



ILLINOIS

TRAFFIC AND PEDESTRIAN
STOP STUDY

2020 ANNUAL REPORT
PEDESTRIAN STOP ANALYSIS

SUBMITTED BY
THE MOUNTAIN-WHISPER-LIGHT: STATISTICS & DATA SCIENCE



Illinois Traffic and Pedestrian Stop Study

2020 ANNUAL REPORT: PEDESTRIAN STOP ANALYSIS

Part I Executive Summary and Appendices

Prepared for the Illinois Department of Transportation

By

The Mountain-Whisper-Light: Statistics & Data Science



In Cooperation with SC-B Consulting, Inc.



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Executive Summary

I. Background

In October 2019, The Mountain-Whisper-Light, Inc. (aka the Mountain-Whisper-Light: Statistics & Data Science, and hereafter, “TMWL”) was awarded a contract to conduct a statistical study of the traffic and pedestrian stop data provided by law enforcement agencies to the Illinois Department of Transportation (IDOT), pursuant to the Illinois Vehicle Code, 625 ILCS 5/11-212 Traffic and Pedestrian Stop Statistical Study. TMWL is carrying out the project in cooperation with SC-B Consulting Inc., an Illinois firm. A report has already been issued on 2019 traffic and pedestrian stops in Illinois and is available online at <https://www.idot.illinois.gov/transportation-system/local-transportation-partners/law-enforcement/illinois-traffic-stop-study>.

According to the IDOT website, “On July 18, 2003, Senate Bill 30 was signed into law to establish a four-year statewide study of data from traffic stops to identify racial bias. The study began on January 1, 2004, and was originally scheduled to end December 31, 2007. However, the legislature extended the data collection several times, and also expanded the study to include data on pedestrian stops. Public Act 101-0024, which took effect on June 21, 2019, eliminated the study's scheduled end date of July 1, 2019, and extended the data collection.”

Under that provision of the Illinois Vehicle Code, the Agency is responsible for providing a standardized law enforcement data compilation form (see Appendix A below) and analyzing the data and submitting a report of the previous year's findings to the Governor, General Assembly, the Racial Profiling Prevention and Data Oversight Board, and each law enforcement agency no later than July 1 of each year. In May 2021, TMWL and SC-B, in cooperation with IDOT’s Bureau of Data Collection (BDC), have provided copies of statistical tables to 852 law enforcement agencies in the state of Illinois, based on data collection provided by the respective agencies on traffic and pedestrian stops. These 852 agencies reported at least one traffic or pedestrian stop.

We are pleased to submit this 2020 Annual Report for the Illinois Traffic and Pedestrian Stop Study.

II. Introduction

How is this report structured?

The report is presented in two parts. **Part I** is this Executive Summary, which includes appendices with detailed technical information on the statistical methodology and analysis. **Part II** includes extensive tables (one set of tables for each law enforcement agency that collected data for all stops conducted in 2020). The tables show stop rates for each racial group, along with other statistics that cover activity during the stops, such as citations or warnings, searches and contraband found.

To obtain the greatest benefit from this report, readers are encouraged to read the full Executive Pedestrian Traffic Table and a Guide to Using Pedestrian Tables that includes definitions of statistical terms used in this report and explanation of the data presented in each panel of the tables. We also include an Interpretation section with additional details on the numeric results presented in the tables and a plain-language description of how the analysis was implemented. Finally, the section on Selected Findings highlights some statewide results. The Appendices include technical material that describes the statistical methods and calculations in detail. The information is provided for readers who wish to have a deeper understanding of the methodology.

What is the source of the data?

As noted above, per Illinois law, officers from law enforcement agencies are required to fill in a report when they stop a driver or pedestrian. Separate templates are provided for traffic and pedestrian stops.

To follow the convention of previous reporting on the Illinois Traffic and Pedestrian Stop Study, we are submitting two separate reports, the Illinois Traffic Stop Study (ITSS) and the Illinois Pedestrian Stop Study (IPSS). The above-mentioned data collection templates (known as Traffic Stop or Pedestrian Stop Data Forms) are shown in Appendix A of the ITSS and IPSS. There is an instruction manual that accompanies the traffic stops data collection form — available online at <http://www.idot.illinois.gov/Assets/uploads/files/Transportation-System/Pamphlets-&-Brochures/Safety/2012TrafficStopDataSheetInstructions.pdf> .

How were the data analyzed?

The results of the data collection are that 849 agencies generated data on 1,561,514 traffic stops and 300 agencies generated data on 94,042 pedestrian stops in 2020. A total of 852 agencies provided data on either traffic stops or pedestrian stops, with 552 agencies providing traffic stop data only, 3 agencies providing pedestrian stop data only, and 297 agencies providing both traffic and pedestrian stop data. Only 66 traffic stops (0.004% of stops) and zero pedestrian stops were missing the race designation. Further statistical analysis was carried out to provide data that may

be helpful in determining if there is potential bias against minorities in initiating a stop or in the activities that occur during a stop.

As specified by Illinois statute for this study, the tables report on the stops and subsequent experience of individuals stopped. The stopped individuals are classified into one of six racial groups. The law enforcement officer filling in the data collection form must use their judgment to classify an individual into one of the following groups.

- Black or African American
- Hispanic or Latino
- Asian
- American Indian or Alaska Native
- Native Hawaiian or Other Pacific Islander
- White

The data collection forms are extensive. There are more than 60 data items listed for traffic stops and more than 20 data items listed for pedestrian stops. Some items are left blank unless there are further actions beyond a stop, such as a search.

Data collected by local agencies for pedestrian stops include:

- Information about the pedestrian (including race) and the officer
- The location of the stop
- Reason for the stop
- Outcome of the stop
- Pat down/frisk or search activity and findings of contraband.

III. Guide to Using Pedestrian Tables

While many readers of this report previously reviewed traffic and pedestrian stop tables for their respective jurisdictions, here are some brief explanations of the statistical data.

Table 1 is included as an example to show stop rates, percentages and ratios. A ratio compares either a rate or a percentage for a minority to the corresponding rate or percentage for Whites. The ratios are intended to make it easier to determine the possibility of racial profiling. The word “possibility” is very important, because racial profiling cannot be proved by the numeric results in this report. Some of the inherent uncertainties and limitations of the statistics are explained later.

The following section includes an example of pedestrian tables and offers a guide to the numbers in the tables, explained panel by panel. The table reproduced here (Table 1) refers to all pedestrian stops reported in 2020 for the state of Illinois. The counts, rates, percentages and ratios are for purposes of illustration only and are not tied to any individual agency.

Before using the tables: Following the tables there is an important section on interpretation of the rates, ratios, percentages and 95% confidence intervals. Reading that section is important to enable users of this report to make a proper assessment of what the numbers represent.

Rates, percentages and ratios: The terms “rate,” “percentage” and “ratio” are used throughout this report. A brief explanation of the terms is provided here.

A **rate** in this context is the number of individuals (such as the number of individuals stopped) divided by the population the individuals came from, also known in this report as the “benchmark,” a term that will be used repeatedly. For example, in Illinois in 2020 there were 21,046 stops of pedestrians whom the officer assigned to the category “Hispanic or Latino.” The estimated benchmark population of Hispanic or Latinos aged 12-80 in Illinois in 2020 was 1,698,243. (As discussed later, individuals aged 12-80 in Illinois are considered to have a non-negligible risk of being stopped.) Dividing the 21,046 by 1,698,243 yields the stop rate of 0.012. That is, there was an average of 0.012 stops per member of the Hispanic or Latino population age 12-80. The decimal value 0.012 does not mean that 1.2% of Hispanic or Latinos in the age range had a pedestrian stop. Some individuals may have been stopped more than once.

A **percentage** in this context has the usual meaning. For example, in Illinois in 2020 there were 12,483 stops of pedestrians whom the officer assigned to the category “White.” There were 3,946 of those stops with a pat down. The number of pat downs, 3,946, divided by the number of stops, 12,483, yields the decimal fraction 0.32. That fraction represented as a percentage is 32%. In Illinois in 2020, 32% of stops of pedestrians assessed as being White resulted in a pat down.

The **ratio** used in this report is either the ratio of a minority rate to a White rate or the ratio of a minority percentage to a White percentage. If the ratio is 2.0, for example, it means that the minority rate (or percentage) is twice the White rate (or percentage).

Table 1 shows the Illinois statewide results for illustration of pedestrian stop reporting. Following is a guide to each panel of the table.

Panel 1 (shaded rows) presents the pedestrian stops, benchmark, and stop rate by racial group, and stop rate ratio for each minority group compared to White pedestrians. Ninety-five percent confidence intervals are shown (in parentheses) for rates and rate ratios. The 95% confidence interval is explained in a short section with that heading, below.

Panel 2 shows pat downs, searches beyond pat down, and outcomes of these searches for each racial group. The number, percentage (in parentheses), and 95% confidence interval [in brackets, like this] are shown for each outcome. The contraband-found percentage is calculated based on all searches beyond pat down. The ratio and 95% confidence interval (in parentheses) are shown, comparing each minority group to White pedestrians on percentage with contraband found among all searches beyond pat down.

Panel 3 shows outcomes of the pedestrian stops including warning/citation (one combined category) and custodial arrest for each racial group. The number, percentage (in parentheses), and 95% confidence interval [in brackets] are shown for each outcome. The percentages are based on all pedestrian stops for each minority group. The ratio of percentages and 95% confidence interval (in parentheses) comparing each minority group to White pedestrians is shown for custodial arrests.

A ratio of 1.0 for Whites: For all rows showing comparisons of minority groups to Whites, a value of 1.0 is shown in the White racial group column, the reference group. In this column for Whites, the Whites are being compared to themselves, so the ratio of rates must be 1.0. The column is included to make it clear that the Whites are the reference group to which each minority is compared.

Zero stops or zero benchmark: For some agencies, the number of stops or the benchmark value or the number of outcomes may be zero for a racial group. When it is not possible to calculate a rate or percentage or ratio and an associated 95% confidence interval because of zero stops or zero benchmarks or zero outcomes, an “NA” is reported in the table. When reporting information such as searches following stops, or contraband found, sometimes all racial groups have entries of zero in the row. That is, there were no searches of any racial group, or no contraband found for any racial group. In that case, the row is omitted. Similarly, when making comparisons to Whites, if all minorities have counts of zero or the Whites have a count of zero, the ratios comparing each minority to Whites cannot be computed and the row of ratios is omitted.

Table 1. Example of a table of pedestrian stops: counts, rates, percentages and ratios

Summary of Pedestrian Stops for 2020 - ILLINOIS STATEWIDE RESULTS						Benchmark - State: Illinois
	White	Black or African American	Hispanic or Latino	Asian	American Indian or Alaska Native	Native Hawaiian or Other Pacific Islander
Panel: 1 Summary of Pedestrian Stops, Rates, and Rate Ratios with 95% Confidence Intervals. Total stops: 94,042. Total benchmark population: 10,278,012.						
Stops	12,483	59,260	21,046	922	131	200
Benchmark	6,516,488	1,460,909	1,698,243	586,882	13,147	2,343
Stop Rate (95% Confidence Interval)	0.00192 (0.00188 - 0.00195)	0.0406 (0.0402 - 0.0409)	0.0124 (0.0122 - 0.0126)	0.0016 (0.0015 - 0.0017)	0.01 (0.0083 - 0.012)	0.09 (0.07 - 0.1)
Rate Ratio vs White (95% Confidence Interval)	1.0	21.2 (20.8 - 21.6)	6.5 (6.3 - 6.6)	0.82 (0.77 - 0.88)	5.2 (4.3 - 6.2)	45 (39 - 51)
Panel: 2 Summary of Pat Down Events - Number (Percentage for the Racial Group) [95% Confidence Interval]						
Pat Down (% of Stops)	3,946 (32%) [31% - 33%]	22,430 (37.9%) [37.4% - 38.3%]	6,855 (32.6%) [31.8% - 33.4%]	193 (21%) [18% - 24%]	30 (23%) [15% - 33%]	90 (45%) [36% - 55%]
Search Beyond Pat Down (% of Stops)	2,873 (23%) [22% - 24%]	23,299 (39.3%) [38.8% - 39.8%]	7,061 (33.6%) [32.8% - 34.3%]	203 (22%) [19% - 25%]	23 (18%) [11% - 26%]	42 (21%) [15% - 28%]
Contraband Found (% of Searches, preceding row)	790 (27%) [26% - 29%]	7,250 (31%) [30% - 32%]	2,140 (30%) [29% - 32%]	65 (32%) [25% - 41%]	9 (39%) [18% - 74%]	18 (43%) [25% - 68%]
Contraband Found Ratio vs White (95% Confidence Interval)	1.0	1.13 (1.05 - 1.22)	1.1 (1 - 1.2)	1.2 (0.89 - 1.5)	1.4 (0.65 - 2.7)	1.6 (0.92 - 2.5)
Panel: 3 Summary of Outcome of Stop - Number (Percentage of All Stops for the Racial Group with the Noted Outcome of the Stop) [95% Confidence Interval]						
Warning/Citation	3,100 (25%) [24% - 26%]	4,506 (7.6%) [7.4% - 7.8%]	2,121 (10%) [9.7% - 11%]	198 (21%) [19% - 25%]	28 (21%) [14% - 31%]	40 (20%) [14% - 27%]
Custodial Arrest	1,303 (10%) [9.9% - 11%]	8,699 (14.7%) [14.4% - 15%]	1,684 (8%) [7.6% - 8.4%]	65 (7%) [5.4% - 9%]	9 (6.9%) [3.1% - 13%]	12 (6%) [3.1% - 10%]
Custodial Arrest Ratio vs White (95% Confidence Interval)	1.0	1.4 (1.3 - 1.5)	0.77 (0.71 - 0.82)	0.68 (0.52 - 0.87)	0.66 (0.3 - 1.3)	0.57 (0.3 - 1)

IV. Interpretation of Pedestrian Tables

95% Confidence Interval

Table 1 presents a “95% confidence interval” for each rate, percentage or ratio. The 95% confidence interval reflects uncertainty in estimating the rate, percentage or ratio due to sampling variability. The 95% confidence interval provides a range of plausible values. The “95%” figure means that when various studies include such an interval, 95% of the studies, on the average, will include the *true* value in the interval. Because there is an element of chance involved in being stopped, being searched, etc. the true value of a rate or percentage or ratio is not known. The 95% confidence interval uses widely accepted methods and expresses some of the uncertainty in the estimated rate, percentage, or ratio. The uncertainty is often due to small numbers of stops or a small benchmark population in the geographic area used to calculate rates, percentages, or ratios.

Ratios

A ratio of rates or percentages with a value of 1.0 (one) indicates that the rates or percentages are equal between the minority group and Whites. Ratios above or below 1.0 show greater or lesser stop activity with minorities, respectively. Comparisons of minority groups to White drivers or White pedestrians where the 95% confidence interval lies above 1.0 (one) are **bolded** in the stops tables. When the ratio is bolded, one can say that the value of 1.0 does not fall within the 95% confidence interval of the estimated ratio. These **bolded** ratios are statistical deviations and may be the basis for further consideration of potential racial disparities related to stops. A bolded ratio does not prove that there is racial profiling. (See “Limitations,” below.) A bolded ratio may be taken as the basis for further inquiry. In addition to whether or not a ratio is **bolded**, the absolute magnitude of the ratio should be considered. For example, a **bolded** ratio of 5.0 is a higher priority to investigate than a small **bolded** ratio of 1.2. A larger ratio implies the potential impact on individuals is larger, and it is less likely that the elevated ratio is only due to limitations of the chosen benchmark than when the ratio is closer to 1.0.

Limitations

There is a limitation in the use of ratios to determine potential racial disparities. The 95% confidence intervals for stop rates and stop rate ratios do not consider the error in estimating the driver and pedestrian benchmark populations. (The population of drivers or pedestrians who are considered the source of the persons stopped by an agency’s officers are a population, and that population is referred to as the “benchmark” for the agency.) Note that each law enforcement agency has a “jurisdiction,” which is the geographic area that the agency is responsible for policing. In this report “agency” and “jurisdiction” are sometimes used interchangeably.

The statistical issue with the benchmarks is that the drivers and pedestrians include persons who reside in communities both inside and outside of the specific area of jurisdiction of an agency.

For this study, the benchmark populations have been estimated based on the population located in cities and counties of Illinois. Those population counts are available from surveys carried out by the U.S. Census Bureau. The boundaries of the cities and counties may not closely fit the actual area of residence of drivers and pedestrians who might be encountered in a specific community.

Thus, the benchmarks have some error, and the extent of the error is unknown. If it were possible to estimate this error as it affects rates and rate ratios, the 95% confidence intervals would be wider and, thus, some confidence intervals might then include 1.0 (no racial disparity) and would not prompt bolding and the need for further inquiry. (The section labelled “**Benchmarks**”, below, describes the methods used to estimate the population from which stopped individuals originated.)

The census ACS surveys have been used to designate benchmark populations for this study because they have readily available populations for cities and counties. The census city and county populations are virtually the only option for building benchmarks within the resources available to this study to annually choose benchmarks for more than 800 law enforcement agencies. The city and county populations do have some validity as benchmarks because they include the jurisdiction of interest, and it is expected that a substantial fraction of pedestrians in the jurisdiction originate from the designated benchmark city (or cities) and county (or counties).

In the “Looking Ahead” section later in this report we introduce a potential approach to benchmarking based on Zip codes. Zip codes are being investigated as potential building blocks for benchmarks. Research continues on this alternative.

Another limitation that may affect the rates, percentages and ratios is the designation of race by the law enforcement officer conducting the stop. That designation of race might not correspond to the driver’s or pedestrian’s own racial identity. In addition, the stop rate for a racial group will depend on a) the assignment of beats (geographic surveillance area) to officers in a jurisdiction and b) the degree of overlap of those beats to the residential area of each racial group. If there is higher (or lower) surveillance of an area with a high residential concentration of a racial group, then that can lead to a higher (or lower) stop rate for the racial group, compared to areas where surveillance is constant across all racial groups.

Statistics based on stops only

The percentages and ratios of percentages in the tables are based on stop counts and stop activity only. The percentages and ratios of percentages do not depend on the estimated benchmark population, and they do not have the potential benchmark error noted above. Percentages based on stops will be a resource for any inquiry about potential racial profiling.

It is important to note that the percentages are calculated with reference to a specific activity. For example, in the pedestrian tables, the percentage of searches beyond pat down for a racial group is a percentage of *stops* leading to a search beyond pat down. The percentage of contraband

found is the percentage of *pedestrian searches beyond pat down* leading to contraband found. For percentages, each row label (or the heading for the panel) indicates the basis for the percentage.

Can stop rates be compared across years?

The methodology used for calculating stop rates in this study (and for 2019 stops) differs from studies of stops in 2018 and earlier. While the new methodology provides more accurate stop rates, the changes make it difficult to compare results from the 2020 stops analysis to the analyses in years prior to 2019. (The 2020 stop statistics can be compared to 2019.) As explained in other sections of this report, more recent population data have been used for benchmarks for 2019 and 2020 stops than for studies of stops in 2018 and earlier.

These and other changes have improved the estimate of the benchmark populations and the accuracy of stop rates. Thus, any difference in rates between 2019 or 2020 stops reports and earlier stops reports (2018 and earlier) may be at least partly due to a change in methods rather than to a real change in stop rates. The new methods are intended to estimate the benchmark population more accurately. Another factor making it difficult to compare 2019-2020 stop rates to 2018 rates (and earlier) is that the 2019-2020 reports present rates, percentages and rate ratios separately for each of the six individual races—rather than with all minorities combined into one category, as used in the 2018 and earlier reports. Perusal of tables in Part II of this report will show the reader that the five minority races do have different stop rates. The statewide rates in Table 1, Panel 1, above, show a diversity of stop rates among the six races, and, also, among the five minority races.

Certain percentages will be comparable across years, because the percentages are based on stops data only, and percentages are calculated in the same manner as in previous years. However, to compare a percentage based on 2020 stops data to a percentage reported in a year prior to 2019, some additional calculations will be needed. This 2020 stops report and the 2019 stops report present results for each racial group, whereas reports prior to 2019 combined five races into one group: all minorities. In order to calculate a percentage for 2020 stops of all minorities, the user will need to add together (across the five minority racial groups) all of the numerators and, separately, all of the denominators and then divide the numerator sum by the denominator sum, then multiply by 100% to get the all-minority percentages. As noted earlier, this report presents results for each racial group separately, since the minority groups do have differing rates, percentages and ratios in some jurisdictions.

V. Benchmarks

The number of stops for each racial group and each agency is compared to a “benchmark” in order to calculate the agency’s stop rate for the racial group. The benchmark provides an estimated population count of each of the six racial groups. These population counts are then

compared to the pedestrian stop counts of each racial group to assess and compare the stop rates (stops per unit of population) of each racial group. See Appendix C of this report, Technical Notes on Benchmarks, for a detailed discussion of benchmarks and associated calculations, including important limitations.

The methods for calculating the benchmark for each agency for this report is the same as the methods used for the report on 2019 stops, which rely primarily on local population statistics for the associated cities or counties. However, the numeric values of the benchmarks for 2020 stops are generally different than those for 2019 stops because the underlying population statistics are updated annually. The primary source for population statistics in this report is the 2015-2019 5-year American Community Survey (ACS), provided by the U.S. Census Bureau, the most recent release available. The 2019 stops report used the prior year's release, 2014-2018.

VI. Selected Findings

This section of the report shows some tables and figures that present results on the agencies and their pedestrian stops from the entire state of Illinois for 2020. Some results are contrasted with their corresponding 2019 values.

Coronavirus Disease 2019 (COVID-19)

The COVID-19 pandemic in the United States had a substantial impact on the number of stops made in 2020, as is apparent from multiple figures shown below. The first confirmed case of COVID-19 was detected in Illinois on January 23, 2020¹. On March 16th and 17, 2020, the Illinois State government closed bars, restaurants, and schools² and ultimately executed a statewide state-at-home order starting March 21, 2020³. Due to the impact of COVID-19, some patterns observed this year may be one-time events and some year-to-year trends may be obscured.

Agency reporting status

Among the 1006 agencies that could submit stops data to IDOT, nearly 30% of the agencies had stops and provided complete data for 2020 stops to IDOT (Table 2, top numeric row). A total of 290 agencies had no pedestrian stops (28.8%) and 41.4% of agencies did not submit any stops data (“Non-compliant”). The fraction of agencies non-compliant with pedestrian stops

¹ Ghinai I, McPherson TD, Hunter JC, et al. First known person-to-person transmission of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in the USA. *Lancet*. 2020;395(10230):1137-1144. doi:10.1016/S0140-6736(20)30607-3

² Chicago Tribune. Mar 13, 2020. *Governor cancels Illinois schools statewide until March 30 to slow the spread of coronavirus.*

³ Chicago Channel 5 website. Published March 20, 2020. Updated on March 20, 2020, at 10:42 pm. *Illinois Governor Issues Stay-at-Home Order*. Accessed on June 1, 2021, at <https://www.nbcchicago.com/news/local/illinois-governor-expected-to-issue-stay-at-home-order-sources/2241118/>

submission was approximately three time larger than the corresponding non-compliant percentage (13.9%) for traffic stops submission.

Table 2. Agency status on reporting. Illinois, all agencies, Pedestrian stops, 2019 and 2020.

Status of Agency	2019		2020	
	Number of agencies	Percent of agencies	Number of agencies	Percent of agencies
Complete reporting ¹	353	35.2%	300	29.8%
Zero stops ²	187	18.7%	290	28.8%
Incomplete ³	1	0.1%	0	0.0%
Non-compliant ⁴	461	46.0%	416	41.4%
All agencies combined	1002	100%	1006	100%

¹Agency with one or more stops that were completely reported;

²Agency performed no stops over the year;

³Agency submitted some but not all of their stops for the year;

⁴Agency made stops, but no stops data was submitted.

Number of stops

Most agencies with pedestrian stops had very few stops—10 or fewer (over 70% of the 300 agencies with more than zero stops reported). The count of reported pedestrian stops (94,042) was approximately 6% as large as the count of reported traffic stops (1,561,514). The Chicago Police Department reported 91.8% of all the pedestrian stops.

Table 3. Number of Pedestrian stops for agencies with at least one stop. Illinois, all agencies, Pedestrian stops, 2019 and 2020.

Number of stops	2019		2020	
	Number of agencies	Percent of agencies	Number of agencies	Percent of agencies
1-10	248	70.3%	221	73.7%
11-100	88	24.9%	68	22.7%
101-1,000	14	4.0%	8	2.7%
1,001-10,000	2	0.6%	2	0.7%
10,001-100,000	0	0.0%	1	0.3%
More than 100,000	1	0.3%	0	0.0%
All compliant agencies with ≥ 1 stops	353	100%	300	100%

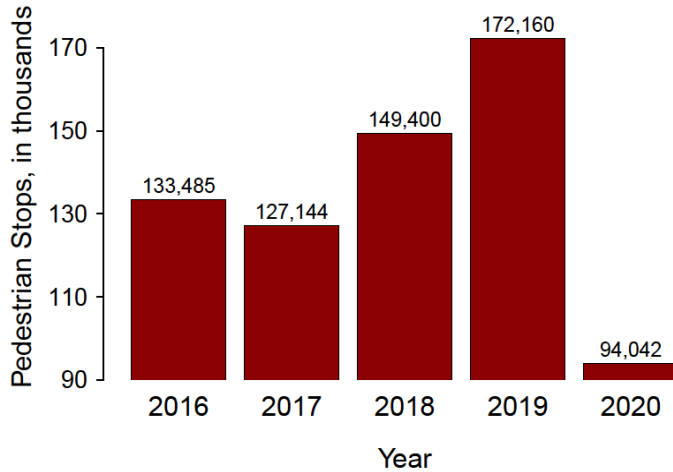
Notes:

(1) Includes only agencies with at least one stop and complete reporting of their stops.

(2) Chicago Police: 157,992 pedestrian stops in 2019; 86,315 in 2020.

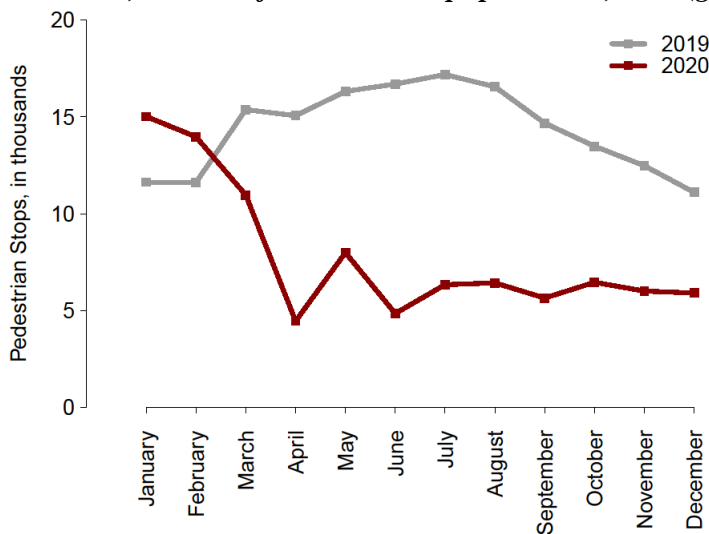
The counts in Figure 1a show that the number of pedestrian stops increased by nearly 30% from 2016 to 2019 while there was a sharp decrease in 2020 when the number of reported stops decreased 45% from the year before.

Figure 1a. Illinois, number of Pedestrian stops, 2016-2020.



The monthly pattern of stops reveals the impact of COVID-19 on the number of pedestrian stops (Figure 1b). In this respect, 2019 was a typical year with stops approximately following the weather patterns in Chicago, peaking in mid-summer. In January and February of 2020, there were more stops than during the same period in 2019, suggesting that the trend of increasing stops was continuing into 2020. However, as the COVID-19 pandemic developed during the first quarter of 2020 in the United States, the number of stops reduced substantially. The number of stops in April 2020 was more than 70% lower than in April 2019, and stayed approximately the same level each month for the rest of the year.

Figure 1b. Illinois, number of Pedestrian stops per month, 2019 (gray line) and 2020 (dark red line).



Distribution of stop rate ratios

Table 4 shows the numbers of comparisons of stops rates of a minority racial group and Whites carried out in the pedestrian stops study. Any comparison yields a rate ratio—the minority stop rate divided by the White stop rate. Each agency might contribute up to five such comparisons (five minority groups, each compared to Whites on their stop rates). There would be fewer than five comparisons when one or more of the racial groups had zero stops in an agency.

The first column under “A” in Table 4 shows the counts of all comparisons (each minority/White rate ratio and all the ratios compiled across all agencies and then categorized in Table 4 by the magnitude of the rate ratio). The columns under “B” restricts the comparisons to those based on at least 20 White stops and 20 stops of the minority group compared. Having at least 20 stops provides a more precise estimate of the rate ratio than a smaller number of stops.

We note a drastic reduction — 41-fold from Panel A to Panel B — in the total number of rate ratios, from 989 (all comparisons) down to just 24 (more precise comparisons). From the more precise comparisons we estimate that in nearly 60% of all rate ratios, minority pedestrians are stopped more than the White pedestrians relative to their proportion in the benchmark population (rate ratio > 1). The overall distribution between categories seems fairly robust with time, without much change from 2019 into 2020. The 95% confidence intervals provided in the tables of Part II should be used as a guide to the precision of rates, percentages and rate ratios when interpreting the numeric results.

Table 4. Distribution of Pedestrian stop rate ratios. (Each non-White racial group compared to Whites for an agency). Illinois, Pedestrian stops, 2019 and 2020.

	A. All agencies and racial groups*		B. Agencies and the racial groups with at least 20 stops**	
Rate ratios	2019	2020	2019	2020
<1.0	77.2%	78.4%	25.0%	37.5%
1.0 to <2.0	4.2%	3.7%	25.0%	16.7%
2.0 to <3.0	3.5%	2.5%	5.6%	8.3%
3.0 to <4.0	2.2%	1.8%	8.3%	4.2%
4.0 to <5.0	1.7%	1.8%	13.9%	12.5%
5.0 or larger	11.2%	11.7%	22.2%	20.8%
All ratios***	100%	100%	100%	100%

*All comparisons of Whites and a racial group for all agencies. Excludes ratios from agencies with zero stops of White pedestrians or a benchmark population value of zero for either racial group.

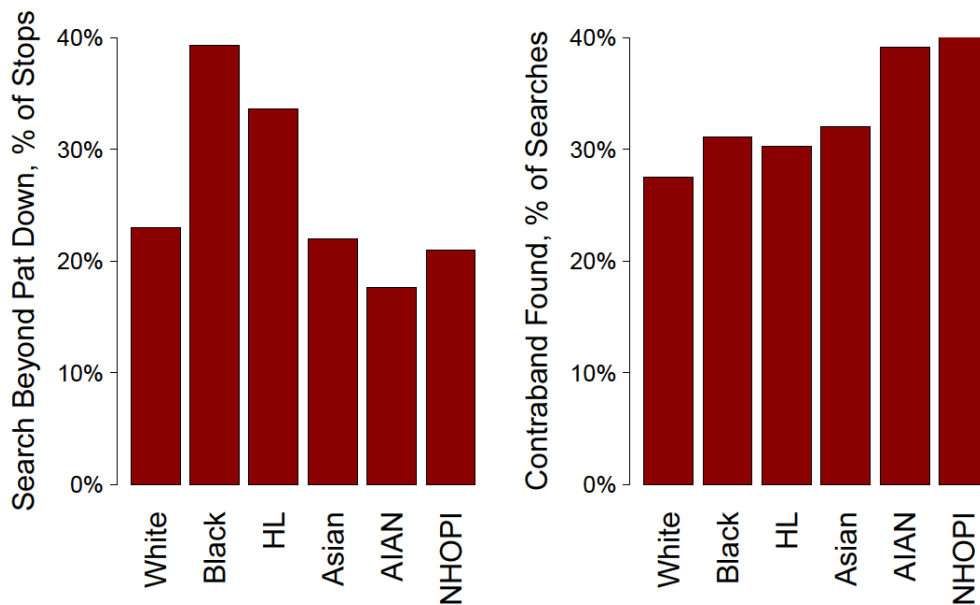
**All comparisons of Whites and a racial group for all agencies; all comparisons must have at least 20 stops of Whites and 20 stops of the compared racial group. Excludes ratios where either Whites or the compared racial group have less than 20 stops.

***The number of ratios (each involve a comparison of one non-White racial group vs. White for one agency) that were included in the analysis in columns A and B respectively, were 1,119 and 36 in 2019; 989 and 24 in 2020.

Searches and Contraband

Figure 2 shows that the rate of search beyond a pat down is substantial for all of the racial groups (approximately 18-39% of stops, left panel), and, given a search beyond pat down, the yield of contraband is also substantial (27-43% of searches beyond a pat down, right panel). There is marked diversity among the races' percentages in both panels.

Figure 2. Percentage of Pedestrian stops with a search beyond pat down; percentage of searches beyond pat down with contraband found. Illinois, Pedestrian stops, 2020.



Abbreviations for racial groups: Black = “Black or African American”, HL = “Hispanic or Latino”, AIAN = “American Indian or Alaska Native”, NHOPI = “Native Hawaiian or Other Pacific Islander”.

VII. Some General Comments

A considerable number of agencies have a relatively small number of stops of one or more of the racial groups. The limited stop counts yield a wide 95% confidence interval, which means high uncertainty in the corresponding rate, percentage or ratio. The uncertainty from potential benchmark issues (discussed earlier) or race classification issues (also discussed earlier) add to the uncertainty implied by the confidence intervals. Any investigation of racial profiling that is initiated based on this report should consider all of the sources of uncertainty.

In Part II of this report (agency tables) each agency has ratios of rates or ratios of percentages. Some of them are bolded as a “statistical deviation.” The bolded ratios and their meaning and interpretation are topics covered elsewhere in this report. In addition to whether or not a ratio is

bolded, the absolute magnitude of the ratio should be considered when interpreting the results, as discussed earlier.

If a ratio is not bolded, it usually does not prove that there is no racial profiling in the agency. It is worth looking at the upper and lower bound of the 95% confidence interval to see what the uncertainty is. That interval quantifies the uncertainty and shows the largest ratio and the smallest ratio that are reasonably plausible, given the data.

For example, consider a ratio of **1.0** for a specific minority percentage of stops with a search, compared to the corresponding White percentage of stops with a search—in a particular agency. The ratio of 1.0 indicates that the percentage of stops with a search was the same for both the Whites and for the specific minority group. However, the counts of searches are very small in this example, and the 95% confidence interval for the ratio is **0.025** up to **5.8**. (This is similar to an actual agency result.) That is, it is plausible that the true search percentage of the minority group is anywhere from one-fortieth of the White percentage up to almost six times the White percentage.

Clearly, in a case like the one described above, we do not know enough about the ratio to draw any conclusion except that we are uncertain. Thus, a confidence interval for a ratio that includes 1.0 and is very wide (encompassing values well above the calculated ratio and also well below the ratio) usually means that presence or absence of potential racial profiling cannot be determined from the data in hand.

Lastly, while there is a considerable focus on the stop rate ratios reported in Panel 1 of the tables in Part II of this report (detailed tables), the other panels provide valuable complementary information on the outcomes of stops and how the outcome statistics compare between racial groups. As noted earlier, the stop outcome results are compared among individuals that were stopped and do not rely on any external population benchmark. This avoids some limitations of benchmarks. Ultimately, stop results for an agency should be interpreted holistically, considering all panels together; different panels may suggest different interpretations when viewed individually.

VIII. Looking Ahead

TMWL is continuing to review the current statistical methodology and consider refinements and improvements. The Executive Summary of the Traffic Stop Analysis, 2020 Annual Report, describes two potential improvements that are being investigated for future stop reports. See the “Looking Ahead” section of Part I (Executive Summary) of the traffic report.

Appendix A. Pedestrian Stop Data Collection Form in use during 2020



Illinois Department
of Transportation

Pedestrian Stop Data Sheet



Agency Code

Date of Stop (MM/DD/YYYY) Time of Stop (Military Time) Officer Name

Officer Badge Number Location of Stop Beat Location of Stop

Gender
1 Male 2 Female

Race
1 White 2 Black or African American 3 American Indian or Alaska Native 4 Hispanic or Latino
5 Asian 6 Native Hawaiian or Other Pacific Islander

Reason for Stop

Reason for Stop (Check all that apply)
 1 Actions indicative of engaging in drug transaction 2 Fits description from radio broadcast / Call for service
 3 Fits description of an offender as described by victim or witness 4 Actions indicative of "casing" victim or location
 5 Proximity to the reported crime location 6 Gang related enforcement 7 Suspicious Activity
 8 Other (Specify)

Pat Down/Frisk

Pat Down/Frisk Conducted? 1 Yes 2 No Pat Down/Frisk Conducted by 1 Consent 2 Reasonable Suspicion

Reason for Pat Down/Frisk (Check all that apply)
 1 Verbal threats of violence by suspect 2 Knowledge of suspect's prior criminal violent behavior/use of force/use of weapon
 3 Actions indicative of engaging in violent behavior 4 Violent crime suspected
 5 Suspicious bulge/object 6 Evasive, false or inconsistent response to officer's questions
 7 Other reasonable suspicion of weapon (Specify)

If a Pat Down/Frisk was conducted, did it lead to a search beyond the pat down/frisk? 1 Yes 2 No

Search Beyond

Search Beyond Pat Down/Frisk Conducted? 1 Yes 2 No Search Beyond Conducted By 1 Consent 2 Probable Cause 3 Search Incident to Arrest

Reason for Search Beyond (Check all that apply)
 1 Drugs or drug paraphernalia found 2 Hard object felt during pat down 3 Firearm found during pat down
 4 Other weapon found during pat down 5 Other probable cause(Specify)

If a Search Beyond a Pat Down/Frisk was conducted, was contraband found? 1 Yes 2 No

If yes, what was found?
 1 Drugs 2 Drug Paraphernalia 3 Alcohol 4 Weapon 5 Stolen Property 6 Other

If the contraband found was drugs, what was the amount?
 1 <2 grams 2 2-10 grams 3 11-50 grams 4 51-100 grams 5 >100 grams

Outcome of Stop

Warning/Citation Issued 1 Yes 2 No Arrest? (Person taken into custody) 1 Yes 2 No

Violations/Charges

Appendix B. Technical Notes on Rates, Percentages and Ratios

B.1. Overview

This technical appendix includes a detailed explanation of the rate, post-stop outcomes, and ratio calculations used in constructing the statewide and agency tables that appear in Part II of this report. We explain how comparisons of each minority group to White drivers or pedestrians are carried out. We also explain how the confidence interval is calculated based on known sources of uncertainty in the data⁴. Further, this section describes how an agency may be designated (by a bold font in the tables) as potentially standing out beyond an assumption of no racial profiling. An agency that is designated as standing out might use this report as a basis for further inquiry. As stated elsewhere and repeated here, there is nothing in this report which proves an agency is practicing racial profiling. We provide some limitations for interpreting the findings based on the available data and methods.

B.2. Stop rates, post-stop outcomes, and ratio calculations

We performed all calculations for the entire state of Illinois and for each agency.

B.2.1 Stop rates and rate ratios

We calculated stop rates separately for each racial group by dividing the number of stops in the racial group by the benchmark estimate of the pedestrian population in the racial group. (A description of the methods used to estimate the benchmark populations is included in Appendix C.)

We assumed the number of stops followed a Poisson distribution, used in previous examination of racial disparities in traffic stops (Gelman et al. 2007, Ridgeway 2007) and calculated 95% confidence intervals for the rates using exact methods (Garwood 1936). When the benchmark estimate of the population was zero, no rate or confidence interval could be calculated. A benchmark population of zero for a specific minority group happens when the census population estimate for the minority is zero.

We compared each minority group to White drivers or pedestrians using the ratio of the minority group stop rate to the White group stop rate. We calculated a 95% confidence interval for each rate ratio by conditioning on the sum of the numbers of stops in the two racial groups being compared. Assuming the number of stops in each group followed a Poisson distribution, conditioning on the sum of the number of stops creates a binomial variable and an exact confidence was calculated using binomial methods (Lehmann and Romano 2005). If it was impossible to calculate a rate because of a zero benchmark, or if

⁴ The estimated benchmark population is an example of a component of the methodology that has uncertainty that could not be quantified for this study.

the number of stops in the White group was zero, no rate ratio or confidence interval was reported.

A rate ratio of 1.0 indicates the minority group and White drivers or pedestrians had equal rates of stops. If the 95% confidence interval lies entirely above 1.0, the rate ratio is statistically significantly greater than 1.0 and may require agency inquiry. These statistically significant rate ratios are bolded in the summary tables. These bolded ratios are statistical deviations, and the basis for further consideration of potential racial disparities. Comparisons of minority groups to White drivers or pedestrians where the 95% confidence lies below 1.0 (one) are not bolded because the intent of this study is to identify potential racial profiling that discriminates against minority drivers or pedestrians.

For all calculations, we assumed the benchmark accurately captured the population of drivers or pedestrians. The benchmark used to calculate each rate is itself an estimate of the population of drivers or pedestrians for a racial group. Confidence intervals of rates and rate ratios assumed only sampling error and thus do not account for this additional source of error in benchmark estimates. Accounting for benchmark error would increase the width of the confidence intervals reported for rates and rate ratios and would likely reduce the number of agencies that appear to stand out as needing further inquiry.

B. 2.2 Post-stop outcomes

We calculated post-stop outcome percentages (such as searches) separately for each racial group. Table B1 shows the type of numerator and denominator used to calculate each percentage shown in the pedestrian tables.

Table B1. Numerators and denominators for pedestrian stop outcomes

Category	Outcome	Numerator	Denominator
Pat Downs and Searches Beyond Pat Down			
	Pat down	Number of pat downs	Number of stops
	Search beyond pat down	Number of searches beyond pat down	Number of stops
	Contraband found	Number of searches beyond pat down where contraband was found	Number of searches beyond pat down
Outcomes of Stop			
	Warning/Citation	Number of warnings/citations	Number of stops
	Custodial Arrest	Number of custodial arrests	Number of stops

We assumed that percentages follow a binomial distribution and can be approximated by a Poisson distribution (Serfling 1978), and we calculated confidence intervals for the rates using exact methods (Garwood 1936). When the denominator of the percentage was

zero (for example, an agency had a benchmark of zero for a specific racial group), no percentage or confidence interval could be calculated.

For selected outcomes we compared each minority group to White pedestrians using the ratio of the minority group percentage to the White group percentage. We calculated a 95% confidence interval for each ratio using exact methods (Lehmann and Romano 2005). If it was impossible to calculate a percentage because of a zero denominator, or if the numerator of the White group percentage was zero, no ratio or confidence interval was reported.

B.3 Durations

We calculated the median durations of stops separately for each racial group. The median represents the value such that about half of stops have a shorter duration than the median and half of stops have a longer duration than the median.

B.4 Limitations

For all calculations, we assumed that the driver or pedestrian was assigned to the correct racial group. However, an officer's assessment of the race of a driver may be in error. Because police officers made the racial group assignment, there is a potential misclassification bias of drivers or pedestrians. If misclassification resulted in a minority driver or pedestrian frequently being categorized in a different minority group, the stop rates of some minority groups may be underestimated, while others are overestimated. Consequently, the rate ratios of some minority groups may be underestimated, while others are overestimated. This is a limitation that would be difficult to correct based on the available information.

Some of the alerts to rate ratios (**bolded font** in the tables) may be “false positives.” This can happen as follows. Within the statewide or individual agency tables for traffic and pedestrian stops, we calculated five minority group comparisons with the White group. There were five of these comparisons for each ratio analysis. For example, there are five ratios comparing the stop rate for each of the five minorities to the stop rate for Whites⁵. Thus, we constructed five 95% confidence intervals—one each for the five stop-rate ratios. That is, each agency was checked for profiling in each of five minority groups. For each minority comparison with White drivers or pedestrians there was the potential to make a type I error. That is, we may have, by chance, incorrectly indicated the potential need for inquiry for profiling. While we set a 5% type I error rate for each minority comparison, the multiple comparisons inflate the possibility of making such an error overall to more than 5%. We chose not to correct for these multiple comparisons, viewing each minority comparison to Whites as an independent examination of profiling.

⁵ There may be fewer than five ratios depending on the occurrence of zero stops for Whites or zero benchmark for a minority. These are cases where a ratio cannot be calculated.

References (for Appendix B)

Garwood, F (1936). Fiducial limits for the Poisson distribution. *Biometrika*, Vol. 28, No. 3/4: 437-442.

Gelman, A, Fagan, J, and Kiss, A (2007). An analysis of the New York City Police Department's 'stop-and-frisk' policy in the context of claims of racial bias. *Journal of the American Statistical Association*, Vol. 102, No. 479, 813-823.

Lehmann, EL, and Romano, JP (2005). *Testing Statistical Hypotheses*, Third edition. Springer: New York.

Ridgeway, G. (2007). *Analysis of Racial Disparities in the New York Police Department's Stop, Question, and Frisk Practices*. Santa Monica, CA: RAND Corporation. https://www.rand.org/pubs/technical_reports/TR534.html.

Serfling, RJ (1978). Some elementary results on Poisson approximation in a sequence of Bernoulli trials. *SIAM Review*, Vol. 20, No. 3, 567-579.

Appendix C. Technical Notes on Benchmarks

C.1. Overview

In the analysis to detect racial profiling, the number of stops by each agency of each racial group is compared to a “benchmark” population of the racial group. The rate of stops per benchmark population for the racial group can be compared to the same rate for Whites. The benchmark provides an expected racial distribution of the population and would be an expected racial distribution of the stops, if the stops were conducted in a uniform way across races. That is, the stop rates calculated using an ideal benchmark would be approximately constant across all racial groups if there were no profiling.

Similar to past years, the benchmark for each agency is based on local population statistics of each racial group in associated cities or counties. However, starting the report for 2019 stops, there are a number of important changes compared to the reports of 2016-2018 stops, as described in the sections below and summarized in Section C.7. While this methodology has some limitations (described further in Section C.8.), it provides a transparent, standardized approach to developing benchmarks for the nearly 1,000 law enforcement agencies in Illinois.

C.2. Data Sources

Multiple data sources were combined to calculate benchmarks, including multiple datasets provided by the American Community Survey (ACS).

The ACS is an ongoing survey conducted by the U.S. Census Bureau that collects information on the U.S. population in all 50 states, the District of Columbia and Puerto Rico⁶. The information collected is similar to that collected by the U.S. decennial census, but the ACS results are released on an annual basis rather than every 10 years. Another difference between the ACS and census is that the ACS is based on a random sample of about 3.5 million individuals while the census attempts to reach every person living in the U.S. and its territories.

Besides the 1-year (1Y) ACS releases, there are also 5-year (5Y) releases. These 5Y releases combine 5 consecutive years, primarily to increase the sample size of relatively small areas or groups of individuals. It would be challenging to estimate the population of small communities reliably with only one survey-year of data. In addition to standard tabulations, the ACS also provides individual level data, referred to as the public use microdata sample (PUMS). The PUMS data allows more detailed and complex analyses involving multiple variables. Due to privacy concerns, there are restrictions on the level of geographic identification provided with each type of release of ACS data.

⁶ <https://www.census.gov/programs-surveys/acs>. Last accessed 5/25/21.

For this report, five years of ACS releases were used, all corresponding to 2019 as the most recent year of data available. The first was the 2019 1Y PUMS⁷, which was used to estimate the age distribution of the entire population of Illinois in 2018. The second release used was the 2015-2019 5Y PUMS⁸, which was used to estimate the state-level age distribution for each racial group. The 5Y release was used instead of the 1Y release to achieve a larger sample size for those racial groups that had fewer individuals in Illinois. The third release used was the 2015-2019 5Y detailed table of race and ethnicity for each Illinois county⁹. This table provided an estimated population count of each ACS racial group and ethnicity combination, separately for each Illinois county. The PUMS dataset could not be used for this purpose because — due to privacy concerns — geographic localization in the PUMS is limited to public use microdata areas (PUMAs), which have a minimum of 100,000 individuals, greater than most counties in Illinois. The fourth release used was the 2015-2019 5Y detailed table of race and ethnicity by Illinois place (city, town or village, referred to simply as city hereafter)¹⁰. Lastly, the 2015-2019 5Y detailed table of race and ethnicity for the whole state of Illinois¹¹ was used for some statewide jurisdictions.

As a final note, comparing the U.S. 2010 census to the ACS as a source of population data, the U.S. census has the advantage of virtually complete coverage of Illinois, while the ACS has the advantage of recency. Because the U.S. population is quite mobile, recency was the more important factor. Relative to 2020, the 2010 census was ten years old, while the ACS data from 2015-2019 was an average of three years old.

C.3. Racial Categories

The ACS collects self-identified race and ethnicity information based on the U.S. Census Bureau’s definitions. The primary racial categories provided by the census are White alone, Black or African American alone, American Indian and Alaska Native alone, Asian alone, Native Hawaiian and Other Pacific Islander alone, some other race alone, and two or more races. The primary ethnicity categories provided by the census are “Hispanic or Latino” and “Not Hispanic or Latino.” Race and ethnicity are collected using two separate questions and the respondent can select any racial group along with any ethnicity.

From Illinois Public Act 101-0024, the law enabling this study, the following racial categories are collected based on the police officer’s subjective determination of the race of the person

⁷ https://www2.census.gov/programs-surveys/acs/data/pums/2019/1-Year/csv_pil.zip. Last accessed 5/25/21.

⁸ https://www2.census.gov/programs-surveys/acs/data/pums/2019/5-Year/csv_pil.zip. Last accessed 5/25/21.

⁹ <https://data.census.gov/cedsci/table?q=&table=B03002&tid=ACSDT5Y2019.B03002&lastDisplayedRow=20&vintage=2019&hidePreview=true&g=0400000US17.050000>. Last accessed 5/25/21.

¹⁰ <https://data.census.gov/cedsci/table?q=&table=B03002&tid=ACSDT5Y2019.B03002&lastDisplayedRow=20&vintage=2019&hidePreview=true&g=0400000US17.160000>. Last accessed 5/25/21.

¹¹ <https://data.census.gov/cedsci/table?table=B03002&tid=ACSDT5Y2019.B03002&lastDisplayedRow=20&vintage=2019&hidePreview=true&g=0400000US17>. Last accessed 5/25/21.

being stopped. These include American Indian and Alaska Native, Asian, Black or African American, Hispanic or Latino, Native Hawaiian or Other Pacific Islander, or White. Only a single race may be selected.

Besides the difference between the ACS's self-identified race and the Illinois law's officer-identified race, there are other differences between the ACS and Illinois law's categories. The primary differences are 1) in the ACS, Hispanic or Latino is an ethnicity instead of the Illinois law's designation of Hispanic or Latino as a race; 2) the ACS allows for multiple races to be selected while the Illinois law does not; and 3) the ACS allows the "some other race" option while the Illinois law does not.

To make the different racial categories compatible between the ACS data used for benchmarks and the stops data using the Illinois racial categories, we took the same approach employed in previous IPSS reports¹². This involved two major adjustments. The first adjustment was to use Hispanic or Latino as the assigned race for benchmarking if the ACS ethnicity was listed as Hispanic or Latino. The second adjustment was that those individuals listing some other race alone or multiple races in the ACS data were excluded from the process of defining a benchmark population. In the 2015-2019 5Y ACS sample, this impact involved only 2% of individuals.

C.4. Adjusting for Age

Population counts by race from the ACS were adjusted to reflect the number of potential pedestrians with at least some real risk of being stopped. This was done by estimating the proportion of the Illinois state population of each race who were 12-80 years of age using the 2015-2019 5Y ACS PUMS. While those younger than age 12 or older than 80 are technically at risk of being stopped, the risk is expected to be very low, so they were excluded from the benchmark estimates. Illinois pedestrian stop records do not contain age information, so we examined data from the New York City "Stop, Question and Frisk" program¹³. Between 2016-2019, when the number of stops per year were relatively stable, stops of suspect-reported ages outside of the 12-80 year ranged represented <0.2% of stops performed. Note that the New York City data were used only to determine that age 12 is a reasonable minimum age to define a population of persons with non-trivial risk of being stopped. There is no implication that the stop rates are similar between Illinois and New York City. **Table C.1** shows the estimated proportion of population included in the pedestrian benchmark counts.

¹² Illinois Traffic Stop Statistics Act Report for the Year 2004. July 1, 2005. Available at <http://www.idot.illinois.gov/Assets/uploads/files/Transportation-System/Reports/Safety/Traffic-Stop-Studies/2004/2004%20Illinois%20Traffic%20Stop%20Summary.pdf> . Last accessed 5/25/21.

¹³ <https://www1.nyc.gov/site/nypd/stats/reports-analysis/stopfrisk.page>. Last accessed 5/25/21.

Table C.1. *Estimated proportion of the population included in the pedestrian benchmark based on ACS data.*

Race	Proportion*
White	0.83
Black or African American	0.82
Hispanic or Latino	0.78
Asian	0.85
American Indian and Alaska Native	0.87
Native Hawaiian or Other Pacific Islander	0.81

*Proportion of population 12-80 years of age.

C.5. Estimating Regional Population Sizes

The starting point for estimate regional population sizes were the 2015-2019 5Y ACS race and ethnicity tables for the cities, counties and state of Illinois, as described in **Section C.2**. The 5Y ACS estimates were used because this release provides data for all areas, even with small populations, while the 1Y releases provide data only for areas with populations of 65,000 or more (20,000 or more in the supplemental estimates). More than 90% of the cities in Illinois and 44% of the counties have total populations less than 20,000. Thus, using the combination of 5 years of ACS sampling was important in order to use a consistent data source for all agencies. Furthermore, the population sizes of individual racial groups were small in many areas, necessitating combining years to get better estimates of the true population size.

As described in **Section C.4**, these population sizes for the cities, counties and state of Illinois were adjusted for age by multiplying by a factor derived for each racial group. The adjusted counts formed the building blocks for the agency benchmark calculations, described in the next section.

C.6. Calculating Agency Benchmarks

The regional population sizes calculated and adjusted in Section C.5 were used and potentially combined to derive a benchmark for each agency. There was a standard approach used for most agencies with a number of adjustments made for certain cases. Each situation is covered below.

C.6.1. Standard Approach

The standard approach, similar to past years of the IPSS, was to use the city as representing an approximate radius for pedestrians¹⁴. Based on this, the city population and its racial sub-populations serve the as the “default” benchmark populations for combining with the count of pedestrian stops per racial group for the purpose of

¹⁴ Illinois Traffic and Pedestrian Stop Study 2018 Annual Report. Pedestrian Stop Analysis. Available at <http://www.idot.illinois.gov/Assets/uploads/files/Transportation-System/Reports/Safety/Traffic-Stop-Studies/2018/2018%20IPSS%20Executive%20Summary.pdf> . Last accessed 5/25/21.

calculating stops rates. As described later, this approach has a number of weaknesses, though the approach also has some practical advantages.

C.6.2. Agencies Covering Multiple Cities or Counties

When an agency covered multiple cities or counties or was situated near the county border, the populations of these areas were combined. The law enforcement officers may have frequent contact with residents from each of the nearby areas. The step of combining adjacent regions was performed manually on a case-by-case, so not all otherwise applicable situations may currently be addressed in this way.

C.6.3. Cook County

Similar to past years of the IPSS¹⁵, we subdivided Cook County into regions due to its substantial population and spatially heterogeneous racial distribution. The subdivisions corresponded to the six districts of the Circuit Court of Cook County¹⁶. These districts correspond to the City of Chicago (First Municipal District) and the northern (Second Municipal District; Skokie), northwestern (Third Municipal District; Rolling Meadows), western (Fourth Municipal District; Maywood), southwestern (Fifth Municipal District; Bridgeview), and southern (Sixth Municipal District; Markham) suburbs of Cook County. For computational purposes, these districts were treated as analogous to counties.

C.6.4. Other Situations

There were several other types of agencies which were handled somewhat differently than the standard cases. City benchmarks were used whenever possible for agencies associated with a park district, college, or university, to better correspond to the local population. County benchmarks were used for county sheriffs and other agencies, with the entire county as the nominal jurisdiction. Similarly, state benchmarks were used for the Illinois State Police and other agencies with statewide jurisdiction. For airport, railroad and other transit agencies, the associated county or counties were used for benchmarks. These adjustments are similar to the method used in previous reports.

C.6.5. Example of Detailed Calculation

To help illustrate the benchmark method, the calculations for one agency, Oak Park Police, will be worked out in detail for the White and Black/African American

¹⁵ Illinois Traffic Stop Statistics Act Report for the Year 2004. July 1, 2005. Available at <http://www.idot.illinois.gov/Assets/uploads/files/Transportation-System/Reports/Safety/Traffic-Stop-Studies/2004/2004%20Illinois%20Traffic%20Stop%20Summary.pdf> . Last accessed 5/25/21.

¹⁶ State of Illinois Circuit Court of Cook County. <http://www.cookcountycourt.org/ABOUTTHECOURT/OrganizationoftheCircuitCourt.aspx>. Last accessed 5/25/21.

benchmarks. This example was generated for the report on 2019 stops, so utilizes ACS statistics from 2014-2018.

Based on the 2014-2018 5Y ACS, the city of Oak Park district has 33,206 White residents and 9,356 Black/African American residents after applying the racial categories explained in **Section C.3**. The two population counts were adjusted for age using the factors in **Table C.1**, namely 0.83224 and 0.8167, respectively (the values in the **Table C.1** are rounded, so they differ slightly from the values stated here). This produced adjusted populations for White and Black/African American residents of 27,635 and 7,641, respectively, corresponding to potential pedestrians at risk of being stopped, which were used for the benchmark.

The geographic regions chosen for each agency are listed at the end of this appendix in **Table C.2**.

C.7. Methodological Differences with Past Reports for Stops in 2016-2018

While the methodology used for this report, originally updated for the report of 2019 stops, has some similarities with past reports (2016-2018), including using adjusted population counts of associated cities and counties to define the benchmark population, there are a number of important differences. These must be considered when comparing this report to past reports for stops from 2016-2018.

One important difference is that past reports used the most recent U.S. census estimates for population counts while this report used more recent estimates from the ACS, which is conducted annually by the U.S. Census Bureau. We primarily used the most recent 5Y estimates. The principal advantage of this approach is that the demographic information is more current than the census, which is conducted decennially. The decennial census may not reflect current demographic composition in some areas, given the mobility of the U.S. population and population growth. One disadvantage of the ACS compared to the census is that the ACS is based on a random sample while the census attempts to enumerate the entire population; the ACS estimates are subject to more sampling variability than the census. The recency of the ACS data compared to the census was the deciding factor in favor of the ACS.

Another notable difference from previous reports for 2004-2018 stops is that in this report, rates and other statistics are provided for each minority group separately instead of for all minorities combined into a single all-minority group.

C.8. Limitations

The use of the census or ACS to compute benchmarks has a number of known limitations^{17,18}. The benchmarks are constructed to correspond to the racial distribution of a city or county, but people from outside the designated benchmark area travel through and may be stopped. This discrepancy may be particularly pronounced in areas with major freeways, along major commuting routes between large cities, or with popular attractions that draws people from a wide area. On the average, different groups may spend different amounts of time on the road or on the street, and the time of day of their activities may vary, potentially leading to different levels of exposure to being stopped than reflected by local population estimates. There may also be seasonal variation in the population, due to festivals, holidays, etc. which cannot be captured in static population estimates.

In order to address some of the limitations several alternative benchmarking methods have been proposed. One benchmark method is to carry out observational studies where people and their race are counted by sight at different times and places to estimate the population composition. Another benchmark method is to analyze traffic accident data (crashes) and use the race of the not-at-fault driver to estimate the relevant racial composition of drivers. Yet another method is to mathematically model traffic flows between different cities and regions to merge their racial distributions to better reflect the racial distribution encountered by law enforcement officers.

Despite these limitations, the benchmarking method we have used has a number of strengths, primarily feasibility and transparency. There are close to 1,000 law enforcement agencies in Illinois, many with small jurisdictions. The ACS provides relatively contemporary data in a uniform fashion across the state, while alternative methods would require a tremendous amount of resources to acquire specialized data to construct a customized benchmark for each agency. The method used for this report is also transparent in that the concept of using local population data is easy to understand, and all of our adjustments are relatively straightforward and can be itemized. The ACS is conducted annually, so the underlying data for all agencies are able to remain relatively current and reflect demographic composition.

Besides the general limitations of the methodology described above, there are some other important limitations to consider when interpreting the benchmarks and stop rate ratios. Most importantly, the benchmarks are based on ACS tabulations of race, which are provided by the respondent. Illinois stop data used race as recorded by the police officer, which may differ from what the individual being stopped would report. Therefore, some differences between the racial

¹⁷ Fridell, L. A. (2004). By the numbers: A guide for analyzing race data from vehicle stops. Washington, DC: Police Executive Research Forum. <https://www.ncjrs.gov/App/Publications/abstract.aspx?ID=209827> . Last accessed 5/25/21.

¹⁸ Alpert G.P., Dunham R.G., Smith M.R. (2007). Investigating Racial Profiling by the Miami-Dade Police Department: A Multimethod Approach. *Criminology & Public Policy*;6(1):25-56. <https://www.ncjrs.gov/App/Publications/abstract.aspx?ID=239772> . Last accessed 5/25/21.

distribution of the stop data and the corresponding benchmark racial distribution may be due to racial misclassification.

Another challenge is that the ACS collects race in a different way than defined by the Illinois state law for the stops study, so some adjustments had to be made for compatibility, as described in Section C.3, above. This approach may have induced some differences in racial distributions between the stops (with race assigned by the officer) and corresponding benchmarks (based on self-assigned race). Lastly, the ACS data is based on a survey that takes a random sample of the population. There is some error in survey estimates due simply to sampling variability. In particular, this can impact estimates of population counts of smaller groups. For example, the number of American Indian or Alaska Native and Native Hawaiian or Other Pacific Islanders were relatively small in a number of regions, so these counts may be more uncertain for some jurisdictions. Thus, while the study has strengths, there are some limitations as well. That is why the narrative in this report emphasizes that if a ratio comparing a racial group to Whites differs substantially from 1.0 (that is, differs from racial equality), that may be the basis for further inquiry but does not prove that there is racial profiling.

Table C.2. Geographic region or regions used in the Pedestrian Study for each agency that made stops and completely reported them. All regions are either one or more cities, one or more counties (or county subdivisions), or the state. As described in section C.6.3, Cook County was divided into subdivisions based on the six districts of the Circuit Court of Cook County, notated as Cook-D1 (District 1), Cook-D2 (District 2), etc. As described in the text, the populations of these regions were adjusted in multiple ways to better match the pedestrian population.

Agency	ID	Regions	Agency	ID	Regions	Agency	ID	Regions
Adams County Sheriff	13054	County: Adams	Charleston Police	13143	City: Charleston	Elgin Police	13419	City: Elgin
Addison Police	13245	City: Addison	Chester Police	13751	City: Chester	Elk Grove Village Police	13180	City: Elk Grove Village
Albion Police	13284	City: Albion	Chicago Heights Police	13196	City: Chicago Heights	Elmhurst Police	13256	City: Elmhurst
Alsip Police	13213	City: Alsip	Chicago Metra Police	13195	City: Chicago	Elmwood Park Police	13179	City: Elmwood Park
Alton and Southern Railway Police	14143	City: East St. Louis	Chicago Police	13194	City: Chicago	Elmwood Police	13709	City: Elmwood
Alton Police	13626	City: Alton	Chicago Ridge Police	13193	City: Chicago Ridge	Elwood Police	13950	City: Elwood
Anna Police	13883	City: Anna	Chillicothe Police	13710	City: Chillicothe	Energy Police	13965	City: Energy
Antioch Police	13463	City: Antioch	Cicero Police	13191	City: Cicero	Eureka Police	13985	City: Eureka
Arcola Police	13243	City: Arcola	Coal Valley Police	13766	City: Coal Valley	Evanston Police	13178	City: Evanston
Arlington Heights Police	13212	City: Arlington Heights	Collinsville Police	13624	City: Collinsville	Fairfield Police	13913	City: Fairfield
Arthur Police	13242	City: Arthur	Colona Police	13363	City: Colona	Fairmont City Police	13786	City: Fairmont City
Auburn Police	13829	City: Auburn	Columbia Police	13670	City: Columbia	Fairview Heights Police	13785	City: Fairview Heights
Barrington Police	13465	City: Barrington	Cook County Forest Preserve Police	13189	County: Cook	Fairview Police	13318	City: Fairview
Bartlett Police	13211	City: Bartlett	Cook County Sheriff	13188	County: Cook	Forest Park Police	13174	City: Forest Park
Batavia Police	13414	City: Batavia	Crainville Police	13968	City: Crainville	Fox Lake Police	13470	City: Fox Lake
Beardstown Police	13097	City: Beardstown	Crest Hill Police	13952	City: Crest Hill	Frankfort Police	13949	City: Frankfort
Belleville Police	13795	City: Belleville	Crestwood Police	13185	City: Crestwood	Franklin Park Police	13172	City: Franklin Park
Bellwood Police	13209	City: Bellwood	Crete Police	14000	City: Crete	Freeburg Police	13783	City: Freeburg
Bensenville Police	13247	City: Bensenville	Crystal Lake Park District Police	14010	City: Crystal Lake	Freeport Police	13852	City: Freeport
Berkeley Police	13208	City: Berkeley	Crystal Lake Police	13563	City: Crystal Lake	Fulton Police	13927	City: Fulton
Berwyn Police	13207	City: Berwyn	CSX Transportation Railroad Police	14147	Counties: Cook; Vermilion; Macon; Marion; Madison; St. Clair	Galesburg Police	13459	City: Galesburg
Bloomington Police	13581	City: Bloomington	Darien Police	13253	City: Darien	Geneva Police	13421	City: Geneva
Blue Island Police	13206	City: Blue Island	Decatur Park District Police	13589	City: Decatur	Genoa Police	13232	City: Genoa
Bolingbrook Police	13955	City: Bolingbrook	Decatur Police	13588	City: Decatur	Gillespie Police	13599	City: Gillespie
Bradley Police	13446	City: Bradley	Deerfield Police	13469	City: Deerfield	Glen Ellyn Police	13258	City: Glen Ellyn
Bradley University Police	13711	City: Peoria	DeKalb Police	13233	City: DeKalb	Glencoe Dept. of Public Safety	13171	City: Glencoe
Bridgeview Police	13204	City: Bridgeview	Delavan Police	13875	City: Delavan	Glendale Heights Police	13259	City: Glendale Heights
Brighton Police	13592	City: Brighton	Des Plaines Police	13184	City: Des Plaines	Glenview Police	13170	City: Glenview
Brookfield Police	14065	City: Brookfield	Dixon Police	13526	City: Dixon	Glenwood Police	13169	City: Glenwood
Buffalo Grove Police	13467	City: Buffalo Grove	Douglas County Sheriff	13240	County: Douglas	Goreville Police	13410	City: Goreville
Burbank Police	13200	City: Burbank	Downers Grove Police	13254	City: Downers Grove	Granite City Police	13620	City: Granite City
Burnham Police	13199	City: Burnham	DuPage County Forest Preserve Police	14043	County: DuPage	Grayslake Police	13471	City: Grayslake
Cahokia Police	13793	City: Cahokia	East Alton Police	13623	City: East Alton	Grayville Police	13916	City: Grayville
Campton Hills Police	14114	City: Campton Hills	East Dubuque Police	13406	City: East Dubuque	Gurnee Police	13473	City: Gurnee
Carbondale Police	13387	City: Carbondale	East Dundee Police	13416	City: East Dundee	Hanover Park Police	13168	City: Hanover Park
Carlinville Police	13601	City: Carlinville	East Moline Police	13764	City: East Moline	Harvard Police	13561	City: Harvard
Cary Police	13564	City: Cary	East Peoria Police	13874	City: East Peoria	Henry County Sheriff	13360	County: Henry
Centralia Police	13633	City: Centralia	Eastern Illinois University Police	13141	City: Charleston	Herrin Police	13963	City: Herrin
Champaign Police	13111	City: Champaign	Effingham Police	13286	City: Effingham	Hickory Hills Police	13163	City: Hickory Hills
Channahon Police	13953	City: Channahon	Elburn Police	13417	City: Elburn	Highland Park Police	13474	City: Highland Park

Agency	ID	Regions	Agency	ID	Regions	Agency	ID	Regions
Highland Police	13617	City: Highland	McHenry County Conservation District Police	14004	County: McHenry	Ottawa Police	13507	City: Ottawa
Highwood Police	13475	City: Highwood	McHenry County Sheriff	13553	County: McHenry	Palatine Police	13010	City: Palatine
Hinsdale Police	13260	City: Hinsdale	McHenry Police	13552	City: McHenry	Palestine Police	13215	City: Palestine
Homewood Police	13046	City: Homewood	McLean County Sheriff	13570	County: McLean	Palos Heights Police	13009	City: Palos Heights
Hoopeston Police	13892	City: Hoopeston	McLean Police	13569	City: McLean	Palos Hills Police	13008	City: Palos Hills
Huntley Police	13558	City: Huntley	Melrose Park Police	13033	City: Melrose Park	Palos Park Police	13007	City: Palos Park
Illinois Department of Natural Resources Police	13823	State	Mendota Police	13510	City: Mendota	Park Forest Police	13006	City: Park Forest
Illinois State Police	13991	State	Metropolitan Airport Authority	13760	City: Moline	Park Ridge Police	13005	City: Park Ridge
Illinois State University Police	13573	City: Normal	Midlothian Police	13030	City: Midlothian	Parkland College Police	13105	City: Champaign
Itasca Police	13261	City: Itasca	Milan Police	13761	City: Milan	Pekin Police	13864	City: Pekin
Jacksonville Police	13687	City: Jacksonville	Milford Police	13371	City: Milford	Peoria Heights Police	13706	City: Peoria Heights
Jo Daviess County Sheriff	13402	County: Jo Daviess	Minooka Police	13336	City: Minooka	Peoria Park District Police	13705	City: Peoria
Johnsburg Police	13557	City: Johnsburg	Moline Police	13759	City: Moline	Peoria Police	13704	City: Peoria
Joliet Police	13945	City: Joliet	Momence Police	13438	City: Momence	Phoenix Police	13004	City: Phoenix
Kane County Forest Preserve Police	13424	County: Kane	Monroe Police	13940	City: Monroe	Pinckneyville Police	13713	City: Pinckneyville
Kankakee County Sheriff	13441	County: Kankakee	Monmouth Police	13903	City: Monmouth	Pittsfield Police	13722	City: Pittsfield
KEWANEE POLICE	13359	City: Kewanee	Montgomery Police	13436	City: Montgomery	Plainfield Police	13937	City: Plainfield
Knoxville Police	13457	City: Knoxville	Moraine Valley Community College Police	13029	City: Palos Hills	Pontiac Police	13529	City: Pontiac
Lake County Forest Preserve Police	13479	County: Lake	Morris Police	13335	City: Morris	Posen Police	13003	City: Posen
Lake County Sheriff	13480	County: Lake	Morrisonville Police	13116	City: Morrisonville	Princeton Police	13077	City: Princeton
Lake Forest Police	13481	City: Lake Forest	Morton Grove Police	13027	City: Morton Grove	Pulaski County Sheriff	13729	County: Pulaski
Lake in the Hills Police	13556	City: Lake in the Hills	Morton Police	13867	City: Morton Grove	Quincy Police	13058	City: Quincy
Lake Zurich Police	13483	City: Lake Zurich	Mounds Police	13730	City: Mounds	Rantoul Police	13104	City: Rantoul
Lakemoor Police	13484	City: Lakemoor	Mount Carroll Police	13089	City: Mount Carroll	Richton Park Police	13001	City: Richton Park
Lee County Sheriff	13524	County: Lee	Mount Prospect Police	13026	City: Mount Prospect	River Forest Police	13000	City: River Forest
Lemont Police	13944	City: Lemont	Mount Vernon Police	13392	City: Mount Vernon	Riverside Police	12997	City: Riverside
Lenzburg Police	13781	City: Lenzburg	Mundelein Police	13488	City: Mundelein	Rochelle Police	13696	City: Rochelle
Lincolnshire Police	13486	City: Lincolnshire	Murphysboro Police	13382	City: Murphysboro	Rock Falls Police	13923	City: Rock Falls
Lincolnwood Police	13040	City: Lincolnwood	Naperville Police	13264	City: Naperville	Rock Island County Sheriff	13757	County: Rock Island
Lockport Park District Police	14087	City: Lockport	New Lenox Police	13939	City: New Lenox	Rock Island Police	13756	City: Rock Island
Lynwood Police	13358	City: Lynwood	Newman Police	13244	City: Newman	Rockford Metro Centre Police	14148	City: Rockford
Lyons Police	13038	City: Lyons	Normal Police	13568	City: Normal	Rockton Police	13974	City: Rockton
Macomb Police	13542	City: Macomb	North Aurora Police	13427	City: North Aurora	Rolling Meadows Police	12995	City: Rolling Meadows
Macoupin County Sheriff	13597	County: Macoupin	Northeastern Illinois University Police	13021	City: Chicago	Romeoville Police	13935	City: Romeoville
Mahomet Police	13106	City: Mahomet	Northlake Police	13019	City: Northlake	Roselle Police	13267	City: Roselle
Marengo Police	13554	City: Marengo	Northwestern University Police	13018	City: Evanston	Rosemont Police	12994	City: Rosemont
Marissa Police	13780	City: Marissa	O'Fallon Police	13776	City: O'Fallon	Round Lake Police	13495	City: Round Lake
Markham Police	13037	City: Markham	Oak Brook Police	13265	City: Oak Brook	Roxana Police	13611	City: Roxana
Marshall Police	13124	City: Marshall	Oak Lawn Police	13015	City: Oak Lawn	Rushville Police	13833	City: Rushville
Matteson Police	13036	City: Matteson	Oak Park Police	13014	City: Oak Park	Salem Police	13628	City: Salem
Mattoon Police	13139	City: Mattoon	Okawville Police	13907	City: Okawville	Saline County Sheriff	13797	County: Saline
McCook Police	13034	City: McCook	Orland Park Police	13011	City: Orland Park	San Jose Police	13640	City: San Jose
McHenry County College Police	14127	County: McHenry	Oswego Police	13451	City: Oswego	Sangamon County Sheriff	13810	County: Sangamon

Agency	ID	Regions	Agency	ID	Regions	Agency	ID	Regions
Sauget Police	13225	City: Sauget	Toulon Police	13845	City: Toulon	West Chicago Police	13271	City: West Chicago
Schaumburg Police	12992	City: Schaumburg	Troy Police	13607	City: Troy	West Dundee Police	13433	City: West Dundee
Schiller Park Police	12991	City: Schiller Park	Union Police	13548	City: Union	West Frankfort Police	13302	City: West Frankfort
Shiloh Police	13775	City: Shiloh	University of Chicago Police	14057	City: Chicago	Western Illinois University Police	13540	City: Macomb
Shorewood Police	13934	City: Shorewood	University of Illinois Chicago Police	13152	City: Chicago	Western Springs Police	13149	City: Western Springs
Skokie Police	12990	City: Skokie	University of Illinois Urbana Police	13101	Cities: Champaign; Urbana	Wheaton Police	13273	City: Wheaton
South Holland Police	12988	City: South Holland	Urbana Police	13100	City: Urbana	Wheeling Police	13148	City: Wheeling
Southern Illinois University Carbondale Police	13381	City: Carbondale	Valmeyer Police	13667	City: Valmeyer	Will County Sheriff	13931	County: Will
Southern Illinois University Edwardsville Police	13609	City: Edwardsville	Vandalia Police	13289	City: Vandalia	Williamson County Sheriff	13957	County: Williamson
Springfield Police	13805	City: Springfield	Venice Police	13606	City: Venice	Wilmette Police	13146	City: Wilmette
Steger Police	13161	City: Steger	Vermilion County Sheriff	13885	County: Vermilion	Winfield Police	13275	City: Winfield
Sterling Police	13922	City: Sterling	Vernon Hills Police	13497	City: Vernon Hills	Winnebago Police	13971	City: Winnebago
Stickney Police	13160	City: Stickney	Villa Park Police	13268	City: Villa Park	Winnetka Police	13145	City: Winnetka
Stockton Police	13400	City: Stockton	Wamac Police	13906	City: Wamac	Winthrop Harbor Police	13500	City: Winthrop Harbor
Streamwood Police	13158	City: Streamwood	Warrenville Police	13269	City: Warrenville	Wood Dale Police	13276	City: Wood Dale
Swansea Police	13771	City: Swansea	Washington Police	13860	City: Washington	Woodridge Police	13277	City: Woodridge
Sycamore Police	14015	City: Sycamore	Wayne County Sheriff	13911	County: Wayne	Zion Police	13501	City: Zion

Appendix D. Additional Notes on the Law

The Illinois General Assembly has promulgated laws that require the collection and analysis of data on traffic stops by law enforcement agencies in the state. The statutes relating to the statistical analysis of traffic and pedestrian stops are found in the Compiled Statutes of the Illinois General Assembly, 625 ILCS 5/11-212, effective 6/21/2019. See also Public Act 101-0024.

Section 11-212 of the Illinois statute authorizes the “Traffic and pedestrian stop statistical study”. This section also requires that when a police officer stops an individual, a specific set of information is to be recorded. This information includes: name, address, gender, race (six specific categories: White, Black or African American, Hispanic or Latino, Asian, American Indian or Alaska Native and Native Hawaiian or Other Pacific Islander), the violation, vehicle information, date, time, location, search information, whether contraband was found, disposition of the stop (warning, citation or arrest—arrest recorded only for pedestrian stops¹⁹) and the name and badge number of the officer. This information is to be obtained whether the police officer makes a traffic stop or a pedestrian stop and either issues a citation or a warning (or arrest for a pedestrian stop). In addition, the length of the contact in minutes is to be recorded for traffic stops. These data items are recorded using the data collection form included in Appendix A. The law further specifies that the collected data are to be sent to the Illinois Department of Transportation by a specific date each year for the stops data collected in the preceding year.

The Illinois Department of Transportation is further directed by statute to analyze the data and submit summary reports to the Governor, the General Assembly and the Racial Profiling Agency. The Illinois Department of Transportation is authorized to contract with an outside entity for the analysis of the data. That analysis is the purpose of this report. Moreover, the reporting entity is directed to scrutinize the data for evidence of “statistically significant aberrations.” An illustrative list of possible aberrations recorded in the statute include: (1) a higher-than-expected number of minorities stopped, (2) a higher-than-expected number of citations issued to minorities, (3) a higher-than-expected number of minorities stopped by a specific police agency, and (4) a higher-than-expected number of searches conducted on minority drivers or pedestrians.

The relevant statute, 625 ILCS 5/11-212 and subsection (a) provides that the law enforcement officer “...shall record at least the following...”. The statute seems to suggest the current data collection form includes a minimum level of information, and leaves open the possibility of gathering additional information in the future.

¹⁹ The pedestrian stop data collection form in use during 2020 has provision for recording an arrest. The traffic stop data collection form in use during 2020 does not provide a means of recording an arrest.