April, 2005

Benchmarking Public Safety in Worcester: 2005

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WORCESTER REGIONAL RESEARCH BUREAU

319 Main Street
Worcester, MA
01608-1511

Telephone:
  508-799-7169

Fax:
  508-799-4720

www.wrrb.org

Dear Citizen,

This is the third annual *Benchmarking Public Safety in Worcester* report prepared by the Worcester Regional Research Bureau's Center for Community Performance Measurement (CCPM). The CCPM was established in 2001 with support from the Alfred P. Sloan Foundation to measure and benchmark municipal and community performance in the areas of economic development, public education, municipal and neighborhood services, public safety, and youth services.

This report is designed to:

- **Provide an assessment of how well the City is meeting the public safety goals described in its strategic plan;**
- **Inform City leaders, policymakers, businesses, non-profit organizations, funders, and residents about public safety issues; and**
- **Serve as a catalyst for setting priorities and promoting action to make Worcester an even safer place to live and work.**

The indicators in this report describe the performance of Worcester's police, fire, and ambulance/emergency medical services. We measure performance by asking, *"What has changed since last year, what have we accomplished, and what challenges are still before us?"*

It is important to bear in mind that no single indicator should be considered in isolation. In other words, context is important, and the indicators included in this report are interrelated. For example, increased interaction and information sharing between residents and police officers (see **Indicator 2**) may lead to reductions in certain types of crime measured in **Indicator 1**. Furthermore, the indicators discussed in this report are influenced by those in other reports. For example, improving the physical conditions of neighborhoods (discussed in CCPM report 04-04, *Benchmarking Municipal and Neighborhood Services in Worcester: 2004*) may lead to less crime in those areas.

Thank you for taking the time to read this report. We hope that it will encourage widespread discussion of public safety issues, serve as a basis for sound priority-setting and decision-making, and further the adoption of performance measurement practices at the municipal level. Finally, we wish to thank the Sloan Foundation for its continued support of the CCPM and the Greater Worcester Community Foundation for its sponsorship of this report.

Sincerely,

Eric H. Schultz - *President*   **Roberta R. Schaefer, Ph.D. -** *Executive Director*   **Kimberly A. Hood -** *Manager, CCPM*

Worcester Police Department:
Department Overview and Input Indicators

The mission of the Worcester Police Department is to promote the highest level of public safety and quality of life in the City of Worcester through exceptional police services to the City's residents, businesses, and visitors. [1]

The Worcester Police Department (WPD) is currently staffed by 457 sworn officers and 48 civilian personnel (current staffing levels fall below FY05 budget levels authorizing 475 sworn officers and 48 civilian personnel). The Department's FY05 budget of $31.3 million constitutes the third largest municipal expenditure after the Worcester Public Schools (approximately $190 million in FY05, excluding fringe benefits) and municipal employee health insurance (approximately $65 million in FY05).[1,2]

As shown in the table below, the WPD's budget has increased by about 12% over the past five years, from $27.8 million in FY00 to $31.3 million in FY05. In FY05, the department budget authorized 48 civilian personnel positions, 20 (29.4%) fewer than it did just three years earlier. From FY01 to FY04, the budgeted number of sworn officers decreased from 474 to 424 (an 11% decline). During this period, departmental budget increases were primarily the result of contractually obligated salary increases, and in order to pay for these increases, the number of personnel were reduced. By FY05, the number of budgeted sworn officer positions increased to 475, with new recruits, supported by a $3.75 million dollar grant the City received from the U.S. Department of

Justice, expected to comprise the largest component of the staffing increase. The grant funds will be used to support new hires from FY05 through FY07, with the City contributing $937,500 (a 25% match) over this period as well.

In 2003, the most recent year for which regional comparison data are available, the average number of employees (sworn and civilian) in Northeast cities with populations of 100,000 to 249,999 was 3.2 per 1,000 residents, compared to 3.0 per 1,000 in Worcester. Sworn officers averaged 2.7 per 1,000 residents throughout the Northeast region compared to an average of 2.6 per 1,000 residents in Worcester.[3]

[1] Expenditures listed for the WPD and the WPS are primarily salary expenses, and do not include capital expenditures or fringe benefits. In FY05, the City estimates that health insurance coverage will cost, on average, $11,800 for each city employee enrolled in a family plan and $4,600 for employees enrolled in an individual plan.

[2] For additional discussion of municipal employee health insurance costs, see Worcester Regional Research Bureau Report No. 05-01, *Condition Serious, Prognosis Uncertain: The Impact of Municipal Employee Health Insurance on Massachusetts Cities*, February 28, 2005.

[3] Comparison data are reported in the FBI's annual Crime in the United States statistical summary; Worcester data reflect budgeted positions per 1,000 population.

Worcester Police Department Overview

Category	FY00	FY01	FY02	FY03	FY04	FY05	% Change FY00-FY05
Expenditures*	$27,755,799	$27,446,422	$31,803,000	$31,272,000	$30,731,000	$31,281,758	12.7%
Expenditures per capita	$160.77	$157.64	$181.59	$177.98	$174.90	$178.03	10.7%
Sworn Officers (Budgeted)	463	474	472	459	424	475	2.6%
Officers per 1,000 Population	2.7	2.7	2.7	2.6	2.4	2.7	–
Civilian Positions (Budgeted)	68	68	68	60	43	48	-29.4%
Civilians per 1,000 population	0.4	0.4	0.4	0.3	0.2	0.3	–
Total Positions (Budgeted)	531	542	540	519	467	523	-1.5%
Total Law Enforcement postitions per 1,000 population	3.1	3.1	3.1	3.0	2.7	3.0	–

* Does not include fringe benefits

Data Sources: Expenditures- Comprehensive Annual Financial Reports, Office of the City Auditor (FY00-FY04) and City of Worcester Annual Budget (FY05); Sworn and Civilian Positions, Worcester Police Department Accounting Office

1 Crime Rates

Why is it important?

Crime rates are basic indicators of public safety. Crime not only affects the quality of life of those who directly experience and witness it, but may also impact the lives of others in the community who feel threatened by it, undermining their sense of personal security. Low crime rates may promote neighborhood stability, and increase a community's attractiveness as a place to live, work, and conduct business. Accurate and timely crime data also are a tool that allow the police to identify trends (both geographic and type of crime) and deploy resources accordingly.

How does Worcester perform?

In 2004, the WPD responded to 98,054 incidents.[1] As shown in **Table 1.1**, the vast majority, about 80%, of these incidents were reported by citizens (primarily 9-1-1 emergency calls), and about 20% were officer-initiated. The number of incidents police respond to annually has decreased in each of the years since 2000, declining by 15.7% overall. The arrest numbers included in **Table 1.1** show the number of incidents with at least one arrest upon initial police response (some incidents involve the arrest of more than one person).[2]

In 2003, the most recent year for which complete annual data are available, 1,536 violent crimes and 7,637 property crimes were reported in Worcester.[3] Aggravated assaults comprised more than two-thirds of the reported violent crimes (69%), followed by robbery (27%), rape (4%), and murder (.5%). Larceny represented the greatest proportion of property crimes reported in Worcester in 2003 (61%), followed by burglary (20%) and motor vehicle theft (19%).

Table 1.1: WPD Workload Measures

Incidents:	2000	2001	2002	2003	2004	% Change 00-04
Total Incidents	116,352	115,293	111,839	99,110	98,054	-15.7%
Citizen-Reported	84,926	86,380	85,013	83,279	77,863	-8.3%
WPD-Initiated	31,426	28,913	26,826	15,831	20,191	-35.8%
Arrests*:	6,888	6,863	7,688	5,858	6,920	0.5%

* Incidents for which at least one arrest was made   Data Source: Worcester Police Department, Crime Analysis Unit

Table 1.2: Reported Part I Crimes per 10,000 Population   V= Violent P=Property

	Bridgeport CT		Hartford CT		Lowell MA		Springfield MA		Worcester MA		Providence RI	
	V	P	V	P	V	P	V	P	V	P	V	P
2000	139.5	486.4	111.9	730.5	70.9	313.8	182.5	635.3	86.6	427.1	73.8	735.9
2001	136.1	445.5	130.3	752.1	80.4	346.4	214.5	623.1	82.0	391.4	82.3	726.6
2002	119.6	483.6	125.2	754.7	79.7	320.2	201.6	727.1	NA	NA	73.5	709.1
2003	96.8	453.9	144.5	786.2	82.5	293.3	191.7	764.8	87.7	436.1	78.8	626.3
Jan-Jun 2004*	44.5	209.4	61.3	414.0	44.3	141.3	93.3	313.8	38.1	190.6	30.5	281.1

*Data are preliminary   Source: FBI Uniform Crime Reports

Table 1.3: Major Crimes in Worcester Compared to Similarly Sized Cities, 2003

Violent Crime:	Reported Crime per 10,000 Population	Ranking Among 101 Cities
Murder	0.4	60
Aggravated Assault	60.5	15
Robbery	23.5	36

Property Crime:	Reported Crime per 10,000 Population	Ranking Among 100 Cities
Burglary	88.4	48
Larceny	264.8	61
Motor Vehicle Theft	82.9	31

Data Source: Worcester Police Department

Table 1.4: Violations of Public Order, 2004 (See map at right)

	Number	Percent of Total
Central Zone	6,267	33.0%
South Zone	2,792	14.7%
Downtown Zone	2,301	12.1%
Southeast Zone	2,269	11.9%
East Zone	1,648	8.7%
West Zone	1,572	8.3%
North Zone	1,460	7.7%
Northwest Zone	681	3.6%
Unknown	25	0.1%
Total	19,015	100%

Includes: Disorderly conduct, Fights, Trespassing & Related; Gun Shots, Illegal Carrying of Weapons; Noise-related Complaints; Drugs, Prostitution, Other Vice; Non-domestic Disputes.

Table 1.5: Summary of WPD Arrests, 2000-2004

	2000	2001	2002	2003	2004	% Change 2000-2004
Total Arrests	8,108	7,759	8,033	6,482	7,014	-13.5%
Individuals Arrested	6,081	5,938	6,041	5,154	5,366	-11.8%
Total Arrests with this Charge:						
Drug-related	2,122	2,403	2,792	1,611	1,638	-22.8%
Assault and Battery/Aggravated Assault	na	na	na	1,446	1,323	na
Disorderly Conduct, Disturbing Peace	1,563	1,654	1,679	1,357	1,351	-13.6%
Prostitution and Related	152	204	230	195	234	53.9%
Sexual Assault, Including Rape	34	43	59	23	22	-35.3%
Armed Robbery	48	54	52	73	73	52.1%
Murder, Manslaughter, Attempted Murder	26	33	46	24	46	76.9%

Data Source: Worcester Police Department

How does Worcester perform? (cont.)

From 2000 to 2003, the number of robberies and aggravated assaults increased, and the violent crime rate rose by 3% overall.

Table 1.2 shows trends in reported property and violent crime rates for Worcester and several other Northeastern cities since 2000. Worcester has typically experienced lower crime rates than Bridgeport, Hartford, and Springfield. While violent crime rates in Providence and Lowell have generally been lower than Worcester's, Worcester's property crime rate has consistently been the second-lowest among the six cities. Additionally, as shown in **Table 1.3**, for the violent crimes specified, in 2003, Worcester ranked between 15th and 60th respectively among 101 cities nationwide with populations between 125,000 and 250,000. For the property crimes specified in **Table 1.3**, Worcester ranked between 31st and 61st among 100 cities with populations from 150,000 to 250,000.

Finally, during the first six months of 2004, Worcester showed an 11% decline in reported violent crimes compared to the first half of 2003 (667 compared to 748).[4] In contrast, violent crime in the Northeast overall fell by only 1% during the same period.

While the more serious crimes described above clearly threaten citizens' overall sense of safety and well-being, nuisance and disorder in a neighborhood (e.g., loud parties, fights, and disorderly conduct) also weaken residents' quality of life. **Table 1.4** shows the distribution of violation of public-order incidents to which WPD responded in 2004 by zone.[5] Violations of public order include serious crimes such as drug offenses as well as public nuisances that may not constitute criminal activity.[6]

The public often views arrests as a measure of law enforcement's effectiveness in responding to crime. In issuing crime statistics, the FBI cautions that arrest practices, policies, and enforcement emphasis vary from police department to police department, and even within a department from time to time. **Table 1.5** shows that the total number of arrests in Worcester declined by 13.5 % from 2000 to 2004.

[1] Total incidents represent both criminal and non-criminal events to which the police respond and provide assistance. These figures do not represent actual crime rates because they include calls which were not substantiated (complaints which turned out not to be criminal), calls for general assistance, and calls to which the police respond but find no one there upon arrival. A single incident may involve more than one crime.

What does this mean for Worcester?

During the five year period from 2000 to 2004, the number of incidents (criminal and non-criminal) entailing police response dropped by 18,298 (15.7%), though in 2004, WPD still responded to 268 incidents per day, on average. Reports of violent crime in Worcester increased by 3.2% from 2000 to 2003, while nationally these figures dropped by 3.0%. In conformity with national trends, aggravated assault has made up the largest portion of violent crime reported in Worcester since 2000 (on average, about two-thirds of violent offenses reported to the WPD).

*In late 2004, a new police chief was appointed, and the chief is stressing the department's commitment to working in partnership with the city's residents to address both crime and quality of life issues. Additionally, the chief is committed to evaluating the department's performance, and has identified additional tools which will help the WPD measure its performance. WPD is already generating and using neighborhood-level crime and incident data to track crime patterns, and is using this information to allocate resources. WPD is also sharing its data with the community, and with the reorganization of its community policing efforts, is working systematically with neighborhood groups to combat identified problems, and to develop tactics that are proactive rather than reactive. The community policing approach also includes efforts to better coordinate WPD's activities with those of other municipal departments and community services. It will be important to monitor the impact of these changes in the coming year, both in terms of crime statistics discussed above, as well as the impact on police-community relations as discussed in **Indicator 2**.*

[2] These arrest data do not include arrests which may be made at a later date (e.g., an arrest warrant may be taken out based on the original incident and served at a later date). For this reason, and due to the fact that the total incident count above includes police responses to non-criminal events, we cannot determine from these data what proportion of criminal incidents ultimately result in an arrest.

[3] The violent crime category includes murder, forcible rape, robbery, and aggravated assault. Property crimes include burglary, larceny-theft, and motor vehicle theft.

[4] 2003 is the most recent year for which complete annual data are available from the FBI's Uniform Crime Reporting system. Data for the first half of 2004 are preliminary; complete 2004 data will likely be available by the fall of 2005.

[5] 2004 data are not directly comparable to previous years; caution is urged when making comparisons to prior years.

[6] Vice crimes may be thought of as comprising the "high end" of the category of public order violations, and as among the most injurious to the spirit and well-being of a neighborhood.

2 Police-Community Relations

Why is it important?

Public perceptions and the regard in which police are held by the citizens they serve can have an impact on overall police effectiveness in preventing and responding to crime. Regular interaction, cooperation, and information-sharing between police and the citizens they serve are important components of effective policing. Citizen distrust of, or a lack of faith in, police operations can result in fewer victims reporting crimes and may hamper police investigations. Therefore, the quality of each one of the thousands of police-citizen interactions that occur annually can shape both perceptions and outcomes. "If police services are offered courteously and responsively, then those who receive the services will presumably value the police more than they would if police services were rude and/or ineffective."[1]

Continued improvement of police-community relations forms the foundation of the Worcester Police Department's (WPD) community policing initiative that is the cornerstone of the new chief's restructuring plan, which will be fully implemented during 2005.

[1] Moore, Mark with Anthony Braga. *The Bottom Line of Policing: What Citizens Should Value (and Measure!) in Police Performance.* (Police Executive Research Forum, 2003.)

[2] See CCPM publication 04-08, *Citizen Satisfaction with Municipal Services: 2004 Survey* (available at www.wrrb.org).

[3] The locations of these Neighborhood Watch groups correspond closely with those of the neighborhoods in which the Research Bureau has been using the Computerized Neighborhood Environment Tracking (ComNET) program to systematically record physical conditions. See CCPM publication 04-04, *Benchmarking Municipal and Neighborhood Services in Worcester: 2004* (available at www.wrrb.org).

How does Worcester perform?

The Center for Community Performance Measurement's third annual survey of citizen satisfaction with municipal services measured Worcester residents' satisfaction with services provided by a number of City Departments, including the Worcester Police Department.[2] Among the randomly selected sample of 1,434 respondents, 297, or about one in five (21%), reported having had some contact with the WPD during the preceding year. As shown in **Chart 2.1**, in 2004, four out of five of those who had contact with the police thought that the police were fair in dealing with their situation, and a slightly higher proportion, 84%, indicated that the police officers they had contact with were courteous. When asked "*How satisfied were you with the way in which the Worcester police handled your situation?*" 69% responded "*satisfied*" in 2004, an increase of five percentage points compared to 2003. (Note: "Satisfaction" may reflect judgment of police effectiveness in catching the perpetrator(s), not just courtesy.)

In addition to the citizen satisfaction survey described above, the CCPM also conducts an annual survey of Neighborhood Watch participants. Currently, there are more than 50 neighborhood associations in the City, the majority of which meet on a monthly basis to discuss a variety of neighborhood issues, including public safety and quality-of-life concerns. The citizens who participate in these groups help the police by identifying and sharing community concerns, as well as aiding WPD efforts to promote safe neighborhoods. The latest survey, conducted during the winter of 2004, measures participants' perceptions of safety in their neighborhoods and their assessment of WPD performance, and also asks
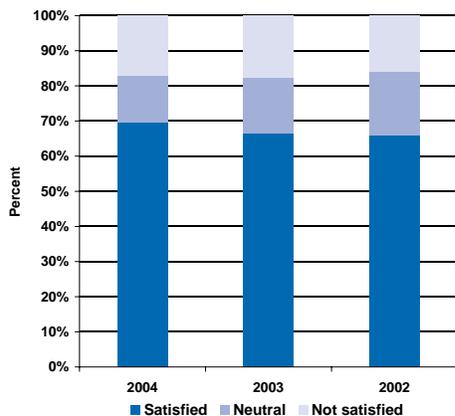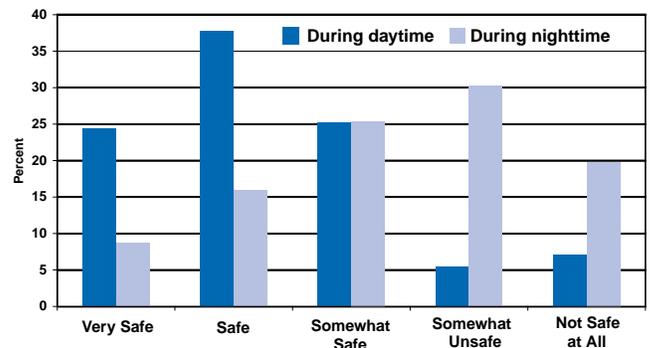
Chart 2.1: Satisfaction with WPD

Chart 2.2: How safe do you feel walking alone in your neighborhood?

them to identify problems/issues in the neighborhood as well as offer suggestions. The following survey highlights are based upon 134 completed surveys representing 26 neighborhood associations in the City.[3] (About half of the respondents have participated in their neighborhood group for 3 or more years, and almost two-thirds have lived in their neighborhoods for 10 or more years.)

Fifty-three percent of respondents rated the overall safety of their neighborhoods as "*good*" or "*very good,*" 31% rated it "*average,*" and 16% rated it "*poor*" or "*very poor.*" When asked to compare their neighborhoods to others in Worcester, 43% said their neighborhoods were "*more safe,*" 20% said "*less safe,*" and 37% said "*about the same.*" As shown in **Chart 2.2**, while 62% of respondents feel safe or very safe walking alone in their neighborhood during the daytime, a much smaller proportion, 25%, feel this way at nighttime/after dark.
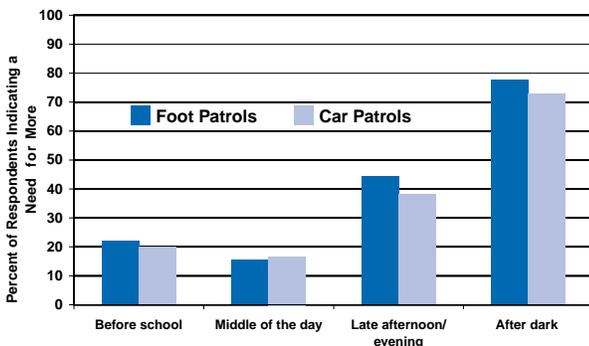
 Table 2.1 shows respondents' assessment of WPD performance regarding overall quality of services provided, officers' interactions with citizens, officers' responsiveness to quality-of-life concerns, and WPD's responsiveness to the community's overall policing needs. While 60% of respondents think the Department is good/very good at meeting the neighborhood's overall policing needs, a slightly smaller proportion, 55%, rated the overall quality of police services provided in their neighborhood as good/very good. Officers' attitudes and behavior towards citizens received the highest rating, with 71% of respondents offering a rating of good/very good, 21% offering an average rating, and 8% offering a rating of poor (only one individual offered a response of "*very poor*").

Overall, 83% of respondents perceive WPD foot patrol activities in their neighborhood to be inadequate. As shown in **Chart 2.3**, when asked to identify specific times of day when more foot patrols are needed, respondents said the greatest need is "*nighttime/after dark*" (78%) followed by "*late afternoon/early evening*" (44%).[4] Similarly, 81% of respondents perceive WPD car patrols in their neighborhoods to be inadequate, and almost three quarters of these individuals desire more car patrols at "*nighttime/after dark.*"

Most of the survey respondents indicated that their neighborhood group meets monthly, and more than three-quarters (80%) indicated that a police officer always attends the meeting (13% indicated that an officer attends "*most of the time,*" and 8% stated "*sometimes*"). A majority (71%) stated that the same police officer attends each meeting. **Table 2.2** shows the frequency of particular activities at meetings. From 2002 to 2004, the proportion of respondents stating the WPD representative at the meeting "always informs them about the types and number of crimes in their neighborhood" declined from 77% to 56%. In 2002, 83% of respondents indicated that police *always* presented information on how to deal with neighborhood disturbances. In 2004, 55% of respondents stated that police *always* provided information about how to deal with quality of life issues, while the proportion stating "*sometimes*" increased to 43% (compared to 17% in 2002). Similarly, the proportion of respondents stating that the WPD representative attending the meeting *always* asks for residents' suggestions has declined from 72% in 2002 to 66% two years later. Fewer than two-thirds of respondents stated that the representative *always* reports back on the disposition of issues raised in previous meetings (this question was not asked in earlier surveys).

Chart 2.3: **Are there certain times of the day when more patrols are needed?**

[4] Percentages do not sum to 100% because respondents could choose more than one category.

2 Police-Community Relations (cont.)

Table 2.1 Neighborhood Watch Participants' Assessment of WPD Performance

	#	Good/ Very Good	Average	Poor/Very Poor
Overall quality of services provided by WPD in your neighborhood	129	55.1%	33.3%	11.7%
WPD officers' attitudes and behavior toward citizens	125	71.2%	20.8%	8.0%
WPD's responsiveness to quality of life issues in the community	121	55.4%	28.1%	16.5%
WPD's responsiveness to the community's overall policing needs	126	60.3%	27.8%	11.9%

Table 2.2 Neighborhood Watch Participants' Assessment of Information Sharing

During neighborhood watch meetings,

how often does the WPD representative:	#	Always	Sometimes	Never
Inform you about the types and number of crimes committed in your neighborhood?	115	55.7%	39.1%	5.2%
Identify problem areas in your neighborhood?	107	44.9%	49.5%	5.6%
Explain what WPD is doing to reduce crime?	104	50.0%	46.2%	3.8%
Ask for your suggestions?	106	66.0%	28.3%	5.7%
Provide information about how to deal with quality of life issues?	103	54.4%	42.7%	2.9%
Report back on the disposition of issues raised in previous meetings?	107	62.6%	33.6%	3.7%

What does this mean for Worcester?

*Beginning with the creation of the Community Impact Division in the Fall of 2004, the WPD began to implement a community policing model based on a department-wide emphasis on service. As stated in the chief's recently released plan, **Worcester Police Department Community Policing Initiative**, "A safe community is achieved through strategies and tactics that are proactive and based upon partnerships between the police, city departments, and the community." The report continues, "Through these partnerships and working collaboratively to address the issues of crime, fear of crime, physical and social disorder, and neighborhood decay, the quality of community life can be improved."*

While the survey data above provide generally favorable ratings of police performance and police-citizen interaction, the data highlight a number of citizen concerns including inadequate foot patrols in neighborhoods and a lack of information about WPD projects, programs, and activities. These are the very issues that WPD's community policing model seeks to address. We expect to repeat both the Citizen Satisfaction and Neighborhood Watch surveys in 2005, and the results presented here will provide an important benchmark against which the Department will be able to gauge the impact of its community policing initiative and recent reorganization
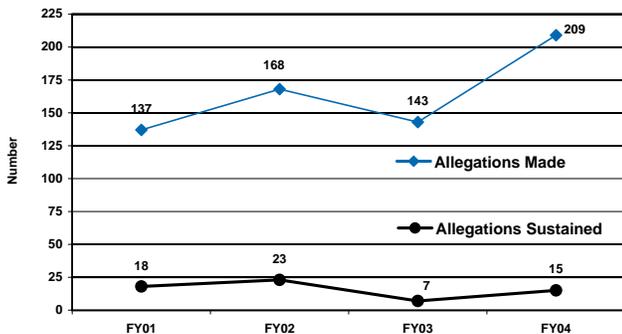
Why is it important?

Police departments are obligated to ensure that their personnel are performing their duties in accordance with the law, professional standards, and internal procedures. The Worcester Police Department's complaint investigation procedure provides a venue for citizens to express concerns about police conduct and behavior. The review process holds officers accountable for improper behavior, but also protects police officers from unwarranted criticism while fulfilling their duties. Citizen trust in the fairness of police conduct is essential to effective policing.

Chart 3.1: **Allegations of Police Misconduct**

Number

225 · 200 · 175 · 150 · 125 · 100 · 75 · 50 · 25 · 0

137 · 168 · 143 · 209

18 · 23 · 7 · 15

◆ Allegations Made

● Allegations Sustained

FY01 · FY02 · FY03 · FY04

Source: Worcester Police Department Internal Affairs Division

How does Worcester perform?

The Internal Affairs Division (IAD) of the Worcester Police Department reviews and investigates all citizen complaints alleging misconduct. In FY04, there were 118 complaints against the WPD containing 209 allegations.[1] Fifteen allegations (7%) were sustained following an investigation, indicating that there was sufficient evidence to support the charge of misconduct.[2] As shown in **Chart 3.1**, the number of allegations of misconduct increased substantially, from 143 in FY03 to 209 FY04 (a 46% increase); however, as shown in **Chart 3.2**, almost half of all allegations in FY04 (47%) were judged to be unfounded or were resolved at intake. In each year from FY01 to FY03, a substantial proportion – between one-third and almost half- of all allegations were judged to be unfounded or were resolved at intake. Furthermore, despite more than doubling from 7 in FY03 to 15 in FY04, sustained complaints comprised a fairly small percentage of total allegations-5% in FY03 and 7% in FY04.

[1] A single complaint may contain multiple allegations of misconduct.

[2] In cases where evidence supports improper conduct, disciplinary action is determined by the Chief of Police.

Chart 3.2: **Disposition of Citizen Allegations, FY04 (N=209)**

Exonerated 14%

Unfounded/ Resolved at Intake 47%

Not Sustained 18%

Sustained 7%

Open 14%

Source: Worcester Police Department, Internal Affairs Division

Allegations are deemed *unfounded/resolved* at intake if they do not fall under the jurisdiction of the Police Department, if the alleged conduct does not violate any rules and regulations, or if an investigation determines that no violation occurred. *Sustained-Other* indicates that the investigation revealed that the officer committed a violation other than the one named in the complaint, and *policy failure* means that the allegation is true, but the officer was acting in a manner consistent with policy, so that a policy revision is required. Allegations are *not sustained* if there is insufficient evidence to prove or disprove the charge, and *exonerated* indicates that the actions taken by the officer were justified, lawful, and proper.
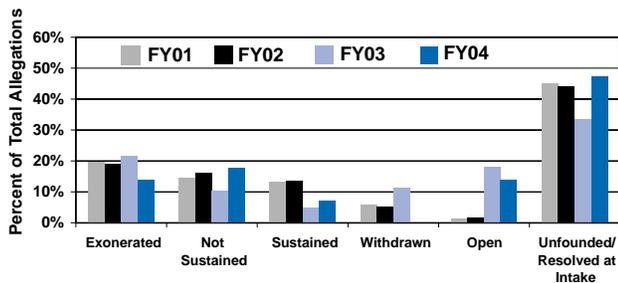
Chart 3.3 shows the disposition of allegations from each of the past four years. In FY03, about one in ten allegations were withdrawn, compared to none in FY04. FY04 also saw a smaller percentage of allegations result in exoneration compared to each of the previous three years. However, although the number of allegations IAD had to investigate increased from FY03 to FY04, at the end of FY04 a smaller percentage of cases remained open compared to the previous year.

Chart 3.3:   Disposition of Citizen Allegations, FY01-FY04

Source: Worcester Police Department, Internal Affairs Division

What does this mean for Worcester?

While citizen complaints of police misconduct increased in FY04, the data also show an increase in the overall proportion of allegations that were either unfounded or resolved at intake, i.e., complaints in which the alleged behavior was not unlawful or in violation of departmental policy, or the complaint may have been outside the scope of WPD's responsibility. In general, the variations in year-to-year data might be viewed with caution when they do not show a consistent trend.

*WPD's Internal Affairs Division and its Training Division play an important role in ensuring that the department is able to hold complaints to a minimum, and that when complaints do occur, that they are dealt with promptly. The importance of ongoing training of officers and a continuous review of the Department's standards of practice have been recognized as elements critical to the success of the reorganization initiative. For example, citizen support of the community policing model will likely be strongest if citizens perceived a fair and timely review of complaints that are made, and feel that the process is transparent. Questions regarding citizen awareness of the IAD process and outcomes could be added to future neighborhood watch surveys (see **Indicator 2: Police-Community Relations**). Additionally, next year's report ought to consider the average length of time to complete an investigation. In each of the past two years, the proportion of allegations that remain open at the end of the year has exceeded 10%, but we do not know if these represent increasing numbers of complaints received at year end (which may be resolved in a timely manner early in the next year), or whether they represent investigations which have not been completed in a timely manner. Finally, next year's report may need to consider the possibility that increased police-citizen interaction by itself results in more complaints without necessarily reflecting any real increase in perceived police misconduct.*

Worcester Fire Department:
Department Overview and Input Indicators

The mission of the Worcester Fire Department is to protect the lives and property of the citizens of Worcester from the adverse effects of fire, medical emergencies, or hazardous conditions, including man-made and natural disasters.[1]

The Worcester Fire Department is staffed by 423 firefighters and 9 civilian personnel who are assigned to 23 fire companies located in 11 fire stations throughout Worcester. The City's land area encompasses 39 square miles, supporting densely populated residential areas containing single- and multi-family dwellings; an urban core containing high-rise and office buildings; industrial and manufacturing complexes; and several hospitals and colleges, all of which are served by the WFD. The Fire Chief has management oversight of the department and its daily operations.

Firefighters respond to all fire and hazardous materials situations occurring within the City, and they may also be dispatched as first responders in medical emergencies. All fire companies are equipped with semi-automatic external defibrillators, which enable firefighters to provide early critical care to cardiac-arrest patients. The WFD provides basic life support training (first aid and CPR) to the community and is one of the largest first aid and CPR certifying agencies in central Massachusetts. The Department also sponsors numerous fire prevention and fire safety programs, and firefighters perform inspections to ensure that commercial and retail establishments comply with fire safety standards, as well as regular inspections of warehouses and vacant buildings within the City.

The Department's FY05 recommended appropriation of $28.9 million is the fourth largest municipal expenditure after the Worcester Public Schools ($190 million in FY05, excluding fringe

benefit costs), municipal employee health insurance (approximately $65 million in FY05), and the Worcester Police Department ($31.3 million). WFD's FY05 budget represents 12.5% of the total non-school municipal budget. [2,3]

As shown in the table below, the WFD's budget increased from $26.8 million in FY01 to $28.9 million in FY05, an 8% increase. However, during the same period, staffing levels have declined by almost 10% (from 479 to 432 budgeted positions). Most of the increase in cost stems from contractually obligated salary increases. As a result, despite an increasing budget, the Department is unable to maintain its previous staffing levels. According to statistics from the National Fire Protection Association, the median number of firefighters per 1,000 population in similarly sized cities in the Northeast in 2000 (the most recent year for which information is available) was 2.51.[4] While Worcester's staffing levels were above the median in FY01 with 2.70 firefighters per 1,000 population, by FY05 there were 2.41 firefighters per 1,000 population.

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[1] City of Worcester Annual Budget, FY05.

[2] The $28.9 million of expenses are primarily salary expenses, and do not include capital expenditures or fringe benefits (e.g., health insurance, pensions, etc.). In FY05, the city estimates that health insurance coverage will cost, on average, $11,800 for each city employee enrolled in a family plan and $4,600 for employees enrolling in an individual plan.

[3] In a 2004 arbitration decision, the International Association of Firefighters Local 1009, Worcester's firefighters' union, was awarded a retroactive 6% pay raise. The City has yet to fund the $5 million award; however, were it funded, the WFD budget would become the third largest municipal expenditure, after schools and health insurance. For additional discussion of the arbitration decisions, see Worcester Regional Research Bureau, Report No. 04-08, *Worcester's Fire Arbitration Decision: Implications and Options*, August 9, 2004.

[4] Michael J. Karter, "U.S. Fire Department Profile Through 2000," National Fire Protection Association, 2000.

Worcester Fire Department Overview

	FY01	FY02	FY03	FY04	FY05**	% Change FY00-FY05
Expenditures*	$26,878,364	$30,491,000	$29,373,000	$28,961,000	$28,989,751	7.9%
Expenditures per capita	$154.38	$174.10	$167.17	$164.83	$164.99	6.9%
Total Positions (Budgeted)	479	479	449	431	432	-9.8%
Total per 1,000 population	2.75	2.73	2.56	2.45	2.46	–
Firefighter Positions (Budgeted)	463	466	438	421	423	-8.6%
Firefighters per 1,000 population	2.7	2.7	2.5	2.4	2.4	–
Civilian Positions (Budgeted)	16	13	11	10	9	-43.8%
Civilian positions per 1,000 population	.09	.07	.06	.06	.05	–

* Does not include fringe benefits   ** Budget as Approved

Data Sources: Expenditures FY01 -FY04:Comprehensive Annual Financial Reports, Office of the City Auditor

4 Fire and Emergency Medical Services Response

Why is it important?

The number of fire suppression responses, emergency medical responses, fire safety and prevention activities, and inspections are an indicator of the workload of a fire department. The ability of emergency personnel to respond quickly to a fire or other emergency situation may be the difference between minimal and total property loss, or even life and death. Therefore, fire response time is a critical measure when assessing the overall safety of a community, and it is important that fire departments be able to assess and identify factors that delay response time, including resource allocation. Additionally, tracking the frequency and location of fires and emergency medical situations to which fire personnel respond provides a tool by which the chief and city officials are able to examine coverage to ensure appropriate protection is provided to all areas. Finally, continued efforts to promote awareness of fire prevention and fire safety are important functions of any fire department.

Citizen perceptions of whether the Fire Department is performing its services in a timely, efficient, and professional manner can be gauged by a random telephone survey of Worcester households. The Center for Community Performance Measurement's third annual survey of citizen satisfaction with municipal services measured Worcester residents' satisfaction with services provided by a number of City departments, including the Worcester Fire Department.[4] (See *Indicator 2: Police-Community Relations* for a summary of citizen satisfaction with police services.) The findings from this survey are based on a telephone survey of 1,434 randomly selected households in Worcester, conducted during May and June of 2004. Only those households that received services from WFD during the preceding 12 months were asked more detailed questions about the quality of the services they received. Twelve percent (178) of the households surveyed reported contact with the WFD; of these, slightly more than half (53%) required emergency medical services, 22% had contact due to a fire, 2% required both fire and medical services, and 23% had contact with WFD for other/unspecified reasons. As shown in **Charts 4.1** and **4.2** below, among respondents having had contact with the WFD, 94% rated the overall level of service provided by WFD as "good" or "excellent," compared to 84% the year before. After decreasing from 2002 to 2003, the proportion of respondents indicating they were satisfied with WFD's response time increased to 94% in 2004.[5]

Chart 4.1: How would you rate the overall service provided by the Fire Department?
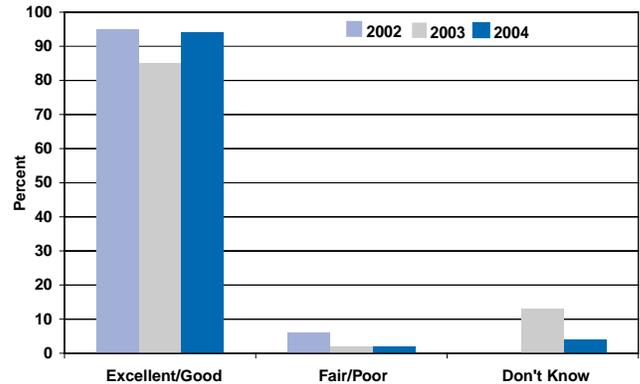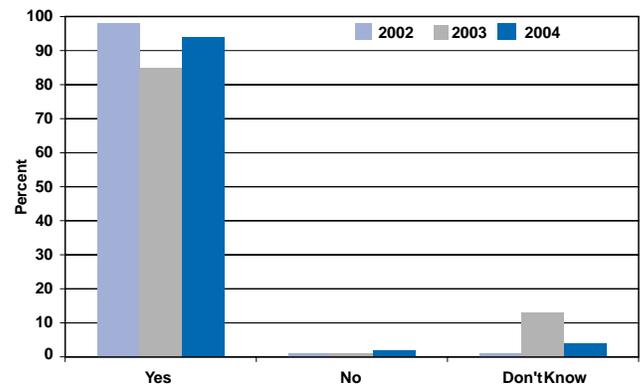

Chart 4.2: Did the Fire Department respond within a reasonable amount of time?

[1] The WFD indicated that the more than 29,000 incidents reported in 2002 was unusually high, and stated that the increase reported during this year is largely a reflection of heightened awareness following September 11, and increased hazardous materials and good intent calls from concerned citizens.

[2] As of January 1, 2002, fire departments throughout the Commonwealth were required to use the updated Massachusetts Fire Incident Reporting System (MFIRS), which was modified to allow for more accurate data collection, and included changes to the incident coding system. Therefore, due to changes in how incident categories are defined, caution is urged when comparing 2002 data to prior years, e.g., some of the incidents previously coded and included under one category may now appear in another.

[3] WFD attributes increased average response times to staffing shortages which have required the Department to reduce the number of companies operating during some shifts.

[4] See CCPM publication 04-08, *Citizen Satisfaction with Municipal Services: 2004 Survey* (available at www.wrrb.org) for a complete discussion of the survey findings.

[5] The decline from 2002 to 2003 is due to an increase in the proportion of respondents who, when asked whether the fire department responded within a reasonable amount of time, indicated "don't know" or didn't answer (from 1% in 2002 to 13% in 2003), rather than an increase in the proportion indicating that WFD did not arrive in a timely manner.

How does Worcester perform?

In 2004, the Worcester Fire Department (WFD) responded to 21,778 calls for service, 25.8% fewer than in 2002.[1] As shown in **Table 4.1**, in 2004, WFD responded to 417 structure fires, 42% fewer compared to 2002.[2] Much of the decline in structure fires in recent years is likely the result of safer building materials used in construction and increased prevention measures such as the installation of smoke detectors. While the number of structure fires in the City has been declining in recent years (consistent with national trends), the number of EMS/rescue calls to which the WFD has been dispatched represent an ever-growing proportion of the workload (from 50% in 2002 to 71% 2004).

In 2004, WFD average response time from dispatch to arrival on scene was 4 minutes 48 seconds for fire and EMS calls. While average response time increased by 41 seconds from 2002 to 2004, it continues to meet the minimum requirements set by the National Fire Protection Association (NFPA) for career fire departments to arrive on scene within 5 minutes of receiving an emergency call. While firefighters may be able to arrive on scene in a timely manner, according to the WFD Chief, due to staffing shortages, WFD is not always able to comply with the NFPA standard that each fire apparatus be staffed with four firefighters.[3]

In addition to responding to the emergency calls for fire and emergency medical services described above, the WFD performs a range of prevention functions. For example, in 2004, the fire prevention division conducted 7,498 fire safety inspections (a 22% increase from 2003), reviewed 899 building plans, issued over 5,000 permits, and conducted fire safety education programs at 117 locations (excluding schools), reaching an audience of more than 9,000. Additionally, 1,960 students attended the Department's S.A.F.E. (Student Awareness of Fire Education) program which is presented in schools.

What does this mean for Worcester?

From 2002 to 2004, the total number of incidents to which the WFD responded declined by nearly one-quarter. During that period, the Department also saw a shift in the type of incidents to which it responded. By 2004, fire suppression incidents represented a minority (about 30%) of all incidents, with EMS incidents comprising the majority (about 70%) of all incidents. Just two years earlier, the distribution of calls was fairly even at 50% fire, 50% EMS/rescue. The reduction in structure fires may be due in part to the efforts of the Department's Fire Prevention Division's outreach, education, and inspection activities.

Given these shifts in activities, what are the implications for the organization of the Department, the deployment of its resources and apparatus? As it has on several previous occasions, the Research Bureau again suggests that the WFD consider changes to its organizational and operational structure. Based on the new priorities of the Department, this could allow the WFD to better balance its budgetary bottom line with its new responsibilities in keeping with its mandate to protect the lives and property of residents and visitors to Worcester. For example, reducing the number of fire companies could allow the WFD to redeploy firefighters and better meet the NFPA standard of staffing fire apparatus with a minimum of four firefighters. In recent years, the WFD has made better use of data and technology, and these tools can be used to help make decisions about where and how its resources are allocated in the future. In FY05, the WFD's budget of $28.9 million supported 47 fewer positions compared to its $26.8 million budget in FY01. Instead of supporting additional firefighter positions during this period, budget increases were consumed by contractually obligated increases in firefighter salaries and benefits. Given this reality, and the likelihood that the Department will continue to face fiscal constraints, changing the structure of the organization may result in greater operational efficiencies, and further improvements in performance.

Table 4.1: Worcester Fire Department Incidents and Response Times

	2002	2003	2004	% Change 2002-2004
Total Incidents/Dispatched Calls	29,350	22,839	21,778	-25.8%
EMS/Rescue Calls	14,624	16,038	15,383	5.2%
Structure Fires	716*	454	417	-41.8%
Arson	43	42	31	-27.9%
Vehicle Fires	360	334	287	-20.3%
Hazardous Conditions without a Fire (e.g., chemical spills, natural gas leaks, electrical equipment)	805	901	804	-0.1%
Good Intent / Concerned Citizen	3,658*	1,019	1,149	-68.6%
False Alarms	1,591	1,542	1,705	7.2%
Average Response Time	4:07	4:11	4:48	+41 seconds

* Reflects first year of new reporting system, may include items incorrectly coded as structure fires so caution is urged when comparing to previous and later years.

Data Source: Worcester Fire Department

5

Advanced Life Support/ Ambulance Services

Why is it important?

As discussed in Indicator 4, Worcester's firefighters are trained to serve as "first responders" and provide basic life support services when dispatched to medical emergencies.[1] An ambulance is also dispatched to respond to each 9-1-1 call for medical assistance, and in Worcester, ambulance services are provide by UMass Memorial EMS. The all-paramedic hospital-based service is staffed by 50 full-time and 25 part-time paramedics, and operates a fleet of five ambulances in the City, all of which provide advanced life support and hospital transport.[2]
Since 1991, UMass Memorial has operated the ambulance service at no cost to the City.[3]

Speed of response in treating those who are seriously ill or critically injured can improve the patient's odds of survival. Therefore, the average response time from the receipt of a call to a provider arriving on the scene is a key industry standard by which EMS performance is measured.

How does Worcester perform?

As shown in **Table 5.1**, the number of 9-1-1 emergency calls to which UMass Memorial EMS responded increased from 21,836 in 2000 to 24,671 in 2003 (a 13% increase). From 2000 to 2004, patient transports to an emergency room increased at about the same rate as total responses (13.4%), and on an annual basis, around 70% of responses result in a transport.

During 2004, UMass Memorial EMS' response time for all calls was 5 minutes 56 seconds, its lowest during the five year period from 2000 to 2004. While average response times for life-threatening injuries or illnesses (Priority 1 responses) have consistently been shorter than the average response time for all calls, Priority 1 average response time was 38 seconds higher in 2004 compared to 2000. Worcester has consistently demonstrated response times that are better (lower) than the industry standard of 90% of paramedic responses arriving on scene within 8 minutes. **Chart 5.1** shows a further breakout of response times in 2004 by UMass Memorial EMS Sector.

Table 5.1: UMass Memorial EMS Responses

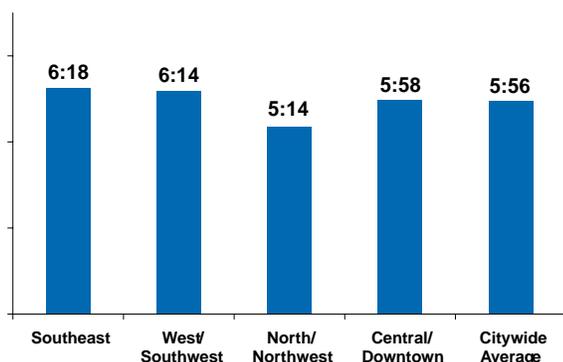|	2000	2001	2002	2003	2004	Change 00-04
Responses	21,836	23,620	24,690	26,024	24,671	13.0%
Transports	15,028	16,022	17,108	18,865	17,040	13.4%
Average Response Time	6:11	6:06	6:11	6:05	5:56	-0:15
Average Priority One Response Time	5:08	5:13	5:07	5:13	5:46	+0:38

Data Source: UMass Memorial EMS

[1] There are three levels of Emergency Medical Technicians (EMTs): EMT-basic, EMT-intermediate, and EMT-paramedic, and the classification is based on level of training. While some firefighters and police officers in Worcester are trained paramedics, legally, only EMTs employed by an ambulance service are allowed to perform beyond the first responder/basic life support level.

[2] UMass Memorial EMS has agreements with AMR and Eascare ambulance services to provide back-up support in the event that more than five requests for ambulances are received simultaneously. The agreement stipulates that the private ambulance service dispatch an advanced life support ambulance so that a comparable level of care is provided. UMass Memorial reports that this scenario occurs infrequently, accounting for about 2% of its annual call volume.

[3] In July 1977, ambulance service was transferred from the Worcester Police Department to Worcester City Hospital. With Worcester City Hospital's closing in 1991, ambulance services were taken over by UMass Medical Center, which became UMass Memorial Health Care in 1997.

Chart 5.1: UMass Memorial EMS Average Response Time, 2004

Southeast	West/Southwest	North/Northwest	Central/Downtown	Citywide Average
6:18	6:14	5:14	5:58	5:56

What does this mean for Worcester?

Worcester has a somewhat unique structure for providing emergency medical services. Among 200 cities surveyed by the Journal of Emergency Medical Services, only 3% utilize hospital-based EMS services; and Worcester was the only Northeastern city providing such a service. As a hospital-based EMS service, UMass Memorial EMS and those it serves benefit from clinical oversight provided by UMass Medical Center's Department of Emergency Medicine, and ongoing training and professional development opportunities available to the staff of UMass Memorial EMS. Additionally, a full-time medical director oversees UMass Memorial EMS operations, providing quality assurance and clinical oversight expertise. Highly trained paramedics are qualified to perform advanced medical procedures in the field that would otherwise be performed only in a hospital setting.

It should also be emphasized that UMass Memorial EMS provides this service at no charge to the City. Under this arrangement, the City does not have to purchase or maintain ambulances, or provide advanced life support training to other City personnel. Thus, not only does the current structure perform better than industry standards, it also saves Worcester's taxpayers the expense of operating a municipally-run ambulance service.

MISSION STATEMENT

The Worcester Regional Research Bureau is a private, nonprofit organization dedicated to conducting independent, non-partisan research on financial, administrative, management and community issues facing Worcester's municipal government and the surrounding region.

319 Main Street
Worcester, MA 01608-1511
Telephone: 508-799-7169
Fax: 508-799-4720

www.wrrb.org

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