# ILLINOIS

## TRAFFIC AND PEDESTRIAN STOP STUDY

**2021** ANNUAL REPORT

TRAFFIC STOP ANALYSIS

SUBMITTED BY

THE MOUNTAIN-WHISPER-LIGHT: STATISTICS & DATA SCIENCE


The Mountain-Whisper-Light

SC-B CONSULTING

Achieving Innovative Solutions Together

# Illinois Traffic and Pedestrian Stop Study

2021 ANNUAL REPORT: TRAFFIC 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.

## Acknowledgements

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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. Reports have already been issued on 2019 and 2020 traffic and pedestrian stops in Illinois and are 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, IDOT 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 2022, TMWL and SC-B, in cooperation with IDOT’s Bureau of Data Collection (BDC), have provided copies of statistical tables for 787 law enforcement agencies in the state of Illinois, based on data collection provided by the respective agencies on traffic and pedestrian stops. These 787 agencies reported at least one traffic or pedestrian stop. The agencies were invited to review and comment on the tables. Some agencies did provide comments and the comments from an agency are included with their tables in Part II of this report. Comments on the Traffic stops tables (or general comments) and comments on the Pedestrian stops tables are included in the Part II Traffic or Pedestrian tables, respectively.

We are pleased to submit this 2021 Annual Report for the Illinois Traffic and Pedestrian Stop Study. The Executive Summary in this document covers the traffic stops study and a companion volume with a similar format contains an Executive Summary for the pedestrian stops 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 2021). 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 Summary. In addition to the information on data collection, we have provided a sample Traffic Table and a Guide to Using Traffic Tables that includes definitions of statistical terms used in this report and an 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 in the appendices 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 a 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 785 agencies generated data on 1,655,965 traffic stops and 238 agencies generated data on 7,261 pedestrian stops in 2021. A total of 787 agencies provided data on either traffic stops or pedestrian stops, with 549 agencies providing traffic stop data only, 2 agencies providing pedestrian stop data only, and 236 agencies providing both traffic and pedestrian stop data. Only 30 traffic stops (0.002% of traffic stops) were missing the race designation. None of the reported pedestrian stops were missing the race designation. Further analysis was carried out to provide statistics 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 the 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 traffic stops include:

- Information about the driver (including race) and the officer
- The location of the stop (using location designations developed by each agency)
- Reason for the stop
- Outcome of the stop
- Search activity and search findings of contraband.

## III. Guide to Using Traffic 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 statistics presented in the tables of this report.

Table 1 is included as an example to show stop rates, along with certain 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 traffic tables and offers a guide to the numbers in the tables, explained panel by panel. The table reproduced here (Table 1) refers to all traffic stops reported in 2021 from law enforcement agencies in the state of Illinois. The counts, rates, percentages and ratios are for purposes of illustration only and are <u>not</u> 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 for readers 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 2021 there were 284,783 traffic stops of individuals whom the officer assigned to the category “Hispanic or Latino.” The estimated benchmark population of Hispanic or Latino drivers in Illinois in 2021 was 1,826,702. Dividing the 284,783 by 1,826,702 yields the stop rate of 0.156. That is, there was an average of 0.156 stops per driving member of the Hispanic or Latino population. The decimal value 0.156 does not mean that 15.6% of Hispanic or Latino drivers had a stop. Some drivers may have been stopped more than once.

A **percentage** in this context has the usual meaning. For example, in Illinois in 2021 there were 799,981 stops of drivers whom the officer assigned to the category “White.” There were 565,492 of those stops with a citation for a moving violation. The number of stops with citations (565,492) divided by the number of stops (799,981) yields the decimal fraction 0.707. That fraction represented as a percentage is 70.7%. In Illinois in 2021, 70.7% of stops of drivers assessed as being White resulted in a citation of the driver.

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 traffic stop reporting. Following is a guide to each panel of the table.

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

**Panel 2** shows the number, percentage (in parentheses), and 95% confidence interval [in square brackets, like this] for selected reasons for traffic stops (moving violation, equipment, licensing/registration, and commercial vehicle) for each racial group. The label for the panel includes the note “Percentage of All Stops for the Racial Group with the Noted Reason for Stop.” This tells us that the number of stops for a given reason, such as “Moving Violation,” is divided by the total number of stops for the racial group to convert it to a percentage (after multiplication by 100%). For example, drivers assessed as being Asian had 38,177 stops noted by the officer as “Moving Violation,” and the Asian category had 54,218 total stops in 2021, hence the percentage of stops noted as “Moving Violation” for drivers classified as Asian was 100% x (38,177/54,218) = 70.4% (rounded).

**Panel 3** shows the outcomes of traffic stops including written warning, verbal warning, and citation for each racial group. The number, percentage (in parentheses), and 95% confidence interval [in brackets] are shown for each outcome. The ratio and 95% confidence interval (in parentheses) comparing each minority group to White drivers are shown for citations, the most serious outcome recorded for the stop on the traffic data collection form.

**Panel 4** shows vehicle searches and outcomes of vehicle searches during traffic stops, including consent searches, all searches, and whether contraband was found during any search for each racial group. The number, percentage (in parentheses), and 95% confidence interval [in brackets] are shown for each outcome. The label for each row shows the basis for calculation of the percentages. The contraband-found percentage is calculated based on all vehicle searches. The ratio and 95% confidence interval (in parentheses) comparing each minority group to White drivers are shown for contraband-found for all vehicle searches. (Note: searches following a dog sniff are not included in Panel 4. See Panel 6 for the statistics on stops with a dog sniff.)

**Panel 5** shows driver and passenger searches and outcomes of these searches during traffic stops including consent searches, all searches and whether contraband was found during any search for each racial group. The number, percentage (in parentheses), and 95% confidence interval [in brackets] are shown for each outcome. The label for each row shows the basis for calculation of the percentages. The contraband found percentage is calculated based on all driver or passenger searches. The ratio and 95% confidence interval (in parentheses) comparing each minority group to White drivers are shown for contraband found for all driver or passenger searches. (Note: searches following a dog sniff are not included in Panel 5. See Panel 6 for the statistics on stops with a dog sniff.)

**Panel 6** shows dog sniffs, searches, and outcomes of these searches during traffic stops, including dog alerts during a dog sniff, vehicle searches after a dog sniff and whether contraband was found after any vehicle search for each racial group. The number, percentage (in parentheses) and 95% confidence interval [in brackets] are shown for each outcome. The label for each row shows the basis for calculation of the percentages. The percentage of dog sniffs with a dog alert and the percentage of vehicle searches after a dog sniff are calculated based on all dog sniffs. The percentage for contraband found after a vehicle search is calculated based on all vehicle searches after a dog sniff, and the ratio and 95% confidence interval (in parentheses) are shown for contraband found for all vehicle searches after a dog sniff.

The top-right corner of the table indicates the type of benchmark used. Crash-based benchmarks utilize Illinois crash report data and distance-based benchmarks combine population statistics from surrounding ZIP codes while accounting for distance of the ZIP code area to the agency. The note at the bottom (left) of the table indicates the type of benchmark (crash-based or distance-based) and, if the benchmark is crash-based, the note states the number of crashes that were utilized. The note also lists the primary area of the benchmark, which captures the jurisdiction of the agency. These areas can be one or more cities (or towns or villages), counties, or the state of Illinois. All traffic benchmarks also include areas outside of the primary area. The percentage of the benchmark which comes from ZIP codes within the primary area is provided, and an indication of the overall area of the benchmark is provided by a radius around the primary area (in miles). Section V on benchmarks provides more information on how the benchmarks were constructed.

**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, 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, there are cases when 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 traffic stops: Counts, Rates, Percentages and Ratios*

| **Summary of Traffic Stops for 2021 - ILLINOIS STATEWIDE RESULTS** | | | | | | **Benchmark: Crash-based*** |
|---|---|---|---|---|---|---|
| | **White** | **Black or African American** | **Hispanic or Latino** | **Asian** | **American Indian or Alaska Native** | **Native Hawaiian or Other Pacific Islander** |
| **Panel: 1 Summary of Traffic Stops, Rates, and Rate Ratios with 95% Confidence Intervals. Total stops: 1,655,935. Total benchmark population: 9,350,390.** | | | | | | |
| Stops (% of Total) | 799,981 (48%) | 507,334 (31%) | 284,783 (17%) | 54,218 (3.3%) | 5,859 (0.4%) | 3,760 (0.2%) |
| Benchmark (% of Total) | 5,060,436 (54%) | 1,884,014 (20%) | 1,826,702 (20%) | 545,762 (5.8%) | 28,354 (0.3%) | 5,122 (0.05%) |
| Stop Rate (95% Confidence Interval) | 0.1581 (0.1577 - 0.1584) | 0.2693 (0.2685 - 0.27) | 0.1559 (0.1553 - 0.1565) | 0.0993 (0.0985 - 0.1) | 0.207 (0.201 - 0.212) | 0.73 (0.71 - 0.76) |
| Stop Rate Ratio vs White (95% Confidence Interval) | 1.0 | ***1.7 (1.69 - 1.72)*** | 0.986 (0.979 - 0.993) | 0.628 (0.622 - 0.635) | ***1.31 (1.27 - 1.34)*** | ***4.6 (4.5 - 4.8)*** |
| **Panel: 2 Summary of Reason for Stop - Number (Percentage of All Stops for the Racial Group with the Noted Reason for Stop) [95% Confidence Interval]** | | | | | | |
| Moving Violation | 565,492 (70.7%) [70.5% - 70.9%] | 262,975 (51.8%) [51.6% - 52%] | 166,580 (58.5%) [58.2% - 58.8%] | 38,177 (70.4%) [69.7% - 71.1%] | 3,893 (66%) [64% - 69%] | 2,540 (68%) [65% - 70%] |
| Equipment | 138,181 (17.3%) [17.2% - 17.4%] | 140,109 (27.6%) [27.5% - 27.8%] | 75,150 (26.4%) [26.2% - 26.6%] | 11,107 (20.5%) [20.1% - 20.9%] | 1,293 (22%) [21% - 23%] | 791 (21%) [20% - 23%] |
| Licensing/Registration | 89,705 (11.2%) [11.1% - 11.3%] | 102,205 (20.1%) [20% - 20.3%] | 39,328 (13.8%) [13.7% - 13.9%] | 4,750 (8.8%) [8.5% - 9%] | 652 (11%) [10% - 12%] | 401 (11%) [9.6% - 12%] |
| Commercial Vehicle | 6,603 (0.83%) [0.81% - 0.85%] | 2,044 (0.4%) [0.39% - 0.42%] | 3,724 (1.31%) [1.27% - 1.35%] | 184 (0.34%) [0.29% - 0.39%] | 21 (0.36%) [0.22% - 0.55%] | 28 (0.74%) [0.49% - 1.1%] |
| **Panel: 3 Summary of Outcome of Stop - Number (Percentage of All Stops for the Racial Group with the Noted Outcome of Stop) [95% Confidence Interval]** | | | | | | |
| Verbal Warning | 189,264 (23.7%) [23.6% - 23.8%] | 285,612 (56.3%) [56.1% - 56.5%] | 123,159 (43.2%) [43% - 43.5%] | 19,114 (35.3%) [34.8% - 35.8%] | 2,517 (43%) [41% - 45%] | 1,695 (45%) [43% - 47%] |
| Written Warning | 319,417 (39.9%) [39.8% - 40.1%] | 96,652 (19.1%) [18.9% - 19.2%] | 72,869 (25.6%) [25.4% - 25.8%] | 18,478 (34.1%) [33.6% - 34.6%] | 1,613 (28%) [26% - 29%] | 1,017 (27%) [25% - 29%] |
| Citation | 291,300 (36.4%) [36.3% - 36.5%] | 125,070 (24.7%) [24.5% - 24.8%] | 88,755 (31.2%) [31% - 31.4%] | 16,626 (30.7%) [30.2% - 31.1%] | 1,729 (30%) [28% - 31%] | 1,048 (28%) [26% - 30%] |
| Citation Ratio vs White (95% Confidence Interval) | 1.0 | 0.677 (0.673 - 0.682) | 0.856 (0.849 - 0.862) | 0.84 (0.83 - 0.86) | 0.81 (0.77 - 0.85) | 0.77 (0.72 - 0.81) |
| **Panel: 4 Summary of Vehicle Search Events - Number (Percentage for the Racial Group) [95% Confidence Interval]** | | | | | | |
| Consent Search (% of Stops) | 7,689 (0.96%) [0.94% - 0.98%] | 6,935 (1.37%) [1.33% - 1.4%] | 3,418 (1.2%) [1.16% - 1.24%] | 342 (0.63%) [0.57% - 0.7%] | 60 (1%) [0.78% - 1.3%] | 48 (1.3%) [0.94% - 1.7%] |
| All Searches (% of Stops) | 44,847 (5.61%) [5.55% - 5.66%] | 28,193 (5.56%) [5.49% - 5.62%] | 12,593 (4.4%) [4.3% - 4.5%] | 943 (1.7%) [1.6% - 1.9%] | 170 (2.9%) [2.5% - 3.4%] | 106 (2.8%) [2.3% - 3.4%] |

| Summary of Traffic Stops for 2021 - ILLINOIS STATEWIDE RESULTS | | | | | | Benchmark: Crash-based* |
|---|---|---|---|---|---|---|
| | **White** | **Black or African American** | **Hispanic or Latino** | **Asian** | **American Indian or Alaska Native** | **Native Hawaiian or Other Pacific Islander** |
| Contraband Found (% of All Searches) | 10,778 (24%) [23.6% - 24.5%] | 11,711 (41.5%) [40.8% - 42.3%] | 4,447 (35%) [34% - 36%] | 246 (26%) [23% - 30%] | 41 (24%) [17% - 33%] | 29 (27%) [18% - 39%] |
| Contraband Found Ratio vs White (95% Confidence Interval) | 1.0 | ***1.73 (1.68 - 1.77)*** | ***1.47 (1.42 - 1.52)*** | 1.1 (0.95 - 1.2) | 1 (0.72 - 1.4) | 1.1 (0.76 - 1.6) |
| **Panel: 5 Summary of Driver or Passenger Search Events - Number (Percentage for the Racial Group) [95% Confidence Interval]** | | | | | | |
| Consent Search (% of Stops) | 5,723 (0.72%) [0.7% - 0.73%] | 5,443 (1.07%) [1.04% - 1.1%] | 2,425 (0.85%) [0.82% - 0.89%] | 192 (0.35%) [0.31% - 0.41%] | 30 (0.51%) [0.35% - 0.73%] | 21 (0.56%) [0.35% - 0.85%] |
| All Searches (% of Stops) | 28,922 (3.62%) [3.57% - 3.66%] | 21,442 (4.23%) [4.17% - 4.28%] | 10,183 (3.58%) [3.51% - 3.65%] | 583 (1.1%) [0.99% - 1.2%] | 92 (1.6%) [1.3% - 1.9%] | 69 (1.8%) [1.4% - 2.3%] |
| Contraband Found (% of All Searches) | 3,276 (11.3%) [10.9% - 11.7%] | 2,977 (13.9%) [13.4% - 14.4%] | 843 (8.3%) [7.7% - 8.9%] | 40 (6.9%) [4.9% - 9.3%] | 9 (9.8%) [4.5% - 19%] | 2 (2.9%) [0.35% - 10%] |
| Contraband Found Ratio vs White (95% Confidence Interval) | 1.0 | ***1.23 (1.17 - 1.29)*** | 0.73 (0.68 - 0.79) | 0.61 (0.43 - 0.83) | 0.86 (0.39 - 1.6) | 0.26 (0.031 - 0.93) |
| **Panel: 6 Summary of Dog Sniff Events - Number (Percentage for the Racial Group) [95% Confidence Interval]** | | | | | | |
| Dog Sniff (% of Stops) | 2,033 (0.25%) [0.24% - 0.27%] | 828 (0.16%) [0.15% - 0.17%] | 422 (0.15%) [0.13% - 0.16%] | 82 (0.15%) [0.12% - 0.19%] | 8 (0.14%) [0.059% - 0.27%] | 3 (0.08%) [0.016% - 0.23%] |
| Dog Alert after Dog Sniff (% of Dog Sniffs) | 1,703 (84%) [80% - 88%] | 689 (83%) [77% - 90%] | 347 (82%) [74% - 91%] | 69 (84%) [65% - 100%] | 7 (88%) [35% - 100%] | 3 (100%) [21% - 100%] |
| Vehicle Search after Dog Sniff (% of Dog Sniffs) | 1,622 (80%) [76% - 84%] | 671 (81%) [75% - 87%] | 330 (78%) [70% - 87%] | 67 (82%) [63% - 100%] | 6 (75%) [28% - 100%] | 3 (100%) [21% - 100%] |
| Contraband Found (% of Vehicle Searches, preceding row) | 1,010 (62%) [58% - 66%] | 428 (64%) [58% - 70%] | 143 (43%) [37% - 51%] | 20 (30%) [18% - 46%] | 3 (50%) [10% - 100%] | 3 (100%) [21% - 100%] |
| Contraband Found Ratio vs White (95% Confidence Interval) | 1.0 | 1 (0.91 - 1.1) | 0.7 (0.58 - 0.83) | 0.48 (0.29 - 0.74) | 0.8 (0.17 - 2.4) | 1.6 (0.33 - 4.7) |

***Benchmark Definition**
Benchmark Type: Crash-based (242,304 crash reports used).
Primary Benchmark Area (State): Illinois.
95.4% of the benchmark comes from zip codes within the primary area.
99.0% of the benchmark comes from zip codes within 352 miles of the primary area, including the primary area.

## IV. Interpretation of Traffic 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. 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 but 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 that 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 in a given jurisdiction are a population, and that population is referred to as the “benchmark” for the jurisdiction.) 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 benchmarks attempt to estimate the actual driving population within the jurisdiction of each agency using a combination of data sources, including surveys by the U.S. Census Bureau, Illinois crash reports (collected by IDOT), and Illinois driver license counts (provided by the office of the Secretary of State of Illinois). But these data can only approximate the driving populations and necessarily rely on particular assumptions, which may not always be accurate. Thus, the benchmarks may 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.)

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 traffic tables, the percentage of searches for a racial group is a percentage of *stops* leading to a search. The percentage of contraband found in a vehicle is the percentage of *vehicle searches* 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, using a population benchmark, differs from studies of stops in 2019-2020 and in 2018 and earlier. See Section V below for specific details on the benchmarks. While the new methodology provides more accurate estimates of the racial composition of the driving population, the changes impact comparisons of results from the 2021 stops analysis to the analyses in 2019-2020 and to the analyses in years prior to 2019. Comparisons of 2021 to 2019-2020 are easier than comparisons of 2021 to 2004-2018 because the table formats are very similar even though there are some underlying methodological differences.

These and other changes have improved the estimate of the benchmark populations and the accuracy of stop rate ratios. Thus, any difference in rate ratios between 2021 stops reports and earlier stops reports (2019-2020 and 2014-2018) may be at least partly due to a change in statistical methods used in this report 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 2021 stop rates to 2018 rates (and earlier) is that the 2021 report presents 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. The 2019-2020 reports also reported results separately for each individual race, making comparisons of 2019-2020 to 2021 more straightforward.

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 2021 stops data to a percentage reported in a year prior to 2019, some additional calculations will be needed. This 2021 stops report and the 2019-2020 stops reports present results for each racial group, whereas reports prior to 2019 combined five races into one group: all minorities. To calculate a percentage for 2021 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 traffic 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.

Several changes have been made to the methodology for the 2021 traffic stop benchmarks compared to the 2020 benchmark methodology in order to improve accuracy and address some previous limitations. The primary changes for the traffic stop benchmarks are:

1. The most recent American Community Survey (ACS) population statistics are used.
2. The "multiple races" ACS category has been reallocated to individual racial groups.
3. Benchmarks use ZIP-code-level statistics instead of city-, county-, or state-level statistics.
4. Crash report data is used for benchmarks whenever possible (crash-based benchmarks).
5. Other benchmarks are constructed by combining zip codes from the surrounding area, weighted by the distance from the agency's jurisdiction (distance-based benchmarks).

The methodologies for handling the "multiple races" group and generating the benchmarks are described in detail in Appendix C of this report, but a brief overview is provided here. The census and ACS allow individuals to select multiple races while the Illinois stop form requires a single race, so some adjustment is needed to convert population statistics from the census/ACS sources into benchmarks for Illinois stops. In past years, the multiple races group in Illinois was very small and was excluded from calculations. Starting this year, as the multiple race group has grown over time, the multiple race group was reallocated to single race categories using equal fractions fractional allocation (see Appendix C, section C.3). The primary impact of this change was to increase the number of individuals classified as American Indian/Alaska Native or Native Hawaiian/Other Pacific Islander compared to past years, as these two groups frequently reported another race in addition to the aforementioned races (see Section C.7). These groups are now better represented in the benchmarks than in past years, which should lead to more accurate estimates of their stop rates.

Both types of benchmarks (crash-based and distance-based) combined populations from ZIP codes directly associated with an agency (e.g., the ZIP codes of a city for a city police agency) as well as populations from ZIP codes from the surrounding area (see Section C.6). Crash-based benchmarks were generated using Illinois traffic crash data (based on 2019-2020 SR 1050 crash reports[1]) for agencies with a sufficient number of eligible crashes. The crash reports include the ZIP codes of the drivers, which were used to determine which ZIP codes to include in the benchmark and how much weight to give each ZIP code. Distance-based benchmarks also combined ZIP codes in a weighted fashion, but used a mathematical formula to determine how much weight to give each ZIP code as a function of its distance from the agency, where the weight always decreased with increasing distance. The crash data from similar and nearby agencies was used to determine the distance-based weighting formula for a given agency.

Note that the traffic stop and pedestrian stop benchmark methodologies differ more than in previous years because of the different data sources available to generate them. Thus, it is not unusual for there to be notable differences between the traffic and pedestrian benchmarks for the same agency.

# VI. Selected Findings

This section of the report shows some tables and figures that present results on the agencies and their stops from the entire State of Illinois for 2021. Some results are contrasted with their corresponding 2020 values.

**Coronavirus Disease 2019 and Later (COVID-19)**

The COVID-19 pandemic in the United States continued to have a substantial impact on the number of stops made in 2021, as is apparent from multiple figures shown below. The first confirmed case of COVID-19 was detected in Illinois on January 23, 2020[2]. On March 16 and 17, 2020, the Illinois State

[1] https://www.idot.illinois.gov/Assets/uploads/files/Transportation-System/Manuals-Guides-&-Handbooks/Safety/Illinois%20Traffic%20Crash%20Report%20SR%201050%20Instruction%20Manual%202019.pdf (last accessed May 5th, 2022).

[2] 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

government closed bars, restaurants, and schools[3] and ultimately executed a statewide state-at-home order starting March 21, 2020[4].

**Agency reporting status**

Among the 1005 agencies that could submit stops data to IDOT, 72.6% of the agencies had stops and provided complete stops data for 2021 to IDOT (Table 2, top numeric row), which is a substantial decrease compared to 81.8% in 2020. Only 3 agencies had no traffic stops (0.3%) and 27.1% of agencies collected stops data for less than a year ("incomplete") or had stops but did not submit any stops data ("Non-compliant"), which is a substantial increase compared to 16.5% in 2020.

***Table 2. Agency status on reporting.*** Illinois, all agencies, Traffic stops, 2020 and 2021.

| Status of Agency | 2020 | | 2021 | |
|---|---|---|---|---|
| | Number of agencies | Percent of agencies | Number of agencies | Percent of agencies |
| Complete reporting[a] | 823 | 81.8% | 730 | 72.6% |
| Zero stops[b] | 17 | 1.7% | 3 | 0.3% |
| Incomplete[c] | 26 | 2.6% | 55 | 5.5% |
| Non-compliant[d] | 140 | 13.9% | 217 | 21.6% |
| All agencies combined | 1006 | 100% | 1005 | 100% |

[a]Agency with one or more stops that were completely reported;
[b]Agency performed no stops over the year;
[c]Agency submitted some but not all of their stops for the year;
[d]Agency made stops, but no stops data was submitted.

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

[4] 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/

## Number of stops

The total number of reported traffic stops in 2021 was 1,655,935. The number of stops per agency was generally substantial. Hundreds of agencies (about 74%) had over a hundred stops during 2021 (Table 3).

***Table 3. Number of Traffic stops for agencies with at least one stop.*** Illinois, all agencies, Traffic stops, 2020 and 2021.

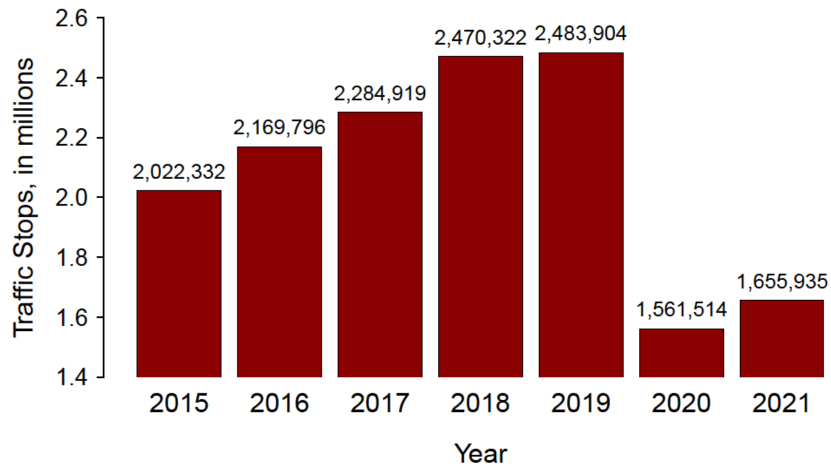
| Number of stops | 2020 | | 2021 | |
|---|---|---|---|---|
| | Number of agencies | Percent of agencies | Number of agencies | Percent of agencies |
| 1-10 | 65 | 7.9% | 64 | 8.8% |
| 11-100 | 155 | 18.8% | 123 | 16.8% |
| 101-1,000 | 346 | 42.0% | 281 | 38.5% |
| 1,001-10,000 | 248 | 30.1% | 253 | 34.7% |
| 10,001-100,000 | 7 | 0.9% | 7 | 1.0% |
| More than 100,000 | 2 | 0.2% | 2 | 0.3% |
| All compliant agencies with ≥ 1 stop | 823 | 100% | 730 | 100% |

Notes:
(1) Includes only agencies with at least one stop and complete reporting of their stops.
(2) Chicago Police: 327,224 traffic stops in 2020; 377,870 in 2021. (Chicago is also represented in the Table above).

Stops that were reported with missing information about the race of the driver were excluded from this report, and were not considered “reported stops.” In 2020 there were 66 such stops, and in 2021 there were 30 such stops.

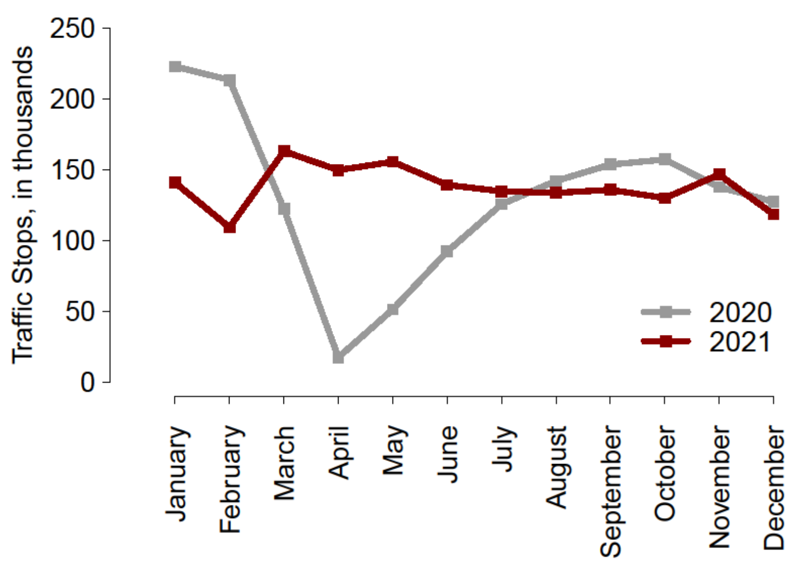
The number of reported stops per year has grown each year since 2015 (Figure 1a) until there was a sharp decrease in 2020. There was a 23% increase in the number of stops reported to IDOT from 2015 to 2019; in 2020, the number of reported stops sharply decreased 37% from 2019. In 2021, this number increased a moderate 6% from 2020.

***Figure 1a. Illinois, number of traffic stops, 2015-2021.***




The monthly pattern of stops reveals the continued impact of COVID-19 on the number of traffic stops in 2021 (Figure 1b). As the COVID-19 pandemic developed during the first quarter of 2020 in the United States, the number of stops decreased substantially. The number of stops increased in each subsequent month from April through October 2020, then remained fairly steady throughout 2021.

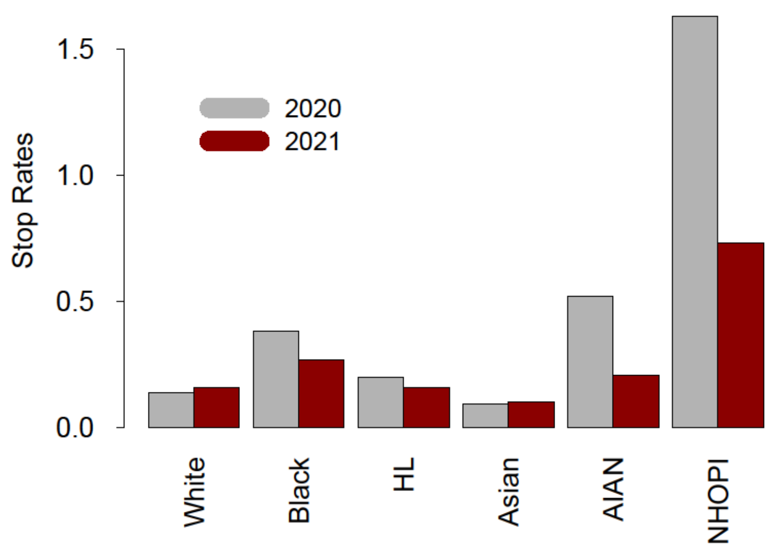
***Figure 1b. Illinois, number of Traffic stops per month, 2020 (gray line) and 2021 (dark red line).***



## Stop rates

The statewide stop rates are diverse among the six racial groups (Figure 2). Of interest, the smallest minority group (Native Hawaiian or Other Pacific Islander) had the highest stop rates. This is, potentially, an anomaly due to a mismatch between the officer-identified race of stopped individuals and the self-identified race reported in the U.S. census survey data used as part of the benchmark calculations in this study. The substantial decrease in stop rates for American Indian or Alaska Native and Native Hawaiian or Other Pacific Islander groups can primarily be attributed to changes in how individuals who reported multiple races on census survey data were handled in benchmark calculations, as described in Section V of this report. These benchmark changes likely reduced undercounting of American Indian or Alaska Native and Native Hawaiian or Other Pacific Islander groups compare to past years, making their 2021 stop rates more accurate than in past years. The smaller changes in stop rates between 2020 and 2021 for the other racial groups may in part be related to other changes in the benchmark methodology, which now utilizes Illinois crash report data to improve estimates of the driving population, as described in Section V.

***Figure 2. Stop rates for each racial group, 2020 (gray bars) and 2021 (dark red bars).*** Illinois, Traffic stops, 2020 and 2021.




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".

## Distribution of stop rate ratios

Table 4.a shows the numbers of comparisons of stops rates of a minority racial group and Whites carried out in the traffic 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). For this analysis there were fewer than five comparisons when White drivers had zero stops or when a benchmark population value was zero for either a minority racial group or Whites, thus making some comparison rate ratios numerically undefined.

The first column under "A" in Table 4.a illustrates all comparisons: each minority/White rate ratio from each agency has been compiled across all agencies. Table 4.a then categorizes the rate ratios by their magnitude, and shows the percentage distribution across categories. The columns under "B" restricts the comparisons to those based on at least 50 White stops and 50 stops of the minority group compared. The 50 stops would provide a more precise rate ratio than a smaller number of stops. The large percentage of stops in the category "<0.25" in panel A for both 2020 and 2021 is due to the presence of many small agencies that have a small number of stops and zero stops for one or more minorities.

We note a drastic reduction — nearly 5-fold from Panel A to Panel B — in the total number of rate ratios, from 3,640 (all comparisons) down to 789 (more precise comparisons). From the more precise comparisons (Panel B, based on 50 or more stops of Whites and 50 or more stops of the minority group compared) we estimate that in 75% of these rate ratios, minority drivers were stopped at a higher rate than White drivers (rate ratio > 1). This suggests (as a possibility but does not prove) that racial profiling was a factor in a number of traffic stops.

The overall distribution of rate ratios seems roughly similar from 2020 into 2021. 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 for a specific agency.

***Table 4.a Distribution of stop rate ratios.*** (Each non-White racial group compared to Whites for an agency). Illinois, Traffic stops, 2020 and 2021.

| | A. All agencies and racial groups* | | B. Agencies and racial groups with at least 50 stops** | |
|---|---|---|---|---|
| Stop rate ratios | 2020 | 2021 | 2020 | 2021 |
| <0.25 | 35.2% | 37.1% | 1.0% | 0.6% |
| 0.25 to <0.5 | 6.6% | 7.9% | 6.4% | 5.3% |
| 0.5 to <1.0 | 12.1% | 14.7% | 20.0% | 19.1% |
| 1.0 to <2.0 | 14.6% | 16.8% | 26.8% | 33.1% |
| 2.0 to <4.0 | 12.0% | 13.9% | 22.9% | 30.9% |
| ≥4.0 | 19.5% | 9.6% | 23.0% | 10.9% |
| 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 drivers or a benchmark population value of zero for either a minority racial group or Whites.
**All comparisons of Whites and a racial group for all agencies; all comparisons must have at least 50 stops of Whites and 50 stops of the compared racial group. Excludes undefined rate ratios, or where either Whites or the compared racial group have less than 50 stops.
***The number of ratios that were included in the analysis in columns A and B respectively, were 3,837 and 814 in 2020; 3,640 and 789 in 2021. Each ratio involves a comparison of one non-White racial group vs. Whites for one agency.

Table 4.b shows the distribution of stop rate ratios in 2021 among the three most populous minority groups. Since each agency provides only a single stop rate ratio for a single minority group, here, a proportion of stop ratios equates to a proportion of agencies. From the more precise comparisons (Panel B) we estimate that in 91.5% of agencies with at least 50 stops for both Whites and Blacks, Black drivers are stopped at a higher rate than White drivers (rate ratio > 1). For Hispanic drivers, this value is 79.9%. Similar to the note on Table 4.a, this suggests (as a possibility but does not prove) that racial profiling was a factor in a number of traffic stops. This finding does not occur among stopped Asian drivers, who are stopped at a higher rate than White drivers in only 16.1% of agencies with at least 50 stops for both Whites and Asians.

***Table 4.b Distribution of stop rate ratios for Blacks, Hispanic and Asian drivers.*** (Each noted non-White racial group compared to Whites for an agency). Illinois, Traffic stops, 2021.

| | A. All agencies and racial groups | | | B. Agencies and racial groups with at least 50 stops* | | |
|---|---|---|---|---|---|---|
| Stop rate ratios | Black | Hispanic | Asian | Black | Hispanic | Asian |
| <0.25 | 13.7% | 17.7% | 44.5% | 0 | 1.8% | 0 |
| 0.25 to <0.5 | 3.8% | 10.2% | 8.1% | 0.3% | 4.2% | 22.1% |
| 0.5 to <1.0 | 13.7% | 19.6% | 11.0% | 8.2% | 14.0% | 61.8% |
| 1.0 to <2.0 | 20.3% | 35.7% | 13.2% | 20.7% | 59.6% | 12.2% |
| 2.0 to <4.0 | 33.7% | 14.4% | 9.1% | 51.8% | 18.9% | 3.1% |
| ≥4.0 | 14.7% | 2.3% | 6.2% | 19.0% | 1.4% | 0.8% |
| All ratios | 100% | 100% | 100% | 100% | 100% | 100% |

*All comparisons of Whites and a racial group for all agencies; all comparisons must have at least 50 stops of Whites and 50 stops of the compared racial group. Excludes undefined rate ratios, or where either Whites or the compared racial group have less than 50 stops.

Table 4.c shows the distribution of citation ratios among the three minority groups, and all the racial groups collectively, in 2021. Here we estimate that in 71.6% of all agencies with at least 50 stops for both Whites and Blacks, Black drivers are getting citations at a higher rate than White drivers (citation ratio > 1). For Hispanic drivers, this value is 80%. Similar to the note on Table 4.a, this suggests (as a possibility but does not prove) that racial profiling was a factor in a number of citations. This finding does not occur among Asian drivers, whose citation rate is higher than among White drivers in only 48.1% of all agencies with at least 50 stops for both Whites and Asians. Overall, in 70.2% of all citation ratios minority drivers are getting citations at a higher rate than White drivers.

***Table 4.c Distribution of citation ratios.*** (Each ratio that enters into the computation involves each noted non-White racial group compared to Whites for an agency). Illinois, Traffic stops, 2021.

| Cit. rate ratios* | Black | Hispanic | Asian | All racial groups |
|---|---|---|---|---|
| <0.25 | 0 | 0.4% | 0.8% | 0.4% |
| 0.25 to <0.5 | 0.3% | 0 | 0.8% | 0.5% |
| 0.5 to <1.0 | 28.0% | 19.6% | 50.4% | 28.9% |
| 1.0 to <2.0 | 67.1% | 76.8% | 47.3% | 66.9% |
| 2.0 to <4.0 | 4.2% | 3.2% | 0.8% | 3.2% |
| ≥4.0 | 0.3% | 0 | 0 | 0.1% |
| All ratios** | 100% | 100% | 100% | 100% |

*All comparisons of Whites and a racial group for all agencies; all comparisons must have at least 50 stops of Whites and 50 stops of the compared racial group. Excludes undefined ratios, or ratios where either Whites or the compared racial group have less than 50 stops.
**The number of ratios that were included in the analysis for 2021 stops is 789. Each ratio that enters into the computation involves a comparison of one non-White racial group to Whites for one agency.

Table 4.d shows the distribution of contraband-found ratios in vehicle searches among the three more populous minority groups, and all the racial groups collectively, in 2021. Here we estimate that in 57% of all agencies with at least 50 stops for both Whites and Blacks, contraband is found in Black drivers' vehicle searches at a higher rate than in White drivers (ratio > 1). For Hispanic drivers, this value is 45.8%, for Asian drivers it is 44.4%, and the overall percentage for all racial groups is 51%. This result does not suggest a presence of racial profiling related to this aspect of traffic stops.

***Table 4.d Distribution of contraband found ratios in vehicle searches*.** (Each ratio that enters into the computation involves each noted non-White racial group compared to Whites for an agency). Illinois, Traffic stops, 2021.

| Cont. rate ratios* | Black | Hispanic | Asian | All racial groups |
|---|---|---|---|---|
| <0.25 | 7.3% | 7.9% | 31.1% | 9.3% |
| 0.25 to <0.5 | 3.0% | 5.7% | 2.2% | 3.9% |
| 0.5 to <1.0 | 36.8% | 40.5% | 22.2% | 35.7% |
| 1.0 to <2.0 | 50.7% | 41.0% | 33.3% | 44.1% |
| 2.0 to <4.0 | 4.6% | 4.4% | 10.0% | 5.8% |
| ≥4.0 | 1.7% | 0.4% | 1.1% | 1.1% |
| All ratios** | 100% | 100% | 100% | 100% |

*All comparisons of Whites and a racial group for all agencies; all comparisons must have at least 50 stops of Whites and 50 stops of the compared racial group. Excludes undefined ratios, or ratios where either Whites or the compared racial group have less than 50 stops.
**The number of ratios that were included in the analysis for 2021 stops is 633. Each ratio that enters into the computation involves a comparison of one non-White racial group to Whites for one agency.

Table 4.e shows the distribution of contraband found ratios in searches of individual drivers or passengers among three minority groups individually, and all the racial groups collectively, in 2021. Here we estimate that in 46.8% of all agencies with at least 50 stops for both Whites and Blacks, contraband is found while searching Black drivers or their passengers at a higher rate than in White drivers or their passengers (ratio > 1). For Hispanic drivers or their passengers, this number is 34.2%, for Asian drivers it is 18.5%, and the overall percentage for all racial groups is 37.4%. This result does not suggest a presence of racial profiling related to this aspect of traffic stops

***Table 4.e Distribution of contraband found ratios from searches of individuals: driver or passengers*.** (Each ratio that enters into the computation involves each noted non-White racial group compared to Whites for an agency). Illinois, Traffic stops, 2021.

| Rate ratios* | Black | Hispanic | Asian | All racial groups |
|---|---|---|---|---|
| <0.25 | 21.8% | 29.9% | 77.6% | 34.2% |
| 0.25 to <0.5 | 9.5% | 10.7% | 0 | 8.5% |
| 0.5 to <1.0 | 21.8% | 25.1% | 3.9% | 19.9% |
| 1.0 to <2.0 | 32.5% | 20.9% | 7.9% | 24.1% |
| 2.0 to <4.0 | 9.5% | 9.6% | 5.3% | 8.7% |
| ≥4.0 | 4.8% | 3.7% | 5.3% | 4.6% |
| All ratios** | 100% | 100% | 100% | 100% |

*All comparisons of Whites and a racial group for all agencies; all comparisons must have at least 50 stops of Whites and 50 stops of the compared racial group. Excludes undefined ratios, or ratios where either Whites or the compared racial group have less than 50 stops.
**The number of ratios that were included in the analysis for 2021 stops is 527. Each ratio that enters into the computation involves a comparison of one non-White racial group to Whites for one agency.

## Reason for Stop

The reason for each stop is summarized in Figure 3a. The percentage of stops for each reason varied substantially by racial group (Figure 3b).

***Figure 3a. Percentage of stops by reason for stop.*** Illinois, Traffic stops, 2021.

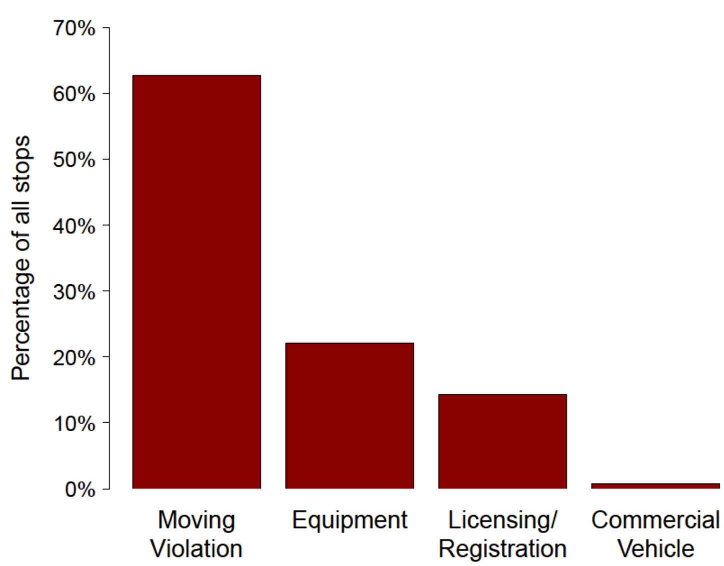
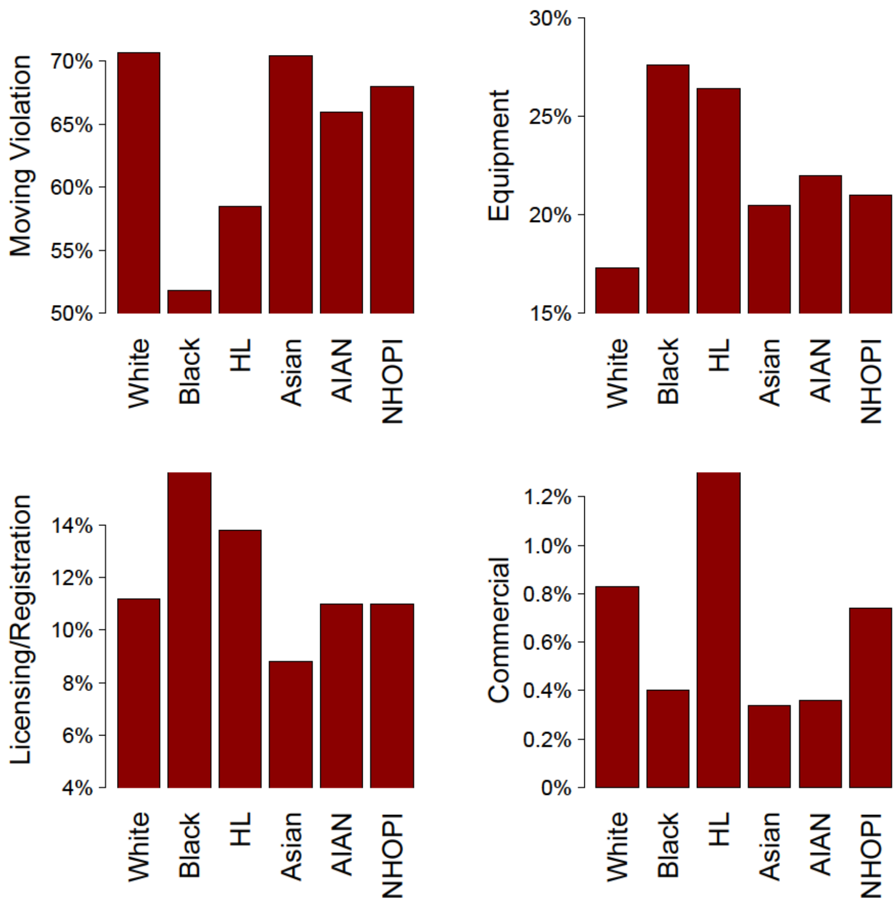


***Figure 3b. Percentage of stops for the noted reason, by race.*** For each race, the percentages sum to 100% across the four noted reasons. Note that the upper and lower limits of the y-axis vary across the four panels. Illinois, Traffic stops, 2021.

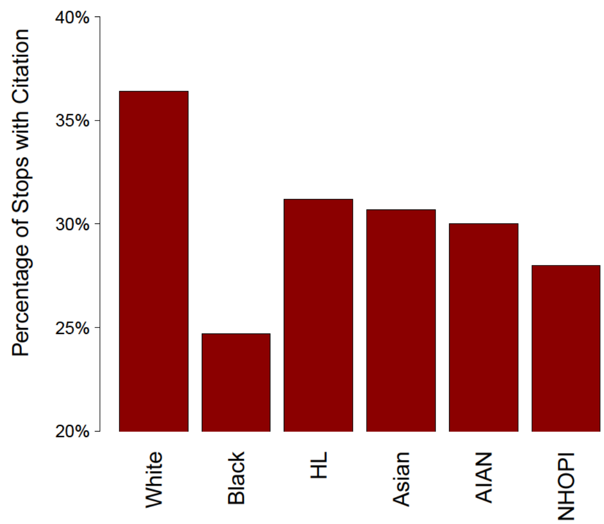



Abbreviations for racial groups: Black = “Black or African American”, HL = “Hispanic or Latino”, AIAN = “American Indian or Alaska Native”, NHOPI = “Native Hawaiian or Other Pacific Islander”.

## Outcome of Stop: Citation

Similar to the results in Figure 3b, the six racial groups have diverse percentages receiving a citation as the outcome of the stop (Figure 4). "Citation" is the most serious result of the three outcomes recorded on the traffic stop data collection form: citation, written warning or verbal warning/stop card.

***Figure 4. Percentage of stops with a citation, by race.*** Illinois, Traffic stops, 2021.

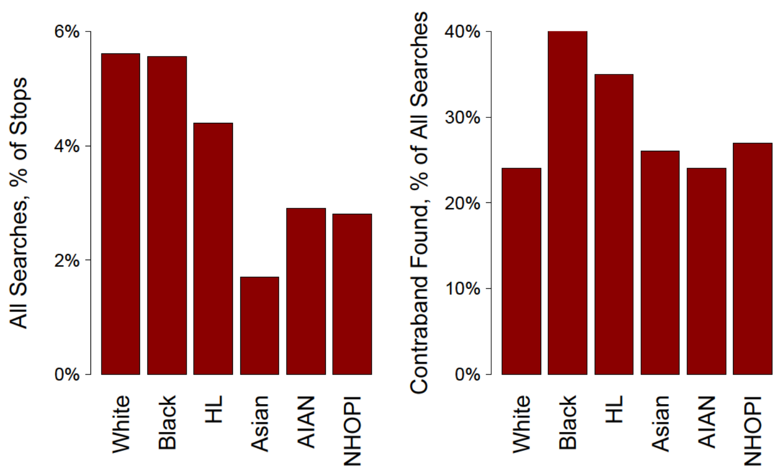



Abbreviations for racial groups: Black = "Black or African American", HL = "Hispanic or Latino", AIAN = "American Indian or Alaska Native", NHOPI = "Native Hawaiian or Other Pacific Islander".

## Searches

Figure 5a shows that the vehicle search rate was moderately low for all of the racial groups (approximately 2-6% of stops, left panel), but, given a vehicle search, the contraband yield was not low (24-41% of searches, right panel). As noted for other figures, there is variation among the races' percentages in both panels.

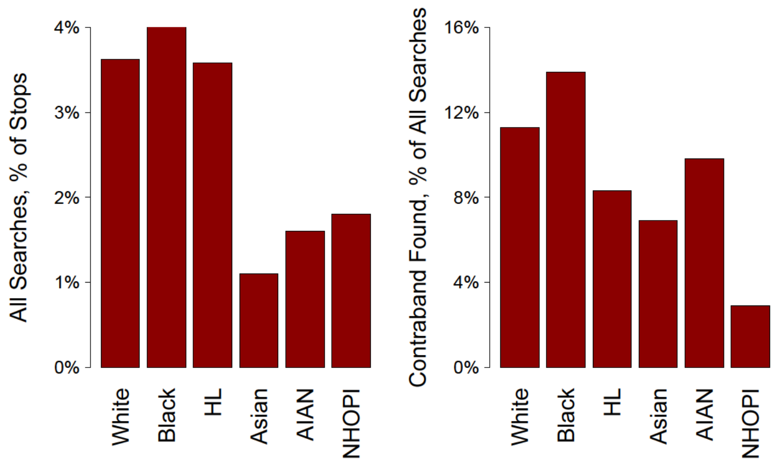
***Figure 5a. Percentage of stops with vehicle searches; percentages of vehicle searches with Contraband Found, by race.*** Note that the upper and lower limits of the vertical axis vary across the two panels. Illinois, Traffic stops, 2021.




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".

Figure 5b shows that the driver or passenger search rate (searching an individual) was low for all of the racial groups (approximately 1-4% of stops, left panel), and, given a driver or passenger search, the contraband yield was somewhat higher (3-14% of searches, right panel). As noted for other figures, there is variation among the races' percentages in both panels.

***Figure 5b. Percentage of stops with driver or passenger searches; percentages of vehicle searches with Contraband Found, by race.*** Note that the upper and lower limits of the vertical axis vary across the two panels. Illinois, Traffic stops, 2021.



## Dog Sniffs

While there were thousands of dog sniffs performed statewide (3,376 in 2021), it was still relatively rare compared to the total number of stops by Illinois state agencies. Only one in 490 stops in 2021 had a dog sniff. Not all agencies conduct dog sniffs, because the trained dogs are not available in each agency. While the frequency of dog sniffs is low statewide (0.08%-0.25% of stops across the six racial groups), the finding of contraband following a vehicle search after a dog sniff is substantial (30-100% of vehicle searches across the six racial groups). The 50% and 100% contraband "hit rates" in the table are based on very small numbers of stops for the two small minority groups (eight and three stops, respectively) and should not be considered as reliable.

***Table 5. Number of stops with a dog sniff and their percentage among all stops; given that a dog sniff occurred, number and percentage of stops with contraband found.*** Illinois, Traffic stops, 2021.

| Racial Group | Stops with Dog Sniff | | Contraband Found | |
|---|---|---|---|---|
| | Number | Percentage of stops | Number | Percentage of vehicle searches* |
| White | 2,033 | 0.25% | 1,010 | 62% |
| Black or African American | 828 | 0.16% | 428 | 64% |
| Hispanic or Latino | 422 | 0.15% | 143 | 43% |
| Asian | 82 | 0.15% | 20 | 30% |
| American Indian or Alaska Native | 8 | 0.14% | 3 | 50% |
| Native Hawaiian or Other Pacific Islander | 3 | 0.08% | 3 | 100% |
| All groups combined | 3,376 | 0.20% | 1,607 | 59.5% |

*The vehicle search occurred after a dog sniff.

# 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 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 very 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. This year we made a major update to our benchmarking approach. Our striving for ever more accurate benchmarks will continue as relevant datasets become available.

The Illinois statute establishing the profiling study mandates a study evaluating individual officers for presence or absence of racial profiling in stops. A possible approach to that legally mandated endeavor is currently under review and may appear in a subsequent report.

# Appendix A. Traffic Stop Data Collection Form in use during 2021

Illinois Department of Transportation

## Traffic Stop Data Sheet

Agency Code

**Section A - Traffic Stop Information**

Date of Stop (MM/DD/YYYY) | Time of Stop (Military Time) | Duration of Stop (Minutes)

Officer Name | Officer Badge Number

Name of Driver

Address | City | State AL | Zip Code

Vehicle Make | Vehicle Year | Driver's Year of Birth (ex: 1957)

**Driver Sex**
1 ☐ Male 2 ☐ Female

**Driver 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**
1 ☐ Moving Violation 2 ☐ Equipment 3 ☐ License Plate / Registration 4 ☐ Commercial Vehicle

**If Moving, Type of Violation**
1 ☐ Speed 2 ☐ Lane Violation 3 ☐ Seat Belt 4 ☐ Traffic Sign or Signal 5 ☐ Follow too Close 6 ☐ Other

**Result of Stop**
1 ☐ Citation 2 ☐ Written Warning 3 ☐ Verbal Warning / Stop Card

**Beat of Location Stop**

**Section B - Searches**

| | Consent Search Requested? | Consent Given? | Search Conducted? | Search Conducted By? |
|---|---|---|---|---|
| Vehicle | 1 ☐ Yes 2 ☐ No | 1 ☐ Yes 2 ☐ No | 1 ☐ Yes 2 ☐ No | 1 ☐ Consent 2 ☐ Other |

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

If a search of the Vehicle was conducted, was contraband found? 1 ☐ Yes 2 ☐ No

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

| | Consent Search Requested? | Consent Given? | Search Conducted? | Search Conducted By? |
|---|---|---|---|---|
| Driver | 1 ☐ Yes 2 ☐ No | 1 ☐ Yes 2 ☐ No | 1 ☐ Yes 2 ☐ No | 1 ☐ Consent 2 ☐ Other |
| Passenger(s) | 1 ☐ Yes 2 ☐ No | 1 ☐ Yes 2 ☐ No | 1 ☐ Yes 2 ☐ No | 1 ☐ Consent 2 ☐ Other |

If a search of the Driver or Passenger(s) 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

**Section C - Police Dog Sniff Searches**

Did a police dog perform a sniff of the vehicle? 1 ☐ Yes 2 ☐ No

If a police dog performed a sniff of the vehicle, did the dog alert to the presence of contraband? 1 ☐ Yes 2 ☐ No

If an alert occurred, was the vehicle searched? 1 ☐ Yes 2 ☐ No

If the vehicle was searched, 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

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# 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 data.[5] 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 that 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 driving 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. For distance-based benchmarks, 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 the number of stops in the White group was zero, no rate ratio or confidence interval was reported.

We calculated the 95% confidence intervals for rate ratios from crash-based benchmarks in a different way than for distance-based benchmarks in order to incorporate the number of crashes

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

used in the benchmark (see Appendix C for how crash-based and distance-based benchmarks were defined and calculated). For each minority group, the proportion of minority stops out of the sum of the minority and White stops ($p_{stops}$) and the proportion of the minority group in the benchmark population out of the minority and White groups ($p_{benchmark}$) were calculated. The rate ratio can be calculated from these proportions using the following formula: $\left(p_{stops}/\left(1-p_{stops}\right)\right)/\left(p_{benchmark}/\left(1-p_{benchmark}\right)\right)$. However, the corresponding 95% confidence interval for the rate ratios requires the effective sample sizes (the numerator and denominator) corresponding to $p_{benchmark}$, which is related to the number of crashes used in the benchmark.

The stops proportion was treated as a binomial variable, as above. The benchmark proportion was initially treated as an over- or under-dispersed binomial with the number of crashes used as the denominator. The variance of the benchmark proportion was estimated using the parametric bootstrap, where the number of crashes per ZIP code was drawn from a multinomial distribution for each bootstrap iteration. The dispersion parameter of the benchmark proportion was estimated as the ratio of the bootstrap variance divided by the variance that is estimated assuming a standard binomial proportion (i.e., using the classic formula p[1-p]/N, where p is the benchmark proportion and N is the number of crashes). The dispersion parameter indicates how much more variable (dispersion > 1) or less variable (dispersion < 1) the proportion is than expected for a standard binomial variable if the denominator was the number of crashes. The effective denominator for the benchmark proportion, which is the denominator that would produce the same variance as expected using the standard binomial formula, was then calculated as the number of crashes divided by the dispersion parameter. Similarly, the effective numerator of the benchmark proportion was calculated as the benchmark proportion times the effective denominator. Using the number of minority stops, White stops, effective benchmark numerator, and effective benchmark denominator, the 95% confidence of the rate ratio was calculated using exact binomial methods as carried out above for distance-based benchmarks. This method of calculating 95% confidence intervals tends to produce wider intervals than if they were calculated the same way as for distance-based benchmarks, because the effective benchmark numerator and denominator based on the number of crashes are each less than the corresponding benchmark population counts. This methodology is used in order to account for additional variability in the benchmark population estimates related to the number of crashes, which is generally smaller than the number of stops.

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 separately for each racial group. Table B1 shows the type of numerator and denominator used to calculate each percentage shown in the traffic tables.

*Table B1. Numerators and denominators for traffic stop outcomes*

| Category | Outcome | Numerator | Denominator |
|---|---|---|---|
| Reasons for Stop | | | |
| | Moving Violation | Number of moving violation stops | Number of stops |
| | Equipment | Number of equipment stops | Number of stops |
| | Licensing/Registration | Number of licensing/registration stops | Number of stops |
| | Commercial Vehicle | Number of commercial vehicle stops | Number of stops |
| Outcomes of Stop | | | |
| | Verbal Warning | Number of verbal warnings | Number of stops |
| | Written Warning | Number of written warnings | Number of stops |
| | Citation | Number of citations | Number of stops |
| Vehicle Searches | | | |
| | Consent Search | Number of consent searches | Number of stops |
| | All Searches | Number of searches | Number of stops |
| | Contraband Found | Number of searches where contraband was found | Number of searches |
| Driver or Passenger Searches | | | |
| | Consent Search | Number of stops with a consent search* | Number of stops |
| | All Searches | Number of stops with a driver or passenger search* | Number of stops |
| | Contraband Found | Number of stops with a driver or passenger search where contraband was found* | Number of stops with a driver or passenger search* |
| Dog Sniff Searches | | | |
| | Dog Sniff | Number of dog sniffs | Number of stops |
| | Dog Alert after Dog Sniff | Number of dog alerts | Number of dog sniffs |
| | Vehicle Search after Dog Sniff | Number of vehicle searches after a dog sniff | Number of dog sniffs |
| | Contraband Found after Vehicle Search | Number of vehicle searches after a dog sniff, where contraband was found | Number of vehicle searches following a dog sniff |

* Although a stop may result in the search of more than one individual (e.g., both the driver and a passenger are searched), multiple individuals searched (from one vehicle) are counted here as one stop with a driver or passenger search or both.

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 drivers, 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 Whites[6]. 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.

[6] 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)

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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 percentage racial distribution of the stops if the stops were conducted in a uniform way, blind to the race of the driver. That is, the stop rates calculated using an ideal benchmark would be approximately constant across all racial groups if there were no profiling.

Details on the data sources used for benchmarks, how racial categories were defined, how benchmark regions were determined, and other benchmark calculations are covered below. In addition, differences in benchmark methodology employed this year compared with prior years is described in **Section C.7** and limitations and strengths of the methodology are described in **Section C.8**.

## C.2. Data Sources

Multiple data sources were combined to calculate benchmarks, including multiple datasets provided by the U.S. Census Bureau, Illinois Department of Transportation, and Illinois Secretary of State. The U.S. Census Bureau datasets used include those from the decennial census, the American Community Survey (ACS), and Gazetteer files, depending on the year and type of benchmark (traffic stops or pedestrian stops).

### C.2.1. Data from the U.S. Census Bureau

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 Rico[7]. 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.

[7] https://www.census.gov/programs-surveys/acs. Last accessed 5/15/22.

The Gazetteer files provide geographic information, such as geographic area, latitude, and longitude, for different relevant regions in the U.S., including ZIP codes, places (a city, town or village, referred to simply as city hereafter), counties, and states. These files are updated annually.

The U.S. Census Bureau approximates ZIP codes (defined by the U.S. Postal Service) with ZIP code tabulation areas (ZCTAs)[8]. Throughout this report, the term "ZIP code" will be used to refer both to ZCTAs and U.S. Postal Service ZIP code for simplicity.

**Table C.1** lists the U.S. Census Bureau datasets used for different purposes, for both the traffic and pedestrian stop benchmarks. More detail on pedestrian stop benchmarks can be found in the corresponding Illinois pedestrian stops study report, 2021 stops, Part I. Of note, as can be seen from the table, different datasets were used for traffic and pedestrian benchmarks, which is different than in past years. The primary reason is that pedestrian benchmarks are still based on city-, county-, or state-level population statistics, while the traffic stop benchmarks are now based on ZIP-code-level population statistics, as of the 2021 stops report. The use of ZIP codes is a substantial improvement in our traffic benchmark methods.

The reader who compares this appendix to the corresponding appendix in the 2021 pedestrian stops report will note that the decennial 2020 census data is not used for this traffic analysis, whereas it is used for the 2021 pedestrian stops analysis. The reason is that the traffic benchmark analysis requires ZIP-code-level population data, which, at the time of this writing, was not available from the 2020 decennial census. The ACS survey data for ZIP codes was fully adequate to complete the traffic benchmark analysis.

***Table C.1.*** *U.S. Census Bureau datasets used for benchmarks.*

| Information Needed | Traffic Stop Benchmarks | Pedestrian Stop Benchmarks |
|---|---|---|
| Age distribution in Illinois | 1Y ACS PUMS 2020 | N/A |
| Age distribution by race/ethnicity* | 5Y ACS PUMS 2016-2020 | 5Y ACS PUMS 2016-2020 |
| Individual race groups to reallocate residents with more than one race* | 5Y ACS PUMS 2016-2020 | DEC 2020 |
| Population counts for each race/ethnicity | | |
| By ZIP code† | 5Y ACS 2016-2020 | 5Y ACS 2016-2020 |
| By city | N/A | DEC 2020 |
| By county | N/A | DEC 2020 |
| For Illinois | N/A | DEC 2020 |
| Geographic area of each city in Illinois | Gazetteer Files 2021 | N/A |
| Geographic area of each county in Illinois | Gazetteer Files 2021 | N/A |
| Latitude and longitude of each ZIP code | Gazetteer Files 2021 | N/A |

1Y = 1-year; 5Y = 5-year; ACS = American Community Survey; DEC = decennial census; PUMS = public-use microdata sample; *Includes Illinois and 24 states within 400 miles of Illinois; †ZIP codes approximated using ZIP code tabulation areas (ZCTAs) defined by the U.S. Census Bureau.

[8] https://www.census.gov/programs-surveys/geography/guidance/geo-areas/zctas.html. Last accessed 5/21/22.

For this report, multiple ACS releases were used, all corresponding to 2020 as the most recent year of data available. The first was the 2020 1Y PUMS, which was used to estimate the age distribution of the entire population of Illinois in 2020. The second release used was the 2016-2020 5Y PUMS, which was used to 1) estimate the state-level age distribution for each racial group and 2) estimate reallocation factors for individuals reporting multiple races (see **Section C.4**). The 5Y release was used instead of the 1Y release to achieve a larger sample size for those racial groups which had fewer individuals in Illinois. The third release used was the 2016-2020 5Y detailed table of race and ethnicity for each ZIP code in Illinois or any of 24 surrounding states within 400 miles of Illinois (Alabama, Arkansas, Georgia, Indiana, Iowa, Kansas, Kentucky, Louisiana, Michigan, Minnesota, Mississippi, Missouri, Nebraska, North Carolina, Ohio, Oklahoma, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Virginia, West Virginia, and Wisconsin). In general, the 2020 ACS datasets were used for the traffic stop benchmarks instead of the 2020 decennial census because individual-level data (PUMS) and race and ethnicity data by ZIP code were not publicly released by the time this report was being prepared. However, the pedestrian stop benchmarks used city-, county-, and state-level race and ethnicity data primarily, rather than ZIP-code-level, so the pedestrian benchmarks were mainly based on 2020 census data.

### C.2.2. Data from Illinois Traffic Crash Reports

On behalf of this study, the Bureau of Data Collection, Office of Planning & Programming, Illinois Department of Transportation (IDOT), provided a report of data extracted from Illinois SR 1050 traffic crash reports from 2019-2020[9]. These crash reports are required to be filed for crashes in Illinois that resulted in bodily injury or death of any person or that damage to the property of any one person in excess of $1,500 (or $500 if any driver does not have insurance). Information in the crash reports included the date and time of the crash, the location of the crash (latitude, longitude, city, and county), the number of vehicles involved, the ZIP code of each driver's address, the type of roadway on which the crash occurred, and the type of law enforcement agency filing the report. As described in **Section C.6**, this information was used to estimate driver benchmark populations for agencies with a sufficient number of usable reports available. In particular, the crash data was used to estimate the proportion of drivers originating from each ZIP code directly associated with an agency as well as ZIP codes from the surrounding area.

### C.2.3. Data from the Illinois Secretary of State

On behalf of this study, the Bureau of Data Collection, Office of Planning & Programming, IDOT requested and received a report from the Office of the Illinois Secretary of State, a report with counts of licensed drivers in Illinois for each single year of age. The report was run on March 31, 2022. This was combined with ACS estimates of the population count of each age in Illinois (2020 1Y PUMS) to determine the proportion of individuals who are potential drivers based on having a driver's license as a function of age. This is described in more detail in **Section C.4**.

[9] https://www.idot.illinois.gov/Assets/uploads/files/Transportation-System/Manuals-Guides-&-Handbooks/Safety/Illinois%20Traffic%20Crash%20Report%20SR%201050%20Instruction%20Manual%202019.pdf. Last accessed 5/21/22.

## C.3. Racial Categories

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

To make the different racial categories compatible between the census/ACS data used for benchmarks and the stops data using the Illinois racial categories, we made three major adjustments. The first adjustment was to use Hispanic or Latino as the assigned race for benchmarking if the census/ACS ethnicity was listed as Hispanic or Latino, regardless of race. The second adjustment was to reallocate the "multiple races" group into multiple single race groups using equal fractions fractional allocation[10]. For example, an individual who self-identified as White, American Indian or Alaska Native, and Asian would be treated as 1/3 White, 1/3 American Indian or Alaska Native, and 1/3 Asian for the purpose of calculating total race/ethnicity distributions. The 2020 5Y ACS PUMS race and ethnicity table for Illinois was used to calculate state-level reallocation factors, as shown in **Table C.2**. The third adjustment was that individuals listing some other race alone (a race not among those listed) in the census/ACS data were excluded from the process of defining a benchmark population. In the 2020 5Y ACS sample, 277,509/12,716,106 (2.2%) of Illinois residents self-identified as not Hispanic or Latino and more than one race and were fractionally reallocated to multiple single race categories. Additionally, 24,851 (0.2%) identified as not Hispanic or Latino and some other race and were excluded from benchmark calculations.

***Table C.2.*** *Equal fractions fractional reallocation factors for Illinois residents who self-identify as not Hispanic or Latino and more than one race, based on the 2020 5Y ACS PUMS.* The factors were used to calculate the effective number of individuals with a single race category as a proportion of the multiple

[10] Parker JD and Makuc DM. Methodologic implications of allocating multiple-race data to single-race categories. *Health Services Research*. 2002;37(1):201-213.

race category, e.g., single race count = (single race fraction) x multiple race count. The fractions sum to 1 so all multiple race individuals are included.

| Race/Ethnicity | Fraction |
|---|---|
| Not Hispanic or Latino White | 0.473 |
| Not Hispanic or Latino Black | 0.231 |
| Not Hispanic or Latino American Indian or Alaska Native | 0.082 |
| Not Hispanic or Latino Asian | 0.198 |
| Not Hispanic or Latino Native Hawaiian or Other Pacific Islander | 0.015 |

## C.4. Adjusting for Age and Driver's Licenses

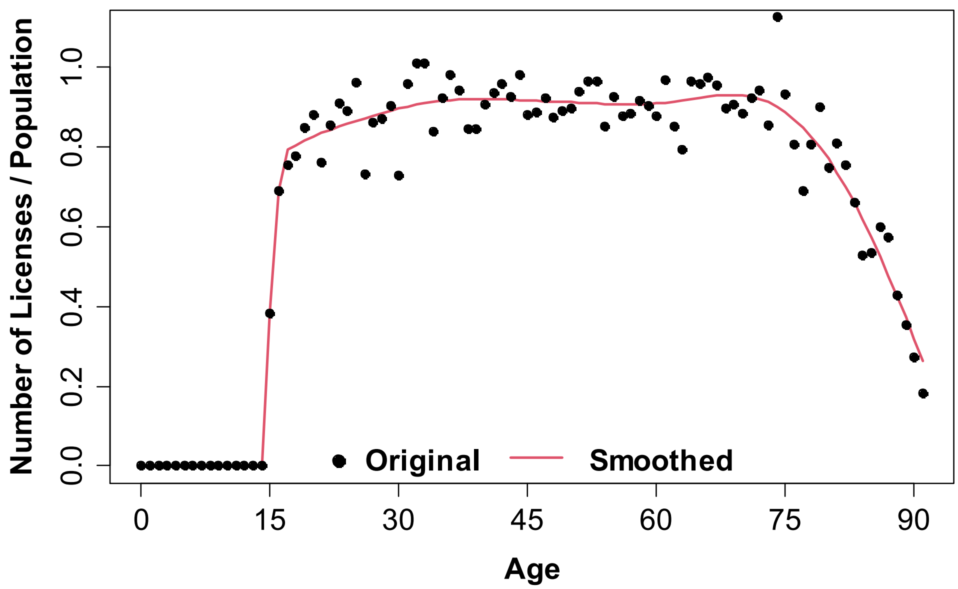
Population counts by race from the census/ACS were adjusted to reflect the number of potential legal drivers by considering three datasets: (a) the number of driver's licenses by age (each year of age separately) — a file provided by the Illinois Secretary of State's office through IDOT, (b) the number of individuals in Illinois based on the 2020 1Y ACS PUMS, and (c) the age distribution by race across Illinois based on the 2020 5Y ACS PUMS. The adjustments were based on the following formulas for the probability of being a driver (having a driver's license) based on race and age:

$$\begin{aligned} Pr(Driver|Race) &= \sum_{Age} Pr(Driver|Race, Age)Pr(Age|Race) \\ &\cong \sum_{Age} Pr(Driver|Age)Pr(Age|Race). \end{aligned}$$

The first equality is exact based on standard laws of probability. The probability of being a driver by race and age was then approximated by the probability of being a driver by age, or symbolically, $Pr(Driver|Race, Age) \cong Pr(Driver|\ Age)$. We made this approximation because data available from IDOT allowed us to estimate the probability of being a driver by age but not by race.

$Pr(Driver|Age)$ was estimated in two steps. First, for each age, the number of licenses from the IDOT database was divided by the number of individuals of that age living in Illinois, based on the 2020 1Y ACS PUMS. Ages > 90 were grouped due to sparsity of data in that age range. Second, to reduce variability in the estimates, ages 17 and over were smoothed using a cubic smoothing spline (**Figure C.1**). Ages < 17 were not smoothed due to the rapid changes from <15 to 15 to 16 that would be overly smoothed by a spline. The curve shown in **Figure C.1** with smoothing applied was used to represent $Pr(Driver|Age)$ in the benchmark calculations. The smoothed curve is reasonably representative of the proportion of population with a driver's license, one dot for each year of age. The curve shown in **Figure C.1** was also used to approximate the proportion of drivers by age for the states surrounding Illinois.

***Figure C.1.*** *Smoothed estimates of the proportion of driver's licenses out of the Illinois state population for each single year of age.* The black points represent the original raw estimates before smoothing (red curve) to reduce variability.



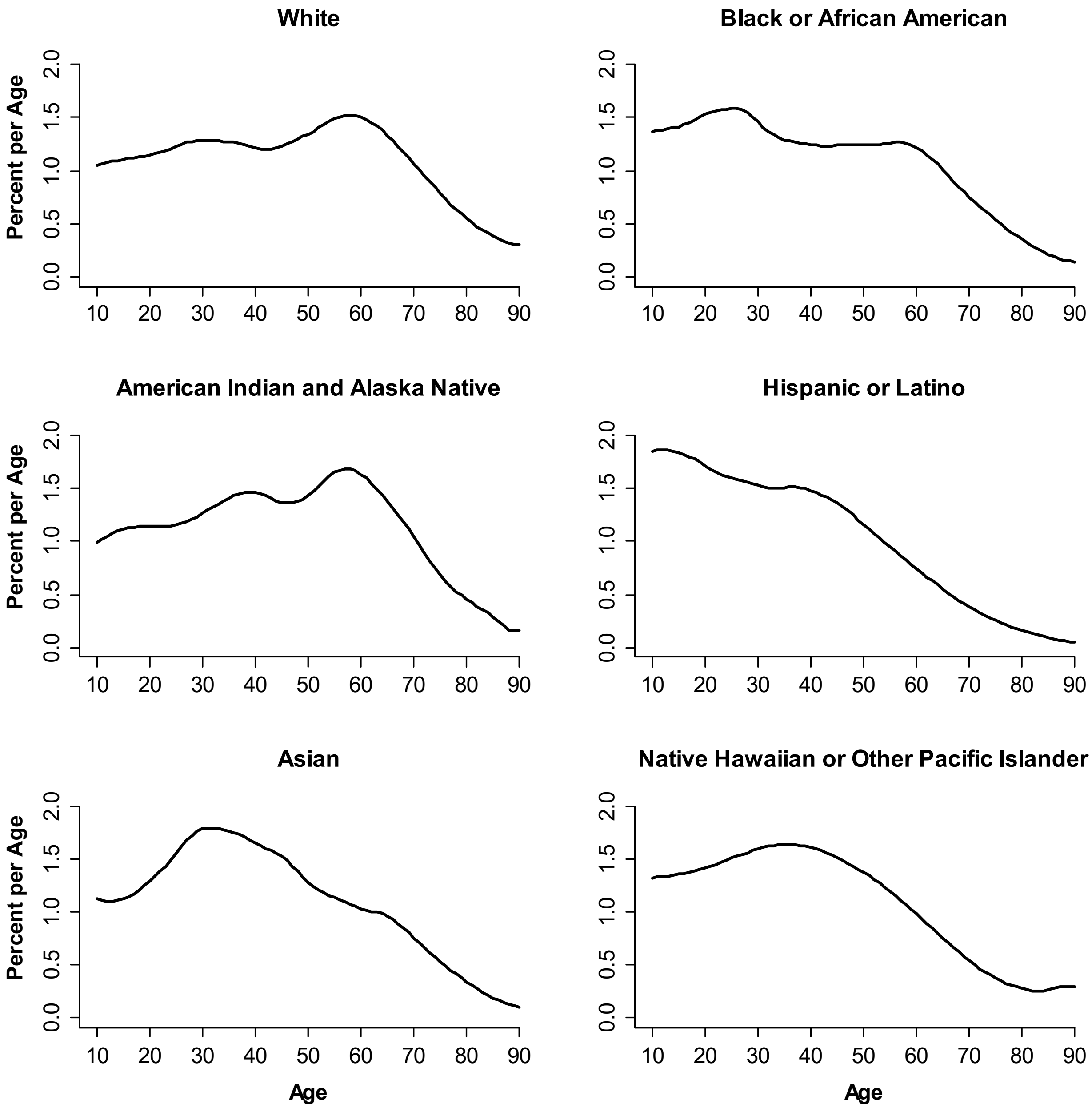

The second quantity needed was $Pr(Age|Race)$. This was estimated by smoothing the estimated age distributions in Illinois for each racial group separately. These estimates are shown in **Figure C.2.** The estimates are shown for age 10 and up, but only the smoothed curve values for ages 15 and over are used in the analysis. The ages under 15 are represented in the plot because the smoothing method works on a span of data surrounding the age for which a smoothed value is needed, similar to the methodology used in a moving average. The estimates from **Figure C.1** and **Figure C.2** were combined using the formula above to estimate $Pr(Driver|Race)$ for each race, summarized in **Table C.3**. The age adjustment was performed by multiplying the population count for each race by the factor in Table C.3.

***Table C.3.*** *Estimated probability of being a driver in Illinois by race across all ages based on IDOT and ACS data.*

| **Race** | **Drivers*** |
|---|---:|
| White | 0.75 |
| Black or African American | 0.69 |
| Hispanic or Latino | 0.64 |
| Asian | 0.73 |
| American Indian and Alaska Native | 0.75 |
| Native Hawaiian or Other Pacific Islander | 0.70 |

*Estimated proportion of state population with a driver's license. This estimate is strongly influenced by the proportion of the population <15, an age group that is not eligible for a license.

***Figure C.2.*** *Smoothed estimates of the percent of the population of Illinois at each age for each racial group*.




## <u>C.5. Estimating ZIP Code Population Sizes</u>

The starting point for estimating regional population sizes was the 2020 5Y ACS race and ethnicity tables for the ZIP codes in Illinois and the surrounding states, as described in **Section C.2**. As described in **Section C.4**, these population sizes for the ZIP codes were adjusted for age and the number of driver's licenses by multiplying by a factor derived for each racial group, $Pr(Driver|Race)$. (See the equation in **Section C.4.**) The adjusted population counts per ZIP code formed the building blocks for the agency benchmark calculations, described in the next section.

## C.6. Calculating Agency Benchmarks

The population sizes of each ZIP code estimated in **Section C.5** were combined in various ways to derive a benchmark for each agency. There were two major types of benchmarks generated, referred to as crash-based and distance-based benchmarks. Both types of benchmarks combined populations from ZIP codes directly associated with an agency (e.g., the ZIP codes of a city for a city police agency) as well as populations from ZIP codes from the surrounding area. The primary areas chosen for each agency are listed at the end of this appendix in **Table C.5**.

Crash-based benchmarks were generated using traffic crash reports (see **Section C.2.2**) for agencies with a sufficient number of usable crashes. The crash reports include the ZIP codes of the drivers, which were used to determine which ZIP codes to include in the benchmark and how much weight to give each ZIP code. Distance-based benchmarks also combined ZIP codes in a weighted fashion, but used a mathematical formula to determine how much weight to give each ZIP code as a function of its distance from the agency, where the weight always decreased with increasing distance. The crash data from similar and nearby agencies was used to determine the distance-based weighting formula for a given agency.

The methodology used for each type of benchmark is covered in the subsections below.

### C.6.1. Crash reports

Crash reports are expected to provide a better estimate of the driving population than census-based data on local residents for multiple reasons[11]. In particular, crash reports provide direct information on drivers in an area—not just residents of that area—including relative frequency of drivers from the area and from outside the area. The crash reports include the driver's ZIP code, so the contributions of drivers from different locations inside and outside the area are available as well, including from locations far away. Crash-based benchmarks also reflect driving frequency, as an individual who is on the road more often, all else being equal, is more likely to be in a crash. Similarly, greater driving frequency also increases exposure to the risk of a traffic stop.

The not-at-fault driver indicated in crash reports from two-vehicle collisions were used for benchmark calculations[12]. The not-at-fault driver is expected to be representative of the driving population in the area as if they were being randomly sampled by the crash. For each agency, only reports of crashes which occurred within the primary area of that agency were used (e.g., the corresponding city of a city police agency or the corresponding county of a county sheriff agency). The specific reports used also varied by the agency type, as described below. Crash reports did not directly include the driver's race, but included the ZIP code of the driver's address. As described below, racial distributions were based on ZIP code population statistics. Crash reports which were missing driver ZIP code, had an invalid ZIP code (the string provided in the ZIP code field did not

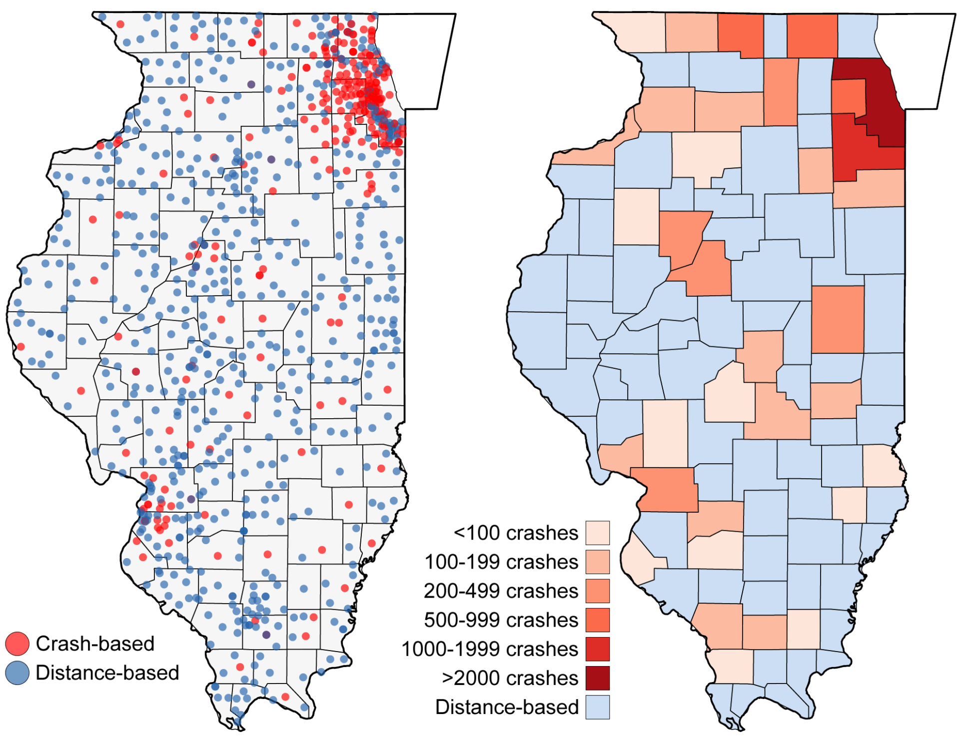
[11] Withrow BL and Williams H. Proposing a benchmark based on vehicle collision data in racial profiling research. *Criminal Justice Review*. 2015;40(4):449-469.

[12] Alpert GP, Smith MR, Dunham RG. Towards a better benchmark: Assessing the utility of not-at-fault traffic crash data in racial profiling research. *Justice Research and Policy*. 2004;6(1):43-69.

match a ZIP code within the set of U.S. Census Bureau ZCTAs), or had a ZIP code outside of Illinois and the 24 states within 400 miles of Illinois (see **Section C.2**) were considered not usable and were excluded.

Crash-based benchmarks were generated for agencies with at least 50 usable crash reports and where at least 70% of their crash reports were considered usable. The former requirement was imposed so there would be a minimum amount of coverage of the ZIP codes of drivers in the area. The latter requirement was imposed because the greater the fraction of crash reports that area excluded, the greater the risk that the remaining reports will be non-representative of the ZIP codes of drivers. **Figure C.3** shows the locations of city police and county sheriff agencies with sufficient crashes for crash-based benchmarks. The usable crash data is concentrated in more urban areas, especially in the Chicago metropolitan area in Northeastern Illinois, though there is some coverage across the entire state.

***Figure C.3.*** *Locations of city police and county sheriff agencies with sufficient crash data for crash-based benchmarks.* The left panel shows city police agencies, and the right panel shows county sheriff agencies. The gray lines on both panels indicate county boundaries. Crash-based benchmarks were generated for agencies with at least 50 usable crash reports and where at least 70% of their crash reports were considered usable, indicated with orange or red points or regions. The shade of orange or red indicate the number of usable crashes for county sheriff agencies. Distance-based benchmarks were generated for all other agencies, indicated with blue points or regions.



### C.6.2. Types of agencies

Crash reports were further selected based on the type of agency to better approximate drivers within each agency's jurisdiction. Each crash report contained the type of agency that completed the report (city police, county sheriff, or state police) and the type of roadway, in particular whether it was an interstate or not. The benchmark for the State of Illinois as a whole was based on all usable crash reports, regardless of agency or roadway type. For the Illinois State Police, crash reports completed by the state police, or which occurred on an interstate anywhere in Illinois were included. For other state-level agencies, all crash reports not used for the state police were included. For county sheriff agencies, the inclusion criteria for reports were as follows: the crash occurred in the corresponding county, the report was completed by a county sheriff agency, and the crash did not occur on an interstate. For other county-level agencies, all reports of crashes which occurred in the corresponding county or counties and not used for the state police were included. Lastly, for all other agencies, where the primary area of jurisdiction was one or a small number of cities, the inclusion criteria were: the crash occurred in the corresponding city or cities, the report was completed by a city police agency, and the crash did not occur on an interstate.

### C.6.3. Chicago

Due to its size, multiple benchmarks were produced for Chicago. Crash reports from the entire city of Chicago was used for the primary benchmark of the Chicago Police. In addition, separate benchmarks were generated corresponding to each of the 22 Chicago Police Districts[13]. These benchmarks were generated from crash reports the same way as for city police agencies, except for how the crashes were selected, as they each needed to correspond to only part of the city of Chicago. The crash reports included the latitude and longitude of the crash, and these coordinates were used to identify crashes that occurred within each Chicago Police District's boundaries[14]. For each district, crashes were selected that met both the criteria in **Section C.6.2** for the city of Chicago as well as being located within the district's boundaries.

### C.6.4. Crash-based benchmarks

For agencies with a sufficient number of crashes (see **Section C.6.1**), crash-based benchmarks were generated as follows. After selecting usable crash reports as described above, the proportion of crashes out of all usable was calculated for each ZIP code, based on the not-at-fault driver's ZIP code. Each proportion represents an estimated probability of a not-at-fault individual involved in a traffic accident being from that ZIP code. This was used as a surrogate for the probability of a driver in the area being from that ZIP code, symbolically $Pr(ZIP|Driver)$. These proportions were used to determine how much weight to give each ZIP code in the calculations.

The second step involved calculating the proportion of the total driver population of each ZIP code (see **Section C.5**) that belong to each racial group. Each of these proportions represents an estimated probability that a driver from that ZIP code is of a particular race, symbolically

[13] https://home.chicagopolice.org/about/police-districts/. Last accessed 5/15/22.
[14] https://data.cityofchicago.org/Public-Safety/Boundaries-Police-Districts-current-/fthy-xz3r. Last accessed 5/21/22.

$Pr(Race|ZIP, Driver)$. The estimated probability of a driver in the area being of a particular race was then calculated as the sum of these proportions over all ZIP codes, each weighted by the proportion of crashes involving drivers from that ZIP code. The formula for this calculation was:

$$Pr(Race|Driver) = \sum_{ZIP} Pr(Race|ZIP, Driver) \times Pr(ZIP|Driver).$$

A highly simplified example of these calculations involving two ZIP codes and two races is as follows. If 70% of crashes were from ZIP code A (10% Black) and 30% were from ZIP code B (50% black), the proportion above would be (0.7 x 10%) + (0.3 x 50%) = 22% Black.

These proportions were used to define the *relative* distribution of each race for the crash-based benchmarks. That is, the percentage of the benchmark associated with each race rather than the total number of drivers of each race. To estimate the number of drivers per race, first the total number of drivers was estimated ($Drivers_{Total}$). The number of drivers of each race was then calculated as $Drivers_{Total} \times Pr(Race|Driver)$. The total number of drivers was estimated by summing up the populations of surrounding ZIP codes (all races combined), but weighted according to distance from the primary area of the agency, in the same way as for distance-based benchmarks (see **Section C.6.8**). Those calculations are described in more detail below.

**C.6.4. Calculation of the distance between ZIP codes**

All other benchmark calculations involved using the distance between ZIP codes within the primary area of an agency and ZIP codes outside of that primary area to determine how much weight that outside ZIP code should be given. ZIP codes further away from the agency's primary area were given less weight to represent the lower likelihood of a driver from that ZIP code being within the agency's jurisdiction.

To calculate the distance between any pair of ZIP codes, first the boundaries of each ZIP code were extracted from the *choroplethrZip* software package for the statistical software "R." The centroid of each ZIP code was calculated (in terms of latitude and longitude) and the geodesic distance between them was calculated using standard formulas that account for the curvature of the Earth.

For pairs of ZIP codes with a centroid-to-centroid distance less than or equal to 20 miles, the distance was recalculated using a more accurate method that better accounts for the shape of each ZIP code, which can be highly irregular and variable between ZIP codes. That method involved first randomly selecting a point within the boundaries of the first ZIP code and randomly selecting another point within the boundaries of the second ZIP code. The geodesic distance between this random pair of points within the two ZIP codes was calculated in the same way as for the centroid-to-centroid distance. This selection of random pairs of points was repeated to produce a total of 100,000 pairs of points and their corresponding distances for each pair of ZIP codes. These differences were averaged to produce the average distance between the two ZIP codes. The results of these two distance calculation methods (centroid-to-centroid distance and average random point-to-point distance) became more similar to each other as the distance between ZIP codes increased. The cutoff of 20 miles ensured that there was at most a difference of 5% (less than 1 mile) in the worst case between the two methods.

The above calculations apply to the distance between two individual ZIP codes. However, many agencies had a primary area that included more than one ZIP code, e.g., any large city, a county, or the state of Illinois. The calculations were then extended to allow the calculation of a distance between a set of one or more ZIP codes within the primary area (Set A) and an individual ZIP code, either inside or outside of the primary area (ZIP code B). The first step was to calculate the pairwise distance between each ZIP code within Set A and ZIP code B using the method described above. The distance between a ZIP code and itself was defined as 0, so if Set A contained ZIP code B, one of the distances calculated would be 0. The second step was to calculate the *minimum* value of these distances between ZIP codes in Set A and ZIP code B. This minimum distance was defined as the distance between Set A and ZIP code B.

This definition means that the distance calculated corresponds approximately to the average distance one would have to drive in order to enter the primary area of an agency from a particular ZIP code, assuming the shortest (straight-line) route was taken (and ignoring details like curving roads and natural boundaries). Drivers who already live in the primary area do not need to travel at all to reach the primary area (hence a distance of 0). A driver who lives south of Cook County would only need to drive as far as the closest ZIP code on the southern boundary of Cook County to enter that area, so the extent of Cook County to the north is not relevant for that driver for the purpose of distance calculations. By contrast, a driver who lives north of Cook County would have their distance measured to the northern boundary of Cook County instead for the same reason.

**C.6.6. Weighting ZIP codes according to their distance from an agency**

As noted above, ZIP codes were combined in a weighted fashion to generate distance-based benchmarks. The weight given to each ZIP code decreases with increasing distance from the agency, with distance calculated as in the previous section. For example, ZIP codes within the primary area are given full weight (weight = 1) in the benchmark (i.e., ZIP codes with distance = 0). A ZIP code outside the primary area should have a weight below 1 because a random driver from that ZIP code would not spend as much time within the agency's jurisdiction as a random driver from the primary area. But a ZIP code just outside of the primary area may have weight not far below 1 because of proximity but a ZIP code 20 miles away would have a much lower weight, as a random driver from that ZIP code would be much less likely to be within the agency's jurisdiction than a random driver from a closer ZIP code.

Distance-based benchmarks were generated for agencies without sufficient crash reports to generate crash-based benchmarks (see **Section C.6.1**). However, crash reports from similar agencies and nearby agencies were used to determine how much weight to give to ZIP codes as a function of distance. Two different types of weighing functions were used, each of which appeared to work better for certain types of agencies (see **Figure C.4** and **Section C.6.7**). The first type of weighting function is called the log-linear model. It is shown below before and after log-transformation:

$$\begin{aligned} weight &= e^{decay \times distance} \\ \ln(weight) &= decay \times distance. \end{aligned}$$

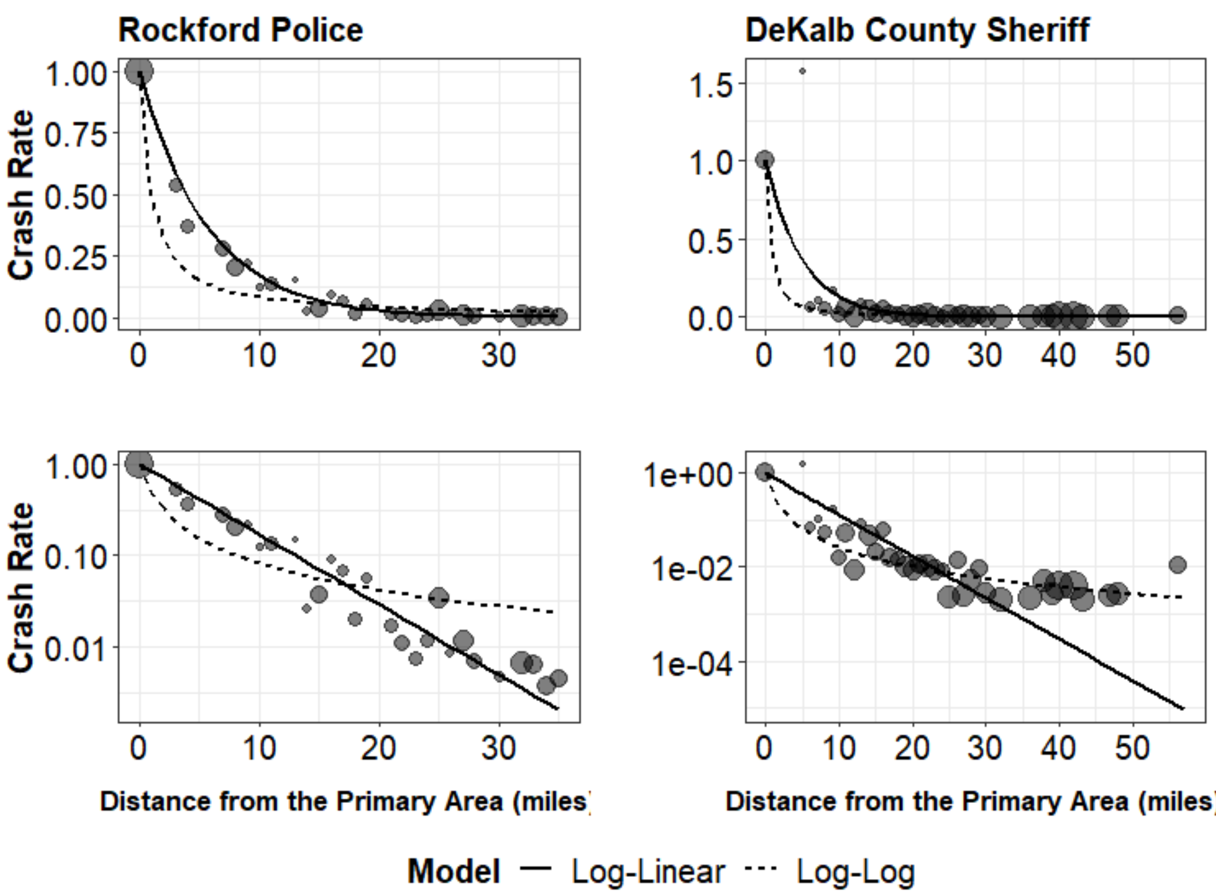
When distance = 0, the weight = 1. The decay parameter, always less than 0, controls how quickly the weight decreases with increasing distance. It is called the log-linear model because the log of the weight changes linearly with distance. This is also called an exponential decay model.

The second formula is called the log-log model, shown again before and after log-transformation:

$$\begin{aligned} weight &= (1 + distance)^{decay} \\ \ln(\text{weight}) &= decay \times \ln(1 + distance)\,. \end{aligned}$$

The distance is in units of miles. As with the log-linear formula, when distance = 0, the weight = 1. The decay parameter is also always less than 0 and controls how quickly weight decreases with increasing distance. It is called the log-log model because the log of the weight changes logarithmically with distance. Qualitatively, the two functions are similar but result in somewhat different weight-distance curves. The log-log model results in a relatively rapid decrease in weight for short distances away from the agency, but this rate of decrease slows down with increasing distances and results in a longer "tail," which allows much farther away locations to be included. By contrast, the log-linear model has a slower initial rate of decrease, but that rate is the same for shorter and longer distances away from the agency. Relative to the log-log model, the log-linear model will give less weight to far away locations. **Figure C.4** shows examples of these two formulas for two different agencies.

***Figure C.4.*** *Normalized crash rates in each ZIP code for two agencies.* The left panels are for Rockford Police and the right panels are for DeKalb County Sheriff. Each point represents the crash rate in a single ZIP code (number of crashes divided by the number of drivers), with the crash rate normalized to be equal to 1 for ZIP codes within the primary area of the agency (where distance = 0). Larger points indicate a larger driver population in the ZIP code, normalized for each agency separately. The top and bottom rows show the same data, but the bottom row uses a logarithmic scale for the crash rate (y-axis). All panels show how the log-linear model (solid curve) and log-log model (dashed curve) fit the crash data. As can be seen, the log-linear model fits Rockford crash rates better and the log-log fits DeKalb County crash rates better, i.e., the crash rate data points follow ones of the curves more closely than the other curve.




### C.6.7. Training models for ZIP-code weight as a function of distance from an agency

To generate distance-based benchmarks, crash reports from similar agencies and nearby agencies were used to determine how much weight to give to ZIP codes as a function of distance from the agency. The only types of agencies that needed distance-based benchmarks were city police agencies and county sheriff agencies, as all other county-level and state-level agencies had sufficient crash reports available for crash-based benchmarks.

This section is very technical. As a high-level summary, this section describes 1) how the decay rate parameters needed to calculate ZIP-code weights were first estimated from the crash data (see **Figure C.4**), 2) how these decay rates were related to driver density and degree of urbanization, and 3) how these factors were used to predict an appropriate decay rate for agencies without sufficient crash data. These decay rates were used to calculate the ZIP-code weights used in the section below to calculate distance-based benchmarks. The rest of this section can be skipped without impacting the understanding of subsequent sections.

For each city police agency and county sheriff agency with a crash-based benchmark, both the log-linear and log-log models were fit to their crash data to estimate the corresponding decay parameters for those agencies. The unit of analysis was the ZIP code, with the number of crashes and number of drivers per ZIP code. Poisson regression was used to fit the crash rate per 1000 drivers based on the log-linear and log-log models. For each agency, between 95-98% of the crashes closest to the city or county were included in the analysis, to avoid excessive influence from a small number of drivers from very far away locations. **Figure C.4** shows how well the log-linear and log-log models fit the crash data for two different agencies.

For each agency, Akaike's information criterion (AIC) was calculated for the log-linear and log-log models. AIC is a standard metric for comparing how well two or more models fit the data. Based on the AIC, the log-linear model fit the crash data better than the log-log model for 174/259 (67%) city police agencies. In contrast, the log-log model fit the crash data better than the log-linear model for 25/34 (74%) of county sheriff agencies. Because of this, the log-linear model was selected to use for city police agencies and the log-log model was selected to use for county sheriff agencies when calculating distance-based benchmarks.

After selecting the type of model (log-linear or log-log), additional models were needed to predict the decay rate needed for an agency that did not have sufficient crash data to estimate the decay rate directly. The model training sets consisted of the city police agencies and county sheriff agencies with crash-based benchmarks. The outcome variable to predict was the decay rate estimated from crash data. Two factors from the 2010 decennial census were used as potential predictors: the density of drivers (drivers per square mile) of the city or county and the percent of the county population located in urban areas (percent urban). These factors were not yet available from the 2020 census. Non-linear transformations of driver density and percent urban based on restricted cubic splines (RCS) with three knots were assessed. Knots were selected at the $10^{th}$, $50^{th}$, and $90^{th}$ percentiles. Linear regression with kriging was used for the models to predict decay rate. Kriging allowed the model to not only consider driver density and percent urban but also the decay rates of agencies nearby. **Figure C.3** shows how agencies with sufficient crash data were spatially distributed across Illinois. The *georob* package in R was used to implement the kriging-based linear regression model with an exponential variogram model. Predictors and their transformations were included if they increased the apparent adjusted R-squared statistic and their corresponding regression coefficients were statistically significantly different from zero ($p < 0.05$). The final decay rate prediction models are shown in **Table C.4**.

***Table C.4.*** *Linear regression models to predict the weight decay rate for the log-linear model (used for city police agencies) and log-log model (used for county sheriff agencies).* The model training sets consisted of the city police agencies and county sheriff agencies with crash-based benchmarks.

| | | **City Police (log-linear)** | | | **County Sheriff (log-log)** | | |
|---|---|---|---|---|---|---|---|
| **Variable** | **RCS Transformation*** | **β** | **SE** | **P-value** | **β** | **SE** | **P-value** |
| Intercept | | -0.039 | 0.080 | 0.63 | -1.039 | 0.194 | <0.001 |
| Log2(Driver density (drivers per sq. mile)) | Linear | -0.012 | 0.008 | 0.12 | -0.009 | 0.034 | 0.80 |
| | Non-linear | -0.027 | 0.011 | 0.011 | 0.119 | 0.055 | 0.037 |
| Percent urban (%) | Linear | -0.027 | 0.054 | 0.62 | | | |
| | Non-linear | -0.280 | 0.068 | <0.001 | | | |

β = regression coefficient, corresponding to the change in the predicted decay rate per 1-unit change in predictor; SE = standard error; RCS = restricted cubic spline;

*Any predictor with a RCS transformation (based on three knots) has two coefficients, one corresponding to the linear portion and the other corresponding to the non-linear deviation off of that linear portion. The knots used for $\log_2$[driver density] were 9.44, 10.6, and 11.8 for the city police model and 4.89, 5.99, and 8.50 for the county sheriff model. The knots used for percent urban were 57.0%, 98.3%, and 99.96% for the city police model.

The city police decay rate model included both driver density and percent urban with non-linear transformations. The regression coefficients were all negative, indicating that the predicted decay rate decreases (gets more negative) with increasing driver density and percent urban, and that this relationship gets stronger for highly dense and highly urban areas. Decay rates which are more negative imply the weight given to surrounding ZIP codes decreases faster with increasing distance. The final R-squared estimate for this model, calculated using leave-one-out cross-validation, was 63%.

The county sheriff decay rate model included only driver density because percent urban did not significantly improve the model fit (p = 0.11). Driver density also had a non-linear transformation, with negative and positive coefficients for the linear and non-linear portions, respectively. This indicates that the decay rate was the largest (least negative) for areas with the lowest driver density and the highest driver density. Decay rates which are less negative imply the weight given to surrounding ZIP codes decreases slower with increasing distance. The final R-squared estimate for this model, calculated using leave-one-out cross-validation, was 46%.

These decay rate models, trained using crash data, were used to predict the decay rate for the ZIP code weights needed for distance-based benchmarks, described next.

### C.6.8. Distance-based benchmarks

The last few sections have described how the distance between the primary area of an agency and another ZIP code was calculated, how ZIP codes were weighted as a function of their distance from an agency, and how the weighting function was individualized per agency by considering the driver density, percent urban of the county, and nearby agencies. This section describes how the weighting function was used to combine ZIP codes for distance-based benchmarks.

For a given agency, the following steps were performed to determine the weighting function, or function that assigns a weight to a ZIP code based on its distance from the agency:

1) The type of weighting function was determined using the agency type (see **Section C.6.6**)
    a. The log-linear model was used for city police agencies.
    b. The log-log model was used for county sheriff agencies as well as other county-level and state-level agencies.
2) The decay rate parameter was then determined (see **Sections C.6.6** and **C.6.7**)
    a. If the agency had sufficient crash data (see **Section C.6.1**), the decay rate was estimated directly from the crash data (see **Section C.6.7**).
    b. Otherwise, the decay rate was predicted using the driver density, percent urban, and nearby agencies using one of the models in **Table C.4**, according to step 1) above.

Once the weighting function was determined for a given agency, then all ZIP codes within 400 miles of the agency's primary area were given a weight using that function. The weight was always 1 for the primary area (e.g., city for a city police agency or county for a county sheriff agency) and decreases with increasing distance away from the agency's primary area. The weight was most often essentially zero much closer than 400 miles away, but that depends on the decay rate selected in step 2 above.

After the weights have been assigned to all ZIP codes, the benchmark population was calculated using the driver population counts estimated in **Section C.5**:

$$\begin{aligned} Drivers_{Race} &= \sum_{ZIP} Weight_{ZIP} \times Drivers_{Race,ZIP} \\ Drivers_{Total} &= \sum_{Race} Drivers_{Race}. \end{aligned}$$

Note that the absolute number of drivers was calculated for each race. The percentage of each race in the benchmark population was thus calculated as

$$100\% \times Drivers_{Race}/Drivers_{Total}.$$

Another implication of these calculations based on absolute numbers of drivers is that the benchmarks are also effectively weighted by population size of each ZIP code. For example, consider a hypothetical agency for a small city that also has a large neighboring city. The weight for the smaller city's ZIP codes would be 1, as always. The weight for the neighboring city's ZIP codes could be 0.5 on average, indicating those ZIP codes are given half the weight in the calculations above. But if the neighboring city is 5 times larger than the smaller city, after weighting by 0.5, the weighted driver counts from that city would still be 2.5 times larger than the driver counts for the smaller city, and the race percentages would effectively be more weighted towards the larger city than the smaller city. This happened because while a single random resident of the larger city is less likely to be driving in the smaller city than a single random resident of the smaller city, the larger city had so many more residents total than the smaller city that they may still constitute a majority of the drivers within the smaller city.

### C.6.9. Comparison of crash-based and distance-based benchmarks

Crash-based benchmarks are expected to be more accurate representations of the driving population for a given agency than the corresponding distance-based benchmarks, as crash-based benchmarks are based directly on empirical data about drivers in the area. Distance-based benchmarks are only used for agencies where an insufficient number of crash reports was available for 2019-2020 (see **Section C.6.1**), though over time more crash data will become available and usable for benchmarks. However, the distance-based benchmarks were designed to approximate the patterns observed in the crash data, such as the decreasing relationship between crash rates and distance from the agency.

One advantage of the crash-based benchmarks is that they do not assume a particular type of model for weighting the ZIP codes. Rather, the proportion of crashes of not-at-fault drivers from the ZIP code are used for each weight. Not being constrained by a model allows crash-based benchmarks to capture complex driving patterns, such as if many drivers from a ZIP code on the west side of a city tend to drive through the city while disproportionately fewer drivers from a ZIP code on the east side of a city drive through the city, despite each ZIP code being the same distance from the city. That type of pattern could be apparent in the crash data of the city in the middle, which would have a disproportionate number of crashes from the western ZIP code compared to the eastern ZIP code. Distance-based benchmarks on the other hand, lacking the rich empirical data on drivers in the area, instead rely on a model that depends primarily on the distance from the agency, which imposes radial symmetry in the ZIP code weights around the agency.

Despite these limitations of the distance-based benchmarks, they do appear to be reasonable approximations to the crash-based benchmarks, as summarized below. This assessment was based on agencies with sufficient crash data, where both crash-based and distance-based benchmarks could be calculated as described above. The percentage of each race was calculated for each benchmark for comparison.

Overall, the correlation coefficients (r) between the crash-based and distance-based race percentage ranged from 0.95 (Black or African American) to 0.97 (Asian), except for American Indian or Alaska Native ($r = 0.89$) and Native Hawaiian or Other Pacific Islander ($r = 0.71$). On average, distance-based benchmarks had only a 1% lower White percentage (absolute difference) than crash-based benchmarks, and only a 0.5% higher percentage for Blacks and Asians, with even smaller differences for the other groups. The root mean squared difference in the race percentage between the two benchmarks (a measure of the total error in either direction) was 5% for White drivers, 4% for Black drivers, 3% for Hispanic drivers, 1% for Asian drivers, and 0.05% for American Indian or Alaska Native and Native Hawaiian or Other Pacific Islander drivers. This shows that the methodology for distance-based benchmarks can achieve similar benchmarks as the crash-based methodology, without much bias in either direction (over- or underrepresenting any particular race) relative to the crash-based benchmarks, which is assumed to be the more accurate method.

## C.7. Methodological Differences with Past Reports for Stops in 2019-2020

While the methodology used for this report has some similarities with the 2019-2020 reports, there are a number of important differences. These must be considered when comparing this report to past reports for stops from 2019-2020. The 2019 and 2020 stops reports also describe differences with their methodologies compared with reports from 2004-2018.

The biggest difference is that in this report, ZIP-code-level population counts were combined in a weighted fashion to generate benchmarks while the 2019-2020 reports (and the 2004-2018 reports) used city-, county-, or state-level population counts. The weights given to each ZIP code in the 2021 benchmarks were determined using Illinois traffic crash reports (see **Section C.6**.), so they are able to better reflect actual driving patterns. The previous benchmarks most often used county-level population counts to include both the agency jurisdiction as well as the surrounding area. The new approach utilizing crash reports allow the benchmarks to be more individualized to each agency and incorporate both nearby populations and populations farther away, without being constrained by city, county, or state lines. The new benchmarks are expected to be a more accurate representation of the driving population within each agency's jurisdiction because the crash reports provide empirical data on the drivers in the area.

Another important difference is that, in this report, individuals who reported multiple races on the census/ACS were reallocated into single race groups, while in past reports (2004-2019), those with multiple races were excluded from benchmark calculations. In past years, the multiple race group was less than 2% of Illinois's population. Now this group is 2.2% of Illinois's population based on the 2020 5Y ACS and 3.2% of the population based on the 2020 decennial census. Furthermore, while the absolute percentage is still relatively low, the multiple race group disproportionately includes residents who identify as American Indian/Alaska Native or Native Hawaiian/Other Pacific Islander as one of their races. After reallocating the multiple races as described in **Section C.3.**, the number of American Indian or Alaska Native residents of Illinois (based on the 2020 5Y ACS) increased from 13,301 (0.1% of the population) to 35,925 (0.3% of the population) and the number of Native Hawaiian or Other Pacific Islander increased from 3,305 (0.03% of the population) to 7,580 (0.06% of the population). These groups are now better represented in the benchmarks than in past years, which should lead to better estimates of their stop rates.

### C.8. Limitations

While the new benchmarks which utilize traffic crash reports improve upon benchmarks from prior years, there remain limitations to consider while interpreting the results. The not-at-fault drivers in two vehicle crashes are intended to be representative of the driving population, but that may not be the case for a variety of reasons[15,16]. For example, while the potential for traffic accidents tend to increase

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[15] Withrow BL and Williams H. Proposing a benchmark based on vehicle collision data in racial profiling research. *Criminal Justice Review*. 2015;40(4):449-469.

[16] Alpert GP, Smith MR, Dunham RG. Towards a better benchmark: Assessing the utility of not-at-fault traffic crash data in racial profiling research. *Justice Research and Policy*. 2004;6(1):43-69.

with increased driving frequency, this may not be a linear relationship and may be affected by other factors including time of day, ambient light, travel speed, and type of roadway. Furthermore, driver race was not collected as part of the crash report, but the race distribution was inferred from the driver's ZIP code and ZIP-code-level population counts from the ACS/census. In particular, this means that drivers traveling from a given ZIP code are assumed to have the same racial distribution as the residents of that ZIP code, which may not be accurate. As can be seen in **Figure C.3**, more crash report data are available in urban areas, so the observed travel patterns may be less applicable to the benchmarks of more rural areas. We used driver density and degree of urbanization as factors when calculating benchmarks to mitigate this issue to some degree.

Another limitation is that ZIP-code-level demographics may be less accurate for small localities that do not align well with the ZIP code boundaries, and where there is substantial variation in racial distributions between neighboring areas sharing the same ZIP code. In addition, while we adjust population statistics to reflect the number of licensed drivers, this misses drivers who drive illegally without a license or overcounts individuals who no longer drive because of a suspended license or another reason and whose license has not expired.

Despite these limitations, the benchmarking method we have used has a number of strengths. Traffic crash reports, while likely not exactly representing the driving population, improve upon the common approach of relying on local resident populations counted by the census or ACS[17,18]. Furthermore, there are close to 1,000 law enforcement agencies in Illinois, each with their unique situation. The combination of traffic crash reports and ZIP-code-level ACS data provides detailed and relatively contemporary data in a uniform fashion across the state. Our methodology is able to use this data in a systematic and consistent way across a large number of agencies while alternative methods would require a tremendous amount of resources to acquire specialized data to construct a customized benchmark for each agency. New Illinois traffic crash data and ACS is released annually, so the underlying data for all agencies is able to remain relatively current and reflect demographic composition. In addition, for smaller agencies with fewer crash reports per year, over time, more years of crash data will be combined to increase the number of benchmarks that can be based directly on crash reports (crash-based benchmarks) rather than indirectly by inferring the traffic pattern based on similar agencies (distance-based benchmarks).

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

[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.

Another challenge is that the census and ACS collect 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 which 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. Improvements in counting those groups were made in 2021, but the equal fractions fractional allocation method that was used for handling "multiple races" is only a pragmatic approximation that could still differ from both self-identified and officer-identified primary race. Thus, while the study has strengths, there are some limitations as well. Thus, 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.5**. Geographic region or regions used in the Traffic Study for each agency that made stops and completely reported them.* All benchmarks include the population within the primary area as well as populations from the surrounding area. Places outside of the primary area are given a lower weight that decreases with distance. The "% within Primary Area" indicates how much of the benchmark population comes from ZIP codes within the primary area. The "Benchmark Radius" indicates how far the benchmark extends beyond the primary area to capture at least 95% of the included population, weighted by distance. Populations beyond that radius are also included but with much lower weight that adds up to <5% of the final benchmark population. See **Section C.6** for more detail on how benchmarks were calculated from ZIP-code-level population counts.

| Agency | ID | Benchmark Type | Number of Crash Reports Used | Primary Benchmark Area | % within Primary Area | Benchmark Radius (miles) |
|---|---|---|---|---|---|---|
| Abingdon Police | 13462 | Distance-based | N/A | City: Abingdon | 37.6% | 21 |
| Adams County Sheriff | 13054 | Distance-based | N/A | County: Adams | 77.8% | 251 |
| Addison Police | 13245 | Crash-based | 534 | City: Addison | 32.9% | 23 |
| Aledo Police | 13664 | Distance-based | N/A | City: Aledo | 33.2% | 28 |
| Alexander County Sheriff | 13059 | Distance-based | N/A | County: Alexander | 35.6% | 354 |
| Alexis Police | 13663 | Distance-based | N/A | City: Alexis | 13.5% | 33 |
| Algonquin Police | 13566 | Crash-based | 588 | City: Algonquin | 25.1% | 27 |
| Alpha Police | 13367 | Distance-based | N/A | City: Alpha | 9.1% | 28 |
| Alsip Police | 13213 | Crash-based | 650 | City: Alsip | 20.4% | 22 |
| Alton and Southern Railway Police | 14143 | Distance-based | N/A | City: East St. Louis | 33.5% | 12 |
| Alton Police | 13626 | Crash-based | 857 | City: Alton | 50.4% | 29 |
| Amboy Police | 13528 | Distance-based | N/A | City: Amboy | 22.3% | 45 |
| Anna Police | 13883 | Crash-based | 134 | City: Anna | 37.8% | 49 |
| Annawan Police | 13366 | Distance-based | N/A | City: Annawan | 8.4% | 38 |
| Antioch Police | 13463 | Distance-based | N/A | City: Antioch | 46.4% | 14 |
| Arcola Police | 13243 | Distance-based | N/A | City: Arcola | 31.9% | 32 |
| Arlington Heights Police | 13212 | Distance-based | N/A | City: Arlington Heights | 33.7% | 13 |
| Armington Police | 13878 | Distance-based | N/A | City: Armington | 6.9% | 28 |
| Aroma Park Police | 13448 | Distance-based | N/A | City: Aroma Park | 1.2% | 39 |
| Arthur Police | 13242 | Distance-based | N/A | City: Arthur | 36.8% | 31 |
| Ashland Police | 13098 | Distance-based | N/A | City: Ashland | 17.0% | 28 |
| Assumption Police | 13120 | Distance-based | N/A | City: Assumption | 15.9% | 35 |

| Agency | ID | Benchmark Type | Number of Crash Reports Used | Primary Benchmark Area | % within Primary Area | Benchmark Radius (miles) |
|---|---|---|---|---|---|---|
| Athens Police | 13656 | Distance-based | N/A | City: Athens | 15.5% | 24 |
| Atkinson Police | 13365 | Distance-based | N/A | City: Atkinson | 10.4% | 34 |
| Auburn Police | 13829 | Distance-based | N/A | City: Auburn | 33.9% | 18 |
| Aurora Police | 13413 | Crash-based | 4,274 | City: Aurora | 61.4% | 23 |
| Aviston Police | 13136 | Distance-based | N/A | City: Aviston | 12.4% | 32 |
| Avon Police | 13324 | Distance-based | N/A | City: Avon | 27.4% | 32 |
| Baldwin Police | 13752 | Distance-based | N/A | City: Baldwin | 4.4% | 41 |
| Bannockburn Police | 13464 | Distance-based | N/A | City: Bannockburn | 10.1% | 20 |
| Barrington Hills Police | 13466 | Crash-based | 224 | City: Barrington Hills | 23.6% | 25 |
| Barrington Police | 13465 | Crash-based | 412 | City: Barrington | 33.3% | 27 |
| Barry Police | 13725 | Distance-based | N/A | City: Barry | 29.4% | 29 |
| Bartlett Police | 13211 | Crash-based | 603 | City: Bartlett | 29.7% | 26 |
| Batavia Police | 13414 | Crash-based | 196 | City: Batavia | 30.1% | 27 |
| Beardstown Police | 13097 | Crash-based | 54 | City: Beardstown | 63.0% | 94 |
| Beckemeyer Police | 13135 | Distance-based | N/A | City: Beckemeyer | 7.8% | 31 |
| Bedford Park Police | 13210 | Crash-based | 347 | City: Bedford Park | 2.3% | 29 |
| Beecher Police | 13956 | Distance-based | N/A | City: Beecher | 29.8% | 20 |
| Belleville Police | 13795 | Crash-based | 997 | City: Belleville | 61.9% | 24 |
| Bellwood Police | 13209 | Crash-based | 402 | City: Bellwood | 24.6% | 27 |
| Belvidere Police | 13069 | Distance-based | N/A | City: Belvidere | 51.3% | 21 |
| Bement Police | 13720 | Distance-based | N/A | City: Bement | 12.8% | 27 |
| Benedictine University Police | 13246 | Distance-based | N/A | City: Lisle | 17.1% | 15 |
| Bensenville Police | 13247 | Crash-based | 545 | City: Bensenville | 22.9% | 30 |
| Benton Police | 13311 | Distance-based | N/A | City: Benton | 47.7% | 24 |
| Berkeley Police | 13208 | Distance-based | N/A | City: Berkeley | 2.3% | 13 |
| Berwyn Police | 13207 | Crash-based | 926 | City: Berwyn | 37.0% | 21 |
| Bethalto Police | 13625 | Crash-based | 151 | City: Bethalto | 43.7% | 31 |
| Blandinsville Police | 13545 | Distance-based | N/A | City: Blandinsville | 15.8% | 31 |
| Bloomingdale Police | 13248 | Crash-based | 549 | City: Bloomingdale | 15.6% | 22 |
| Bloomington Police | 13581 | Crash-based | 1,674 | City: Bloomington | 61.0% | 99 |
| Blue Island Police | 13206 | Distance-based | N/A | City: Blue Island | 13.8% | 11 |
| Blue Mound Police | 13590 | Distance-based | N/A | City: Blue Mound | 19.4% | 23 |
| Bluffs Police | 13836 | Distance-based | N/A | City: Bluffs | 13.7% | 44 |
| Bolingbrook Police | 13955 | Crash-based | 1,228 | City: Bolingbrook | 45.4% | 25 |

| Agency | ID | Benchmark Type | Number of Crash Reports Used | Primary Benchmark Area | % within Primary Area | Benchmark Radius (miles) |
|---|---|---|---|---|---|---|
| Bond County Sheriff | 13067 | Distance-based | N/A | County: Bond | 43.2% | 328 |
| Boone County Sheriff | 13068 | Distance-based | N/A | County: Boone | 74.3% | 64 |
| Bourbonnais Police | 13447 | Crash-based | 227 | City: Bourbonnais | 45.8% | 34 |
| Bradley Police | 13446 | Crash-based | 399 | City: Bradley | 24.5% | 37 |
| Bradley University Police | 13711 | Crash-based | 2,952 | City: Peoria | 67.5% | 35 |
| Braidwood Police | 13954 | Distance-based | N/A | City: Braidwood | 35.5% | 21 |
| Breese Police | 13134 | Crash-based | 50 | City: Breese | 44.0% | 38 |
| Bridgeview Police | 13204 | Crash-based | 794 | City: Bridgeview | 11.6% | 24 |
| Brighton Police | 13592 | Distance-based | N/A | City: Brighton | 13.5% | 32 |
| Broadview Police | 14006 | Crash-based | 239 | City: Broadview | 18.7% | 23 |
| Brocton Police | 14109 | Distance-based | N/A | City: Brocton | 5.4% | 36 |
| Brookfield Police | 14065 | Crash-based | 225 | City: Brookfield | 34.7% | 27 |
| Brookport Police | 13652 | Distance-based | N/A | City: Brookport | 14.1% | 27 |
| Buffalo Grove Police | 13467 | Crash-based | 781 | City: Buffalo Grove | 26.8% | 34 |
| Bunker Hill Police | 13602 | Distance-based | N/A | City: Bunker Hill | 11.7% | 34 |
| Burbank Police | 13200 | Crash-based | 440 | City: Burbank | 34.9% | 20 |
| Bureau County Sheriff | 13083 | Crash-based | 86 | County: Bureau | 82.6% | 37 |
| Burnham Police | 13199 | Distance-based | N/A | City: Burnham | 6.1% | 14 |
| Burr Ridge Police | 13249 | Crash-based | 142 | City: Burr Ridge | 25.9% | 27 |
| Bushnell Police | 13544 | Distance-based | N/A | City: Bushnell | 34.2% | 28 |
| Byron Police | 13703 | Distance-based | N/A | City: Byron | 18.1% | 30 |
| Cahokia Heights Police | 13793 | Crash-based | 214 | City: Cahokia Heights | 62.1% | 27 |
| Calhoun County Sheriff | 13086 | Distance-based | N/A | County: Calhoun | 16.1% | 316 |
| Calumet Park Police | 13197 | Crash-based | 110 | City: Calumet Park | 20.0% | 42 |
| Cambridge Police | 13364 | Distance-based | N/A | City: Cambridge | 20.1% | 31 |
| Camp Point Police | 13055 | Distance-based | N/A | City: Camp Point | 30.9% | 30 |
| Campton Hills Police | 14114 | Distance-based | N/A | City: Campton Hills | 37.8% | 16 |
| Canton Park District Police | 14018 | Distance-based | N/A | City: Canton | 66.5% | 27 |
| Carbondale Police | 13387 | Distance-based | N/A | City: Carbondale | 64.4% | 19 |
| Carlinville Police | 13601 | Crash-based | 65 | City: Carlinville | 66.2% | 27 |
| Carlyle Police | 13133 | Distance-based | N/A | City: Carlyle | 43.6% | 35 |
| Carmi Police | 13919 | Crash-based | 73 | City: Carmi | 56.8% | 43 |
| Carol Stream Police | 13250 | Crash-based | 474 | City: Carol Stream | 34.9% | 22 |
| Carpentersville Police | 13415 | Distance-based | N/A | City: Carpentersville | 39.3% | 13 |

| Agency | ID | Benchmark Type | Number of Crash Reports Used | Primary Benchmark Area | % within Primary Area | Benchmark Radius (miles) |
|---|---|---|---|---|---|---|
| Carroll County Sheriff | 13092 | Distance-based | N/A | County: Carroll | 46.6% | 298 |
| Carterville Police | 13969 | Distance-based | N/A | City: Carterville | 28.4% | 18 |
| Cary Police | 13564 | Crash-based | 180 | City: Cary | 49.4% | 23 |
| Caseyville Police | 13792 | Distance-based | N/A | City: Caseyville | 8.0% | 18 |
| Cass County Sheriff | 13096 | Distance-based | N/A | County: Cass | 31.8% | 356 |
| Cedar Point Police | 13517 | Distance-based | N/A | City: Cedar Point | 1.0% | 37 |
| Cedarville Police | 13854 | Distance-based | N/A | City: Cedarville | 2.2% | 33 |
| Central City Police | 13634 | Distance-based | N/A | City: Central City | 79.9% | 18 |
| Channahon Police | 13953 | Distance-based | N/A | City: Channahon | 28.1% | 22 |
| Chapin Police | 13688 | Distance-based | N/A | City: Chapin | 8.3% | 37 |
| Charleston Police | 13143 | Crash-based | 236 | City: Charleston | 61.0% | 156 |
| Chatham Police | 13828 | Crash-based | 94 | City: Chatham | 54.3% | 18 |
| Chenoa Police | 13580 | Distance-based | N/A | City: Chenoa | 29.5% | 25 |
| Cherry Police | 13082 | Distance-based | N/A | City: Cherry | 2.6% | 33 |
| Cherry Valley Police | 13981 | Crash-based | 103 | City: Cherry Valley | 14.6% | 23 |
| Chester Police | 13751 | Distance-based | N/A | City: Chester | 60.4% | 35 |
| Chicago Heights Police | 13196 | Crash-based | 388 | City: Chicago Heights | 39.1% | 31 |
| Chicago Police | 13194 | Crash-based | 67,879 | City: Chicago | 72.3% | 24 |
| Chicago Police (1st District - Central) | 13194.01 | Crash-based | 3,643 | City: Chicago 1st District (Central) | 10.0% | 123 |
| Chicago Police (2nd District - Wentworth) | 13194.02 | Crash-based | 2,523 | City: Chicago 2nd District (Wentworth) | 30.8% | 36 |
| Chicago Police (3rd District - Grand Crossing) | 13194.03 | Crash-based | 2,727 | City: Chicago 3rd District (Grand Crossing) | 27.5% | 29 |
| Chicago Police (4th District - South Chicago) | 13194.04 | Crash-based | 3,009 | City: Chicago 4th District (South Chicago) | 50.2% | 27 |
| Chicago Police (5th District - Calumet) | 13194.05 | Crash-based | 1,673 | City: Chicago 5th District (Calumet) | 39.3% | 22 |
| Chicago Police (6th District - Gresham) | 13194.06 | Crash-based | 3,460 | City: Chicago 6th District (Gresham) | 37.0% | 21 |
| Chicago Police (7th District - Englewood) | 13194.07 | Crash-based | 2,274 | City: Chicago 7th District (Englewood) | 26.2% | 27 |
| Chicago Police (8th District - Chicago Lawn) | 13194.08 | Crash-based | 5,804 | City: Chicago 8th District (Chicago Lawn) | 53.0% | 19 |
| Chicago Police (9th District - Deering) | 13194.09 | Crash-based | 3,665 | City: Chicago 9th District (Deering) | 41.8% | 24 |
| Chicago Police (10th District - Ogden) | 13194.10 | Crash-based | 2,655 | City: Chicago 10th District (Ogden) | 34.5% | 28 |
| Chicago Police (11th District - Harrison) | 13194.11 | Crash-based | 3,461 | City: Chicago 11th District (Harrison) | 28.8% | 28 |

| Agency | ID | Benchmark Type | Number of Crash Reports Used | Primary Benchmark Area | % within Primary Area | Benchmark Radius (miles) |
|---|---|---|---|---|---|---|
| Chicago Police (12th District - Near West) | 13194.12 | Crash-based | 4,359 | City: Chicago 12th District (Near West) | 21.1% | 37 |
| Chicago Police (14th District - Shakespeare) | 13194.14 | Crash-based | 2,440 | City: Chicago 14th District (Shakespeare) | 23.7% | 34 |
| Chicago Police (15th District - Austin) | 13194.15 | Crash-based | 2,171 | City: Chicago 15th District (Austin) | 34.1% | 29 |
| Chicago Police (16th District - Jefferson Park) | 13194.16 | Crash-based | 4,490 | City: Chicago 16th District (Jefferson Park) | 45.6% | 27 |
| Chicago Police (17th District - Albany Park) | 13194.17 | Crash-based | 2,992 | City: Chicago 17th District (Albany Park) | 49.4% | 26 |
| Chicago Police (18th District - Near North) | 13194.18 | Crash-based | 2,989 | City: Chicago 18th District (Near North) | 13.1% | 133 |
| Chicago Police (19th District - Town Hall) | 13194.19 | Crash-based | 2,762 | City: Chicago 19th District (Town Hall) | 33.6% | 37 |
| Chicago Police (20th District - Lincoln) | 13194.20 | Crash-based | 1,417 | City: Chicago 20th District (Lincoln) | 38.5% | 36 |
| Chicago Police (22nd District - Morgan Park) | 13194.22 | Crash-based | 2,772 | City: Chicago 22nd District (Morgan Park) | 36.8% | 19 |
| Chicago Police (24th District - Rogers Park) | 13194.24 | Crash-based | 1,911 | City: Chicago 24th District (Rogers Park) | 49.0% | 32 |
| Chicago Police (25th District - Grand Central) | 13194.25 | Crash-based | 4,130 | City: Chicago 25th District (Grand Central) | 51.1% | 17 |
| Chillicothe Police | 13710 | Distance-based | N/A | City: Chillicothe | 44.3% | 17 |
| Chrisman Police | 13281 | Distance-based | N/A | City: Chrisman | 28.7% | 34 |
| Christian County Sheriff | 13119 | Crash-based | 86 | County: Christian | 72.1% | 82 |
| Christopher Police | 13309 | Distance-based | N/A | City: Christopher | 14.1% | 21 |
| Cicero Police | 13191 | Crash-based | 1,960 | City: Cicero | 43.4% | 19 |
| Clarendon Hills Police | 13251 | Distance-based | N/A | City: Clarendon Hills | 7.9% | 13 |
| Clifton Police | 13374 | Distance-based | N/A | City: Clifton | 15.5% | 43 |
| Clinton County Sheriff | 13132 | Crash-based | 140 | County: Clinton | 80.7% | 28 |
| Clinton Police | 13237 | Crash-based | 92 | City: Clinton | 69.9% | 49 |
| Coal City Police | 13339 | Crash-based | 52 | City: Coal City | 51.9% | 23 |
| Coal Valley Police | 13766 | Distance-based | N/A | City: Coal Valley | 12.3% | 16 |
| Coffeen Police | 13679 | Distance-based | N/A | City: Coffeen | 9.2% | 41 |
| Colchester Police | 13543 | Distance-based | N/A | City: Colchester | 29.9% | 32 |
| Coles County Sheriff | 13142 | Crash-based | 113 | County: Coles | 80.7% | 30 |
| Colfax Police | 13579 | Distance-based | N/A | City: Colfax | 21.4% | 23 |
| College of DuPage Police | 13252 | Crash-based | 522 | City: Glen Ellyn | 27.0% | 23 |
| College of Lake County Police | 13468 | Crash-based | 2,883 | City: Grayslake, Waukegan, Vernon Hills | 59.3% | 17 |
| Columbia Police | 13670 | Crash-based | 125 | City: Columbia | 46.4% | 25 |
| Cook County Forest Preserve Police | 13189 | Crash-based | 109,234 | County: Cook | 89.2% | 12 |

| Agency | ID | Benchmark Type | Number of Crash Reports Used | Primary Benchmark Area | % within Primary Area | Benchmark Radius (miles) |
|---|---|---|---|---|---|---|
| Cortland Police | 13234 | Distance-based | N/A | City: Cortland | 8.0% | 31 |
| Coulterville Police | 13750 | Distance-based | N/A | City: Coulterville | 23.9% | 38 |
| Countryside Police | 13186 | Crash-based | 267 | City: Countryside | 24.5% | 20 |
| Cowden Police | 13843 | Distance-based | N/A | City: Cowden | 14.0% | 33 |
| Crainville Police | 13968 | Distance-based | N/A | City: Crainville | 27.6% | 18 |
| Crawford County Sheriff | 13218 | Crash-based | 86 | County: Crawford | 79.1% | 22 |
| Crest Hill Police | 13952 | Crash-based | 444 | City: Crest Hill | 19.4% | 25 |
| Crestwood Police | 13185 | Crash-based | 460 | City: Crestwood | 19.3% | 17 |
| Crete Police | 14000 | Crash-based | 101 | City: Crete | 34.3% | 28 |
| Creve Coeur Police | 13877 | Crash-based | 90 | City: Creve Coeur | 22.2% | 30 |
| Crystal Lake Park District Police | 14010 | Crash-based | 797 | City: Crystal Lake | 42.2% | 28 |
| Crystal Lake Police | 13563 | Crash-based | 797 | City: Crystal Lake | 42.2% | 28 |
| CSX Transportation Railroad Police | 14147 | Distance-based | N/A | City: East St. Louis | 33.5% | 12 |
| Dallas City Police | 13347 | Distance-based | N/A | City: Dallas City | 14.1% | 35 |
| Dana Police | 14151 | Distance-based | N/A | City: Dana | 3.7% | 36 |
| Danvers Police | 13578 | Distance-based | N/A | City: Danvers | 11.0% | 23 |
| Danville Police | 13897 | Distance-based | N/A | City: Danville | 84.4% | 13 |
| Darien Police | 13253 | Crash-based | 387 | City: Darien | 25.2% | 20 |
| Decatur Park District Police | 13589 | Crash-based | 1,823 | City: Decatur | 77.4% | 33 |
| Decatur Police | 13588 | Crash-based | 1,823 | City: Decatur | 77.4% | 33 |
| Deer Creek Police | 13876 | Distance-based | N/A | City: Deer Creek | 3.0% | 21 |
| Deerfield Police | 13469 | Crash-based | 348 | City: Deerfield | 24.5% | 57 |
| DeKalb County Sheriff | 13223 | Crash-based | 387 | County: DeKalb | 67.8% | 39 |
| DeKalb Police | 13233 | Crash-based | 615 | City: DeKalb | 54.6% | 54 |
| Delavan Police | 13875 | Distance-based | N/A | City: Delavan | 21.3% | 29 |
| DePue Police | 13081 | Distance-based | N/A | City: DePue | 45.7% | 28 |
| Des Plaines Police | 13184 | Crash-based | 499 | City: Des Plaines | 42.4% | 23 |
| DeSoto Police | 13966 | Distance-based | N/A | City: DeSoto | 11.8% | 20 |
| DeWitt County Sheriff | 13236 | Distance-based | N/A | County: DeWitt | 46.3% | 309 |
| Divernon Police | 13825 | Distance-based | N/A | City: Divernon | 11.6% | 18 |
| Dixon Police | 13526 | Crash-based | 239 | City: Dixon | 67.9% | 44 |
| Donnellson Police | 13066 | Distance-based | N/A | City: Donnellson | 2.3% | 43 |
| Douglas County Sheriff | 13240 | Distance-based | N/A | County: Douglas | 41.6% | 317 |
| Dowell Police | 14061 | Distance-based | N/A | City: Dowell | 1.8% | 24 |
| Downers Grove Police | 13254 | Crash-based | 1,073 | City: Downers Grove | 29.6% | 23 |

| Agency | ID | Benchmark Type | Number of Crash Reports Used | Primary Benchmark Area | % within Primary Area | Benchmark Radius (miles) |
|---|---|---|---|---|---|---|
| Dunfermline Police | 13319 | Distance-based | N/A | City: Dunfermline | 2.7% | 29 |
| DuPage County Forest Preserve Police | 14043 | Crash-based | 15,864 | County: DuPage | 70.6% | 15 |
| DuPage County Sheriff | 13255 | Crash-based | 889 | County: DuPage | 74.4% | 13 |
| Dupo Police | 13790 | Distance-based | N/A | City: Dupo | 4.5% | 16 |
| Durand Police | 13980 | Distance-based | N/A | City: Durand | 18.6% | 20 |
| Dwight Police | 13532 | Distance-based | N/A | City: Dwight | 37.2% | 40 |
| East Alton Police | 13623 | Distance-based | N/A | City: East Alton | 15.9% | 20 |
| East Carondelet Police | 13789 | Distance-based | N/A | City: East Carondelet | 1.1% | 17 |
| East Dubuque Police | 13406 | Distance-based | N/A | City: East Dubuque | 14.2% | 22 |
| East Dundee Police | 13416 | Crash-based | 127 | City: East Dundee | 11.0% | 25 |
| East Hazel Crest Police | 13181 | Distance-based | N/A | City: East Hazel Crest | 10.2% | 14 |
| East Moline Police | 13764 | Crash-based | 173 | City: East Moline | 37.9% | 35 |
| East Peoria Police | 13874 | Crash-based | 351 | City: East Peoria | 26.7% | 70 |
| Eastern Illinois University Police | 13141 | Crash-based | 236 | City: Charleston | 61.0% | 156 |
| Easton Police | 13647 | Distance-based | N/A | City: Easton | 7.7% | 38 |
| Edinburg Police | 13118 | Distance-based | N/A | City: Edinburg | 9.7% | 26 |
| Edwardsville Police | 13622 | Crash-based | 627 | City: Edwardsville | 41.2% | 80 |
| Effingham County Sheriff | 13287 | Distance-based | N/A | County: Effingham | 54.3% | 326 |
| Effingham Police | 13286 | Crash-based | 485 | City: Effingham | 46.5% | 80 |
| Elburn Police | 13417 | Distance-based | N/A | City: Elburn | 23.1% | 19 |
| Eldorado Police | 13800 | Crash-based | 53 | City: Eldorado | 50.9% | 60 |
| Elgin Community College Police | 13418 | Crash-based | 2,620 | City: Elgin | 56.8% | 25 |
| Elgin Police | 13419 | Crash-based | 2,620 | City: Elgin | 56.8% | 25 |
| Elizabeth Police | 13405 | Distance-based | N/A | City: Elizabeth | 19.9% | 37 |
| Elizabethtown Police | 13352 | Distance-based | N/A | City: Elizabethtown | 13.9% | 47 |
| Elk Grove Village Police | 13180 | Crash-based | 285 | City: Elk Grove Village | 21.4% | 31 |
| Elmhurst Police | 13256 | Crash-based | 667 | City: Elmhurst | 28.2% | 30 |
| Elmwood Park Police | 13179 | Crash-based | 253 | City: Elmwood Park | 54.1% | 15 |
| Elmwood Police | 13709 | Distance-based | N/A | City: Elmwood | 29.8% | 24 |
| Elsah Police | 13397 | Distance-based | N/A | City: Elsah | 1.0% | 28 |
| Elwood Police | 13950 | Distance-based | N/A | City: Elwood | 6.3% | 24 |
| Energy Police | 13965 | Distance-based | N/A | City: Energy | 4.0% | 18 |
| Erie Police | 13928 | Distance-based | N/A | City: Erie | 16.9% | 28 |

| Agency | ID | Benchmark Type | Number of Crash Reports Used | Primary Benchmark Area | % within Primary Area | Benchmark Radius (miles) |
|---|---|---|---|---|---|---|
| Essex Police | 13445 | Distance-based | N/A | City: Essex | 3.9% | 42 |
| Eureka Police | 13985 | Distance-based | N/A | City: Eureka | 23.0% | 22 |
| Evanston Police | 13178 | Crash-based | 716 | City: Evanston | 44.6% | 34 |
| Evergreen Park Police | 13177 | Crash-based | 449 | City: Evergreen Park | 17.4% | 18 |
| Fairbury Police | 13531 | Distance-based | N/A | City: Fairbury | 51.2% | 31 |
| Fairfield Police | 13913 | Crash-based | 138 | City: Fairfield | 64.5% | 34 |
| Fairmont City Police | 13786 | Distance-based | N/A | City: Fairmont City | 4.2% | 17 |
| Fairmount Police | 13896 | Distance-based | N/A | City: Fairmount | 9.9% | 25 |
| Fairview Heights Police | 13785 | Crash-based | 581 | City: Fairview Heights | 21.6% | 45 |
| Fairview Police | 13318 | Distance-based | N/A | City: Fairview | 2.7% | 39 |
| Farmer City Police | 13235 | Distance-based | N/A | City: Farmer City | 15.4% | 29 |
| Farmington Police | 13317 | Distance-based | N/A | City: Farmington | 20.4% | 26 |
| Fayette County Sheriff | 13293 | Distance-based | N/A | County: Fayette | 52.6% | 320 |
| Findlay Police | 13842 | Distance-based | N/A | City: Findlay | 9.7% | 34 |
| Flossmoor Police | 13176 | Distance-based | N/A | City: Flossmoor | 9.5% | 13 |
| Fondulac Park District Police | 14017 | Crash-based | 351 | City: East Peoria | 26.7% | 70 |
| Ford County Sheriff | 13300 | Distance-based | N/A | County: Ford | 31.8% | 284 |
| Forest Park Police | 13174 | Crash-based | 336 | City: Forest Park | 17.4% | 28 |
| Forest Preserve District of Will County Police | 13932 | Crash-based | 11,042 | County: Will | 81.7% | 17 |
| Fox Lake Police | 13470 | Crash-based | 218 | City: Fox Lake | 23.7% | 37 |
| Fox River Grove Police | 13562 | Distance-based | N/A | City: Fox River Grove | 7.7% | 15 |
| Frankfort Police | 13949 | Crash-based | 346 | City: Frankfort | 35.7% | 20 |
| Franklin County Sheriff | 13307 | Distance-based | N/A | County: Franklin | 71.7% | 274 |
| Franklin Grove Police | 13525 | Distance-based | N/A | City: Franklin Grove | 14.0% | 34 |
| Franklin Park Police | 13172 | Crash-based | 555 | City: Franklin Park | 21.0% | 25 |
| Freeburg Police | 13783 | Crash-based | 52 | City: Freeburg | 48.1% | 32 |
| Freeport Police | 13852 | Crash-based | 133 | City: Freeport | 72.2% | 37 |
| Fulton County Sheriff | 13316 | Distance-based | N/A | County: Fulton | 41.8% | 338 |
| Fulton Police | 13927 | Distance-based | N/A | City: Fulton | 30.8% | 31 |
| Galesburg Police | 13459 | Crash-based | 411 | City: Galesburg | 70.1% | 42 |
| Geneseo Police | 13361 | Distance-based | N/A | City: Geneseo | 44.2% | 26 |
| Geneva Police | 13421 | Crash-based | 316 | City: Geneva | 22.1% | 33 |
| Genoa Police | 13232 | Distance-based | N/A | City: Genoa | 18.6% | 29 |

| Agency | ID | Benchmark Type | Number of Crash Reports Used | Primary Benchmark Area | % within Primary Area | Benchmark Radius (miles) |
|---|---|---|---|---|---|---|
| Germantown Police | 14026 | Distance-based | N/A | City: Germantown | 9.1% | 36 |
| Gibson City Police | 13299 | Distance-based | N/A | City: Gibson City | 36.7% | 32 |
| Gifford Police | 13109 | Distance-based | N/A | City: Gifford | 18.3% | 21 |
| Gilberts Police | 13422 | Distance-based | N/A | City: Gilberts | 9.5% | 18 |
| Gillespie Police | 13599 | Distance-based | N/A | City: Gillespie | 28.5% | 33 |
| Girard Police | 13598 | Distance-based | N/A | City: Girard | 30.0% | 29 |
| Glen Carbon Police | 13621 | Distance-based | N/A | City: Glen Carbon | 22.9% | 18 |
| Glen Ellyn Police | 13258 | Crash-based | 522 | City: Glen Ellyn | 27.0% | 23 |
| Glencoe Dept. of Public Safety | 13171 | Distance-based | N/A | City: Glencoe | 6.3% | 16 |
| Glendale Heights Police | 13259 | Crash-based | 632 | City: Glendale Heights | 38.5% | 20 |
| Glenview Police | 13170 | Crash-based | 1,033 | City: Glenview | 30.6% | 25 |
| Glenwood Police | 13169 | Distance-based | N/A | City: Glenwood | 8.4% | 13 |
| Golf Police | 14035 | Distance-based | N/A | City: Golf | 0.2% | 13 |
| Goreville Police | 13410 | Distance-based | N/A | City: Goreville | 11.0% | 36 |
| Grafton Police | 13396 | Distance-based | N/A | City: Grafton | 1.8% | 33 |
| Grand Ridge Police | 13515 | Distance-based | N/A | City: Grand Ridge | 7.8% | 36 |
| Granite City Police | 13620 | Crash-based | 515 | City: Granite City | 67.1% | 25 |
| Grant Park Police | 13444 | Distance-based | N/A | City: Grant Park | 5.0% | 37 |
| Grantfork Police | 14045 | Distance-based | N/A | City: Grantfork | 70.1% | 21 |
| Granville Police | 13738 | Distance-based | N/A | City: Granville | 11.2% | 39 |
| Grayslake Police | 13471 | Crash-based | 444 | City: Grayslake | 27.2% | 25 |
| Greenup Police | 13220 | Distance-based | N/A | City: Greenup | 23.1% | 37 |
| Greenview Police | 13655 | Distance-based | N/A | City: Greenview | 9.1% | 36 |
| Grundy County Sheriff | 13338 | Crash-based | 186 | County: Grundy | 72.3% | 47 |
| Gurnee Police | 13473 | Crash-based | 1,009 | City: Gurnee | 20.2% | 40 |
| Hamel Police | 13619 | Distance-based | N/A | City: Hamel | 2.8% | 26 |
| Hamilton County Sheriff | 13341 | Distance-based | N/A | County: Hamilton | 54.8% | 323 |
| Hampshire Police | 13423 | Crash-based | 54 | City: Hampshire | 42.6% | 39 |
| Hampton Police | 13763 | Distance-based | N/A | City: Hampton | 3.7% | 12 |
| Hancock County Sheriff | 13345 | Distance-based | N/A | County: Hancock | 48.5% | 333 |
| Hanover Park Police | 13168 | Crash-based | 583 | City: Hanover Park | 28.3% | 20 |

| Agency | ID | Benchmark Type | Number of Crash Reports Used | Primary Benchmark Area | % within Primary Area | Benchmark Radius (miles) |
|---|---|---|---|---|---|---|
| Hanover Police | 14048 | Distance-based | N/A | City: Hanover | 13.8% | 35 |
| Harper College Police | 13167 | Crash-based | 941 | City: Palatine | 45.1% | 20 |
| Harrisburg Police | 13798 | Crash-based | 194 | City: Harrisburg | 59.8% | 27 |
| Hartford Police | 13618 | Distance-based | N/A | City: Hartford | 1.7% | 20 |
| Harvard Police | 13561 | Crash-based | 124 | City: Harvard | 70.2% | 52 |
| Harwood Heights Police | 13165 | Crash-based | 257 | City: Harwood Heights | 20.1% | 14 |
| Havana Police | 13645 | Distance-based | N/A | City: Havana | 44.9% | 39 |
| Hawthorn Woods Police | 14020 | Crash-based | 126 | City: Hawthorn Woods | 34.4% | 24 |
| Hazel Crest Police | 13164 | Distance-based | N/A | City: Hazel Crest | 13.0% | 12 |
| Henning Police | 13893 | Distance-based | N/A | City: Henning | 0.9% | 37 |
| Henry County Sheriff | 13360 | Distance-based | N/A | County: Henry | 56.4% | 282 |
| Henry Police | 13639 | Distance-based | N/A | City: Henry | 20.4% | 35 |
| Herscher Police | 13443 | Distance-based | N/A | City: Herscher | 12.6% | 39 |
| Heyworth Police | 13575 | Distance-based | N/A | City: Heyworth | 22.0% | 20 |
| Hickory Hills Police | 13163 | Distance-based | N/A | City: Hickory Hills | 10.2% | 12 |
| Highland Park Police | 13474 | Crash-based | 337 | City: Highland Park | 31.7% | 39 |
| Highland Police | 13617 | Crash-based | 156 | City: Highland | 70.5% | 23 |
| Highwood Police | 13475 | Distance-based | N/A | City: Highwood | 6.9% | 15 |
| Hillsboro Police | 13676 | Crash-based | 71 | City: Hillsboro | 52.8% | 41 |
| Hillside Police | 13162 | Crash-based | 259 | City: Hillside | 14.1% | 25 |
| Hinckley Police | 13231 | Distance-based | N/A | City: Hinckley | 9.9% | 29 |
| Hinsdale Police | 13260 | Crash-based | 410 | City: Hinsdale | 28.0% | 22 |
| Hodgkins Police | 13049 | Distance-based | N/A | City: Hodgkins | 17.3% | 13 |
| Hoffman Estates Police | 13048 | Crash-based | 638 | City: Hoffman Estates | 28.3% | 23 |
| Homer Police | 13108 | Distance-based | N/A | City: Homer | 20.2% | 20 |
| Homewood Police | 13046 | Distance-based | N/A | City: Homewood | 18.5% | 12 |
| Hoopeston Police | 13892 | Distance-based | N/A | City: Hoopeston | 60.2% | 33 |
| Hopedale Police | 13872 | Distance-based | N/A | City: Hopedale | 9.0% | 26 |
| Hudson Police | 13574 | Distance-based | N/A | City: Hudson | 9.5% | 17 |
| Huntley Police | 13558 | Crash-based | 229 | City: Huntley | 38.1% | 30 |
| Hurst Police | 13962 | Distance-based | N/A | City: Hurst | 2.5% | 17 |
| Illinois Central College Police | 13871 | Crash-based | 351 | City: East Peoria | 26.7% | 70 |
| Illinois Commerce Commission Police | 13995 | Crash-based | 204,168 | State: Illinois | 96.7% | 234 |

| Agency | ID | Benchmark Type | Number of Crash Reports Used | Primary Benchmark Area | % within Primary Area | Benchmark Radius (miles) |
|---|---|---|---|---|---|---|
| Illinois Department of Natural Resources Police | 13823 | Crash-based | 204,168 | State: Illinois | 96.7% | 234 |
| Illinois State Police | 13991 | Crash-based | 38,119 | State: Illinois | 88.4% | 90 |
| Illinois State University Police | 13573 | Crash-based | 832 | City: Normal | 36.2% | 119 |
| Ina Police | 14117 | Distance-based | N/A | City: Ina | 17.4% | 30 |
| Iroquois County Sheriff | 13372 | Distance-based | N/A | County: Iroquois | 49.8% | 245 |
| Island Lake Police | 13476 | Crash-based | 91 | City: Island Lake | 27.5% | 18 |
| Itasca Police | 13261 | Crash-based | 134 | City: Itasca | 15.7% | 26 |
| Iuka Police | 14019 | Distance-based | N/A | City: Iuka | 22.3% | 30 |
| Jackson County Sheriff | 13383 | Crash-based | 156 | County: Jackson | 71.8% | 58 |
| Jacksonville Police | 13687 | Crash-based | 350 | City: Jacksonville | 71.7% | 38 |
| Jasper County Sheriff | 13390 | Distance-based | N/A | County: Jasper | 31.5% | 349 |
| Jefferson County Sheriff | 13393 | Distance-based | N/A | County: Jefferson | 76.1% | 256 |
| Jersey County Sheriff | 13395 | Crash-based | 114 | County: Jersey | 64.9% | 31 |
| Jo Daviess County Sheriff | 13402 | Crash-based | 70 | County: Jo Daviess | 64.8% | 122 |
| John A Logan College Police | 13961 | Distance-based | N/A | City: Carterville | 28.4% | 18 |
| Johnsburg Police | 13557 | Distance-based | N/A | City: Johnsburg | 16.8% | 24 |
| Johnson County Sheriff | 13409 | Distance-based | N/A | County: Johnson | 53.3% | 334 |
| Joliet Junior College Police | 13946 | Crash-based | 3,409 | City: Joliet | 54.1% | 28 |
| Joliet Police | 13945 | Crash-based | 3,409 | City: Joliet | 54.1% | 28 |
| Kane County Forest Preserve Police | 13424 | Crash-based | 7,188 | County: Kane | 80.8% | 16 |
| Kane County Sheriff | 13425 | Distance-based | N/A | County: Kane | 73.6% | 59 |
| Kankakee County Sheriff | 13441 | Crash-based | 193 | County: Kankakee | 84.5% | 12 |
| Kankakee Police | 13440 | Crash-based | 743 | City: Kankakee | 59.3% | 36 |
| Kansas Police | 13279 | Distance-based | N/A | City: Kansas | 10.1% | 36 |
| Kendall County Sheriff | 13453 | Distance-based | N/A | County: Kendall | 72.4% | 45 |
| Kenilworth Police | 13044 | Distance-based | N/A | City: Kenilworth | 1.6% | 13 |
| Kewanee Police | 13359 | Crash-based | 178 | City: Kewanee | 73.6% | 32 |
| Kildeer Police | 13477 | Crash-based | 81 | City: Kildeer | 30.9% | 22 |
| Kincaid Police | 13117 | Distance-based | N/A | City: Kincaid | 8.6% | 24 |
| Kingston Police | 13230 | Distance-based | N/A | City: Kingston | 8.8% | 32 |
| Kirkland Police | 13229 | Distance-based | N/A | City: Kirkland | 7.1% | 30 |
| Knox County Sheriff | 13458 | Crash-based | 63 | County: Knox | 76.2% | 28 |
| Knoxville Police | 13457 | Distance-based | N/A | City: Knoxville | 26.3% | 30 |
| La Grange Park Police | 13043 | Crash-based | 140 | City: La Grange Park | 15.0% | 17 |

| Agency | ID | Benchmark Type | Number of Crash Reports Used | Primary Benchmark Area | % within Primary Area | Benchmark Radius (miles) |
|---|---|---|---|---|---|---|
| La Salle Police | 13513 | Distance-based | N/A | City: La Salle | 37.8% | 27 |
| Lacon Police | 13638 | Distance-based | N/A | City: Lacon | 14.6% | 34 |
| Ladd Police | 13080 | Distance-based | N/A | City: Ladd | 5.6% | 28 |
| LaHarpe Police | 13344 | Distance-based | N/A | City: LaHarpe | 22.4% | 30 |
| Lake Bluff Police | 13478 | Crash-based | 84 | City: Lake Bluff | 27.1% | 319 |
| Lake County Forest Preserve Police | 13479 | Crash-based | 9,368 | County: Lake | 83.0% | 18 |
| Lake County Sheriff | 13480 | Distance-based | N/A | County: Lake | 78.3% | 39 |
| Lake Forest Police | 13481 | Distance-based | N/A | City: Lake Forest | 13.5% | 21 |
| Lake in the Hills Police | 13556 | Crash-based | 253 | City: Lake in the Hills | 34.8% | 21 |
| Lake Land College Police | 13140 | Crash-based | 332 | City: Mattoon | 65.5% | 40 |
| Lake Villa Police | 13482 | Distance-based | N/A | City: Lake Villa | 48.6% | 12 |
| Lake Zurich Police | 13483 | Crash-based | 377 | City: Lake Zurich | 32.5% | 23 |
| Lakemoor Police | 13484 | Crash-based | 94 | City: Lakemoor | 27.1% | 86 |
| Lakewood Police | 13555 | Crash-based | 64 | City: Lakewood | 25.0% | 29 |
| Lamoille Police | 13079 | Distance-based | N/A | City: Lamoille | 9.9% | 40 |
| Lansing Police | 13041 | Crash-based | 365 | City: Lansing | 43.6% | 16 |
| LaSalle County Sheriff | 13514 | Distance-based | N/A | County: LaSalle | 74.6% | 106 |
| Lawrence County Sheriff | 13521 | Distance-based | N/A | County: Lawrence | 26.7% | 365 |
| Lawrenceville Police | 13520 | Distance-based | N/A | City: Lawrenceville | 54.4% | 26 |
| Lebanon Police | 13782 | Distance-based | N/A | City: Lebanon | 16.9% | 20 |
| Leland Grove Police | 13819 | Distance-based | N/A | City: Leland Grove | 45.5% | 11 |
| Lemont Police | 13944 | Crash-based | 199 | City: Lemont | 41.3% | 21 |
| Lena Police | 13851 | Distance-based | N/A | City: Lena | 30.5% | 38 |
| LeRoy Police | 13572 | Distance-based | N/A | City: LeRoy | 35.2% | 23 |
| Lewis University Police | 14131 | Crash-based | 1,094 | City: Romeoville | 33.0% | 28 |
| Lexington Police | 13571 | Distance-based | N/A | City: Lexington | 21.2% | 20 |
| Libertyville Police | 13485 | Distance-based | N/A | City: Libertyville | 22.7% | 17 |
| Lincoln Police | 13536 | Crash-based | 239 | City: Lincoln | 71.8% | 79 |
| Lincolnshire Police | 13486 | Crash-based | 59 | City: Lincolnshire | 13.6% | 40 |
| Lincolnwood Police | 13040 | Crash-based | 402 | City: Lincolnwood | 15.8% | 26 |
| Lindenhurst Police | 13487 | Crash-based | 88 | City: Lindenhurst | 62.9% | 27 |
| Lisle Police | 13262 | Distance-based | N/A | City: Lisle | 17.1% | 15 |
| Litchfield Police | 13674 | Crash-based | 114 | City: Litchfield | 52.6% | 45 |

| Agency | ID | Benchmark Type | Number of Crash Reports Used | Primary Benchmark Area | % within Primary Area | Benchmark Radius (miles) |
|---|---|---|---|---|---|---|
| Livingston County Sheriff | 13530 | Distance-based | N/A | County: Livingston | 60.3% | 225 |
| Livingston Police | 13616 | Distance-based | N/A | City: Livingston | 5.4% | 29 |
| Loami Police | 13817 | Distance-based | N/A | City: Loami | 9.0% | 17 |
| Lockport Park District Police | 14087 | Crash-based | 335 | City: Lockport | 41.1% | 22 |
| Lockport Police | 13943 | Crash-based | 335 | City: Lockport | 41.1% | 22 |
| Logan County Sheriff | 13535 | Distance-based | N/A | County: Logan | 48.3% | 313 |
| Lombard Police | 13263 | Crash-based | 918 | City: Lombard | 35.0% | 22 |
| Lostant Police | 13518 | Distance-based | N/A | City: Lostant | 5.3% | 38 |
| Loves Park Police | 13979 | Crash-based | 505 | City: Loves Park | 25.1% | 36 |
| Lovington Police | 13694 | Distance-based | N/A | City: Lovington | 15.9% | 32 |
| Machesney Park Police | 14156 | Distance-based | N/A | City: Machesney Park | 27.9% | 13 |
| Mackinaw Police | 13870 | Distance-based | N/A | City: Mackinaw | 22.9% | 21 |
| Macomb Police | 13542 | Crash-based | 169 | City: Macomb | 60.6% | 179 |
| Macon County Sheriff | 13587 | Crash-based | 194 | County: Macon | 80.2% | 98 |
| Macoupin County Sheriff | 13597 | Crash-based | 68 | County: Macoupin | 83.8% | 15 |
| Madison County Sheriff | 13615 | Crash-based | 444 | County: Madison | 83.1% | 20 |
| Mahomet Police | 13106 | Distance-based | N/A | City: Mahomet | 49.2% | 16 |
| Manhattan Police | 13942 | Distance-based | N/A | City: Manhattan | 32.6% | 22 |
| Manito Police | 13643 | Distance-based | N/A | City: Manito | 14.3% | 26 |
| Manteno Police | 13439 | Crash-based | 91 | City: Manteno | 50.5% | 110 |
| Maple Park Police | 13426 | Distance-based | N/A | City: Maple Park | 12.3% | 25 |
| Maquon Police | 13456 | Distance-based | N/A | City: Maquon | 6.9% | 32 |
| Marengo Police | 13554 | Distance-based | N/A | City: Marengo | 36.3% | 25 |
| Marine Police | 13613 | Distance-based | N/A | City: Marine | 7.8% | 26 |
| Marion County Sheriff | 13630 | Distance-based | N/A | County: Marion | 67.2% | 295 |
| Marion Police | 13959 | Crash-based | 491 | City: Marion | 51.4% | 86 |
| Marissa Police | 13780 | Distance-based | N/A | City: Marissa | 25.1% | 34 |
| Mark Police | 14080 | Distance-based | N/A | City: Mark | 1.6% | 42 |
| Maroa Police | 13586 | Distance-based | N/A | City: Maroa | 21.2% | 22 |
| Marquette Heights Police | 13869 | Distance-based | N/A | City: Marquette Heights | 46.5% | 11 |
| Marseilles Police | 13511 | Distance-based | N/A | City: Marseilles | 29.7% | 39 |

| Agency | ID | Benchmark Type | Number of Crash Reports Used | Primary Benchmark Area | % within Primary Area | Benchmark Radius (miles) |
|---|---|---|---|---|---|---|
| Marshall County Sheriff | 13637 | Distance-based | N/A | County: Marshall | 32.1% | 322 |
| Marshall Police | 13124 | Distance-based | N/A | City: Marshall | 43.6% | 26 |
| Martinsville Police | 13123 | Distance-based | N/A | City: Martinsville | 26.1% | 33 |
| Maryville Police | 13612 | Crash-based | 70 | City: Maryville | 28.2% | 50 |
| Mascoutah Police | 13779 | Distance-based | N/A | City: Mascoutah | 40.7% | 22 |
| Mason County Sheriff | 13641 | Distance-based | N/A | County: Mason | 24.5% | 351 |
| Massac County Sheriff | 13650 | Distance-based | N/A | County: Massac | 52.5% | 339 |
| Matteson Police | 13036 | Crash-based | 542 | City: Matteson | 24.9% | 30 |
| Mattoon Police | 13139 | Crash-based | 332 | City: Mattoon | 65.5% | 40 |
| Mazon Police | 13337 | Distance-based | N/A | City: Mazon | 11.1% | 34 |
| McCook Police | 13034 | Crash-based | 152 | City: McCook | 7.1% | 22 |
| McCullom Lake Police | 14139 | Distance-based | N/A | City: McCullom Lake | 42.2% | 16 |
| McDonough County Sheriff | 13541 | Distance-based | N/A | County: McDonough | 51.3% | 335 |
| McHenry County College Police | 14127 | Crash-based | 797 | City: Crystal Lake | 42.2% | 28 |
| McHenry County Conservation District Police | 14004 | Crash-based | 4,059 | County: McHenry | 78.4% | 19 |
| McHenry County Sheriff | 13553 | Crash-based | 738 | County: McHenry | 72.7% | 24 |
| McHenry Police | 13552 | Crash-based | 555 | City: McHenry | 51.8% | 24 |
| McLean County Sheriff | 13570 | Distance-based | N/A | County: McLean | 76.5% | 214 |
| McLean Police | 13569 | Distance-based | N/A | City: McLean | 9.0% | 28 |
| McLeansboro Police | 13340 | Distance-based | N/A | City: McLeansboro | 54.4% | 32 |
| McNabb Police | 13739 | Distance-based | N/A | City: McNabb | 2.6% | 36 |
| Melrose Park Police | 13033 | Crash-based | 1,029 | City: Melrose Park | 30.7% | 24 |
| Mendota Police | 13510 | Crash-based | 55 | City: Mendota | 67.3% | 18 |
| Meredosia Police | 13689 | Distance-based | N/A | City: Meredosia | 23.6% | 30 |
| Merrionette Park Police | 14024 | Distance-based | N/A | City: Merrionette Park | 14.1% | 11 |
| Metro Water Reclamation District Police | 13031 | Crash-based | 109,234 | County: Cook | 89.2% | 12 |
| Metropolis Police | 13649 | Crash-based | 81 | City: Metropolis | 65.4% | 204 |
| Metropolitan Airport Authority | 13760 | Distance-based | N/A | City: Moline, East Moline, Rock Island | 70.2% | 8 |
| Milan Police | 13761 | Distance-based | N/A | City: Milan | 26.3% | 14 |
| Milford Police | 13371 | Distance-based | N/A | City: Milford | 39.9% | 38 |
| Milledgeville Police | 14071 | Distance-based | N/A | City: Milledgeville | 11.1% | 35 |
| Millikin University Police | 14142 | Crash-based | 1,823 | City: Decatur | 77.4% | 33 |

| Agency | ID | Benchmark Type | Number of Crash Reports Used | Primary Benchmark Area | % within Primary Area | Benchmark Radius (miles) |
|---|---|---|---|---|---|---|
| Millstadt Police | 13778 | Distance-based | N/A | City: Millstadt | 14.0% | 19 |
| Minier Police | 13868 | Distance-based | N/A | City: Minier | 12.5% | 25 |
| Minooka Police | 13336 | Crash-based | 99 | City: Minooka | 47.5% | 69 |
| Mokena Police | 13941 | Distance-based | N/A | City: Mokena | 23.3% | 18 |
| Moline Police | 13759 | Distance-based | N/A | City: Moline | 53.4% | 10 |
| Momence Police | 13438 | Distance-based | N/A | City: Momence | 23.7% | 34 |
| Monee Police | 13940 | Distance-based | N/A | City: Monee | 18.5% | 21 |
| Monmouth Police | 13903 | Crash-based | 110 | City: Monmouth | 74.5% | 39 |
| Monroe County Sheriff | 13668 | Crash-based | 69 | County: Monroe | 76.8% | 10 |
| Montgomery County Sheriff | 13673 | Distance-based | N/A | County: Montgomery | 66.3% | 252 |
| Montgomery Police | 13436 | Distance-based | N/A | City: Montgomery | 22.2% | 16 |
| Monticello Police | 13717 | Distance-based | N/A | City: Monticello | 37.5% | 24 |
| Moraine Valley Community College Police | 13029 | Distance-based | N/A | City: Palos Hills | 13.7% | 13 |
| Morgan County Sheriff | 13686 | Distance-based | N/A | County: Morgan | 64.1% | 293 |
| Morris Police | 13335 | Crash-based | 326 | City: Morris | 53.7% | 47 |
| Morrison Police | 13925 | Distance-based | N/A | City: Morrison | 45.0% | 30 |
| Morrisonville Police | 13116 | Distance-based | N/A | City: Morrisonville | 15.6% | 32 |
| Morton College Police | 14027 | Crash-based | 1,960 | City: Cicero | 43.4% | 19 |
| Morton Grove Police | 13027 | Crash-based | 415 | City: Morton Grove | 20.3% | 30 |
| Morton Police | 13867 | Crash-based | 149 | City: Morton | 57.0% | 24 |
| Mount Carmel Police | 13901 | Crash-based | 53 | City: Mount Carmel | 75.9% | 52 |
| Mount Olive Police | 13596 | Distance-based | N/A | City: Mount Olive | 18.4% | 35 |
| Mount Prospect Police | 13026 | Distance-based | N/A | City: Mount Prospect | 30.7% | 13 |
| Mount Pulaski Police | 13533 | Distance-based | N/A | City: Mount Pulaski | 16.6% | 29 |
| Mount Vernon Police | 13392 | Crash-based | 203 | City: Mount Vernon | 55.2% | 51 |
| Mount Zion Police | 13585 | Distance-based | N/A | City: Mount Zion | 26.0% | 12 |
| Moweaqua Police | 13841 | Distance-based | N/A | City: Moweaqua | 20.4% | 34 |
| Mundelein Police | 13488 | Crash-based | 604 | City: Mundelein | 37.2% | 25 |
| Murphysboro Police | 13382 | Distance-based | N/A | City: Murphysboro | 55.2% | 25 |
| Murrayville Police | 13690 | Distance-based | N/A | City: Murrayville | 16.9% | 35 |
| Naperville Park District Police | 14079 | Crash-based | 2,377 | City: Naperville | 45.0% | 24 |
| Naperville Police | 13264 | Crash-based | 2,377 | City: Naperville | 45.0% | 24 |

| Agency | ID | Benchmark Type | Number of Crash Reports Used | Primary Benchmark Area | % within Primary Area | Benchmark Radius (miles) |
|---|---|---|---|---|---|---|
| Naplate Police | 14052 | Distance-based | N/A | City: Naplate | 79.0% | 20 |
| Nashville Police | 13908 | Crash-based | 80 | City: Nashville | 55.6% | 42 |
| Nauvoo Police | 13343 | Distance-based | N/A | City: Nauvoo | 9.2% | 36 |
| Neoga Police | 13219 | Distance-based | N/A | City: Neoga | 22.6% | 28 |
| New Athens Police | 13777 | Distance-based | N/A | City: New Athens | 26.3% | 28 |
| New Baden Police | 13130 | Distance-based | N/A | City: New Baden | 25.8% | 24 |
| New Lenox Police | 13939 | Crash-based | 457 | City: New Lenox | 40.7% | 27 |
| Newman Police | 13244 | Distance-based | N/A | City: Newman | 10.5% | 30 |
| Newton Police | 13389 | Distance-based | N/A | City: Newton | 58.8% | 28 |
| Niles Police | 13025 | Distance-based | N/A | City: Niles | 13.5% | 11 |
| Nokomis Police | 13672 | Distance-based | N/A | City: Nokomis | 45.7% | 33 |
| Norfolk Southern Corp Police | 14132 | Crash-based | 1,450 | City: East St. Louis, Granite City, Alton | 59.2% | 23 |
| Normal Police | 13568 | Crash-based | 832 | City: Normal | 36.2% | 119 |
| Norridge Police | 13024 | Crash-based | 454 | City: Norridge | 20.7% | 22 |
| Norris City Police | 13915 | Distance-based | N/A | City: Norris City | 31.9% | 39 |
| North Aurora Police | 13427 | Crash-based | 240 | City: North Aurora | 24.4% | 24 |
| North Pekin Police | 13866 | Distance-based | N/A | City: North Pekin | 60.4% | 16 |
| North Riverside Police | 13023 | Crash-based | 405 | City: North Riverside | 11.2% | 23 |
| North Utica-Utica Police | 13509 | Distance-based | N/A | City: North Utica | 9.1% | 40 |
| Northbrook Police | 13022 | Crash-based | 685 | City: Northbrook | 34.6% | 27 |
| Northeastern Illinois University Police | 13021 | Crash-based | 2,992 | City: Chicago 17th District (Albany Park) | 49.4% | 26 |
| Northern Illinois University Police | 13227 | Crash-based | 615 | City: DeKalb | 54.6% | 54 |
| Northfield Police | 13020 | Distance-based | N/A | City: Northfield | 10.8% | 15 |
| Northlake Police | 13019 | Crash-based | 370 | City: Northlake | 23.7% | 37 |
| Northwestern University Police | 13018 | Crash-based | 3,705 | City: Evanston, Chicago 18th District (Near North) | 20.0% | 99 |
| O'Fallon Police | 13776 | Crash-based | 668 | City: O'Fallon | 43.4% | 34 |
| Oak Brook Police | 13265 | Crash-based | 372 | City: Oak Brook | 9.0% | 34 |
| Oak Forest Police | 13016 | Distance-based | N/A | City: Oak Forest | 23.6% | 12 |
| Oak Lawn Police | 13015 | Crash-based | 1,375 | City: Oak Lawn | 32.2% | 26 |
| Oak Park Police | 13014 | Crash-based | 1,152 | City: Oak Park | 25.3% | 24 |
| OakBrook Terrace Police | 13266 | Crash-based | 204 | City: Oakbrook Terrace | 9.7% | 84 |
| Oakton Community College Police | 13013 | Crash-based | 1,633 | City: Des Plaines, Skokie | 37.9% | 20 |
| Oakwood Hills Police | 13551 | Distance-based | N/A | City: Oakwood Hills | 33.0% | 15 |

| Agency | ID | Benchmark Type | Number of Crash Reports Used | Primary Benchmark Area | % within Primary Area | Benchmark Radius (miles) |
|---|---|---|---|---|---|---|
| Oblong Police | 13216 | Distance-based | N/A | City: Oblong | 38.2% | 35 |
| Oglesby Police | 13508 | Distance-based | N/A | City: Oglesby | 21.6% | 27 |
| Okawville Police | 13907 | Distance-based | N/A | City: Okawville | 9.8% | 42 |
| Olney Police | 13754 | Crash-based | 130 | City: Olney | 60.8% | 55 |
| Olympia Fields Police | 13012 | Crash-based | 289 | City: Olympia Fields | 6.9% | 27 |
| Oreana Police | 14149 | Distance-based | N/A | City: Oreana | 9.7% | 15 |
| Oregon Police | 13698 | Distance-based | N/A | City: Oregon | 36.1% | 30 |
| Orion Police | 13357 | Distance-based | N/A | City: Orion | 9.6% | 20 |
| Orland Hills Police | 14077 | Crash-based | 105 | City: Orland Hills | 23.6% | 26 |
| Orland Park Police | 13011 | Crash-based | 1,339 | City: Orland Park | 33.7% | 20 |
| Oswego Police | 13451 | Crash-based | 593 | City: Oswego | 34.6% | 30 |
| Ottawa Police | 13507 | Crash-based | 483 | City: Ottawa | 65.4% | 35 |
| Palatine Police | 13010 | Crash-based | 941 | City: Palatine | 45.1% | 20 |
| Palestine Police | 13215 | Distance-based | N/A | City: Palestine | 22.7% | 31 |
| Palos Heights Police | 13009 | Distance-based | N/A | City: Palos Heights | 10.1% | 13 |
| Palos Hills Police | 13008 | Distance-based | N/A | City: Palos Hills | 13.7% | 13 |
| Palos Park Police | 13007 | Crash-based | 104 | City: Palos Park | 13.3% | 21 |
| Pana Police | 13115 | Crash-based | 53 | City: Pana | 73.6% | 61 |
| Paris Police | 13278 | Crash-based | 50 | City: Paris | 70.0% | 121 |
| Park City Police | 13490 | Crash-based | 125 | City: Park City | 52.8% | 35 |
| Park Forest Police | 13006 | Crash-based | 255 | City: Park Forest | 41.4% | 21 |
| Park Ridge Police | 13005 | Crash-based | 576 | City: Park Ridge | 31.3% | 25 |
| Parkland College Police | 13105 | Crash-based | 1,541 | City: Champaign | 57.7% | 113 |
| Pawnee Police | 13814 | Distance-based | N/A | City: Pawnee | 28.5% | 17 |
| Paxton Police | 13298 | Distance-based | N/A | City: Paxton | 40.1% | 25 |
| Payson Police | 13056 | Distance-based | N/A | City: Payson | 12.7% | 18 |
| Pearl City Police | 13849 | Distance-based | N/A | City: Pearl City | 20.2% | 35 |
| Pekin Park District Police | 13865 | Crash-based | 549 | City: Pekin | 65.7% | 29 |
| Pekin Police | 13864 | Crash-based | 549 | City: Pekin | 65.7% | 29 |
| Peoria County Sheriff | 13707 | Crash-based | 337 | County: Peoria | 73.4% | 28 |
| Peoria Heights Police | 13706 | Distance-based | N/A | City: Peoria Heights | 6.0% | 15 |
| Peoria Park District Police | 13705 | Crash-based | 2,952 | City: Peoria | 67.5% | 35 |
| Peoria Police | 13704 | Crash-based | 2,952 | City: Peoria | 67.5% | 35 |
| Peotone Police | 13938 | Distance-based | N/A | City: Peotone | 30.5% | 22 |
| Peru Police | 13506 | Crash-based | 140 | City: Peru | 36.9% | 39 |
| Phoenix Police | 13004 | Distance-based | N/A | City: Phoenix | 16.3% | 12 |

| Agency | ID | Benchmark Type | Number of Crash Reports Used | Primary Benchmark Area | % within Primary Area | Benchmark Radius (miles) |
|---|---|---|---|---|---|---|
| Piatt County Sheriff | 13716 | Distance-based | N/A | County: Piatt | 51.4% | 298 |
| Pierron Police | 14051 | Distance-based | N/A | City: Pierron | 1.3% | 29 |
| Pike County Sheriff | 13723 | Distance-based | N/A | County: Pike | 42.4% | 333 |
| Pinckneyville Police | 13713 | Distance-based | N/A | City: Pinckneyville | 55.7% | 32 |
| Pingree Grove Police | 14093 | Crash-based | 60 | City: Pingree Grove | 36.7% | 28 |
| Pittsburg Police | 14060 | Distance-based | N/A | City: Pittsburg | 7.9% | 26 |
| Pittsfield Police | 13722 | Crash-based | 50 | City: Pittsfield | 58.0% | 31 |
| Plainfield Police | 13937 | Crash-based | 852 | City: Plainfield | 48.5% | 28 |
| Plainville Police | 14124 | Distance-based | N/A | City: Plainville | 6.7% | 24 |
| Plano Police | 13450 | Crash-based | 108 | City: Plano | 52.8% | 27 |
| Pleasant Plains Police | 13813 | Distance-based | N/A | City: Pleasant Plains | 13.9% | 20 |
| Plymouth Police | 13350 | Distance-based | N/A | City: Plymouth | 20.3% | 36 |
| Polo Police | 13697 | Distance-based | N/A | City: Polo | 28.2% | 32 |
| Pontiac Police | 13529 | Distance-based | N/A | City: Pontiac | 76.1% | 31 |
| Pope County Sheriff | 13727 | Distance-based | N/A | County: Pope | 68.2% | 300 |
| Posen Police | 13003 | Crash-based | 125 | City: Posen | 17.6% | 25 |
| Potomac Police | 14030 | Distance-based | N/A | City: Potomac | 15.6% | 28 |
| Prairie du Rocher Police | 13746 | Distance-based | N/A | City: Prairie du Rocher | 6.3% | 39 |
| Prairie Grove Police | 14068 | Distance-based | N/A | City: Prairie Grove | 45.3% | 19 |
| Princeton Police | 13077 | Crash-based | 89 | City: Princeton | 67.4% | 25 |
| Prophetstown Police | 13924 | Distance-based | N/A | City: Prophetstown | 30.8% | 30 |
| Prospect Heights Police | 13002 | Crash-based | 60 | City: Prospect Heights | 13.3% | 17 |
| Pulaski County Sheriff | 13729 | Distance-based | N/A | County: Pulaski | 34.2% | 381 |
| Putnam County Sheriff | 13736 | Distance-based | N/A | County: Putnam | 34.0% | 318 |
| Quincy Police | 13058 | Crash-based | 1,000 | City: Quincy | 72.8% | 40 |
| Ramsey Police | 13292 | Distance-based | N/A | City: Ramsey | 27.8% | 38 |
| Randolph County Sheriff | 13745 | Distance-based | N/A | County: Randolph | 70.0% | 256 |
| Rantoul Police | 13104 | Crash-based | 150 | City: Rantoul | 70.7% | 28 |
| Richmond Police | 13550 | Distance-based | N/A | City: Richmond | 7.5% | 24 |
| Richton Park Police | 13001 | Crash-based | 231 | City: Richton Park | 25.9% | 28 |
| Ridge Farm Police | 13889 | Distance-based | N/A | City: Ridge Farm | 7.7% | 37 |

| Agency | ID | Benchmark Type | Number of Crash Reports Used | Primary Benchmark Area | % within Primary Area | Benchmark Radius (miles) |
|---|---|---|---|---|---|---|
| Ridott Police | 13858 | Distance-based | N/A | City: Ridott | 3.8% | 26 |
| River Forest Police | 13000 | Crash-based | 206 | City: River Forest | 12.1% | 23 |
| Riverdale Police | 12998 | Distance-based | N/A | City: Riverdale | 10.0% | 14 |
| Riverside Police | 12997 | Crash-based | 144 | City: Riverside | 22.1% | 22 |
| Riverton Police | 13812 | Distance-based | N/A | City: Riverton | 19.4% | 16 |
| Riverwoods Police | 13491 | Crash-based | 85 | City: Riverwoods | 18.6% | 24 |
| Rochelle Police | 13696 | Crash-based | 105 | City: Rochelle | 69.5% | 29 |
| Rochester Police | 13811 | Distance-based | N/A | City: Rochester | 21.5% | 14 |
| Rock Falls Police | 13923 | Crash-based | 151 | City: Rock Falls | 51.6% | 35 |
| Rock Island County Sheriff | 13757 | Crash-based | 170 | County: Rock Island | 64.3% | 111 |
| Rock Island Police | 13756 | Crash-based | 636 | City: Rock Island | 50.5% | 25 |
| Rock Valley College Police | 13977 | Crash-based | 4,489 | City: Rockford | 71.5% | 35 |
| Rockdale Police | 13936 | Distance-based | N/A | City: Rockdale | 19.8% | 18 |
| Rockford Park District Police | 14059 | Crash-based | 4,489 | City: Rockford | 71.5% | 35 |
| Rockford Police | 13975 | Crash-based | 4,489 | City: Rockford | 71.5% | 35 |
| Rockton Police | 13974 | Distance-based | N/A | City: Rockton | 30.0% | 17 |
| Rolling Meadows Police | 12995 | Crash-based | 283 | City: Rolling Meadows | 20.8% | 24 |
| Romeoville Police | 13935 | Crash-based | 1,094 | City: Romeoville | 33.0% | 28 |
| Roodhouse Police | 13331 | Distance-based | N/A | City: Roodhouse | 33.1% | 41 |
| Roscoe Police | 13973 | Crash-based | 171 | City: Roscoe | 40.9% | 16 |
| Roselle Police | 13267 | Crash-based | 284 | City: Roselle | 28.1% | 19 |
| Rosemont Police | 12994 | Crash-based | 223 | City: Rosemont | 10.7% | 88 |
| Round Lake Heights Police | 13493 | Distance-based | N/A | City: Round Lake Heights | 62.4% | 12 |
| Round Lake Park Police | 13494 | Distance-based | N/A | City: Round Lake Park | 66.3% | 11 |
| Round Lake Police | 13495 | Crash-based | 343 | City: Round Lake | 55.8% | 18 |
| Roxana Police | 13611 | Distance-based | N/A | City: Roxana | 1.9% | 22 |
| Royalton Police | 13306 | Distance-based | N/A | City: Royalton | 5.4% | 20 |
| Ruma Police | 13743 | Distance-based | N/A | City: Ruma | 21.0% | 36 |
| Rushville Police | 13833 | Distance-based | N/A | City: Rushville | 69.2% | 24 |
| Salem Police | 13628 | Distance-based | N/A | City: Salem | 62.1% | 23 |
| Saline County Sheriff | 13797 | Crash-based | 79 | County: Saline | 83.5% | 94 |
| Sandoval Police | 13627 | Distance-based | N/A | City: Sandoval | 17.5% | 26 |
| Sandwich Police | 13226 | Distance-based | N/A | City: Sandwich | 38.8% | 26 |
| Sangamon County Sheriff | 13810 | Distance-based | N/A | County: Sangamon | 81.4% | 228 |
| Sauget Police | 13225 | Distance-based | N/A | City: Sauget | 10.3% | 15 |

| Agency | ID | Benchmark Type | Number of Crash Reports Used | Primary Benchmark Area | % within Primary Area | Benchmark Radius (miles) |
|---|---|---|---|---|---|---|
| Sauk Village Police | 12993 | Distance-based | N/A | City: Sauk Village | 42.8% | 14 |
| Schaumburg Police | 12992 | Crash-based | 1,256 | City: Schaumburg | 29.0% | 24 |
| Schiller Park Police | 12991 | Crash-based | 383 | City: Schiller Park | 15.7% | 33 |
| Schuyler County Sheriff | 13832 | Distance-based | N/A | County: Schuyler | 34.6% | 347 |
| Scott County Sheriff | 13835 | Distance-based | N/A | County: Scott | 62.3% | 308 |
| Secretary of State Police | 13809 | Crash-based | 204,168 | State: Illinois | 96.7% | 234 |
| Shawneetown police | 13325 | Distance-based | N/A | City: Shawneetown | 22.2% | 40 |
| Sheffield Police | 13076 | Distance-based | N/A | City: Sheffield | 13.3% | 41 |
| Shelby County Sheriff | 13840 | Crash-based | 126 | County: Shelby | 76.4% | 38 |
| Sheldon Police | 13369 | Distance-based | N/A | City: Sheldon | 19.7% | 43 |
| Shiloh Police | 13775 | Crash-based | 302 | City: Shiloh | 60.3% | 40 |
| Shorewood Police | 13934 | Crash-based | 264 | City: Shorewood | 29.7% | 32 |
| Silvis Police | 13755 | Crash-based | 103 | City: Silvis | 23.3% | 16 |
| Skokie Police | 12990 | Crash-based | 1,134 | City: Skokie | 33.2% | 22 |
| Sleepy Hollow Police | 13428 | Distance-based | N/A | City: Sleepy Hollow | 14.9% | 17 |
| Somonauk Police | 13224 | Distance-based | N/A | City: Somonauk | 12.1% | 35 |
| Sorento Police | 14083 | Distance-based | N/A | City: Sorento | 6.4% | 43 |
| South Barrington Police | 13061 | Crash-based | 109 | City: South Barrington | 20.7% | 30 |
| South Beloit Police | 14070 | Distance-based | N/A | City: South Beloit | 28.4% | 17 |
| South Chicago Heights Police | 12989 | Crash-based | 194 | City: South Chicago Heights | 41.3% | 32 |
| South Elgin Police | 13429 | Crash-based | 307 | City: South Elgin | 30.3% | 23 |
| South Holland Police | 12988 | Distance-based | N/A | City: South Holland | 15.1% | 12 |
| South Jacksonville Police | 13685 | Distance-based | N/A | City: South Jacksonville | 81.1% | 29 |
| South Pekin Police | 13863 | Distance-based | N/A | City: South Pekin | 3.3% | 19 |
| South Suburban College Police | 12987 | Distance-based | N/A | City: South Holland, Oak Forest | 22.9% | 10 |
| Southern Illinois University Carbondale Police | 13381 | Distance-based | N/A | City: Carbondale | 64.4% | 19 |
| Southern Illinois University Edwardsville Police | 13609 | Crash-based | 627 | City: Edwardsville | 41.2% | 80 |
| Southern View Police | 13807 | Distance-based | N/A | City: Southern View | 36.8% | 8 |
| Sparta Police | 13742 | Distance-based | N/A | City: Sparta | 32.6% | 45 |
| Spaulding Police | 13830 | Distance-based | N/A | City: Spaulding | 19.2% | 16 |
| Spillertown Police | 13958 | Distance-based | N/A | City: Spillertown | 52.9% | 25 |
| Spring Grove Police | 13549 | Crash-based | 71 | City: Spring Grove | 36.6% | 40 |

| Agency | ID | Benchmark Type | Number of Crash Reports Used | Primary Benchmark Area | % within Primary Area | Benchmark Radius (miles) |
|---|---|---|---|---|---|---|
| Spring Valley Police | 13075 | Distance-based | N/A | City: Spring Valley | 22.9% | 33 |
| Springfield Park District Police | 13806 | Crash-based | 1,249 | City: Springfield | 75.0% | 47 |
| Springfield Police | 13805 | Crash-based | 1,249 | City: Springfield | 75.0% | 47 |
| St. Anne Police | 13437 | Distance-based | N/A | City: St. Anne | 23.7% | 36 |
| St. Charles Police | 13430 | Distance-based | N/A | City: St. Charles | 43.9% | 15 |
| St. Clair County Sheriff | 13772 | Distance-based | N/A | County: St. Clair | 79.9% | 31 |
| St. Elmo Police | 13291 | Distance-based | N/A | City: St. Elmo | 24.4% | 32 |
| Stanford Police | 13567 | Distance-based | N/A | City: Stanford | 6.0% | 25 |
| Stark County Sheriff | 13846 | Distance-based | N/A | County: Stark | 31.7% | 335 |
| Staunton Police | 13594 | Distance-based | N/A | City: Staunton | 21.8% | 35 |
| Steeleville Police | 13741 | Distance-based | N/A | City: Steeleville | 23.8% | 37 |
| Steger Police | 13161 | Crash-based | 150 | City: Steger | 35.9% | 29 |
| Stephenson County Sheriff | 13848 | Crash-based | 105 | County: Stephenson | 68.6% | 69 |
| Sterling Police | 13922 | Crash-based | 370 | City: Sterling | 57.9% | 23 |
| Stickney Police | 13160 | Crash-based | 302 | City: Stickney | 43.5% | 27 |
| Stockton Police | 13400 | Distance-based | N/A | City: Stockton | 30.7% | 38 |
| Stone Park Police | 13159 | Distance-based | N/A | City: Stone Park | 3.3% | 10 |
| Stonington Police | 13121 | Distance-based | N/A | City: Stonington | 6.8% | 28 |
| Streamwood Police | 13158 | Crash-based | 454 | City: Streamwood | 38.6% | 23 |
| Sugar Grove Police | 13431 | Crash-based | 96 | City: Sugar Grove | 21.9% | 20 |
| Sullivan Police | 13692 | Distance-based | N/A | City: Sullivan | 50.1% | 30 |
| Summerfield Police | 14128 | Distance-based | N/A | City: Summerfield | 1.1% | 24 |
| Swansea Police | 13771 | Crash-based | 366 | City: Swansea | 28.6% | 26 |
| Sycamore Police | 14015 | Crash-based | 217 | City: Sycamore | 49.1% | 37 |
| Taylorville Police | 13114 | Crash-based | 177 | City: Taylorville | 62.1% | 28 |
| Tazewell County Sheriff | 13862 | Crash-based | 236 | County: Tazewell | 72.5% | 22 |
| Teutopolis Police | 13285 | Distance-based | N/A | City: Teutopolis | 27.9% | 30 |
| Thayer Police | 13804 | Distance-based | N/A | City: Thayer | 5.4% | 21 |
| Thomasboro Police | 13103 | Distance-based | N/A | City: Thomasboro | 5.6% | 15 |
| Thornton Police | 13156 | Crash-based | 60 | City: Thornton | 9.8% | 43 |
| Tilton Police | 13887 | Distance-based | N/A | City: Tilton | 6.5% | 25 |
| Tinley Park Police | 13155 | Crash-based | 1,019 | City: Tinley Park | 36.4% | 24 |
| Tiskilwa Police | 13074 | Distance-based | N/A | City: Tiskilwa | 16.8% | 36 |

| Agency | ID | Benchmark Type | Number of Crash Reports Used | Primary Benchmark Area | % within Primary Area | Benchmark Radius (miles) |
|---|---|---|---|---|---|---|
| Tolono Police | 13102 | Distance-based | N/A | City: Tolono | 16.9% | 14 |
| Toluca Police | 13636 | Distance-based | N/A | City: Toluca | 11.8% | 36 |
| Toulon Police | 13845 | Distance-based | N/A | City: Toulon | 16.3% | 40 |
| Tower Lakes Police | 13496 | Distance-based | N/A | City: Tower Lakes | 28.9% | 19 |
| Trenton Police | 13129 | Distance-based | N/A | City: Trenton | 11.3% | 32 |
| Triton College Police | 13154 | Crash-based | 391 | City: River Grove | 13.0% | 19 |
| Troy Police | 13607 | Crash-based | 180 | City: Troy | 57.1% | 63 |
| Tuscola Police | 13239 | Distance-based | N/A | City: Tuscola | 36.7% | 27 |
| Union County Sheriff | 13879 | Crash-based | 68 | County: Union | 75.0% | 60 |
| Union Police | 13548 | Distance-based | N/A | City: Union | 3.7% | 26 |
| University of Chicago Police | 14057 | Crash-based | 2,523 | City: Chicago 2nd District (Wentworth) | 30.8% | 36 |
| University of Illinois Chicago Police | 13152 | Crash-based | 4,359 | City: Chicago 12th District (Near West) | 21.1% | 37 |
| University of Illinois Springfield Police | 13803 | Crash-based | 1,249 | City: Springfield | 75.0% | 47 |
| University of Illinois Urbana-Champaign Police | 13101 | Crash-based | 2,053 | City: Champaign, Urbana | 70.0% | 108 |
| Urbana Police | 13100 | Crash-based | 512 | City: Urbana | 47.9% | 104 |
| Ursa Police | 14025 | Distance-based | N/A | City: Ursa | 11.2% | 25 |
| VA Medical Center Police | 13886 | Distance-based | N/A | City: Danville | 84.4% | 13 |
| Valmeyer Police | 13667 | Distance-based | N/A | City: Valmeyer | 1.7% | 31 |
| Venice Police | 13606 | Distance-based | N/A | City: Venice | 0.6% | 17 |
| Vermilion County Sheriff | 13885 | Distance-based | N/A | County: Vermilion | 68.3% | 238 |
| Vernon Hills Police | 13497 | Distance-based | N/A | City: Vernon Hills | 22.3% | 16 |
| Vienna Police | 13408 | Distance-based | N/A | City: Vienna | 33.0% | 36 |
| Villa Grove Police | 13238 | Distance-based | N/A | City: Villa Grove | 18.6% | 28 |
| Villa Park Police | 13268 | Crash-based | 439 | City: Villa Park | 28.4% | 18 |
| Viola Police | 13657 | Distance-based | N/A | City: Viola | 7.9% | 30 |
| Wabash County Sheriff | 13900 | Distance-based | N/A | County: Wabash | 31.5% | 361 |
| Walnut Police | 13073 | Distance-based | N/A | City: Walnut | 24.6% | 32 |
| Warren County Sheriff | 13902 | Distance-based | N/A | County: Warren | 52.2% | 332 |
| Warrensburg Police | 14040 | Distance-based | N/A | City: Warrensburg | 9.4% | 18 |

| Agency | ID | Benchmark Type | Number of Crash Reports Used | Primary Benchmark Area | % within Primary Area | Benchmark Radius (miles) |
|---|---|---|---|---|---|---|
| Warrenville Police | 13269 | Crash-based | 114 | City: Warrenville | 22.6% | 30 |
| Washington County Sheriff | 13905 | Crash-based | 50 | County: Washington | 66.0% | 158 |
| Washington Park Police | 13770 | Distance-based | N/A | City: Washington Park | 8.4% | 16 |
| Washington Police | 13860 | Crash-based | 64 | City: Washington | 65.6% | 12 |
| Waterloo Police | 13666 | Crash-based | 147 | City: Waterloo | 61.2% | 32 |
| Waubonsee Community College Police | 13432 | Crash-based | 4,370 | City: Sugar Grove, Aurora | 61.8% | 22 |
| Waverly Police | 13684 | Distance-based | N/A | City: Waverly | 16.0% | 25 |
| Wayne County Sheriff | 13911 | Distance-based | N/A | County: Wayne | 52.2% | 335 |
| Wayne Police | 13270 | Distance-based | N/A | City: Wayne | 1.7% | 17 |
| West Chicago Police | 13271 | Crash-based | 514 | City: West Chicago | 40.0% | 24 |
| West City Police | 13303 | Distance-based | N/A | City: West City | 40.8% | 26 |
| West Dundee Police | 13433 | Distance-based | N/A | City: West Dundee | 15.7% | 16 |
| West Frankfort Police | 13302 | Distance-based | N/A | City: West Frankfort | 40.9% | 20 |
| Western Springs Police | 13149 | Crash-based | 141 | City: Western Springs | 31.0% | 15 |
| Westfield Police | 14022 | Distance-based | N/A | City: Westfield | 5.5% | 37 |
| Westmont Police | 13272 | Crash-based | 349 | City: Westmont | 22.9% | 25 |
| Westville Police | 13884 | Distance-based | N/A | City: Westville | 20.3% | 22 |
| Wheaton Police | 13273 | Crash-based | 718 | City: Wheaton | 37.2% | 23 |
| Wheeling Police | 13148 | Crash-based | 816 | City: Wheeling | 33.7% | 23 |
| White Hall Police | 13330 | Distance-based | N/A | City: White Hall | 31.5% | 47 |
| Will County Sheriff | 13931 | Crash-based | 1,117 | County: Will | 77.2% | 15 |
| Williamsfield Police | 13455 | Distance-based | N/A | City: Williamsfield | 8.2% | 35 |
| Williamson County Sheriff | 13957 | Crash-based | 158 | County: Williamson | 84.3% | 68 |
| Williamson Police | 14023 | Distance-based | N/A | City: Williamson | 28.2% | 32 |
| Williamsville Police | 13802 | Distance-based | N/A | City: Williamsville | 11.3% | 19 |
| Willisville Police | 14110 | Distance-based | N/A | City: Willisville | 6.1% | 34 |
| Willowbrook Police | 13274 | Crash-based | 152 | City: Willowbrook | 19.0% | 55 |
| Wilmette Police | 13146 | Crash-based | 299 | City: Wilmette | 33.3% | 23 |
| Wilmington Police | 13930 | Crash-based | 109 | City: Wilmington | 38.5% | 59 |
| Wilsonville Police | 13604 | Distance-based | N/A | City: Wilsonville | 0.9% | 38 |
| Winchester Police | 13834 | Distance-based | N/A | City: Winchester | 35.7% | 39 |
| Winfield Police | 13275 | Crash-based | 169 | City: Winfield | 18.6% | 35 |
| Winnebago County Sheriff | 13972 | Crash-based | 902 | County: Winnebago | 82.6% | 27 |
| Winnebago Police | 13971 | Distance-based | N/A | City: Winnebago | 26.8% | 17 |

| Agency | ID | Benchmark Type | Number of Crash Reports Used | Primary Benchmark Area | % within Primary Area | Benchmark Radius (miles) |
|---|---|---|---|---|---|---|
| Winnetka Police | 13145 | Distance-based | N/A | City: Winnetka | 13.3% | 14 |
| Winthrop Harbor Police | 13500 | Distance-based | N/A | City: Winthrop Harbor | 15.0% | 14 |
| Wonderlake Police | 14033 | Distance-based | N/A | City: Wonder Lake | 17.6% | 25 |
| Wood Dale Police | 13276 | Crash-based | 222 | City: Wood Dale | 25.9% | 25 |
| Wood River Police | 13605 | Distance-based | N/A | City: Wood River | 17.6% | 20 |
| Woodford County Sheriff | 13988 | Distance-based | N/A | County: Woodford | 43.9% | 315 |
| Woodridge Police | 13277 | Crash-based | 476 | City: Woodridge | 25.3% | 25 |
| Woodstock Police | 13546 | Crash-based | 300 | City: Woodstock | 51.3% | 42 |
| Worth Police | 13144 | Distance-based | N/A | City: Worth | 7.3% | 12 |
| Wyanet Police | 13072 | Distance-based | N/A | City: Wyanet | 16.9% | 39 |
| Yates City Police | 13454 | Distance-based | N/A | City: Yates City | 12.1% | 28 |
| Yorkville Police | 13449 | Crash-based | 155 | City: Yorkville | 34.0% | 48 |
| Zion Police | 13501 | Crash-based | 358 | City: Zion | 55.0% | 15 |

# 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 stops[19]) 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 statue 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.

There are a few additional data items that could be collected during traffic stops to enhance the analysis effort. Some additional data items might include: (1) arrest for DUI, (2) officer’s race (which has been shown to affect stop rates; see Ba et al. *Science*. 2021 Feb 12:696-702), (3) occurrence of a physical arrest in a traffic stop (the arrest outcome is currently included only in the pedestrian stop data collection form) and (4) latitude and longitude of the stop (which can be used to more precisely determine the benchmark for drivers or pedestrians, but might need some technological changes).

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[19] The pedestrian stop data collection form in use during 2021 has provision for recording an arrest. The traffic stop data collection form in use during 2021 does not provide a means of recording an arrest.