Exhibit I

BY THE NUMBERS

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A GUIDE FOR ANALYZING RACE DATA FROM

VEHICLE STOPS

POLICE EXECUTIVE RESEARCH FORUM

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- Address the possible intervening impact of age by breaking down the demographic profile of residents and nonresidents into two age groups: age 15 to 24 and age 25 and above;
- Match numerator and denominator. Delete from the stop data (the numerator) the stops of people who are neither residents of the target jurisdiction nor residents of the outside jurisdictions that are encompassed in the analysis; and
- Calculate a measure of racial/ethnic disparity (see Chapter 12) after developing the profile of the people stopped and the profile of the benchmark population.

Drawing Conclusions from the Results

Again we assess the strengths and weaknesses of this method in terms of the alternative hypotheses:

- Like other methods to estimate resident/nonresident driving populations, this one addresses the hypothesis that *racial/ethnic groups are not equally represented as residents in the jurisdiction*.
- By estimating the demographic profiles of nonresidents who might enter the target jurisdiction, this method addresses, in part, the possibility that *racial/ethnic groups are not equally represented as drivers on jurisdiction roads*.
- If analyses are conducted within subareas of the jurisdiction, this method addresses the hypothesis that *racial/ethnic groups are not equally represented as drivers on jurisdiction roads where stopping activity by police is high*.
- If analyses are conducted within age groups, this method takes into account the potential impact of age on driving behavior.

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- This method does not address the possibility that unequal representation of racial/ethnic groups on jurisdiction roads may be attributable, in part, to differences across racial/ethnic groups in the quantity of their driving.
- This method does not address the alternative hypothesis that *racial/ethnic groups are not equivalent in the nature and extent of their traffic law-violating behavior.*

MAKING OTHER ADJUSTMENTS TO CENSUS DATA: THE RHODE ISLAND STUDY

Researchers are looking for additional ways to adjust census data to produce more valid benchmarks. For example, Amy Farrell, Jack McDevitt, Shea Cronin, and Erica Pierce of Northeastern University have recently implemented a creative adjustment model.[26] In July 2000 the Rhode Island Traffic Stop Statistics Act was passed. The Northeastern team was contracted to analyze the data collected, in response to this legislation, by the Rhode Island State Police and all municipal police departments in the state. For the municipal police departments, Farrell's team—like Novak and the Missouri team whose work is described above—adjusted census data on jurisdiction residents to account for the influx of nonresident drivers.[27] As the authors explain (Farrell et al. 2003, 29), "we created a driving population estimate based on the idea that the demographics of a target city may be better understood by weighting the population of the target city by its surrounding cities whose drivers may drive in or through the city in question." Specifically, they developed a "driving population estimate" or DPE for each municipal department based on formulas that took into account

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[26] See Farrell et al. (2003). The final report is available under "Reports and Publications" at www.riag.state.ri.us.

[27] The team used the observation method—described in Chapter 9—to analyze the data collected by the state police.