17	27	5	15	30
Average	36 yrs	48 yrs	51 yrs	36 yrs	46 yrs	53 yrs
<b>Marital Status</b>						
Married	56%	59%	55%	52%	63%	63%
Single	33	24	21	39	22	18
Widowed	3	7	11	2	6	10
Divorced	6	7	10	4	6	5
Separated	-	1	1	2	-	1
D/K or Refused	-	-	1	1	3	2
<b>Education</b>						
Less than H.S.	11%	6%	7%	13%	6%	6%
H.S. graduate	24	20	23	18	18	17
Some college	31	32	32	34	35	33
College graduate	19	24	22	21	26	27
Graduate degree	14	16	14	12	13	13

**Table 34b: Demographic Comparison based on Littering Behavior**

Characteristic	2008			2006		
	Admitted Litterers (n=371)	Accidental Litterers (n=503)	Non-Litterers (n=359)	Admitted Litterers (n=335)	Accidental Litterers (n=478)	Non-Litterers (n=420)
<b>Ethnicity</b>						
White	68%	78%	76%	73%	76%	84%
Hispanic	19	12	11	15	12	6
Black	5	3	3	2	3	2
Asian	2	1	2	2	1	1
Native American	5	2	4	4	3	2
Other	1	4	4	4	4	5
<b>HH w/ kids &lt;18</b>	58%	41%	33%	56%	43%	35%
<b>HH Income</b>						
<\$10,000	6%	4%	6%	6%	3%	3%
\$10-\$20,000	8	7	7	8	6	7
\$20-\$30,000	9	8	5	9	8	10
\$30-\$40,000	9	8	7	8	9	8
\$40-\$50,000	7	8	9	9	10	6
\$50-\$60,000	8	8	7	5	6	8
\$60-\$75,000	12	11	8	9	9	7
\$75-\$100,000	9	14	10	10	14	9
\$100,000+	17	15	15	17	14	14
Refused	16	19	26	19	21	28
<b>Employment</b>						
Full-time	56%	57%	43%	52%	54%	40%
Part-time	9	8	7	11	9	8
Retired	9	21	34	11	22	35
Homemaker	9	3	7	9	7	10
Student	7	3	2	8	2	2
Unemployed	8	6	6	6	5	3
<b>HH Language</b>						
English only	76%	82%	84%	82%	80%	85%
English & Spanish	15	11	7	10	10	8
Spanish only	2	1	2	1	1	1
English + other	6	3	3	4	5	2
Other language only	2	1	3	2	2	2

**APPENDIX A**

**QUESTIONNAIRE**

## Benchmark Study

**Client:** Maricopa Association of Governments

**Subject:** Telephone Survey

**Date:** July, 2008

### 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 21
  - b. 21 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. In a typical day, how many miles do you drive or ride in a motor vehicle?
  - a. 0 to 10 miles
  - b. 11 to 20 miles
  - c. 21 to 30 miles
  - d. 31 to 50 miles
  - e. More than 50 miles
  - f. Don't know / Refused
9. Which of the following best describes the type of vehicle you drive...?
  - 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 (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.

10. In your opinion, how big of a problem is litter along freeways in Arizona? 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)

11. 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)
12. What is the first thought that comes to your mind when you hear the word "litter?"  
 \_\_\_\_\_ RECORD VERBATIM
13. Do you smoke?
- yes
  - No
  - Don't know / Refused
14. IF YES IN Q13: In your opinion, is throwing cigarette butts out the window or on the ground littering?
- Yes
  - No
  - Don't know / Refused
15. IF YES in Q13: 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)
16. IF "c" in Q15: What is the primary reason that you toss your cigarette butts out the window? DO NOT READ. ONE RESPONSE ONLY
- Don't consider cigarette butts to be litter
  - Small pieces of litter don't matter
  - Don't want vehicle to smell
  - Do not have ash tray in vehicle
  - Lazy / Don't care
  - Other \_\_\_\_\_
  - Don't know / Refused

17. I am going to read you a few statements pertaining to your litter awareness. For each of the following statements, please respond by tell 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 a can, bottle, or other litter out onto the side of the road.
  - d. You had problems with a vehicle and left debris like tire, part of a tire, or other stuff on the roadside
  - e. Rather than keep a beverage container in the car, you, or someone in a vehicle you were in, threw out a can or bottle.
  - f. You threw out a small item from your vehicle, like a candy wrapper, scrap paper or something like that.
  - g. You or someone you were with got a ticket or warning for littering.
  - h. 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.

18. What types of materials do you think are a serious litter problem? RECORD UP TO THREE RESPONSES. DO NOT READ LIST.

- a. Beer cans and beer bottles
- b. Soda cans and soda bottles
- c. Water cans and water bottles
- d. Small pieces of paper (receipts, lottery tickets, gum wrappers)
- e. Plastic bags / other plastic
- f. Cigarette butts
- g. Construction debris
- h. Fast food wrappers
- i. 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. What types of materials do you think are a minor litter problem? RECORD UP TO THREE RESPONSES. DO NOT READ LIST.

- a. Beer cans and beer bottles
- b. Soda cans and soda bottles
- c. Water cans and water bottles
- d. Small pieces of paper (receipts, lottery tickets, gum wrappers)
- e. Plastic bags / other plastic
- f. Cigarette butts
- g. Construction debris



- h. Fast food wrappers
- i. 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

### Littering Behavior

20. 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. Beer cans and beer bottles
- b. Soda cans and soda bottles
- c. Water cans and water bottles
- d. Small pieces of paper (receipts, lottery tickets, gum wrappers)
- e. Plastic bags / other plastic
- f. Cigarette butts
- g. Construction debris
- h. Fast food wrappers
- i. 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. Have not littered in past year – SKIP TO: Q22
- o. Don't know

21. 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.

- a. Driving / riding in / traveling in vehicle
- b. Walking outside
- c. Opened door and it flew out / flew out of window / flew out of cab
- d. No trash can around (not while in car)
- e. Flew out of truck bed
- f. Partying / drinking
- g. Other \_\_\_\_\_
- h. Don't know/Can't remember / don't recall

22. In general, do you tend be alone when the littering we have been discussing happens?

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

23. Do you believe you will ever get caught for littering?

- a. Yes
- b. No – ASK WHY NOT \_\_\_\_\_ (Record Response)
- c. Don't know / Refused

24. TRUCK DRIVERS ONLY: Do you ever put anything in your truck bed?

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

25. 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.

- a. Beer cans and beer bottles
- b. Soda cans and soda bottles
- c. Water cans and water bottles
- d. Small pieces of paper (receipts, lottery tickets, gum wrappers)
- e. Plastic bags / other plastic
- f. Cigarette butts
- g. Construction debris
- h. Fast food wrappers
- i. 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

ASK ALL:

26. What kinds of trash tend to accumulate INSIDE your vehicle? PROBE: What else? MULTIPLE RESPONSES ALLOW UP TO THREE. DO NOT READ LIST

- a. Beer cans and beer bottles
- b. Soda cans and soda bottles
- c. Water cans and water bottles
- d. Small pieces of paper (receipts, lottery tickets, gum wrappers)
- e. Plastic bags / other plastic
- f. Cigarette butts
- g. Construction debris
- h. Fast food wrappers
- i. Other food wrappers (chip bags/candy)
- j. Cardboard
- k. Food / organic material, raw food
- l. Other \_\_\_\_\_
- m. Nothing/always clean out vehicle
- n. Don't know

27. Do you have a litter bag or trash can in your vehicle?

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

28. IF NO IN Q26: 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

29. 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

30. IF YES in Q29: What specifically do you remember about the ads related to litter or littering? PROBE THOROUGHLY AND RECORD VERBATIM

31. IF YES IN Q29: 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

32. Do you ever recall hearing a radio advertisement where a girl talks about her blind date with a guy named Eddie who caused all sorts of problems on their date because he constantly was littering?

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

33. IF NOT MENTIONED IN Q31 "a": Have you seen or heard the slogan, "Don't Trash Arizona?"

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

34. F YES IN Q31: 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

35. IF YES IN Q31: 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

36. In April 2007, the Maricopa Association of Governments hosted a "hot spots" event with Governor Napolitano that focused on the top 10 litter hot spots in the state. Do you recall seeing or hearing anything about this event?

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

37. In your own words, please tell me what the slogan, "Don't Trash Arizona" means to you? PROBE THOROUGHLY AND RECORD VERBATIM

38. Have you heard about the Litter Hotline, where you can report someone who litters?

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

39. Have you heard of the following information sources? ROTATE AND READ LIST

- a. The Litter Hotline: 1-877-3-LITTER
- b. The Litter Hotline: 602-721-4683
- c. [www.azgovernor.gov/donttrashaz](http://www.azgovernor.gov/donttrashaz)

40. YES IN Q39 "c": Have you ever visited the "Don't Trash Arizona Web site?"
- Yes
  - No
  - Don't know
41. If you were to see someone litter, how likely are you to report this behavior to the Litter Hotline, in the future?
- Very likely
  - Somewhat likely
  - Not very likely
  - Not at all likely
  - Don't know / Refused (DO NOT READ)
42. 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? ALLOW MULTIPLE RESPONSES

### Message Testing

43. In your own words, please tell me what would you say to someone to convince them to not litter? PROBE THOROUGHLY AND RECORD VERBATIM

### 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?

- Grammar school (8 years or less)
- Some high school (9-11 years)
- Graduated high school (12 years)
- Some post-high school training/some college
- Graduated from four-year college (B.A./B.S.)
- Graduate Degree
- Don't Know
- 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 many children under age 18 live in your household? \_\_\_\_\_

D6. 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

D7. What languages are spoken in your home? CLARIFY – DO NOT READ LIST UNLESS NECESSARY

- a. English only
- b. English and Spanish
- c. Spanish only
- d. English and some other language – SPECIFY:
- e. Some other language only – SPECIFY:
- f. Don't know/refused

D7a. IF “b” or “c” in D7: 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. Only Spanish
- b. Mostly Spanish, but also some English
- c. Equally in Spanish and English
- d. Mostly English, but also some Spanish
- e. Don't know/refused

D7b. IF “b” or “c” in D7: Thinking about your habits in regard to Spanish language television and radio, would you say you watch Spanish television or listen to Spanish radio? (READ LIST) (ALLOW ONLY ONE RESPONSE)

- a. Daily
- b. Regularly (2-5 times per week)
- c. Occasionally (once a week to once every 2 weeks)
- d. Rarely (less than once every 2-5 weeks)
- e. Never

D8. What city do you live in?

- a. List cities statewide
- b. Other (SPECIFY: \_\_\_\_\_)
- c. Refused/NA

D9. 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.