

## MEMORANDUM

**Date:** July 2, 2019

**To:** Leana Kinley, City Administrator

**From:** Jennifer Stoloff, Econometrica, Inc.

**Subject:** Results of Stevenson City and Fire District #2 Income Surveys

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### 1. Summary of Results

This is a summary of the results of the income survey pilot for Stevenson and Fire District #2. We calculated the response rate by dividing the total valid responses by the total housing units contacted plus online and phone responses. The margin of error (MOE) is calculated using a 90% confidence level and the number of addresses in the sampling frame. We used a case management sheet to track the field work and use some of that information in the tables below.

**Table 1: City of Stevenson**

Sampling	Number/Percent
Addresses in sampling frame	696
Total contacts (mail & field)	142
Total addresses sent survey invitation by mail	95
Addresses that were "worked" in the field (approximately)	142
Completed in-person (based on case management sheet)	62
Completed on-line/phone (based on case management sheet)	27
Total valid responses in Survey123	91
Response rate (combined)	64.08%
MOE	8%
Percent of sample low/mod income	46.41%

**Table 2: Fire District #2**

Sampling	Number/Percent
Addresses in sampling frame	243
Total contacts (mail & field)	140
Total addresses sent survey invitation by mail	100
Addresses that were "worked" in the field (approximately)	140
Completed in-person (based on case management sheet)	56
Completed on-line/phone (based on case management sheet)	18
Total valid responses in Survey123	74
Response rate (combined)	52.86%

Sampling	Number/Percent
MOE	8%
Percent of sample low/mod income	45.99%

Note: the number of completions based on the case management sheet will be slightly less than the total valid responses in Survey123 since it does not account for multiple families at the same address.

## 2. Survey process

We used a “mixed-mode” data collection approach, meaning we collected data via the internet, phone and door-to-door surveys. The initial contact was via a letter that provided a URL to residents where they could take the survey online. The letter also included a toll-free number to complete the survey by phone (with a person). A follow-up post card was sent to residents that hadn’t responded to the survey online. After that, an in-person visit was attempted to all non-respondent households, including those that did not receive a request by mail. We used “Survey123” as the data collection tool. The mailing for Stevenson went out on May 15, 2019 and for Fire District #2 on May 16, 2019. Post card reminders were sent on June 3, 2019. Field teams collected data in person from June 7-14, 2019.

The City of Stevenson provided two lists from which to draw the sample—one for the city and one for the fire district. There was a total of 696 useable addresses in the city list and 243 in the fire district list. A set of three unique codes was assigned to each address to allow for multiple entries per address in the case where more than one family resided at a given address. Most cases had a service and mailing address. Letters were sent to PO Boxes where a local service address was also present because the local post office does not always deliver to street addresses. When the mailing address was determined to be for the owner of a unit rather than a resident, it was designated as a “field” address and no letter was sent. After the list was cleaned, random numbers were generated from the website “random.org” and assigned to each address. Then the list was sorted by the random numbers. The list was then divided into groups of approximately 20. Each group constituted a small “replicate” sample. These samples were grouped together for the mailings and the in-person surveying. The initial sample draw for the mailing was 95 for the city and 100 for the fire district. A total of 140 addresses in the city and 140 addresses for the fire district were included in the mailing and the field work. Approximately 27 responses were taken online or by phone in the city and 18 in the fire district. The remainder were gathered in the field.

## 3. Data

### 3.1. Summary of analysis

All of the key information necessary to make the income calculations is collected in the attached Excel workbook, “Stevenson\_Data\_201907”. Data for both the city and the fire district are in the workbook. Addresses have been redacted to ensure privacy. The first sheet “City” has the raw data collected in Survey123; the second “City clean” removes the cases without valid income information. The third sheet, “City Counts” has the results of the analysis, including the numbers

of each family size, total persons, total persons under the low/moderate income limit, average family size, the LMI percent and the response rate. The fire district raw data is in “FD”, the clean data are in “FD Clean” and the results are in “FD Counts.” We have removed some of the unnecessary variables from the “clean” data versions for ease of use.

In both “City Clean” and “FD Clean”, the variable “family\_size\_c” (column O) lists the number of family members for each respondent. Column P “income\_limit” has the income limit for the given family size. Column Q “total family income” has the combined total annual income, before taxes, for the family, when it was provided. If the respondent refused to provide their total income, we asked them to tell us if their income was above or below the income limit for their family size. The answer “above” or “below” is in Column S. Column U “income\_persons” is the number of people in each family when the income is low or moderate.

To calculate the results, we took the sum of “income\_persons” (column U) and divided it by the sum of “family\_size\_c” (column O) to produce the percentage of persons in LMI families.

### 3.2. Data cleaning

1. Delete entries when “income\_f” =0.
  - a. These records contain no income information (Refusals are retained in the raw data.)
  - b. “Income\_f” is a check to see if total income was provided or, if that was refused, an answer was provided to the over/under question about the income limit. If it equals “0”, neither type of income information was provided.
2. Check for blanks in “What is the combined total income of all family members living in this household before taxes?”
  - a. If “If you would prefer to not provide your exact income, please select 'Refuse' below” is blank, and “What is the combined total income of all family members living in this household before taxes?” is blank, then delete the entry. These entries contain no income information.