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Texarkana Metropolitan Statistical Area

Crime in Texarkana

Final Report

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In July 2016, the Texarkana Chamber of Commerce contracted with the University of North Texas to assess crime in the Texarkana Metropolitan Statistical Area (TMSA). This report is structured in six primary sections and provides the reader with data, information, and analysis completed during the assessment. The six sections are as follows:

> • **Section I: Crime Trends in the Texarkana Metropolitan Statistical Area;**
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> • **Section II: Impact of Population on Crime Data in Texarkana, TX;**
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Section I: Crime Trends in the Texarkana Metropolitan Statistical Area

One of few national measures of criminal activity in the United States is the Uniform Crime Reports (UCR) which is annually published as *Crime in the United States* by the Federal Bureau of Investigation (FBI). One of the measures available through the UCR is offenses known to the police for the following eight offenses:

> • Murder and Nonnegligent Manslaughter;
> • Rape;
> • Robbery;
> • Aggravated Assault;
> • Burglary;
> • Larceny-theft;
> • Motor Vehicle Theft; and,
> • Arson.

According to the FBI UCR Program, data on the above offenses are provided by city, county, state, federal, university/college, and tribal law enforcement agencies which voluntarily participate in the program. In 2015, 16,643 of these law enforcement agencies submitted data to the UCR Program. The sources of the data on the 8 offenses listed above includes victim complaints, witness reports, or law enforcement officer on-view activity. The number of offenses known to the police are reported to the UCR Program regardless if an arrest is made for the offense or a suspect is prosecuted. Overall, many refer to this part of the UCR program as "offenses reported to the police" which is the term that will be used commonly throughout this report.

The offenses of murder and nonnegligent manslaughter, rape, robbery, and aggravated assault are categorized as violent crimes while the offenses of burglary, larceny-theft and motor vehicle theft are categorized as property crimes. Although arson is also a property crime, due to inconsistencies in participating agencies reporting arson, it is not included in portions of the UCR reporting and will thus not be included in this report.

Number of Offenses Reported to the Police

The first section of this report will assess the number of offenses reported to the police according to the UCR Program for the Texarkana Metropolitan Statistical Area (TMSA). Table 1 illustrates the number violent crimes reported in the TMSA from 2005-2015. The population presented in the table is provided by the FBI UCR Program and the column "Violent Crime Total" is a summation of the number of murders and nonnegligent manslaughters, rapes, robberies, and aggravated assaults.

As illustrated in Table 1, the total number of violent crimes in 2015 (n=700) is the fewest violent crimes over the 11-year period assessed. The total number of violent crimes ranged from a low of 700 in 2015 to a high of 1,179 in 2006. Murders and nonnegligent manslaughters are rare in

the TMSA; ranging from a low of 4 in 2010 to a high of 15 in 2007 and 2009. In 2015, there were 8 murders and nonnegligent manslaughters reported to law enforcement agencies in the TMSA.

Rapes have ranged from a low of 50 in 2008 to a high of 78 in 2013. In 2015, there were 76 rapes reported to law enforcement agencies in the TMSA. The increase in rape from 2013-2015 is likely due to a change in the definition of rape by the FBI UCR Program which took effect on January 1, 2013. Prior to January 1, 2013, rape was defined by the UCR as "the carnal knowledge of a female forcibly and against her will." Beginning on January 1, 2013, the definition of rape in the UCR was broadened to "penetration, no matter how slight, of the vagina or anus with any body part or object, or oral penetration by a sex organ of another person, without the consent of the victim." This is a much broader definition of rape which encompasses new victims and offenders. Now, the definition is gender neutral so a male and a female can both commit rape and be a victim of rape. In addition, male on male and female on female actions can be reported as rape. Finally, penetration with objects which previously were reported as assaults can now be reported as rape. With this expanded definition, the FBI UCR Program has reported an expected increase in rape since 2013 in comparison to earlier years. This is what has occurred in the TMSA with 51 reported rapes in 2012, the year before the rape definition change, to 78, 72, and 76 rapes in subsequent years.

Reported robberies have ranged from a low of 108 in 2015 to a high of 227 in 2009. In 2015, there were 108 robberies reported to law enforcement agencies in the TMSA which is the lowest number of reported robberies over the 11-year period assessed. Similarly, the 508 reported aggravated assaults in 2015 is the lowest number of reported aggravated assaults over the 11-year period assessed. The highest number of aggravated assaults occurred in 2008 with 959.

Table 1: Uniform Crime Reports, by Violent Offense and Year,
for Texarkana Metropolitan Statistical Area

Year	Population	Violent Crime Total	Murder and Nonnegligent Manslaughter	Rape	Robbery	Aggravated Assault
2015	149,421	700	8	76	108	508
2014	150,328	801	5	72	120	604
2013	150,224	839	6	78	120	635
2012*	151,153	1,039	8	51	135	845
2011	138,304	913	10	67	120	716
2010	138,018	1,020	4	59	162	795
2009	136,443	1,029	15	73	227	714
2008	134,769	1,177	5	50	163	959
2007	135,211	1,155	15	67	187	886
2006	136,867	1,179	14	67	167	931
2005	134,610	1,141	8	53	124	956

*Beginning in 2012 and thereafter, the City of Texarkana, AR was no longer individually included in the MSA and Little River County, AR was included in the MSA
Source: FBI Uniform Crime Report Program

As illustrated in Table 2, the total number of property crimes in 2015 (n=5,179) is the fewest property crimes over the 11-year period assessed. Based on the assessment, both the total number of violent crimes (n=700) and property crimes (n=5,179) in 2015 are at an all-time low over the 11-year period assessed for this report. The column "Property Crime Total" is a summation of the number of burglaries, larceny-thefts, and motor vehicle thefts.

Reported burglaries have ranged from a low of 1,112 in 2015 to a high of 1,828 in 2011. In 2015, the 1,112 burglaries reported to law enforcement agencies in the TMSA is the lowest number of reported burglaries over the 11-year period assessed. Larceny-thefts have ranged from a low of 3,490 in 2008 to a high of 4,293 in 2012. In 2015, there were 3,721 larceny-thefts reported to law enforcement agencies in the TMSA. Motor vehicle thefts have ranged from a low of 290 in 2013 to a high of 442 in 2014. In 2015, there were 346 motor vehicle thefts reported to law enforcement agencies in the TMSA.

Table 2: Uniform Crime Reports, by Property Offense and Year,
for Texarkana Metropolitan Statistical Area

Year	Population	Property Crime Total	Burglary	Larceny-Theft	Motor Vehicle Theft
2015	149,421	5,179	1,112	3,721	346
2014	150,328	6,132	1,486	4,204	442
2013	150,224	5,887	1,465	4,132	290
2012*	151,153	6,292	1,622	4,293	377
2011	138,304	6,428	1,828	4,191	409
2010	138,018	5,730	1,598	3,790	342
2009	136,443	5,758	1,762	3,606	390
2008	134,769	5,377	1,535	3,490	352
2007	135,211	5,531	1,292	3,824	415
2006	136,867	5,230	1,247	3,639	344
2005	134,610	5,705	1,256	4,035	414

*Beginning in 2012 and thereafter, the City of Texarkana, AR was no longer individually included in the MSA and Little River County, AR was included in the MSA
Source: FBI Uniform Crime Report Program

Rate of Offenses Reported to the Police

Since the population of the TMSA varies by year, a more accurate method to assess crime trends is to assess the rates of criminal activity. A rate controls for population differences over time which standardizes the comparison values assessed. As illustrated in Table 3, the rate, per 1,000 residents, of violent crimes in 2015 was 4.68 which is the lowest rate of violent crimes over the 11-year period assessed. The violent crime rate means that out of every 1,000 residents in the TMSA, 4.68 were victims of a violent crime in 2015 (i.e., murder and nonnegligent manslaughter, rape, robbery, or aggravated assault).

The rate of murders and nonnegligent manslaughters is very low in the TMSA; ranging from a low of 0.03 in 2010 and 2014 to a high of 0.11 in 2007 and 2009. Far less than one resident per

1,000 residents in the TMSA was a victim of murder or nonnegligent manslaughter in any year during the 11 years assessed.

The rate of rapes have ranged from a low of 0.34 in 2012 to a high of 0.54 in 2009. Similar to murder and nonnegligent manslaughter, fewer than one resident per 1,000 residents in the TMSA was a victim of rape in any year during the 11 years assessed in this report.

The rate of robberies was at its lowest point in 2015 with a robbery rate of 0.72 per 1,000 residents. The rate of robberies has ranged from a low of 0.72 in 2015 to a high of 1.66 per 1,000 residents in 2009. Similarly, the rate of aggravated assaults in 2015 was at its lowest point over the 11 years assessed with a rate 3.40 aggravated assaults per 1,000 residents. The highest rate of aggravated assaults occurred in 2008 with 7.12 aggravated assaults per 1,000 residents.

Table 3: Uniform Crime Reports, by Violent Offense by Year,
for Texarkana Metropolitan Statistical Area – Rate per 1,000 Population

Year	Population	Violent Crime Total	Murder and Nonnegligent Manslaughter	Rape	Robbery	Aggravated Assault
2015	149,421	4.68	0.05	0.51	0.72	3.40
2014	150,328	5.33	0.03	0.48	0.80	4.02
2013	150,224	5.58	0.04	0.52	0.80	4.23
2012*	151,153	6.87	0.05	0.34	0.89	5.59
2011	138,304	6.60	0.07	0.48	0.87	5.18
2010	138,018	7.39	0.03	0.43	1.17	5.76
2009	136,443	7.54	0.11	0.54	1.66	5.23
2008	134,769	8.73	0.04	0.37	1.21	7.12
2007	135,211	8.54	0.11	0.50	1.38	6.55
2006	136,867	8.61	0.10	0.49	1.22	6.80
2005	134,610	8.48	0.06	0.39	0.92	7.10

*Beginning in 2012 and thereafter, the City of Texarkana, AR was no longer individually included in the MSA and Little River County, AR was included in the MSA
Source: FBI Uniform Crime Report Program

As illustrated in Table 4, the rate, per 1,000 residents, of property crimes in 2015 was 34.66 which is the lowest rate of property crimes over the 11-year period assessed. The property crime rate means that out of every 1,000 residents in the TMSA, 34.66 were victims of a property crime (i.e., burglary, larceny-theft, or motor vehicle theft).

The rate of burglaries was at its lowest point in 2015 in the 11 years assessed with a burglary rate of 7.44 per 1,000 residents. The rate of burglaries has ranged from a low of 7.44 in 2015 to a high of 13.22 per 1,000 residents in 2011. In 2015, 7.44 residents per 1,000 residents in the TMSA were a victim of burglary.

Similar to burglary, the rate of larceny-thefts was at its lowest point in 2015 with a larceny-theft rate of 24.90 per 1,000 residents. The highest rate of larceny-thefts occurred in 2011 with a rate of 30.30 per 1,000 residents.

The rate of motor vehicle thefts has ranged from a low of 1.93 in 2013 to a high of 3.08 in 2005. The rate of motor vehicle thefts was 2.32 in 2015 with 2.32 residents per 1,000 being victims of motor vehicle theft in 2015.

Table 4: Uniform Crime Reports, by Property Offense by Year,
for Texarkana Metropolitan Statistical Area – Rate per 1,000 Population

Year	Population	Property Crime Total	Burglary	Larceny-Theft	Motor Vehicle Theft
2015	149,421	34.66	7.44	24.90	2.32
2014	150,328	40.79	9.89	27.97	2.94
2013	150,224	39.19	9.75	27.51	1.93
2012*	151,153	41.63	10.73	28.40	2.49
2011	138,304	46.48	13.22	30.30	2.96
2010	138,018	41.52	11.58	27.46	2.48
2009	136,443	42.20	12.91	26.43	2.86
2008	134,769	39.90	11.39	25.90	2.61
2007	135,211	40.91	9.56	28.28	3.07
2006	136,867	38.21	9.11	26.59	2.51
2005	134,610	42.38	9.33	29.98	3.08

*Beginning in 2012 and thereafter, the City of Texarkana, AR was no longer individually included in the MSA and Little River County, AR was included in the MSA
Source: FBI Uniform Crime Report Program

Changes in the Rate of Offenses Reported to the Police over Time

Since the rate of criminal activity is more accurate than assessing numbers/frequencies only, this section will assess increases and decreases in the rate of the reported UCR crime categories assessed over a 1 year, 3 year, 5 year, and 10 year period. As illustrated in Table 5, the rate of total violent crimes has decreased over all time frames assessed. For example, the rate of total violent crime in the Texarkana Metropolitan Statistical Area has decreased 31.8% over the past three years while the violent crime rate has decreased 44.7% over the past ten years.

The rate per 1,000 residents of murder and nonnegligent manslaughter has increased 61.0% over the past year, increased 1.2% over the past three years, increased 84.7% over the past five years, and decreased 9.9% over the past decade. The substantial variability in the rate change of murder and nonnegligent homicide over time is due primarily to the small number of murders and nonnegligent homicides in the TMSA. For example, in 2014, there were 5 murders and nonnegligent homicides in the TMSA while in 2015 there were 8. Although this is an increase of 3 murders and nonnegligent homicides from 2014 to 2015, the limited total number of offenses leads to a substantial rate increase (i.e., 61%) over the one year period.

The rate of rape per 1,000 residents has increased 6.2% over the past year, increased 50.7% over the past three years, increased 19.0% over the past five years, and increased 29.2% over the past decade. As previously discussed, the definition of rape was changed by the FBI UCR Program and took effect on January 1, 2013. With this expanded definition, the FBI UCR

Program has reported an expected increase in rape since 2013 in comparison to earlier years. This is what has occurred in the TMSA with 51 reported rapes in 2012, the year before the rape definition change, to 78, 72, and 76 rapes in subsequent years. This is also illustrated in the percentage rate change illustrated in Table 5. The smallest percentage rate change increase occurred over the past year (i.e., 6.2%) when the rape definitions were the same. As comparisons are made over 3, 5, and 10 year periods when there were different definitions over this time frame, a much higher percentage rate change for rape is illustrated in Table 5. As mentioned, this is expected by the FBI UCR Program due to the broadened definition of rape.

As illustrated in Table 5, the rate of robbery has decreased over all time frames assessed. For example, the rate of robbery in the Texarkana Metropolitan Statistical Area has decreased 9.5% over the past year while the robbery rate has decreased 38.4% over the past five years. Similarly, the rate of aggravated assault has decreased over all time frames assessed. For example, the rate of aggravated assault in the Texarkana Metropolitan Statistical Area has decreased 39.2% over the past three years while the aggravated assault rate has decreased 52.1% over the past ten years.

Table 5: Uniform Crime Reports, by Violent Offense by Year,
for Texarkana Metropolitan Statistical Area – Rate Change per 1,000 Population over Time

Time Frame	Violent Crime Total	Murder and Nonnegligent Manslaughter	Rape	Robbery	Aggravated Assault
1 Year	-12.1%	61.0%	6.2%	-9.5%	-15.4%
3 Years	-31.8%	1.2%	50.7%	-19.1%	-39.2%
5 Years	-36.6%	84.7%	19.0%	-38.4%	-41.0%
10 Years	-44.7%	-9.9%	29.2%	-21.5%	-52.1%

As illustrated in Table 6, the rate of total property crimes has decreased over all time frames assessed. The rate of total property crime in the Texarkana Metropolitan Statistical Area has decreased from 15.0% to 18.2% depending on the time frame assessed. Furthermore, as illustrated in Table 6, the rate of all property crimes (i.e., burglary, larceny-theft, and motor vehicle theft) in the TMSA has decreased over all time frames assessed. The rate of burglary in the TMSA has decreased from 20.2% to 35.7% depending on the time frame assessed.

Similarly, the rate of larceny-theft has decreased over all time frames assessed. For example, the rate of larceny-theft in the Texarkana Metropolitan Statistical Area has decreased 12.3% over the past three years while the larceny-theft rate has decreased 16.9% over the past ten years. Finally, the rate of motor vehicle theft has decreased over all time frames assessed as well. For example, the rate of motor vehicle theft in the Texarkana Metropolitan Statistical Area has decreased 21.2% over the past year while the motor vehicle theft rate has decreased 6.6% over the past five years.

**Table 6: Uniform Crime Reports, by Property Offense by Year,
for Texarkana Metropolitan Statistical Area – Rate Change per 1,000 Population over Time**

Time Frame	Property Crime Total	Burglary	Larceny-Theft	Motor Vehicle Theft
1 Year	-15.0%	-24.7%	-11.0%	-21.2%
3 Years	-16.7%	-30.6%	-12.3%	-7.2%
5 Years	-16.5%	-35.7%	-9.3%	-6.6%
10 Years	-18.2%	-20.2%	-16.9%	-24.7%

Section II: Impact of Population on Crime Data in Texarkana, TX

This section of the report will discuss the transient population within Texarkana, TX and the impact the transient population has on crime data.

<u>Transient Populations</u>

The United States Census is well known for measuring the number of residents in a particular city. Residential population is not necessarily an accurate reflection of the total number of people who are present within the city limits at any given time due to the unique nature of each city. Some cities serve as the commercial, educational, medical, and industrial centers for a given area so these cities have much higher actual populations, depending on the time of day, than are reflected in the United States Census. This is true for the City of Texarkana, TX. People come into Texarkana, TX for work, to shop at its retail establishments, to access medical services, and to take classes at one of the institutions of higher education, among other reasons. When a city is the vibrant center of services and activities for a geographic region, some city services, especially police services, must be provided to all individuals, not just those who are actual residents. This can skew data that compare crime numbers to population data due to the inaccuracy of residential population data for areas with significant population changes due to the reasons stated above and as reflected in Texarkana, TX.

The United States Census attempts to address this issue by developing a commuter adjusted daytime population for cities. The Census does not provide commuter adjusted daytime populations for metropolitan statistical areas so this section will concentrate on U.S. Census data available for Texarkana, TX. The commuter adjusted daytime population includes the number of people who are present in a city during normal business hours and is calculated using resident and workplace population estimates. The commuter adjusted daytime population is not a perfect, comprehensive measure of the total number of people who are present within the city limits at any given time because it only includes those who are present to work and excludes those who are present to shop, get medical attention, advance their education, or are in the City of Texarkana, TX for another reason beyond employment. However, an assessment of the commuting population demonstrates the significant difference between the residential population and the commuter adjusted daytime population in Texarkana, TX. The data are calculated by the U.S Census Bureau through its annual American Community Survey. The most current commuter-adjusted daytime population from the U.S. Census Bureau is based on the 2006-2010 American Community Survey. Below are some important numbers that reflect the daily commuting population into Texarkana, TX.

• **<u>35, 949</u>** - *Total Resident Population of Texarkana, TX* as illustrated in the American Community Survey.

• **51,211** – *Estimated Daytime Population of Texarkana, TX* based on the commuter adjusted daytime population. According to the U.S. Census Bureau, this estimate is determined by adjusting the total resident population by adding the incommuters and subtracting the outcommuters from the total Texarkana, TX resident population. As previously mentioned, it does not adjust for people entering or leaving Texarkana, TX for purposes other than commuting to work so it is reasonable to assume that this value is an underestimation of the true daytime population in Texarkana, TX because it excludes consumers of the commercial, educational, and medical services available in the city.

• **15,262** – *Daytime Population Change due to Commuting into Texarkana, TX* reflects the net increase in the population of Texarkana, TX due to work-related commuting. It is calculated by subtracting the total resident population of 35,949 from the estimated daytime population of 51,211.

• **42.5%** – *Percent Daytime Population Change due to Commuting into Texarkana, TX* is the percentage increase in the population of Texarkana, TX as a result of work-related commuting. According to the U.S. Census Bureau, it is calculated by dividing the numeric change due to people commuting into Texarkana, TX (i.e., 15,262) by the total resident population of Texarkana, TX (i.e., 35,949), and multiplying the result by 100.

• **2.01**- *Employment-Residence Ratio* is a measure of the total number of workers <u>working</u> in Texarkana, TX relative to the total number of workers <u>living</u> in Texarkana, TX. According to the U.S. Census, employment-residence ratios greater than 1.00 occur when there are more workers working in the jurisdiction than living there. Therefore, Texarkana, TX can be considered a net importer of labor with an employment-residence ratio of 2.01. The employment-residence ratio of 2.01 means there are 100.01% more workers <u>working</u> in Texarkana, TX than <u>living</u> in the city. Of the 380 Texas cities assessed by the American Community Survey for their commuter adjusted daytime populations, Texarkana, TX has the 42nd highest employment-residence ratio; within the top highest 11% in Texas.

Impact of Transient Populations on Crime Data

The above assessment illustrates that the City of Texarkana, TX has a significantly larger number of people in the city than is illustrated by the U.S. Census Bureau resident population figures. This fact has a substantial impact on the crime data presented in the prior section in two ways. First, it is expected that Texarkana, TX will have more criminal activity than cities with comparable resident populations but without the high employment-residence ratio discussed above. For example, if the City of Texarkana, TX utilizes a predetermined set of comparative cities with similar resident populations to measure crime and other factors important to the city, the crime data for Texarkana, TX will be higher in comparison unless the comparative cities have a high employment-residence ratio also. A higher number of crimes does not mean that the City of

Texarkana, TX has a resident population that is more criminogenic; it means that the comparative points are dissimilar because the Texarkana, TX Police Department is providing police services to a much larger number of people than cities of similar residential populations.

Second, if crime rates similar to those calculated in the previous section of this report are calculated with the resident population as the denominator, the crime rate will be higher than if the commuter adjusted daytime population or other population indicator of the actual number of people in Texarkana, TX is utilized. Resident population figures are easier to obtain than other population figures so most crimes rates use it as the denominator. This leads to the appearance that Texarkana, TX has a much higher crime rate than it actually does because of its high employment-resident ratios and because it is the commercial, educational, medical, and industrial center for the region. As an illustrative example, of the 620 municipal police agencies which reported crime data to the Uniform Crime Reports in 2015, the City of South Padre Island, TX is among the top three cities in total crime, violent crime, and property crime. This is largely due to fact that the denominator is the resident population of 2,904 and does not include the vast number of tourists who visit the city annually.

Section III: Inaccurate Portrayal of Crime in Texarkana, TX by Websites

This section of the report will discuss the inaccurate portrayal of crime in Texarkana, TX on the Road Snacks and the Neighborhood Scout websites.

Road Snacks Website Assessment

Websites such as Road Snacks use the number of murders and nonnegligent manslaughters, rapes, robberies, aggravated assaults, burglaries, larceny-thefts, and motor vehicle thefts discussed in the first section of this report with the resident population rate discussed in the second section of this report as a measure of the dangerousness of a city in comparison to other cities. When the Road Snacks website was assessed in August 2016 for this report, it utilized the number of the above listed criminal activities reported in the Uniform Crime Report from 2011-2013. Road Snacks limits its comparative assessment to cities with a population over 10,000 residents. At the time of the website's assessment, 211 cities in Texas were ranked because they had more than 10,000 residents. Road Snacks ranks Texarkana, TX as the 2nd most dangerous city in Texas.

The formula utilized by the Road Snacks website involves summing the 4 UCR violent crimes to obtain the total number of violent crimes and separately summing the 3 UCR property crimes for 2011, 2012, and 2013. The violent crime index is used to create a weighted violent crime index. The formula weights the number of violent crimes in 2013 by 60%, 2012 by 30%, and 2011 by 10% because according to the website, "we made 2013 factor more heavily than 2012, since more recent crimes are a bigger determining factor in how dangerous a place is." *This statement lacks empirical support and is not supported in the criminal justice literature or valid research methodology. Furthermore, the weighting factors of 60, 30, and 10 are arbitrarily chosen without an empirical basis.* Based on this formula, the City of Texarkana, TX had the 7th highest violent crime rate among the 211 cities assessed. The same process is followed for the property crime index and Texarkana, TX had the 6th highest property crime rate among the 211 cities assessed. The two ranked values (i.e., 7 and 6) are averaged (i.e., Texarkana, TX ranked, on average, 6.5) and then the averaged ranked values among the 211 cities are ranked from lowest to highest, with lowest being more dangerous, to obtain the website's most dangerous cities list. The combined average ranked Texarkana, TX as the second most dangerous city in Texas behind Weslaco.

There are major methodological problems with the assessment conducted by Road Snacks. First, on its website, the FBI Uniform Crime Reporting Program makes a clear statement against the ranking of cities based on UCR data alone which is exactly what Road Snacks does. Specifically, the FBI UCR Program website states "UCR data are sometimes used to compile rankings of individual jurisdictions. These incomplete analyses have often created misleading perceptions which adversely affect geographic entities and their residents. For this reason, the FBI has a long-standing policy against ranking participating law enforcement agencies on the basis of

crime data alone. Despite repeated warnings against these practices, some data users continue to challenge and misunderstand this position." The reasons behind this statement will be discussed in detail in a later section of this report.

Second, the denominator used to determine the violent and property crime rate uses the U.S. Census Bureau resident population figure from 2013 of 37,467 residents in Texarkana, TX. This issue was thoroughly discussed in the previous section because the resident population figure does not account for the high employment-resident ratio in Texarkana, TX as well as the fact that it is the commercial, educational, medical, and industrial center for the region. Using the resident population figure as the denominator, significantly overestimates the crime rate in Texarkana, TX. This leads to the appearance that Texarkana, TX has a much higher crime rate than it actually does.

Third, as previously mentioned, the formula weights used by Road Snacks lack empirical support and are not supported by the criminal justice literature or valid research methodology. The assignment of a weight of 60% for the 2013 data, 30% for the 2012 data, and 10% for the 2011 data because "more recent crimes are a bigger determining factor in how dangerous a place is" is arbitrary. If weights are utilized, the criminal justice literature would support a higher weight assigned to violent crimes in comparison to property crimes as a measure of dangerousness. The Road Snacks formula includes violent and property crime as equal measures of dangerousness which is not consistent with prior empirical studies.

Neighborhood Scout Website Assessment

Similar to Road Snacks, websites such as Neighborhood Scout use the number of murders and nonnegligent manslaughters, rapes, robberies, aggravated assaults, burglaries, larceny-thefts, and motor vehicle thefts discussed in the first section of this report with the resident population rate discussed in the second section of this report as a measure of the dangerousness of a city in comparison to crime within cities in Texas and the United States overall. When the Neighborhood Scout website was assessed in August 2016 for this report, it utilized the number of the above listed criminal activities reported in the 2014 Uniform Crime Report.

Based on the assessment of 2014 data from the FBI Uniform Crime Report Program, the Neighborhood Scout website collects the total number of violent crimes (i.e., murders and nonnegligent manslaughters, rapes, robberies, aggravated assaults) and property crimes (i.e., burglaries, larceny-thefts, and motor vehicle thefts) and adds these two values to get a total number of UCR crimes in Texarkana, TX. In addition, the website provides the annual rate of violent crime, property crime, and total crime per 1,000 residents. Based on their assessment, the Neighborhood Scout website states that Texarkana, TX is safer than only 2% of the cities in the United States.

The major methodological problems previously discussed regarding the assessment conducted by Road Snacks also applies to the assessment conducted by the Neighborhood Scout website. First,

on its website, the FBI Uniform Crime Reporting Program makes a clear statement against the ranking of cities based on UCR data alone which is exactly what the Neighborhood Scout website does. Specifically, the FBI UCR Program website states "UCR data are sometimes used to compile rankings of individual jurisdictions. These incomplete analyses have often created misleading perceptions which adversely affect geographic entities and their residents. For this reason, the FBI has a long-standing policy against ranking participating law enforcement agencies on the basis of crime data alone. Despite repeated warnings against these practices, some data users continue to challenge and misunderstand this position." The reasons behind this statement will be discussed in detail in a later section of this report.

Second, the denominator used to determine the violent and property crime rate uses the U.S. Census Bureau resident population figure from 2014 of 37,225 residents in Texarkana, TX. This issue was thoroughly discussed in the previous section because the resident population figure does not account for the high employment-resident ratio in Texarkana, TX as well as the fact that it is the commercial, educational, medical, and industrial center for the region. Using the resident population figure as the denominator, significantly overestimates the crime rate in Texarkana, TX. This leads to the appearance that Texarkana, TX has a much higher crime rate than it actually does.

The Neighborhood Scout website does recognize the problem this occurs for cities with a large number of tourists stating "Crime rates can appear higher than you think if you have a lot of tourists (non-permanent residents) in your community, because the number of crimes (violent, property, or both) is divided by the permanent population, creating a crime rate per 1,000 residents. If you have a lot of visitors, these people can increase the number of crimes, but do not count in establishing the rate because they don't live there, thus increasing the crime rate score per 1,000 residents. Therefore, it is always valuable to look at both the crime rate, and the actual reported or estimated number of crime incidences in the neighborhood or community." However, if one assesses the last sentence in the quotation, the solution proposed in the sentence does not address or fix the problem. The sentence just states to assess the reported number of crimes which is exactly what the Uniform Crime Reports provides along with the ability to calculate the crime rate since resident population is provided by the UCR. The Neighborhood Scout website quotation recognizes the denominator issue previously discussed but offers no solutions to the issue such as the commuter adjusted daytime population previously discussed.

The Neighborhood Scout website goes beyond the data presented above and the data discussed regarding the Road Snacks website. The Neighborhood Scout website also makes estimates of the UCR crime rates in specific neighborhoods for each city assessed, including Texarkana, TX. So, how does Neighborhood Scout develop estimates of neighborhood specific crime rates since crime location data is not available from the FBI Uniform Crime Report Program? The specific formulas and algorithms utilized to estimate crimes for each neighborhood in the United States, including those in Texarkana, TX are not provided to the public by the Neighborhood Scout website because the formulas are proprietary. However, the research team has dissected the steps in the process

utilized based on a comprehensive review of the Neighborhood Scout website. The steps will be applied to Texarkana, TX specifically but apply to any city and neighborhood in the United States.

First, the Neighborhood Scout website utilizes U.S. Census Bureau data at the census tract level within Texarkana, TX. Even though Neighborhood Scout calls these entities neighborhoods, they are actually census tracts developed by the U.S. Census Bureau for data collection and assessment purposes. The neighborhoods/census tracts assessed by the Neighborhood Scout website in Texarkana, TX are entitled:

- City Center
- Eylau
- North State Line Avenue/Texas Boulevard
- North Robison Road/New Boston Road
- Red Springs/Hoot
- Summerhill Road/College Drive
- Texas A&M University-Texarkana/Moores Lane
- West 7th Street/South Robison Road

According to the Neighborhood Scout website, if the census tract does not have a locally recognized neighborhood name (e.g., City Center), then the neighborhood name is based on the largest street intersection in the census tract.

Second, the Neighborhood Scout website utilizes certain U.S. Census Bureau variables at the census tract level to estimate the amount of UCR crimes in each neighborhood/census tract and then compares crimes across neighborhoods/census tracts. Therefore, the overall crime rate, violent crime rate, property crime rate, and crimes per square mile, as a measure of crime density, are presented for each neighborhood/census tract so website users can see on the maps displayed on the website if a particular neighborhood has a high, low, or moderate level of criminal activity. Website users can compare neighborhoods/census tracts across the City of Texarkana, TX or even neighborhoods across the country.

It is important to note that the U.S. Census Bureau does not collect data on criminal activity so these data are not available at the census tract level. Instead, the Neighborhood Scout website utilizes risk factors for criminal activity that are collected by the U.S. Census at the census tract level. The specific risk factors assessed by the Neighborhood Scout website are unknown to the research team since the formulas utilized by Neighborhood Scout are proprietary. However, if the website utilizes known risk factors for criminal activity in the criminology literature, the formulas may include such data as percentage of female-headed households in the census tract, employment status and education level of the residents in the census tract, percentage of youth and young adults in the census tract, and median income in the census tract, among other risk factors for criminality which are available from the U.S. Census. All of these data points are known risk factors for

criminal activity that have extensive empirical support but should not be considered a comprehensive list of the data points utilized by the Neighborhood Scout website since the complete list of variables is unknown.

Neighborhood Scout claims that the neighborhood based crime models are validated. In other words, they are claiming that the estimate of the number of crimes within each neighborhood are accurate. To be specific, the website is claiming that they are accurately distributing the 1 murder, 41 rapes, 64 robberies, 219 aggravated assaults, 512 burglaries, 1,699 thefts, and 182 motor vehicle thefts throughout the neighborhoods/census tracts in Texarkana, TX in 2014. *The fact is this claim cannot be supported by sound research methodology*. Validation is always completed to a known factor. In the case of these offenses, the known factor is the address where the crime actually occurred. Only the Texarkana, TX Police Department knows the address where each of the above crimes occurred. *Unless the Neighborhood Scout website has the actual calls for service data from Texarkana, TX PD to know exactly where each of the UCR crimes occurred, which they do not, they cannot validate their formulas regardless of their claims of validation*.

Section IV: Limitations of FBI Uniform Crime Reports Data

The FBI Uniform Crime Reports is the only national crime data that is available for each participating city. For example, the UCR is the only data source that provides the public with the number of burglaries in Baton Rouge, LA, Bismarck, ND, Laredo, TX, and cities throughout the country. The other major national crime data source, National Crime Victimization Survey, is based on a national probability sample so is not available for individual cities. However, the FBI Uniform Crime Reports is not without limitations.

For this report, the biggest limitation is the UCR data on offenses known (i.e., reported) to the police discussed in this report is limited to 7 crimes (murder and nonnegligent manslaughter, rape, robbery, aggravated assault, burglary, larceny-theft, and motor vehicle theft). There are well over 100 separate crimes in Texas so using UCR data as an indication of criminal activity within a city is limited since the vast majority of crimes are not included in the UCR data. Crimes such as kidnapping, human trafficking, endangering a child, family violence (unless aggravated assault), drug trafficking, vandalism, fraud, and computer crimes, to name a few are not included in the UCR data as crimes known/reported to the police. Therefore, most crimes are not included in the UCR data. Utilizing UCR data to determine the level of criminality in a city provides only a limited, myopic view of crime within a city. How to present a more complete view of crime in Texarkana, TX is presented in a later section of this report.

Section V: Cross-Jurisdictional FBI Uniform Crime Reports Comparisons

As previously mentioned, the FBI Uniform Crime Reporting Program makes a clear statement against the ranking of cities based on UCR data alone which is exactly what the websites reviewed in this report are doing. But, they are not alone, as many entities, including media outlets, do the same thing. Specifically, the FBI UCR Program states "UCR data are sometimes used to compile rankings of individual jurisdictions. These incomplete analyses have often created misleading perceptions which adversely affect geographic entities and their residents. For this reason, the FBI has a long-standing policy against ranking participating law enforcement agencies on the basis of crime data alone. Despite repeated warnings against these practices, some data users continue to challenge and misunderstand this position." Basically, the FBI UCR Program does not want the data to be used to compare one city to another or to rank cities against one another.

Why does the FBI make this statement and not want the data to be used for comparative purposes besides the denominator issue regarding resident population which has already been thoroughly discussed in this report? There are several factors which impact the amount of crime in an individual city and an awareness of these factors is necessary in order to draw accurate conclusions about criminal activity. Comparisons or rankings of individual cities ignore the uniqueness of each jurisdiction and the numerous factors that impact crime.

More specifically, the FBI UCR Program states "Each year when *Crime in the United States* is published, many entities—news media, tourism agencies, and other groups with an interest in crime in our Nation—use reported figures to compile rankings of cities and counties. These rankings, however, are merely a quick choice made by the data user; they provide no insight into the many variables that mold the crime in a particular town, city, county, state, region, or other jurisdiction. Consequently, these rankings lead to simplistic and/or incomplete analyses that often create misleading perceptions adversely affecting cities and counties, along with their residents."

Several documents available on the FBI Uniform Crime Report website were reviewed and the following factors which impact the amount of crime in a particular jurisdiction were identified:

- Citizens' attitudes toward crime;
- Community and family values;
- Crime reporting practices of the citizenry;
- Cultural conditions, such as educational, recreational, and religious characteristics;
- Economic and cultural makeup of cities and counties;
- Economic conditions, including median income, poverty level and job availability;
- Economic status of the population and area unemployment rates;
- Family conditions with respect to divorce and family cohesiveness;

• Jurisdiction's industrial/economic base;
• Law enforcement employment standards and relative strength;
• Modes of transportation and highway systems;
• Policies of the prosecuting officials and the courts;
• Population density and degree of urbanization;
• Population stability including the number of commuters, transients, and seasonal population variations;
• Proximity to correctional facilities;
• Proximity to military installations;
• Public attitudes toward law enforcement and crime;
• The administrative and investigative efficiency of the local law enforcement agency;
• The aggressiveness of a jurisdiction's law enforcement agency;
• The degree of adherence to crime reporting standards;
• The number of police officers;
• The racial and ethnic makeup of the community, its composition by age and gender, educational levels, and prevalent family structures;
• The size, density and demographic composition of a jurisdictions' population; and,
• Variations in composition of the populations, particularly youth concentration.

Section VI: Reporting Crime in Texarkana, TX – Future Directions

As illustrated in previous sections of this report, there are websites using methodologically unsound practices to demonstrate that the Texarkana Metropolitan Statistical Area, in particular the Texarkana, TX PD have one of the highest crime rates in Texas and perhaps even the United States. Although offensive and inaccurate, Texarkana, TX residents cannot make these websites change their practices or delete their content. Instead, the Texarkana, TX community needs to develop a marketing plan to counter the content of these websites. Posting this report on Texarkana, TX based websites is one marketing effort to counter the content of these websites. This section of the report will discuss two additional strategies that can be pursued to facilitate a positive business recruitment and retention environment and illustrate the safety of Texarkana, TX; 1) annual crime report and 2) citizen survey.

Annual Crime Report

Each law enforcement agency in the Texarkana Metropolitan Statistical Area can develop an annual crime report than can be prominently posted on the website of the law enforcement agency as well as other Texarkana, TX based websites, provided to constituent groups throughout the community, and submitted to businesses in the area and businesses being recruited to the area. The data that can be included in these annual reports are discussed below using data from Texarkana, TX Police Department as an example.

UCR Data

Uniform Crime Report data, as presented in the first section of this report, can be updated annually and the 1, 3, 5, and 10 year percentage changes presented in Tables 5 and 6 can be included in an annual crime report.

In addition to collecting data on offenses known/reported to the police as presented in the first section of this report, the FBI Uniform Crime Report Program also collects arrest data on 28 offenses including:

- Murder and nonnegligent manslaughter;
- Rape;
- Robbery;
- Aggravated assault;
- Burglary;
- Larceny-theft;
- Motor vehicle theft;
- Arson;
- Other assaults;
- Forgery and counterfeiting;
- Fraud;

- Embezzlement;
- Stolen property; buying, receiving, possessing;
- Vandalism;
- Weapons; carrying and possessing;
- Prostitution and commercialized vice;
- Sex offenses (except rape and prostitution);
- Drug abuse violations;
- Gambling;
- Offenses against the family and children;
- Driving under the influence;
- Liquor laws;
- Drunkenness;
- Disorderly conduct;
- Vagrancy;
- All other offenses (except traffic);
- Suspicion; and,
- Curfew and loitering law violations.

Table 7 illustrates the number of arrests for some of the FBI Uniform Crime Reports offenses for Texarkana, TX Police Department from 2011-2015. The annual arrest data can be used in the annual report to demonstrate arrest trends over time. In addition, percentage changes in the number of arrests, by offense, in the Texarkana, TX Police Department over 1, 3, and 5 years can be provided in the annual report as well.

Table 7: Number of Texarkana, TX PD Arrests, by Offense and Year

Offense	2011	2012	2013	2014	2015
Other Assaults	1,096	1,094	706	769	688
Forgery and Counterfeiting	116	90	100	89	57
Fraud	240	203	260	229	185
Embezzlement	45	49	29	32	38
Stolen Property; Buying, Receiving, Possessing	11	9	17	7	13
Vandalism	571	706	519	440	387
Weapons; Carrying and Possessing	35	28	28	34	17
Prostitution and Commercialized Vice	8	0	15	0	1
Sex Offenses (except rape and prostitution)	8	13	17	13	10
Drug Abuse Violations	284	448	281	288	205
Offenses Against the Family and Children	11	14	14	9	15
Driving Under the Influence	102	97	86	85	76
Liquor Laws	29	11	0	1	0
Drunkenness	187	252	148	181	201
Disorderly Conduct	126	112	24	22	19
Vagrancy	18	12	5	2	4
Total	**2,887**	**3,138**	**2,249**	**2,201**	**1,916**

Source: Texarkana, TX Police Department

Calls for Service

The annual report can also include the total calls for service received by the Texarkana, TX Police Department. If desired, the calls for service can be disaggregated by specific call type (e.g., disturbance, traffic accident, theft, and suspicious person, among others). In addition, percentage changes in the Texarkana, TX Police Department calls for service over 1, 3, and 5 years can be provided in the annual report as well. The total number of calls for service received by the Texarkana, TX Police Department are presented below.

  2011 – 42,489 calls for service
  2012 – 41,981 calls for service
  2013 – 39,118 calls for service
  2014 – 41,021 calls for service
  2015 – 37,506 calls for service

It is important to note that not all calls for service involve criminal activity and calls for service also include officer self-initiated activity such as traffic stops. Typically, only 20-30% of calls for service involve criminal activity. For example, suspicious person calls, alarm calls, 911 hang-ups, traffic-related complaints, public disorder calls, disturbances, missing persons, traffic accidents, and unattended deaths are examples of common calls for service that do not necessarily involve

criminal activity. Therefore, calls for service can be assessed as more of a reflection of police workload than criminal activity in a community.

Offense Reports

The annual report can also include the annual number of offense reports generated by the Texarkana, TX Police Department. If desired, the offenses reports can be disaggregated by specific offense type (e.g., assault, theft, and criminal mischief, among others). In addition, percentage changes in the Texarkana, TX Police Department number of offense reports over 1, 3, and 5 years can be provided in the annual report as well. The number of offense reports, by type of offense, may be the most accurate measure of crime in Texarkana, TX since a citizen or officer has reported a criminal activity and an offense report has been generated. However, some agencies use offense reports to document incidents that do not involve criminal activity (e.g., a dispute between neighbors) instead of an Incident Report or Information Report which some agencies use to document non-criminal incidents. Based on this, it is important to know the common practices regarding the generation of offense reports for each law enforcement agency that will be developing an annual report so the appropriate caveat can be included for the reader regarding what is included within the offense report numbers provided. The total number of offense reports generated by the Texarkana, TX Police Department are presented below.

2011 – 7,584 offense reports
2012 – 7,415 offense reports
2013 – 7,425 offense reports
2014 – 8,278 offense reports
2015 – 6,632 offense reports

Arrests

The annual report can also include the annual number of arrests made by the Texarkana, TX Police Department. If desired, the arrests can be disaggregated by specific offense (e.g., driving while intoxicated, unlawful carrying a weapon, burglary, and disorderly conduct, among others).   In addition, percentage changes in the Texarkana, TX Police Department number of arrests over 1, 3, and 5 years can be provided in the annual report as well. The total number of arrests made by the Texarkana, TX Police Department are presented below.

2011 – 4,118 arrests
2012 – 4,232 arrests
2013 – 3,198 arrests
2014 – 3,582 arrests
2015 – 3,435 arrests

Clearance Rate

The annual report can also include the clearance rate for the Texarkana, TX Police Department. Most commonly, the clearance rate includes offenses that have been cleared by arrest although there are a few UCR specified circumstances in which the offense is cleared even though an arrest did not occur (e.g., death of the suspect). The clearance rate in 2015 for the Texarkana, TX Police Department for the Uniform Crime Report violent offenses is presented in Table 8. As illustrated, the clearance rate for UCR violent crimes by the Texarkana, TX Police Department is substantially higher than the national average for each offense category. For example, the Texarkana, TX Police Department cleared 60% of its reported rapes in 2015 while the national average of similar sized cities was 33.8%. Similarly, 87.1% of the aggravated assaults reported to Texarkana, TX PD in 2015 were cleared by arrest while the national average was 56.9%.

Table 8: Clearance Rate for Violent Crimes for Texarkana, TX Police Department in 2015

	Murder and Nonnegligent Manslaughter	Rape	Robbery	Aggravated Assault
Number of Offenses Reported	3	20	51	210
Number of Clearances	3	12	28	183
Percent of Reported Offenses Cleared by Texarkana, TX PD	100.0%	60.0%	54.9%	87.1%
Percent of Reported Offenses Cleared Nationally*	64.4%	33.8%	33.2%	56.9%

*The data provided include the national clearance rate for cities between 25,000 and 49,999 population.
Source: Texas Department of Public Safety UCR Program; FBI UCR Program

The clearance rate in 2015 for the Texarkana, TX Police Department for the Uniform Crime Report property offenses is presented in Table 9. As illustrated, the clearance rate for UCR property crimes by the Texarkana, TX Police Department is substantially higher than the national average for each offense category. For example, the Texarkana, TX Police Department cleared 22.2% of its reported burglaries in 2015 while the national average of similar sized cities was 13.6%. Similarly, 42.5% of the motor vehicle thefts reported to Texarkana, TX PD in 2015 were cleared by arrest while the national average was 14.8%.

Table 9: Clearance Rate for Property Crimes for Texarkana, TX Police Department in 2015

	Burglary	Larceny-Theft	Motor Vehicle Theft
Number of Offenses Reported	320	1,464	120
Number of Clearances	71	595	51
Percent of Reported Offenses Cleared by Texarkana, TX PD	22.2%	40.6%	42.5%
Percent of Reported Offenses Cleared Nationally*	13.6%	27.0%	14.8%

*The data provided include the national clearance rate for cities between 25,000 and 49,999 population.
Source: Texas Department of Public Safety UCR Program; FBI UCR Program

Citizen Survey

The second strategy discussed in this section to facilitate a positive business recruitment and retention environment and illustrate the safety of Texarkana, TX is the distribution, collection, and analysis of a citizen survey. The survey can be done once every three years and measure the perceptions of citizens regarding problems within the community, satisfaction with the police, and fear of crime, as well as any other topics of interest within the City. The results of the survey can be prominently posted on the City's website, provided to constituent groups throughout the community, and submitted to businesses in the area and businesses being recruited to the area.

As an example, the survey could ask residents the following question to measure the extent of certain problems within the city:

> • Please indicate how much of a problem the below activities are in the City of Texarkana, TX.

A list of problems such as 1) business burglary, 2) car theft, 3) domestic/family violence, 4) gangs, 5) prostitution, 6) speeding vehicles, 7) vandalism, and 8) violent crime (e.g., assault and robbery), among other problems can be provided with the response categories of 1) No Problem, 2) Minor Problem, 3) Problem, and 4) Major Problem.

As another example, the survey could ask residents the following question to measure the level of fear of crime of residents:

> • Please respond to each question by indicating how safe you feel in the specified locations.

A list of locations such as 1) In the City of Texarkana, TX, 2) In your neighborhood during the day, 3) In your neighborhood at night, 4) In shopping centers/business areas/restaurants during the day, 5) In shopping centers/business areas/restaurants during the night, 6) Driving on roadways in

Texarkana, TX, along with other locations of interest to the city can be provided with the response categories of 1) Very Safe, 2) Somewhat Safe, 3) Somewhat Unsafe, and 4) Very Unsafe.