Kentucky Stormwater Survey Results

A Telephone Survey of Residents

in MS4 Phase II Communities and Counties:

Assessing Knowledge, Attitudes, Behaviors, and Education Venues

Conducted for the Kentucky Transportation Cabinet by the University of Kentucky Survey Research Center *2016-2017*

# KENTUCKY STORMWATER SURVEY OVERVIEW

The Kentucky Environmental Education Council and Kentucky Transportation Cabinet designed a telephone survey as part of the Kentucky Municipal Separate Storm Sewer Systems (MS4) Phase II program. The original survey, which measured knowledge, attitudes and behaviors of the general public concerning stormwater pollution issues, was administered by the University of Kentucky Survey Research Center. The purpose of the survey was to set baselines for MS4 Phase II permittees to use in measuring the progress of their Public Education and Public Participation Minimum Control Measures over the life of the 2008-2013 permits.

The baseline survey was conducted in a total of 26 different MS4 Phase II regions between June 13, 2008 and January 31, 2009 to a random sample of 4,527 adults. The compiled survey response rate of all 26 regions was 40.2%.

A follow-up survey was conducted by UK-SRC to see if progress has been made in the permitted communities through education programs over the life of the permits. The survey, which repeated most of the measures from the baseline survey was administered a random sample of 4,847 adults in Kentucky MS4 Phase II regulated cities and counties. The survey was conducted in a total of 26 different MS4 Phase II regions between June 4, 2016 and February 8, 2018 using a dual frame methodology with a target of including at least 25% of the interviews in each region with cell phone households. Final results for each region were weighted to reflect the estimated percentage of cell-only households in each. The survey response rate was 38.3%.

The Frequency Tables in this report show the compiled results for all 26 regions surveyed. The survey results are categorized by knowledge, attitudes, behavior, and educational venues.

Demographic information, a summary of the results, discussion, and a list of communities and counties included in the survey are provided following the survey results.

It should be noted that one of the original regions, Paducah in McCracken County, was replaced by Louisville/Jefferson County in the follow-up survey. Thus the comparison of the results between the two waves of the survey should be reviewed with this in mind. UK-SRC did conduct statistical tests (t-tests for independent samples) to determine if results from the follow-up survey were significantly different in a statistical sense from the baseline results. These tests were conducted without including the Paducah and Louisville data to make the direct comparison meaningful. Statistically significant differences (at the p < .05 level) in the results from the two time periods is indicated by **\*\*** in the charts that follow if the difference was in a positive direction (knowledge, attitudes, or behaviors had improved) or ^^ if the difference was in a negative direction (knowledge, attitudes, or behaviors had regressed).

Each MS4 Phase II community surveyed has a very unique landscape and a very unique set of challenges. Therefore, comparisons between the "compiled" survey results and the individual region or community results are neither helpful nor valid.

*The survey questionnaire is proprietary and should not be used without permission by the University of Kentucky Survey Research Center (859-257-4684). The Kentucky Transportation Cabinet is the appropriate agency to credit when citing the survey results.*

**SURVEY RESULTS – STORMWATER KNOWLEDGE**

# Frequency Tables

1. On a scale of 1-5, where 1 is NO threat and 5 is a VERY SERIOUS threat, please tell me how serious of a threat **each of the following materials** is to YOUR community's streams, rivers, lakes, or sinkholes:

## 1A-Sewage from leaky pipes or leaking septic tanks: 2008-09 2016-17

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent^^** |
| No threat | 39.7 | 41.0  39.7 |
| 2 | 19.9 | 20.3 |
| 3 | 16.5 | 16.2 |
| 4 | 10.0 | 10.0 |
| Very serious threat | 14.0 | 12.6 |
| Total | 100.0 | 100.0 |
| **1B-Pesticides and fertilizers:** | |  |
|  | **Percent** | **Percent** |
| No threat | 29.8 | 29.3 |
| 2 | 20.6 | 20.6 |
| 3 | 23.3 | 21.7 |
| 4 | 12.5 | 12.9 |
| Very serious threat | 13.8 | 15.5 |
| Total | 100.0 | 100.0 |
| **1C-Soil from construction sites:** | |  |
|  | **Percent** | **Percent^^** |
| No threat | 41.6 | 44.6 |
| 2 | 23.1 | 22.7 |
| 3 | 18.9 | 17.8 |
| 4 | 8.4 | 8.5 |
| Very serious threat | 7.9 | 6.3 |
| Total | 100.0 | 100.0 |

**1D-Pet waste:**

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent^^** |
| No threat | 44.7 | 45.9 |
| 2 | 22.8 | 23.7 |
| 3 | 16.4 | 16.3 |
| 4 | 7.6 | 7.0 |
| Very serious threat | 8.5 | 7.2 |
| Total | 100.0 | 100.0 |

1. Do you think it harms water quality to dispose of **the following materials** into a storm drain?

## 2A-Motor oil? 2008-09 2016-17

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent** |
| NO | 13.3 | 12.5 |
| YES | 86.7 | 87.5 |
| Total | 100.0 | 100.0 |

**2B-Soapy water from washing your car or from a washing machine?**

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent^^** |
| NO | 47.3 | 50.1 |
| YES | 52.7 | 49.9 |
| Total | 100.0 | 100.0 |

**2C-Leaves or grass from mowing or raking your yard?**

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent** |
| NO | 60.4 | 61.1 |
| YES | 39.6 | 38.9 |
| Total | 100.0 | 100.0 |

1. Water that goes down storm drains is typically treated at a wastewater treatment plant before it is released into the nearest river.

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent** |
| True | 50.6 | 48.9 |
| False | 49.4 | 51.1 |
| Total | 100.0 | 100.0 |

1. Do you know who to contact if you wanted to properly dispose of paint, household chemicals, or motor oil?

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent\*\*** |
| NO | 49.0 | 45.2 |
| YES | 51.0 | 54.8 |
| Total | 100.0 | 100.0 |

1. Who would you contact? (Q4 above) **2008-09 2016-17**

|  |  |  |
| --- | --- | --- |
|  | **Percent of Cases** | **Percent of Cases** |
| City government | 20.7 | 26.4 |
| City sanitation | 8.1 | 2.9 |
| Commercial waste disposal | 8.1 | 8.8 |
| County government | 10.5 | 14.7 |
| Garbage collection services | 6.4 | 20.0 |
| Environmental agency | 6.3 | 4.4 |
| Hazardous - waste management | 16.7 | 3.8 |
| Health department | 2.0 | 1.7 |
| Municipal Sewer Department | 0.4 | 2.0 |
| Phonebook | 1.0 | 0.6 |
| Police | 0.8 | 0.6 |
| Recycling center | 8.6 | 7.4 |
| Retail Store | 10.1 | 9.9 |
| Unspecified agency | 0.8 | 0.1 |
| Water company | 5.9 | 4.5 |
| Miscellaneous | 9.9 | 20.4 |
| Total (Percent figure is greater than 100 because the survey respondents were allowed to give more than one response. The percent figure shown for each response option means that this percentage of respondents gave that response.) | 116.1 | 128.4 |

1. In your area, water that is flushed down toilets and water that goes down storm drains flow into the same underground pipes.

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent** |
| Agree | 49.6 | 49.6 |
| Disagree | 50.4 | 50.4 |
| Total | 100.0 | 100.0 |

1. Litter and trash that go down the storm drains get filtered out before they are released into streams and rivers.

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent** |
| Agree | 37.9 | 39.8 |
| Disagree | 62.1 | 60.2 |
| Total | 100.0 | 100.0 |

1. Most stormwater pollution comes from a few big polluters.

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent\*\*** |
| Agree | 45.7 | 42.3 |
| Disagree | 54.3 | 57.7 |
| Total | 100.0 | 100.0 |

1. Shrubs and trees left along the banks of creeks, streams and lakes protect water quality. **2008-09 2016-17**

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent\*\*** |
| Agree | 71.2 | 75.2 |
| Disagree | 28.8 | 24.8 |
| Total | 100.0 | 100.0 |

1. I'm not sure what I personally can do to prevent pollution from going down storm drains.

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent\*\*** |
| Agree | 60.7 | 51.0 |
| Disagree | 39.3 | 49.9 |
| Total | 100.0 | 100.0 |

**SURVEY RESULTS – STORMWATER POLLUTION ATTITUDES**

# Frequency Tables

1. On a scale of 1-5, with 1 being NOT AT ALL concerned and 5 being EXTREMELY concerned, how concerned are you about the water quality in your local area?

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent^^** |
| Not at all concerned | 39.3 | 45.2 |
| 2 | 15.7 | 16.4 |
| 3 | 17.6 | 14.4 |
| 4 | 10.6 | 8.8 |
| Extremely concerned | 16.6 | 15.1 |
| Total | 100.0 | 100.0 |

1. On a scale from 1 to 5 where 1 is NO problem and 5 is a SEVERE problem, how much of a problem do you think polluted stormwater is in YOUR community?

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent^^** |
| No problem | 32.8 | 32.5 |
| 2 | 26.5 | 29.0 |
| 3 | 21.4 | 21.2 |
| 4 | 11.3 | 9.4 |
| Severe problem | 8.1 | 7.9 |
| Total | 100.0 | 100.0 |

1. Would you be willing to pay a small monthly fee to help solve stormwater pollution problems in your community? *(For communities that do not pay a fee)*

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent** |
| Yes | 44.5 | 43.9 |
| No | 55.5 | 56.1 |
| Total | 100.0 | 100.0 |

## 4. About how much would you be willing to pay per month? 2008-09 2016-17

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent** |
| $1.00 - $2.00 | 40.8 | 33.1 |
| $3.00 - $4.00 | 14.0 | 17.5 |
| $5.00 - $6.00 | 26.9 | 27.9 |
| $7.00 - $8.00 | 1.3 | 0.9 |
| $9.00 - $10 | 10.0 | 11.6 |
| More than $10 | 7.0 | 9.0 |
| Total | 100.0 | 100.0 |

1. The storm water fee I pay is used to improve water quality. *(For communities that do pay fee)* (not asked in 2008-2009)

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent** |
| Agree |  | 74.8 |
| Disagree |  | 25.2 |
| Total |  | 100.0 |

**SURVEY RESULTS – STORMWATER PREVENTION BEHAVIOR**

**Frequency Tables**

1. Do you typically do **any of the following activities**, or does the activity not apply to you:

## 1A-Compost grass clippings, leaves, and/or food waste

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent** |
| NO | 59.4 | 59.9 |
| YES | 40.6 | 40.1 |
| Total | 100.0 | 100.0 |

**1B-Dispose of used motor oil, paint cans or household chemicals at a recycling center or city/county clean up event**

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent\*\*** |
| NO | 34.2 | 31.2 |
| YES | 65.8 | 68.8 |
| Total | 100.0 | 100.0 |

**1C-Follow label directions when applying fertilizers and pesticides**

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent^^** |
| NO | 9.9 | 12.3 |
| YES | 90.1 | 87.7 |
| Total | 100.0 | 100.0 |

**1D-Pick up dog waste outside 2008-09 2016-17**

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent** |
| NO | 47.6 | 44.9 |
| YES | 52.4 | 55.1 |
| Total | 100.0 | 100.0 |

**1E-Direct downspouts from roof onto lawn, garden, or into a rain barrel**

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent^^2** |
| NO | 37.0 | 41.9 |
| YES | 63.0 | 58.1 |
| Total | 100.0 | 100.0 |

**1F-Wash your car on paved driveway**

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent\*\*** |
| NO | 49.7 | 53.9 |
| YES | 50.3 | 46.1 |
| Total | 100.0 | 100.0 |

1. Within the past year have you volunteered, or are you currently volunteering for **any of the following activities:**

## 2A-Stream monitoring

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent\*\*** |
| NO | 98.6 | 97.9 |
| YES | 1.4 | 2.1 |
| Total | 100.0 | 100.0 |

**2B-River or lake clean up**

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent\*\*** |
| NO | 95.2 | 93.6 |
| YES | 4.8 | 6.4 |
| Total | 100.0 | 100.0 |

**2C-Storm drain stenciling**

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent** |
| NO | 99.3 | 99.2 |
| YES | 0.7 | 0.8 |
| Total | 100.0 | 100.0 |

**2D-Stormwater advisory committee**

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent** |
| NO | 99.2 | 98.9 |
| YES | 0.8 | 1.1 |
| Total | 100.0 | 100.0 |

**SURVEY RESULTS – STORMWATER EDUCATION VENUES**

**Frequency Tables**

1. During the PAST 12 MONTHS, have you seen, read or heard anything about ways you can personally prevent pollution of water that flows into storm drains, streams, rivers, lakes, or sinkholes? **2008-09 2016-17**

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent\*\*** |
| Yes | 31.9 | 33.5 |
| No | 68.1 | 66.2 |
| Total | 100.0 | 100.0 |

1. Where did you see, read, or hear this information (Q1 above)?

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent** |
| TV | 41.0 | 39.3 |
| Radio | 7.4 | 9.6 |
| Community events | 4.4 | 2.7 |
| Newsletter from a community organization that you belong to | 10.4 | 10.6 |
| Advertisement shown with previews at the movie | 0.5 | 1.0 |
| Website | 8.4 | 15.9 |
| Storm drain stencil | 0.5 | 1.6 |
| Child-School Material | 2.5 | 2.3 |
| Road Signage-Billboard | 2.2 | 2.8 |
| Local business i.e. car wash, auto repair shop | 7.2 | 4.4 |
| City Hall | 2.0 | 1.9 |
| Local newspaper | 44.0 | 24.4 |
| Other | 17.4 | 17.4 |
| Total (Percent figure is greater than 100 because the survey respondents were allowed to give more than one response. The percent figure shown for each response option means that this percentage of respondents gave that response.) | 147.8 | 133.9 |

1. Which **of the following means of communication** about how you can improve water quality would be useful to you:

## 3A-TV advertisement or program

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent\*\*** |
| NO | 21.6 | 26.3 |
| YES | 78.4 | 73.7 |
| Total | 100.0 | 100.0 |

|  |  |  |
| --- | --- | --- |
| **3B-Newspaper** | **2008-09 2016-17** | **2016-17** |
|  | **Percent** | **Percent\*\*** |
| NO | 29.2 | 49.6 |
| YES | 70.8 | 50.4 |
| Total | 100.0 | 100.0 |
|  |  |  |
| **3C-Newsletter** |  |  |
|  | **Percent** | **Percent** |
| NO | 37.6 | 37.8 |
| YES | 62.4 | 62.2 |
| Total | 100.0 | 100.0 |

**3D-Advertisement shown with previews-movies**

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent\*\*** |
| NO | 64.7 | 57.3 |
| YES | 35.3 | 42.7 |
| Total | 100.0 | 100.0 |

**3E-Internet or website (not asked in 2008-2009)**

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent** |
| NO |  | 29.8 |
| YES |  | 70.2 |
| Total |  | 100.0 |

1. Have you ever seen a stormwater logo or slogan in your community?

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent\*\*** |
| NO | 90.6 | 84.5 |
| YES | 9.4 | 15.5 |
| Total | 100.0 | 100.0 |

1. Do you recall what the stormwater logo or slogan is? (Q4 above)

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent** |
| Duck | 6.0 | 1.7 |
| Fish | 15.0 | 15.6 |
| Statement: Don't pollute | 6.7 | 4.6 |
| Picture: boiling water | 2.9 | 7.1 |
| Statement: keep drains clean | 2.3 | 1.9 |
| Picture: animal-beaver | 0.8 | 0.0 |
| Statement: Don't dispose of toxic materials | 4.6 | 1.4 |
| Statement: Record spills | 2.1 | 0.0 |
| Picture: Green & White sign | 0.0 | 2.7 |
| Miscellaneous | 59.7 | 65.1 |
| Total | 100.0 | 100.0 |

1. Has your child ever come home after school and told you something they learned about stormwater or stormwater pollution? **2008-09 2016-17**

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent\*\*** |
| NO | 86.0 | 82.8 |
| YES | 14.0 | 17.2 |
| Total | 100.0 | 100.0 |

1. Do you recall seeing an advertisement on TV showing a man in a fish  
   costume dumping trash into someone's swimming pool? (not asked in 2008-09)

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent** |
| NO |  | 66.5 |
| YES |  | 33.5 |
| Total |  | 100.0 |

# SUMMARY OF STORMWATER SURVEY RESULTS

**Knowledge**

1. The highest level of knowledge evidenced on the survey, as measured by the responses of the greatest percentage of respondents, was knowledge that:
   1. disposing of oil in a storm drain harms water quality (87.5% of respondents)
   2. shrubs and trees left along the banks of creeks streams, and lakes protect water quality (75.2%)\*\*
   3. litter and trash that go down storm drains do not get filtered out before being released into streams (60.2%)
   4. most stormwater pollution does not come from a few big polluters (57.7%)\*\*
   5. who to contact if they wanted to properly dispose of paint, household chemicals, or motor oil (54.8%)\*\*
2. Respondents were much less knowledgeable about other stormwater pollution problems, as indicated by the percentage who reported knowing:
   1. the following materials pose a threat to streams, lakes, or sinkholes:
      1. Pesticides and fertilizers (28.4% of respondents)
      2. Sewage from leaky pipes or leaking septic tanks (22.6%)^^
      3. Soil from construction sites (14.8%)^^
      4. Pet waste (14.2%)^^
   2. disposing of the following materials in a storm drain harms water quality:
      1. Soapy water from washing your car or from a washing machine (49.9%)^^
      2. Leaves or grass from mowing or raking your yard (38.9%)
   3. water that goes down storm drains is not typically treated at a wastewater treatment plant before it is released into the nearest river (51.1%)
   4. water that is flushed down toilets and water that goes down storm drains does not flow into the same underground pipes (50.4%)
   5. what they personally can do to prevent pollution from going down storm drains (49.9%)\*\*

# Attitudes

1. 43.9% of respondents were willing to pay a stormwater fee for the purpose of helping solve stormwater pollution problems in their communities. The stormwater fee amount that respondents were willing to pay was:

a. $1.00 - $2.00 (33.1% of respondents)

b. $3.00 - $4.00 (17.5%)

c. $5.00 - $6.00 (27.9%)

d. $7.00 - $8.00 (0.9%)

e. $9.00 - $10 (11.6%)

f. More than $10 (9.0%)

1. 74.8% of respondents who currently pay a stormwater fee agreed that it is used to improve water quality while 25.2% disagreed.
2. 61.6% of respondents reported that they were not concerned with water quality in their local area, while 23.9% were concerned and 14.4% were undecided.^^
3. 61.5% of respondents think that polluted stormwater is not a problem in their community, while 17.3% thought polluted stormwater is a problem and 21.2% were undecided.^^

# Behaviors

1. Stormwater pollution prevention behaviors that respondents engaged in were:
   1. Follow label directions when applying fertilizers and pesticides (87.7% of respondents) ^^
   2. Dispose of used motor oil, paint cans or household chemicals at a recycling center or city/county clean up event (68.8%)\*\*
   3. Direct downspouts from roof onto lawn, garden, or into a rain barrel (58.1%)^^
   4. Pick up dog waste outside (55.1%)
   5. Do not wash car on driveway (53.9%)\*\*
   6. Compost grass clippings, leaves, and/or food waste (40.1%)
2. Very few respondents were engaged in volunteer activities within the past year, as evidenced by the following results:
   1. Stream or lake clean up (6.4% of respondents)\*\*
   2. Stream monitoring (2.1%)\*\*
   3. Stormwater advisory committee (1.1%)
   4. Storm drain stenciling (0.8%)

# Education Venues

1. There were 33.5% of respondents who reported seeing, reading, or hearing about ways to personally prevent pollution of water that flows into storm drains, streams, rivers, lakes, or sinkholes during the previous 12 months. These respondents identified the following venues that carried the message they saw, read, or heard:
   1. Television (39.3%)
   2. Local newspaper (24.4% of respondents)
   3. Website (15.9%)
   4. Community organization newsletter (10.6%)
   5. Radio (9.6%)
   6. Local business (4.4%)
2. The most useful means of communication about how water quality can be improved, as identified by the respondents, were:
   1. Television (73.7% of respondents)\*\*
   2. Internet or website (70.2%)
   3. Newsletter (62.2%)
   4. Local newspaper (50.4%)\*\*
3. 15.5% of respondents reported that they had seen a stormwater logo or slogan in their community.\*\*
4. 33.5% of respondents have you seen, read or heard anything about ways you can personally prevent pollution of water that flows into storm drains, streams, rivers, lakes, or sinkholes.\*\*
5. 17.2% of respondents have had their child come home after school and told them something they learned about stormwater or stormwater pollution.\*\*
6. 33.5% of respondents recall seeing an advertisement on TV showing a man in a fish costume dumping trash into someone's swimming pool.

# DISCUSSION

1. The Kentucky Stormwater Survey is a descriptive study, indicating the levels of knowledge, attitudes, and behavior of the public in regard to stormwater runoff pollution issues. The survey also indicates the effectiveness of varying types of educational venues, as reported by the survey respondents.
2. The survey results provide follow-up information for MS4 Phase II Communities which can be compared to the baseline data collected in 2008-09. The results of this survey can be used to assess the effectiveness of stormwater public education and public participation goals and strategies implemented after the original survey.
3. Although some improvement can be seen in the 2016-17 results, there remains a lack of general knowledge and concern about some aspects of water quality and stormwater runoff pollution. There also have been some significant gains in knowledge, awareness, and behaviors of other aspects.
4. Continuing education may be needed for the purposes of further improving understanding of stormwater runoff pollution issues, developing positive attitudes toward stormwater pollution prevention, raising the concern about water quality, and increasing involvement of the general public in stormwater pollution prevention efforts.
5. The reasons for the apparent decrease in concern about water quality in general and the decrease in the percentage of respondents believing that polluted stormwater is a problem in their community cannot be ascertained by the survey results. It is possible that the education campaign was not effective and that fewer people are actually aware or care about these issues. However, it could be that over the life of the permits respondents have seen improvements in these areas which make them less concerned.
6. The Transportation Cabinet and partnering communities media outreach campaign has had a positive impact raising awareness about stormwater issues on a significant portion of the population of the MS4 Phase II Communities.

**RESPONDENT UNDERSTANDING OF SURVEY QUESTIONS**

**(as interpreted by the interviewer)**

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent\*\*** |
| Excellent | 65.3 | 69.0 |
| Good | 32.6 | 26.8 |
| Fair | 1.8 | 3.3 |
| Poor | 0.4 | 0.8 |
| Total | 100.0 | 100.0 |

**SURVEY DEMOGRAPHIC INFORMATION**

## RESPONDENT GENDER

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent\*\*** |
| Male | 39.3 | 44.3 |
| Female | 60.7 | 55.7 |
| Total | 100.0 | 100.0 |

**COMMUNITY SIZE**

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent\*\*** |
| Rural area-farm | 6.8 | 7.2 |
| Rural area-nonfarm | 10.8 | 10.9 |
| Small town | 55.0 | 42.9 |
| Suburb | 17.6 | 18.5 |
| City | 9.8 | 20.5 |
| Total | 100.0 | 100.0 |

**YEAR BORN**

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent** |
| 1917 | 0.1 | 0.0 |
| 1918 | 0.1 | 0.0 |
| 1919 | 0.2 | 0.0 |
| 1920 | 0.4 | 0.0 |
| 1921 | 0.2 | 0.1  0 |
| 1922 | 0.4 | 0.0 |
| 1923 | 0.6 | 0.0 |
| 1924 | 0.7 | 0.0 |
| 1925 | 0.7 | 0.1 |
| 1926 | 0.7 | 0.2 |
| 1927 | 0.9 | 0.2 |
| 1928 | 0.9 | 0.2 |
| 1929 | 0.8 | 0.4 |
| 1930 | 1.0 | 0.3 |

|  |  |  |
| --- | --- | --- |
| 1931 | 1.0 | 0.4 |
| 1932 | 1.5 | 0.6 |
| 1933 | 1.3 | 0.7 |
| 1934 | 1.5 | 0.7 |
| 1935 | 1.6 | 0.7 |
| 1936 | 1.5 | 0.9 |
| 1937 | 1.8 | 0.8 |
| 1938 | 1.7 | 0.9 |
| 1939 | 1.9 | 1.3 |
| 1940 | 1.9 | 1.3 |
| 1941 | 1.9 | 1.6 |
| 1942 | 1.7 | 1.8 |
| 1943 | 2.0 | 1.8 |
| 1944 | 1.9 | 1.8 |
| 1945 | 2.2 | 1.7 |
| 1946 | 2.7 | 2.1 |
| 1947 | 2.6 | 2.5 |
| 1948 | 2.2 | 2.0 |
| 1949 | 2.4 | 2.3 |
| 1950 | 2.6 | 2.5 |
| 1951 | 2.3 | 2.1 |
| 1952 | 2.4 | 2.5 |
| 1953 | 2.9 | 2.0 |
| 1954 | 2.5 | 2.0 |
| 1955 | 2.5 | 2.4 |
| 1956 | 2.2 | 2.1 |
| 1957 | 2.2 | 3.0 |
| 1958 | 2.1 | 2.4 |
| 1959 | 2.2 | 2.3 |
| 1960 | 2.0 | 2.9 |
| 1961 | 2.0 | 2.4 |
| 1962 | 2.2 | 2.0 |
| 1963 | 1.6 | 2.2 |
| 1964 | 2.2 | 2.1 |
| 1965 | 2.0 | 2.0 |
| 1966 | 1.3 | 1.7 |
| 1967 | 1.4 | 1.7 |
| 1968 | 1.3 | 1.5 |
| 1969 | 1.5 | 1.3 |
| 1970 | 1.3 | 1.9 |
| 1971 | 1.2 | 1.6 |
| 1972 | 1.3 | 1.7 |
| 1973 | 0.9 | 1.7 |
| 1974 | 1.2 | 1.6 |
| 1975 | 1.1 | 1.2 |

|  |  |  |
| --- | --- | --- |
| 1976 | 0.8 | 0.9 |
| 1977 | 0.9 | 1.0 |
| 1978 | 0.7 | 1.3 |
| 1979 | 0.8 | 1.2 |
| 1980 | 0.9 | 1.5 |
| 1981 | 0.7 | 1.0 |
| 1982 | 0.6 | 1.2 |
| 1983 | 0.6 | 1.0 |
| 1984 | 0.4 | 0.8 |
| 1985 | 0.5 | 0.9 |
| 1986 | 0.3 | 1.0 |
| 1987 | 0.3 | 0.6 |
| 1988 | 0.3 | 0.8 |
| 1989 | 0.3 | 0.8 |
| 1990 | 0.5 | 0.9 |
| 1991 | 0.0 | 0.6 |
| 1992 | 0.0 | 0.6 |
| 1993 | 0.0 | 0.5 |
| 1994 | 0.0 | 0.6 |
| 1995 | 0.0 | 0.5 |
| 1996 | 0.0 | 0.4 |
| 1997 | 0.0 | 0.5 |
| 1998 | 0.0 | 0.3 |
| 1999 | 0.0 | 0.5 |
| Total | 100.0 | 100.0 |

**NUMBER IN HOUSEHOLD**

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent\*\*** |
| 1 | 22.8 | 21.8 |
| 2 | 39.4 | 39.2 |
| 3 | 16.2 | 15.8 |
| 4 | 13.1 | 12.7 |
| 5 | 5.7 | 6.4 |
| 6 | 1.6 | 2.6 |
| 7 or more | 1.2 | 1.7 |
| Total | 100.0 | 100.0 |

**CHILDREN UNDER 18 IN HOUSEHOLD**

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent** |
| NONE | 62.0 | 62.1 |
| 1 | 16.3 | 16.2 |
| 2 | 14.3 | 13.1 |
| 3 | 5.4 | 5.1 |
| 4 | 1.4 | 2.4 |
| 5 | 0.4 | 0.4 |
| 6 | 0.1 | 0.4 |
| 7 or more | 0.1 | 0.3 |
| Total | 100.0 | 100.0 |

**RACIAL, ETHNIC BACKGROUND**

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent\*\*** |
| White | 92.2 | 88.9 |
| African American | 4.7 | 7.1 |
| Hispanic | 0.4 | 0.8 |
| American Indian | 0.6 | 0.7 |
| Multiracial | 0.7 | 1.3 |
| Asian | 0.7 | 0.5 |
| Pacific Islander | 0.1 | 0.1 |
| Some other race | 0.6 | 0.6 |
| Total | 100.0 | 100.0 |

**LAST GRADE IN SCHOOL COMPLETED**

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent\*\*** |
| Grade school only | 3.3 | 1.3 |
| Some high school | 7.2 | 5.3 |
| Graduated high school | 29.9 | 25.7 |
| GED | 2.3 | 1.5 |
| 1 or 2 years college, no degree | 14.2 | 13.2 |
| Graduated junior or community college | 4.4 | 3.8 |
| Vocational-technical degree | 3.4 | 3.0 |
| 3 or 4 years of college, no degree | 3.8 | 5.9 |
| Bachelors degree | 15.5 | 19.7 |
| Some graduate school work | 1.4 | 2.3 |
| Graduate degree ex: MA, MS, Ph.D., JD | 14.6 | 18.2 |
| Total | 100.0 | 100.0 |

**TOTAL HOUSEHOLD INCOME 2007**

|  |  |  |
| --- | --- | --- |
|  | **Percent** | **Percent\*\*** |
| Under $5,000 | 2.6 | 2.1 |
| $5-$7,500 | 1.9 | 0.8 |
| $7,500-$10,000 | 1.9 | 2.0 |
| $10-$12,500 | 2.8 | 2.2 |
| $12,500-$15,000 | 2.6 | 2.2 |
| $15,000-$20,000 | 4.3 | 2.7 |
| $20-$25,000 | 5.2 | 5.0 |
| $25-$30,000 | 6.3 | 5.0 |
| $30-$40,000 | 9.2 | 9.5 |
| $40-$50,000 | 10.5 | 9.3 |
| $50-$70,000 | 16.5 | 15.1 |
| $70-$90,000 | 12.6 | 14.0 |
| $90-$120,000 | 12.5 | 13.8 |
| Over $120,000 | 11.1 | 16.3 |
| Total | 100.0 | 100.0 |

|  |
| --- |
| **Communities and Counties Surveyed** |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **County** | **MS4 Community** | **Results Reported** | **County** | **MS4 Community** | **Results Reported** |
| Barren | Glasgow | X | Franklin | Franklin County | X |
|  |  |  |  | Frankfort |  |
| Bell | Middlesboro | X |  |  |  |
|  |  |  | Graves | Mayfield | X |
| Boone |  | X |  |  |  |
|  | Florence |  | Greenup | Greenup County | X |
|  | Union |  |  | Bellefonte |  |
|  |  |  |  | Flatwoods |  |
| Boyd |  | X |  | Raceland |  |
|  | Ashland |  |  | Russell |  |
|  | Boyd County |  |  | Worthington |  |
|  | Cattletsburg |  |  | Wurtland |  |
|  |  |  |  | Greenup |  |
| Boyle | Danville | X |  |  |  |
|  |  |  | Hardin | Hardin County | X |
| Bullitt | Bullitt County | X |  | Elizabethtown |  |
|  | Fox Chase |  |  | Radcliff |  |
|  | Hillview |  |  | Vine Grove |  |
|  | Hebron Estates |  |  | West Point |  |
|  | Hunters Hollow |  |  |  |  |
|  | Mount Washington |  | Hopkins | Madisonville | X |
|  | Pioneer Village |  |  |  |  |
|  | Shepherdsville |  | Jefferson | Louisville | X |
|  |  |  |  |  |  |
| Calloway | Murray | X | Jessamine | Jessamine County | X |
|  |  |  |  | Nicholasville |  |
| Campbell | Campbell County | X |  |  |  |
|  | Alexandria |  | Kenton | Kenton County | X |
|  | Bellevue |  |  | Bromley |  |
|  | Cold Spring |  |  | Covington |  |
|  | Crestview |  |  | Crescent Springs |  |
|  | Dayton |  |  | Crestview Hills |  |
|  | Fort Thomas |  |  | Edgewood |  |
|  | Highland Heights |  |  | Elsemere |  |
|  | Melbourne |  |  | Erlanger |  |
|  | Newport |  |  | Fort Mitchell |  |
|  | Silver Grove |  |  | Fort Wright |  |
|  | Southgate |  |  | Independence |  |
|  | Wilder |  |  | Kenton Vale |  |
|  | Woodlawn |  |  | Lakeside Park |  |
|  |  |  |  | Ludlow |  |
| Christian |  | X |  | Park Hills |  |
|  | Hopkinsville |  |  | Ryland Heights |  |
|  | Oak Grove |  |  | Taylor Mill |  |
|  |  |  |  | Villa Hills |  |
| Clark | Winchester | X |  |  |  |
|  |  |  | Madison | Richmond | X |
| Daviess | Owensboro | X |  |  |  |

|  |  |  |
| --- | --- | --- |
| **County** | **MS4 Community** | **Results Reported** |
| Meade | Muldraugh |  |
|  |  |  |
| Nelson | Bardstown | X |
|  |  |  |
| Oldham | Oldham County | X |
|  | Orchard Grass |  |
|  | Peewee Valley |  |
|  | Park Lake |  |
|  | Goshen |  |
|  | Crestwood |  |
|  |  |  |
| Pulaski | Somerset | X |
|  |  |  |
| Scott | Georgetown | X |
|  |  |  |
| Shelby | Shelbyville | X |
|  |  |  |
| Taylor | Campbellsville | X |
|  |  |  |
| Warren | Warren County | X |
|  | Bowling Green | X |