The Boston Globe

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A Boston Globe analysis of traffic tickets and warnings, from every police department in Massachusetts, shows differences in race, sex and age in who gets a fine, and who gets a break, for the same offenses.

This document describes those findings in detail.

The Globe articles are on the Web, along with this document and other materials, at www.boston.com/globe/tickets. The articles were published on July 20-22, 2003. An earlier series of articles, on patterns in tickets and vehicle searches, was published Jan. 6 and 7, 2003.

Please send any questions or comments on this report to Globe correspondent Bill Dedman, at dedman@globe.com.

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1. The records

The Boston Globe requested from the Massachusetts Registry of Motor Vehicles, under the state's public records law, a database of all traffic tickets written in the state from April 1, 2001, through January 31, 2003, and all warnings written from April 1, 2001, through May 31, 2001. So there are two months of overlapping tickets and warnings.

These records were collected by police officers throughout the state in compliance with a requirement of the Massachusetts Legislature, Chapter 228 of the Acts of 2000. The act required the Registry to collect race and sex information from tickets and warnings for a one-year period beginning April 1, 2001. The Registry, however, typed information on warnings into a database for only the two months, citing a lack of funds from the Legislature.

In this state the traffic ticket and the traffic warning use the same form, the Massachusetts Uniform Citation. By merely checking a different box at the bottom of the citation, the officer turns it into a ticket, which brings a fine and raises the driver's insurance premium, or a warning, which means nothing. In this document we'll use the terms ticket, warning, and citation. A citation can be either a ticket or a warning.

The Registry provided the database of tickets and warnings to the Globe on March 21, 2003, containing the following information:

Information about the offense:
-- Citation number
-- Citation type (warning, ticket, arrest, etc.)
-- Date
-- Time
-- Location (town or neighborhood)
-- Offense (law chapter/section)
-- Offense description (speeding, failure to yield, etc.)
-- Amount of fine
-- MPH for speeding citations
-- MPH of speed zone
-- Non-inventory vehicle search
-- Accident
-- Court
-- Supplemental (indicates court-issued tickets)
-- Reversed (indicates tickets successfully challenged in court)

Information about the police officer:
-- Police agency
-- Officer ID (masked, although most IDs matched an earlier database provided by the Registry)

Information about the driver:
-- Driver license number and state
-- License class, commercial license
-- Race
-- Sex
-- Year of birth
-- Home ZIP Code
-- Operator or owner of vehicle

Information about the vehicle:
-- Plate number and state
-- Commercial vehicle
-- Hazardous-materials vehicle
-- Make *
-- Model*
-- Year*
-- Color*
(* available for about two-thirds of citations in study)

2. Data cleanup

The Globe:

-- deleted, at the Registry's suggestion, "supplemental" records provided by courts. (These generally contain no race or sex information, and duplicate other citations in the database.)

-- deleted records with corrupt data (false dates, records not showing a citation number or police department, speeds greater than 200 mph, and speed zones greater than 65 mph or less than 15 mph).

-- deleted records with citation numbers not beginning with "K," which were either typos or older citations that should not have been used after April 1, 2001, and deleted tickets written to a vehicle owner instead of an operator.

-- added to each record certain information that could be calculated: day of the week; an indication whether drivers were ticketed in their hometowns (based on the license ZIP Code); an indication whether Boston drivers were ticketed in their home neighborhood; a "minority" or non-white category combining all races/ethnicities other than white; time of day (predawn, morning, afternoon, evening); miles per hour over the speed limit, and percentage over the limit; age, estimated from year of birth; age groups (16-25, 26-39, 40+); and age of vehicle, calculated from the vehicle year.

3. Design of the study

As you know, studies on profiling are being done across the country, with little agreement on the proper technique. We tried to steer a clear path through, or around, the main issue, known as the "denominator problem."

Suppose you know that 60 percent of the drivers ticketed in Brookline, Mass., are black. Is that a lot or a little? You'd have to know the share of drivers in Brookline who are black. You could use the share of the population in Brookline that is black, but you're confounded by drivers (of an unknown mix of races) who drive through Brookline.

Instead of trying to solve those problems, the Globe chose to focus on "internal" measurements:

-- first, an index of the share of tickets written to minorites who live in a town vs. the share of minorities in the driving-age population of that town. This sidesteps the difficulty of determing how the driving population in an area is influenced by commuters from other towns. We still don't know whether one minority group drives more than another, but at least the figures we do have are comparable.

-- second, the share of ticketed drivers who were searched. (The number ticketed is firmly known.)

-- third, a calculation, out of 100 drivers of each demographic "type" who received a citation for a certain offense, how many received a ticket as opposed to a written warning.

Even if you steer a clear course, the data will have limitations. We didn't know about oral warnings in Mass., or drivers' histories in most cases, or traffic conditions.

The Globe relied primarily on comparisons of carefully controlled groups of drivers. For example, how many drivers who lived in a town received a ticket, and how many received a warning, when speeding at the same speed, in the same speed zone?

These questions were repeated at different speeds, with tests that included other factors such as the age of the driver, the time of day, and the age of the vehicle.

To be confident that no other factor, or combination of factors, recorded on the citations accounted for the differences (such as age, sex, time of day), the Globe asked a professor of statistics at Babson College, Elaine I. Allen, to look at the database. She found that the differences of race, sex and age were statistically significant, controlling for all other factors. The report on her analysis, using a statistical technique called logistic regression, is also printed in full below.

In addition, Professor Stephen K. Doig, of Arizona State University, did a separate statistical analysis, with similar results, and offered helpful suggestions throughout the project.

The Globe focused its study on citations meeting the following criteria:

-- written in April and May 2001, the only two months for which the Registry entered warnings.
-- with only one traffic violation charged.
-- not for a criminal offense or arrest.
-- not involving an accident
-- not involving a commercial vehicle
-- not involving a hazardous-materials vehicle

With those rules applied, we were left with 166,368 citations to be studied from the two months.

They were divided nearly evenly between tickets and warnings:

Table 1
Warnings and Tickets in the Study

Type of citation		Ticket	Warning
	N	84,002	82,366
	%	50.5%	49.5%

There apparently were somewhat more warnings than this count written during the two months. First, two police departments, Acton and Woburn, told the Globe that they wrote warnings, but failed to turn in their warnings for this period. The chiefs said that no one from the state had contacted them during the intervening two years to ask why no warnings were being submitted.

Some smaller towns may have done the same. In the database provided by the Registry, the following departments reported no written warnings for any offense during the study period: AMTRAK, Acton, Cummington, Gloucester, Hinsdale, Huntington, Leyden, Metro Police Lower Basin District, Monterey, New Braintree, Oakham, Royalston, Sandisfield., Tolland, Wales, Warwick, Wayland, Windsor, Woburn. These departments may have written no warnings, or they may not have submitted them.

In addition, a Registry spokeswoman told the Globe that it entered into the database all citations that were issued in April and May 2001 -- if they were received by mid-July 2001. So that would have given police agencies all of June and half of July to send the warnings to the Registry. State law requires tickets to be sent in by police chiefs within four days, and warnings "forthwith." Any tickets that arrived after mid-July were typed in, the Registry said. But any warnings that arrived later were not typed in. The Registry could not estimate how many of these there might have been.

The 166,368 citations studied were written by 352 police agencies in the state. The State Police wrote one-fourth of the citations.

Table 2
Police Departments in the Study

Department		State Police	Boston Police	Other departments
	N	42,986	19,628	103,754
	%	25.8%	11.8%	62.4%

Most studies of racial and gender profiling have been unable to control for the residence of the driver, because that information has not been made available. This is important because police have been thought to give some preferential treatment to hometown drivers.

The Globe found that the hometown bias was not great, but it was present, especially in smaller towns. Statewide, excluding the State Police, police wrote speeding tickets to 38 percent of speeders who live in the town, and 44 percent from out of town.

In comparing ticketing rates for different races, ages, etc., we often controlled for residence, looking separately at drivers from the town where the ticket was written, and at drivers from out of town.

We also did not want to lump together all traffic offenses. Because speeding is the most common offense, and because police officers recorded the severity of the offense (the speed, and the speed limit) for both warnings and tickets, we focused much of our attention on speeding citations. Figures for other offenses are also shown in some instances.

4. Data limitations

It is possible that the differences that we found are explained by other factors that are not recorded on the traffic citations. The database contains no information about:

-- Drivers who were stopped but let go without a written warning or ticket. Oral warnings are not recorded. Legislative sponsors of the data collection in Massachusetts proposed including information on all stops, but that provision was opposed by the state police chiefs association, and was removed in a compromise version of the legislation. Some studies in other states have collected this information.

-- The driver's history of previous violations.

-- Street location and traffic conditions. We know only the name of the community, except in Boston, where we also know the broad neighborhood (Brighton, Charlestown, etc.) where the ticket was written. The street address is usually written on a citation, but the Registry enters into its computers only the town or neighborhood.

-- Name, race and sex of the officer, except in Boston, where the Globe obtained Boston Police Department documents with that information.

-- Any police department policies peculiar to the two months of the study, such as a crackdown on speeding at certain intersections.

5. How much discretion do officers apply in handing out tickets or warnings?

Statewide, warnings were about as frequent as tickets:

Table 3
Offenses included in the Study

Offense		Ticket	Warning	Total
Speeding	N	48,971	44,826	93,797
	%	52.2%	47.8%	100.0%
Failure to stop	N	10,329	15,408	25,737
	%	40.1%	59.9%	100.0%
All other offenses	N	24,714	22,133	46,847
	%	52.8%	47.2%	100.0%
Total	N	84,014	82,367	166,381
	%	50.5%	49.5%	100.0%

6. How does the discretion vary by offense?

Even serious offenses, such as failing to stop at a railroad crossing, can result in a warning.

Here are offenses with at least 10 citations, ranked by the percentage of drivers ticketed. All agencies are included.

Table 4
Offenses ranked by Percent Ticketed

Offense		Ticket	Warning	Total
Speed Drag Racing	N	11	0	11
	%	100.0%	0.0%	100.0%
Mass Pike Violation	N	20	1	21
	%	95.2%	4.8%	100.0%
Allow unlicensed operator	N	126	8	134
	%	94.0%	6.0%	100.0%
Drink alcohol from open container	N	76	5	81
	%	93.8%	6.2%	100.0%
Parking Prohibitions	N	46	3	49
	%	93.9%	6.1%	100.0%
JOL Pass Restriction	N	32	2	34
	%	94.1%	5.9%	100.0%
RV Dangerous Operation	N	9	1	10
	%	90.0%	10.0%	100.0%
Learner's Permit	N	15	2	17
	%	88.2%	11.8%	100.0%
Seat Belt Violation	N	3,099	562	3,661
	%	84.6%	15.4%	100.0%
Left Lane Exclusion	N	69	12	81
	%	85.2%	14.8%	100.0%
MDC Violation	N	11	2	13
	%	84.6%	15.4%	100.0%
Trespass with Motor Vehicle	N	117	23	140
	%	83.6%	16.4%	100.0%
License Restriction	N	57	13	70
	%	81.4%	18.6%	100.0%
RV Unregistered	N	61	15	76
	%	80.3%	19.7%	100.0%
Overweight Vehicle	N	39	10	49
	%	79.6%	20.4%	100.0%
Abandonment of Vehicle	N	12	3	15
	%	80.0%	20.0%	100.0%
Unregistered/improper Equipment	N	2,988	873	3,861
	%	77.4%	22.6%	100.0%
MDC Excluded Vehicle	N	37	12	49
	%	75.5%	24.5%	100.0%
No Child Restraint	N	208	74	282
	%	73.8%	26.2%	100.0%
Minor Traffic	N	1,006	421	1,427
	%	70.5%	29.5%	100.0%
Fail to Stop for School Bus	N	217	99	316
	%	68.7%	31.3%	100.0%
Tire Tread	N	9	4	13
	%	69.2%	30.8%	100.0%

Littering from Vehicle	**N**	21	11	32
	%	65.6%	34.4%	100.0%
Traffic/Safety Violation	**N**	1,039	562	1,601
	%	64.9%	35.1%	100.0%
Failure to Keep in Right Lane	**N**	1,010	541	1,551
	%	65.1%	34.9%	100.0%
Impeding an Emergency Vehicle	**N**	93	49	142
	%	65.5%	34.5%	100.0%
Modifying Vehicle Height	**N**	7	4	11
	%	63.6%	36.4%	100.0%
Displaying Red/Blue Lights	**N**	29	17	46
	%	63.0%	37.0%	100.0%
Traffic Violation	**N**	31	20	51
	%	60.8%	39.2%	100.0%
Illegal Operations (Noise, exhaust, etc.)	**N**	1,287	905	2,192
	%	58.7%	41.3%	100.0%
Improper Passing	**N**	521	369	890
	%	58.5%	41.5%	100.0%
Inspection Sticker Violation	**N**	51	35	86
	%	59.3%	40.7%	100.0%
No Inspection Sticker	**N**	4,002	2,881	6,883
	%	58.1%	41.9%	100.0%
State Highway Violation	**N**	850	638	1,488
	%	57.1%	42.9%	100.0%
No Transparent Window	**N**	119	98	217
	%	54.8%	45.2%	100.0%
Fail To Keep Right	**N**	57	46	103
	%	55.3%	44.7%	100.0%
Moped Violation	**N**	6	5	11
	%	54.5%	45.5%	100.0%
Fail to Keep Right When View Obstructed	**N**	335	298	633
	%	52.9%	47.1%	100.0%
Speeding	**N**	48,919	44,825	93,744
	%	52.2%	47.8%	100.0%
Municipal Bylaw on Passenger Vehicles	**N**	101	92	193
	%	52.3%	47.7%	100.0%
Load No Cover, Spillable	**N**	45	42	87
	%	51.7%	48.3%	100.0%
One Way Street	**N**	248	242	490
	%	50.6%	49.4%	100.0%
No Registration/License in Possession	**N**	202	196	398
	%	50.8%	49.2%	100.0%
RMV Safety Standards	**N**	106	100	206
	%	51.5%	48.5%	100.0%
Fail to Notify RMV Name/Address Change	**N**	22	21	43
	%	51.2%	48.8%	100.0%
Failure to Slow or Stop at RR Crossing	**N**	28	30	58
	%	48.3%	51.7%	100.0%
Fail to Yield to Pedestrian	**N**	722	818	1,540
	%	46.9%	53.1%	100.0%
Fail To Use Safety	**N**	1,193	1,390	2,583
	%	46.2%	53.8%	100.0%
Lane Violation	**N**	1,011	1,198	2,209
	%	45.8%	54.2%	100.0%
Recreation/snow Vehicle Violation	**N**	6	7	13

	%	46.2%	53.8%	100.0%
Impeding Operation (misc. hazard)	**N**	140	168	308
	%	45.5%	54.5%	100.0%
Motor Vehicle Where Excluded	**N**	10	12	22
	%	45.5%	54.5%	100.0%
MDC Sign/Signal	**N**	5	6	11
	%	45.5%	54.5%	100.0%
Limit/Prohibited Use	**N**	356	505	861
	%	41.3%	58.7%	100.0%
RMV/Federal Safety Regulations	**N**	51	72	123
	%	41.5%	58.5%	100.0%
Failure To Stop	**N**	10,329	15,408	25,737
	%	40.1%	59.9%	100.0%
Right of Way, Intersection	**N**	760	1,166	1,926
	%	39.5%	60.5%	100.0%
Fail To Give Signal	**N**	131	202	333
	%	39.3%	60.7%	100.0%
Use/Avoid Electronic Toll Collection	**N**	17	28	45
	%	37.8%	62.2%	100.0%
Motor Carrier Act	**N**	12	20	32
	%	37.5%	62.5%	100.0%
Rules/Regulations Violation	**N**	39	68	107
	%	36.4%	63.6%	100.0%
Attach Improper Plate	**N**	13	24	37
	%	35.1%	64.9%	100.0%
Fail Dim Lights	**N**	24	53	77
	%	31.2%	68.8%	100.0%
DPW/Limited Access	**N**	4	9	13
	%	30.8%	69.2%	100.0%
DPW State Highway Regulations	**N**	566	1,335	1,901
	%	29.8%	70.2%	100.0%
Improper Equipment non-specified	**N**	75	197	272
	%	27.6%	72.4%	100.0%
Tax And Title Violation	**N**	3	12	15
	%	20.0%	80.0%	100.0%
Improper Equipment	**N**	648	3,186	3,834
	%	16.9%	83.1%	100.0%
Plate Missing/Obscured	**N**	297	1,530	1,827
	%	16.3%	83.7%	100.0%
Expired Registration Sticker	**N**	40	211	251
	%	15.9%	84.1%	100.0%
Headlights, Dimming From High Beam	**N**	3	18	21
	%	14.3%	85.7%	100.0%
Lights Violation	**N**	1	9	10
	%	10.0%	90.0%	100.0%
Display Single Plate	**N**	1	10	11
	%	9.1%	90.9%	100.0%
Registration Sticker Not Displayed	**N**	30	450	480
	%	6.3%	93.8%	100.0%
Fail Stop At Toll	**N**	0	35	35
	%	0.0%	100.0%	100.0%

7. How do police departments vary in the amount of discretion shown by officers?

The State Police are tougher, small-town departments are more lenient, and Boston is in the middle.

Table 5
Leniency by Department

Department		Ticket	Warning	Total
Speeding				
State Police	N	21,041	6,413	27,454
	%	76.6%	23.4%	100.0%
Boston Police	N	3,327	3,329	6,656
	%	50.0%	50.0%	100.0%
All other departments	N	24,603	35,084	59,687
	%	41.2%	58.8%	100.0%
Failure to stop				
State Police	N	768	619	1,387
	%	55.4%	44.6%	100.0%
Boston Police	N	3,083	4,080	7,163
	%	43.0%	57.0%	100.0%
All other departments	N	6,478	10,709	17,187
	%	37.7%	62.3%	100.0%
All other offenses				
State Police	N	7,788	6,359	14,147
	%	55.1%	44.9%	100.0%
Boston Police	N	3,231	2,578	5,809
	%	55.6%	44.4%	100.0%
All other departments	N	13,684	13,196	26,880
	%	50.9%	49.1%	100.0%
Total				
State Police	N	29,596	13,390	42,986
	%	68.9%	31.1%	100.0%
Boston Police	N	9,641	9,987	19,628
	%	49.1%	50.9%	100.0%
All other departments	N	44,765	58,989	103,754
	%	43.1%	56.9%	100.0%

8. Who benefits from that discretion?

We'll look first at some gross disparities, and then begin to control for speed, town of residence, and other factors.

Every one of these tests looks only at citations:
-- written during April and May 2001, the only two months for which the Registry entered warnings.
-- with only one traffic violation charged
-- not a criminal offense or arrest. Only civil traffic offenses.
-- not involving an accident
-- not involving a commercial vehicle
-- not involving a hazardous-materials vehicle

(Note: When the number of citations, or N, is below 50, use caution in reporting percentages.)

a.) All citations.

Let's start by looking at all the citations in the study, with no controls for type of offense.

Table 6
Race, All Citations
Violations included: All

Department		Ticket	Warning	Total
State Police				
Whites	N	24,160	10,975	35,135
	%	68.8%	31.2%	100.0%
Minorities	N	4,968	2,267	7,235
	%	68.7%	31.3%	100.0%
Boston Police				
Whites	N	4,440	6,103	10,543
	%	42.1%	57.9%	100.0%
Minorities	N	4,404	3,646	8,050
	%	54.7%	45.3%	100.0%
All other departments				
Whites	N	37,024	51,213	88,237
	%	42.0%	58.0%	100.0%
Minorities	N	6,700	6,723	13,423
	%	49.9%	50.1%	100.0%
Total				
Whites	N	65,624	68,291	133,915
	%	49.0%	51.0%	100.0%
Minorities	N	16,072	12,636	28,708
	%	56.0%	44.0%	100.0%

Note the lack of disparity in Massachusetts for the State Police.

Table 7
Sex, All Citations
Violations included: All

Department		Ticket	Warning	Total
State Police				
Women	N	8,705	4,212	12,917
	%	67.4%	32.6%	100.0%
Men	N	20,769	9,137	29,906
	%	69.4%	30.6%	100.0%
Boston Police				
Women	N	3,078	3,728	6,806
	%	45.2%	54.8%	100.0%
Men	N	6,473	6,198	12,671
	%	51.1%	48.9%	100.0%
All other departments				
Women	N	15,078	24,730	39,808
	%	37.9%	62.1%	100.0%
Men	N	29,445	34,014	63,459
	%	46.4%	53.6%	100.0%
Total				
Women	N	26,861	32,670	59,531
	%	45.1%	54.9%	100.0%
Men	N	56,687	49,349	106,036
	%	53.5%	46.5%	100.0%

Hardly any difference at the State Police. But in Boston and other communities, a deference to women.

Table 8
Race and Sex, All Citations
Violations included: All

Department		Ticket	Warning	Total
State Police				
White women	N	7,491	3,613	11,104
	%	67.5%	32.5%	100.0%
White men	N	16,645	7,350	23,995
	%	69.4%	30.6%	100.0%
Minority women	N	1,121	574	1,695
	%	66.1%	33.9%	100.0%
Minority men	N	3,838	1,693	5,531
	%	69.4%	30.6%	100.0%
Boston Police				
White women	N	1,484	2,379	3,863
	%	38.4%	61.6%	100.0%
White men	N	2,951	3,713	6,664
	%	44.3%	55.7%	100.0%
Minority women	N	1,356	1,278	2,634
	%	51.5%	48.5%	100.0%
Minority men	N	3,040	2,363	5,403
	%	56.3%	43.7%	100.0%
All other departments				
White women	N	13,043	22,273	35,316
	%	36.9%	63.1%	100.0%
White men	N	23,955	28,917	52,872
	%	45.3%	54.7%	100.0%
Minority women	N	1,751	2,130	3,881
	%	45.1%	54.9%	100.0%
Minority men	N	4,923	4,578	9,501
	%	51.8%	48.2%	100.0%
Total				
White women	N	22,018	28,265	50,283
	%	43.8%	56.2%	100.0%
White men	N	43,551	39,980	83,531
	%	52.1%	47.9%	100.0%
Minority women	N	4,228	3,982	8,210
	%	51.5%	48.5%	100.0%
Minority men	N	11,801	8,634	20,435
	%	57.7%	42.3%	100.0%

More than half of the non-white men and women cited in Boston get a ticket, while less than half of the white men and women do.

b.) Citations for the same offense.

Let's begin to focus only on speeding, the most common charge.

Here are people cited for speeding:

Table 9
Race, Speeding
Violations included: Speeding

Department		Ticket	Warning	Total
State Police				
Whites	N	17,618	5,560	23,178
	%	76.0%	24.0%	100.0%
Minorities	N	3,103	785	3,888
	%	79.8%	20.2%	100.0%
Boston Police				
Whites	N	1,485	1,945	3,430
	%	43.3%	56.7%	100.0%
Minorities	N	1,525	1,335	2,860
	%	53.3%	46.7%	100.0%
All other departments				
Whites	N	21,056	31,645	52,701
	%	40.0%	60.0%	100.0%
Minorities	N	3,121	2,985	6,106
	%	51.1%	48.9%	100.0%
Total				
Whites	N	65,624	68,291	133,915
	%	49.0%	51.0%	100.0%
Minorities	N	16,072	12,636	28,708
	%	56.0%	44.0%	100.0%

Table 10
Sex, Speeding
Violations included: Speeding

Department		Ticket	Warning	Total
State Police				
Women	N	6,532	2,316	8,848
	%	73.8%	26.2%	100.0%
Men	N	14,434	4,078	18,512
	%	78.0%	22.0%	100.0%
Boston Police				
Women	N	1,232	1,404	2,636
	%	46.7%	53.3%	100.0%
Men	N	2,081	1,917	3,998
	%	52.1%	47.9%	100.0%
All other departments				
Women	N	8,831	15,745	24,576
	%	35.9%	64.1%	100.0%
Men	N	15,677	19,224	34,901
	%	44.9%	55.1%	100.0%
Total				
Women	N	16,595	19,465	36,060
	%	46.0%	54.0%	100.0%
Men	N	32,192	25,219	57,411
	%	56.1%	43.9%	100.0%

Table 11
Race and Sex, Speeding
Violations included: Speeding

Department		Ticket	Warning	Total
State Police				
White women	N	5,734	2,067	7,801
	%	73.5%	26.5%	100.0%
White men	N	11,871	3,485	15,356
	%	77.3%	22.7%	100.0%
Minority women	N	738	229	967
	%	76.3%	23.7%	100.0%
Minority men	N	2,357	556	2,913
	%	80.9%	19.1%	100.0%
Boston Police				
White women	N	586	881	1,467
	%	39.9%	60.1%	100.0%
White men	N	897	1,060	1,957
	%	45.8%	54.2%	100.0%
Minority women	N	529	504	1,033
	%	51.2%	48.8%	100.0%
Minority men	N	994	830	1,824
	%	54.5%	45.5%	100.0%
All other departments				
White women	N	7,866	14,619	22,485
	%	35.0%	65.0%	100.0%
White men	N	13,175	17,012	30,187
	%	43.6%	56.4%	100.0%
Minority women	N	832	978	1,810
	%	46.0%	54.0%	100.0%
Minority men	N	2,277	2,002	4,279
	%	53.2%	46.8%	100.0%
Total				
White women	N	14,186	17,567	31,753
	%	44.7%	55.3%	100.0%
White men	N	25,943	21,557	47,500
	%	54.6%	45.4%	100.0%
Minority women	N	2,099	1,711	3,810
	%	55.1%	44.9%	100.0%
Minority men	N	5,628	3,388	9,016
	%	62.4%	37.6%	100.0%

c.) Residents vs. out-of-towners.

Here we begin to look separately at hometown drivers and out-of-town drivers. Again, here are all citations for speeding.

Table 12
Race, Speeding, Residence
Violations included: Speeding

Department		Ticket	Warning	Total
State Police				
Hometown drivers				
Whites	N	1,104	563	1,667
	%	66.2%	33.8%	100.0%
Minorities	N	341	123	464
	%	73.5%	26.5%	100.0%
Out-of-town drivers				
Whites	N	16,166	4,895	21,061
	%	76.8%	23.2%	100.0%
Minorities	N	2,690	644	3,334
	%	80.7%	19.3%	100.0%
Boston Police				
Hometown drivers				
Whites	N	442	662	1,104
	%	40.0%	60.0%	100.0%
Minorities	N	1,005	891	1,896
	%	53.0%	47.0%	100.0%
Out-of-town drivers				
Whites	N	1,032	1,252	2,284
	%	45.2%	54.8%	100.0%
Minorities	N	509	435	944
	%	53.9%	46.1%	100.0%
All other departments				
Hometown drivers				
Whites	N	5,034	10,226	15,260
	%	33.0%	67.0%	100.0%
Minorities	N	812	733	1,545
	%	52.6%	47.4%	100.0%
Out-of-town drivers				
Whites	N	15,922	21,213	37,135
	%	42.9%	57.1%	100.0%
Minorities	N	2,291	2,225	4,516
	%	50.7%	49.3%	100.0%
Total				
Hometown drivers				
Whites	N	6,580	11,451	18,031
	%	36.5%	63.5%	100.0%
Minorities	N	2,158	1,747	3,905
	%	55.3%	44.7%	100.0%
Out-of-town drivers				
Whites	N	33,120	27,360	60,480

	%	54.8%	45.2%	100.0%
Minorities	N	5,490	3,304	8,794
	%	62.4%	37.6%	100.0%

Table 13
Sex, Speeding, Residence
Violations included: Speeding

Department		Ticket	Warning	Total
State Police				
Hometown drivers				
Women	N	488	252	740
	%	65.9%	34.1%	100.0%
Men	N	986	449	1,435
	%	68.7%	31.3%	100.0%
Out-of-town drivers				
Women	N	5,938	2,020	7,958
	%	74.6%	25.4%	100.0%
Men	N	13,127	3,554	16,681
	%	78.7%	21.3%	100.0%
Boston Police				
Hometown drivers				
Women	N	618	681	1,299
	%	47.6%	52.4%	100.0%
Men	N	1,016	896	1,912
	%	53.1%	46.9%	100.0%
Out-of-town drivers				
Women	N	613	706	1,319
	%	46.5%	53.5%	100.0%
Men	N	1,044	998	2,042
	%	51.1%	48.9%	100.0%
All other departments				
Hometown drivers				
Women	N	2,216	5,350	7,566
	%	29.3%	70.7%	100.0%
Men	N	3,722	5,708	9,430
	%	39.5%	60.5%	100.0%
Out-of-town drivers				
Women	N	6,576	10,302	16,878
	%	39.0%	61.0%	100.0%
Men	N	11,876	13,372	25,248
	%	47.0%	53.0%	100.0%
Total				
Hometown drivers				
Women	N	3,322	6,283	9,605
	%	34.6%	65.4%	100.0%
Men	N	5,724	7,053	12,777
	%	44.8%	55.2%	100.0%
Out-of-town drivers				

Women	N	13,127	13,028	26,155
	%	50.2%	49.8%	100.0%
Men	N	26,047	17,924	43,971
	%	59.2%	40.8%	100.0%

Table 14
Race and Sex, Speeding, Residence
Violations included: Speeding

Department		Ticket	Warning	Total
State Police				
Hometown drivers				
White women	N	383	206	589
	%	65.0%	35.0%	100.0%
Minority women	N	100	39	139
	%	71.9%	28.1%	100.0%
White men	N	721	357	1,078
	%	66.9%	33.1%	100.0%
Minority men	N	241	84	325
	%	74.2%	25.8%	100.0%
Out-of-town drivers				
White women	N	5,258	1,824	7,082
	%	74.2%	25.8%	100.0%
Minority women	N	626	183	809
	%	77.4%	22.6%	100.0%
White men	N	10,895	3,064	13,959
	%	78.1%	21.9%	100.0%
Minority men	N	2,056	461	2,517
	%	81.7%	18.3%	100.0%
Boston Police				
Hometown drivers				
White women	N	183	312	495
	%	37.0%	63.0%	100.0%
Minority women	N	356	356	712
	%	50.0%	50.0%	100.0%
White men	N	259	347	606
	%	42.7%	57.3%	100.0%
Minority men	N	647	534	1,181
	%	54.8%	45.2%	100.0%
Out-of-town drivers				
White women	N	403	555	958
	%	42.1%	57.9%	100.0%
Minority women	N	172	145	317
	%	54.3%	45.7%	100.0%
White men	N	627	696	1,323
	%	47.4%	52.6%	100.0%
Minority men	N	337	290	627
	%	53.7%	46.3%	100.0%
All other departments				
Hometown drivers				

White women	N	1,942	5,012	6,954
	%	27.9%	72.1%	100.0%
Minority women	N	232	293	525
	%	44.2%	55.8%	100.0%
White men	N	3,089	5,211	8,300
	%	37.2%	62.8%	100.0%
Minority men	N	576	438	1,014
	%	56.8%	43.2%	100.0%
Out-of-town drivers				
White women	N	5,890	9,521	15,411
	%	38.2%	61.8%	100.0%
Minority women	N	595	679	1,274
	%	46.7%	53.3%	100.0%
White men	N	10,020	11,681	21,701
	%	46.2%	53.8%	100.0%
Minority men	N	1,688	1,543	3,231
	%	52.2%	47.8%	100.0%
Total				
Hometown drivers				
White women	N	2,508	5,530	8,038
	%	31.2%	68.8%	100.0%
Minority women	N	688	688	1,376
	%	50.0%	50.0%	100.0%
White men	N	4,069	5,915	9,984
	%	40.8%	59.2%	100.0%
Minority men	N	1,464	1,056	2,520
	%	58.1%	41.9%	100.0%
Out-of-town drivers				
White women	N	11,551	11,900	23,451
	%	49.3%	50.7%	100.0%
Minority women	N	1,393	1,007	2,400
	%	58.0%	42.0%	100.0%
White men	N	21,542	15,441	36,983
	%	58.2%	41.8%	100.0%
Minority men	N	4,081	2,294	6,375
	%	64.0%	36.0%	100.0%

d.) Specific speeds.

First, here are citations at 10 mph over the speed limit, in any speed zone.

Table 15
Race, Speeding, Residence
Violations included: Speeding 10 m.p.h. over

Department		Ticket	Warning	Total
State Police				
Hometown drivers				
Whites	N	288	133	421
	%	68.4%	31.6%	100.0%
Minorities	N	90	39	129
	%	69.8%	30.2%	100.0%
Out-of-town drivers				
Whites	N	3,940	1,227	5,167
	%	76.3%	23.7%	100.0%
Minorities	N	512	164	676
	%	75.7%	24.3%	100.0%
Boston Police				
Hometown drivers				
Whites	N	135	185	320
	%	42.2%	57.8%	100.0%
Minorities	N	238	244	482
	%	49.4%	50.6%	100.0%
Out-of-town drivers				
Whites	N	276	273	549
	%	50.3%	49.7%	100.0%
Minorities	N	115	122	237
	%	48.5%	51.5%	100.0%
All other departments				
Hometown drivers				
Whites	N	842	1,716	2,558
	%	32.9%	67.1%	100.0%
Minorities	N	125	121	246
	%	50.8%	49.2%	100.0%
Out-of-town drivers				
Whites	N	2,858	3,701	6,559
	%	43.6%	56.4%	100.0%
Minorities	N	378	402	780
	%	48.5%	51.5%	100.0%
Total				
Hometown drivers				
Whites	N	1,265	2,034	3,299
	%	38.3%	61.7%	100.0%
Minorities	N	453	404	857
	%	52.9%	47.1%	100.0%
Out-of-town drivers				
Whites	N	7,074	5,201	12,275

	%	57.6%	42.4%	100.0%
Minorities	N	1,005	688	1,693
	%	59.4%	40.6%	100.0%

Table 16
Sex, Speeding, Residence
Violations included: Speeding 10 m.p.h. over

Department		Ticket	Warning	Total
State Police				
Hometown drivers				
Women	N	144	62	206
	%	69.9%	30.1%	100.0%
Men	N	235	120	355
	%	66.2%	33.8%	100.0%
Out-of-town drivers				
Women	N	1,497	531	2,028
	%	73.8%	26.2%	100.0%
Men	N	2,992	877	3,869
	%	77.3%	22.7%	100.0%
Boston Police				
Hometown drivers				
Women	N	167	189	356
	%	46.9%	53.1%	100.0%
Men	N	244	248	492
	%	49.6%	50.4%	100.0%
Out-of-town drivers				
Women	N	172	159	331
	%	52.0%	48.0%	100.0%
Men	N	255	242	497
	%	51.3%	48.7%	100.0%
All other departments				
Hometown drivers				
Women	N	419	893	1,312
	%	31.9%	68.1%	100.0%
Men	N	592	973	1,565
	%	37.8%	62.2%	100.0%
Out-of-town drivers				
Women	N	1,250	1,806	3,056
	%	40.9%	59.1%	100.0%
Men	N	2,061	2,332	4,393
	%	46.9%	53.1%	100.0%
Total				
Hometown drivers				
Women	N	730	1,144	1,874
	%	39.0%	61.0%	100.0%
Men	N	1,071	1,341	2,412
	%	44.4%	55.6%	100.0%
Out-of-town drivers				
Women	N	2,919	2,496	5,415
	%	53.9%	46.1%	100.0%
Men	N	5,308	3,451	8,759
	%	60.6%	39.4%	100.0%

Table 17
Race and Sex, Speeding, Residence
Violations included: Speeding 10 m.p.h. over

Department		Ticket	Warning	Total
State Police				
Hometown drivers				
White women	N	118	46	164
	%	72.0%	28.0%	100.0%
Minority women	N	26	12	38
	%	68.4%	31.6%	100.0%
White men	N	170	87	257
	%	66.1%	33.9%	100.0%
Minority men	N	64	27	91
	%	70.3%	29.7%	100.0%
Out-of-town drivers				
White women	N	1,361	483	1,844
	%	73.8%	26.2%	100.0%
Minority women	N	124	42	166
	%	74.7%	25.3%	100.0%
White men	N	2,576	742	3,318
	%	77.6%	22.4%	100.0%
Minority men	N	386	122	508
	%	76.0%	24.0%	100.0%
Boston Police				
Hometown drivers				
White women	N	59	84	143
	%	41.3%	58.7%	100.0%
Minority women	N	94	101	195
	%	48.2%	51.8%	100.0%
White men	N	76	99	175
	%	43.4%	56.6%	100.0%
Minority men	N	144	143	287
	%	50.2%	49.8%	100.0%
Out-of-town drivers				
White women	N	114	121	235
	%	48.5%	51.5%	100.0%
Minority women	N	44	37	81
	%	54.3%	45.7%	100.0%
White men	N	162	152	314
	%	51.6%	48.4%	100.0%
Minority men	N	71	85	156
	%	45.5%	54.5%	100.0%
All other departments				
Hometown drivers				
White women	N	358	828	1,186
	%	30.2%	69.8%	100.0%
Minority women	N	35	50	85
	%	41.2%	58.8%	100.0%
White men	N	484	887	1,371

	%	35.3%	64.7%	100.0%
Minority men	N	90	71	161
	%	55.9%	44.1%	100.0%
Out-of-town drivers				
White women	N	1,131	1,665	2,796
	%	40.5%	59.5%	100.0%
Minority women	N	86	124	210
	%	41.0%	59.0%	100.0%
White men	N	1,723	2,033	3,756
	%	45.9%	54.1%	100.0%
Minority men	N	292	277	569
	%	51.3%	48.7%	100.0%
Total				
Hometown drivers				
White women	N	535	958	1,493
	%	35.8%	64.2%	100.0%
Minority women	N	155	163	318
	%	48.7%	51.3%	100.0%
White men	N	730	1,073	1,803
	%	40.5%	59.5%	100.0%
Minority men	N	298	241	539
	%	55.3%	44.7%	100.0%
Out-of-town drivers				
White women	N	2,606	2,269	4,875
	%	53.5%	46.5%	100.0%
Minority women	N	254	203	457
	%	55.6%	44.4%	100.0%
White men	N	4,461	2,927	7,388
	%	60.4%	39.6%	100.0%
Minority men	N	749	484	1,233
	%	60.7%	39.3%	100.0%

In several tests of different speeds, the pattern was the same. Here, for example, is 15 mph over in any zone:

Table 18
Race, Speeding, Residence
Violations included: Speeding 15 m.p.h. over

Department		Ticket	Warning	Total
State Police				
Hometown drivers				
Whites	N	150	54	204
	%	73.5%	26.5%	100.0%
Minorities	N	36	22	58
	%	62.1%	37.9%	100.0%
Out-of-town drivers				
Whites	N	2,711	473	3,184
	%	85.1%	14.9%	100.0%
Minorities	N	427	54	481
	%	88.8%	11.2%	100.0%
Boston Police				
Hometown drivers				
Whites	N	60	64	124
	%	48.4%	51.6%	100.0%
Minorities	N	139	71	210
	%	66.2%	33.8%	100.0%
Out-of-town drivers				
Whites	N	108	115	223
	%	48.4%	51.6%	100.0%
Minorities	N	64	46	110
	%	58.2%	41.8%	100.0%
All other departments				
Hometown drivers				
Whites	N	744	1,777	2,521
	%	29.5%	70.5%	100.0%
Minorities	N	122	127	249
	%	49.0%	51.0%	100.0%
Out-of-town drivers				
Whites	N	2,414	3,868	6,282
	%	38.4%	61.6%	100.0%
Minorities	N	328	428	756
	%	43.4%	56.6%	100.0%
Total				
Hometown drivers				
Whites	N	954	1,895	2,849
	%	33.5%	66.5%	100.0%
Minorities	N	297	220	517
	%	57.4%	42.6%	100.0%
Out-of-town drivers				
Whites	N	5,233	4,456	9,689
	%	54.0%	46.0%	100.0%
Minorities	N	819	528	1,347
	%	60.8%	39.2%	100.0%

Table 19
Sex, Speeding, Residence
Violations included: Speeding 15 m.p.h. over

Department		Ticket	Warning	Total
State Police				
Hometown drivers				
Women	N	62	29	91
	%	68.1%	31.9%	100.0%
Men	N	129	48	177
	%	72.9%	27.1%	100.0%
Out-of-town drivers				
Women	N	1,030	195	1,225
	%	84.1%	15.9%	100.0%
Men	N	2,151	334	2,485
	%	86.6%	13.4%	100.0%
Boston Police				
Hometown drivers				
Women	N	77	60	137
	%	56.2%	43.8%	100.0%
Men	N	142	80	222
	%	64.0%	36.0%	100.0%
Out-of-town drivers				
Women	N	63	71	134
	%	47.0%	53.0%	100.0%
Men	N	117	91	208
	%	56.3%	43.8%	100.0%
All other departments				
Hometown drivers				
Women	N	335	885	1,220
	%	27.5%	72.5%	100.0%
Men	N	537	1,031	1,568
	%	34.2%	65.8%	100.0%
Out-of-town drivers				
Women	N	1,043	1,825	2,868
	%	36.4%	63.6%	100.0%
Men	N	1,732	2,506	4,238
	%	40.9%	59.1%	100.0%
Total				
Hometown drivers				
Women	N	474	974	1,448
	%	32.7%	67.3%	100.0%
Men	N	808	1,159	1,967
	%	41.1%	58.9%	100.0%
Out-of-town drivers				
Women	N	2,136	2,091	4,227
	%	50.5%	49.5%	100.0%
Men	N	4,000	2,931	6,931
	%	57.7%	42.3%	100.0%

Table 20
Race and sex, Speeding, Residence
Violations included: Speeding 15 m.p.h. over

Department		Ticket	Warning	Total
State Police				
Hometown drivers				
White women	N	49	22	71
	%	69.0%	31.0%	100.0%
Minority women	N	13	6	19
	%	68.4%	31.6%	100.0%
White men	N	101	32	133
	%	75.9%	24.1%	100.0%
Minority men	N	23	16	39
	%	59.0%	41.0%	100.0%
Out-of-town drivers				
White women	N	918	176	1,094
	%	83.9%	16.1%	100.0%
Minority women	N	106	19	125
	%	84.8%	15.2%	100.0%
White men	N	1,793	297	2,090
	%	85.8%	14.2%	100.0%
Minority men	N	320	35	355
	%	90.1%	9.9%	100.0%
Boston Police				
Hometown drivers				
White women	N	18	32	50
	%	36.0%	64.0%	100.0%
Minority women	N	49	25	74
	%	66.2%	33.8%	100.0%
White men	N	42	32	74
	%	56.8%	43.2%	100.0%
Minority men	N	90	46	136
	%	66.2%	33.8%	100.0%
Out-of-town drivers				
White women	N	43	53	96
	%	44.8%	55.2%	100.0%
Minority women	N	18	17	35
	%	51.4%	48.6%	100.0%
White men	N	65	62	127
	%	51.2%	48.8%	100.0%
Minority men	N	46	29	75
	%	61.3%	38.7%	100.0%
All other departments				
Hometown drivers				
White women	N	296	825	1,121
	%	26.4%	73.6%	100.0%
Minority women	N	38	53	91
	%	41.8%	58.2%	100.0%

White men	N	448	952	1,400
	%	32.0%	68.0%	100.0%
Minority men	N	84	73	157
	%	53.5%	46.5%	100.0%
Out-of-town drivers				
White women	N	937	1,682	2,619
	%	35.8%	64.2%	100.0%
Minority women	N	97	128	225
	%	43.1%	56.9%	100.0%
White men	N	1,476	2,185	3,661
	%	40.3%	59.7%	100.0%
Minority men	N	230	300	530
	%	43.4%	56.6%	100.0%
Total				
Hometown drivers				
White women	N	363	879	1,242
	%	29.2%	70.8%	100.0%
Minority women	N	100	84	184
	%	54.3%	45.7%	100.0%
White men	N	591	1,016	1,607
	%	36.8%	63.2%	100.0%
Minority men	N	197	135	332
	%	59.3%	40.7%	100.0%
Out-of-town drivers				
White women	N	1,898	1,911	3,809
	%	49.8%	50.2%	100.0%
Minority women	N	221	164	385
	%	57.4%	42.6%	100.0%
White men	N	3,334	2,544	5,878
	%	56.7%	43.3%	100.0%
Minority men	N	596	364	960
	%	62.1%	37.9%	100.0%

And if we choose not only a speed, but only in a precise speed zone, the pattern is the same. Here, for example, is the most common violation: 15 mph over in a 30 mph zone.

Table 21
Race, Speeding, Residence
Violations included: Speeding 15 m.p.h. over in a 30

Department		Ticket	Warning	Total
State Police				
Hometown drivers				
Whites	N	10	5	15
	%	66.7%	33.3%	100.0%
Minorities	N	3	2	5
	%	60.0%	40.0%	100.0%
Out-of-town drivers				
Whites	N	18	21	39
	%	46.2%	53.8%	100.0%
Minorities	N	2	2	4
	%	50.0%	50.0%	100.0%
Boston Police				
Hometown drivers				
Whites	N	46	38	84
	%	54.8%	45.2%	100.0%
Minorities	N	88	40	128
	%	68.8%	31.3%	100.0%
Out-of-town drivers				
Whites	N	69	82	151
	%	45.7%	54.3%	100.0%
Minorities	N	44	30	74
	%	59.5%	40.5%	100.0%
All other departments				
Hometown drivers				
Whites	N	322	925	1,247
	%	25.8%	74.2%	100.0%
Minorities	N	55	66	121
	%	45.5%	54.5%	100.0%
Out-of-town drivers				
Whites	N	835	1,749	2,584
	%	32.3%	67.7%	100.0%
Minorities	N	131	187	318
	%	41.2%	58.8%	100.0%
Total				
Hometown drivers				
Whites	N	378	968	1,346
	%	28.1%	71.9%	100.0%
Minorities	N	146	108	254
	%	57.5%	42.5%	100.0%
Out-of-town drivers				
Whites	N	922	1,852	2,774
	%	33.2%	66.8%	100.0%
Minorities	N	177	219	396
	%	44.7%	55.3%	100.0%

Table 22
Sex, Speeding, Residence
Violations included: Speeding 15 m.p.h. over in a 30

Department		Ticket	Warning	Total
State Police				
Hometown drivers				
Women	N	2	5	7
	%	28.6%	71.4%	100.0%
Men	N	11	3	14
	%	78.6%	21.4%	100.0%
Out-of-town drivers				
Women	N	6	10	16
	%	37.5%	62.5%	100.0%
Men	N	15	13	28
	%	53.6%	46.4%	100.0%
Boston Police				
Hometown drivers				
Women	N	39	32	71
	%	54.9%	45.1%	100.0%
Men	N	96	49	145
	%	66.2%	33.8%	100.0%
Out-of-town drivers				
Women	N	34	43	77
	%	44.2%	55.8%	100.0%
Men	N	83	69	152
	%	54.6%	45.4%	100.0%
All other departments				
Hometown drivers				
Women	N	145	469	614
	%	23.6%	76.4%	100.0%
Men	N	235	528	763
	%	30.8%	69.2%	100.0%
Out-of-town drivers				
Women	N	374	853	1,227
	%	30.5%	69.5%	100.0%
Men	N	604	1,100	1,704
	%	35.4%	64.6%	100.0%
Total				
Hometown drivers				
Women	N	186	506	692
	%	26.9%	73.1%	100.0%
Men	N	342	580	922
	%	37.1%	62.9%	100.0%
Out-of-town drivers				
Women	N	414	906	1,320
	%	31.4%	68.6%	100.0%
Men	N	702	1,182	1,884
	%	37.3%	62.7%	100.0%

Table 23
Race and sex, Speeding, Residence
Violations included: Speeding 15 m.p.h. over in a 30

Department		Ticket	Warning	Total
State Police				
Hometown drivers				
White women	N	2	3	5
	%	40.0%	60.0%	100.0%
Minority women	N	1	0	1
	%	100.0%	0.0%	100.0%
White men	N	8	2	10
	%	80.0%	20.0%	100.0%
Minority men	N	3	1	4
	%	75.0%	25.0%	100.0%
Out-of-town drivers				
White women	N	6	9	15
	%	40.0%	60.0%	100.0%
Minority women	N	1	0	1
	%	100.0%	0.0%	100.0%
White men	N	12	12	24
	%	50.0%	50.0%	100.0%
Minority men	N	2	1	3
	%	66.7%	33.3%	100.0%
Boston Police				
Hometown drivers				
White women	N	16	19	35
	%	45.7%	54.3%	100.0%
Minority women	N	22	12	34
	%	64.7%	35.3%	100.0%
White men	N	30	19	49
	%	61.2%	38.8%	100.0%
Minority men	N	66	28	94
	%	70.2%	29.8%	100.0%
Out-of-town drivers				
White women	N	24	33	57
	%	42.1%	57.9%	100.0%
Minority women	N	9	10	19
	%	47.4%	52.6%	100.0%
White men	N	45	49	94
	%	47.9%	52.1%	100.0%
Minority men	N	35	20	55
	%	63.6%	36.4%	100.0%
All other departments				
Hometown drivers				
White women	N	127	441	568
	%	22.4%	77.6%	100.0%
Minority women	N	18	24	42
	%	42.9%	57.1%	100.0%
White men	N	195	484	679
	%	28.7%	71.3%	100.0%
Minority men	N	37	41	78

	%	47.4%	52.6%	100.0%
Out-of-town drivers				
White women	N	337	789	1,126
	%	29.9%	70.1%	100.0%
Minority women	N	33	58	91
	%	36.3%	63.7%	100.0%
White men	N	498	960	1,458
	%	34.2%	65.8%	100.0%
Minority men	N	97	129	226
	%	42.9%	57.1%	100.0%
Total				
Hometown drivers				
White women	N	145	463	608
	%	23.8%	76.2%	100.0%
Minority women	N	41	36	77
	%	53.2%	46.8%	100.0%
White men	N	233	505	738
	%	31.6%	68.4%	100.0%
Minority men	N	106	70	176
	%	60.2%	39.8%	100.0%
Out-of-town drivers				
White women	N	367	831	1,198
	%	30.6%	69.4%	100.0%
Minority women	N	43	68	111
	%	38.7%	61.3%	100.0%
White men	N	555	1,021	1,576
	%	35.2%	64.8%	100.0%
Minority men	N	134	150	284
	%	47.2%	52.8%	100.0%

The pattern held even at higher speeds (16-20 m.p.h., and 25+ m.p.h. over), though the number of citations dwindles.

e.) Racial and ethnic groups.

Here is speeding 15 m.p.h. in any zone, by race/ethnic group:

Table 24
Race/ethnic group, Speeding, Residence
Violations included: Speeding 15 m.p.h. over

Department		Ticket	Warning	Total
State Police				
Hometown drivers				
Asians	N	10	3	13
	%	76.9%	23.1%	100.0%
Blacks	N	15	13	28
	%	53.6%	46.4%	100.0%
Latinos	N	10	6	16
	%	62.5%	37.5%	100.0%
Middle Easterners	N	1	0	1
	%	100.0%	0.0%	100.0%
Native Americans	N	0	0	0
	%	N/A	N/A	N/A
Whites	N	150	54	204
	%	73.5%	26.5%	100.0%
Out-of-town drivers				
Asians	N	107	8	115
	%	93.0%	7.0%	100.0%
Blacks	N	169	25	194
	%	87.1%	12.9%	100.0%
Latinos	N	109	16	125
	%	87.2%	12.8%	100.0%
Middle Easterners	N	41	5	46
	%	89.1%	10.9%	100.0%
Native Americans	N	0	0	0
	%	N/A	N/A	N/A
Whites	N	2,711	473	3,184
	%	85.1%	14.9%	100.0%
Boston Police				
Hometown drivers				
Asians	N	10	7	17
	%	58.8%	41.2%	100.0%
Blacks	N	83	53	136
	%	61.0%	39.0%	100.0%
Latinos	N	44	8	52
	%	84.6%	15.4%	100.0%
Middle Easterners	N	1	3	4
	%	25.0%	75.0%	100.0%
Native Americans	N	1	0	1
	%	100.0%	0.0%	100.0%
Whites	N	60	64	124
	%	48.4%	51.6%	100.0%
Out-of-town drivers				
Asians	N	10	5	15

	%	66.7%	33.3%	100.0%
Blacks	N	39	30	69
	%	56.5%	43.5%	100.0%
Latinos	N	12	10	22
	%	54.5%	45.5%	100.0%
Middle Easterners	N	2	1	3
	%	66.7%	33.3%	100.0%
Native Americans	N	1	0	1
	%	100.0%	0.0%	100.0%
Whites	N	108	115	223
	%	48.4%	51.6%	100.0%
All other departments				
Hometown drivers				
Asians	N	24	26	50
	%	48.0%	52.0%	100.0%
Blacks	N	35	56	91
	%	38.5%	61.5%	100.0%
Latinos	N	48	31	79
	%	60.8%	39.2%	100.0%
Middle Easterners	N	12	11	23
	%	52.2%	47.8%	100.0%
Native Americans	N	3	2	5
	%	60.0%	40.0%	100.0%
Whites	N	744	1,777	2,521
	%	29.5%	70.5%	100.0%
Out-of-town drivers				
Asians	N	60	63	123
	%	48.8%	51.2%	100.0%
Blacks	N	114	209	323
	%	35.3%	64.7%	100.0%
Latinos	N	117	122	239
	%	49.0%	51.0%	100.0%
Middle Easterners	N	32	31	63
	%	50.8%	49.2%	100.0%
Native Americans	N	4	3	7
	%	57.1%	42.9%	100.0%
Whites	N	2,413	3,867	6,280
	%	38.4%	61.6%	100.0%
Total				
Hometown drivers				
Asians	N	44	36	80
	%	55.0%	45.0%	100.0%
Blacks	N	133	122	255
	%	52.2%	47.8%	100.0%
Latinos	N	102	45	147
	%	69.4%	30.6%	100.0%
Middle Easterners	N	14	14	28
	%	50.0%	50.0%	100.0%
Native Americans	N	4	2	6
	%	66.7%	33.3%	100.0%
Whites	N	954	1,895	2,849
	%	33.5%	66.5%	100.0%

Out-of-town drivers				
Asians	N	177	76	253
	%	70.0%	30.0%	100.0%
Blacks	N	322	264	586
	%	54.9%	45.1%	100.0%
Latinos	N	238	148	386
	%	61.7%	38.3%	100.0%
Middle Easterners	N	75	37	112
	%	67.0%	33.0%	100.0%
Native Americans	N	5	3	8
	%	62.5%	37.5%	100.0%
Whites	N	5,232	4,455	9,687
	%	54.0%	46.0%	100.0%
Grand total				
Asians	N	221	112	333
	%	66.4%	33.6%	100.0%
Blacks	N	455	386	841
	%	54.1%	45.9%	100.0%
Latinos	N	340	193	533
	%	63.8%	36.2%	100.0%
Middle Easterners	N	89	51	140
	%	63.6%	36.4%	100.0%
Native Americans	N	9	5	14
	%	64.3%	35.7%	100.0%
Whites	N	6,186	6,350	12,536
	%	49.3%	50.7%	100.0%

f.) Age groups.

Table 25
Age, Race, Speeding
Violations included: Speeding 10-15 m.p.h. over

Department		Ticket	Warning	Total
State Police				
Age 16-25				
Whites	N	2,598	646	3,244
	%	80.1%	19.9%	100.0%
Minorities	N	421	139	560
	%	75.2%	24.8%	100.0%
Age 26-39				
Whites	N	3,053	873	3,926
	%	77.8%	22.2%	100.0%
Minorities	N	536	161	697
	%	76.9%	23.1%	100.0%
Age 40+				
Whites	N	2,742	1,017	3,759
	%	72.9%	27.1%	100.0%
Minorities	N	277	93	370
	%	74.9%	25.1%	100.0%
Boston Police				
Age 16-25				
Whites	N	189	324	513
	%	36.8%	63.2%	100.0%
Minorities	N	249	214	463
	%	53.8%	46.2%	100.0%
Age 26-39				
Whites	N	381	529	910
	%	41.9%	58.1%	100.0%
Minorities	N	420	431	851
	%	49.4%	50.6%	100.0%
Age 40+				
Whites	N	448	638	1,086
	%	41.3%	58.7%	100.0%
Minorities	N	312	367	679
	%	45.9%	54.1%	100.0%
All other departments				
Age 16-25				
Whites	N	2,988	5,426	8,414
	%	35.5%	64.5%	100.0%
Minorities	N	387	563	950
	%	40.7%	59.3%	100.0%
Age 26-39				
Whites	N	3,102	7,394	10,496
	%	29.6%	70.4%	100.0%
Minorities	N	639	884	1,523

	%	42.0%	58.0%	100.0%
Age 40+				
Whites	N	3,252	9,487	12,739
	%	25.5%	74.5%	100.0%
Minorities	N	324	583	907
	%	35.7%	64.3%	100.0%
Total				
Age 16-25				
Whites	N	5,775	6,396	12,171
	%	47.4%	52.6%	100.0%
Minorities	N	1,057	916	1,973
	%	53.6%	46.4%	100.0%
Age 26-39				
Whites	N	6,536	8,796	15,332
	%	42.6%	57.4%	100.0%
Minorities	N	1,595	1,476	3,071
	%	51.9%	48.1%	100.0%
Age 40+				
Whites	N	6,442	11,142	17,584
	%	36.6%	63.4%	100.0%
Minorities	N	913	1,043	1,956
	%	46.7%	53.3%	100.0%

Table 26
Age, Sex, Speeding
Violations included: Speeding 10-15 m.p.h. over

Department		Ticket	Warning	Total
State Police				
Age 16-25				
Women	N	1,154	342	1,496
	%	77.1%	22.9%	100.0%
Men	N	1,899	449	2,348
	%	80.9%	19.1%	100.0%
Age 26-39				
Women	N	1,146	398	1,544
	%	74.2%	25.8%	100.0%
Men	N	2,480	650	3,130
	%	79.2%	20.8%	100.0%
Age 40+				
Women	N	871	363	1,234
	%	70.6%	29.4%	100.0%
Men	N	2,170	763	2,933
	%	74.0%	26.0%	100.0%
Boston Police				
Age 16-25				
Women	N	160	218	378
	%	42.3%	57.7%	100.0%
Men	N	306	327	633
	%	48.3%	51.7%	100.0%
Age 26-39				
Women	N	361	444	805
	%	44.8%	55.2%	100.0%
Men	N	541	527	1,068
	%	50.7%	49.3%	100.0%
Age 40+				
Women	N	346	427	773
	%	44.8%	55.2%	100.0%
Men	N	507	591	1,098
	%	46.2%	53.8%	100.0%
All other departments				
Age 16-25				
Women	N	1,169	2,638	3,807
	%	30.7%	69.3%	100.0%
Men	N	2,266	3,400	5,666
	%	40.0%	60.0%	100.0%
Age 26-39				
Women	N	1,497	3,835	5,332
	%	28.1%	71.9%	100.0%
Men	N	2,299	4,528	6,827
	%	33.7%	66.3%	100.0%
Age 40+				
Women	N	1,484	4,635	6,119
	%	24.3%	75.7%	100.0%
Men	N	2,164	5,553	7,717

	%	28.0%	72.0%	100.0%
Total				
Age 16-25				
Women	N	2,483	3,198	5,681
	%	43.7%	56.3%	100.0%
Men	N	4,471	4,176	8,647
	%	51.7%	48.3%	100.0%
Age 26-39				
Women	N	3,004	4,677	7,681
	%	39.1%	60.9%	100.0%
Men	N	5,320	5,705	11,025
	%	48.3%	51.7%	100.0%
Age 40+				
Women	N	2,701	5,425	8,126
	%	33.2%	66.8%	100.0%
Men	N	4,841	6,907	11,748
	%	41.2%	58.8%	100.0%

Table 27
Age, Race and Sex, Speeding
Violations included: Speeding 10-15 m.p.h. over

Department		Ticket	Warning	Total
State Police				
Age 16-25				
White women	N	1,033	298	1,331
	%	77.6%	22.4%	100.0%
Minority women	N	116	42	158
	%	73.4%	26.6%	100.0%
White men	N	1,564	348	1,912
	%	81.8%	18.2%	100.0%
Minority men	N	305	97	402
	%	75.9%	24.1%	100.0%
Age 26-39				
White women	N	1,003	341	1,344
	%	74.6%	25.4%	100.0%
Minority women	N	132	50	182
	%	72.5%	27.5%	100.0%
White men	N	2,048	531	2,579
	%	79.4%	20.6%	100.0%
Minority men	N	401	111	512
	%	78.3%	21.7%	100.0%
Age 40+				
White women	N	805	333	1,138
	%	70.7%	29.3%	100.0%
Minority women	N	59	27	86
	%	68.6%	31.4%	100.0%
White men	N	1,932	682	2,614
	%	73.9%	26.1%	100.0%
Minority men	N	218	66	284
	%	76.8%	23.2%	100.0%
Boston Police				
Age 16-25				
White women	N	77	151	228
	%	33.8%	66.2%	100.0%
Minority women	N	73	65	138
	%	52.9%	47.1%	100.0%
White men	N	112	172	284
	%	39.4%	60.6%	100.0%
Minority men	N	176	149	325
	%	54.2%	45.8%	100.0%
Age 26-39				
White women	N	153	260	413
	%	37.0%	63.0%	100.0%
Minority women	N	164	179	343
	%	47.8%	52.2%	100.0%
White men	N	228	268	496
	%	46.0%	54.0%	100.0%
Minority men	N	255	251	506
	%	50.4%	49.6%	100.0%
Age 40+				

White women	N	189	279	468
	%	40.4%	59.6%	100.0%
Minority women	N	121	139	260
	%	46.5%	53.5%	100.0%
White men	N	258	357	615
	%	42.0%	58.0%	100.0%
Minority men	N	191	228	419
	%	45.6%	54.4%	100.0%
All other departments				
Age 16-25				
White women	N	1,055	2,466	3,521
	%	30.0%	70.0%	100.0%
Minority women	N	91	154	245
	%	37.1%	62.9%	100.0%
White men	N	1,932	2,959	4,891
	%	39.5%	60.5%	100.0%
Minority men	N	294	409	703
	%	41.8%	58.2%	100.0%
Age 26-39				
White women	N	1,299	3,501	4,800
	%	27.1%	72.9%	100.0%
Minority women	N	177	303	480
	%	36.9%	63.1%	100.0%
White men	N	1,800	3,888	5,688
	%	31.6%	68.4%	100.0%
Minority men	N	460	579	1,039
	%	44.3%	55.7%	100.0%
Age 40+				
White women	N	1,345	4,365	5,710
	%	23.6%	76.4%	100.0%
Minority women	N	107	209	316
	%	33.9%	66.1%	100.0%
White men	N	1,904	5,118	7,022
	%	27.1%	72.9%	100.0%
Minority men	N	215	372	587
	%	36.6%	63.4%	100.0%
Total				
Age 16-25				
White women	N	2,165	2,915	5,080
	%	42.6%	57.4%	100.0%
Minority women	N	280	261	541
	%	51.8%	48.2%	100.0%
White men	N	3,608	3,479	7,087
	%	50.9%	49.1%	100.0%
Minority men	N	775	655	1,430
	%	54.2%	45.8%	100.0%
Age 26-39				
White women	N	2,455	4,102	6,557
	%	37.4%	62.6%	100.0%
Minority women	N	473	532	1,005
	%	47.1%	52.9%	100.0%
White men	N	4,076	4,687	8,763

	%	46.5%	53.5%	100.0%
Minority men	N	1,116	941	2,057
	%	54.3%	45.7%	100.0%
Age 40+				
White women	N	2,339	4,977	7,316
	%	32.0%	68.0%	100.0%
Minority women	N	287	375	662
	%	43.4%	56.6%	100.0%
White men	N	4,094	6,157	10,251
	%	39.9%	60.1%	100.0%
Minority men	N	624	666	1,290
	%	48.4%	51.6%	100.0%

Younger drivers do get ticketed more than older drivers, when stopped for the same speed.

But in every age group, minorities are ticketed more than whites, and men more than women -- even doing the same speed.

And whites get a lot more of a break for being old than minorities do. As whites age, their chance of getting a ticket drops faster than for minorities. So the disparity increases.

Notice also that as men and women age, the disparity decreases. In other words, women's advantage wears out as they age.

The patterns are consistent for both in-town and out-of-town drivers.

Bottom line: At every age group, at every time of day, the police favor the white woman the most, then the white men, then the minority women.

Again, with the State Police, less of a disparity. There is a slightly higher rate for men.

g.) Urban, suburban and rural communities.

Here we use the classifications of communities developed by the Massachusetts Department of Revenue: urbanized area, suburb, rural area, resort community, and growth community.

Outside of Boston, here are types of communities, for speeders cited for 10-15 mph over in a 30, including only residents of the community:

Table 28
Types of Communities, Race, Sex, Speeding
Violations included: Speeding 10-15 m.p.h. over

Department		Ticket	Warning	Total
Urban communities				
White women	N	204	306	510
	%	40.0%	60.0%	100.0%
Minority women	N	44	49	93
	%	47.3%	52.7%	100.0%
White men	N	285	330	615
	%	46.3%	53.7%	100.0%
Minority men	N	104	87	191
	%	54.5%	45.5%	100.0%
Suburban communities				
White women	N	173	1,010	1,183
	%	14.6%	85.4%	100.0%
Minority women	N	16	64	80
	%	20.0%	80.0%	100.0%
White men	N	250	997	1,247
	%	20.0%	80.0%	100.0%
Minority men	N	33	57	90
	%	36.7%	63.3%	100.0%
Rural communities				
White women	N	39	217	256
	%	15.2%	84.8%	100.0%
Minority women	N	3	4	7
	%	42.9%	57.1%	100.0%
White men	N	59	229	288
	%	20.5%	79.5%	100.0%
Minority men	N	1	4	5
	%	20.0%	80.0%	100.0%
Resort communities				
White women	N	4	19	23
	%	17.4%	82.6%	100.0%
Minority women	N	0	0	0
	%	N/A	N/A	N/A
White men	N	6	19	25
	%	24.0%	76.0%	100.0%
Minority men	N	2	2	4

	%	50.0%	50.0%	100.0%
Growth communities				
White women	N	24	366	390
	%	6.2%	93.8%	100.0%
Minority women	N	1	9	10
	%	10.0%	90.0%	100.0%
White men	N	45	328	373
	%	12.1%	87.9%	100.0%
Minority men	N	4	15	19
	%	21.1%	78.9%	100.0%

The pattern is consistent across the main types of towns: urban, suburban and rural.

The disparity against minorities does increase as you move from the cities to the suburbs to the rural areas.

h.) Time of day.

Each citation shows a time, rounded off to the nearest hour. We collapsed the hours into two periods roughly corresponding to daylight and darkness: day (6 a.m. to 5 p.m.) and night (6 p.m. to 5 a.m.).

Here are time of day, age, sex and minority status, for in-town drivers only, exceeding the speed limit by 10-15 m.p.h. State Police citations are excluded.

Table 29
Time of day, Age, Race and Sex, Speeding
Violations included: Speeding 10-15 m.p.h. over

Department		Ticket	Warning	Total
Daytime				
Age 16-25				
White women	N	720	1,618	2,338
	%	30.8%	69.2%	100.0%
Minority women	N	98	142	240
	%	40.8%	59.2%	100.0%
White men	N	1,131	1,747	2,878
	%	39.3%	60.7%	100.0%
Minority men	N	258	293	551
	%	46.8%	53.2%	100.0%
Age 26-39				
White women	N	1,118	2,780	3,898
	%	28.7%	71.3%	100.0%
Minority women	N	234	360	594
	%	39.4%	60.6%	100.0%
White men	N	1,353	2,706	4,059
	%	33.3%	66.7%	100.0%
Minority men	N	436	470	906
	%	48.1%	51.9%	100.0%
Age 40+				
White women	N	1,256	3,684	4,940
	%	25.4%	74.6%	100.0%
Minority women	N	163	267	430
	%	37.9%	62.1%	100.0%
White men	N	1,581	3,848	5,429
	%	29.1%	70.9%	100.0%
Minority men	N	273	382	655
	%	41.7%	58.3%	100.0%
Nighttime				
Age 16-25				
White women	N	412	999	1,411
	%	29.2%	70.8%	100.0%
Minority women	N	66	77	143
	%	46.2%	53.8%	100.0%
White men	N	913	1,384	2,297
	%	39.7%	60.3%	100.0%
Minority men	N	212	265	477
	%	44.4%	55.6%	100.0%
Age 26-39				

White women	N	334	981	1,315
	%	25.4%	74.6%	100.0%
Minority women	N	107	122	229
	%	46.7%	53.3%	100.0%
White men	N	675	1,450	2,125
	%	31.8%	68.2%	100.0%
Minority men	N	279	360	639
	%	43.7%	56.3%	100.0%
Age 40+				
White women	N	278	960	1,238
	%	22.5%	77.5%	100.0%
Minority women	N	65	81	146
	%	44.5%	55.5%	100.0%
White men	N	581	1,627	2,208
	%	26.3%	73.7%	100.0%
Minority men	N	133	218	351
	%	37.9%	62.1%	100.0%

Day or night, minorities and men are ticketed more, even when committing the same traffic offense as whites and women, in their own communities.

i.) Type of vehicle

Is the pattern explained by the age of the car?

We looked first at make of car.

The race and sex disparities hold true, at the common speeds of 10-15 mph over the limit, for Acura, Audi, BMW, Chevrolet, Dodge, Ford, Honda, Isuzu, Lexus, Mazda, Mercedes, Mitsubishi, Nissan, Plymouth, Pontiac, Subaru, Toyota, Volkswagen and Volvo.

Several models had too few citations to draw a conclusion, and there were a few exceptions. For example, while for Lexus the race disparity does appear, with whites advantaged, the sex disparity is reversed, with men advantaged.

Overall, it's clear that the patterns in ticketing are not driven by the make of car. (Logically, it seems reasonable that the type of car would have less to do with who gets a ticket, once stopped, than with which vehicles catch an officer's eye.)

What about the age of the car? Perhaps minorities, tending to be poorer, drive older vehicles, and perhaps police officers treat drivers of older vehicles more harshly. Or perhaps men are ticketed more only when they drive older cars.

No. It turns out that minorities and men are disadvantaged no matter how new or old the vehicle. This is true in every age group of cars, and every age group of drivers. This is true in Boston, and in the other police departments statewide.

We have an estimated vehicle age (calculated from the vehicle year and the year of the ticket) for 60 percent of the citations in the study.

If a vehicle is 1 or 2 years old, we'll call it new. If a vehicle is 3 to 8 years old, we'll call it older. If a car is more than 8 years old, we'll call it old.

Let's add vehicle age into the detailed breakdown for age, minority and sex. Here are age groups, again speeding 10-15 over any speed limit, including both in-town and out-of-town drivers.

Table 30
Vehicle Age, Age, Race and Sex, Speeding
Violations included: Speeding 10-15 m.p.h. over

Department		Ticket	Warning	Total
New Cars (1-2 years)				
State Police				
Age 16-25				
White women	N	172	46	218
	%	78.9%	21.1%	100.0%
Minority women	N	25	5	30
	%	83.3%	16.7%	100.0%
White men	N	244	54	298
	%	81.9%	18.1%	100.0%
Minority men	N	60	14	74
	%	81.1%	18.9%	100.0%

Age 26-39				
White women	N	286	91	377
	%	75.9%	24.1%	100.0%
Minority women	N	39	10	49
	%	79.6%	20.4%	100.0%
White men	N	459	157	616
	%	74.5%	25.5%	100.0%
Minority men	N	74	22	96
	%	77.1%	22.9%	100.0%
Age 40+				
White women	N	188	75	263
	%	71.5%	28.5%	100.0%
Minority women	N	21	9	30
	%	70.0%	30.0%	100.0%
White men	N	431	151	582
	%	74.1%	25.9%	100.0%
Minority men	N	36	12	48
	%	75.0%	25.0%	100.0%
New Cars (1-2 years)				
Boston Police				
Age 16-25				
White women	N	11	32	43
	%	25.6%	74.4%	100.0%
Minority women	N	17	17	34
	%	50.0%	50.0%	100.0%
White men	N	15	29	44
	%	34.1%	65.9%	100.0%
Minority men	N	23	24	47
	%	48.9%	51.1%	100.0%
Age 26-39				
White women	N	63	88	151
	%	41.7%	58.3%	100.0%
Minority women	N	39	38	77
	%	50.6%	49.4%	100.0%
White men	N	67	70	137
	%	48.9%	51.1%	100.0%
Minority men	N	53	61	114
	%	46.5%	53.5%	100.0%
Age 40+				
White women	N	52	92	144
	%	36.1%	63.9%	100.0%
Minority women	N	17	28	45
	%	37.8%	62.2%	100.0%
White men	N	66	112	178
	%	37.1%	62.9%	100.0%
Minority men	N	40	37	77
	%	51.9%	48.1%	100.0%
New Cars (1-2 years)				
All other departments				
Age 16-25				
White women	N	236	535	771
	%	30.6%	69.4%	100.0%

Minority women	N	27	35	62
	%	43.5%	56.5%	100.0%
White men	N	314	489	803
	%	39.1%	60.9%	100.0%
Minority men	N	40	85	125
	%	32.0%	68.0%	100.0%
Age 26-39				
White women	N	403	1,095	1,498
	%	26.9%	73.1%	100.0%
Minority women	N	40	71	111
	%	36.0%	64.0%	100.0%
White men	N	454	1,027	1,481
	%	30.7%	69.3%	100.0%
Minority men	N	96	101	197
	%	48.7%	51.3%	100.0%
Age 40+				
White women	N	434	1,283	1,717
	%	25.3%	74.7%	100.0%
Minority women	N	33	53	86
	%	38.4%	61.6%	100.0%
White men	N	477	1,363	1,840
	%	25.9%	74.1%	100.0%
Minority men	N	44	79	123
	%	35.8%	64.2%	100.0%
New Cars (1-2 years)				
Total				
Age 16-25				
White women	N	419	613	1,032
	%	40.6%	59.4%	100.0%
Minority women	N	69	57	126
	%	54.8%	45.2%	100.0%
White men	N	573	572	1,145
	%	50.0%	50.0%	100.0%
Minority men	N	123	123	246
	%	50.0%	50.0%	100.0%
Age 26-39				
White women	N	752	1,274	2,026
	%	37.1%	62.9%	100.0%
Minority women	N	118	119	237
	%	49.8%	50.2%	100.0%
White men	N	980	1,254	2,234
	%	43.9%	56.1%	100.0%
Minority men	N	223	184	407
	%	54.8%	45.2%	100.0%
Age 40+				
White women	N	674	1,450	2,124
	%	31.7%	68.3%	100.0%
Minority women	N	71	90	161
	%	44.1%	55.9%	100.0%
White men	N	974	1,626	2,600
	%	37.5%	62.5%	100.0%
Minority men	N	120	128	248
	%	48.4%	51.6%	100.0%

Older Cars (3-8 years)				
State Police				
Age 16-25				
White women	N	108	42	150
	%	72.0%	28.0%	100.0%
Minority women	N	10	3	13
	%	76.9%	23.1%	100.0%
White men	N	216	65	281
	%	76.9%	23.1%	100.0%
Minority men	N	29	11	40
	%	72.5%	27.5%	100.0%
Age 26-39				
White women	N	66	36	102
	%	64.7%	35.3%	100.0%
Minority women	N	7	4	11
	%	63.6%	36.4%	100.0%
White men	N	196	48	244
	%	80.3%	19.7%	100.0%
Minority men	N	43	9	52
	%	82.7%	17.3%	100.0%
Age 40+				
White women	N	78	47	125
	%	62.4%	37.6%	100.0%
Minority women	N	9	3	12
	%	75.0%	25.0%	100.0%
White men	N	197	67	264
	%	74.6%	25.4%	100.0%
Minority men	N	27	14	41
	%	65.9%	34.1%	100.0%
Older Cars (3-8 years)				
Boston Police				
Age 16-25				
White women	N	8	14	22
	%	36.4%	63.6%	100.0%
Minority women	N	11	8	19
	%	57.9%	42.1%	100.0%
White men	N	25	29	54
	%	46.3%	53.7%	100.0%
Minority men	N	28	20	48
	%	58.3%	41.7%	100.0%
Age 26-39				
White women	N	17	23	40
	%	42.5%	57.5%	100.0%
Minority women	N	23	31	54
	%	42.6%	57.4%	100.0%
White men	N	24	28	52
	%	46.2%	53.8%	100.0%
Minority men	N	52	38	90
	%	57.8%	42.2%	100.0%
Age 40+				
White women	N	30	26	56

	%	53.6%	46.4%	100.0%
Minority women	N	26	24	50
	%	52.0%	48.0%	100.0%
White men	N	34	44	78
	%	43.6%	56.4%	100.0%
Minority men	N	43	52	95
	%	45.3%	54.7%	100.0%
Older Cars (3-8 years)				
All other departments				
Age 16-25				
White women	N	155	385	540
	%	28.7%	71.3%	100.0%
Minority women	N	4	19	23
	%	17.4%	82.6%	100.0%
White men	N	443	634	1,077
	%	41.1%	58.9%	100.0%
Minority men	N	48	63	111
	%	43.2%	56.8%	100.0%
Age 26-39				
White women	N	125	297	422
	%	29.6%	70.4%	100.0%
Minority women	N	27	27	54
	%	50.0%	50.0%	100.0%
White men	N	260	467	727
	%	35.8%	64.2%	100.0%
Minority men	N	61	91	152
	%	40.1%	59.9%	100.0%
Age 40+				
White women	N	140	458	598
	%	23.4%	76.6%	100.0%
Minority women	N	9	26	35
	%	25.7%	74.3%	100.0%
White men	N	292	735	1,027
	%	28.4%	71.6%	100.0%
Minority men	N	56	67	123
	%	45.5%	54.5%	100.0%
Older Cars (3-8 years)				
Total				
Age 16-25				
White women	N	271	441	712
	%	38.1%	61.9%	100.0%
Minority women	N	25	30	55
	%	45.5%	54.5%	100.0%
White men	N	684	728	1,412
	%	48.4%	51.6%	100.0%
Minority men	N	105	94	199
	%	52.8%	47.2%	100.0%
Age 26-39				
White women	N	208	356	564
	%	36.9%	63.1%	100.0%
Minority women	N	57	62	119
	%	47.9%	52.1%	100.0%

White men	N	480	543	1,023
	%	46.9%	53.1%	100.0%
Minority men	N	156	138	294
	%	53.1%	46.9%	100.0%
Age 40+				
White women	N	248	531	779
	%	31.8%	68.2%	100.0%
Minority women	N	44	53	97
	%	45.4%	54.6%	100.0%
White men	N	523	846	1,369
	%	38.2%	61.8%	100.0%
Minority men	N	126	133	259
	%	48.6%	51.4%	100.0%
Old Cars (9+ years)				
State Police				
Age 16-25				
White women	N	257	80	337
	%	76.3%	23.7%	100.0%
Minority women	N	31	12	43
	%	72.1%	27.9%	100.0%
White men	N	337	68	405
	%	83.2%	16.8%	100.0%
Minority men	N	59	17	76
	%	77.6%	22.4%	100.0%
Age 26-39				
White women	N	234	90	324
	%	72.2%	27.8%	100.0%
Minority women	N	37	14	51
	%	72.5%	27.5%	100.0%
White men	N	423	105	528
	%	80.1%	19.9%	100.0%
Minority men	N	82	30	112
	%	73.2%	26.8%	100.0%
Age 40+				
White women	N	171	87	258
	%	66.3%	33.7%	100.0%
Minority women	N	11	8	19
	%	57.9%	42.1%	100.0%
White men	N	340	144	484
	%	70.2%	29.8%	100.0%
Minority men	N	42	18	60
	%	70.0%	30.0%	100.0%
Old Cars (9+ years)				
Boston Police				
Age 16-25				
White women	N	22	27	49
	%	44.9%	55.1%	100.0%
Minority women	N	25	13	38
	%	65.8%	34.2%	100.0%
White men	N	32	38	70
	%	45.7%	54.3%	100.0%

Minority men	N	45	35	80
	%	56.3%	43.8%	100.0%
Age 26-39				
White women	N	45	82	127
	%	35.4%	64.6%	100.0%
Minority women	N	64	55	119
	%	53.8%	46.2%	100.0%
White men	N	69	69	138
	%	50.0%	50.0%	100.0%
Minority men	N	65	65	130
	%	50.0%	50.0%	100.0%
Age 40+				
White women	N	69	96	165
	%	41.8%	58.2%	100.0%
Minority women	N	48	44	92
	%	52.2%	47.8%	100.0%
White men	N	93	90	183
	%	50.8%	49.2%	100.0%
Minority men	N	55	69	124
	%	44.4%	55.6%	100.0%
Old Cars (9+ years)				
All other departments				
Age 16-25				
White women	N	304	712	1,016
	%	29.9%	70.1%	100.0%
Minority women	N	26	37	63
	%	41.3%	58.7%	100.0%
White men	N	491	751	1,242
	%	39.5%	60.5%	100.0%
Minority men	N	75	99	174
	%	43.1%	56.9%	100.0%
Age 26-39				
White women	N	411	1,088	1,499
	%	27.4%	72.6%	100.0%
Minority women	N	65	111	176
	%	36.9%	63.1%	100.0%
White men	N	475	1,080	1,555
	%	30.5%	69.5%	100.0%
Minority men	N	122	157	279
	%	43.7%	56.3%	100.0%
Age 40+				
White women	N	410	1,369	1,779
	%	23.0%	77.0%	100.0%
Minority women	N	33	79	112
	%	29.5%	70.5%	100.0%
White men	N	505	1,393	1,898
	%	26.6%	73.4%	100.0%
Minority men	N	53	100	153
	%	34.6%	65.4%	100.0%
Old Cars (9+ years)				
Total				
Age 16-25				

White women	N	583	819	1,402
	%	41.6%	58.4%	100.0%
Minority women	N	82	62	144
	%	56.9%	43.1%	100.0%
White men	N	860	857	1,717
	%	50.1%	49.9%	100.0%
Minority men	N	179	151	330
	%	54.2%	45.8%	100.0%
Age 26-39				
White women	N	690	1,260	1,950
	%	35.4%	64.6%	100.0%
Minority women	N	166	180	346
	%	48.0%	52.0%	100.0%
White men	N	967	1,254	2,221
	%	43.5%	56.5%	100.0%
Minority men	N	269	252	521
	%	51.6%	48.4%	100.0%
Age 40+				
White women	N	650	1,552	2,202
	%	29.5%	70.5%	100.0%
Minority women	N	92	131	223
	%	41.3%	58.7%	100.0%
White men	N	938	1,627	2,565
	%	36.6%	63.4%	100.0%
Minority men	N	150	187	337
	%	44.5%	55.5%	100.0%

Again, a consistent pattern. Minorities and men are disadvantaged, whether they're driving new cars or old cars.

j.) Boston neighborhoods.

First, we note from the 2000 Census which parts of Boston are most heavily minority?

Neighborhood	% minority*
Roxbury	95
Dorchester-Mattapan	76
Hyde Park	57
Jamaica Plain	50
Roslindale	44
Charlestown-East Boston	42
Boston Central	33
Allston-Brighton	31
West Roxbury	16
South Boston	15
Boston Central	33

* calculated from Census 2000 using Boston Redevelopment Authority boundaries. Based on the total population, not the driving-age population, which would skew a bit more minority. "Minority" here means the same as in all our calculations: total population - white non-Latino = minority.

We also note which areas of Boston are changing:

There were large gains in black population in Roslindale and Hyde Park.

Even the most white areas -- South Boston, West Roxbury, Charlestown --are less white than they were.

Hispanic residents have increased in all but three neighborhoods: Jamaica Plain, Allston-Brighton and Fenway-Kenmore. The increases were very significant in East Boston, Hyde Park, and Mattapan.

Asians increased in every neighborhood except the South End.

Now, let's check the ticketing pattern in each Boston neighborhood, by minority status, for three groups: neighborhood residents, residents of other Boston neighborhoods, and out-of-towners. This includes all citations in the study, all offenses. Note that the number of citations is small in some areas, probably due to the rough nature of the Registry's system for entering the neighborhood.

Table 31
Boston neighborhoods, race, all offenses
Violations included: All offenses

Department		Ticket	Warning	Total
Allston-Brighton				
Whites	N	521	1,271	1,792
	%	29.1%	70.9%	100.0%
Minorities	N	168	341	509
	%	33.0%	67.0%	100.0%
Boston Central				
Whites	N	1,099	1,049	2,148
	%	51.2%	48.8%	100.0%
Minorities	N	610	418	1,028
	%	59.3%	40.7%	100.0%
Charlestown-East Boston				
Whites	N	212	185	397
	%	53.4%	46.6%	100.0%
Minorities	N	100	28	128
	%	78.1%	21.9%	100.0%
Dorchester-Mattapan				
Whites	N	596	289	885
	%	67.3%	32.7%	100.0%
Minorities	N	1,417	796	2,213
	%	64.0%	36.0%	100.0%
Hyde Park				
Whites	N	15	13	28
	%	53.6%	46.4%	100.0%
Minorities	N	25	25	50
	%	50.0%	50.0%	100.0%
Jamaica Plain				
Whites	N	79	276	355
	%	22.3%	77.7%	100.0%
Minorities	N	107	318	425
	%	25.2%	74.8%	100.0%
Roslindale				
Whites	N	49	215	264
	%	18.6%	81.4%	100.0%
Minorities	N	32	107	139
	%	23.0%	77.0%	100.0%
Roxbury				
Whites	N	792	545	1,337
	%	59.2%	40.8%	100.0%
Minorities	N	843	507	1,350
	%	62.4%	37.6%	100.0%
South Boston				

Whites	N	224	784	1,008
	%	22.2%	77.8%	100.0%
Minorities	N	151	219	370
	%	40.8%	59.2%	100.0%
West Roxbury				
Whites	N	853	1,474	2,327
	%	36.7%	63.3%	100.0%
Minorities	N	951	886	1,837
	%	51.8%	48.2%	100.0%
Total for Boston				
Whites	N	4,440	6,103	10,543
	%	42.1%	57.9%	100.0%
Minorities	N	4,404	3,646	8,050
	%	54.7%	45.3%	100.0%

Whether the drivers are neighborhood residents, or city residents from other neighborhoods, minorities are more heavily ticketed in every neighborhood except Dorchester-Mattapan. And in nearly all neighborhoods, the same holds true for out-of-towners.

This pattern it overturns a common explanation for the pattern of ticketing of minorities. Police forces would do more policing where crime is the highest, and there is generally a higher crime rate in minority areas, which are often poorer areas. So it stands to reason that a high number of traffic stops there, and also more vigorous ticketing of drivers stopped, would drive up the city's ticketing of minorities.

But we see that all areas of the city are contributing to the racial disparity -- all areas, that is, except Dorchester and Mattapan.

A similar pattern holds true for sex:

Table 32
Boston neighborhoods, sex, all offenses
Violations included: All offenses

Department		Ticket	Warning	Total
Allston-Brighton				
Women	N	242	628	870
	%	27.8%	72.2%	100.0%
Men	N	462	1,018	1,480
	%	31.2%	68.8%	100.0%
Boston Central				
Women	N	433	448	881
	%	49.1%	50.9%	100.0%
Men	N	1,373	1,062	2,435
	%	56.4%	43.6%	100.0%
Charlestown-East Boston				
Women	N	101	93	194
	%	52.1%	47.9%	100.0%
Men	N	246	123	369
	%	66.7%	33.3%	100.0%
Dorchester-Mattapan				
Women	N	705	418	1,123
	%	62.8%	37.2%	100.0%
Men	N	1,430	694	2,124
	%	67.3%	32.7%	100.0%
Hyde Park				
Women	N	14	16	30
	%	46.7%	53.3%	100.0%
Men	N	30	22	52
	%	57.7%	42.3%	100.0%
Jamaica Plain				
Women	N	55	253	308
	%	17.9%	82.1%	100.0%
Men	N	142	344	486
	%	29.2%	70.8%	100.0%
Roslindale				
Women	N	38	130	168
	%	22.6%	77.4%	100.0%
Men	N	52	198	250
	%	20.8%	79.2%	100.0%
Roxbury				
Women	N	542	357	899
	%	60.3%	39.7%	100.0%
Men	N	1,157	712	1,869

	%	61.9%	38.1%	100.0%
South Boston				
Women	N	127	336	463
	%	27.4%	72.6%	100.0%
Men	N	327	692	1,019
	%	32.1%	67.9%	100.0%
West Roxbury				
Women	N	821	1,048	1,869
	%	43.9%	56.1%	100.0%
Men	N	1,254	1,331	2,585
	%	48.5%	51.5%	100.0%
Total for Boston				
Women	N	3,078	3,728	6,806
	%	45.2%	54.8%	100.0%
Men	N	6,473	6,198	12,671
	%	51.1%	48.9%	100.0%

9. How fast can you go before you're sure to get a ticket?

The relative fairness of the State Patrol may be connected to a more rigorous approach: writing tickets at certain speeds, and writing warnings at lower speeds.

Let's compare the State Patrol and the Boston Police Department.

For the State Patrol, in highway speed zones (55 and 65), individual officers do vary in their ticketing thresholds, but overall it's pretty consistent. You can go 9 mph over with little chance of getting a ticket, even if you're stopped. But at 10 mph over, it's more than likely, and by 16 mph over the chance is above 90 percent.

But when the Boston Police Department writes the ticket, drivers can go much faster with impunity. They have to go 15 mph over the limit before a ticket is more than likely, and more than 20 mph over for a ticket to be nearly a sure thing. Here is Boston's pattern in a 30 mph speed zone, the most common.

Table 33
How fast can you go?
Violations included: Speeding

State Police				
Speeding in 55 and 65 m.p.h. zones				
MPH over	Tickets	Warnings	% tickets	% warnings
1	0	4	0%	100%
2	0	0	N/A	N/A
3	3	33	8%	92%
4	1	112	1%	99%
5	61	379	14%	86%
6	7	5	58%	42%
7	17	74	19%	81%
8	11	110	9%	91%
9	29	938	3%	97%
10	3,962	1,028	79%	21%
11	89	68	57%	43%
12	216	64	77%	23%
13	417	95	81%	19%
14	392	98	80%	20%
15	2,954	386	88%	12%
16	801	57	93%	7%
17	866	51	94%	6%
18	784	45	95%	5%
19	787	34	96%	4%
20	1,663	60	97%	3%
21	595	15	98%	2%
22	513	4	99%	1%
23	440	6	99%	1%
24	345	5	99%	1%
25	814	10	99%	1%
26	216	2	99%	1%
27	168	0	100%	0%
28	127	0	100%	0%
29	101	0	100%	0%
30	233	4	98%	2%
31+	425	0	100%	0%

Boston Police
Speeding in a 30 m.p.h. zone

MPH over	Tickets	Warnings	% tickets	% warnings
1	0	0	N/A	N/A
2	0	1	0%	100%
3	0	2	0%	100%
4	3	3	50%	50%
5	5	19	21%	79%
6	2	20	9%	91%
7	7	45	13%	87%
8	7	70	9%	91%
9	29	103	22%	78%
10	554	724	43%	57%
11	145	291	33%	67%
12	192	322	37%	63%
13	133	297	31%	69%
14	128	236	35%	65%
15	256	197	57%	43%
16	212	129	62%	38%
17	91	41	69%	31%
18	86	37	70%	30%
19	43	18	70%	30%
20	64	20	76%	24%
21	44	7	86%	14%
22	16	1	94%	6%
23	12	4	75%	25%
24	10	0	100%	0%
25	12	3	80%	20%
26	5	0	100%	0%
27	3	1	75%	25%
28	1	1	50%	50%
29	2	0	100%	0%
30	8	1	89%	11%
31+	10	2	83%	17%

Of course, 15 mph over in a 30 zone is faster, as a percentage of the speed limit, than 15 mph over on a limited-access highway with a 65 mph speed limit. So it may be surprising that you can go more mph over the limit in town, on residential and commercial streets, than on highways. You are going faster on the highway, but not faster as a percentage of the speed limit.

10. Are all State Police troops equally fair?

Here are ticketing rates for State Police troops, for speeding 10 to 15 m.p.h. over the limit in a highway zone (at least 55 mph).

Table 34
State Police troop by troop
Violations included: Speeding 10 to 15 m.p.h. over

Troop		Ticket	Warning	Total
Troop A (Northeast)				
White women	N	307	240	547
	%	56.1%	43.9%	100.0%
Minority women	N	27	19	46
	%	58.7%	41.3%	100.0%
White men	N	625	527	1,152
	%	54.3%	45.7%	100.0%
Minority men	N	108	88	196
	%	55.1%	44.9%	100.0%
Troop B (West)				
White women	N	262	188	450
	%	58.2%	41.8%	100.0%
Minority women	N	35	24	59
	%	59.3%	40.7%	100.0%
White men	N	478	350	828
	%	57.7%	42.3%	100.0%
Minority men	N	110	84	194
	%	56.7%	43.3%	100.0%
Troop C (Central)				
White women	N	562	422	984
	%	57.1%	42.9%	100.0%
Minority women	N	61	48	109
	%	56.0%	44.0%	100.0%
White men	N	988	794	1,782
	%	55.4%	44.6%	100.0%
Minority men	N	168	138	306
	%	54.9%	45.1%	100.0%
Troop D (Southeast)				
White women	N	799	541	1,340
	%	59.6%	40.4%	100.0%
Minority women	N	56	38	94
	%	59.6%	40.4%	100.0%
White men	N	1,479	1,062	2,541
	%	58.2%	41.8%	100.0%
Minority men	N	172	114	286
	%	60.1%	39.9%	100.0%
Troop E (Mass. Pike)				
White women	N	891	842	1,733
	%	51.4%	48.6%	100.0%
Minority women	N	81	76	157
	%	51.6%	48.4%	100.0%

White men	N	1,642	1,586	3,228
	%	50.9%	49.1%	100.0%
Minority men	N	240	228	468
	%	51.3%	48.7%	100.0%
Troop H (Metro Boston)				
White women	N	139	125	264
	%	52.7%	47.3%	100.0%
Minority women	N	24	21	45
	%	53.3%	46.7%	100.0%
White men	N	276	247	523
	%	52.8%	47.2%	100.0%
Minority men	N	83	66	149
	%	55.7%	44.3%	100.0%
Total (all State Police troops)				
White women	N	2,960	2,358	5,318
	%	55.7%	44.3%	100.0%
Minority women	N	284	226	510
	%	55.7%	44.3%	100.0%
White men	N	5,488	4,566	10,054
	%	54.6%	45.4%	100.0%
Minority men	N	881	718	1,599
	%	55.1%	44.9%	100.0%

There is some inconsistency among troops in toughness. But the fairness is noticeable.

11. Do other offenses also show disparities?

Although the Globe focused particularly on speeding, the most common offense, and one for which the severity of the offense is noted on the ticket or warning, other offenses also show disparities.

** The next most common offense is failure to stop. When people are cited in their hometowns for failure to stop, minorities are ticketed 48 percent of the time, and whites 33 percent. Men are ticketed 42 percent, and women 34 percent. Combine the two factors, and minority men are ticketed 50 percent, white women only 28 percent.

** Next most common is driving without an inspection sticker, where the disparity is smaller. When people are cited in their hometowns for driving without an inspection sticker, minorities are ticketed 61 percent of the time, and whites 55 percent. Men are ticketed 60 percent, women only 52 percent. And minority men 61 percent, white women 48 percent.

** For all offenses other than speeding, minorities are ticketed 54 percent of the time, and whites 42 percent. Men are ticketed 49 percent, women 41 percent. And minority men 56 percent, white women 37 percent.

** Each of these calculations excludes the State Police, which show no disparity on race, and smaller gender disparity than other departments. For all offenses other than speeding, the State Police ticket minorities 53 percent, whites 54 percent; men 55 percent, women 50 percent. And minority men 55 percent, white women 51 percent.

So the State Police show no racial disparity, and a sex disparity that is smaller than other departments. This might be related to the greater focus on racial profiling, and/or to the general reputation of men for more aggressive driving.

12. Which departments are the toughest on speeders?

Some departments almost always wrote a ticket, even to their own residents, and others almost always wrote a warning. Discretion is apparently not left entirely up to the individual officer, but reflects a departmental policy.

The following chart includes all speeding citations. Not all of these speeders were similarly situated -- some would be speeding more flagrantly than others. But in every case an officer though the driver was speeding, and thought the violation was serious enough to be written up.

Note that we don't have information on drivers who are let go with only an oral warning. So if a department let most local drivers go with no citation, but ticketed most of the few who cited, it would rank high on this list; its leniency is hidden by the lack of paperwork.

Here are the police agencies in the state, ranked from tough to lenient in ticketing. The only citations included here are for speeding.

(Note: Acton and Woburn police chiefs told the Globe that they failed to send in their warnings to the Registry. That may also be true for the smaller communities reporting no warnings.)

Table 35
Toughest on speeders (ranking)
Violations included: Speeding

Includes only departments with at least 100 citations

Acton and Woburn are excluded, because they failed to submit their warnings.

Rank	Police Department	Citations	Tickets	Warnings	% Ticketed
1	Stoughton	364	349	15	96
2	Salem	213	196	17	92
3	Attleboro	403	365	38	91
3	Lowell	224	203	21	91
5	Fall River	665	590	75	89
6	Raynham	122	107	15	88
7	Chelsea	668	583	85	87
8	Winthrop	107	92	15	86
9	Auburn	253	214	39	85
9	Maynard	177	151	26	85
9	Worcester	1,241	1,052	189	85
12	Westminster	251	212	39	84
13	Pelham	151	126	25	83
14	Brockton	126	103	23	82
14	Middleborough	340	278	62	82
16	Malden	350	284	66	81
17	Medford	306	243	63	79
17	Mendon	374	296	78	79
17	Natick	626	497	129	79
20	Littleton	102	79	23	77
20	State Police	27,454	21,041	6,413	77
22	Hanson	190	145	45	76
23	Avon	142	105	37	74
23	Gardner	224	166	58	74
25	Brookfield	173	126	47	73
25	Lexington	108	79	29	73
25	Pittsfield	350	256	94	73

28	Manchester-by-the-Sea	102	72	30	71
29	Westport	125	88	37	70
30	Groveland	105	72	33	69
30	West Springfield	195	134	61	69
32	Sturbridge	237	156	81	66
33	Lynn	410	267	143	65
34	Belchertown	177	114	63	64
35	Concord	270	170	100	63
35	Wareham	168	105	63	63
37	Easthampton	100	62	38	62
37	Hampden	105	65	40	62
37	Spencer	127	79	48	62
40	Chicopee	285	173	112	61
40	Randolph	199	122	77	61
42	Bellingham	425	256	169	60
42	Tyngsborough	171	102	69	60
44	West Brookfield	153	91	62	59
45	Charlton	159	90	69	57
46	Marshfield	269	151	118	56
46	Watertown	663	371	292	56
48	Billerica	391	214	177	55
48	Middleton	100	55	45	55
48	Rockland	273	151	122	55
51	Framingham	196	106	90	54
51	Freetown	136	74	62	54
53	Chelmsford	152	81	71	53
53	Egremont	167	88	79	53
53	Revere	382	202	180	53
53	Westfield	257	136	121	53
57	Leominster	274	142	132	52
57	Swampscott	149	78	71	52
59	Beverly	282	143	139	51
59	Seekonk	130	66	64	51
59	Sterling	143	73	70	51
59	West Newbury	101	52	49	51
63	Boston	6,656	3,327	3,329	50
63	Marlborough	586	294	292	50
63	Northborough	214	107	107	50
63	Wrentham	192	96	96	50
67	North Andover	310	152	158	49
68	Lincoln	358	173	185	48
69	Holliston	110	52	58	47
69	Tewksbury	172	81	91	47
71	Boylston	110	49	61	45
71	Newbury	149	67	82	45
71	Sutton	103	46	57	45
71	Wellfleet	226	102	124	45
75	Brookline	1,349	593	756	44
76	Greenfield	115	50	65	43
76	Hopkinton	145	62	83	43
78	Blackstone	373	156	217	42
78	East Bridgewater	138	58	80	42
80	Andover	383	156	227	41
81	Ashby	129	52	77	40
81	Canton	495	197	298	40
81	Lancaster	139	55	84	40
81	Methuen	172	69	103	40
81	Williamstown	168	68	100	40

86	Mansfield	155	60	95	39
87	Eastham	429	164	265	38
88	Ayer	313	117	196	37
88	Weymouth	806	301	505	37
90	New Bedford	249	89	160	36
91	Agawam	306	103	203	34
91	Dedham	776	261	515	34
91	Easton	429	144	285	34
91	North Attleborough	322	111	211	34
91	West Bridgewater	124	42	82	34
91	Yarmouth	161	55	106	34
97	Upton	210	69	141	33
97	Wellesley	523	174	349	33
99	Hadley	152	49	103	32
99	Wilbraham	514	166	348	32
101	East Brookfield	108	33	75	31
101	Springfield	471	147	324	31
103	Cambridge	270	81	189	30
104	Ashland	103	30	73	29
104	Burlington	376	110	266	29
104	Fitchburg	164	48	116	29
104	Swansea	217	64	153	29
104	Westford	245	70	175	29
109	Bourne	225	62	163	28
110	Douglas	195	52	143	27
110	Lawrence	181	49	132	27
110	Milford	181	48	133	27
110	Wenham	114	31	83	27
114	Barnstable	619	160	459	26
115	Lenox	357	91	266	25
115	Newburyport	513	127	386	25
115	Wakefield	214	53	161	25
118	Amesbury	153	37	116	24
118	Cohasset	166	40	126	24
118	Hingham	263	63	200	24
118	Hopedale	125	30	95	24
118	Pembroke	239	57	182	24
118	Shrewsbury	489	117	372	24
124	Paxton	182	42	140	23
124	Walpole	220	50	170	23
126	Bedford	183	41	142	22
126	Franklin	771	169	602	22
126	Somerset	242	53	189	22
129	Danvers	351	73	278	21
129	Holden	310	64	246	21
129	Longmeadow	218	46	172	21
129	Templeton	183	39	144	21
133	Norton	118	24	94	20
133	Sandwich	129	26	103	20
133	Townsend	295	58	237	20
136	Belmont	301	56	245	19
136	Norwood	679	126	553	19
138	Waltham	862	156	706	18
138	Weston	265	49	216	18
140	Milton	367	63	304	17
140	Sherborn	156	26	130	17
142	Falmouth	1,138	187	951	16
142	Foxborough	102	16	86	16
142	Westborough	552	90	462	16

145	Dracut	332	51	281	15
145	Pepperell	199	30	169	15
145	Plymouth	1,434	211	1,223	15
145	Southborough	186	27	159	15
149	Harwich	161	21	140	13
149	Hudson	191	24	167	13
149	Mattapoisett	101	13	88	13
149	Palmer	352	45	307	13
149	Wilmington	355	46	309	13
154	Peabody	220	27	193	12
154	Sudbury	551	67	484	12
156	Dennis	215	23	192	11
156	Northampton	172	19	153	11
156	Uxbridge	111	12	99	11
159	Amherst	290	28	262	10
159	Medway	338	34	304	10
161	Arlington	282	25	257	9
161	Braintree	461	43	418	9
161	Westwood	119	11	108	9
164	Bridgewater	787	53	734	7
164	Duxbury	604	43	561	7
164	Norfolk	162	12	150	7
164	Reading	356	24	332	7
164	Winchester	237	17	220	7
169	Newton	1,238	75	1,163	6
169	Northbridge	496	32	464	6
169	Quincy	486	31	455	6
172	Needham	179	8	171	4

Table 36
Toughest on speeders
(all departments, alphabetically)
Violations included: Speeding

Includes all departments

**** Indicates department did not submit any warnings***

Readers are cautioned not to make much of percentages when they are based on a small number of cases, such as fewer than 50.

Police Department	Citations	Tickets	Warnings	% Ticketed
Abington	68	9	59	13
Acton*	192	192	0	100
Acushnet	62	47	15	76
Adams	45	16	29	36
Agawam	306	103	203	34
Amesbury	153	37	116	24
Amherst	290	28	262	10
Andover	383	156	227	41
Aquinnah	7	1	6	14
Arlington	282	25	257	9
Ashburnham	73	25	48	34
Ashby	129	52	77	40
Ashfield	23	18	5	78
Ashland	103	30	73	29
Athol	36	14	22	39
Attleboro	403	365	38	91
Auburn	253	214	39	85
Avon	142	105	37	74
Ayer	313	117	196	37
Barnstable	619	160	459	26
Barre	61	25	36	41
Becket	13	6	7	46
Bedford	183	41	142	22
Belchertown	177	114	63	64
Bellingham	425	256	169	60
Belmont	301	56	245	19
Berkley	39	38	1	97
Berlin	32	30	2	94
Bernardston	13	9	4	69
Beverly	282	143	139	51
Billerica	391	214	177	55
Blackstone	373	156	217	42
Blandford	11	5	6	45
Bolton	44	10	34	23
Boston	6656	3327	3329	50
Bourne	225	62	163	28
Boxborough	83	25	58	30
Boxford	83	24	59	29
Boylston	110	49	61	45
Braintree	461	43	418	9
Brewster	85	16	69	19
Bridgewater	787	53	734	7
Bridgewater State College	8	2	6	25
Brimfield	45	16	29	36
Brockton	126	103	23	82

Brookfield	173	126	47	73
Brookline	1349	593	756	44
Buckland	10	3	7	30
Burlington	376	110	266	29
Cambridge	270	81	189	30
Canton	495	197	298	40
Carlisle	62	21	41	34
Carver	28	3	25	11
Charlemont	29	6	23	21
Charlton	159	90	69	57
Chatham	57	17	40	30
Chelmsford	152	81	71	53
Chelsea	668	583	85	87
Cheshire	64	32	32	50
Chester	30	15	15	50
Chesterfield	47	32	15	68
Chicopee	285	173	112	61
Chilmark	3	0	3	0
Clarksburg	48	25	23	52
Clinton	89	39	50	44
Cohasset	166	40	126	24
Colrain	4	3	1	75
Concord	270	170	100	63
Conway	7	3	4	43
Cummington*	14	14	0	100
Dalton	66	43	23	65
Danvers	351	73	278	21
Dartmouth	57	34	23	60
Dedham	776	261	515	34
Deerfield	77	19	58	25
Dennis	215	23	192	11
Dighton	10	3	7	30
Douglas	195	52	143	27
Dover	73	10	63	14
Dracut	332	51	281	15
Dudley	92	84	8	91
Dunstable	52	27	25	52
Duxbury	604	43	561	7
East Bridgewater	138	58	80	42
East Brookfield	108	33	75	31
East Longmeadow	86	57	29	66
Eastham	429	164	265	38
Easthampton	100	62	38	62
Easton	429	144	285	34
Edgartown	34	14	20	41
Egremont	167	88	79	53
Environmental Police	15	11	4	73
Erving	64	40	24	63
Essex	43	34	9	79
Everett	85	21	64	25
Fairhaven	80	29	51	36
Fall River	665	590	75	89
Falmouth	1138	187	951	16
Fitchburg	164	48	116	29
Foxborough	102	16	86	16
Framingham	196	106	90	54
Franklin	771	169	602	22
Freetown	136	74	62	54
Gardner	224	166	58	74

Georgetown	28	26	2	93
Gill	84	52	32	62
Gloucester*	21	21	0	100
Goshen	38	27	11	71
Grafton	82	10	72	12
Granby	46	30	16	65
Granville	3	2	1	67
Great Barrington	36	26	10	72
Greenfield	115	50	65	43
Groton	95	53	42	56
Groveland	105	72	33	69
Hadley	152	49	103	32
Halifax	42	30	12	71
Hamilton	69	25	44	36
Hampden	105	65	40	62
Hanover	44	29	15	66
Hanson	190	145	45	76
Hardwick	47	28	19	60
Harvard	53	23	30	43
Harwich	161	21	140	13
Hatfield	34	23	11	68
Haverhill	96	88	8	92
Hingham	263	63	200	24
Hinsdale*	50	50	0	100
Holbrook	1	1	0	100
Holden	310	64	246	21
Holland	18	15	3	83
Holliston	110	52	58	47
Holyoke	88	75	13	85
Hopedale	125	30	95	24
Hopkinton	145	62	83	43
Hubbardston	91	32	59	35
Hudson	191	24	167	13
Hull	24	17	7	71
Huntington*	1	1	0	100
Ipswich	20	9	11	45
Kingston	28	9	19	32
Lakeville	59	44	15	75
Lancaster	139	55	84	40
Lanesborough	51	30	21	59
Lawrence	181	49	132	27
Lee	48	33	15	69
Leicester	63	31	32	49
Lenox	357	91	266	25
Leominster	274	142	132	52
Leverett	40	33	7	83
Lexington	108	79	29	73
Leyden*	2	2	0	100
Lincoln	358	173	185	48
Littleton	102	79	23	77
Longmeadow	218	46	172	21
Lowell	224	203	21	91
Ludlow	73	70	3	96
Lunenburg	38	18	20	47
Lynn	410	267	143	65
Lynnfield	12	7	5	58
Malden	350	284	66	81
Manchester-by-the-Sea	102	72	30	71
Mansfield	155	60	95	39

Marblehead	13	7	6	54
Marion	19	7	12	37
Marlborough	586	294	292	50
Marshfield	269	151	118	56
Mashpee	76	16	60	21
Massasoit Community College	27	20	7	74
Mattapoisett	101	13	88	13
Maynard	177	151	26	85
MBTA	30	26	4	87
Medfield	53	5	48	9
Medford	306	243	63	79
Medway	338	34	304	10
Melrose	67	22	45	33
Mendon	374	296	78	79
Merrimac	38	30	8	79
Methuen	172	69	103	40
Metro Police Lower Basin Dist.*	13	13	0	100
Middleborough	340	278	62	82
Middleton	100	55	45	55
Milford	181	48	133	27
Millbury	46	29	17	63
Millis	34	21	13	62
Millville	42	12	30	29
Milton	367	63	304	17
Monson	89	39	50	44
Montague	17	7	10	41
Monterey*	45	45	0	100
Nahant	16	8	8	50
Nantucket	17	11	6	65
Natick	626	497	129	79
Needham	179	8	171	4
New Bedford	249	89	160	36
New Braintree*	5	5	0	100
New Salem	7	6	1	86
Newbury	149	67	82	45
Newburyport	513	127	386	25
Newton	1238	75	1163	6
Norfolk	162	12	150	7
North Adams	56	48	8	86
North Andover	310	152	158	49
North Attleborough	322	111	211	34
North Brookfield	33	14	19	42
North Reading	93	29	64	31
Northampton	172	19	153	11
Northborough	214	107	107	50
Northbridge	496	32	464	6
Northfield	85	72	13	85
Norton	118	24	94	20
Norwell	97	46	51	47
Norwood	679	126	553	19
Oak Bluffs	52	21	31	40
Oakham*	38	38	0	100
Orange	36	23	13	64
Orleans	36	18	18	50
Otis	39	16	23	41
Oxford	37	9	28	24
Palmer	352	45	307	13
Paxton	182	42	140	23
Peabody	220	27	193	12

Pelham	151	126	25	83
Pembroke	239	57	182	24
Pepperell	199	30	169	15
Peru	3	0	3	0
Petersham	37	35	2	95
Phillipston	40	10	30	25
Pittsfield	350	256	94	73
Plainville	31	27	4	87
Plymouth	1434	211	1223	15
Plympton	66	31	35	47
Princeton	89	21	68	24
Provincetown	27	13	14	48
Quincy	486	31	455	6
Randolph	199	122	77	61
Raynham	122	107	15	88
Reading	356	24	332	7
Rehoboth	60	42	18	70
Revere	382	202	180	53
Rochester	35	13	22	37
Rockland	273	151	122	55
Rockport	40	23	17	58
Rowe	3	0	3	0
Rowley	79	46	33	58
Royalston*	14	14	0	100
Rutland	71	28	43	39
Salem	213	196	17	92
Salisbury	93	75	18	81
Sandisfield*	1	1	0	100
Sandwich	129	26	103	20
Saugus	42	32	10	76
Scituate	54	8	46	15
Seekonk	130	66	64	51
Sharon	97	58	39	60
Sheffield	97	96	1	99
Shelburne	28	20	8	71
Sherborn	156	26	130	17
Shirley	84	22	62	26
Shrewsbury	489	117	372	24
Shutesbury	55	36	19	65
Somerset	242	53	189	22
Somerville	59	29	30	49
South Hadley	55	40	15	73
Southampton	80	35	45	44
Southborough	186	27	159	15
Southbridge	80	49	31	61
Southwick	33	5	28	15
Spencer	127	79	48	62
Springfield	471	147	324	31
State Police	27454	21041	6413	77
Sterling	143	73	70	51
Stockbridge	57	3	54	5
Stoneham	17	3	14	18
Stoughton	364	349	15	96
Stow	52	26	26	50
Sturbridge	237	156	81	66
Sudbury	551	67	484	12
Sunderland	19	12	7	63
Sutton	103	46	57	45
Swampscott	149	78	71	52

Swansea	217	64	153	29
Taunton	53	13	40	25
Templeton	183	39	144	21
Templeton Developmental Center	3	0	3	0
Tewksbury	172	81	91	47
Tisbury	14	6	8	43
Tolland*	2	2	0	100
Topsfield	87	64	23	74
Townsend	295	58	237	20
Truro	64	37	27	58
Tyngsborough	171	102	69	60
Tyringham	8	4	4	50
Univ Of Mass Amherst	44	34	10	77
Univ Of Mass Boston	20	7	13	35
Univ Of Mass Dartmouth	12	11	1	92
Univ Of Mass Lowell	1	1	0	100
Univ Of Mass Worcester	6	2	4	33
Upton	210	69	141	33
Uxbridge	111	12	99	11
Wakefield	214	53	161	25
Wales*	1	1	0	100
Walpole	220	50	170	23
Walter East Ferneld State School	1	0	1	0
Waltham	862	156	706	18
Ware	81	47	34	58
Wareham	168	105	63	63
Warren	22	11	11	50
Warwick*	1	1	0	100
Watertown	663	371	292	56
Wayland*	32	32	0	100
Webster	55	24	31	44
Wellesley	523	174	349	33
Wellfleet	226	102	124	45
Wendell	9	6	3	67
Wenham	114	31	83	27
West Boylston	86	32	54	37
West Bridgewater	124	42	82	34
West Brookfield	153	91	62	59
West Newbury	101	52	49	51
West Springfield	195	134	61	69
West Stockbridge	60	55	5	92
West Tisbury	49	13	36	27
Westborough	552	90	462	16
Westfield	257	136	121	53
Westfield State College	7	0	7	0
Westford	245	70	175	29
Westhampton	14	12	2	86
Westminster	251	212	39	84
Weston	265	49	216	18
Westport	125	88	37	70
Westwood	119	11	108	9
Weymouth	806	301	505	37
Whately	99	61	38	62
Whitman	52	48	4	92
Wilbraham	514	166	348	32
Williamsburg	60	49	11	82
Williamstown	168	68	100	40
Wilmington	355	46	309	13

Winchendon	32	16	16	50
Winchester	237	17	220	7
Windsor*	1	1	0	100
Winthrop	107	92	15	86
Woburn*	305	305	0	100
Worcester	1241	1052	189	85
Worcester County Sheriff	4	1	3	25
Worthington	14	10	4	71
Wrentham	192	96	96	50
Yarmouth	161	55	106	34

13. Which departments are tougher on out-of-town speeders than on locals?

Most police agencies in the state ticket out-of-town drivers at a higher rate than in-town drivers.

Here are the police agencies in the state, ranked by the difference in ticketing rates for in-towners and out-of-towners, for all speeding citations.

The "hometown advantage" was calculated by subtracting the local percentage from the out-of-town percentage, so it's a difference in percentage points between the two rates.

Table 37
Toughest on out-of-towners
(larger departments, ranked by hometown advantage)

Violations included: Speeding

Includes only departments writing 50 citations to both in-town and out-of-town drivers

The hometown advantage is a percentage point difference, subtracting one rate from the other

Rank	Department	% ticketed in-town	% ticketed out-of-town	Hometown advantage	Citations in-town	Citations out-of-town
1	Sturbridge	38%	73%	35%	50	187
2	Northborough	30%	56%	26%	50	163
3	Billerica	38%	63%	25%	129	260
4	Canton	22%	45%	23%	115	378
5	Fitchburg	18%	40%	22%	82	82
5	Bellingham	43%	65%	22%	97	324
7	North Andover	33%	54%	21%	75	234
8	Hopkinton	30%	50%	20%	53	92
8	Middleborough	66%	85%	20%	61	277
10	Burlington	16%	34%	18%	90	284
10	Longmeadow	9%	27%	18%	68	148
10	Westford	19%	37%	18%	116	127
10	Gardner	61%	79%	18%	59	165
14	Shrewsbury	13%	29%	16%	143	341
14	Blackstone	30%	47%	16%	102	264
14	Douglas	15%	31%	16%	53	142
17	Beverly	42%	57%	15%	110	171
17	Townsend	9%	24%	15%	86	205
19	Leominster	45%	60%	14%	150	124
19	Weymouth	29%	42%	14%	302	504
19	Dedham	22%	36%	14%	113	662
22	Rockland	46%	59%	13%	76	197
22	Milford	19%	32%	13%	77	103
24	Pittsfield	67%	79%	12%	167	181
24	Andover	33%	45%	12%	128	253
24	Belchertown	56%	68%	12%	50	127
24	Watertown	47%	58%	12%	116	544
28	Westfield	46%	57%	11%	92	165
28	Norfolk	0%	11%	11%	52	109
28	Amesbury	18%	29%	11%	62	91
31	Norwood	10%	21%	10%	135	542
31	Walpole	16%	26%	10%	80	140
31	Brockton	77%	87%	10%	71	55
34	Pembroke	19%	28%	9%	102	137

34	Agawam	30%	39%	9%	170	131
34	Brookline	37%	46%	9%	266	1,070
37	Randolph	56%	65%	8%	80	119
37	North Attleborough	28%	37%	8%	95	223
37	Lynn	61%	69%	8%	213	194
37	Concord	57%	65%	8%	65	205
41	Mansfield	34%	42%	7%	64	91
41	Natick	74%	81%	7%	123	503
41	Bourne	23%	30%	7%	81	143
44	Wilbraham	28%	34%	6%	171	340
44	Templeton	17%	24%	6%	69	114
44	Wareham	60%	66%	6%	72	94
44	Medway	6%	11%	6%	72	263
44	Milton	13%	18%	6%	72	295
44	Barnstable	23%	29%	6%	337	278
44	Easton	30%	36%	6%	185	240
51	Wilmington	9%	14%	5%	89	264
51	Sudbury	9%	14%	5%	175	375
51	Stoughton	92%	97%	5%	73	289
51	Chicopee	58%	63%	5%	106	179
51	Yarmouth	31%	36%	5%	61	100
56	Hudson	10%	14%	4%	71	120
56	Westborough	13%	17%	4%	123	428
58	Wakefield	23%	26%	3%	75	139
58	Hingham	22%	25%	3%	78	184
58	Falmouth	14%	18%	3%	430	696
58	Waltham	16%	19%	3%	226	625
58	Lowell	89%	92%	3%	89	131
58	Medford	78%	80%	3%	85	220
58	Sandwich	19%	21%	3%	59	70
58	Arlington	7%	10%	3%	85	197
66	Dennis	10%	12%	2%	82	129
66	Franklin	21%	23%	2%	333	434
66	Revere	52%	54%	2%	133	246
66	Harwich	12%	14%	2%	50	111
70	Bridgewater	6%	7%	1%	241	541
70	Marlborough	49%	51%	1%	259	325
70	Framingham	53%	54%	1%	90	105
70	Methuen	40%	40%	1%	78	94
74	Duxbury	7%	7%	0%	173	431
74	Malden	81%	81%	0%	59	291
74	Northampton	11%	11%	0%	53	119
77	Newburyport	26%	25%	-1%	139	331
77	Plymouth	15%	14%	-1%	822	610
77	Newton	7%	6%	-1%	365	845
77	Danvers	21%	20%	-1%	75	274
77	Palmer	13%	12%	-1%	97	253
77	Pepperell	16%	15%	-1%	69	129
77	Worcester	85%	84%	-1%	593	645
84	Boston	51%	49%	-2%	3,225	3,369
84	Peabody	14%	12%	-2%	74	146
84	Somerset	23%	21%	-2%	113	128
84	Reading	8%	6%	-2%	138	217
84	Northbridge	8%	6%	-2%	179	317
84	Braintree	11%	9%	-2%	118	343
84	Chelsea	89%	87%	-2%	128	537
84	Quincy	8%	5%	-2%	221	264
84	Winchester	9%	7%	-2%	67	168
93	Fall River	90%	87%	-3%	311	350

93	Attleboro	93%	90%	-3%	150	248
93	Amherst	12%	8%	-3%	86	201
96	Wellesley	36%	32%	-4%	127	395
96	Dracut	18%	14%	-4%	141	189
98	Tewksbury	50%	45%	-5%	66	104
98	Marshfield	58%	53%	-5%	154	115
100	Needham	8%	3%	-6%	61	114
100	Holden	25%	19%	-6%	110	200
102	Salem	98%	90%	-8%	51	162
103	Springfield	37%	26%	-11%	217	252
104	Lawrence	36%	22%	-14%	66	112
104	New Bedford	41%	27%	-14%	159	90

Table 38
Ticketing residents and out-of-towners
(all departments, alphabetically)

Violations included: Speeding

Includes all departments				
* Indicates department submitted no warnings				

Readers are cautioned not to make much of percentages when they are based on a small number of cases, such as fewer than 50.

Department	% ticketed in-town	% ticketed out-of-town	Citations in-town	Citations out-of-town
Abington	0%	15%	9	59
Acton*	100%	100%	57	134
Acushnet	77%	75%	22	40
Adams	15%	44%	13	32
Agawam	30%	39%	170	131
Amesbury	18%	29%	62	91
Amherst	12%	8%	86	201
Andover	33%	45%	128	253
Aquinnah	N/A	14%	0	7
Arlington	7%	10%	85	197
Ashburnham	41%	31%	17	54
Ashby	50%	40%	6	122
Ashfield	33%	85%	3	20
Ashland	24%	32%	34	69
Athol	29%	47%	17	19
Attleboro	93%	90%	150	248
Auburn	73%	87%	40	212
Avon	67%	74%	3	138
Ayer	31%	39%	49	264
Barnstable	23%	29%	337	278
Barre	21%	47%	14	47
Becket	N/A	46%	0	13
Bedford	10%	26%	39	142
Belchertown	56%	68%	50	127
Bellingham	43%	65%	97	324
Belmont	16%	19%	49	247
Berkley	75%	100%	4	35
Berlin	N/A	94%	0	32
Bernardston	N/A	69%	0	13
Beverly	42%	57%	110	171
Billerica	38%	63%	129	260
Blackstone	30%	47%	102	264
Blandford	N/A	45%	0	11
Bolton	25%	23%	4	40
Boston	51%	49%	3,225	3,369
Bourne	23%	30%	81	143
Boxborough	5%	38%	20	63
Boxford	24%	31%	25	58
Boylston	50%	45%	6	103
Braintree	11%	9%	118	343
Brewster	27%	15%	30	54

Bridgewater	6%	7%	241	541
Brimfield	0%	37%	3	41
Brockton	77%	87%	71	55
Brookfield	43%	74%	7	166
Brookline	37%	46%	266	1,070
Buckland	N/A	30%	0	10
Burlington	16%	34%	90	284
Cambridge	29%	30%	42	225
Canton	22%	45%	115	378
Carlisle	33%	34%	9	53
Carver	20%	9%	5	23
Charlemont	N/A	21%	0	29
Charlton	48%	60%	40	119
Chatham	32%	29%	19	38
Chelmsford	51%	55%	45	104
Chelsea	89%	87%	128	537
Cheshire	13%	55%	8	56
Chester	0%	56%	3	27
Chesterfield	33%	73%	6	41
Chicopee	58%	63%	106	179
Chilmark	N/A	0%	0	3
Clarksburg	N/A	52%	0	48
Clinton	45%	43%	22	67
Cohasset	6%	28%	31	134
Colrain	100%	67%	1	3
Concord	57%	65%	65	205
Conway	0%	60%	2	5
Cummington*	N/A	100%	0	14
Dalton	56%	67%	9	57
Danvers	21%	20%	75	274
Dartmouth	65%	55%	26	31
Dedham	22%	36%	113	662
Deerfield	16%	29%	25	52
Dennis	10%	12%	82	129
Dighton	0%	33%	1	9
Douglas	15%	31%	53	142
Dover	9%	15%	11	62
Dracut	18%	14%	141	189
Dudley	87%	92%	15	76
Dunstable	33%	54%	6	46
Duxbury	7%	7%	173	431
East Bridgewater	39%	43%	36	102
East Brookfield	0%	31%	3	104
East Longmeadow	56%	71%	27	58
Eastham	20%	40%	40	383
Easthampton	56%	65%	34	66
Easton	30%	36%	185	240
Edgartown	70%	29%	10	24
Egremont	25%	53%	4	160
Erving	0%	65%	2	62
Essex	63%	83%	8	35
Everett	21%	26%	24	61
Fairhaven	31%	39%	29	51
Fall River	90%	87%	311	350
Falmouth	14%	18%	430	696
Fitchburg	18%	40%	82	82
Foxborough	14%	17%	36	66
Framingham	53%	54%	90	105
Franklin	21%	23%	333	434

Freetown	36%	59%	25	111
Gardner	61%	79%	59	165
Georgetown	75%	96%	4	24
Gill	N/A	62%	0	84
Gloucester*	100%	100%	11	10
Goshen	N/A	73%	0	37
Grafton	21%	7%	28	54
Granby	25%	69%	4	42
Granville	N/A	67%	0	3
Great Barrington	64%	75%	11	24
Greenfield	47%	42%	43	72
Groton	46%	60%	28	67
Groveland	58%	70%	12	93
Hadley	26%	33%	19	132
Halifax	67%	72%	3	39
Hamilton	27%	38%	11	58
Hampden	31%	67%	13	91
Hanover	62%	68%	13	31
Hanson	57%	79%	23	167
Hardwick	20%	66%	5	41
Harvard	44%	43%	18	35
Harwich	12%	14%	50	111
Hatfield	57%	70%	7	27
Haverhill	90%	93%	52	43
Hingham	22%	25%	78	184
Hinsdale*	100%	100%	7	42
Holbrook	100%	N/A	1	0
Holden	25%	19%	110	200
Holland	100%	81%	2	16
Holliston	50%	46%	28	82
Holyoke	81%	87%	27	61
Hopedale	13%	26%	16	109
Hopkinton	30%	50%	53	92
Hubbardston	40%	35%	10	81
Hudson	10%	14%	71	120
Hull	64%	80%	14	10
Huntington*	100%	N/A	1	0
Ipswich	46%	43%	13	7
Kingston	22%	37%	9	19
Lakeville	25%	78%	4	55
Lancaster	19%	43%	21	118
Lanesborough	33%	60%	3	48
Lawrence	36%	22%	66	112
Lee	50%	73%	8	40
Leicester	33%	54%	15	48
Lenox	17%	27%	47	308
Leominster	45%	60%	150	124
Leverett	25%	89%	4	36
Lexington	74%	73%	35	73
Leyden*	100%	100%	1	1
Lincoln	23%	52%	40	315
Littleton	43%	80%	7	94
Longmeadow	9%	27%	68	148
Lowell	89%	92%	89	131
Ludlow	93%	98%	29	44
Lunenburg	20%	52%	5	33
Lynn	61%	69%	213	194
Lynnfield	75%	50%	4	8
Malden	81%	81%	59	291

Manchester-by-the-Sea	50%	74%	14	88
Mansfield	34%	42%	64	91
Marblehead	50%	56%	4	9
Marion	25%	40%	4	15
Marlborough	49%	51%	259	325
Marshfield	58%	53%	154	115
Mashpee	15%	24%	26	49
Mattapoisett	12%	13%	26	75
Maynard	67%	88%	24	152
MBTA	100%	86%	1	29
Medfield	14%	9%	7	46
Medford	78%	80%	85	220
Medway	6%	11%	72	263
Melrose	22%	37%	18	49
Mendon	26%	82%	19	354
Merrimac	50%	87%	6	30
Methuen	40%	40%	78	94
Middleborough	66%	85%	61	277
Middleton	50%	56%	12	88
Milford	19%	32%	77	103
Millbury	40%	73%	15	30
Millis	50%	64%	6	28
Millville	33%	28%	3	39
Milton	13%	18%	72	295
Monson	37%	49%	38	51
Montague	100%	33%	2	15
Monterey*	100%	100%	1	44
Nahant	50%	50%	4	12
Nantucket	62%	75%	13	4
Natick	74%	81%	123	503
Needham	8%	3%	61	114
New Bedford	41%	27%	159	90
New Braintree*	N/A	100%	0	5
New Salem	N/A	86%	0	7
Newbury	7%	49%	14	135
Newburyport	26%	25%	139	331
Newton	7%	6%	365	845
Norfolk	0%	11%	52	109
North Adams	84%	87%	25	31
North Andover	33%	54%	75	234
North Attleborough	28%	37%	95	223
North Brookfield	36%	45%	11	22
North Reading	18%	39%	34	59
Northampton	11%	11%	53	119
Northborough	30%	56%	50	163
Northbridge	8%	6%	179	317
Northfield	64%	88%	11	74
Norton	6%	26%	32	86
Norwell	67%	42%	24	72
Norwood	10%	21%	135	542
Oak Bluffs	0%	43%	3	49
Oakham*	100%	100%	5	33
Orange	50%	71%	12	24
Orleans	40%	52%	5	29
Otis	0%	43%	2	37
Oxford	20%	25%	5	32
Palmer	13%	12%	97	253
Paxton	15%	24%	13	169
Peabody	14%	12%	74	146

Pelham	N/A	83%	0	150
Pembroke	19%	28%	102	137
Pepperell	16%	15%	69	129
Peru	N/A	0%	0	3
Petersham	0%	97%	1	36
Phillipston	N/A	25%	0	40
Pittsfield	67%	79%	167	181
Plainville	N/A	87%	0	31
Plymouth	15%	14%	822	610
Plympton	25%	48%	4	62
Princeton	8%	26%	12	77
Provincetown	50%	47%	8	19
Quincy	8%	5%	221	264
Randolph	56%	65%	80	119
Raynham	88%	88%	26	96
Reading	8%	6%	138	217
Rehoboth	75%	69%	8	52
Revere	52%	54%	133	246
Rochester	0%	43%	5	30
Rockland	46%	59%	76	197
Rockport	33%	72%	15	25
Rowe	N/A	0%	0	3
Rowley	42%	62%	12	66
Royalston*	N/A	100%	0	14
Rutland	31%	41%	13	58
Salem	98%	90%	51	162
Salisbury	50%	84%	10	82
Sandisfield*	N/A	100%	0	1
Sandwich	19%	21%	59	70
Saugus	71%	77%	7	35
Scituate	11%	25%	38	16
Seekonk	27%	56%	22	108
Sharon	40%	67%	25	72
Sheffield	92%	100%	13	84
Shelburne	N/A	71%	0	28
Sherborn	12%	17%	17	138
Shirley	36%	24%	14	70
Shrewsbury	13%	29%	143	341
Shutesbury	50%	66%	2	53
Somerset	23%	21%	113	128
Somerville	35%	56%	20	39
South Hadley	78%	73%	9	44
Southampton	25%	46%	12	67
Southborough	3%	17%	29	156
Southbridge	49%	73%	39	41
Southwick	21%	11%	14	18
Spencer	49%	70%	47	80
Springfield	37%	26%	217	252
State Police	68%	77%	2,180	24,726
Sterling	40%	53%	25	118
Stockbridge	0%	6%	5	49
Stoneham	17%	18%	6	11
Stoughton	92%	97%	73	289
Stow	40%	50%	5	46
Sturbridge	38%	73%	50	187
Sudbury	9%	14%	175	375
Sunderland	100%	56%	3	16
Sutton	29%	47%	14	89
Swampscott	68%	50%	22	127

Swansea	12%	35%	49	165
Taunton	23%	26%	30	23
Templeton	17%	24%	69	114
Tewksbury	50%	45%	66	104
Tisbury	20%	56%	5	9
Tolland*	N/A	100%	0	2
Topsfield	75%	73%	12	75
Townsend	9%	24%	86	205
Truro	N/A	55%	0	60
Tyngsborough	59%	60%	29	138
Tyringham	N/A	50%	0	8
Upton	20%	34%	20	190
Uxbridge	3%	14%	29	81
Wakefield	23%	26%	75	139
Wales*	N/A	100%	0	1
Walpole	16%	26%	80	140
Waltham	16%	19%	226	625
Ware	40%	66%	25	56
Wareham	60%	66%	72	94
Warren	25%	56%	4	18
Warwick*	N/A	100%	0	1
Watertown	47%	58%	116	544
Wayland*	100%	100%	6	26
Webster	39%	46%	18	37
Wellesley	36%	32%	127	395
Wellfleet	18%	47%	11	212
Wendell	50%	80%	4	5
Wenham	25%	27%	8	106
West Boylston	42%	36%	12	73
West Bridgewater	0%	36%	7	117
West Brookfield	40%	61%	10	142
West Newbury	47%	52%	17	84
West Springfield	70%	68%	33	161
West Stockbridge	0%	93%	1	59
West Tisbury	0%	28%	3	46
Westborough	13%	17%	123	428
Westfield	46%	57%	92	165
Westford	19%	37%	116	127
Westhampton	N/A	86%	0	14
Westminster	74%	85%	19	230
Weston	8%	20%	36	226
Westport	60%	74%	35	90
Westwood	6%	10%	18	101
Weymouth	29%	42%	302	504
Whately	0%	63%	2	97
Whitman	100%	90%	12	40
Wilbraham	28%	34%	171	340
Williamsburg	67%	82%	3	56
Williamstown	21%	45%	33	134
Wilmington	9%	14%	89	264
Winchendon	36%	57%	11	21
Winchester	9%	7%	67	168
Windsor*	N/A	100%	0	1
Winthrop	82%	89%	44	63
Woburn*	100%	100%	49	253
Worcester	85%	84%	593	645
Worcester County Sheriff	0%	33%	1	3
Worthington	0%	77%	1	13
Wrentham	42%	52%	38	154

Yarmouth	31%	36%	61	100

14. Which departments are more likely to ticket minorities?

Because many communities had few "chances" to ticket or warn minorities -- that is, they wrote few citations of any type to minorities during the two months of the study -- we did not rank communities on the relative ticketing rate for minorities and whites. And the numbers would get even smaller if we controlled for the precise speed, or residence of the drivers.

Instead we will report the information we have for each town, in alphabetical order, as a guide for police and citizens. (We previously reported in January the share of tickets written to town residents that went to minorities in each town, compared with the share of minorities in the driving-age population.) Of course, readers are cautioned not to make much of percentages when the base number of citations is low, such as below 50.

Here are figures for speeding citations. Each chart shows the department, percentage of minority drivers ticketed, percentage of white drivers ticketed, the disparity in percentage points (0=even), and total number of citations to each group.

Table 39
Ticketing whites and minorities
(all departments, alphabetically)

Violations included: Speeding

Includes all departments				
* Indicates department submitted no warnings				

Readers are cautioned not to make much of percentages when they are based on a small number of cases, such as fewer than 50.

Department	% ticketed white	% ticketed minority	Citations white	Citations minority
Abington	11%	67%	64	3
Acton*	100%	100%	86	14
Acushnet	75%	100%	59	3
Adams	36%	50%	42	2
Agawam	33%	42%	286	19
Amesbury	24%	22%	144	9
Amherst	10%	7%	247	41
Andover	39%	52%	315	63
Aquinnah	14%	N/A	7	0
Arlington	8%	14%	231	51
Ashburnham	33%	67%	67	3
Ashby	41%	20%	124	5
Ashfield	78%	N/A	23	0
Ashland	31%	0%	95	7
Athol	40%	0%	35	1
Attleboro	91%	81%	368	31
Auburn	83%	95%	230	22
Avon	69%	87%	86	52
Ayer	37%	45%	284	29
Barnstable	24%	54%	578	39
Barre	41%	N/A	61	0
Becket	46%	N/A	13	0
Bedford	20%	44%	167	16
Belchertown	64%	78%	167	9
Bellingham	58%	90%	392	29
Belmont	19%	19%	248	52

Berkley	97%	N/A	39	0
Berlin	92%	100%	26	5
Bernardston	69%	N/A	13	0
Beverly	51%	46%	269	13
Billerica	53%	77%	349	39
Blackstone	40%	71%	356	17
Blandford	45%	N/A	11	0
Bolton	17%	43%	36	7
Boston	43%	53%	3,430	2,860
Bourne	27%	23%	210	13
Boxborough	31%	25%	70	12
Boxford	29%	14%	73	7
Boylston	37%	83%	91	18
Braintree	7%	20%	408	49
Brewster	16%	60%	80	5
Bridgewater	6%	14%	746	36
Bridgewater State College	29%	0%	7	1
Brimfield	36%	0%	42	1
Brockton	84%	79%	85	38
Brookfield	72%	100%	165	7
Brookline	43%	47%	1,044	297
Buckland	22%	100%	9	1
Burlington	28%	38%	336	40
Cambridge	31%	25%	173	83
Canton	39%	39%	441	46
Carlisle	34%	33%	59	3
Carver	11%	0%	27	1
Charlemont	24%	0%	25	4
Charlton	57%	44%	149	9
Chatham	31%	0%	55	2
Chelmsford	54%	52%	121	29
Chelsea	86%	90%	482	181
Cheshire	44%	75%	54	8
Chester	48%	100%	29	1
Chesterfield	67%	100%	46	1
Chicopee	61%	60%	240	45
Chilmark	0%	N/A	2	0
Clarksburg	48%	100%	44	4
Clinton	46%	22%	79	9
Cohasset	23%	60%	160	5
Colrain	75%	N/A	4	0
Concord	61%	85%	250	20
Conway	43%	N/A	7	0
Cummington*	100%	100%	13	1
Dalton	66%	50%	62	4
Danvers	21%	23%	337	13
Dartmouth	62%	40%	52	5
Dedham	33%	36%	642	121
Deerfield	24%	100%	76	1
Dennis	11%	13%	198	16
Dighton	30%	N/A	10	0
Douglas	25%	50%	180	12
Dover	14%	0%	69	3
Dracut	15%	17%	306	23
Dudley	91%	89%	82	9
Dunstable	51%	50%	49	2
Duxbury	7%	17%	576	18
East Bridgewater	40%	58%	126	12
East Brookfield	30%	33%	101	6

East Longmeadow	65%	75%	78	8
Eastham	39%	32%	399	28
Easthampton	60%	82%	89	11
Easton	33%	38%	391	32
Edgartown	40%	67%	30	3
Egremont	54%	25%	159	8
Environmental Police	60%	100%	10	3
Erving	61%	100%	62	2
Essex	76%	100%	38	4
Everett	23%	32%	62	22
Fairhaven	37%	0%	78	2
Fall River	89%	89%	635	28
Falmouth	16%	18%	1,056	72
Fitchburg	25%	33%	123	36
Foxborough	14%	25%	92	8
Framingham	51%	68%	158	34
Franklin	21%	29%	720	42
Freetown	53%	80%	130	5
Gardner	73%	88%	207	16
Georgetown	92%	100%	25	2
Gill	61%	100%	83	1
Gloucester*	100%	100%	18	2
Goshen	69%	100%	36	2
Grafton	13%	0%	78	4
Granby	63%	75%	38	8
Granville	67%	N/A	3	0
Great Barrington	78%	33%	32	3
Greenfield	45%	14%	108	7
Groton	55%	100%	94	1
Groveland	68%	100%	103	2
Hadley	32%	33%	134	18
Halifax	72%	67%	39	3
Hamilton	36%	50%	67	2
Hampden	62%	67%	101	3
Hanover	68%	100%	40	2
Hanson	76%	75%	175	12
Hardwick	59%	67%	44	3
Harvard	45%	40%	47	5
Harwich	12%	22%	151	9
Hatfield	64%	100%	28	3
Haverhill	92%	90%	85	10
Hingham	24%	50%	259	4
Hinsdale*	100%	100%	48	2
Holbrook	100%	N/A	1	0
Holden	20%	43%	283	14
Holland	82%	N/A	17	0
Holliston	45%	62%	97	13
Holyoke	86%	67%	81	6
Hopedale	23%	25%	116	8
Hopkinton	42%	55%	134	11
Hubbardston	31%	0%	74	3
Hudson	12%	17%	178	12
Hull	70%	100%	23	1
Huntington*	100%	N/A	1	0
Ipswich	47%	0%	19	1
Kingston	32%	N/A	25	0
Lakeville	75%	75%	55	4
Lancaster	37%	48%	111	27
Lanesborough	58%	100%	48	2

Lawrence	29%	50%	52	36
Lee	67%	100%	45	3
Leicester	46%	71%	54	7
Lenox	24%	43%	333	23
Leominster	50%	61%	224	49
Leverett	82%	100%	38	1
Lexington	70%	86%	86	22
Leyden*	100%	N/A	2	0
Lincoln	49%	44%	331	25
Littleton	77%	78%	93	9
Longmeadow	20%	40%	203	15
Lowell	91%	91%	149	55
Ludlow	96%	100%	71	2
Lunenburg	50%	0%	36	2
Lynn	64%	67%	306	104
Lynnfield	60%	100%	10	1
Malden	81%	82%	293	57
Manchester-by-the-Sea	70%	100%	100	2
Mansfield	39%	29%	148	7
Marblehead	50%	67%	10	3
Marion	38%	33%	16	3
Marlborough	46%	64%	459	121
Marshfield	55%	86%	260	7
Mashpee	22%	25%	65	8
Massasoit Community College	80%	57%	20	7
Mattapoisett	13%	0%	98	3
Maynard	88%	80%	147	20
MBTA	86%	83%	21	6
Medfield	10%	0%	50	3
Medford	79%	81%	259	42
Medway	8%	32%	307	28
Melrose	32%	50%	63	4
Mendon	79%	92%	362	12
Merrimac	76%	100%	33	2
Methuen	36%	50%	129	38
Metro Police Lower Basin Dist.*	100%	100%	11	2
Middleborough	82%	87%	317	15
Middleton	54%	67%	93	6
Milford	26%	33%	162	18
Millbury	58%	100%	40	5
Millis	68%	0%	31	3
Millville	28%	50%	40	2
Milton	15%	19%	208	157
Monson	44%	0%	88	1
Montague	38%	N/A	16	0
Monterey*	100%	100%	42	2
Nahant	53%	0%	15	1
Nantucket	73%	0%	15	2
Natick	77%	90%	498	124
Needham	5%	0%	160	17
New Bedford	35%	39%	217	31
New Braintree*	100%	100%	4	1
New Salem	83%	100%	6	1
Newbury	44%	60%	144	5
Newburyport	25%	18%	500	11
Newton	6%	8%	1,047	134
Norfolk	7%	17%	156	6
North Adams	85%	100%	54	2

North Andover	48%	58%	275	31
North Attleborough	34%	42%	285	24
North Brookfield	42%	N/A	33	0
North Reading	30%	50%	89	4
Northampton	11%	10%	162	10
Northborough	47%	61%	169	44
Northbridge	6%	8%	481	13
Northfield	84%	100%	81	4
Norton	22%	0%	110	8
Norwell	48%	33%	94	3
Norwood	17%	31%	614	59
Oak Bluffs	41%	33%	46	6
Oakham*	100%	100%	36	2
Orange	62%	100%	34	2
Orleans	51%	0%	35	1
Otis	42%	0%	38	1
Oxford	28%	0%	32	3
Palmer	13%	13%	336	15
Paxton	24%	0%	176	6
Peabody	11%	30%	208	10
Pelham	82%	94%	134	16
Pembroke	24%	0%	233	5
Pepperell	14%	33%	192	6
Peru	0%	N/A	3	0
Petersham	94%	100%	35	2
Phillipston	26%	0%	39	1
Pittsfield	74%	63%	320	30
Plainville	86%	100%	28	3
Plymouth	15%	12%	1,382	51
Plympton	48%	0%	65	1
Princeton	24%	25%	85	4
Provincetown	46%	100%	26	1
Quincy	5%	9%	341	102
Randolph	58%	70%	133	61
Raynham	88%	78%	112	9
Reading	7%	0%	333	22
Rehoboth	70%	67%	54	6
Revere	50%	75%	331	36
Rochester	35%	100%	34	1
Rockland	55%	72%	253	18
Rockport	58%	50%	38	2
Rowe	0%	N/A	3	0
Rowley	59%	100%	74	2
Royalston*	100%	100%	13	1
Rutland	40%	0%	70	1
Salem	90%	100%	167	46
Salisbury	80%	100%	89	3
Sandisfield*	100%	N/A	1	0
Sandwich	19%	40%	124	5
Saugus	74%	100%	39	3
Scituate	15%	N/A	54	0
Seekonk	50%	60%	125	5
Sharon	57%	77%	83	13
Sheffield	99%	100%	95	2
Shelburne	71%	N/A	28	0
Sherborn	15%	29%	139	17
Shirley	26%	25%	72	12
Shrewsbury	23%	29%	407	76
Shutesbury	69%	25%	51	4

Somerset	21%	100%	216	1
Somerville	46%	52%	37	21
South Hadley	74%	67%	46	9
Southampton	44%	100%	78	1
Southborough	13%	21%	143	42
Southbridge	61%	61%	62	18
Southwick	16%	0%	32	1
Spencer	61%	80%	122	5
Springfield	30%	36%	370	101
State Police	76%	80%	23,178	3,888
Sterling	47%	90%	128	10
Stockbridge	5%	0%	55	2
Stoneham	18%	N/A	17	0
Stoughton	96%	92%	311	51
Stow	47%	100%	49	2
Sturbridge	65%	82%	224	11
Sudbury	11%	18%	486	61
Sunderland	59%	100%	17	2
Sutton	42%	83%	97	6
Swampscott	52%	53%	117	30
Swansea	29%	33%	213	3
Taunton	26%	17%	47	6
Templeton	18%	100%	170	2
Templeton Developmental Center	0%	N/A	3	0
Tewksbury	45%	62%	155	13
Tisbury	46%	0%	13	1
Tolland*	100%	N/A	1	0
Topsfield	72%	100%	81	6
Townsend	19%	40%	282	10
Truro	51%	100%	55	8
Tyngsborough	61%	50%	151	20
Tyringham	50%	N/A	8	0
Univ Of Mass Amherst	74%	100%	38	6
Univ Of Mass Boston	20%	50%	10	10
Univ Of Mass Dartmouth	92%	N/A	12	0
Univ Of Mass Lowell	100%	N/A	1	0
Univ Of Mass Worcester	33%	N/A	6	0
Upton	32%	40%	191	10
Uxbridge	10%	20%	105	5
Wakefield	24%	33%	202	9
Wales*	100%	N/A	1	0
Walpole	22%	29%	196	14
Walter East Ferneld State School	N/A	0%	0	1
Waltham	16%	30%	727	132
Ware	59%	50%	76	2
Wareham	63%	54%	147	13
Warren	47%	50%	19	2
Warwick*	100%	N/A	1	0
Watertown	51%	70%	478	185
Wayland*	100%	100%	26	4
Webster	39%	25%	46	4
Wellesley	31%	44%	427	91
Wellfleet	45%	44%	204	18
Wendell	67%	N/A	9	0
Wenham	28%	0%	111	3
West Boylston	37%	50%	82	4
West Bridgewater	32%	50%	110	14

West Brookfield	57%	69%	134	16
West Newbury	49%	100%	94	4
West Springfield	68%	71%	157	38
West Stockbridge	91%	100%	56	4
West Tisbury	22%	75%	45	4
Westborough	15%	22%	474	74
Westfield	52%	64%	235	22
Westfield State College	0%	N/A	7	0
Westford	28%	32%	223	22
Westhampton	88%	N/A	8	0
Westminster	84%	86%	228	22
Weston	19%	19%	217	37
Westport	70%	100%	123	2
Westwood	10%	7%	105	14
Weymouth	37%	48%	759	40
Whately	61%	70%	88	10
Whitman	94%	75%	48	4
Wilbraham	32%	44%	497	16
Williamsburg	81%	100%	58	1
Williamstown	40%	50%	158	8
Wilmington	12%	30%	327	23
Winchendon	48%	100%	31	1
Winchester	8%	0%	219	15
Windsor*	N/A	100%	0	1
Winthrop	87%	85%	85	20
Woburn*	100%	100%	263	41
Worcester	83%	91%	1,006	206
Worcester County Sheriff	25%	N/A	4	0
Worthington	71%	N/A	14	0
Wrentham	47%	81%	176	16
Yarmouth	34%	33%	149	12

15. Which departments are more likely to ticket men?

Again, we do not rank communities, but report the information for all speeding citations.

Table 40
Ticketing women and men
(all departments, alphabetically)

Violations included: Speeding

Includes all departments				
* Indicates department submitted no warnings				

Readers are cautioned not to make much of percentages when they are based on a small number of cases, such as fewer than 50.

Department	% ticketed women	% ticketed men	Citations women	Citations men
Abington	10%	16%	29	38
Acton	100%	100%	73	110
Acushnet	55%	80%	11	51
Adams	41%	32%	17	28
Agawam	26%	39%	125	180
Amesbury	16%	30%	67	86
Amherst	8%	11%	120	169
Andover	34%	46%	165	216
Aquinnah	N/A	14%	0	7
Arlington	5%	12%	111	171
Ashburnham	30%	37%	27	46
Ashby	22%	46%	32	97
Ashfield	57%	88%	7	16
Ashland	32%	27%	47	56
Athol	36%	41%	14	22
Attleboro	91%	90%	195	208
Auburn	79%	87%	76	175
Avon	76%	73%	37	105
Ayer	34%	39%	104	208
Barnstable	20%	32%	312	306
Barre	34%	47%	29	32
Becket	67%	40%	3	10
Bedford	15%	27%	67	116
Belchertown	52%	71%	61	116
Bellingham	52%	65%	152	273
Belmont	11%	24%	123	178
Berkley	92%	100%	13	26
Berlin	91%	95%	11	21
Bernardston	80%	63%	5	8
Beverly	49%	53%	138	143
Billerica	45%	62%	172	218
Blackstone	36%	46%	157	216
Blandford	33%	100%	9	2
Bolton	19%	22%	16	27
Boston	47%	52%	2636	3998
Bourne	17%	34%	84	140
Boxborough	21%	36%	33	50
Boxford	30%	29%	27	55
Boylston	35%	52%	46	63
Braintree	4%	13%	182	278
Brewster	10%	24%	31	54

Bridgewater	3%	10%	358	429
Bridgewater State College	50%	0%	4	4
Brimfield	25%	39%	16	28
Brockton	91%	78%	35	91
Brookfield	70%	75%	71	101
Brookline	40%	47%	545	799
Buckland	38%	0%	8	2
Burlington	23%	33%	154	222
Cambridge	28%	31%	99	171
Canton	32%	45%	218	274
Carlisle	25%	37%	16	46
Carver	0%	16%	9	19
Charlemont	20%	21%	10	19
Charlton	50%	61%	64	94
Chatham	23%	35%	26	31
Chelmsford	46%	58%	52	99
Chelsea	84%	89%	224	442
Cheshire	54%	45%	24	38
Chester	40%	52%	5	25
Chesterfield	56%	74%	16	31
Chicopee	64%	59%	97	188
Chilmark	N/A	0%	0	3
Clarksburg	33%	61%	15	33
Clinton	40%	48%	43	46
Cohasset	26%	22%	81	85
Colrain	0%	100%	1	3
Concord	59%	66%	118	152
Conway	50%	33%	4	3
Cummington	100%	100%	6	8
Dalton	67%	64%	24	42
Danvers	13%	27%	154	195
Dartmouth	60%	59%	15	41
Dedham	31%	35%	306	466
Deerfield	23%	26%	39	38
Dennis	9%	11%	65	150
Dighton	50%	25%	2	8
Douglas	19%	30%	59	135
Dover	6%	20%	33	40
Dracut	16%	15%	128	204
Dudley	93%	90%	40	52
Dunstable	47%	53%	15	36
Duxbury	5%	9%	283	315
East Bridgewater	29%	50%	52	86
East Brookfield	22%	34%	32	76
East Longmeadow	57%	71%	30	56
Eastham	33%	41%	159	269
Easthampton	54%	70%	50	50
Easton	23%	43%	209	219
Edgartown	36%	47%	14	19
Egremont	45%	57%	64	103
Environmental Police	100%	67%	1	12
Erving	35%	75%	20	44
Essex	69%	83%	13	29
Everett	16%	29%	25	59
Fairhaven	31%	41%	39	41
Fall River	87%	90%	308	356
Falmouth	13%	19%	482	655
Fitchburg	16%	40%	74	90
Foxborough	9%	23%	54	48

Framingham	53%	54%	90	105
Franklin	21%	23%	362	405
Freetown	49%	57%	43	93
Gardner	65%	79%	75	149
Georgetown	90%	94%	10	18
Gill	54%	69%	39	45
Gloucester	100%	100%	3	18
Goshen	79%	67%	14	24
Grafton	4%	16%	25	57
Granby	63%	67%	19	27
Granville	N/A	67%	0	3
Great Barrington	75%	74%	8	27
Greenfield	37%	50%	57	58
Groton	50%	61%	44	51
Groveland	65%	71%	49	56
Hadley	28%	38%	83	69
Halifax	61%	79%	18	24
Hamilton	36%	36%	36	33
Hampden	57%	67%	49	55
Hanover	50%	69%	8	36
Hanson	77%	76%	73	117
Hardwick	56%	62%	18	29
Harvard	38%	46%	16	37
Harwich	7%	18%	72	89
Hatfield	59%	76%	17	17
Haverhill	97%	89%	29	66
Hingham	15%	29%	96	167
Hinsdale	100%	100%	18	32
Holbrook	100%	N/A	1	0
Holden	14%	26%	137	172
Holland	75%	85%	4	13
Holliston	55%	42%	44	66
Holyoke	93%	78%	41	46
Hopedale	23%	25%	48	77
Hopkinton	45%	41%	53	92
Hubbardston	38%	33%	37	54
Hudson	6%	17%	70	121
Hull	50%	86%	10	14
Huntington	N/A	100%	0	1
Ipswich	50%	43%	6	14
Kingston	18%	56%	17	9
Lakeville	79%	73%	14	45
Lancaster	27%	51%	67	72
Lanesborough	69%	57%	13	37
Lawrence	15%	34%	61	114
Lee	60%	72%	15	32
Leicester	33%	54%	15	48
Lenox	18%	32%	169	187
Leominster	48%	54%	102	171
Leverett	64%	92%	14	25
Lexington	74%	73%	38	70
Leyden	N/A	100%	0	2
Lincoln	45%	51%	145	212
Littleton	64%	88%	44	58
Longmeadow	19%	23%	94	124
Lowell	92%	90%	71	153
Ludlow	100%	94%	26	47
Lunenburg	46%	48%	13	25
Lynn	68%	63%	177	233

Lynnfield	75%	50%	4	8
Malden	77%	84%	145	205
Manchester-by-the-Sea	68%	72%	38	64
Mansfield	40%	38%	62	93
Marblehead	50%	55%	2	11
Marion	38%	36%	8	11
Marlborough	46%	53%	250	333
Marshfield	45%	65%	124	144
Mashpee	13%	25%	30	44
Massasoit Community College	56%	83%	9	18
Mattapoisett	9%	16%	43	58
Maynard	81%	87%	58	117
MBTA	75%	90%	8	20
Medfield	4%	15%	27	26
Medford	77%	80%	114	189
Medway	6%	13%	127	209
Melrose	26%	41%	35	32
Mendon	79%	79%	171	203
Merrimac	67%	83%	9	29
Methuen	34%	45%	79	93
Metro Police Lower Basin Dist.	100%	100%	3	10
Middleborough	79%	83%	107	231
Middleton	47%	63%	51	49
Milford	11%	36%	66	115
Millbury	63%	63%	16	30
Millis	50%	68%	12	22
Millville	20%	33%	15	27
Milton	14%	19%	138	229
Monson	27%	51%	26	63
Montague	29%	50%	7	10
Monterey	100%	100%	15	29
Nahant	67%	46%	3	13
Nantucket	50%	69%	4	13
Natick	75%	83%	266	359
Needham	5%	2%	93	85
New Bedford	24%	46%	111	136
New Braintree	100%	100%	1	4
New Salem	100%	80%	2	5
Newbury	33%	50%	48	101
Newburyport	20%	29%	255	257
Newton	5%	7%	522	703
Norfolk	4%	12%	85	77
North Adams	90%	81%	29	27
North Andover	41%	56%	139	170
North Attleborough	31%	37%	145	177
North Brookfield	50%	40%	8	25
North Reading	19%	36%	27	66
Northampton	9%	13%	89	83
Northborough	38%	57%	81	131
Northbridge	2%	9%	209	286
Northfield	89%	82%	28	57
Norton	8%	26%	38	80
Norwell	57%	43%	30	67
Norwood	15%	21%	285	392
Oak Bluffs	27%	46%	15	37
Oakham	100%	100%	14	24
Orange	60%	65%	10	26
Orleans	30%	58%	10	26
Otis	25%	45%	8	31

Oxford	8%	36%	13	22
Palmer	10%	15%	159	193
Paxton	12%	31%	74	108
Peabody	8%	18%	130	89
Pelham	82%	84%	62	88
Pembroke	23%	24%	111	128
Pepperell	5%	22%	80	119
Peru	0%	0%	1	2
Petersham	93%	96%	14	23
Phillipston	8%	33%	13	27
Pittsfield	73%	73%	156	194
Plainville	80%	90%	10	21
Plymouth	11%	18%	656	777
Plympton	46%	48%	35	31
Princeton	15%	29%	33	56
Provincetown	50%	48%	6	21
Quincy	4%	8%	186	284
Randolph	51%	69%	85	114
Raynham	85%	90%	61	60
Reading	4%	9%	152	204
Rehoboth	54%	74%	13	47
Revere	45%	59%	166	211
Rochester	38%	36%	13	22
Rockland	56%	54%	124	149
Rockport	25%	71%	12	28
Rowe	N/A	0%	0	3
Rowley	44%	66%	25	53
Royalston	100%	100%	7	7
Rutland	36%	40%	14	57
Salem	87%	95%	87	125
Salisbury	75%	85%	40	52
Sandisfield	N/A	100%	0	1
Sandwich	12%	26%	52	77
Saugus	71%	82%	24	17
Scituate	15%	14%	26	28
Seekonk	49%	52%	59	71
Sharon	58%	60%	38	58
Sheffield	97%	100%	36	58
Shelburne	50%	80%	8	20
Sherborn	12%	19%	57	99
Shirley	24%	27%	25	59
Shrewsbury	15%	31%	208	280
Shutesbury	50%	76%	22	33
Somerset	17%	26%	112	129
Somerville	36%	52%	14	44
South Hadley	63%	81%	24	31
Southampton	29%	54%	31	48
Southborough	7%	20%	82	104
Southbridge	48%	70%	33	47
Southwick	0%	21%	9	24
Spencer	59%	64%	41	86
Springfield	27%	34%	204	267
State Police	74%	78%	8848	18512
Sterling	44%	56%	59	82
Stockbridge	7%	3%	28	29
Stoneham	0%	25%	5	12
Stoughton	96%	96%	161	203
Stow	33%	61%	21	31
Sturbridge	52%	75%	96	141

Sudbury	10%	14%	229	322
Sunderland	56%	70%	9	10
Sutton	18%	60%	38	65
Swampscott	46%	59%	76	73
Swansea	25%	35%	113	104
Taunton	35%	19%	17	36
Templeton	16%	27%	93	90
Templeton Developmental Center	N/A	0%	0	3
Tewksbury	33%	55%	66	105
Tisbury	0%	42%	1	12
Tolland	N/A	100%	0	2
Topsfield	70%	77%	44	43
Townsend	12%	23%	102	192
Truro	50%	61%	18	46
Tyngsborough	57%	61%	58	113
Tyringham	25%	75%	4	4
Univ Of Mass Amherst	60%	86%	15	29
Univ Of Mass Boston	0%	41%	3	17
Univ Of Mass Dartmouth	100%	89%	3	9
Univ of Mass Lowell	N/A	100%	0	1
Univ Of Mass Worcester	25%	50%	4	2
Upton	30%	34%	83	126
Uxbridge	10%	12%	52	59
Wakefield	18%	30%	94	120
Wales	N/A	100%	0	1
Walpole	21%	24%	107	103
Walter East Ferneld State School	N/A	0%	0	1
Waltham	17%	19%	344	517
Ware	59%	58%	29	52
Wareham	50%	70%	62	106
Warren	40%	58%	10	12
Warwick	N/A	100%	0	1
Watertown	45%	63%	254	409
Wayland	100%	100%	8	24
Webster	48%	41%	21	34
Wellesley	24%	39%	204	319
Wellfleet	39%	49%	85	141
Wendell	100%	63%	1	8
Wenham	25%	29%	55	59
West Boylston	35%	38%	34	52
West Bridgewater	27%	38%	48	76
West Brookfield	53%	62%	47	106
West Newbury	48%	53%	42	57
West Springfield	69%	68%	94	101
West Stockbridge	96%	89%	23	37
West Tisbury	19%	30%	16	33
Westborough	12%	20%	238	313
Westfield	48%	57%	116	141
Westfield State College	0%	0%	3	4
Westford	20%	35%	106	139
Westhampton	67%	100%	6	8
Westminster	84%	84%	116	134
Weston	17%	20%	107	157
Westport	58%	77%	43	81
Westwood	6%	11%	49	70
Weymouth	34%	41%	358	442
Whately	59%	65%	41	57
Whitman	89%	94%	19	33
Wilbraham	28%	36%	232	282

Williamsburg	76%	87%	29	31
Williamstown	37%	42%	68	99
Wilmington	12%	13%	143	210
Winchendon	25%	65%	12	20
Winchester	7%	7%	110	126
Windsor	100%	N/A	1	0
Winthrop	81%	88%	37	69
Woburn	100%	100%	142	163
Worcester	83%	86%	528	710
Worcester County Sheriff	50%	0%	2	2
Worthington	67%	73%	3	11
Wrentham	57%	47%	69	122
Yarmouth	22%	44%	72	89

16. Does the race of the officer matter?

Only for Boston Police officers did the Globe know the race/ethnicity of the officers. That information is not included on citations, but the Globe obtained that information for Boston.

Here's a summary of the patterns for Boston police officers, their race/ethnicity, and their ticketing patterns by race/ethnicity of driver.

First, it appears that minority officers are tougher overall, writing tickets on more of the citations than white officers are.

Second, it appears that this is true for both black and Latino officers.

Third, it appears that black officers are tougher on Latinos than on blacks.

Fourth, we can't say whether Latino officers, in turn, are tougher on blacks than on Latinos. There are too few cases.

Finally, for other racial groups there are too few citations to allow a conclusion.

Table 41
Race of officers and drivers in Boston
Violations included: All Speeding

	Race/ethnicity of officers									
	White officers		Minority officers		Latino officers		Black officers		Asian officers	
	Ticket	Warning	Ticket	Warning	Ticket	Warning	Ticket	Warning	Ticket	Warning
Race/ethnicity of drivers										
White drivers	796	1,220	657	694	174	158	431	528	52	8
	39.5%	60.5%	48.6%	51.4%	52.4%	47.6%	44.9%	55.1%	86.7%	13.3%
Minority drivers	708	809	785	500	117	57	635	441	30	1
	46.7%	53.3%	61.1%	38.9%	67.2%	32.8%	59.0%	41.0%	96.8%	3.2%
Latino drivers	173	170	171	81	28	14	138	67	5	0
	50.4%	49.6%	67.9%	32.1%	66.7%	33.3%	67.3%	32.7%	100.0%	0.0%
Black drivers	438	534	554	368	72	35	459	331	20	1
	45.1%	54.9%	60.1%	39.9%	67.3%	32.7%	58.1%	41.9%	95.2%	4.8%
Asian drivers	77	71	46	41	14	6	30	35	2	0
	52.0%	48.0%	52.9%	47.1%	70.0%	30.0%	46.2%	53.8%	100.0%	0.0%
Middle Eastern drivers	18	31	13	10	3	2	7	8	3	0
	36.7%	63.3%	56.5%	43.5%	60.0%	40.0%	46.7%	53.3%	100.0%	0.0%
Native American drivers	2	3	1	0	0	0	1	0	0	0
	40.0%	60.0%	100.0%	0.0%	N/A	N/A	100.0%	0.0%	N/A	N/A

In terms of black-on-Latino and Latino-on-black ticketing, here are some of the numbers:

Black cops:

a) If you start with the most restricted group, looking at just the speeding of a certain type, 10-15 over in a 30 mph zone, and just Bostonians: ticketed 67 percent of Latinos (66 cases), 47 percent of blacks (215 cases), 43 percent of whites (132 cases).

b) Remove the Bostonian restriction, and we get more cases: 65 percent of Latinos (96 cases), 48 percent of blacks (308 cases), 44 percent of whites (411 cases).

c) If you open it up to 10-15 m.p.h. over in any zone: 69 percent of Latinos (139 cases), 54 percent of blacks (537 cases), 47 percent of whites (668 cases).

d) If you open it up to all speeding: 67 percent of Latinos (205 cases), 58 percent of blacks (790 cases), 45 percent of whites (959 cases).

But we have far fewer cases when we look at Latino cops and black drivers:

a) If you start with the most restricted group, looking at just the speeding of a certain type, 10-15 over in a 30 mph zone, and just Bostonians: 59 percent of Latinos (just 17 cases), 70 percent of blacks (33 cases), 43 percent of whites (49 cases). Very few cases of the Latino-on-black type.

b) Remove the Bostonian restriction, and we get more cases: 58 percent of Latinos (19 cases), 69 percent of blacks (49 cases), 42 percent of whites (153 cases). Still too few cases.

c) If you open it up to 10-15 over in any zone: 62 percent of Latinos (29 cases), 70 percent of blacks (79 cases), 53 percent of whites (245 cases). That's a narrower difference, but still too few cases.

d) If you open it up to all speeding: 67 percent of Latinos (but still just 42 cases), 67 percent of blacks (107 cases), 52 percent of whites (332 cases).

So if we loosen our restrictions to get in more cases, the disparity goes away. If we tighten our restrictions to look at very similar circumstances, there is a hint of a difference, but there are too few cases to be sure.

Remember also that Latinos are younger, on average, and younger people are ticketed more. In each of these comparisons, we see a small age difference, about three years. That's probably not enough to be causing what differences we see. The number of cases is the larger problem.

And remember that police officers differ in age. Here are the median "years on the force" of Boston officers:

White	16 years on the force
Black	15 years
Hispanic	10 years
Asian	10 years
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All officers	16 years

There were too few citations written by female officers to determine their pattern.

17. Does it matter how many citations an officer writes?

First, looking at individual officers, we can see that the highest-volume officers in Boston aren't identical in terms of the speed that triggers a ticket. Some write a lot of tickets, and some write a lot of warnings.

But no matter how consistent they are, they appear relatively fair in terms of race/ethnicity of drivers.

So what's the ticketing pattern when the officer writing the ticket is a frequent ticketer vs. occasional?

We divided the Boston officers into three groups by number of citations written during the two months, with each group accounting for about one-third of all citations.

Out of 784 officers:

Occasional: 703 officers wrote fewer than 50 citations during the two months. Total of 6,134 citations.
Moderate: 61 officers wrote 50 to 199 citations. Total of 6,197 citations.
Frequent: 20 officers wrote at least 200 citations. Total of 6,743 citations.

Let's look at the ticketing patterns of the three groups, for all speeding citations:

The officers who write a lot of tickets are fairer than the officers who write few tickets. The same pattern held at particular speeds.

Table 42
Boston officers by frequency of writing citations
Violations included: Speeding

By race of drivers				
Offense		**Ticket**	**Warning**	**Total**
Occasional writers of citations				
Whites	N	91	261	352
	%	25.9%	74.1%	100.0%
Minorities	N	162	149	311
	%	52.1%	47.9%	100.0%
Moderate writers of citations				
Whites	N	650	763	1,413
	%	46.0%	54.0%	100.0%
Minorities	N	684	463	1,147
	%	59.6%	40.4%	100.0%
Frequent writers of citations				
Whites	N	712	890	1,602
	%	44.4%	55.6%	100.0%
Minorities	N	647	697	1,344
	%	48.1%	51.9%	100.0%

By sex of drivers				
Offense		**Ticket**	**Warning**	**Total**
Occasional writers of citations				
Women	N	70	165	235
	%	29.8%	70.2%	100.0%
Men	N	202	257	459
	%	44.0%	56.0%	100.0%
Moderate writers of citations				
Women	N	507	503	1,010
	%	50.2%	49.8%	100.0%
Men	N	852	743	1,595
	%	53.4%	46.6%	100.0%
Frequent writers of citations				
Women	N	626	715	1,341
	%	46.7%	53.3%	100.0%
Men	N	987	881	1,868
	%	52.8%	47.2%	100.0%

18. How does a ticket raise a driver's insurance costs?

The fine isn't the only cost of a traffic ticket. The big cost is the increased insurance premiums that follow.

The Globe estimated that a single ticket will cost a Massachusetts driver with a previously clean record about $351 over the next six years. And two tickets in back-to-back years will cost a total of $1,404.

Here's how the Globe made the estimate:

Through the state's Safe Driver Insurance Plan, a driver's history of accidents and traffic tickets affects the cost of insurance coverage. The plan places drivers on a step, from 9 to 35, based on their driving history for the past six years. A newly rated driver starts at neutral step 15, and can move down to 9 (the best rating) with six clean years, or can move up as far as step 35 (the worst rating) with a bad record. Each year of clean driving results in a credit point, moving the driver down a step, while a moving violation or at-fault accident keeps a driver from receiving the credit point for that year. A second moving violation also adds two surcharge points, or steps.

Each step above or below step 15 changes the premium by 7.5 percent for the coverages that are mandatory for every driver (bodily injury to others, personal injury protection, and damage to someone else's property). In addition, each step changes by 7 percent the cost of collision coverage of the driver's vehicle. Other parts of the insurance premium are not affected by driving history. (The plan is described at http://www.state.ma.us/doi/Consumer/WaysToSave_SDIP.html.)

The average cost in Mass. this year is 798.06 for those four coverages, according to a spokesman for the Massachusetts Division of Insurance. That's 277.75 for collision coverage (7 percent surcharge = 19.44); and 520.31 for bodily injury, personal injury and damage to someone else's property (7.5 percent surcharge = 39.02). Total for surcharges = 58.46.

The net cost here is the difference between what the driver would pay, with the ticket and without the ticket, for those coverages. (So the net cost is a comparison with what might have been, not a comparison with neutral step 15.)

The scenarios below are merely an estimate for a certain driver. Of course, drivers with more expensive cars, or in high-risk areas, pay higher premiums, and drivers with clean records for many years may pay less. These are only statewide averages. And not included here are discounts offered by some companies to drivers at the lowest rating, step 9.

Scenario 1: One ticket

Assume a newly rated driver, starting at step 15, who gets a first moving violation in 2003, and none thereafter.

The driver's moving violation, because it's the first, doesn't move the driver up any steps, but it does cost the driver the safe driver credit for that year. That effect lingers for six years.

Here's a comparison of the driver's costs, comparing the costs if the driver gets no ticket, and if the driver does get one ticket.

Without a ticket, the driver pays						With a ticket, the driver pays						
Year	Surcharge	Credit	Step	Safe Driver Discount	Premium standard coverages	Year	Surcharge	Credit	Step	Safe Driver Discount	Premium standard coverages	Net cost of ticket
2003	--	--	15	0.0%	$ 798	2003 (ticket)	--	--	15	0.0%	$ 798	$ 0
2004	0	-1	14	-7.5/7.0	$ 740	2004	0	0	15	0.0%	$ 798	$ 58
2005	0	-2	13	-15.0/14.0	$ 681	2005	0	-1	14	-7.5/7.0	$ 740	$ 58
2006	0	-3	12	-22.5/21.0	$ 623	2006	0	-2	13	-15.0/14.0	$ 681	$ 58
2007	0	-4	11	-30.0/28.0	$ 564	2007	0	-3	12	-22.5/21.0	$ 623	$ 58
2008	0	-5	10	-37.5/35.0	$ 506	2008	0	-4	11	-30.0/28.0	$ 564	$ 58
2009	0	-6	9	-45.0/42.0	$ 447	2009	0	-5	10	-37.5/35.0	$ 506	$ 58
2010	0	-6	9	-45.0/42.0	$ 447	2010	0	-6	9	-45.0/42.0	$ 447	$ 0
2011	0	-6	9	-45.0/42.0	$ 447	2011	0	-6	9	-45.0/56.0	$ 447	$ 0
Total cost from a single ticket												**$ 351**

Scenario 2: Two tickets

Here's the same driver, with a moving violation in 2003, and another in 2004. The cost of two tickets is about four times the cost of a single ticket.

The driver's first moving violation doesn't move the driver up two steps, but it does cost the driver the safe driver credit for that year.

Then the second violation adds two surcharge points, which only disappear when that ticket becomes the only one in the prior six years.

Without a ticket, the driver pays						With tickets in consecutive years, the driver pays						
Year	Surcharge	Credit	Step	Safe Driver Discount	Premium standard coverages	Year	Surcharge	Credit	Step	Safe Driver Discount	Premium standard coverages	Net Cost Of Ticket
2003	--	--	15	0.0%	$ 798	2003 (ticket)	--	--	15	0.0%	$ 798	$ 0
2004	0	-1	14	-7.5/7.0	$ 740	2004 (ticket)	0	0	15	0.0%	$ 798	$ 58
2005	0	-2	13	-15.0/14.0	$ 681	2005	+2	0	17	+15.0/14.0	$ 915	$ 234
2006	0	-3	12	-22.5/21.0	$ 623	2006	+2	-1	16	+7.5/7.0	$ 857	$ 234
2007	0	-4	11	-30.0/28.0	$ 564	2007	+2	-2	15	0.0	$ 798	$ 234
2008	0	-5	10	-37.5/35.0	$ 506	2008	+2	-3	14	-7.5/7.0	$ 740	$ 234
2009	0	-6	9	-45.0/42.0	$ 447	2009	+2	-4	13	-15.0/14.0	$ 681	$ 234
2010	0	-6	9	-45.0/42.0	$ 447	2010	0	-5	10	-37.5/35.0	$ 623	$ 176
2011	0	-6	9	-45.0/42.0	$ 447	2011	0	-6	9	-45.0/42.0	$ 447	$ 117
Total cost from two tickets												**$1,404**

19. What's the total cost of the disparities?

To estimate the cost to drivers of disparities in traffic enforcement, the Globe calculated the ticketing rate (percentage of citations that are tickets instead of warnings) for different groups of drivers for different offenses. Then we identified the most-favored group for each offense. Then we calculated how many tickets other groups received, that they would not have received if they had been treated as leniently as the most-favored group. Then that number of tickets was multiplied by an average ticket cost for that offense and by the estimate of the insurance premium increases.

First, motorists were categorized into 12 groups, by minority status, sex and age. The groups were white women ages 16-25, white women 26-39, white women, 40+, and then minority women 16-25, etc.

The ticketing rate for each group was calculated separately for four ranges of speeding (less than 10 mph over the speed limit, 10-15 mph over, 16-20 mph over, and more than 20 mph over). And a rate was calculated for all other offenses besides speeding.

The rate also was calculated separately for in-town drivers, motorists who were stopped in the community where they lived, and for out-of-towners.

Result: For every offense, the most favored demographic group (the group with the lowest ticketing rate) was white women. The age of this most-favored group varied from offense to offense, but the race and sex did not vary.

And for every type of offense, the least-favored group was minority drivers. Most often the least-favored group was minority men, ages 16-25.

Here are the 12 demographics groups, and their ticketing rate for each offense, calculated separately for in-town and out-of-town drivers. The most-favored group for each offense is marked with an asterisk (*), and the least-favored group with a pound sign (#).

Table 43
Most favored drivers for each offense

Intown drivers	**Speeding <10 m.p.h. over**	**Speeding 10-15 m.p.h. over**	**Speeding 16-20 m.p.h. over**	**Speeding >20 m.p.h. over**
White female, 16-25	14.1	29.2	48.3	79.4
White male, 16-25	9.5	37.5	61.9	85.4
Minority female, 16-25	16.7	50.8	71.6	82.9
Minority male, 16-25	**25.9#**	51.8	**79.2#**	**92.9#**
White female, 26-39	**4.6***	26.5	48.3	72.3
White male, 26-39	5.8	32.6	53.7	81.8
Minority female, 26-39	23.3	43.1	62.0	73.2
Minority male, 26-39	14.3	**52.2#**	69.4	81.2
White female, 40+	8.5	**18.9***	**39.5***	**59.3***
White male, 40+	8.4	21.9	42.4	77.5
Minority female, 40+	20.0	42.5	62.9	89.3
Minority male, 40+	21.1	45.4	68.1	76.2
Out-of-town drivers	**Speeding <10 m.p.h. over**	**Speeding 10-15 m.p.h. over**	**Speeding 16-20 m.p.h. over**	**Speeding >20 m.p.h. over**
White female, 16-25	**7.5***	47.0	66.6	91.4
White male, 16-25	8.8	**55.8#**	**77.9#**	93.7
Minority female, 16-25	13.8	52.4	70.1	**95.5#**
Minority male, 16-25	**15.7#**	**55.5**	76.5	94.7
White female, 26-39	10.5	41.5	60.6	84.0
White male, 26-39	8.1	49.9	71.5	90.0
Minority female, 26-39	8.5	49.7	69.3	87.8
Minority male, 26-39	**13.7**	55.2	75.6	93.3
White female, 40+	**9.5**	37.5*	**57.9***	**79.5***
White male, 40+	8.3	44.8	66.3	87.5
Minority female, 40+	10.3	43.8	65.9	89.6
Minority male, 40+	11.3	49.3	70.4	91.9

The next step in the estimation was to calculate how many "extra" tickets each group received. That was done by multiplying the ticketing rate for the most-favored group in each offense category by the number of citations for each other group. That yielded the number of tickets that each group would have gotten had it been so favorably treated. That amount was then subtracted from the actual number of tickets.

Extra tickets received by each group:

	Pct. of tickets that are "extra"	**No. of extras in two months of the study**	**No. of extras extrapolated to a full year**
White women	9.7%	1,363	8,177
White men	21.6%	5,498	32,990
Minority women	28.6%	588	3,528
Minority men	31.2%	1,709	10,255
Total	**19.5%**	**9,158**	**54,950**

Cost in traffic fines:

To determine the cost, the number of extra tickets was then multiplied by the average fine for each range of offense: average speeding fines for the four levels of speeding were $75, $89, $130 and $178. The average cost for other offenses was $55.

The costs in traffic fines alone for each group by minority and sex, for speeding only:

	During the two months studied		**Extrapolated to a full year**	
	Extra tickets	Fines	Extra tickets	Fines
White women	1,363	152,180	8,177	913,078
White men	5,498	628,231	32,990	3,769,388
Minority women	588	63,267	3,528	379,601
Minority men	1,709	191,497	10,255	1,148,983
Total	**9,158**	**1,035,175**	**54,950**	**6,211,050**

Although the disparities are higher for minorities, more of the differential cost is borne by whites, particularly men -- because there are so many more of them in mostly white Massachusetts.

Why is there a cost at all for white women? Because even though they are the most-favored group, not all of them are in the age group that is most favored.

Cost in insurance premiums:

The insurance cost is much higher than the cost in traffic fines. We'll use our earlier estimate of $351 as the cost of a single ticket. This is a conservative estimate, because the cost is compounded for a second offense, and we see in the records that some drivers receive two or more tickets for minor speeding offenses for which other drivers receive warnings.

The estimated insurance cost, in higher premiums, for speeding only:

	During the two months studied		**Extrapolated to a full year**	
	Extra tickets	Insurance	Extra tickets	Insurance
White women	1,363	478,413	8,177	2,870,478
White men	5,498	1,929,798	32,990	11,578,788
Minority women	588	206,388	3,528	1,238,328
Minority men	1,709	599,859	10,255	3,599,154
Total	**9,158**	**3,214,458**	**54,950**	**19,287,099**

Adding the two costs together, we get this estimated total cost, for fines and insurance, for speeding only:

	During the two months studied		**Extrapolated to a full year**	
	Extra tickets	Total cost	Extra tickets	Total cost
White women	1,363	630,593	8,177	3,783,556
White men	5,498	2,558,029	32,990	15,348,176
Minority women	588	269,655	3,528	1,617,929
Minority men	1,709	791,356	10,255	4,748,137
Total	**9,158**	**4,249,633**	**54,950**	**25,497,797**

Other violations (besides speeding) add about $2 million to the extra cost. (This amount is much less than for speeding, because other tickets have an average cost of only $55.):

	Total
White women	179,982
White men	1,101,654
Minority women	146,742
Minority men	581,634
Total	**2,010,012**

So the estimated annual total extra cost of the disparity, for speeding violations alone, is $25 million.

20. Analysis by an independent statistician

To be confident that no other factor, or combination of factors, recorded on the citations accounted for the differences (such as age, sex, time of day), the Globe asked a professor of statistics at Babson College, Elaine I. Allen, to look at the database.

Using a statistical technique called logistic regression, she found that there were statistically significant differences of race, sex and age, even when other factors were held constant.

The Globe asked Professor Allen to answer these questions. Here are those questions and her answers:

1. Is there a race difference, controlling for all other factors? How does it vary by race/ethnicity?

There are strong racial differences in whether you are ticketed or just warned. Minorities are significantly more likely to be ticketed even when we take into account the effects of other variables that may influence whether you are ticketed such as age, gender, amount over the speed limit you were traveling, type of police that stopped you, and whether this occurred in your own neighborhood or whether you are from outside of Massachusetts. There is variability by minority group, with Latinos the most likely to receive a ticket vs. a warning, followed by blacks and Asians.

2. Is there a sex difference, controlling for all other factors?

Females have a benefit over males in general, but this varies by age and by amount over the speed limit you were traveling. The gender benefit is greatest for women in the age group 25-40 and when traveling between 10 and 20 m.p.h. over the speed limit. The benefit becomes gradually smaller as age increases. There are gender differences at all speeds, but they are not all statistically significant.

3. Is there an age difference, controlling for all other factors? Can you say how the effect varies by age?

Independent of the effect of gender and race, all those over 25 are less likely to receive tickets than those 25 or under. The group least likely to be ticketed is between ages 26 and 40; the treatment of this group is significantly different from those 25 and under, and significantly different (but to a lesser extent) from those older than 40.

4. Are we correct in saying that there is a racial difference in how the other factors are applied? That is, women get a break, but moreso if they're white? And older drivers get a break, but moreso if they're white? And hometown drivers get a break, but moreso if they're white?

In statistical models we were able to look at the separate effect of race, independent of the effect of gender, age or hometown driver. This is important because we want to ensure that the effect of race is not a proxy for some other factor and that it is significant independent of all other factors that we can control for in the analysis.

5. How would you characterize the race and sex and age differences shown by the State Police, on one hand, and by Boston Police on the other hand, and (on your statistician's third hand) by all other local departments?

Interestingly, the effects of race, gender, and age disappear when the State Police are examined separately. The data show some percentage differences favoring whites, females, and older drivers, but they are not statistically significant. State Police are also the most likely, among all police in the data, to give tickets rather than warnings.

For Boston Police, there are clear and significant differences between whites and minorities, with Latinos showing the greatest difference from whites. This is most pronounced at the lower ages and at the lower m.p.h. over the speed limit, but there are significant differences between minorities and whites at most age and m.p.h. categories.

Local police other than in Boston show the most disparity, and the most highly significant differences between racial groups, and have a consistent gender bias in all age and racial groups. In addition, minorities who are hometown residents are significantly more likely to be ticketed than white drivers.

6. What can you say about the age at which women's advantage over men starts to disappear. Holding race constant, it appears to us that younger women get a big break compared with younger men, when they do the same offense. But older women get much less of a break.

The benefit for women appears at all ages, is only slightly lower for the youngest age group, and is most pronounced for ages 26-40. The benefit begins to disappear after age 40, and women are close to being on a par with men by age 70.

Here is Professor Allen's detailed report:

Overview of Statistical Analyses

To examine what factors have an important effect on whether an individual receives a ticket or a warning when stopped, a variety of statistical analyses are applied to the data. The analysis proceeds from the simplest examination of the percent of tickets and warnings issued by different groups (age group, gender, ethnicity, etc.) to more sophisticated analyses designed to examine whether there are other reasons that explain these differences. This analysis found significant differences between minority groups and Whites in the pattern of tickets vs. warnings. It is important to look at this difference in more depth to see if this holds true, for example, for all minority groups or only for some minorities. Equally important is to examine whether there is another explanation, such as gender or age, which, when included in the analysis, might make the effect of Ethnicity disappear from significance in the analysis.

To ensure that the results reported were not confounded by other variables, many different analyses were performed and models were fit using all the variables simultaneously to control for any interaction or confounding between them. In addition to this, the data was examined using different statistical techniques to ensure that the results were not simply artifacts of the type of analysis and that statistical significance was seen using a variety of methods.

Two comparative measures are often used when examining an outcome when there is a reference group (i.e.; minority vs. White), the relative risk and the odds ratio. The relative risk is the ratio of the percent occurrence in one group to the percent occurrence in the reference group and, in this data analysis, gives the risk of getting a ticket vs. a warning in Hispanics vs. Whites, for example. If this number were 125%, for example, we would state that Hispanics were at 25% higher risk of getting a ticket vs. a warning as compared to Whites. The odds ratio for Hispanics would then be the ratio of odds of getting a ticket vs. a warning in Hispanics over the odds of getting a ticket vs. a warning in Whites. If this ratio were 1.35, for example, we would state that the odds of an

Hispanic getting a ticket vs. a warning were 1.35 more likely. Statistical significance is used to describe how likely the results are as compared to chance. The standard metric for comparison is the 0.05 level or that a result is unlikely to have occurred by chance if it occurs less than 5% of the time. A more detailed description of the analysis is given below.

Statistical Methodology

Many statistical techniques were applied to the data to examine the effect of a large number of factors on whether drivers are ticketed or simply warned when stopped for speeding. The techniques included descriptive statistics as well as bivariate and multivariate models with Ticket vs. Warning as the outcome variable. All descriptive and contingency table analyses were performed in SPSS Version 11.5. Logistic regressions were performed in SPSS Version 11.5 and SAS Version 8.0.

Descriptive Statistics

Initial analysis of this data included univariate and bivariate tabulations and overall summaries of the data. The data used in the analysis were largely categorical or were categorized numeric data (such as age group). Several levels of grouping were examined for the variables in order to identify important subcategories within broad groupings. For example, ethnicity was examined in a dichotomous variable for minority status (Minority vs. White) as well as in a six level categorization of ethnicity (Asian, Black, Hispanic, Native American, Middle Eastern, and White). One-way tabulations were used to calculate and examine the percent of the population falling into each category of a variable and to identify missing data. All subjects with missing data were excluded from the formal statistical analyses after examining the missing fields to be sure that there were no patterns in the missing data that, through exclusion, would result in a biased analysis. For example, if data were missing on Ethnicity, the percent of subjects with tickets vs. warnings was analyzed to be sure that the missing data was from only one category of the outcome variable. This was done for all variables included in statistical analyses.

Two-way tables were produced to examine the percent of individuals in each of the outcome categories by all the other variables of interest. These tables provided the foundation for the statistical analyses and models by giving an indication of the magnitude of the difference between groups with respect to tickets vs. warnings. Because of the magnitude of the dataset (almost 100,000 records after missing data was excluded), examining the statistical significance in these two-way tables was not informative as everything showed statistical significance.

Contingency Table Analyses

Contingency tables simultaneously examining the effect of four categorical variables were formed to calculate the relative risk receiving a ticket vs. a warning in each minority group as compared to Whites. The four variables examined were Police Type (State, Boston or Local); Age Group (25 years or less, 26 – 40 years, Greater than 40 years); Miles Per Hour over the Speed Limit (Less than 10, 11 to 15, 16 to 20, or Greater than 20); and Gender. Ticketed or not and Ethnicity were examined within each of these categories resulting in 72 two-way tables, each with 12 cells.

The statistical significance of Ethnicity vs. Ticketed or not was examined in each table using a Chi-squared test (or Fisher's Exact test for small sample size) and, if significant, the relative risk of being ticketed was calculated for each minority group vs. Whites. While most tables included sufficient numbers for analysis, in some cases there were no Native Americans or Middle Eastern individuals in that category and the table was collapsed over the missing category and analyzed. In some tables (particularly in the lowest MPH over the limit

group) there were zeroes in the table and a small positive number was added to each cell of the table for analysis (correction for continuity). Also, in some tables the number of individuals in a particular Ethnic minority was quite small (less than 10). While statistics can be computed for these comparisons with the White group they should be interpreted with extreme caution because the change of one subject from the Ticketed to the Warned category could markedly change the result.

Logistic Regression Model

The outcome of interest in this model is whether, for certain covariates, there are significantly more tickets than warnings issued. A model is used here because it can simultaneously adjust for many variables affecting the outcome and, after adjustment, produce a summary value for each variable that assesses its individual effect and give information on how important the effect is in terms of statistical significance. In the contingency table analysis, 72 statistics were produced, one for each two-way table.

From the descriptive statistics and the contingency table analysis it is clear that there are many differences between groups and the outcome variables. The contingency table examined the effect of Ethnicity on Ticketing controlling for Police, Gender, Speed, and Age. It is also of interest to examine the overall effect of Gender, controlling for Police, Speed, Age, and Ethnicity. Instead of computing many more individual tables, the model will produce this conditional effect and allow for the inclusion of other variables of interest such as Time of Day (Day/Night), Local Resident (In Town/Out of Town), and In State Resident (In State/Out of State).

For each category of each variable an odds ratio is produced and a confidence interval for this ratio. With a slightly different interpretation than the relative risk calculated in the Contingency Table analysis, the odds ratio represents how much more likely it is to be ticketed than warned for a particular variable. The odds ratio for Male vs. Female is 1.33. This means that the odds of a Man getting a ticket are 1.33 times greater than that for a Female, controlling for the effect of all the variables identified above.

A variety of logistic regressions were fit using bivariate categories for Ethnicity and using the six-category original data. Different age groups were used as well as including Age as a continuous variable. Number of MPH over the speed limit was also included in some models as a continuous variable. All of the models fit gave similar results and the statistical significance of the variables did not change from model to model indicating that the effects of these variables on the outcome variable are consistent and robust. Attached is a table giving the statistical significance, odds ratio and confidence interval for one of the logistic regressions.

	Statistical	Odds Ratio	95.0% C.I. for Odds Ratio	
	Significance		Lower	Upper
RACE (reference category = White)				
Black	.000	1.403	1.264	1.557
Hispanic	.000	1.424	1.218	1.664
Asian	.000	1.135	1.063	1.212
AGE GROUP (ref categ = < 25 years)				
26 - 40 years	.000	.350	.305	.401
40 - 55 years	.000	.592	.555	.631
55 - 70 years	.000	.666	.638	.695
Over 70	.000	.776	.746	.806
MPG OVER LIMIT (ref categ = <10 MPH)	.000			
10 to 15 MPH OVER	.000	18.269	16.357	20.404
16 to 20 MPH OVER	.000	50.319	44.911	56.377
MORE THAN 20 MPH OVER	.000	157.017	138.595	177.887
GENDER (ref categ = FEMALE)	.000	.762	.738	.786
POLICE (ref categ = STATE POLICE)	.000			
Boston Police	.000	.291	.272	.312
Local Police	.000	.154	.148	.161
INTOWN (ref categ = OUT OF TOWN)	.000	.730	.703	.757
INSTATE (ref categ = OUT OF STATE)	.000	.717	.684	.752
DAY or NIGHT (ref categ = NIGHT)	.000	1.100	1.064	1.137
Constant	.000	.300		

a Variable(s) entered on step 1: RACEGP, NEWAGE, MPHGRP, SEX, POLICE, INTOWN2, INSTATE2, DAYNT.

About Professor Allen:

Dr. Allen holds the Kevern R. Joyce Term Chair at Babson College, where she is an associate professor of statistics and entrepreneurship.

Prior to joining Babson, she founded several companies, and held executive positions in the healthcare and biotechnology industry, including Centocor, ARIAD and MetaWorks, Inc. She held faculty appointments at the University of Pennsylvania and at Rutgers University. Her entrepreneurial activities include starting StatSystems, a medical device company; ARIAD Pharmaceuticals, a publicly held biotechnology company; Pondview Associates, a consulting firm and research into entrepreneurship and family business. She continues to consult in the pharmaceutical and biotechnology industry and serves on several National Institutes of Health panels on best practices and evidence-based outcomes research.

Dr. Allen's educational background include a B.A. in math from Skidmore College, a master's in math from the University of Evansville, and a Ph.D. in statistics from Cornell University.

She has published widely in statistical, clinical, and managed care journals on statistical issues in meta-analysis, data mining, clinical and biological research methodology, and on statistical computing.

21. How to get a copy of the data

A copy of the database studied by the Globe is available on the Web at www.boston.com/globe/tickets/warnings.zip.

These are public records, and you are free to make them public. If you use them for research, we would appreciate a citation to the Boston Globe articles, published Jan. 6 and 7, 2003, and July 20-22, 2003, et al., and you would need to tell your readers that this database includes only the 166,368 citations that met the criteria set by the Globe.

Inside the zipped file are two copies of the same database, in different file formats: study.dbf (a DBASE IV file) and study.txt (an ASCII text file, comma-delimited).

The file includes these data fields, either from the Registry or calculated by the Globe:

TYPE
"T" = ticket, "W" = warning.

CITATION
The citation number.

DATE
Date when the citation was written. All dates are in April and May 2001.

DOW
Day of the week

AGENCY
The State Police barracks or police department.

AGENCY2
A short form of AGENCY, collapsing all State Police barracks into "State Police" and all Boston Police districts into "Boston."

AGENCY3
"S" for State Police, "B" for Boston Police, and "L" for other local departments.

LOCAL
"N" for State Police, "Y" for all others.

OFFICER
Officer ID (masked, but unique).

LICSTATE
License state of the violator.

CLASS
Driver's license class.

CDL
Commercial driver's license

RACE

Shows race/ethnicity. W for white, B for black, A for Asian, H for Hispanic, M for Middle Eastern, I for Native American, U for unknown.

MINORITY

"N" for whites, "Y" for all others, "U" for unknown race.

BLACK, ASIAN, HISPANIC, MIDDLE, NATIVE

1 for yes, 0 for no, blank for unknown.

SEX

"F" for female, "M" for male.

FEMALE

1 for female, 0 for male.

SEARCH

Non-inventory search for contraband: "Y" for yes.

SEARCH2

1 for search conducted, 0 for no search.

LOCATE2

The city/town where the ticket was written. Only in Boston is a neighborhood shown.

LOCATION

Collapses Boston neighborhoods into "Boston."

TIME and AMPM

Hour of the day

TIMEDAY

Collapses the time into a) morning, b) afternoon, c) evening, d) predawn

DAYNIGHT

Collapses time of day into "day" or "night."

DAY

1 for daytime, 0 for others.

DESCRIPT

Description of the offense, such as SPEEDING.

AMOUNT

Fine.

MPH

Speed.

ZONE
Speed limit.

MPHOVER
MPH over the speed limit.

MPHPCT
Percent over the speed limit.

MPHGROUP
Range of mphover: a) less than 10; b) 10 to 15; c) 16 to 20; d) more than 20.

YOB
Year of birth

AGE
Age imputed from year of birth, and date of the citation.

AGEGROUP
Small bands by age.

AGEBAND
Larger bands by age.

ZIP
ZIP Code of the driver's license.

NEIGHBOR
Home neighborhood, if a Boston-licensed driver.

INNEIGH
Indicates whether citation in Boston was written to a driver from that neighborhood.

REGSTATE
Plate state.

V_MAKE
Vehicle make, such as Toyota.

V_TYPE
Vehicle model, such as Corolla.

V_YEAR
Vehicle year

V_AGE
Vehicle age, approximately.

V_AGEGRP
New, old or older vehicles.

COLOR
Vehicle color.

HOMESTAT
Home state of the driver's license.

HOMETOWN
Home town of the driver's license.

INTOWN
Indicates whether the driver lives in the town where the citation was written.

INSTATE
Indicates whether the driver lives in Massachusetts.

INTOWN2
1 for in-town resident driver, 0 for out-of-town.

INSTATE2
1 for in-state driver, 0 for out-of-state.

The Globe articles are on the Web, along with this document and other materials, at www.boston.com/globe/tickets. The articles were published on July 20-22, 2003. An earlier series of articles, on patterns in tickets and vehicle searches, was published Jan. 6 and 7, 2003.

Please send any questions or comments on this report to Globe correspondent Bill Dedman, at dedman@globe.com.

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