

Evaluation of Pedestrian Safety Campaigns in Three Cities – Missoula, MT,
Savannah, GA, and Washington, DC

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ABSTRACT

This study was undertaken to evaluate the effectiveness of FHWA's Pedestrian Safety Campaign Planner in Missoula, MT, Savannah, GA, and Washington, DC. The measures of effectiveness were: (1) public awareness of pedestrian safety campaigns and their messages, (2) increased knowledge of pedestrian safety, and (3) safer pedestrian and motorist behavior. Although all three cities had intended to use the materials in FHWA's Campaign Planner, only Washington, DC did so. Missoula and Savannah decided to implement locally-developed campaigns. Interactive data collection and observational studies were conducted to evaluate the campaigns. Pedestrians and motorists in Missoula were aware of the campaigns and their messages. In Washington, DC, the campaign increased pedestrian understanding of the pedestrian signal indications. Missoula's campaign was effective in reminding pedestrians to look for vehicles before crossing the street and in increasing the number of turning motorists who yielded to pedestrians. The campaign in Savannah did not change awareness, understanding, or behavior. Since the three cities implemented three totally different pedestrian safety campaigns, it is not possible to generalize the effectiveness of FHWA's Campaign Planner. This research suggests pedestrian safety campaigns are most effective in smaller, self-contained metro areas.

INTRODUCTION

In the year 2004 (the latest year for which data are available), 4,641 pedestrians were killed and about 68,000 were injured in collisions with motor vehicles in the U.S. In other words, every day 12 to 13 pedestrians lose their lives and another 186 are injured. During the ten-year period from 1995 through 2004, more than 50,000 pedestrians were killed (1).

The National Bicycling and Walking Study set goals of (1) doubling the levels of walking and bicycling in the U.S. and (2) decreasing the number of crash-related injuries and fatalities by 10 percent (2). Although these goals may seem contradictory at first, a comprehensive pedestrian safety program may enable both goals to be achieved. Such a program may include components that address the three E's of engineering, education, and enforcement, for example: (1) providing pedestrian facilities such as sidewalks and pedestrian signals, (2) educating pedestrians and motorists about safety, and (3) enforcing pedestrian-related laws.

The Federal Highway Administration (FHWA) has created a Pedestrian Safety Campaign Planner. It is available online at <http://safety.fhwa.dot.gov/pedcampaign/index.htm> and includes television and radio public service announcements (PSA's), print posters, and other materials. Some of the materials are available in both English and Spanish. States and communities can use these materials as is, or can customize them to suit their needs.

FHWA sponsored this study to evaluate the Pedestrian Safety Campaign Planner materials in Missoula, MT, Savannah, GA, and Washington, DC. This study was carried out to answer these questions:

1. Is the public aware of the campaign and its messages?
2. Has the campaign increased knowledge of pedestrian safety?
3. Are pedestrians and motorists behaving more safely? (*i.e.*, does knowledge translate into action?)

CAMPAIGN COMPONENTS

Missoula, MT

Missoula is located in western Montana and has a population of 57,053 (2000 Census), making it the second-largest city in the state. It is the home of the University of Montana.

The city's Bicycle/Pedestrian Coordinator reviewed and evaluated the Pedestrian Safety Campaign prepared by FHWA, and after consulting with his local Bicycle/Pedestrian Advisory Board and local media personnel, believed that the campaign materials were oriented towards large metropolitan areas. They believed Missoula residents would have difficulty relating to those materials. Consequently, the city developed new signs, posters, and radio and TV spots.

The city began its Pedestrian Safety Campaign in May 2004. The campaign included signs directed at motorists, posters directed at pedestrians, TV and radio advertisements, and increased police enforcement. The signs and posters were to remain in place indefinitely. The first round of advertisements and increased enforcement ended in mid-July 2004. Additional rounds were to be scheduled over the next three years.

The motorist signs, 24 inches by 30 inches (61 cm by 76 cm), displayed the message, "You Have the Power. Stop for Pedestrians." They were mounted at 126 locations, mostly on collector streets, throughout the city. The pedestrian posters displayed the message, "You Have the Power. Look Before Crossing." (Figure 1) They were placed at eye level, on street poles, at each of the four corners of signalized intersections in the downtown area. The motorist signs had the same graphic, but "Stop for Pedestrians" was displayed at the bottom.

Radio and TV spots echoed the theme of “You Have the Power,” reiterating “Stop for Pedestrians” in messages aimed at motorists, and “Look Before Crossing” in those spots aimed at pedestrians. Nearly 2000 radio spots aired on 11 stations and 343 TV spots aired on two stations. A script and description of a TV spot aimed at motorists is shown in Table 1.

There were four “pedestrian safety operations” (sometimes known as “pedestrian sting operations”) conducted by the local police department. During these operations, drivers were cited if they failed to yield to pedestrians in the crosswalk. These operations generated substantial television, radio, and news coverage.

Savannah, GA

Savannah’s pedestrian safety campaign is being spearheaded by the local pedestrian advocacy group, the Pedestrian Advocates of the Coastal Empire (PACE). This group represents a working partnership of the Chatham County Health Department, the City of Savannah Traffic Engineer’s Office, the Savannah-Chatham Metropolitan Police Department, Savannah-Chatham County Public Schools, the Savannah College of Art and Design, and other organizations.

Savannah had intended to use posters and TV PSA’s from the FHWA Pedestrian Safety Campaign Planner but had not done so as of June 2006 due to funding constraints.

The topics in the Pedestrian Safety Campaign Planner inspired the creation of two-minute news features that were aired on a local TV station, WSAV, during the 11 PM news on Fridays in May and June 2006. The news features covered these topics:

1. signals and crosswalks
2. reflective materials
3. child safety
4. the driver
5. the elderly
6. urban planning

Three of the six features were re-aired on subsequent days.

PACE members have conducted several “crosswalk actions” starting in October 2005. During each crosswalk action, participants cross intersections while carrying signs with messages like “Stop for me – it’s the law” and “Don’t stop in the crosswalk.” The messages are directed at drivers and are intended to remind them of their responsibilities to stop for pedestrians. Each crosswalk action lasts approximately one hour.

PACE held Transportation Day on February 9, 2006. As a prelude to Transportation Day, crossing guards appeared on three local morning TV shows to talk about pedestrian safety. Activities on Transportation Day included two crosswalk actions, a TV interview with crossing guards, distribution of pedestrian rights brochures, and a crossing guard appreciation ceremony.

Other pedestrian safety campaign efforts included Walk to School Day and Building a Box City. Nine elementary schools participated in Walk to School Day. Building a Box City is a program, developed by the National Trust for Historic Preservation, which encompasses urban planning, walking safety, and architecture (3). PACE and Historic Savannah Foundation teamed up to present this program at a middle school.

Washington, DC

Washington, DC carried out its pedestrian safety campaign using the FHWA materials “as is.” The campaign was launched on October 17, 2003, amid extensive media coverage:

- At least 14 television stories appeared on the local ABC, NBC, and cable news stations. These totaled at least 880,000 impressions. One impression occurs when one person sees a TV spot once, hears a radio spot once, or sees a print message once.
- Radio coverage included stories on two local radio stations.
- Print stories appeared in the major print media, including the Associated Press, *Washington Post*, *Washington Times*, *Montgomery Journal*, *Springfield Times*, *El Tiempo Latino* and *HispanicBusiness.com*. These totaled at least 1,132,000 impressions (according to circulation; does not include pass-along readership).

The campaign continued into early November 2003. Multiple media were utilized, including TV and radio public service announcements, newspaper advertisements, as well as posters in transit shelters and on city buses, in both English and Spanish:

- 702 spots on 6 radio stations, in English (3,645,000 impressions)
- 112 spots on 1 radio station, in Spanish (1,040,000 impressions)
- 270 spots on 6 cable TV stations, in English and Spanish (1,707,000 impressions)
- 36 spots on 1 local TV station, in English (number of impressions not available)
- 8 insertions in 1 newspaper, in English (1,600,000 impressions)
- 4 insertions in 1 newspaper, in Spanish (80,000 impressions)
- Transit posters – 124 bus backs, 350 in buses, 37 transit shelters – in English (19,250,000 impressions)
- Transit posters – 17 transit shelters – in Spanish (8,862,000 impressions)

The target demographic included male drivers ages 18-34, pedestrians of all ages, persons living in high-risk areas for pedestrian crashes, and Spanish-speaking persons.

DATA COLLECTION

In each city, the project team carried out before and after observational studies and interactive data collection (IDC). Data collection activities generally took place from 9:30 AM to 2:30 PM. A member of the project team trained and supervised the data collectors. The data collectors in Savannah and Washington, DC were referred by local employment agencies, while the data collectors in Missoula were students at the University of Montana. Data collectors who were bilingual in English and Spanish conducted the IDC at locations with large Spanish-speaking populations in Washington, DC. Because the campaigns in Missoula and Savannah were implemented entirely in English, the IDC in those cities was conducted in English.

The data items collected for the observational studies pertained to pedestrian understanding of the flashing DON'T WALK signal, pedestrians looking for motorists, motorists stopping or slowing down for pedestrians, and conflicts between turning motorists and pedestrians. Table 2 shows the number of signal cycles during which observational studies were conducted in each city.

For the IDC, data were obtained from pedestrians at busy crossings and from motorists at on-street parking areas with high turnover. The questions on the forms related to awareness of the Pedestrian Safety Campaign, the campaign messages, and pedestrian safety in general (Figure 2). Table 2 shows the number of responses received in each city.

Participant Demographics

Missoula

Pedestrians were most commonly 18 to 24 years old (42 percent in the “before” period and 47 percent in the “after” period), likely reflecting university students who responded to the IDC. They were mostly White (93 percent “before” and 88 percent “after”). Men slightly outnumbered women (51 to 49 percent, then 56 to 44 percent).

Motorists were most commonly 25 to 44 years old (42 percent in the “before” period and 37 percent in the “after” period). The majority were White (95 percent “before” and 90 percent “after”). Men slightly outnumbered women (54 to 46 percent, then 51 to 49 percent).

Savannah, GA

Pedestrians were most commonly 18 to 24 years old (38 percent) in the “before” period and 45 to 64 years old (42 percent) in the “after” period. They were most commonly African-American (56 percent) in the “before” period and White (48 percent) in the “after” period. Women outnumbered men (55 to 45 percent, then 61 to 39 percent).

Motorist were most commonly 25 to 44 years old (47 percent in the “before” period and 45 percent in the “after” period). More than half were White (60 percent “before” and 52 percent “after”). Men outnumbered women (53 to 47 percent, then 61 to 39 percent).

Washington, DC

Over 80 percent of the pedestrians were 18 to 44 years old. They were most commonly African-American (44 percent in the “before” period and 38 percent in the “after” period). Women outnumbered men (52 to 48 percent, then 60 to 40 percent). Most of the IDC forms were completed in English (70 percent “before” and 84 percent “after”).

Motorists were most commonly 25 to 44 years old (57 percent in the “before” period and 63 percent in the “after” period). They were most commonly African-American (46 percent “before” and 56 percent “after”). Men outnumbered women (66 to 34 percent, then 58 to 42 percent). Most of the IDC forms were completed in English (88 percent “before” and 93 percent “after”).

FINDINGS

For each comparison described in this section, the chi-squared test (χ^2) was used to determine whether the “before” and “after” differences were statistically significant at $\alpha=0.05$. A p-value of 0.05 or less indicates that the difference was significant.

Awareness of Pedestrian Safety Campaigns and Messages - Pedestrians

Pedestrians were asked if they had seen or heard any pedestrian safety public service campaigns on TV, on the radio, or in print. The answer to this question was coded as “yes” if the respondent had seen or heard any pedestrian safety campaigns in at least one of the three media.

Ideally, none of the respondents would have seen or heard any pedestrian safety campaigns in the “before” period, *i.e.*, before the campaign started. However, it was thought that some respondents may incorrectly claim to have seen or heard pedestrian safety campaigns, perhaps because they remembered campaigns from another city or because they wanted to please the data collector by saying “yes.” Therefore, pedestrians and motorists were asked about their awareness of campaigns and the specific messages in the “before” period in order to assess the level of “noise” in the “before” period.

Missoula

In Missoula, more pedestrians were aware of pedestrian safety campaigns in the “after” period ($\chi^2 > 26$, p-value < 0.001) (Table 3). Some respondents may have seen or heard pedestrian safety campaigns in other cities and incorrectly associated them with Missoula, as suggested by the “yes” responses in the “before” period.

Pedestrians in Missoula were asked if they had seen or heard the following campaign message:

“You have the power. Look before crossing.”

More pedestrians were aware of the campaign message in the “after” period ($\chi^2 > 26$, p-value < 0.001) (Table 3). Some respondents may have seen or heard similar messages in other cities and incorrectly associated them with Missoula, as suggested by the “yes” responses in the “before” period.

Savannah

In Savannah, there was no change in pedestrian awareness of pedestrian safety campaigns ($\chi^2 = 0.13$, p-value > 0.05) (Table 3). A possible explanation is that some of the more substantial interventions consisted of programs targeting elementary and middle school children.

Since Savannah had intended to use posters and TV PSA’s from the FHWA Pedestrian Safety Campaign Planner, pedestrians were asked if they had seen or heard the following campaign message:

“Stop for Pedestrians. Think of the Impact You Could Make.”

There was also no change in whether pedestrians had seen or heard the campaign message ($\chi^2 = 0.57$, p-value > 0.05) (Table 3). As Savannah had not used the posters and TV PSA’s, this finding was expected.

Washington, DC

In Washington, DC, *fewer* pedestrians were aware of pedestrian safety campaigns in the “after” period ($\chi^2 = 9.17$, p-value = 0.002) (Table 3). This finding was unexpected. It is worth noting that respondents may have recalled the earlier pedestrian safety campaign (October 2002) in Washington, DC, as suggested by the “yes” responses in the “before” period. Perhaps the 2003 campaign (evaluated in this paper) was on a smaller scale (in terms of impressions) than the earlier campaign (2002) so it was recalled by fewer respondents. In addition, some respondents may have seen or heard pedestrian safety messages elsewhere and incorrectly associated them with Washington, DC.

Since the campaign messages used in Washington, DC were those developed by FHWA, pedestrians were asked if they had seen or heard the following campaign message:

“Please, look for pedestrians. Stop for them. Think of the impact you can make.”

For the IDC conducted in Spanish, pedestrians were asked if they had seen or heard the following campaign message:

“Deténgase ante los peatones. Piense en las consecuencias.”

The percentage of pedestrians who heard the campaign message decreased from the “before” to the “after” period ($\chi^2 = 7.97$, p-value = 0.004) (Table 3). This finding was unexpected.

Awareness of Pedestrian Safety Campaigns and Messages - Motorists

Motorists were asked if they had seen or heard any pedestrian safety public service campaigns on TV, on the radio, or in print. The answer to this question was coded as “yes” if the respondent had seen or heard any pedestrian safety campaigns in at least one of the three media.

Missoula

In Missoula, more motorists were aware of pedestrian safety campaigns in the “after” period ($\chi^2 > 26$, p-value < 0.001) (Table 4). Some respondents may have seen or heard pedestrian safety campaigns in other cities and incorrectly associated them with Missoula, as suggested by the “yes” responses in the “before” period.

Motorists in Missoula were asked if they had seen or heard the following campaign message:

“You have the power. Stop for pedestrians.”

More motorists were aware of the campaign message in the “after” period ($\chi^2 > 26$, p-value < 0.001) (Table 4). Some respondents may have seen or heard similar messages in other cities and incorrectly associated them with Missoula, as suggested by the “yes” responses in the “before” period.

Savannah

In Savannah, there was no change in motorist awareness of pedestrian safety campaigns ($\chi^2 = 1.05$, p-value > 0.05). A possible explanation is that some of the more substantial interventions consisted of programs targeting elementary and middle school children.

Since Savannah had intended to use posters and TV PSA’s from the FHWA Pedestrian Safety Campaign Planner, motorists were asked if they had seen or heard the following campaign message:

“Stop for Pedestrians. Think of the Impact You Could Make.”

There was also no change in whether motorists had seen or heard the campaign message ($\chi^2 = 0.07$, p-value > 0.05) (Table 4). As Savannah had not used the posters and TV PSA’s, this finding was expected.

Washington, DC

In Washington, DC, somewhat *fewer* motorists were aware of pedestrian safety campaigns in the “after” period (Table 4), but the “before” and “after” distributions were not significantly different ($\chi^2 = 1.05$, p-value = 0.30). It is worth noting that respondents may have recalled the earlier pedestrian safety campaign (October 2002) in Washington, DC, as suggested by the “yes” responses in the “before” period. Some respondents may have seen or heard pedestrian safety messages elsewhere and incorrectly associated them with Washington, DC.

Since the campaign messages used in Washington, DC were those developed by FHWA, motorists were asked if they had seen or heard the following campaign message:

“Please, look for pedestrians. Stop for them. Think of the impact you can make.”

For the IDC conducted in Spanish, motorists were asked if they had seen or heard the following campaign message:

“Deténgase ante los peatones. Piense en las consecuencias.”

Somewhat fewer motorists recalled the campaign message in the “after” period, but the “before” and “after” distributions were not significantly different ($\chi^2 = 0.37$, p-value > 0.05) (Table 4).

When Did Pedestrians Start to Cross?

Although the Missoula campaign did not cover the meaning of the pedestrian signal indications, more pedestrians started their crossings during the WALK indication in the “after” period ($\chi^2 = 5.82$, p-value = 0.016) (Table 5).

In Savannah, slightly more than two-thirds of pedestrians started their crossing during the WALK indication (Table 5). The “before” and “after” distributions were not significantly different ($\chi^2 = 0.577$, p-value > 0.05). Although the meaning of the pedestrian signals was covered in a news feature, the number of airings was limited.

In Washington, DC, more pedestrians started their crossings during either the WALK or the flashing WALK indication in the “after” period ($\chi^2 > 26$, p-value < 0.001) (Table 5). This finding suggests pedestrians heeded the campaign message about the meaning of the pedestrian signal indications. Figures 3 and 4 show the English and Spanish versions, respectively, of a handout that explains the meaning of the pedestrian signal indications.

Do Pedestrians Understand the Meaning of the Flashing DON'T WALK Signal?

Respondents were considered to understand the meaning if they gave either “Don't Start” or “Finish” as an answer, even if they also gave other answers.

The Missoula campaign did not cover the meaning of the pedestrian signal indications. Nevertheless, more pedestrians understood the meaning in the “after” period ($\chi^2 > 26$, p-value < 0.001) (Table 6).

In Savannah, a somewhat lower percentage of pedestrians understood the meaning of the flashing DON'T WALK signal in the “after” period, but the distributions were not significantly different ($\chi^2 = 1.07$, p-value > 0.05) (Table 6).

In Washington, DC, a slightly higher percentage of pedestrians understood the meaning of the flashing DON'T WALK signal in the “after” period, but the distributions were not significantly different ($\chi^2 = 0.14$, p-value > 0.05) (Table 6).

Did Pedestrians Look for Motorists?

Pedestrians in Missoula were observed to determine whether they looked for motorists before crossing the street, as evidenced by noticeable head-turning. At signalized intersections, 41.8 percent of pedestrians (N=555) in the “before” period, and 50.8 percent (N=1761) in the “after” period looked for motorists. The “before” and “after” distributions were significantly different ($\chi^2 = 13.58$, p-value < 0.001). At unsignalized intersections, 85.5% of pedestrians (N=76) in the “before” period, and 92.6 percent (N=43) in the “after” period looked for motorists. The “before” and “after” distributions were significantly different ($\chi^2 = 4.11$, p-value = 0.043). These findings suggest Missoula's campaign was effective in reminding pedestrians to look before crossing the street.

Did Motorists Yield to Pedestrians?

Motorists in Missoula were observed to determine whether they yielded to pedestrians before turning. A motorist was considered to yield to a pedestrian if he or she stopped or slowed down to allow the pedestrian to cross. A motorist was counted as yielding or not yielding only if a pedestrian was ready to cross the street or was in the crosswalk. Motorists in the queue behind a yielding motorist were not counted, as it is not known if they would have yielded had the lead motorist not yielded. Each non-yielding motorist was counted until either a motorist yielded or the end of the queue was reached.

The majority of right-turning motorists at signalized intersections yielded to pedestrians (76.4 percent (N=208) in the “before” period and 84.7 percent (N=326) in the “after” period). The “before” and “after” distributions were significantly different ($\chi^2 = 5.68$, p-value = 0.017). This finding suggests the campaign was effective in increasing the number of right-turning motorists who yielded to pedestrians.

Most left-turning motorists at signalized intersections yielded to pedestrians (76.9 percent (N=26) in the “before” period and 81.0 percent (N=168) in the “after” period). The “before” and “after” distributions were not significantly different ($\chi^2 = 0.23$, p-value > 0.05).

Motorist – Pedestrian Conflicts

Instead of attempting to directly observe driver looking behavior (which would involve data collectors looking into motor vehicles and trying to determine whether the drivers were looking for pedestrians), motorist-pedestrian conflicts were used as a proxy. A conflict occurs when either a motorist or a pedestrian takes abrupt, evasive action, such as stopping suddenly or swerving, to avoid a collision. This suggests the motorist did not see the pedestrian or vice versa until the last second. If motorists are looking out for pedestrians and vice versa, as addressed by some of FHWA’s Campaign Planner messages, then conflicts are not expected to occur. A conflict does not occur if, for example, a motorist slows down to let a pedestrian cross in front or if a pedestrian steps into the street but has to wait because a turning motorist did not yield.

Savannah

In Savannah, the overwhelming majority of pedestrians did not encounter any conflicts with right-turning motorists (Table 7). The “before” and “after” distributions were not significantly different ($\chi^2 = 5.29$, p-value > 0.05).

The overwhelming majority of pedestrians did not encounter any conflicts with left-turning motorists (Table 7). The “before” and “after” distributions were significantly different ($\chi^2 = 6.84$, p-value = 0.033) with fewer pedestrians experiencing conflicts in the “after” period. However, since 97 percent or more of pedestrians did not encounter conflicts in the “before” period, the difference may not be of practical significance.

Washington, DC

The overwhelming majority of pedestrians in Washington, DC did not encounter any conflicts with right-turning motorists (Table 7). The “before” and “after” distributions were not significantly different ($\chi^2 = 1.77$, p-value > 0.05).

The overwhelming majority of pedestrians did not encounter any conflicts with left-turning motorists (Table 7). The “before” and “after” distributions were significantly different ($\chi^2 = 6.19$, p-value = 0.045). However, since 99 percent or more of pedestrians did not encounter conflicts, the measured reduction in conflicts may not be of practical significance.

SUMMARY

The key findings are listed below.

Is the public aware of the campaign and its messages?

- Pedestrians and motorists in Missoula were aware of the campaign and recalled seeing or hearing the campaign message. However, in Washington, DC, fewer pedestrians were aware of the campaign and recalled seeing or hearing the message in the “after” period. It is worth noting respondents may have recalled the earlier pedestrian safety campaign

(October 2002) in Washington, DC, as suggested by the “yes” responses in the “before” period. A possible explanation for the conflicting findings in Missoula and Washington, DC is Missoula is a self-contained small city, whereas Washington, DC is one of the nation’s largest metropolitan areas. A smaller city or a self contained metro area, with minimal daily immigration, may be more readily “saturated” by a media campaign than a larger city. This conclusion is supported by previous research performed in a large metro area (4).

Has the campaign increased knowledge of pedestrian safety?

- In Washington, DC, the campaign increased pedestrian understanding of the pedestrian signal indications. Savannah’s campaign had no effect on pedestrian understanding of the pedestrian signal indications. Although the Missoula campaign did not cover this topic, pedestrian understanding of the pedestrian signal indications increased in the “after” period.

Are pedestrians and motorists behaving more safely?

- In Missoula, the campaign was effective in reminding pedestrians to look for vehicles before crossing the street. Data on pedestrian looking behavior were not collected in Savannah or Washington, DC.
- The campaign was effective in increasing the number of right-turning and through motorists in Missoula who yielded to pedestrians. Data on motorist yielding were not collected in Savannah or Washington, DC.
- Ninety-seven percent or more of pedestrians in Savannah and Washington, DC did not encounter conflicts with turning motorists. Although there were slight increases in these percentages after the campaigns, the improvements may not be of practical significance.

The original intent of this study was to evaluate FHWA’s Pedestrian Safety Campaign Planner materials. All three cities had the intention of using FHWA’s materials but in the end, only Washington, DC did so. Missoula implemented a locally-developed campaign instead, and Savannah encountered funding constraints. Neither FHWA nor the project team was able to provide financial assistance to the cities for costs associated with using FHWA’s materials. Since the cities received no funding, they were not contractually obligated to use FHWA’s materials in their pedestrian safety campaigns. Thus, this study evolved into an evaluation of FHWA’s Pedestrian Safety Campaign and two locally-developed campaigns. Since the three cities implemented totally different pedestrian safety campaigns, it is not possible to generalize the effectiveness of FHWA’s Campaign Planner. If a similar study were to be undertaken in the future, it is recommended FHWA and cities enter into contractual agreements whereby cities receive funding and in return, agree to use FHWA’s materials. This would allow for the conduct of case studies to provide insight as to which materials are most effective and under what circumstances.

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TABLE 1 TV Advertisement Aimed at Motorists - Missoula

AUDIO	VIDEO
<p>Ya can't stop on a dime, ya know.</p> <p>Stopping takes time.</p> <p>You need to look half a block ahead to see someone crossing the street.</p> <p>LOOK... a half-block ahead.</p> <p>STOP for pedestrians.</p> <p>STAY STOPPED until the pedestrian has crossed.</p> <p><i>Ya know...pedestrians have the right of way at every intersection, with or without a marked crosswalk.</i></p> <p>You can't stop on a dime.</p> <p>But when you look ahead, you can stop in time.</p>	<p>Close up shot of a dime falling from the hand of the girl. Dime is dropped to the ground in slow motion. A car is driving toward it and drives over it.</p> <p>Video of feet on the street with car in the background.</p> <p>Wide shot of the car approaching the person.</p> <p>Wide shot of car stopped for the person.</p> <p>Close up shot of girl saying "thank you".</p> <p><i>Shot of intersection with marked crosswalk, and one without a marked crosswalk.</i></p> <p>Slow motion wide shot of girl walking across the street. <i>Dissolves to</i> Billboard "YOU HAVE THE POWER STOP FOR PEDESTRIANS."</p> <p>Brought to you by Missoula's Bicycle Pedestrian Office and this station.</p>

TABLE 2 Data Collection – Dates, Sample Sizes, and Number of Locations

	Before	After
Missoula – dates	April 9-10, 2004	September 2-4, 2004
Missoula – pedestrian IDC	393 pedestrians (5 locations)	332 pedestrians (6 locations)
Missoula – motorist IDC	193 motorists (2 locations)	225 motorists (5 locations)
Missoula – observational studies	249 cycles (2 locations)	594 cycles (3 locations)
Savannah – dates	September 29, 2005	June 19-20, 2006
Savannah – pedestrian IDC	174 pedestrians (4 locations)	137 pedestrians (3 locations)
Savannah – motorist IDC	37 motorists (3 locations)	64 motorists (3 locations)
Savannah – observational studies	302 cycles (5 locations)	311 cycles (4 locations)
Washington, DC – dates	September 26, 2003	November 21, 2003
IDC – Pedestrian	210 pedestrians (5 locations) (145 in English, 62 in Spanish, 3 unknown)	76 pedestrians (2 locations) (62 in English, 12 in Spanish, 2 unknown)
IDC – Motorist	244 motorists (4 locations) (211 in English, 29 in Spanish)	73 motorists (3 locations) (68 in English, 5 in Spanish)
Observational Studies	753 cycles (8 locations)	684 cycles (7 locations)

TABLE 3 Pedestrian Awareness of Safety Campaigns and Messages

	Before	After	Significance ($\alpha=0.05$)
Missoula - campaigns	17.8% (N=393)	46.4% (N=332)	$p<0.001$
Missoula - message	3.1% (N=393)	37.3% (N=332)	$p<0.001$
Savannah - campaigns	21.8% (N=174)	20.1% (N=134)	Not significant
Savannah - message	19.5% (N=174)	15.7% (N=134)	Not significant
Washington, DC – campaigns	41.9% (N=210)	22.4% (N=76)	$p=0.002$
Washington, DC - message	40.5% (N=210)	22.5% (N=76)	$p=0.004$

TABLE 4 Motorist Awareness of Safety Campaigns and Messages

	Before	After	Significance ($\alpha=0.05$)
Missoula – campaigns	17.6% (N=193)	45.8% (N=225)	p<0.001
Missoula – message	6.7% (N=193)	40.9% (N=225)	p<0.001
Savannah – campaigns	14.9% (N=47)	20.3% (N=64)	Not significant
Savannah – message	21.3% (N=47)	23.4% (N=64)	Not significant
Washington, DC – campaigns	35.2% (N=244)	28.8% (N=73)	Not significant
Washington, DC - message	22.5% (N=244)	19.2% (N=73)	Not significant

TABLE 5 Pedestrians Who Started to Cross During the WALK Indication

	Before	After	Significance ($\alpha=0.05$)
Missoula	74.0% (N=596)	78.7% (N=1884)	p=0.016
Savannah	67.9% (N=1628)	68.7% (N=2543)	Not significant
Washington, DC	77.4% (N=4277)	85.6% (N=4126)	p<0.001

TABLE 6 Pedestrian Understanding of the Flashing DON'T WALK Indication

	Before	After	Significance ($\alpha=0.05$)
Missoula	22.1% (N=393)	41.3% (N=332)	$p<0.001$
Savannah	36.2% (N=174)	30.6% (N=134)	Not significant
Washington, DC	20.5% (N=210)	22.5% (N=80)	Not significant

TABLE 7 Pedestrians Who Did Not Experience Conflicts with Turning Motorists

	Before	After	Significance ($\alpha=0.05$)
Savannah – right-turning motorists	96.0% (N=302)	98.0% (N=346)	Not significant
Savannah – left-turning motorists	97.8% (N=364)	98.7% (N=389)	p=0.033
Washington, DC – right-turning motorists	96.7% (N=1165)	95.7% (N=1355)	Not significant
Washington, DC – left-turning motorists	99.0% (N=1015)	99.8% (N=1119)	p=0.045



Figure 1 Pedestrian poster, Missoula

PEDESTRIANS - INTERACTIVE DATA COLLECTION FORM

Excuse me, my name is _____ and I'm collecting data for Washington, DC. I'd like to ask you a few questions about pedestrian safety. It will take about one minute.

What does the flashing DON'T WALK signal at signalized intersections mean? *Check all that apply.*

- Don't start crossing
- Don't walk
- Finish crossing if started
- Go back to the sidewalk
- Run across the street
- Stop
- Other (specify) _____
- Don't know

What does the flashing WALK signal at signalized intersections mean? *Check all that apply.*

- Start crossing
- Don't start crossing
- Watch for turning vehicles
- Go back to the sidewalk
- Other (specify) _____
- Don't know

Have you seen or heard any pedestrian safety public service campaigns in DC...
 On TV? Yes / No On the radio? Yes / No In print? Yes / No

(If yes to any of the above) Have you seen or heard the following message in DC? Yes / No
 "Please, look for pedestrians. Stop for them. Think of the impact you can make."
 "Deténgase ante los peatones. Piense en las consecuencias."

If yes, where? *Read answers if necessary.*

- TV
- Radio
- Bus shelters
- Bus backs
- Brochures
- Other (specify) _____
- Can't remember *(Don't read)*

Are you aware of any pedestrian safety messages concerning blind spots around large trucks and buses? Yes / No

That's it. Thank you very much for your help!

Age	Race	IDC conducted in
__ 18-24	__ White/Caucasian	__ English
__ 25-44	__ Black/African-American	__ Spanish
__ 45-64	__ Hispanic	
__ 65 and over	__ Asian	Gender
	__ Other/Not sure	__ Male
		__ Female



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Figure 2 Pedestrian IDC form, Washington, DC



Figure 3 English poster explaining the meaning of the pedestrian signal indications, Washington, DC



Figure 4 Spanish poster explaining the meaning of the pedestrian signal indications, Washington, DC