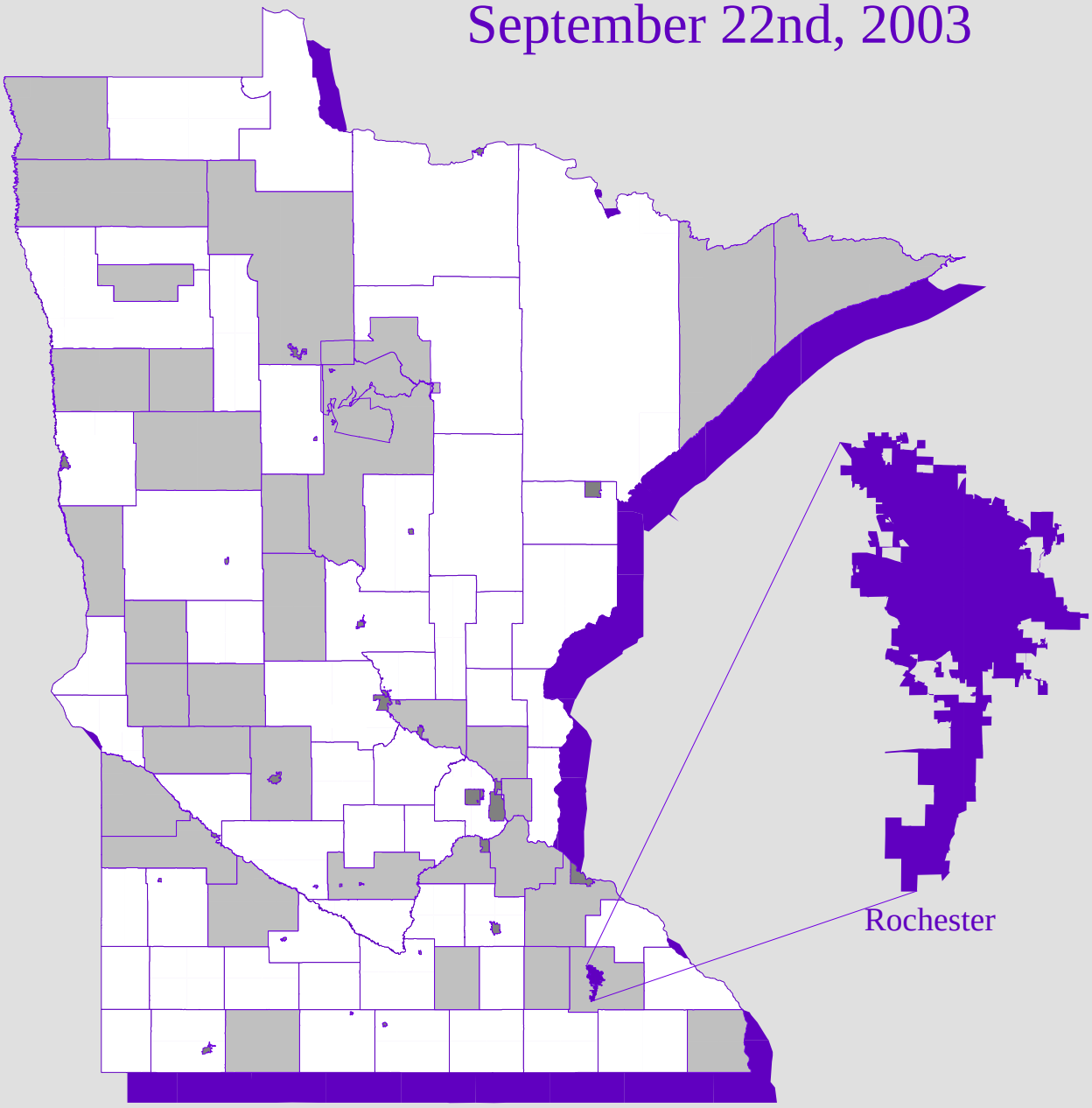
Minnesota Statewide Racial Profiling Report: Rochester Police Department

Report to the Minnesota Legislature
September 22nd, 2003



institute on race and poverty
Research, Education and Advocacy

Council on Crime and Justice

The Minnesota Racial Profiling Report

A report submitted to the Minnesota Legislature on September 22, 2003
in accordance with Minnesota Statute § 626.951.

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While we take full responsibility for the content in this report, we would nonetheless like to extend our appreciation to the following outside experts who generously reviewed earlier drafts of this report and provided insightful commentary:

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Report on Minnesota Racial Profiling Study – Rochester Police Department

Summary of Findings

As of the 2000 Census, there were 63,301 driving age residents in Rochester and 31,175 households that had an available vehicle. In 2002, there was a total of 14,346 traffic stops reported by the Rochester Police Department.

Blacks and Latinos were stopped at significantly higher than expected rates in Rochester given their representation in the city's driving age population. Blacks were stopped at over three times the expected rate and Latinos were stopped at nearly twice the expected rate. American Indians, Asians and Whites were all stopped less than expected given their diving age populations. Similar results were found for all racial/ethnic groups when expected stops were calculated using the racial/ethnic demographics of households in the city that have vehicles available.

As is more fully discussed in the main text of this report, there are limitations to our estimates of the driving population, used to calculate the number of expected stops for each racial/ethnic group, that should be considered when interpreting these results. Our primary estimate of the driving population is the driving age population of the jurisdiction. Thus, it includes people who are old enough to drive but do not do so. We have also estimated the driving population using household vehicle availability rates for each jurisdiction. This estimate assumes that the racial demographics of the driving population are identical to those of the vehicle ownership population. It does not account for differences in the number of vehicles or the number of drivers in a household. Neither estimate accounts for differences in driving habits across households. Both estimates include only residents of the jurisdiction whereas the actual driving population in a jurisdiction includes people that do not reside in that jurisdiction and as a result, so does the stopped population.

Mapping traffic stop patterns by census tract in Rochester revealed that the highest numbers of traffic stops occurred in census tracts in and near the city center and that several of these tracts have relatively large populations of color. Enforcement patterns such as these can lead to racial/ethnic disparities in the citywide stopped population even where there is no disparity in stopped population of each tract or neighborhood. These maps also revealed that the greatest levels of over-stopping of Blacks and Latinos, and under-stopping of Whites, occurred *within* these same tracts. Thus, disparities in the city as a whole are largely a product of disparities in these tracts rather than a product of heightened police activity within these tracts.

In analyzing search data we focused on discretionary searches because these searches have the potential to be influenced by officer bias. Police in Rochester subjected Black and Latino drivers to searches in general, and to discretionary searches, at more than twice the rate of White drivers.

Officers in Rochester were more than twice as likely to find contraband in searches of White drivers than in searches of Black drivers. This indicates that there is no law enforcement justification for their practice of searches Black drivers twice as often as White drivers. Hit rates for White and Latino drivers were similar.

I. Introduction

During the 2001 legislative session, the Minnesota legislature enacted Minnesota Statute § 626.951, providing for a racial profiling study. Pursuant to this statute, law enforcement agencies throughout the state were given the option of participating in the study and those that did participate were at least partially compensated for the cost of participation, and received additional state money for the purchase and installation of video cameras in their police vehicles. In return, these jurisdictions agreed to collect traffic stop data from January 1, 2002 through December 31, 2002, and these data were submitted to the Department of Public Safety (DPS). The statute also directed the commissioners of administration and public safety to retain an independent organization to oversee the collection of data, to audit the data for accuracy, and to analyze the data for evidence of racial profiling. Pursuant to this provision, the commissioners of administration and public safety issued a request for proposals from qualified independent organizations. The Council on Crime and Justice and the Institute on Race and Poverty submitted a joint proposal and were awarded the contract to analyze the data.

The statute specifies data elements to be recorded for each traffic stop.[1] As listed on the forms that officers filled out, they include:

- The location of the stop
- The date and time of the stop
- The age of the driver (recorded as year of birth)
- The gender of the driver
- The race/ethnicity of the driver[2]
- The traffic violation or reason leading to the stop
- The disposition of the stop – arrest, citation, warning, or no action
- Whether a search was conducted of the driver, passengers, or vehicle
- If a search was conducted, the authority for the search
- If a search was conducted, whether any contraband was discovered, and if so, the nature of the contraband
- Whether the officer knew the race/ethnicity of the driver prior to the stop
- The officer's law enforcement agency

[1] Departments were instructed to have officers fill out a form for each traffic stop. They were also informed that 911 calls are not considered a traffic stop for the purpose of this study, as they are not officer-initiated

[2] Officers were instructed to fill this out based on their perception of the driver's race/ethnicity. This is an accepted practice in the context of research as it is an officer's perception of a driver's race/ethnicity, and not the driver's actual race/ethnicity that would influence the officer's decision-making process.

Sixty-five jurisdictions chose to participate, including 31 city police departments, 33 county sheriff's departments, and the Leech Lake Indian Reservation.[3] The city police departments included:

Akeley	Henning	Savage
Bemidji	International Falls	Springfield
Cass Lake	Little Falls	St. Cloud
Cloquet	Minneapolis	Truman
Crosby	Minneota	Walker
Eagle Lake	Moorhead	Willmar
Fairfax	New Hope	Winnebago
Faribault	Plymouth	Winthrop
Fridley	Red Wing	Worthington
Gibbon	Rochester	
Granite Falls	Sauk Rapids	

The county sheriff's departments included:

Anoka County	Kandiyohi County	Redwood County
Becker County	Kittson County	Scott County
Beltrami County	Lac qui Parle County	Sherburne County
Cass County	Lake County	Sibley County
Cook County	Mahnomen County	Stevens County
Dakota County	Marshall County	Swift County
Dodge County	Norman County	Todd County
Goodhue County	Olmsted County	Wadena County
Grant County	Pope County	Waseca County
Houston County	Ramsey County	Wilkin County
Jackson County	Red Lake County	Yellow Medicine County

The Rochester Police Department and the other participating jurisdictions should be commended for their willingness to participate in this important study.

Methods of Data Collection

Participating jurisdictions were required to collect the data elements listed previously for all traffic stops occurring during 2002. They were given the choice of three methods for submitting the data. The Department of Public Safety produced paper forms that included all of the required data elements for officers to fill out each time they made a traffic stop. Under the first option, jurisdictions had their officers fill these forms out and the jurisdictions then sent the forms to DPS. DPS contracted with Intertech, a division of the Department of Administration that

[3] The sheriff's departments from Mower and Washington Counties initially chose to participate in the study but dropped out during the data collection period.

provides technology support services to state agencies, to record the contents of each form in an electronic database. Under the second option, jurisdictions used the paper forms and then entered the forms' contents directly into a database maintained by DPS via a web interface program. The final option allowed jurisdictions with the necessary technological capability to have officers enter the required traffic stop data directly into a database via computers located in their squad cars. Jurisdictions using this method then transmitted their database information to DPS on a periodic basis. Regardless of the method of data collection chosen, all jurisdictions were instructed to provide data to DPS regularly throughout the duration of the data collection period.

Participating jurisdictions were given written instructions that provided a general overview of the study and discussed how officers should complete forms, and how and when forms should be submitted to the Department of Public Safety. In addition, a voluntary training session was held for law enforcement personnel on December 27, 2001. This session reviewed the written instructions for completing forms and reporting data. The training was conducted by Department of Public Safety employees and was attended by 20-25 law enforcement representatives.

Forty-one of the participating jurisdictions chose the first method of data collection. Approximately twenty jurisdictions chose to submit their data via web-interface, and five jurisdictions, including Rochester, used squad car computers.

To enable officers to collect traffic stop data, the Olmsted County Sheriff's Department and the Rochester Police Department collaboratively created a database for squad car computers. Whenever officers make a stop in Rochester, they are required to call it in to their dispatcher, who then records the stop by date, time, and location. At the conclusion of stops, officers then filled out an electronic form on their squad car computer that was identical in content to the paper forms created for this study. The department compared these records to dispatch records to ensure that each officer had submitted one electronic form for every stop called in to dispatch. Periodic internal reports were generated with a list of officers who were missing forms and the department would work with individual officers to ensure that missing forms were submitted.

Some jurisdictions changed their method of data collection during the course of the study. DPS shared collected data with the Institute on Race & Poverty and the Council on Crime and Justice. We then audited the data for accuracy and analyzed the data for evidence of racial profiling.

II. Data Auditing

An ideal auditing process would ensure that the data collection process provided a complete and accurate record of all traffic stops in each jurisdiction during the data collection period. Given limitations in resources and in the structure of the study, we were able to evaluate the accuracy of certain portions of the data collection process but not all. For those jurisdictions submitting paper forms to DPS, and most jurisdictions submitting data to DPS via web-interface, we were able to evaluate the extent to which data recorded on submitted forms was accurately and thoroughly recorded in the database. For those jurisdictions that did not use paper forms, this type of auditing was neither possible, due to the lack of paper forms, nor necessary, because there was no transfer of information from forms to database. In none of the jurisdictions were we able to evaluate whether the data submitted by jurisdictions was an accurate reflection of law enforcement activity in that jurisdiction.

Audit of Jurisdictions Submitting Paper Forms to DPS

The audit for jurisdictions submitting paper forms was designed to answer two questions:

1) Did Intertech/DPS enter all of the forms into the database?

2) To what extent did Intertech/DPS accurately enter the data elements recorded on the forms into the database?[4]

Once received, we sorted forms by jurisdiction and by the date of the traffic stop, and then grouped them for each week of the data-collection period. To answer the first auditing question, we hand counted each weekly batch of forms for each jurisdiction and compared the results of those counts to the weekly count of database entries for that jurisdiction.

A total of 2132 weeks worth of data were entered for the 41 agencies. In 85 of the 2132 weeks of entries, there was a discrepancy of five or greater between the number of forms we received and the number of entries in the database. In 45 of these weeks, the number of database entries exceeded the number of forms by five or more. In 40 weeks, the number of forms exceeded the number of database entries by five or more. In very few cases (12 weeks total) were there discrepancies greater than 15 forms. This degree of discrepancy between the number of forms and the number of database entries is unlikely to skew the data in any substantial way.

To answer the second auditing question, a random 1% sample of all database entries was compared to their corresponding paper forms. This sample size was sufficient to arrive at a statistically valid assessment of the accuracy of the database entries. Through the process of comparison, we arrived at an overall data-entry error rate for all fields. We also calculated a

[4] As will be discussed in more detail below, the audit did not enable us to answer any questions related to the thoroughness or accuracy with which law enforcement officers and agencies recorded and submitted data on the paper forms. We were also unable to evaluate whether the forms provided to researchers included all forms sent to DPS.

data-entry error rate for each element (field) of data to evaluate whether errors randomly occurred throughout the dataset.[5]

The 1% sample resulted in a comparison of a total of 907 database entries to their corresponding forms. Ten cells of information were compared for each entry, for a total of 9070 cells. We found a total of 31 cells for which the information entered into the database differed from the information on the form. With 31 errors in 9070 cells, the data entry error rate was 0.34%. This overall level of error is very low, having a negligible effect on the overall accuracy of the dataset.

The following table shows the error rates for each field of data:

Field	**Number of errors**	**Error rate**
Officer knew race/ethnicity	1	0.11%
Time of stop	8	0.88%
Reason for stop	4	0.44%
Disposition of stop	2	0.22%
Race/ethnicity of driver	0	0.00%
Age of driver	3	0.33%
Gender of driver	2	0.22%
Search yes/no	1	0.11%
Authority for search	1	0.11%
Contraband discovered	9	0.99%

As can be seen, the error rate within each field is also very low and any effect on the accuracy of data in each field is also negligible.

Audit of Jurisdictions Submitting via Web Interface

The audit for jurisdictions submitting data via web interface was similarly designed to answer two questions:

1) Did the jurisdiction enter all of the forms into the database?

2) To what extent did the jurisdiction accurately enter the data elements recorded on the forms into the database?[6]

[5] We did not include location of the stop in this analysis. Error rates for the location of the stop were substantially higher because of problems of legibility. While this affected our ability to map the location of all traffic stops, it did not prevent us from analyzing data at the jurisdictional level.

[6] The audit did not enable us to evaluate whether officers submitted accurate information on every traffic stop they conducted. We were also unable to evaluate whether the forms provided to researchers by the jurisdiction included all forms submitted to the jurisdiction by officers. For four jurisdictions using this method of data collection, we were unable to perform any auditing because they failed to retain the paper forms and/or failed to respond to requests to submit them to us.

As we did with jurisdictions submitting forms to DPS, we addressed the first question by comparing the total number of forms submitted by each jurisdiction to the total number of database entries for that jurisdiction. We again addressed the second question by comparing a sample of forms to a sample of database entries.[7] Overall, error rates were low, although there was some variation across jurisdictions. The specific auditing results for each jurisdiction that collected and submitted data via this method are included in the jurisdiction's report.

Limitations of the Auditing Process

Through our auditing process we were not able to evaluate whether officers filled out forms every time they made a traffic stop, nor were we able to evaluate whether the information provided on the forms accurately reflected the details of the stop. The potential harm of this limitation has been noted in several reports on racial profiling data collection. As one study commissioned by the U.S. Department of Justice stated, "If some officers are knowingly engaged in racial profiling, which the department forbids, then there is an incentive for officers to forego filling out forms or to fill them out incorrectly. This could lead to biased data."[8]

In order to ensure that forms were filled out for every traffic stop, some of the participating jurisdictions told us that they required officers to submit a form for each instance in which the officer reported a stop to their dispatcher. Although there is no guarantee that officers reported all stops to their dispatcher, participating jurisdictions suggested that concerns of personal safety create a strong incentive for the officers to keep their dispatchers apprised of their location and enforcement activity should danger arise.

Some racial profiling studies to date have taken measures to ensure that officers fill out forms accurately. In New Jersey, for example, the Attorney General's office contacts a sample of people stopped by police to verify that the forms filled out pursuant to their stop are accurate. In addition, police supervisors review videotapes of traffic stops to ensure the accuracy of forms.[9] In Great Britain, persons stopped by police are entitled to a copy of the form that officers fill out at the time of the stop or upon request within 12 months. Individuals are then able to report any inaccuracies contained in the form.[10] It has also been suggested that dispatch records and information provided on driver's licenses (when driver's license numbers are recorded on forms) could be used to evaluate accuracy.

We were also unable to evaluate whether forms submitted by jurisdictions, and whether data provided by jurisdictions using electronic forms, accurately reflected the data submitted to the jurisdictions by their officers.

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[7] The sample size for each jurisdiction varied based on preliminary error rates found.

[8] Joyce McMahon, Joel Garner, Ronald Davis, and Amanda Kraus, "How to Correctly Collect and Analyze Racial Profiling Data: Your Reputation Depends on IT, Final Report for: Racial Profiling-Data Collection and Analysis." (Washington, DC: Government Printing Office, 2002)(Commissioned by U.S. Dept. of Justice, Office of Community Oriented Policing) at p.62 [hereinafter "McMahon Report"]. See also Deborah Ramirez, Jack McDevitt, and Amy Ferrell, "A Resource Guide on Racial Profiling Data Collection Systems: Promising Practices and Lessons Learned" (U.S. Dept. of Justice/Northeastern University: Nov. 2000) at p.14 [hereinafter "Ramirez Report"].

[9] Ramirez Report at p.35.

[10] Id. at 38.

III. Analysis of the Data

Data collected by jurisdictions were analyzed for evidence of racial profiling, defined by the Minnesota legislature as follows:

> [A]ny action initiated by law enforcement that relies upon the race, ethnicity, or national origin of an individual rather than: (1) the behavior of that individual; or (2) information that leads law enforcement to a particular individual who has been identified as being engaged in or having been engaged in criminal activity. Racial profiling includes use of racial or ethnic stereotypes as factors in selecting whom to stop and search. Racial profiling does not include law enforcement's use of race or ethnicity to determine whether a person matches a specific description of a particular subject.[11]

Although there is no universally accepted definition of racial profiling, this definition is consistent with those used by other jurisdictions and researchers.[12] In essence, the term "racial profiling" has come to refer to the influence of racial bias in the law enforcement process.[13]

Our analysis focuses on evidence of racial bias in two primary, related areas of law enforcement: the decision to stop drivers and the decision to search drivers and/or their vehicles once stopped. In order to better understand these dynamics, we have also looked into the reason given for stops, the disposition of stops, the authority reported for searches, and the rate at which contraband is discovered as a result of these searches. The foundation of our analysis is an evaluation of whether drivers of some racial groups are stopped more frequently than others, and once stopped, whether drivers of some groups are subject to search(es) more than others. To the extent that we are able, we use information collected in this study,[14] as well as relevant outside research, to help understand patterns that emerge from the analysis. In addition, the limitations of our research are noted in the analysis.

For a more detailed analysis of law enforcement patterns, we were able to map traffic stop data within ten jurisdictions -- five police departments and five sheriff's departments (limited resources prevented us from mapping data for all participating jurisdictions). Jurisdictions were selected based on four equally weighted criteria:

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[11] MN ST § 626.8471(2).

[12] See, e.g., Ramirez Report at p.3 ("For this guide, racial profiling is defined as any police-initiated action that relies on the race, ethnicity, or national origin rather than the behavior of an individual or information that leads the police to a particular individual who has been identified as being, or having been, engaged in criminal activity.").

[13] For this reason, the National Organization of Black Law Enforcement Executives (NOBLE) suggests that "bias-based policing" is a more accurate term for the scope of activities commonly referred to as racial profiling. NOBLE defines bias-based policing as "The act (intentional or unintentional) of applying or incorporating personal, societal, or organizational biases and/or stereotypes as the basis, or factors considered, in decision-making, police actions, or the administration of justice." McMahon Report at p.135. For similar reasons, the Police Executive Research Forum (PERF), a national membership organization of progressive police executives, recommends using the term "racially biased policing." Lorie Fridell et. al., "Racially Biased Policing: A Principled Response" (Police Executive Research Forum, Washington DC, 2001) at p.5 [hereinafter "PERF Report"]..

[14] In addition to the information provided on forms, each participating jurisdiction was sent a questionnaire designed to elucidate possible explanations for racial patterns that might emerge in the data that they collected. Relevant responses are integrated into the analysis and the full text of the questionnaire can be found in Appendix 1.

1) Proportion of the jurisdiction's population that is of color.

2) Total number of stops.

Criteria 1 and 2 were selected because they increase the likelihood that there is sufficient data to make statistically significant findings regarding disparities found in sub-units of the jurisdictions mapped.[15] In jurisdictions where populations of color are small and/or where there are fewer traffic stops there is a diminished likelihood that sufficient data exist to determine whether variations among sub-units of a jurisdiction are statistically significant.

3) Magnitude of the disparity between the proportion of people of color in the driving population and the proportion of people of color in the stopped population.

Mapping is a tool for better understanding disparities that might exist between the driving population and stopped population within a jurisdiction. In particular it can provide insight into the role that enforcement patterns within a jurisdiction plays in determining what drivers are stopped. Because limited resources were available for mapping these differences within jurisdictions, this criterion was selected to help focus resources in jurisdictions where overall disparities suggest a need for further analysis.

4) Number of census tracts within the jurisdiction.

This criterion was selected because spatial analysis is most useful where numerous geographic sub-units exist so that detailed spatial patterns can emerge. As the number of geographic sub-units declines, so does the utility of mapping.

Rochester is one of the jurisdictions selected for mapping.

Statistical Significance

Throughout this study we use the test of statistical significance to evaluate disparities. We consider disparities statistically significant when there is a 95% or greater probability that the disparity is not a result of chance.[16] Thus, a disparity that is statistically significant is unlikely to be a result of random fluctuations in our data. As the number of cases (e.g. stops or searches) increases, so does likelihood of statistical significance. We used the test of statistical significance to avoid overstating the meaning of stop and search differences where the number of cases was too small to draw meaningful conclusions.

[15] The sub-units used were minor civil divisions for county sheriff's departments and census tracts for city police departments.
[16] To determine if the differences are statistically significant we use binomial approximation of the normal distribution.

A statistically significant disparity is not definitive proof of racially biased policing.[17] In jurisdictions with a large number of traffic stops, a disparity can be statistically significant and also be very small in size. Furthermore, factors other than departmental or officer bias may cause or contribute to a particular disparity. Such factors might include differences in how often, when, and where members of different racial/ethnic groups drive and differences in the frequency or severity of traffic violations committed by members of different racial/ethnic groups.

Put another way, our analysis reveals who was stopped, searched, and found to possess contraband in a given jurisdiction during 2002 and calculates differences between overall rates and rates for specific racial/ethnic groups. It does not delineate the roles that bias and other factors play in generating those differences.[18] It is important to consider the range of plausible explanations for a given disparity, and to the extent that we are able, we have done so. Note that, whereas a disparity alone is not proof of bias, as the size of the disparity increases, the range of plausible alternative explanations decreases.[19]

A. Analysis of Traffic Stop Data

The first step in analyzing traffic stop data involves evaluating whether some racial groups are stopped at higher rates than others.[20] We did this by calculating the absolute and relative differences between the number of stops and number of expected stops for each racial group. The number of expected stops for a racial group are the number of stops you would expect given the total number of stops in a jurisdiction and the proportion of the jurisdiction's driving population represented by that racial group. For example, if 10% of a jurisdiction's driving population is Latino and a total of 100 police stops occurred, then the expected number of Latino stops would be 10 (i.e. 10% of all driver's stopped). Absolute differences are the difference

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[17] Similarly, the absence of statistically significant disparities in a jurisdiction is not definitive proof that racially biased policing does not occur in the jurisdiction. For many smaller jurisdictions, the number of traffic stops conducted during the study period prevented us from determining whether observed disparities were or were not statistically significant.

[18] As noted in the PERF report, "To draw definitive conclusions regarding stop data … we would need to be able to identify and disentangle the impact of race from legitimate factors that might reasonably explain individual and aggregated decisions to stop, search, and otherwise engage people." PERF Report at p.136

[19] A Government Accounting Office (GAO) study of previously collected racial profiling data discussed at length the limitations of data collection efforts, but concluded:

> These limitations notwithstanding, we believe that in order to account for the disproportion in the reported levels at which minorities and Whites are stopped on the road[s], (1) police officers would have to be substantially more likely to record the race of a driver during motorist stops if the driver was a minority than if the driver was White, and (2) the rate and/or severity of traffic violations committed by minorities would have to be substantially greater than those committed by Whites. We have no reason to expect that either of these circumstances is the case."

GAO Report to the Honorable James E. Clyburn, Chairman Congressional Black Caucus, "Racial Profiling: Limited Data Available on Motorist Stops" (March 2000) at p.11 [hereinafter "GAO Report"].

[20] There is no universally accepted language for referring to specific racial/ethnic groups and the two data sets that we rely on, traffic stop data and census data, use different terms. For purposes of this study, we have referred to the five main racial/ethnic groups as American Indian, Asian, Black, Latino, and White and have used the phrase "people of color" to refer to the first four groups collectively. It is our intent to use the most commonly accepted and understood terms and acknowledge that some members of these groups prefer to describe themselves with other language.

between the actual observed number of stops and the number of expected stops for a group. Absolute differences are likely to be greater in areas that have more overall stops. Relative differences are the percent difference between observed stops and expected stops.[21] Relative differences give the percent by which a racial group was more or less likely to be stopped in an area. Relative differences tend to be greater in areas with fewer stops and/or a smaller population of a given racial/ethnic group.

Estimating the Driving Population

In order to calculate an expected stop rate for each racial group, we first had to estimate the driving population, sometimes referred to as the baseline population, in each jurisdiction. To approximate driving populations we primarily used 2000 U.S. Census population counts by race/ethnicity for persons of ages 16 to 85 in each jurisdiction.[22] We selected this age range because it includes age groups with high per capita daily mileage rates and/or a high proportion of group members that drive automobiles.[23]

There are limitations to this estimate that should be noted. One is that it represents the driving age population rather than the driving population. Thus, for example, it includes people who are old enough to drive but do not have access to an automobile. Another is that it represents the driving age population that resides in a given jurisdiction whereas the actual driving population in a jurisdiction, and consequently the population of people stopped in a jurisdiction, includes people that do not reside in that jurisdiction. The ideal comparison group would be of drivers in a jurisdiction eligible to be stopped (i.e. the population of people violating traffic laws). It is not clear, however, that the driving population and the violator population are substantially different. As one report observed:

> Since many traffic enforcement and vehicle code laws apply to all cars on the road, and since more vehicles are being operated in violation of the local traffic laws than police have the resources to stop them, officers have a wide discretion in selecting which cars to stop. Many traffic officers say that by following any vehicle for 1 or 2 minutes, they can observe a basis on which to stop it.[24]

Similarly, a study that sought to determine the racial demographics of highway drivers eligible to be stopped found that 98% of the driving population exceeded the speed limit by at least 6 miles per hour.[25] While it is true that all drivers are at risk of being pulled over, it should also be noted that some drivers have an elevated risk due to the frequency with which they violate traffic and

[21] i.e. ((observed – expected) / expected) x 100

[22] A portion of the driving age population is classified by the Census as "institutionalized." In those jurisdictions where the institutionalized population is large enough to affect our analysis, we have excluded it from our estimate of the driving age population. Examples of those who are institutionalized include people who are incarcerated, people in nursing homes, and people who are hospitalized.

[23] The National Household Travel Study and overall census population data were used to make this determination.

[24] Ramirez Report at p.9

[25] GAO Report at p.8.

related laws, and the seriousness of those violations. We do not know whether there is a correlation between the race/ethnicity of drivers and this elevated risk of being stopped.

For our comparison of the stopped population to the driving population we have also included a table with an alternative estimate of the driving population.[26] This alternative estimate relies on household vehicle availability rates provided by the 2000 census and assumes that the racial demographics of the driving population are identical to those of the vehicle ownership population. It does not account for differences in the number of vehicles or the number of drivers in a household, not does it account for differences in driving habits across households.

When considering the limitations of our two estimates, it is important to focus on whether they suggest that the racial demographics of the estimated driving population are different from the racial demographics of the actual driving population. For example, we know that in general White households are more likely than households of color to have cars available. Our first driving population estimate does not account for this difference and thus tends to overestimate the number of people of color in the driving population and underestimate the rate at which drivers of color are stopped. Where evidence such as this is available, we have noted it. It also bears mentioning that additional resources and time would allow for more precise estimates of the driving population that account for these limitations.

Differences between Actual and Expected Stops[27]

As of the 2000 Census, there were 63,301 driving age residents in Rochester and 31,175 households that had an available vehicle. In 2002, there was a total of 14,346 traffic stops reported by the Rochester Police Department. The following two tables compare the traffic stop data by race/ethnicity to the driving age population by race/ethnicity of Rochester, and indicate whether any disparities are statistically significant. In those cases where the relative difference between actual and expected stops could not be calculated and/or the difference between actual and expected stops was not statistically significant, "n/a" is recorded in place of the relative difference.

Rochester, Comparison of Stops to Driving Age Population

	White	Black	American Indian	Asian	Latino
Population percentage	88.6%	2.9%	0.3%	5.6%	2.5%
Traffic stop percentage	80.8%	9.8%	0.2%	4.5%	4.7%
Statistical significance	Yes	Yes	Yes	Yes	Yes

[26] Given the limitations of driving population estimates, a recent report funded by the Department of Justice recommends the use of multiple baseline populations. McMahon Report at p. 32.

[27] The racial categories used by the census differ from the racial categories listed on the traffic stop forms. In order to directly compare the two data sets it necessary to "bridge" them. For a discussion of our methodology for doing so, see Appendix __.

Rochester Expected v. Actual Stops by Driving Age Population

	Actual Stops	Expected Stops	Absolute Difference	Relative Difference
American Indian	23	47.0	* -24.0	* -51.0%
Asian	651	807.0	* -156.0	* -19.3%
Black	1,407	419.0	* 988.0	* 235.8%
Latino	678	357.6	* 320.4	* 89.6%
White	11,587	12,715.4	* -1,128.4	* -8.9%
Total People of Color	2,759	1,630.6	* 1,128.4	* 69.2%

*stops differ from expected stops in statistically significant manner (p<.05).

As the two tables above indicate, Blacks and Latinos were stopped at significantly higher than expected rates in Rochester when the driving age population is used as our baseline. Blacks were stopped at over three times the expected rate and Latinos were stopped at nearly twice the expected rate. American Indians, Asians and Whites were all stopped significantly less than expected given their diving age populations.

The following table calculates stops and expected stops using the alternative baseline population of household vehicle availability.

Rochester Expected v. Actual Stops by Vehicle Availability

	Actual Stops	Expected Stops	Absolute Difference	Relative Difference
American Indian	23	79.8	* -56.8	* -71.2%
Asian	651	704.9	* -53.9	* -7.6%
Black	1,407	308.6	* 1,098.4	* 355.9%
Latino	678	257.6	* 420.4	* 163.2%
White	11,587	12,995.1	* -1408.1	* -10.8%
Total People of Color	2,759	1,350.9	* 1,408.1	* 104.2%

*stops differ from expected stops in statistically significant manner (p<.05).

The vehicle availability baseline produces similar results for all racial/ethnic groups, with some difference in the magnitude of disparities between actual and expected stops for each group. With this baseline, we again find that Blacks and Latinos were stopped at significantly higher than expected rates. By this measure, however, Blacks were stopped at four and one-half times the expected rate and Latinos were stopped at over two and one-half times the expected rate. With this baseline, we also again find that American Indians, Asians, and Whites were significantly less likely to be stopped than expected with a large absolute difference for White drivers and a large relative difference for American Indian drivers.

In their response to the questionnaire, the Rochester Police Department reported several factors that could affect our analysis. One is that the Department "focuses its traffic enforcement activities based upon complaints from citizens, traffic speed tube surveys, Safe & Sober grant

funded enforcement activities, Operation ABD Mobilization, Operation NightCap and Operation Big Broom." As a result, officer deployment is uneven throughout the City and at times, according to the Department, enforcement activity was concentrated on the downtown area near neighborhoods that have relatively large populations of color. The Department also noted that the City of Rochester is a regional hub that draws drivers from outlying areas that tend to have relatively smaller populations of color, a factor which would increase the number of non-resident White drivers in the city; and it noted that there is a migrant population in Rochester which could increase the number of non-resident drivers of color in the city. Whether the overall effect of these and other factors is an under-or over-estimation of the presence of different racial/ethnic groups in the driving population is unclear. The magnitude of the differences between actual and expected stops for Blacks, Latinos, and Whites are large enough that we would expect them to persist to some degree even if we could account for these other factors. The mapping analysis below will allow us to determine whether a focus of enforcement activity in neighborhoods of color accounts for some or all of these disparities.

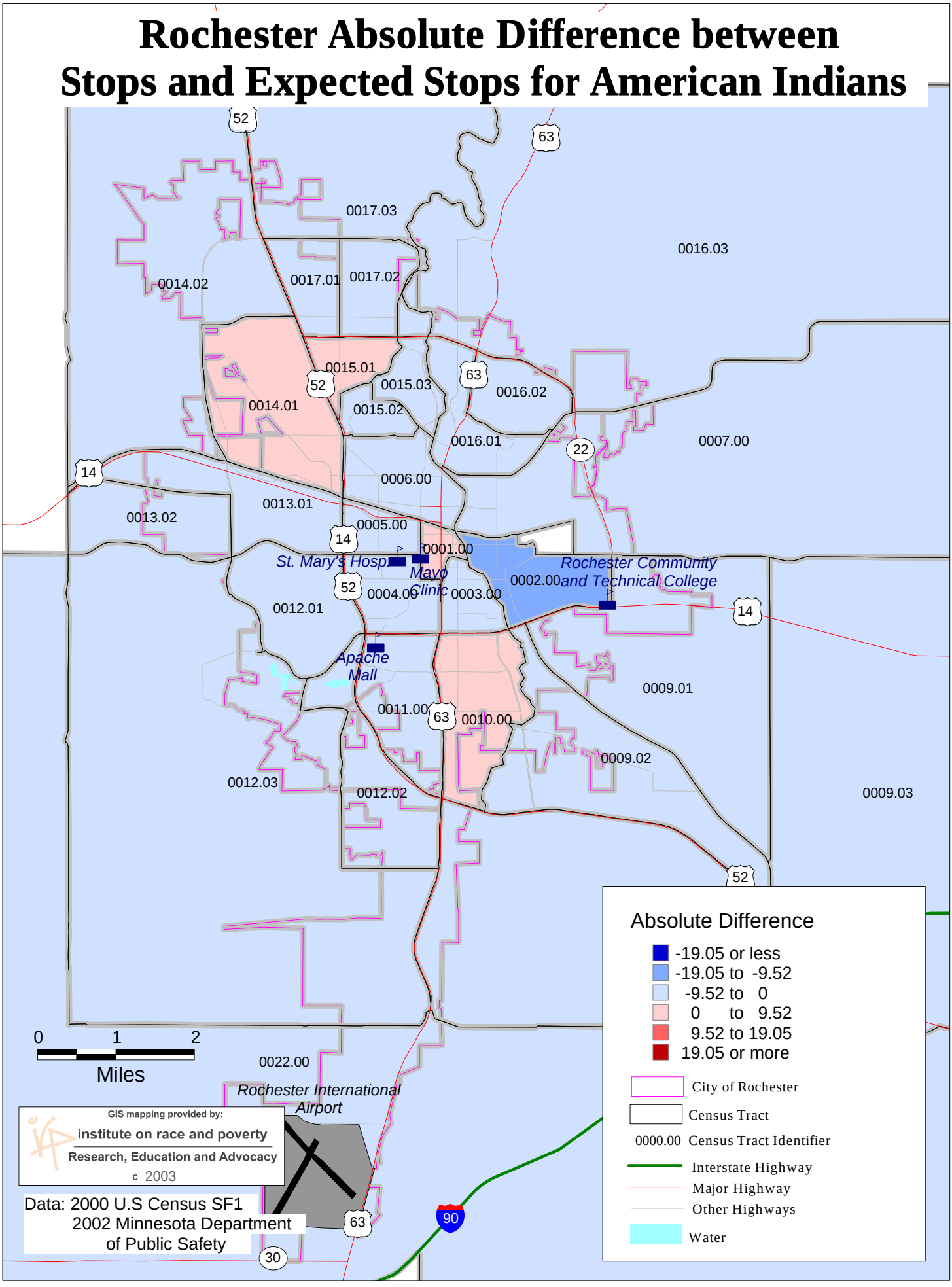
Mapping Traffic Stop Patterns

As stated earlier, resources enabled us to map traffic stop patterns for ten participating jurisdictions including the Rochester Police Department. For sheriff's departments we mapped patterns across minor civil divisions (MCD's) located within their jurisdiction while for police departments we mapped patterns across census tracts. Using the driving age population from the 2000 census, we mapped the absolute and relative difference between stops and expected for each racial group (resulting in a total of ten maps).[28]

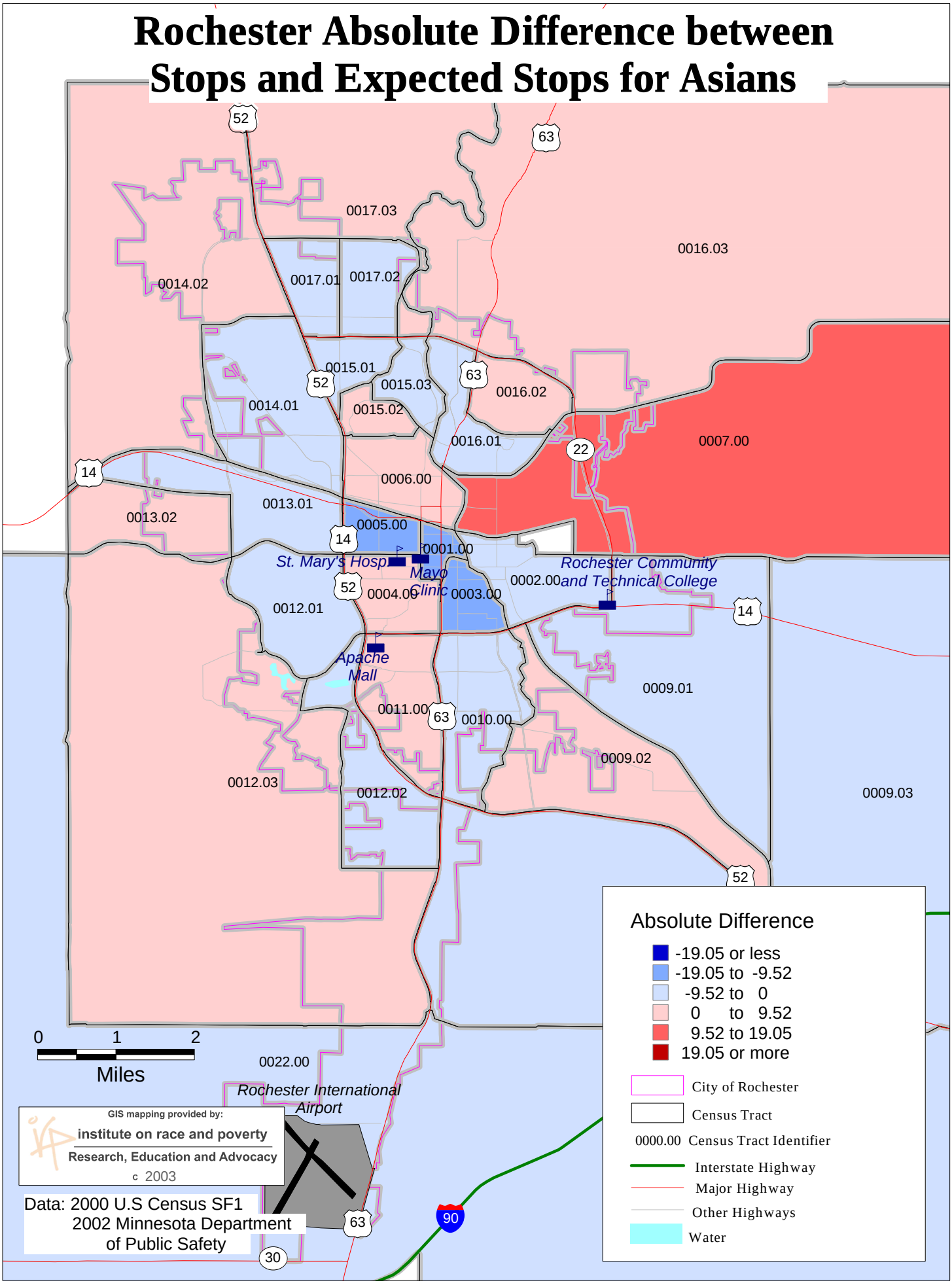
In addition, we created one map that compares the size and racial demographics of each tract or MCD to the number of police stops reported in that tract or MCD in order to gain insight in to enforcement patterns in the jurisdiction and their relationship to racial demographics.

[28] Because of the small size of Census tracts and the increased likelihood that drivers in a given census tract do not reside in that tract, we excluded all stops occurring on major arterials, as defined by the U.S. Department of Transportation, from our calculation of the stopped population. Put more simply, in a given census tract one can expect that a high percentage of drivers on major thoroughfares is merely passing through the tract. Because mapping of Sheriff's departments used the generally larger minor civil divisions as the unit of comparison we did not exclude these stops.

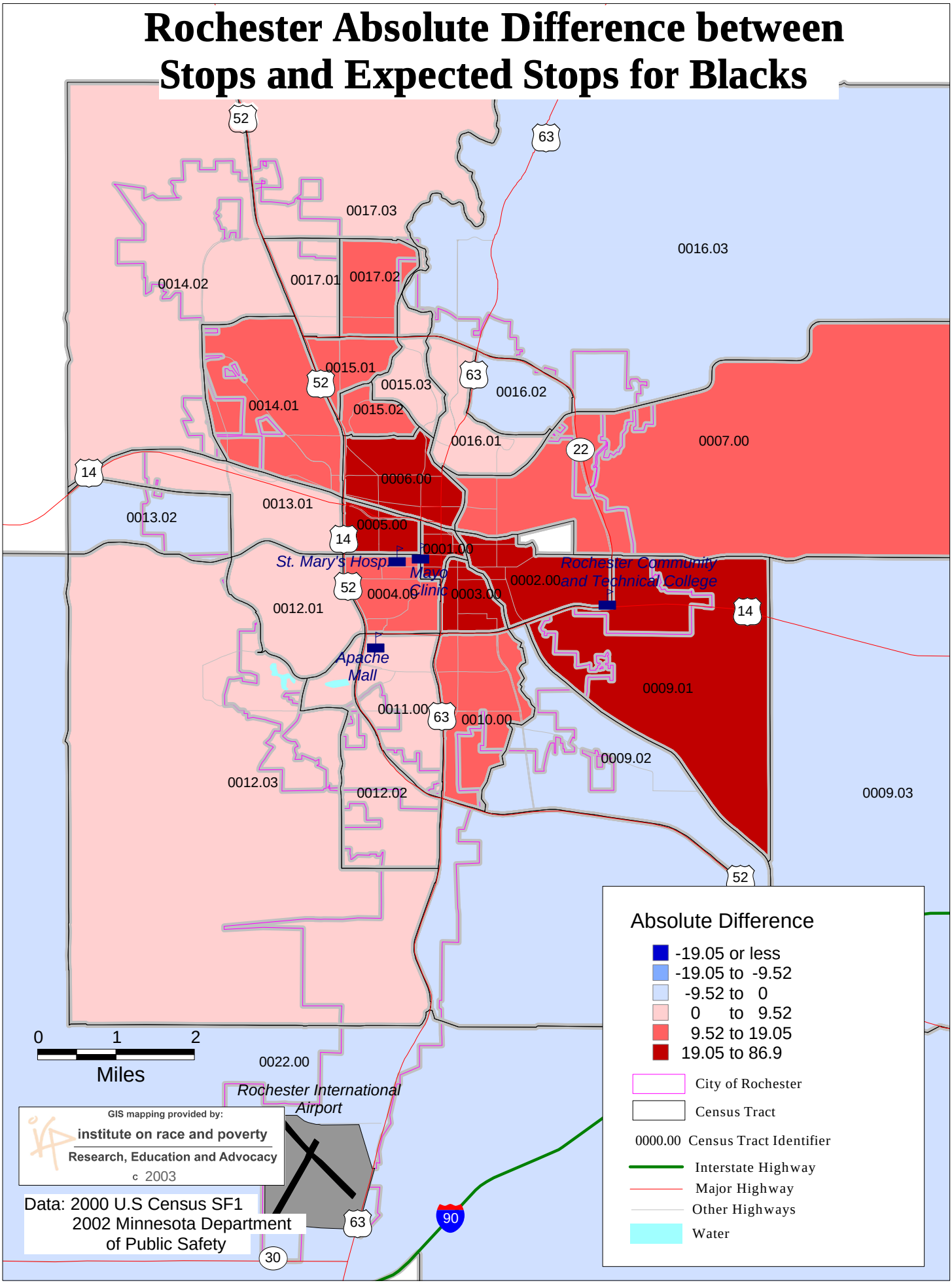
Rochester Absolute Difference between Stops and Expected Stops for American Indians



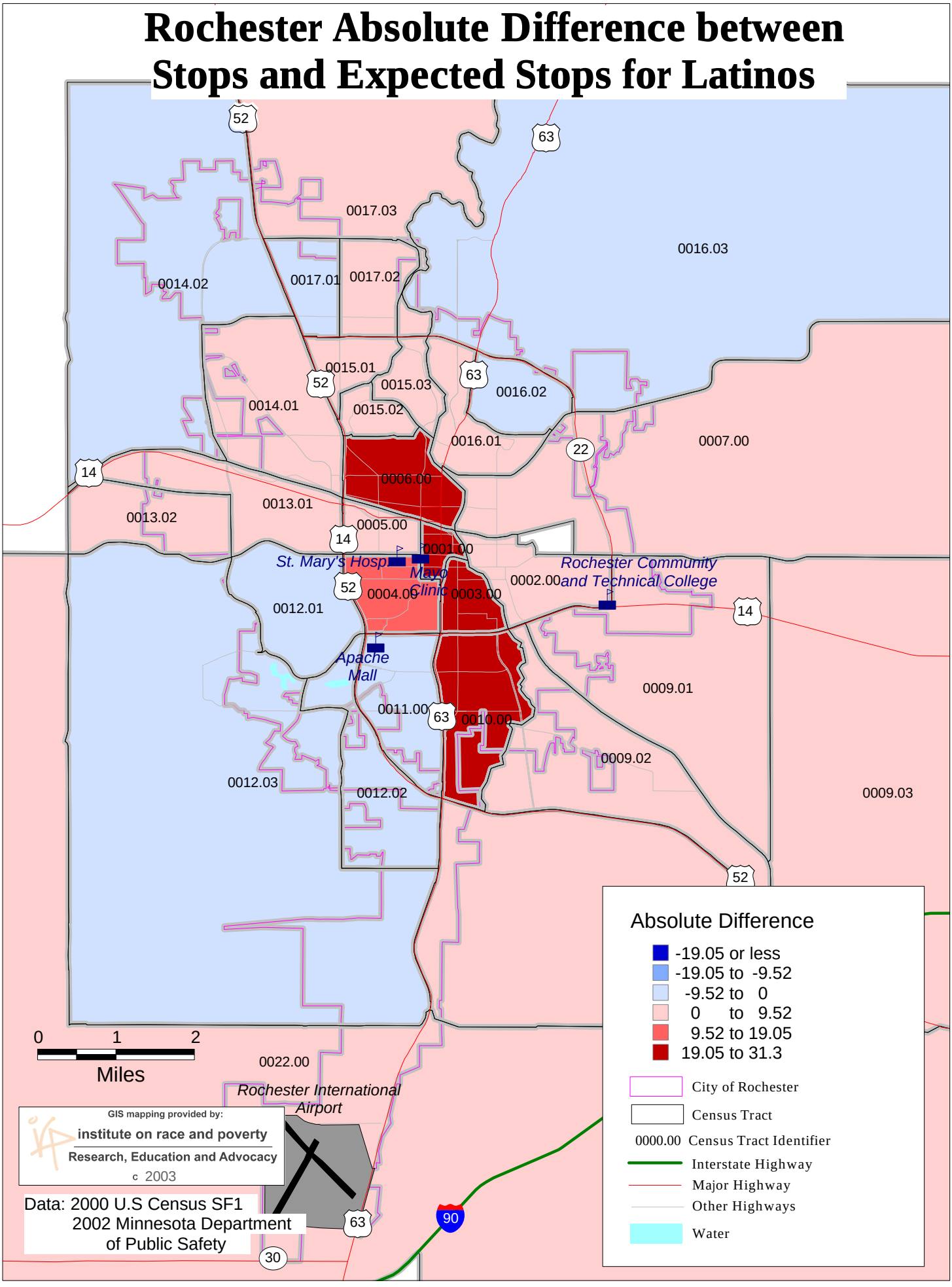
Rochester Absolute Difference between Stops and Expected Stops for Asians



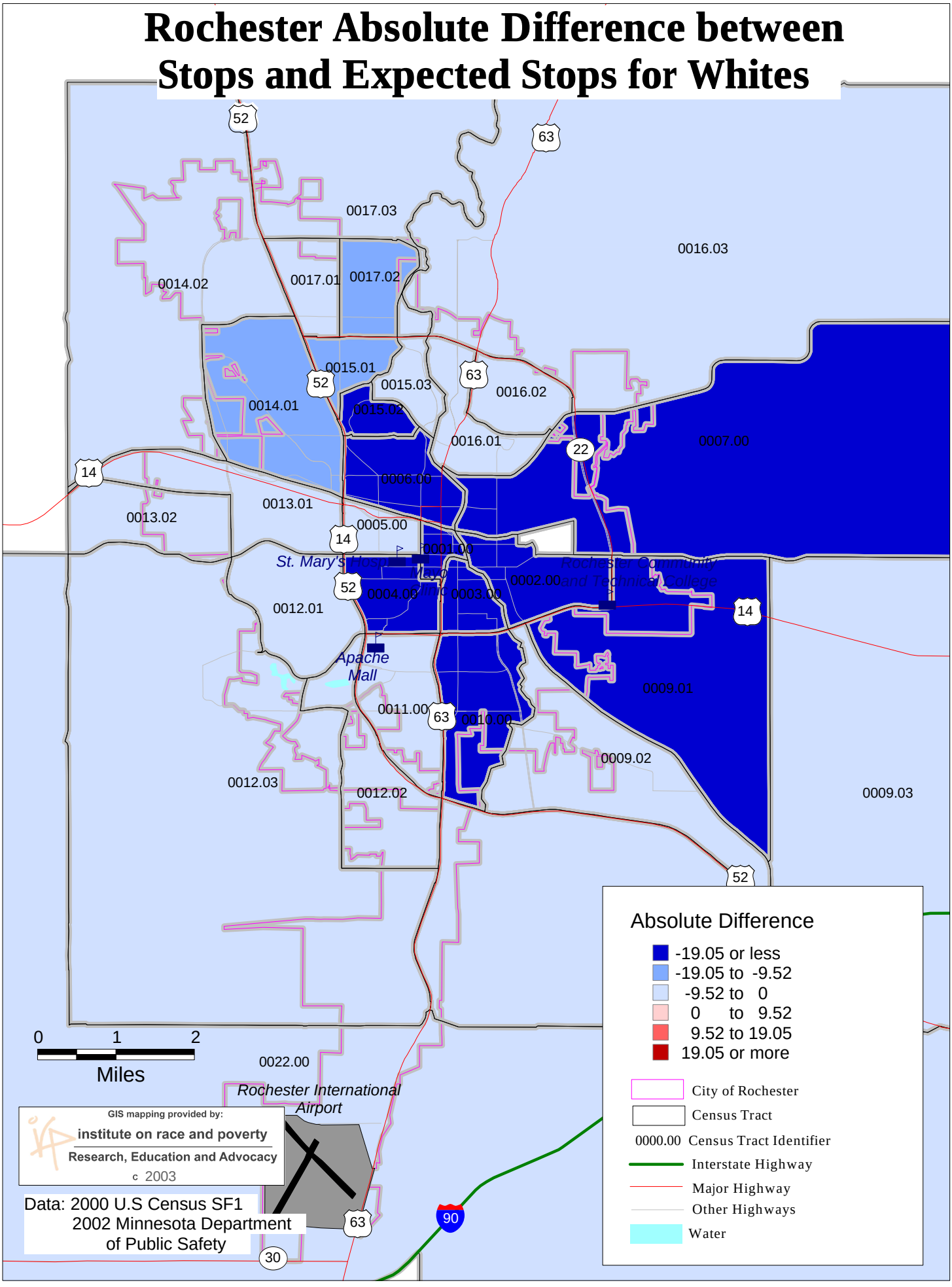
Rochester Absolute Difference between Stops and Expected Stops for Blacks



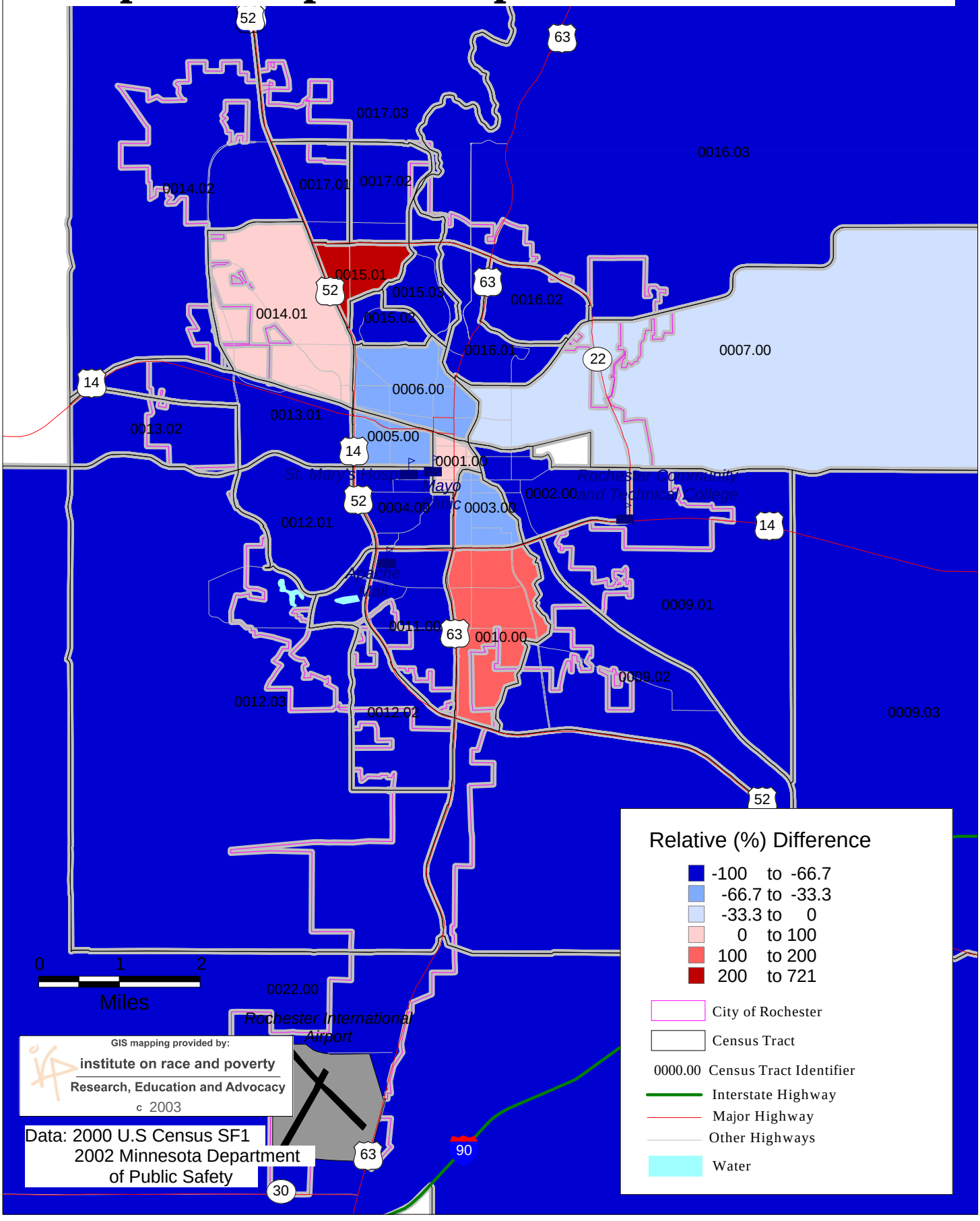
Rochester Absolute Difference between Stops and Expected Stops for Latinos



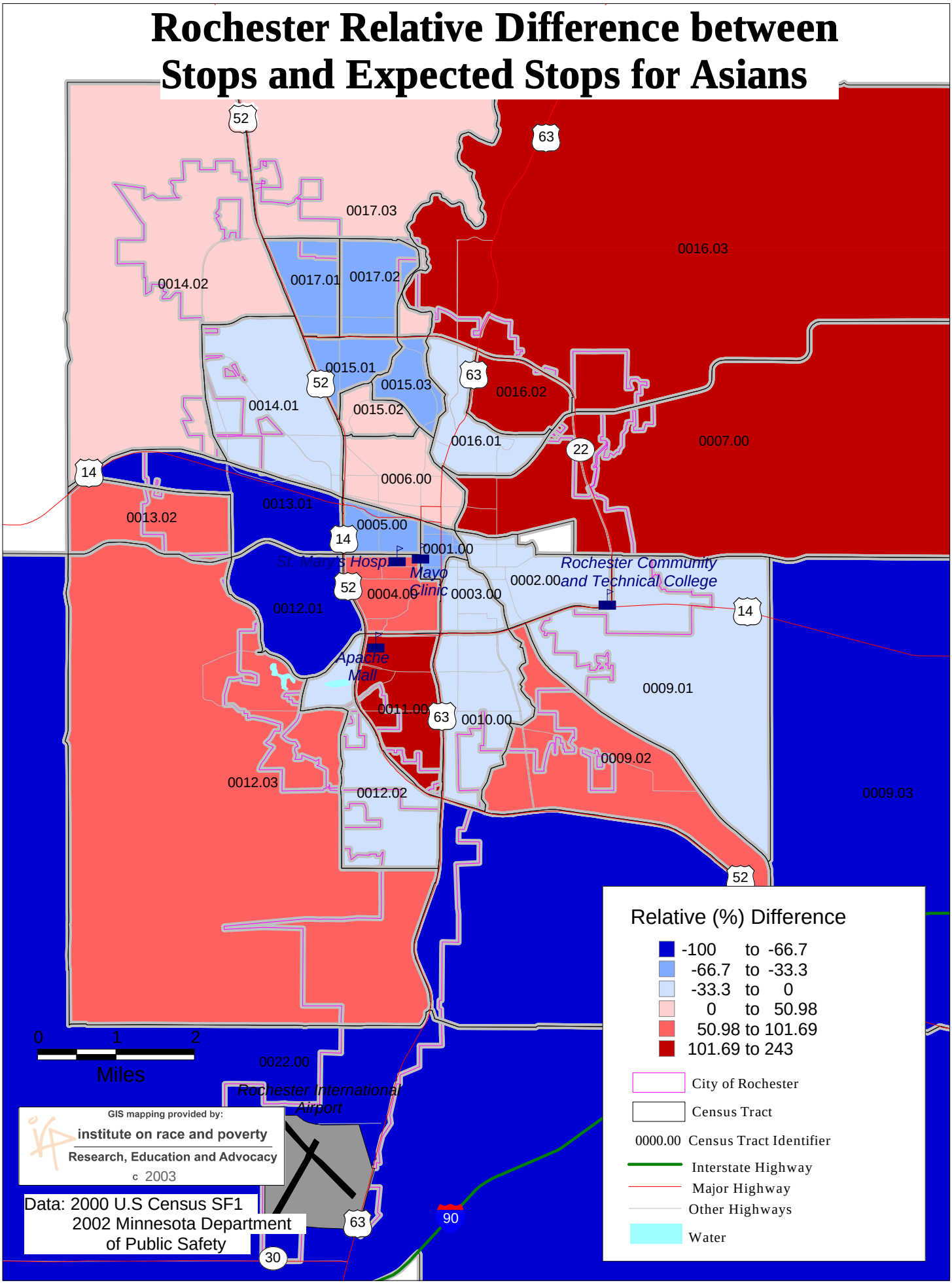
Rochester Absolute Difference between Stops and Expected Stops for Whites



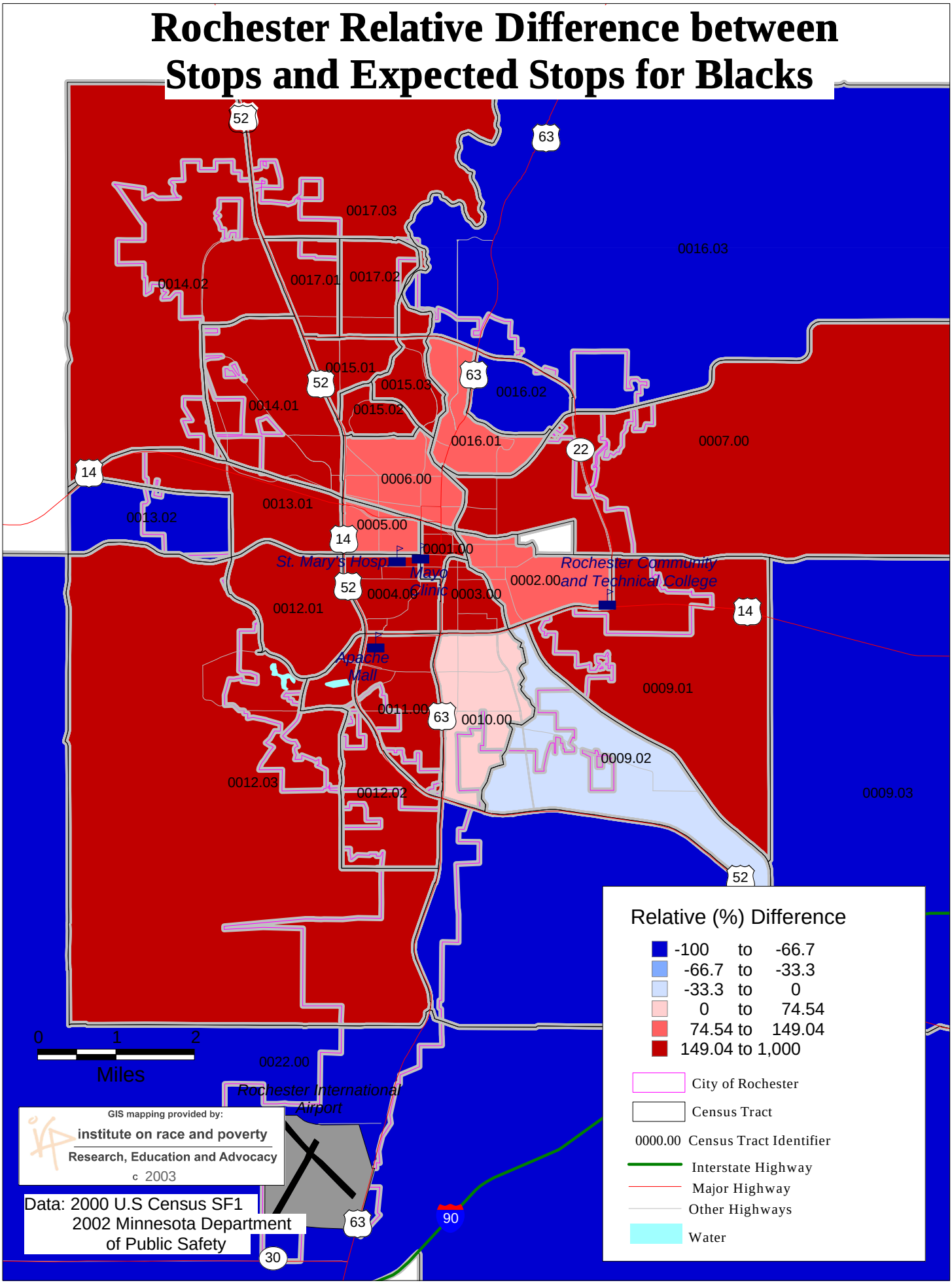
Rochester Relative Difference between Stops and Expected Stops for American Indians



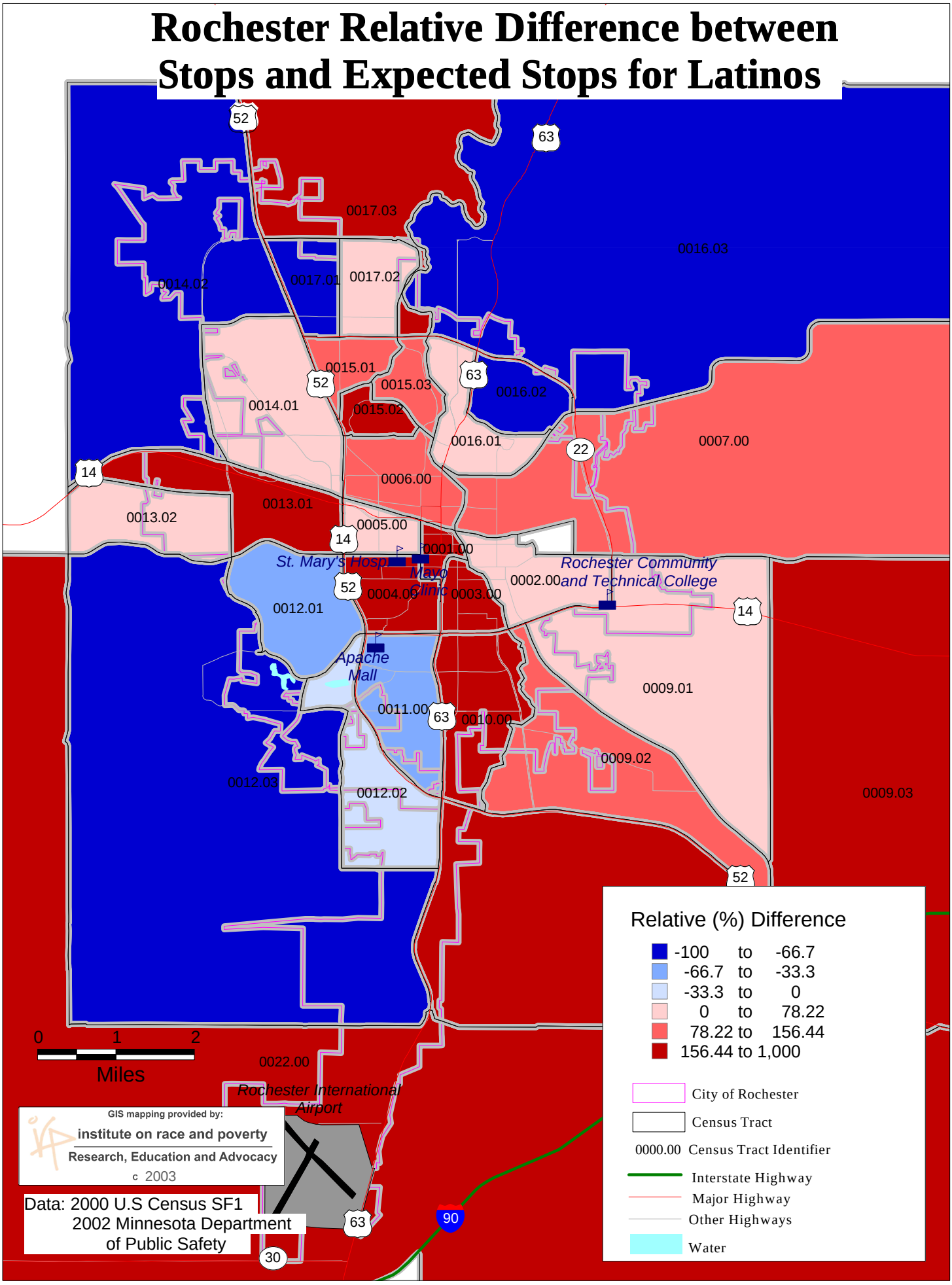
Rochester Relative Difference between Stops and Expected Stops for Asians



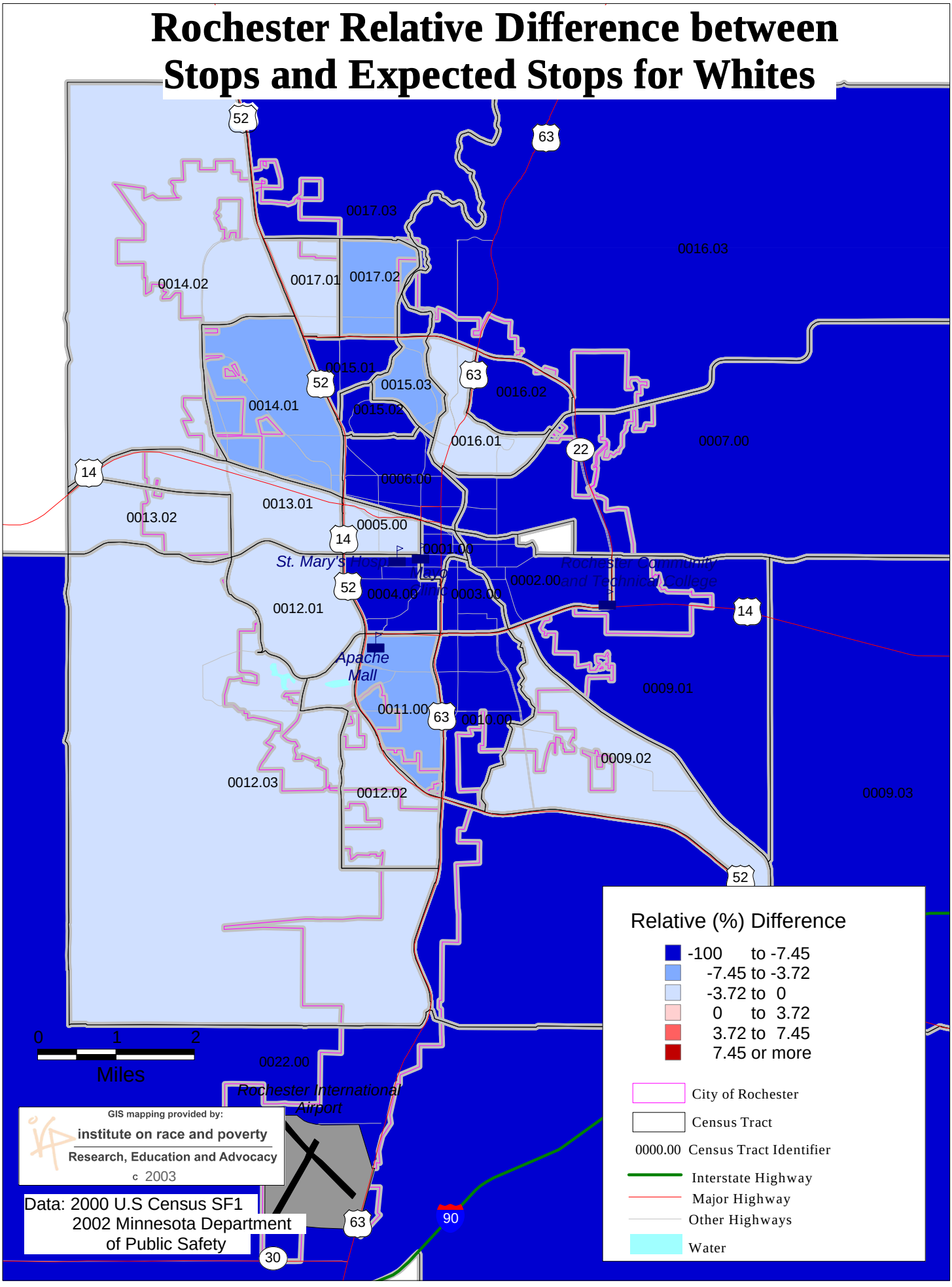
Rochester Relative Difference between Stops and Expected Stops for Blacks

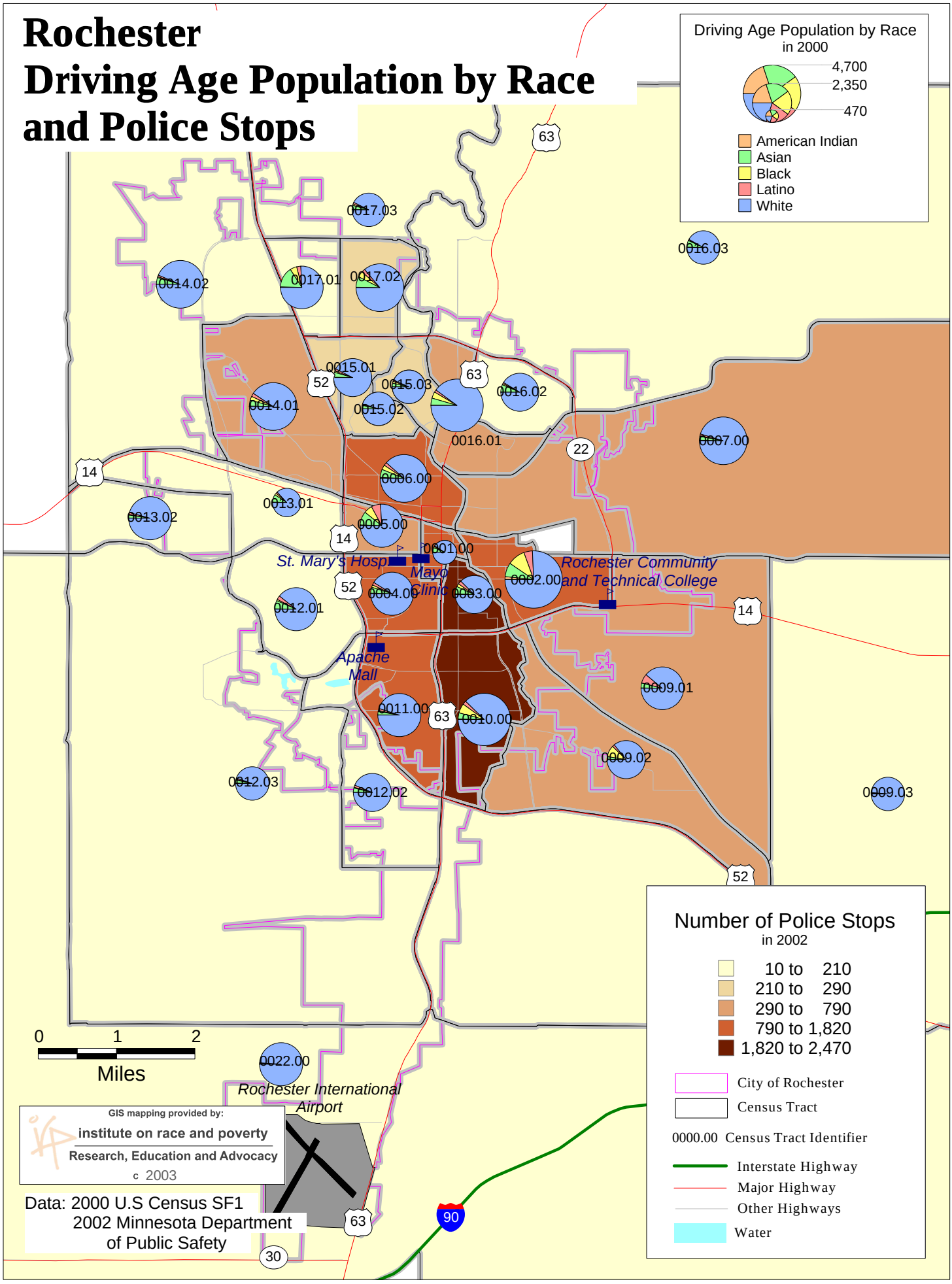


Rochester Relative Difference between Stops and Expected Stops for Latinos



Rochester Relative Difference between Stops and Expected Stops for Whites




Rochester
Driving Age Population by Race and Police Stops
Driving Age Population by Race in 2000
4,700
2,350
470
American Indian
Asian
Black
Latino
White
0017.03
0016.03
0014.02
0017.01
0017.02
0015.01
0015.03
0015.02
0014.01
0016.02
0016.01
0007.00
0006.00
0013.01
0013.02
0005.00
0001.00
St. Mary's Hospital
Mayo Clinic
Rochester Community and Technical College
0002.00
0004.00
0003.00
0012.01
Apache Mall
0009.01
0011.00
0010.00
0009.02
0012.03
0012.02
0009.03
0022.00
Rochester International Airport
63
52
14
22
90
30
0 1 2
Miles
GIS mapping provided by:
institute on race and poverty
Research, Education and Advocacy
c 2003
Data: 2000 U.S Census SF1
2002 Minnesota Department of Public Safety
Number of Police Stops in 2002
10 to 210
210 to 290
290 to 790
790 to 1,820
1,820 to 2,470
City of Rochester
Census Tract
0000.00 Census Tract Identifier
Interstate Highway
Major Highway
Other Highways
Water

As the preceding maps show, in most Rochester census tracts, American Indians were under stopped, shown in shades of blue. The four tracts that had American Indian over stops, shown in shades of red, were in and around the city center. Although the relative difference between actual and expected stops is large in most tracts, in absolute terms there were small differences. Asians were over- and under-stopped in roughly equal proportions across the city. Though the Asian driving age population was under-stopped overall, there were a number of areas in the city where over stops occurred, particularly northeast and south of downtown Rochester.

Blacks and Latinos in Rochester were each stopped in higher than expected numbers in most areas of the city. Each groups was under-stopped in a few tracts in outlying areas of the city. Latinos in particular were stopped less in tracts that were nearly outside or partially outside of the city of Rochester. Relative differences between stops and expected stops were high across the city for Blacks and Latinos while absolute differences were greatest in those tracts near the center of the city.

Whites in Rochester were stopped in lower than expected numbers in every census tract in the city. The greatest absolute difference between actual and expected stops occurred in those tracts in the city center that also had the greatest absolute differences for Blacks and Latinos.

The final map shows the racial/ethnic demographics of each census tract and the number of traffic stops that occurred in each tract. This map confirms that higher numbers of stops occurred in census tracts in and near the city center and that several of these tracts have relatively large populations of color. However, earlier maps show that the greatest levels of over-stopping of Blacks and Latinos and under-stopping of Whites occurred *within* these tracts. Thus, disparities in the city as a whole are largely a product of disparities in these tracts rather than a product of disproportionate enforcement activity within these tracts.

Analysis of the Stopped Population by Race/Ethnicity, Gender, and Age

Past research suggests that age and gender, in conjunction with race/ethnicity, can be sources of bias for law enforcement. To evaluate whether this is the case in participating jurisdictions we have also broken out the stopped population by gender and by age.[29] Specifically, for each racial group in each jurisdiction we have determined the proportions of the stopped population that are male and female and the proportions of the stopped population that were born before 1972 and born in or after 1972.[30]

[29] Due to limitations in the Census data we are using to estimate the driving population and limitations in resources available for the study, we are unable to break out the driving population by gender and age.

[30] The birth year of 1972 was chosen to ensure that all persons included in the "young" category would be considered young. This is not to suggest that anyone born before 1972 is "old" or perceived as old by law enforcement. It was our decision to err on the side of caution in allocating people to the "young" category.

Rochester, Stops by Race, Gender and Age

		Female		Male	
	Total Stops	Born Before 1972	Born in 1972 or After	Born Before 1972	Born in 1972 or After
American Indian	23	7	5	8	3
%	100.0%	30.4%	21.7%	34.8%	* 13.0%
Asian	651	104	98	168	281
%	100.0%	16.0%	* 15.1%	25.8%	* 43.2%
Black	1,407	181	191	410	625
%	100.0%	* 12.9%	* 13.6%	29.1%	* 44.4%
Latino	678	48	76	183	371
%	100.0%	* 7.1%	* 11.2%	27.0%	* 54.7%
White	11,587	2,232	2,157	3,214	3,984
%	100.0%	* 19.3%	* 18.6%	27.7%	* 34.4%
Total People of Color	2,759	340	370	769	1,280
%	100.0%	* 12.3%	* 13.4%	27.9%	* 46.4%
Total	14,346	2,572	2,527	3,983	5,264
%	100.0%	17.9%	17.6%	27.8%	36.7%

*difference from total rate for the column is statistically significant ($p<.05$).

For Asians, Blacks, and Latinos, substantially higher than average proportions of those people stopped were males born in 1972 of after and lower than average proportions were females of both age groups and these differences are statistically significant for the most part. The opposite is true for stopped Whites. Much greater than average proportions of American Indians stopped were females of both age groups, although these differences are not statistically significant, and a much lower than average proportion were males born in 1972 and after, a difference that is statistically significant. There was little difference among racial/ethnic groups in the proportion of stops that were males born before 1972, except for American Indians.

It is important to note that these percentages refer to proportions within each racial/ethnic category. They do not indicate whether people of certain age and gender groupings in one racial/ethnic category are stopped at greater or lesser rates than people of the same age and gender group in other racial/ethnic categories.[31]

Analysis of the Stated Reason for Stops

Allegations of racial profiling often state that institutional and/or officer bias cause drivers of color to be subjected to pretextual stops. In other words, as a result of officers and/or practices that improperly assume that a person's race/ethnicity is relevant to the likelihood that they are engaged in crime, people of color are subjected to a disproportionate number of stops for minor, often unenforced, violations of traffic law as a pretext for investigating whether the driver is

[31] As discussed above, limitations in the Census data prevent us from calculating age and gender specific rates.

engaged in criminal activity.[32] Evidence of this practice exists where drivers of color are disproportionately stopped for "high discretion" traffic violations, such as minor vehicle code violations (e.g. underinflated tires) and minor driving violations (e.g. failure to properly signal a lane change), which an officer may or may not enforce according to his or her choice. In contrast to these are "low discretion" stops where officers exercise little choice over whether to make a stop. These would include stops based upon significant violations of driving laws (such as excessive speeding or reckless driving) and stops where an officer is responding to an externally generated report of a crime. [33]

For each traffic stop, officers recorded the "Reason for Stop" by choosing one of five available options: Dispatched, Driving Violation, Equipment Violation, Registration Violation, and Other. On any form on which the officer checked "Other" as the reason for the stop, the officer was directed to record the specific reason for that stop. For each jurisdiction we compared the racial demographics of the stopped population to the racial demographics of those stopped for a particular reason to determine if there were differences among the recorded reasons for members of different racial/ethnic groups.

We calculated this by comparing the rate at which each of the five reasons for stops were given for stopped drivers of each race/ethnicity. Unfortunately, the provided reasons for stop do not neatly fall into the low and high discretion ranges. Specifically, the "driving violation" category includes both minor and major traffic violations. Nevertheless, one purpose of this calculation was to address concerns that drivers of color might be more likely than White drivers to be stopped for equipment violations, which are typically high discretion stops. Another purpose was to address concerns that drivers of color might be more likely than White drivers to be stopped for subjective reasons that would be categorized as "Other."[34] If drivers of a particular race/ethnicity are subject to stops for subjective and/or minor reasons at a higher than average rate, it suggests that drivers of that race/ethnicity are more likely to be subject to pretextual stops.

[32] "By far the most common complaint by members of communities of color is that they are being stopped for petty traffic violations such as underinflated tires, failure to signal properly before switching lanes, vehicle equipment failures, speeding less than 10 miles above the speed limit, or having an illegible license plate." Ramirez Report at p. 6.

[33] Id. at p. 9. It is important to bear in mind that officer discretion over making different types of stops will vary to some extent by the specific policies and priorities of a given jurisdiction.

[34] The "other" category also includes low discretion reasons for stopping a driver. In particular, this category would include stops where the driver or owner of the vehicle has an arrest warrant. For those jurisdictions that submitted data electronically, we were able to analyze the percentage of stops that were recorded as other and in which the officer entered "warrant" or an approximation of warrant as the specific reason for stop. These warrant stops constituted less than one percent of all stops in each of these jurisdictions.

Rochester, Reason for Stop

	Total Stops	Dispatched	Driving Violation	Equipment Violation	Registration Violation	Other
American Indian	23	0.0%	60.9%	26.1%	13.0%	0.0%
Asian	651	0.8%	75.7%	14.1%	7.2%	2.2%
Black	1,407	0.7%	* 72.1%	* 15.1%	7.2%	* 4.9%
Latino	678	0.6%	74.9%	* 15.9%	* 4.6%	* 4.0%
White	11,587	0.5%	76.2%	12.8%	8.1%	* 2.5%
Total People of Color	2,759	0.7%	73.6%	* 15.2%	* 6.6%	* 4.0%
Total	14,346	0.5%	75.7%	13.3%	7.8%	2.8%

* significantly different from the total rate for the column ($p < .05$)

For all racial/ethnic groups, the most commonly reported reason for stopping drivers was a driving violation. Approximately three-fourths of stops involving Asians, Blacks, Latinos and Whites were for this reason. Only 61 percent of American Indians were stopped for this reason, however. Stopped American Indians were twice as likely as other stopped drivers to be stopped for an equipment violation and other drivers of color were slightly more likely than Whites to be stopped for this reason. Stopped American Indians were also twice as likely as stopped drivers in general to be stopped for registration violations while Latinos were less likely than other drivers to be stopped for this reason. Blacks and Latinos were also slightly more likely than other drivers to be stopped for reasons listed as "other."

Analysis of the Disposition of Stops

For each stop, officers were given four options for recording the disposition of the stop: Arrest, Citation, Warning, and No Action. For each jurisdiction, we broke down the stops by race/ethnicity and by the disposition of the stop to determine whether the rates of various dispositions of stops varied by the race/ethnicity of the driver.

Without additional information, we are limited in our ability to determine whether bias may have played a role in generating disparities in the disposition of stops. For example, lower citation/arrest rates for people of color could suggest that they are more likely to be subject to pretextual stops that do not warrant such action or it could mean that they are treated less harshly when stopped. On the other hand, higher citation/arrest rates could suggest that people of color are more often stopped for serious violations or they are treated more harshly when they are stopped.[35] The information provided is useful in ascertaining whether there are differences in how people are treated once they are stopped but is inconclusive on its own.

[35] Where there is an arrest warrant for the driver the disposition of the stop will almost always be an arrest. As noted earlier, an existing warrant appears to be the reason for stops in less than one percent of all stops, however. There may also be stops where the warrant is discovered after the stop has already been made.

Rochester, Disposition of Stop

	Total Stops	Arrest	Citation	No Action	Warning
American Indian	23	13.0%	34.8%	0.0%	52.2%
Asian	651	3.7%	32.3%	2.9%	61.1%
Black	1,407	* 5.4%	* 38.5%	* 3.6%	* 52.6%
Latino	678	* 7.5%	* 47.5%	1.5%	* 43.5%
White	11,587	* 3.0%	* 34.1%	* 1.7%	* 61.1%
Total People of Color	2,759	* 5.6%	* 39.2%	* 2.9%	* 52.4%
Total	14,346	3.5%	35.1%	2.0%	59.5%

* significantly different from the total rate for the column ($p < .05$)

As the table above indicates, stopped drivers from all groups of color were arrested at higher rates than stopped White drivers. The difference was very small for Asians, while Blacks were nearly twice as likely as Whites to be arrested, Latinos were two and one-half times as likely to be arrested, and American Indians were over four times as likely to be arrested. Four percent more Blacks and thirteen percent more Latinos received citations than Whites. Whites and Asians received warnings at higher rates than other groups. Nine percent fewer American Indians and Blacks and eighteen percent fewer Latinos received warnings than Whites and Asians. No action was taken in a small percentage of stops for all racial/ethnic groups and Asians and Blacks had no action taken at a slightly higher rate than other groups.

Analysis of Data on Whether the Officer Knew the Race/Ethnicity of the Driver Prior to Making the Stop

Law enforcement officers have expressed frustration over being accused of biased policing in situations where they make a traffic stop with no prior knowledge of the race/ethnicity of the driver stopped. For example, the Police Executive Research Forum (PERF) reported, "In our focus groups, many officers expressed great frustration at accusations of racial bias, and lamented that they were so accused even when it was clearly impossible for them to discern driver characteristics before a stop."[36] Indeed, where an officer has no direct or indirect information about the race/ethnicity of a driver prior to deciding to stop that driver, it is difficult to argue that the stop was affected by the racial biases of that officer. To address that concern, the Minnesota legislature required that the forms filled out by officers in this study include the question, "Officer knew race/ethnicity prior to stop?" and officers checked a box for either "Yes" or "No" in response to this question. We analyzed whether the racial demographics of stopped drivers varied by whether the officer reported knowing the race/ethnicity of a driver prior to making a stop.

The results of this analysis must be interpreted with caution for a number of reasons, however. First, they may suggest to some that the influence of racial bias is not present where an officer does not know the race/ethnicity of the driver prior to making a stop. This inference ignores the role that other factors related to race/ethnicity can play in an officer's decision-making process. Factors such as the location of the stop and the age or type of vehicle being driven enable

[36] PERF Report at p. 133.

officers to draw inferences about a driver's race/ethnicity where the officer does not have direct knowledge of the driver's identity. Also, racial profiling may result from institutional bias reflected in policies or practices that are not dependent upon an individual officer's knowledge of a particular driver's identity. Biases and stereotypes that may shape the decision-making process of individual officers may also shape the decisions made by higher officials regarding the policies and practices of a department.

A second set of issues that arises in interpreting responses to this question goes to the phrasing of the question. It is not clear from the question what level of certainty should exist for an officer to answer that they "knew" the race/ethnicity of the driver. Because of this ambiguity, an officer could truthfully assert that he or she did not "know" the race/ethnicity of a driver even where the officer was able to directly observe the driver and to draw preliminary conclusions about the driver's identity. Similarly, observation may allow an officer to conclude that a driver is non-White prior to making a stop without allowing the officer to identify the specific racial group to which the driver belongs.[37]

A third set of issues in interpreting responses to this question arises from the fact that this is the only data category that is entirely subjective. Because it is an assertion of the officer's state of mind prior to making a traffic stop it is extremely difficult to evaluate the accuracy of responses to this question. If an officer does not know the race/ethnicity of a driver that he or she decides to stop, it can be argued that the stop was not motivated by racial bias on the part of the officer. Thus, there is a strong incentive for officers engaged in racially biased policing to absolve themselves of responsibility by asserting that they do not know the race/ethnicity of drivers they decide to stop, and there is limited ability to evaluate whether these assertions are truthful.

Although we are not able to definitively assess whether this question was consistently answered truthfully, we performed several calculations that are relevant to making such a determination. First, we evaluated whether responses to this question varied by jurisdiction. If officers accurately recorded whether they observed the race/ethnicity of drivers prior to stopping them, one would expect the reported success rates in identifying the race/ethnicity of drivers to be similar for similarly situated agencies.

Through this comparison we found wide variation in the rates at which officers of the various agencies reported knowing the drivers' race/ethnicity. The average rate at which officers responded, "yes" to this question was 11.9%, and the median was 10.6%. The "yes" rates varied from 0.6% for the Henning Police Department to 30.4% for the Sherburne County Sheriff's Office. We did not find a pattern in "yes" rates among law enforcement agencies that would suggest an enforcement-related reason for this variation. For example, the distinction between city police departments (where a high proportion of stops occur on streets) and county sheriff's

[37] In such a case, the officer would know that they were pulling over a person of color without knowing the race/ethnicity of the driver and racial profiling would be possible. PERF has recommended a less ambiguous phrasing of this question: "Were citizen's characteristics observable before stop? Yes/No." PERF Report at p.127. A further ambiguity identified by law enforcement officers participating in the study concerns the phrase "prior to stop." In some circumstances an officer may not know the race/ethnicity of a driver prior to making the decision to stop the driver but will gain knowledge of the driver's race/ethnicity prior to actually executing the stop.

offices (where a high proportion of stops occur on highways) appears to have no correlation with the "yes" rates.[38]

We also evaluated whether answers to this question varied by whether the stops occurred during the day or at night, when visibility is diminished. Specifically, we evaluated whether responses varied between 10am and 4 pm (daylight hours year-round) and 10pm and 4am (night year-round). If officers accurately recorded whether they had observed the driver before the stop, one would expect the "yes" rates to be higher during hours of daylight than during hours of darkness. On average, the "yes" rates were higher (19.4% on average) during the daylight period than during the darkness period (9.7% on average). Nine of the sixty-five agencies recorded higher yes rates during the nighttime period than during the daylight period, however. Moreover, there is considerable variation between agencies in these rates.[39]

Finally, we evaluated whether the rate at which officers responded to this question varied by the race/ethnicity of the driver. If officers intended to conceal racial profiling, one approach might be to record lower rates of observing the race/ethnicity of the driver for drivers of color than for White drivers. There is no indication that this approach was used here. The average yes rates were 11.9% for White drivers, 11.9% for Black drivers, 10.2% for Latino drivers, 7.6% for American Indian drivers, and 7.2% for Asian drivers.[40]

Accepting the concerns just discussed, we evaluated whether the race/ethnicity of the drivers stopped varied with officer responses to this question by comparing the racial demographics of the stopped population where officers checked yes to the racial demographics of the stopped population where officers checked no.

[38] The "yes" rates for city police departments ranged from 0.6% for Henning to 29.6% for Springfield, while the rates for county sheriff's offices ranged from 2.2% for Dodge and Grant Counties, to 30.4% for Sherburne County. Ideally, one would evaluate response rates against a baseline generated through independent research that replicated the conditions of law enforcement. The degree of variation across jurisdictions raises questions about the accuracy of responses but does not indicate what an accurate response rate would be because it is quite possible that some level of underreporting is present in all jurisdictions. A review of surveys of the racial demographics of the driving population done pursuant to racial profiling studies found that the success with which researchers were able to identify the race of drivers ranged from the high-80 to high-90 percentiles. Comparing these rates to reported "yes" rates by participating jurisdictions is problematic, however, given that these surveys were designed to allow researchers to successfully identify the race of drivers and were not designed to replicate the conditions of law enforcement.

[39] The daylight yes rates varied from 0% to 55.1%, while the nighttime yes rates varied from 0.7% to 28.5%. For a complete breakdown of rates for each jurisdiction, see Appendix 3.

[40] For a complete breakdown of rates for each jurisdiction, see Appendix 3.

Rochester, Distribution of Race by Whether Officer Knew Race

	Total Stops	Knew Race	Did Not Know Race	% of Race Known Pop.	% of Race Not Known Pop.
American Indian	23	1	22	0.1%	0.2%
Asian	651	19	632	* 2.1%	4.7%
Black	1,407	128	1,279	* 14.3%	9.5%
Latino	678	28	650	* 3.1%	4.8%
White	11,587	721	10,866	80.4%	80.8%
Total People of Color	2,759	176	2,583	19.6%	19.2%
Total	14,346	897	13,449	100.0%	100.0%

*% of race known pop. differs from % of race not known pop. in statistically significant manner (p<.05).

This table shows the race/ethnicity of drivers stopped when officers reported prior knowledge of the drivers' race/ethnicity and when officers reported no prior knowledge. According to this table, officers were about five percent more likely to stop Black drivers when they reported knowing the drivers' race/ethnicity than when they did not and this difference is statistically significant. Asians and Latinos were less likely to be stopped when the officer knew race. Both of these differences are relatively small in magnitude, but statistically significant. Officers reported knowing the race/ethnicity of the driver prior to making a stop approximately 6% of the time in Rochester.

B. Analysis of Search Data

Data was recorded regarding three types of searches conducted during traffic stops: driver searches, passenger searches, and vehicle searches. Our analysis focuses on driver and vehicle searches. We did not include passenger searches in our analysis because the traffic stop forms did not require officers to provide information about the race/ethnicity or other characteristics of passengers subjected to searches. Without such information, it is very difficult to evaluate whether racial bias plays a role in the decision to search a passenger.[41]

As research into racial profiling has advanced, there has been an increased focus on search data. One reason for this is that a number of studies have revealed more substantial racial disparities in searches following traffic stops than in the stops themselves. Another reason is that research on search data is not subject to some of the same methodological challenges associated with research on traffic stops. The issue of officer knowledge of the race/ethnicity of the driver is not applicable when a stop has already been made and thus there is no concern that officers are being scrutinized for bias in a situation where they are unaware of the race/ethnicity of the person being searched. In addition, the stopped population provides a clear comparison, or baseline, population for the searched population. Assuming that enforcement activity is accurately reported, the stopped population can be measured directly and there is no need to make estimates or further assumptions, as is the case with the driving population.

[41] We did not include passenger searches when calculating search rates. As is discussed below, however, we did consider passenger searches when interpreting data on the authority for searches conducted.

It is important to consider the driving population as an additional baseline for comparison to the searched population, however. Although resources have not allowed us to calculate comparisons to both the driving and stopped populations in our jurisdictional reports, the driving population is a useful baseline because it reveals the accumulation of disparities across stops and searches. When members of a particular racial/ethnic group are disproportionately stopped, they are disproportionately represented among the population of people eligible to be searched. If drivers of one group are disproportionately stopped, drivers of that group will also be disproportionately searched, even when search rates are equivalent across racial/ethnic groups. Where disparities exist in both stop and search rates for a particular racial/ethnic group, these disparities are compounded.[42]

To understand the role that racial bias might play in the decision to search drivers, it is important to distinguish between searches that are discretionary and searches that are non-discretionary. Non-discretionary searches are those searches that an officer is required to conduct given the circumstances of the traffic stop. Discretionary searches are those searches that an officer decides to conduct, based on his or her own assessment of circumstances. When an officer is required to conduct a search, he or she is not making the decision to conduct a search and thus the potential for bias is limited.[43] Note that an officer's exercise of discretion may also be influenced by departmental policies and protocol related to searches and thus where questions of bias arise individual officer decision-making and departmental factors that influence it should be examined.

Categorizing Searches as Discretionary and. Non-discretionary

On the traffic stop forms, officers were given five options for the authority to search: the driver gave verbal permission; the driver signed a consent to search form; the search was conducted to ensure the officer's safety; the search was conducted because the officer observed contraband; and the search was conducted incident to arrest. Each form allowed the officer to check one authority for search even though up to three searches could be reported (driver, passenger, and vehicle).

Searches conducted pursuant to the verbal permission of the driver and searches conducted pursuant to the driver signing a consent to search form are known collectively as "consent searches." Consent searches are considered discretionary and some studies have shown that people of color are more likely to be subjected to consent searches than Whites.[44] The concern

[42] The Minnesota Supreme Court Racial Bias Task Force described the effect of racial bias at multiple stages of the criminal justice system as a "funnel effect" through which disparities in specific areas of the system compound one another. Minnesota Supreme Court Task Force on Racial Bias in the Judicial System, "Final Report" (May, 1993) at p.9.

[43] Note that it is possible for racial bias to affect the circumstances leading up to a non-discretionary search. For example, driver searches are required when a driver is arrested and vehicle searches are required when a vehicle is impounded. The decision to arrest and/or impound will be based to some extent on an officers assessment of a situation and it is possible for this assessment to be influenced by racial bias.

[44] Ramirez Report at p.8. See also McMahon Report at p. 92. The law on consent searches following traffic stops in Minnesota has changed since the conclusion of the data collection period. On May 20, 2003, the Minnesota Court of Appeals restricted the exercise of officers' discretion in requesting consent to search. The court ruled that an

that officers may target drivers of color in initiating consent searches has led to restrictions on consent searches in several jurisdictions.[45]

The decision to search on the basis of "officer safety" is also considered discretionary. Such searches occur whenever officers tell drivers and/or passengers to exit their vehicle and/or to sit in the squad car. Officers exercise discretion when they tell drivers and passengers to exit their cars and doing so can serve as a pretext for searching the driver. The potential for such searches to be pretextual is illustrated in two Minnesota court cases. In one case, the court reversed a conviction for possession of a controlled substance discovered during a pat-down search of a driver stopped for a cracked windshield. The court found no reasonable basis for placing the driver in the back of the squad car (and the search that occurred incident to that) given the circumstances for which the driver was stopped.[46] In another case where an officer safety search was found to be pretextual, the court stated: "We are not to be understood as holding that the police have no right, for their own protection, to search a person before placing him in a squad car *if there is a valid reason for requiring him to enter the vehicle and it is not merely an excuse for an otherwise improper search*."[47]

Searches prompted by the observation of contraband, which provides probable cause for a search, are considered non-discretionary. Searches incident to arrest are also generally considered non-discretionary as they are searches that an officer is required to conduct once the decision had been made to make an arrest. Under Minnesota law, a search "incident to arrest" is valid without an arrest as long as the officer had probable cause to arrest the driver for a custodial offense prior to conducting the search.[48]

All searches incident to arrest that resulted in arrest are considered non-discretionary for our analysis. We discovered, however, that in a number of instances officers reported "incident to arrest" in the authority to search section of the form, but did not report "arrest" as the disposition of the stop. Because it is the arrest that necessitates the search incident to arrest, where no arrest occurs one cannot simply assume that the search is non-discretionary. In order to better understand why a search would be reported as incident to arrest but arrest would not be reported as the disposition of the stop, we spoke with officials from two of the jurisdictions in which there were high percentages of searches incident to arrest with no arrest. From these conversations, we learned of several potential explanations for this pattern and were able to develop a

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officer conducting a traffic stop may not expand the scope of the traffic stop by questioning the driver about possible contraband or requesting the driver's consent to a search, unless the officer has a reasonable, articulable suspicion that the driver is engaged in criminal activity. *State v. Syhavong*, 661 N.W.2d 278 (Minn. App. 2003).

[45] Both the Saint Paul Police and the New Jersey State Police are prohibited from conducting consent searches during traffic stops unless they obtain written consent after providing the driver with a form advising the driver of his or her right to refuse consent. Curt Brown, *St. Paul City Council Adopts Anti-Racial-Profiling Accord*, Minneapolis Star Tribune, July 12, 2001; Joint Application for Entry of Consent Decree, *United States v. State of New Jersey*, December 30, 1999. The California Highway Patrol, pursuant to a consent decree arising from a racial profiling lawsuit, is banned for the next three years from conducting any consent searches during traffic stops. CNN, *Highway Patrol to Ban Some Searches in Racial-Profiling Settlement* (Feb. 28, 2003), http://www.cnn.com/2003/LAW/02/27/profiling.settlement.ap.

[46] *State v. Varnado*, 582 N.W.2d 886, 890-91 (Minn. 1998)

[47] *State v. Curtis*, 190 N.W.2d 631, 636 (Minn. 1971) (emphasis added).

[48] *State v. Bauman*, 586 N.W.2d 416 (Minn. App. 1998), *review denied* (Minn. Jan. 27, 1999).

methodology for categorizing searches incident to arrest with no arrest as discretionary and non-discretionary.[49]

Analysis of Search Rates

In the tables below, we have calculated total search rates for each racial/ethnic group and discretionary search rates for each racial/ethnic group. [50] In subsequent tables our analysis focuses on discretionary searches. As is discussed below, in order to evaluate whether bias plays a role in discretionary searches we compare the rates at which contraband is discovered in discretionary searches of members of different race/ethnicity, age, and gender groups.

Rochester, Search Rates

	Total Stops	Total Searches	Total Search Rate	Discretionary Searches	Discretionary Search Rate
American Indian	23	3	13.0%	0	0.0%
Asian	651	19	2.9%	2	0.3%
Black	1,407	92	* 6.5%	29	* 2.1%
Latino	678	48	* 7.1%	13	* 1.9%
White	11,587	324	* 2.8%	87	* 0.8%
Total People of Color	2,759	162	* 5.9%	44	* 1.6%
Total	14,346	486	3.4%	131	0.9%

* differs from total search rate in a statistically signficant manner ($p < .05$)

A search is each case where a driver search, vehicle search, or both searches were conducted.

Police in Rochester subjected Black and Latino drivers to searches in general, and to discretionary searches, at more than twice the rate of White drivers. All of these findings are statistically significant.

Analysis of the Searched Population by Race/Ethnicity, Gender, and Age

As discussed earlier, past research on racial profiling has found that gender and age, operating in conjunction with race/ethnicity, can be sources of bias for law enforcement. To evaluate whether this is the case in participating jurisdictions, we have also broken out the population of people subjected to discretionary searches by gender and by age. Specifically, for each racial/ethnic group in each jurisdiction we have calculated search rates for males and females born before 1972 and born in or after 1972.

[49] For a full discussion of this methodology, see Appendix 4.

[50] For our analysis, we counted each stop in which there was a driver and/or a vehicle search as a search. As mentioned earlier, we did not include passenger searches because no racial/ethnic data was collected for passengers.

Rochester, Discretionary Search Rates by Race, Gender and Age

	Total Stops				Discretionary Search Rate			
	Female Stops		Male Stops		Female		Male	
	Born Before 1972	Born in 1972 or After	Born Before 1972	Born in 1972 or After	Born Before 1972	Born in 1972 or After	Born Before 1972	Born in 1972 or After
American Indian	7	5	8	3	0.0%	0.0%	0.0%	0.0%
Asian	104	98	168	281	0.0%	0.0%	0.0%	0.7%
Black	181	191	410	625	0.6%	0.5%	1.0%	* 3.7%
Latino	48	76	183	371	2.1%	0.0%	0.5%	3.0%
White	2,232	2,157	3,214	3,984	0.1%	0.8%	0.3%	* 1.4%
Total People of Color	340	370	769	1,280	0.6%	0.3%	0.7%	* 2.8%
Total	2,572	2,527	3,983	5,264	0.2%	0.8%	0.4%	1.8%

*differs from total rate for column in statistically significant manner ($p<.05$).

A search is each case where a driver search, vehicle search, or both searches were conducted.

Black and Latino drivers in every age/gender category but females born in 1972 and after, were subjected to discretionary searches at higher rates than corresponding White drivers, and for Latino males born in 1972 or after this higher discretionary search rate was statistically significant.

Analysis of Hit Rates

When considering whether the decision to conduct discretionary searches is being influenced by racial bias, it is important to look at the rate at which contraband is discovered in these searches. This is known as the "hit rate." When the hit rate in discretionary searches is lower for one racial/ethnic group than another in a jurisdiction, it suggests that officers are subjecting members of that group to searches more often than is warranted by the likelihood that they are in possession of contraband.

Interpreting a situation where one group is searched more often than another and the hit rates in these searches are equivalent is less clear-cut. When hit rates in discretionary searches are equivalent across different groups, it can be argued that officers are assessing situations and exercising their predictive capabilities with equal effectiveness and fairness across these groups. When hit rates are high, officers are exercising their discretion effectively and the decision to conduct these searches is justified. When hit rates are low, however, hit rates may be less a reflection of an officer's properly exercised discretion and more a reflection of the fact that there is some likelihood that any search will produce contraband, even if the officer has no legitimate reason to believe that contraband may be present.[51] When there are racial/ethnic disparities in search rates and hit rates are similarly low for these racial/ethnic groups, one could argue that bias plays a role in the search rate disparities.

[51] Put another way, if people were randomly selected to be searched without any evaluation of the likelihood that they are carrying contraband, we would still expect some of those searches to produce contraband.

When members of certain racial/ethnic groups are disproportionately subjected to discretionary searches that do not produce contraband, questions are also raised about whether members of these groups are being subjected to pretextual stops. Concerns about racial profiling in traffic stops arose from evidence that in some cases officers were disproportionately stopping drivers of color for minor traffic violations so that they could investigate whether more serious illegal activity was taking place. Because of the investigative nature of these pretextual stops, they often led to drivers, passengers, and vehicles being searched improperly.[52] Where members of a particular group are stopped in disproportionately high numbers and subjected to a disproportionately high number of discretionary searches that do not produce contraband, concerns are raised, not only about the legitimacy of the officers' search decisions and the departmental policies and practices that might affect the search decision, but also about the legitimacy of the officers' stop decisions and the policies and practices that might affect that.

Hit Rates for Discretionary Searches by Race/Ethnicity

For each jurisdiction, we have broken down discretionary searches by race/ethnicity and by whether contraband was discovered to determine whether "hit rates" varied by race/ethnicity.[53]

Rochester, Discretionary Search Hit Rates

	Total Searches	Contraband Found	Contraband Found Rate
American Indian	0	0	n/a
Asian	2	0	0.0%
Black	29	4	* 13.8%
Latino	13	5	38.5%
White	87	31	35.6%
Total People of Color	44	9	20.5%
Total	131	40	30.5%

* differs from total hit rate in a statistically signficant manner ($p < .05$)

(n/a) Hit rate could not be calculated because no searches were made.

A search is each case where a driver search, vehicle search, or both searches were conducted.

[52] *See, e.g.* David A. Harris, *Driving While Black: Racial Profiling on Our Nation's Highways*, p. 7 (1999)("The constitutionality of pretextual traffic stops – using a minor traffic infraction, real or alleged, as excuse to stop and search a vehicle and its passengers – reached the U.S. Supreme Court in 1996 in a case called Whren v. U.S."); The Sentencing Project, *Reducing Racial Disparity in the Criminal Justice System: A Manual for Practitioners and Policymakers*, p. 12 (2000)("On the highways, road patrol officers often stop people for apparent traffic violations, and use the occasion to search the vehicle for drugs. These "pretext" stops have become a matter of considerable concern in several states based on the belief that people of color are grossly over-represented among those stopped.)."

[53] In some cases, officers did not indicate whether contraband was discovered on the traffic stop form. Because there is no way to interpret such omissions, these cases have been excluded from hit rate calculations. As a result, the number of searches used to calculate hit rates may vary from the number of searches represented in earlier tables.

Officers in Rochester were more than twice as likely to find contraband in searches of White drivers than in searches of Black drivers. This indicates that there is no law enforcement justification for their practice of searches Black drivers twice as often as White drivers. Hit rates for White and Latino drivers were similar.

Analysis of Hit Rates by Race/Ethnicity, Gender, and Age

Just as we have done with search and stop rates, we have also broken out discretionary search hit rates by the race/ethnicity, gender, and age of drivers.

Rochester, Discretionary Search Hit Rates by Race, Gender and Age

	Total Discretionary Searches				Contraband Found Rate			
	Female Searches		Male Searches		Female		Male	
	Born Before 1972	Born in 1972 or After	Born Before 1972	Born in 1972 or After	Born Before 1972	Born in 1972 or After	Born Before 1972	Born in 1972 or After
American Indian	0	0	0	0	n/a	n/a	n/a	n/a
Asian	0	0	0	2	n/a	n/a	n/a	0.0%
Black	1	1	4	23	0.0%	0.0%	25.0%	* 13.0%
Latino	1	0	1	11	0.0%	n/a	0.0%	45.5%
White	3	18	9	57	33.3%	22.2%	33.3%	40.4%
Total People of Color	2	1	5	36	0.0%	0.0%	20.0%	22.2%
Total	5	19	14	93	20.0%	21.1%	28.6%	33.3%

*difference from total rate for the column is statistically significant ($p<.05$).

(n/a) Hit rate could not be calculated because no searches were made.

A search is each case where a driver search, vehicle search, or both searches were conducted.

Because of the small numbers involved when discretionary searches are separated by race, age and gender, we were able to calculate statistical significance only for the disparity in hit rates for males born in 1972 or after, a category in which the hit rate for Black drivers was less than half that for White and Latino drivers.

Analysis of Authority for Searches

As discussed earlier, when officers conducted searches they were to report the authority for the search(es). Officers were given five options from which to choose: Officer safety; Driver gave verbal permission; Consent to search form; Contraband observed; and Incident to arrest. For each jurisdiction, we broke down searches by race/ethnicity and by the authority for the search to determine whether the authority for the searches varies by race/ethnicity.

Rochester, Authority for Search

	Total Searches	Consent to Search	Contraband Observed	Incident to Arrest - Discretionary	Incident to Arrest -Non Discretionary	Officer Safety
American Indian	3	0.0%	0.0%	0.0%	100.0%	0.0%
Asian	19	10.5%	5.3%	0.0%	84.2%	0.0%
Black	92	26.1%	13.0%	1.1%	55.4%	4.3%
Latino	48	14.6%	8.3%	4.2%	64.6%	8.3%
White	324	21.9%	14.8%	2.2%	58.3%	2.8%
Total People of Color	162	20.4%	10.5%	1.9%	62.3%	4.9%
Total	486	21.4%	13.4%	2.1%	59.7%	3.5%

* differs from total rate for column in a statistically signficant manner ($p < .05$)

A search is each case where a driver search, vehicle search, or both searches were conducted.

During 2002 more than half of the searches conducted by Rochester police were reportedly conducted on the basis of non discretionary incident to arrest. Among the three discretionary categories, Black drivers were searched at higher rates than other drivers pursuant to consent and for reasons reported as officer safety, and Latino drivers were searched at higher rates for non discretionary incident to arrest, but these differences are either not statistically significant, or there are too few cases to make that determination.

IV. Recommendations

Note to individual jurisdictions:

> The recommendations that appear below were designed with the statewide findings of the study in mind. Local officials will want to tailor these recommended actions to the specific findings and unique circumstances of their jurisdiction.

The following Recommendations flow from the basic finding of the study, which is: drivers of color are over-represented among those stopped; over-represented among those searched; and under-represented among those found to have contraband on their person or in their vehicle as a result of being searched. The finding applies to all regions of the state. While many factors may have contributed to this finding, the finding is indisputable. It is a situation that should command continued attention and action.

To better understand the issues raised in our report it is critical that public officials engage the community, particularly the communities of color, in constructive conversation so that the information presented in this report can be better understood and so that it can be augmented. This will lead to a fuller understanding of the extent to which racial profiling/bias is a factor in traffic stops made by law enforcement officers and in the searches that ensue from them. The Recommendations identify some important ways through which this can occur.

While the Recommendations focus on the jurisdictions that participated in the study, it should be acknowledged that there would have been no study without their participation. Their leadership, and honesty in reporting their data, is greatly appreciated. Finally, while we cannot conclude that the findings of this study are representative of those jurisdictions that did not participate, the consistency of the observed disparities across participating jurisdictions creates a strong likelihood that similar issues are also present in some, if not all, of the jurisdictions that did not participate. Thus, the non-participating departments and agencies should also review these Recommendations and respond accordingly.

1. Involve the community.

The data collected by law enforcement officers reveals a number of trends that warrant further investigation. In order to ensure that this investigation is effective, the general public needs to have sustained participation in the review of this study, in the fair and effective identification of problem areas, and in assuring that the appropriate public officials act in an expeditious manner consistent with the seriousness of the issues raised. This participation should occur at each level of government and involve the communities of color in particular.[1]

[1] The importance of community involvement in addressing the possibility of biased law enforcement is stressed by a number of people and organizations experienced in this areas. *See, e.g.*, McMahon Report, pp. 2, 46, 65; National Organization of Black Law Enforcement (NOBLE), *Racial Profiling: "What Does the Data Mean?*; Ramirez Report, p. 43.

2. Involve local elected officials.

The local elected officials for each of the participating jurisdictions need to become knowledgeable about the study and its findings, engage the community and the chief law enforcement officer in assessing its relevance to departmental policy and practices, and assure that the appropriate action is taken to ensure fair treatment of motorists and to mitigate any unnecessary or inappropriate racial/ethnic disparity in traffic stops and searches.

3. Hold community forums.

Each of the participating jurisdictions should hold at least one community forum at which the data and findings from the study are presented and discussed. Feedback should be sought in particular from the populations of color as to the significance of the findings relative to departmental policy and practice.

Other governmental bodies, educational institutions and community-based organizations should also sponsor community forums to increase public understanding of the issues surrounding traffic stops and searches. The Council on Crime and Justice and the Institute on Race and Poverty will jointly sponsor a public forum to present the study findings on Friday, September 26, 2003 from 4:00 – 6:00 p.m. at the University of Minnesota Law School.

4. Examine departmental policies and practices.

Our analysis has identified racial/ethnic disparities in stops and searches, but as discussed in the main body of the report, we are unable to determine the extent to which these disparities are caused by departmental policy and practice. In order to better achieve this understanding, the chief law enforcement officer from each of the participating departments should assure that the data and findings for their jurisdiction are examined and that any departmental policies and practices, whether formal or informal, that may have contributed to any existing disparity are identified and evaluated. This review should include an analysis of the unique jurisdictional circumstances relevant to a fair and thorough understanding of the data. Input should be sought from the officers who recorded data for the study and from the general public, particularly the communities of color, through public forum(s) and other appropriate means.

Two complementary measures would assist in developing an improved and continued understanding of traffic stop polices and practices. These are:

- *The continued collection and analysis of data regarding traffic stops and searches, including comparison of such data against the baseline established by this study; and*

- *The use of video camera equipment (obtained through participation in the study or otherwise) to record the behavior of the driver and officer in connection with each traffic stop and search. The use of video recording is not a substitute for data collection. If systematically used in conjunction with data, however, it is useful in verifying the accuracy of the data and in observing the roles that officer and driver conduct may play in generating outcomes.*

5. Examine the wide variances in practices relating to stops and searches.

The sixty-five participating departments should collectively examine the appropriateness of the wide variances among the jurisdictions with respect to the reasons recorded (i) for stopping motorists, (ii) for searching drivers once stopped and (iii) for disposing of the stops. In doing so, the departments should determine whether there is a need for more consistency among departmental policies and/or more consistent implementation of existing policies. The departments should also identify any improvements that should be made in data collection, including the consistency with which data is recorded, for purposes of on-going data collection by the departments.

6. Provide state-level leadership and assistance.

Given that racial/ethnic disparities in traffic stops and searches occur in all geographic regions, state government should remain actively involved in seeking to identify and assess the factors that generate the disparities and to develop a richer understanding of issues of racial profiling in law enforcement jurisdictions. To be effective, such involvement could include:

- *Clarifying the law pertaining to stops and searches;*

- *Providing continuing incentives for law enforcement jurisdictions to video record all traffic stops and searches and to use them as a tool for understanding traffic stop and search dynamics;*

- *Assuring that the public has available, both at the state and local level, an adequate opportunity to raise concerns about law enforcement policy and practices relating to traffic stops and searches.*

7. Provide ongoing and improved statewide data collection.

In order to make a more definitive and nuanced assessment of the extent to which racial profiling/bias is present in traffic stops and searches in Minnesota, ongoing data collection is necessary. An improved and ongoing data collection system will address some of the limitations of our current analysis and will make it possible to evaluate the effectiveness of current and future efforts to address issues of profiling. To be effective, periodic individual reports will need to be generated for each law enforcement jurisdiction.

In designing on-going data collection, ample time should be allowed to incorporate the expertise of the participants in this study as well as input from a broad range of community members, advocates and elected officials. Additionally, the following improvements would create a data collection system that effectively analyzes issues of bias in stops and searches:

- *Make the data collection forms scannable in order to eliminate the potential for data entry error and save resources spent on data entry and on auditing of the data;*

- *Include residence of the stopped driver so that the data collected and the driving population baseline are more compatible;*

- *Create categories for "reason for stop" and "authority for search" that more clearly delineate high and low discretion decisions;*

- *Include information on whether an arrest warrant was involved;*

- *With respect to passengers, the data entry form should separately list the race/ethnicity of passenger(s) searched, the legal authority for searching a passenger and the disposition of the stop and search relative to passengers;*

- *Allow the data entered for each stop to be correlated with the particular officer making the stop. The resulting analysis with this additional data will shed much greater light on the extent to which the conduct of individual officers, as contrasted with departmental policy or practice, may have contributed to any observed disparity;*[2]

- *Include an effective, independent auditing mechanism to insure the accuracy of data collected. Such a mechanism could include providing for the numerical coordination of the data entry forms with dispatch records or providing a copy of the completed traffic stop form to all stopped drivers so that they can verify the accuracy of its contents and creating an avenue for them to report inaccuracies.*

[2] The McMahon Report states the following about collecting officer identifying information:

> [it is] a valuable tool for both early warning systems and officer management and efficiency considerations. Administrators must also ensure that the individual officer information is treated as strictly 'confidential' and to the extent possible, afford the information the same protections as personnel files. … Identifying officer characteristics such as age, length of service, race, and gender may also provide valuable information. (McMahon p.94)

The Ramirez Report similarly state that this information:

> [E]nables organizations to identify potential problem officers …functions as an early warning system, alerting management to problems and allowing them to investigate possible extenuating circumstances and, if necessary, to intervene early with counseling, training, or some other intervention. … an alternative to officer identification may be the use of unit or district information." (Ramirez p.46)

Appendix 1: Questionnaire sent to Jurisdictions

As you know, the data collection period for the Statewide Racial Profiling Study is nearing conclusion and we will soon begin analysis of the traffic stop data that your jurisdiction has collected over the course of this year. In analyzing this data we will document patterns and variations within the data set (including variations in the number of stops over the course of the year, the location of stops, the number of searches, the reason for stops and searches, and the characteristics of those stopped and searched). We will also compare the traffic enforcement data to the driving population of your jurisdiction. To ensure that our analysis is as thorough and accurate as possible, we would appreciate it if you would take time to thoroughly answer the questions listed below. Where appropriate, you are encouraged to include any supporting documentation that will aid our analysis. If there are questions for which the answer is simply "no," please indicate this so that we know that you have considered the question.

1) Are there any elements of your police operations in general or traffic enforcement in particular that could lead to variations in the reported enforcement activity or to differences between the reported enforcement activity and the driving population of your jurisdiction? Specifically:

   A) Has the method/process by which your jurisdiction has collected and processed this data changed over the course of the year?

      If so, can you please describe as specifically as possible the nature of these changes, when these changes have occurred, and the effect, if any, that you believe these changes may have on the nature or amount of data collected?

   B) Are there any enforcement policies/practices in your jurisdiction that may create variations in the reported enforcement activity (for example, policies that focus enforcement resources in specific geographic areas of your jurisdiction; policies, practices and/or events that may cause fluctuations in the number and/or nature of stops during the course of the year)?

      If so, can you please provide detailed descriptions of these policies, practices, and/or events (including the period(s) during which they have been in effect), and the affect that you believe they may have on the data collected?

   C) Are there any other enforcement policies or practices that will affect the data collected?

2) Are there any factors unrelated to law enforcement policies that could lead to variations in reported law enforcement activity within your jurisdiction or variations in the driving population of your jurisdiction? Specifically:

   A) Are you aware of changes in the driving population (for example, due to tourism) over the course of the data collection period? If so, what are the nature and timing of these changes?

B) Are there other phenomena that you are aware of that may affect the driving population and/or the population stopped/searched in your jurisdiction? If so, what are the nature and timing of these phenomena?

3) Has your jurisdiction already received some or all of the video cameras given as a result of your participation in this study? If so, please provide information on each time that cameras were installed and the percentage of your traffic enforcement vehicles possessing these cameras at each relevant point in time.

3) Please describe the method by which your jurisdiction has been collecting and submitting traffic information (for example, via paper forms, web-interface, FTP).

A) Has your jurisdiction used this method of submission for the entire study period? If not please list each method used with dates for when that method was employed.

B) Have there been issues related to data collection/submission that may affect the consistency and content of data that your jurisdiction has submitted? If so, please provide details.

Please submit your responses no later than **December 23rd, 2002**. Responses should be sent to:

Gavin Kearney
Institute on Race & Poverty
N150 Mondale Law Center
229 19th Avenue South
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You may also submit your answers electronically to kearn008@umn.edu. Should you have any questions please contact Mr. Kearney at (612) 625-5344.

Thank you for your attention to this.

Sincerely,

Gavin Kearney
Institute on Race & Poverty

Laura Schauben
Council on Crime and Justice

Appendix 2: Methodology for Bridging Census and Traffic Stop Data

For the purpose of direct comparison, it was necessary to group the driving population and the stopped population into identical racial/ethnic categories. There are fundamental differences between how the census and the racial profiling study classify race and ethnicity. Unlike the Census data, the police stop data do not include "other" race or multiple race combination categories. In addition, the Census considers Hispanic as an ethnicity distinct from race and individuals are both racially categorized by the Census and recorded as Hispanic or non-Hispanic. The traffic stop data considers Hispanic a distinct race.

Several steps were necessary to make these two data sets compatible. We used the Census' Hispanic or Latino and Not Hispanic or Latino by race for the population age 18 and over to get detailed multiple race combinations for our baseline driving population. To "bridge" the Census data to the police stop data we allocated Hispanic Whites, Hispanic other race and Hispanic multiple race persons to the Hispanic category and Hispanics of all other races to their race (e.g. Hispanic African Americans to African American). This is similar to the method proposed by the Office of Management and Budget for working with the Census' racial categorization.[56] We allocated Hispanic other race persons to Hispanic because there is no "other race" comparison group in the police stop data.

The second step in bridging the data included using a fractional assignment to allocate non-Hispanic multiple race respondents. This method assigns equal fractions to each race checked by a multi-race respondent. For example, for a respondent that indicated that they were Asian and American Indian would we would add 0.5 to the Asian and 0.5 to the American Indian populations. We used the fractional assignment of non-Hispanic multiple race respondents because it enables us to directly compare the two data sets and it has been found to be a statistically defensible way of bridging multiple race respondents into single race categories.[57]

Last we adjusted our baseline data with data for the age 16 and 17 population and the 85 and over population. The Census does not provide detailed race data by age, instead it provides age data for Hispanic/Non Hispanic respondents where only one race is identified and a two or more race category for all multiple race respondents. In order to make the age specific data consistent with the data from the adult population, we assumed that the racial proportions of multiple race respondents age 16 to 17 and ages 85 and over were identical to the racial proportions of the adult multiple race respondents.

[56] This method is similar to that of the historical series approach illustrated in the Office of Management and Budget's (OMB) *Results of the 1996 Race and Ethnic Targeted Test* (RETT), which designated Hispanic as a race. The historical series approach is a useful bridging method for agencies that use data on race and ethnicity to monitor and enforce civil rights legislation.

[57] See Office of Management and Budget's Provisional Guidance on the Implementation of the 1997 Standards for Federal Data on Race and Ethnicity.

Appendix 3: Jurisdictional Breakdown of Analysis of "Officer Knew Race Prior to Stop"

Rates at which officers answered yes to "knew race prior to stop" Daylight vs Nighttime

	Overall race known rate	Daylight 10am to 4pm	Nighttime 10pm to 4am
Akeley	2.4%	5.4%	2.0%
Anoka County	16.3%	31.4%	12.0%
Becker County	7.4%	20.9%	4.6%
Beltrami County	5.6%	8.9%	5.2%
Bemidji	11.8%	21.4%	9.2%
Cass County	18.0%	31.5%	10.7%
Cass Lake	1.4%	5.0%	0.8%
Cloquet	5.1%	8.3%	4.2%
Cook County	8.4%	11.8%	6.2%
Crosby	4.5%	0.0%	4.9%
Dakota County	16.2%	34.1%	11.2%
Dodge County	2.4%	4.7%	2.1%
Eagle Lake	12.8%	27.3%	7.2%
Fairfax	2.5%	0.0%	2.9%
Faribault	13.9%	31.3%	9.8%
Fridley	18.1%	28.8%	13.8%
Gibbon	10.5%	16.7%	9.8%
Goodhue County	16.9%	27.5%	12.6%
Granite Falls	8.4%	8.9%	8.3%
Grant County	2.2%	4.6%	0.9%
Henning	0.6%	0.0%	0.7%
Houston County	2.4%	5.6%	2.1%
International Falls	19.9%	24.8%	18.8%
Jackson County	6.9%	9.5%	6.2%
Kandiyohi County	12.5%	24.1%	7.6%
Kittson County	7.9%	4.5%	10.5%
Lac qui Parle County	15.7%	22.6%	11.8%
Lake County	16.6%	19.0%	14.4%
Leech Lake	1.7%	1.4%	1.8%
Little Falls	7.0%	18.9%	5.4%
Mahnomen County	3.1%	5.2%	2.7%
Marshall County	10.1%	5.9%	11.1%
Minneapolis	13.0%	23.9%	11.1%
Minneota	19.5%	34.5%	16.2%
Moorhead	18.7%	24.0%	17.1%
New Hope	8.0%	13.1%	6.4%
Norman County	13.0%	17.9%	12.1%
Olmsted County	19.0%	27.8%	15.9%
Plymouth	28.4%	42.2%	23.6%
Pope County	2.3%	6.3%	1.2%
Ramsey County	20.1%	29.1%	15.6%
Red Lake County	3.4%	0.8%	3.8%
Red Wing	10.7%	24.3%	7.0%
Redwood County	19.2%	30.6%	13.2%
Rochester	6.3%	10.6%	4.9%

Rates at which officers answered yes to "knew race prior to stop" Daylight vs Nighttime

Sauk Rapids	6.3%	5.5%	6.6%
Savage	22.4%	44.2%	17.3%
Scott County	11.5%	15.8%	10.6%
Sherburne County	30.4%	55.1%	19.2%
Sibley County	15.4%	51.3%	10.4%
Springfield	29.6%	37.7%	28.6%
St. Cloud	24.1%	36.1%	20.2%
Stevens County	5.6%	11.8%	3.9%
Swift County	18.7%	24.1%	16.1%
Todd County	7.4%	17.6%	5.1%
Truman County	1.8%	2.7%	1.7%
Wadena County	25.0%	20.0%	25.8%
Walker	8.7%	12.0%	7.0%
Waseca County	10.1%	27.1%	6.2%
Wilkin County	18.0%	36.6%	14.4%
Willmar	11.8%	18.8%	10.2%
Winnebago	9.1%	11.1%	8.7%
Winthrop	17.0%	24.7%	15.4%
Worthington	24.5%	43.8%	19.5%
Yellow Medicine County	4.4%	11.6%	2.8%

Rates by Race of Driver at which officers answered yes to "knew race prior to stop"

		Stops of American Indian Drivers	Stops of Asian Drivers	Stops of Black Drivers	Stops of Latino Drivers	Stops of White Drivers	Stops of All Drivers of color
Akeley	Number of Stops	19	2	2	4	432	27
	% Knew Race	10.5%	0.0%	0.0%	0.0%	2.1%	7.4%
Anoka County	Number of Stops	28	81	101	105	8,220	315
	% Knew Race	21.4%	3.7%	16.8%	9.5%	16.4%	11.4%
Becker County	Number of Stops	178	8	14	16	1,946	216
	% Knew Race	6.2%	0.0%	21.4%	0.0%	7.5%	6.5%
Beltrami County	Number of Stops	204	13	24	8	1,386	249
	% Knew Race	6.4%	0.0%	0.0%	0.0%	5.6%	5.2%
Bemidji	Number of Stops	310	15	31	12	2,317	368
	% Knew Race	11.9%	6.7%	12.9%	0.0%	11.9%	11.4%
Cass County	Number of Stops	99	2	1	3	557	105
	% Knew Race	17.2%	0.0%	100.0%	0.0%	18.1%	17.1%
Cass Lake	Number of Stops	74	1	0	1	69	76
	% Knew Race	0.0%	0.0%	No Stops	0.0%	2.9%	0.0%
Cloquet	Number of Stops	49	8	7	3	400	67
	% Knew Race	10.2%	0.0%	0.0%	0.0%	4.8%	7.5%
Cook County	Number of Stops	56	15	11	4	1,027	86
	% Knew Race	7.1%	0.0%	9.1%	25.0%	8.5%	7.0%
Crosby	Number of Stops	9	1	2	0	279	12
	% Knew Race	11.1%	0.0%	0.0%	No Stops	4.3%	8.3%
Dakota County	Number of Stops	56	244	268	364	9,997	932
	% Knew Race	5.4%	11.1%	17.9%	14.0%	16.5%	13.8%
Dodge County	Number of Stops	0	30	57	153	2,018	240
	% Knew Race	No Stops	3.3%	1.8%	3.9%	2.3%	3.3%
Eagle Lake	Number of Stops	0	8	10	17	588	35
	% Knew Race	No Stops	25.0%	10.0%	0.0%	13.1%	8.6%
Fairfax	Number of Stops	9	3	6	19	205	37
	% Knew Race	0.0%	0.0%	0.0%	5.3%	2.4%	2.7%
Faribault	Number of Stops	10	67	115	486	3,490	678
	% Knew Race	20.0%	14.9%	16.5%	12.8%	14.0%	13.7%
Fridley	Number of Stops	22	189	431	143	2,917	785
	% Knew Race	18.2%	11.6%	27.4%	9.1%	17.6%	20.0%
Gibbon	Number of Stops	4	4	8	28	194	44
	% Knew Race	0.0%	0.0%	37.5%	21.4%	8.2%	20.5%
Goodhue County	Number of Stops	26	80	72	113	3,206	291
	% Knew Race	7.7%	1.3%	15.3%	13.3%	17.5%	10.0%
Granite Falls	Number of Stops	18	5	6	15	386	44
	% Knew Race	33.3%	20.0%	0.0%	6.7%	7.3%	18.2%
Grant County	Number of Stops	6	6	2	8	858	22
	% Knew Race	0.0%	0.0%	0.0%	0.0%	2.2%	0.0%
Henning	Number of Stops	1	0	1	1	159	3
	% Knew Race	0.0%	No Stops	0.0%	0.0%	0.6%	0.0%
Houston County	Number of Stops	5	8	20	10	1,700	43
	% Knew Race	0.0%	0.0%	5.0%	10.0%	2.3%	4.7%

Rates by Race of Driver at which officers answered yes to "knew race prior to stop"

		Stops of American Indian Drivers	Stops of Asian Drivers	Stops of Black Drivers	Stops of Latino Drivers	Stops of White Drivers	Stops of All Drivers of color
	% Knew Race	7.7%	0.0%	23.5%	0.0%	20.5%	12.0%
Jackson County	Number of Stops	0	5	4	8	287	17
	% Knew Race	No Stops	0.0%	0.0%	25.0%	6.6%	11.8%
Kandiyohi County	Number of Stops	8	8	18	118	1,982	152
	% Knew Race	0.0%	0.0%	16.7%	11.9%	12.6%	11.2%
Kittson County	Number of Stops	0	2	2	2	196	6
	% Knew Race	No Stops	0.0%	0.0%	0.0%	8.2%	0.0%
Lac qui Parle County	Number of Stops	0	3	0	1	289	4
	% Knew Race	No Stops	0.0%	No Stops	0.0%	15.9%	0.0%
Lake County	Number of Stops	13	8	9	10	1,198	40
	% Knew Race	7.7%	0.0%	11.1%	10.0%	16.9%	7.5%
Leech Lake	Number of Stops	279	7	10	8	566	304
	% Knew Race	2.5%	0.0%	0.0%	0.0%	1.4%	2.3%
Little Falls	Number of Stops	10	4	9	8	693	31
	% Knew Race	0.0%	0.0%	0.0%	12.5%	7.2%	3.2%
Mahnomen County	Number of Stops	163	4	3	6	401	176
	% Knew Race	4.9%	0.0%	0.0%	16.7%	2.2%	5.1%
Marshall County	Number of Stops	3	2	0	12	238	17
	% Knew Race	0.0%	50.0%	No Stops	25.0%	8.8%	23.5%
Minneapolis	Number of Stops	816	1,808	21,250	5,740	23,941	29,614
	% Knew Race	6.7%	10.7%	16.1%	6.2%	12.3%	13.6%
Minneota	Number of Stops	2	1	1	7	136	11
	% Knew Race	0.0%	0.0%	0.0%	57.1%	19.9%	36.4%
Moorhead	Number of Stops	123	127	240	432	7,178	922
	% Knew Race	17.1%	7.9%	15.0%	23.4%	18.7%	18.2%
New Hope	Number of Stops	21	176	749	234	3,391	1,180
	% Knew Race	0.0%	1.7%	10.5%	8.5%	7.8%	8.6%
Norman County	Number of Stops	11	4	1	20	302	36
	% Knew Race	0.0%	0.0%	0.0%	30.0%	12.6%	16.7%
Olmsted County	Number of Stops	2	59	102	106	3,732	269
	% Knew Race	0.0%	10.2%	16.7%	2.8%	19.7%	9.7%
Plymouth	Number of Stops	50	437	1,106	540	10,037	2,133
	% Knew Race	32.0%	14.2%	30.7%	22.8%	29.1%	25.3%
Pope County	Number of Stops	2	4	6	11	786	23
	% Knew Race	0.0%	0.0%	0.0%	9.1%	2.2%	4.3%
Ramsey County	Number of Stops	23	187	313	134	4,255	657
	% Knew Race	4.3%	14.4%	19.2%	23.9%	20.4%	18.3%
Red Lake County	Number of Stops	19	8	5	9	761	41
	% Knew Race	0.0%	0.0%	0.0%	0.0%	3.5%	0.0%
Red Wing	Number of Stops	60	69	103	84	2,692	316
	% Knew Race	18.3%	2.9%	18.4%	4.8%	10.6%	11.4%
Redwood County	Number of Stops	29	13	4	13	394	59
	% Knew Race	17.2%	7.7%	25.0%	0.0%	20.3%	11.9%
Rochester	Number of Stops	23	651	1,407	678	11,587	2,759
	% Knew Race	4.3%	2.9%	9.1%	4.1%	6.2%	6.4%

Rates by Race of Driver at which officers answered yes to "knew race prior to stop"

		Stops of American Indian Drivers	Stops of Asian Drivers	Stops of Black Drivers	Stops of Latino Drivers	Stops of White Drivers	Stops of All Drivers of color
	% Knew Race	0.0%	0.0%	4.3%	0.0%	6.5%	2.3%
Savage	Number of Stops	8	146	102	85	1,660	341
	% Knew Race	37.5%	18.5%	14.7%	17.6%	23.4%	17.6%
Scott County	Number of Stops	16	46	47	70	2,353	179
	% Knew Race	6.3%	6.5%	10.6%	7.1%	11.7%	7.8%
Sherburne County	Number of Stops	15	26	37	40	3,588	118
	% Knew Race	13.3%	19.2%	27.0%	7.5%	30.8%	16.9%
Sibley County	Number of Stops	3	2	11	71	556	87
	% Knew Race	0.0%	50.0%	36.4%	19.7%	14.4%	21.8%
Springfield	Number of Stops	1	15	2	17	557	35
	% Knew Race	0.0%	0.0%	0.0%	23.5%	30.7%	11.4%
St. Cloud	Number of Stops	34	291	580	126	7,799	1,031
	% Knew Race	14.7%	13.1%	33.4%	17.5%	24.0%	25.1%
Stevens County	Number of Stops	9	11	12	17	994	49
	% Knew Race	0.0%	0.0%	25.0%	0.0%	5.5%	6.1%
Swift County	Number of Stops	5	5	10	27	926	47
	% Knew Race	0.0%	0.0%	20.0%	22.2%	18.8%	17.0%
Todd County	Number of Stops	4	3	5	19	1,004	31
	% Knew Race	0.0%	0.0%	0.0%	0.0%	7.7%	0.0%
Truman	Number of Stops	2	6	8	24	401	40
	% Knew Race	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%
Wadena County	Number of Stops	2	0	3	0	135	5
	% Knew Race	0.0%	No Stops	0.0%	No Stops	25.9%	0.0%
Walker	Number of Stops	59	3	3	1	269	66
	% Knew Race	10.2%	0.0%	0.0%	0.0%	8.6%	9.1%
Waseca County	Number of Stops	0	6	24	27	833	57
	% Knew Race	No Stops	0.0%	25.0%	3.7%	10.0%	12.3%
Wilkin County	Number of Stops	16	4	23	17	816	60
	% Knew Race	6.3%	0.0%	8.7%	23.5%	18.5%	11.7%
Willmar	Number of Stops	10	17	63	675	2,607	765
	% Knew Race	0.0%	0.0%	11.1%	13.9%	11.4%	13.2%
Winnebago	Number of Stops	3	1	3	23	247	30
	% Knew Race	33.3%	100.0%	0.0%	4.3%	9.3%	10.0%
Winthrop	Number of Stops	4	2	6	32	367	44
	% Knew Race	0.0%	0.0%	0.0%	21.9%	17.2%	15.9%
Worthington	Number of Stops	7	193	69	856	1,567	1,125
	% Knew Race	14.3%	27.5%	18.8%	26.2%	23.5%	25.9%
Yellow Medicine County	Number of Stops	21	5	14	25	796	65
	% Knew Race	4.8%	0.0%	0.0%	12.0%	4.3%	6.2%

Appendix 4: Categorizing Searches Incident to Arrest with no Arrest

From our conversations with law enforcement officials, we learned of several potential scenarios in which an officer would conduct a search, cite incident to arrest as the authority for the search, and not cite arrest as the disposition of the stop. Two of these explanations relate to limitations in the traffic stop forms that drivers were required to fill out. The third relates to departmental policy on arrests.

First, we learned that in some cases officers searched vehicles prior to impounding them, as required by state law, without searching the driver of the vehicle. Because the traffic stop forms did not include "incident to impound" as a possible search authority, some officers reported the search as incident to arrest as this authority offered the most similar explanation.

Second, we learned that that a search might be listed as incident to arrest when arrest was not reported as the disposition of the stop because of the inability of officers to list multiple search authorities where multiple searches were conducted and multiple stop dispositions where more than one person was in the stopped vehicle. Thus, is it is possible that in some circumstances "incident to arrest" was the authority for a passenger or vehicle search and arrest would not be listed as the disposition of the stop because the driver was not arrested (although presumably the passenger was arrested or the car was impounded).

Finally, from a conversation with the head of one jurisdiction we learned that officers in this jurisdiction were required to contact their supervisor prior to making an arrest and explain the circumstances leading to their decision to make an arrest. The supervisor would then approve or overturn their decision to make the arrest. In those cases where the decision is overturned, searches incident to arrest may occur prior to the officer contacting his or her supervisor.

In order to ensure that searches reported as incident to arrest were properly allocated between discretionary and non-discretionary we developed a methodology for categorizing them based on the possible scenarios discussed above:

- All searches incident to arrest where arrest was reported as the disposition are categorized as non-discretionary.

- We have also assumed that all searches incident to arrest where there is a vehicle search, but no driver search, involve impounding and thus are also non-discretionary.

- When both the vehicle and the driver were searched, the authority was reported as incident to arrest, and arrest was not reported as the disposition, we have assumed that the incident to arrest authority applies to the vehicle search (as no arrest occurred). We then assume that the driver search is discretionary because of the small very small number of searches that were non-discretionary and did not include an arrest.

- Where there is a driver and passenger search, but no vehicle search, we assume that incident to arrest applies to the passenger search and again assume that the driver search

is discretionary because of the small very small number of searches that were non-discretionary and did not include an arrest.[58]

- Where there is only a driver search incident to arrest and no arrest, we assume that the search is discretionary. Although such searches may have been legitimately conducted based on a subsequently reversed decision to arrest, the fact that the decision to arrest was reversed indicates that the officer exercised discretion in this decision and thus the search that resulted from it is also a product of the officer's discretion.

[58] Fourteen percent of all traffic stop forms that report searches fit this and the proceeding pattern. There is small likelihood that these searches are non-discretionary. Searches incident to arrest that result in arrest do not fit this pattern. Only 6 percent of all searches were made because contraband was observed, the other non-discretionary category and in nearly one-fourth of such searches arrest was listed as the disposition of the stop. Thus approximately 4.5 percent of all searches would fit this pattern and be non-discretionary and 95.5 percent would be discretionary.