



The Research Bureau

## Benchmarking Public Safety in Worcester: 2007

October 2007

CCPM: 07-04



Center for Community Performance Measurement



# The Research Bureau

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Dear Citizen,

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

The indicators in this report describe the performance of Worcester's police, fire, and ambulance/emergency medical services. We continue to monitor the same five indicators discussed in previous reports: crime rates, perceptions of crime and neighborhood safety, allegations of police misconduct, fire suppression and first responder services, and advanced life support/ambulance services. We measure performance by asking "What has changed since last year, what have we accomplished, and what challenges remain?"

It is important to bear in mind that no single indicator presented here 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**.

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,

Brian J. Buckley, Esq. – President

Roberta R. Schaefer, PhD – Executive Director

Kimberly A. Hood, MPA – Manager, CCPM

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# 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.<sup>1</sup>

The Worcester Police Department's FY07 budget of \$38.45 million (excluding capital expenditures and fringe benefits) comprised 8.3% of the City's annual operating budget. As shown in the table below, the WPD's expenditures have increased by about 23% over the past five years, from \$31.27 million in FY03 (actual) to \$38.45 million (budgeted) in FY07, due primarily to contractually-obligated salary increases. In FY07, the department budget authorized funding for 52 civilian personnel positions, 8 (13%) fewer than it did in FY03, when 60 civilian positions were funded. The number of budgeted uniformed officer positions decreased slightly from 475 in FY06 to 473 in FY07.

In 2005, the most recent year for which regional comparison data are available, the average number of police department employees (uniformed and civilian) in Northeast cities with populations of 100,000 to 249,999 was 3.3 per 1,000 residents, compared to 3.0 per 1,000 in Worcester. Uniformed officers averaged 2.7 per 1,000 residents throughout both the larger Northeast region, and the City of Worcester.<sup>2</sup>



Category	FY03	FY04	FY05	FY06	FY07	% Change FY03-FY07
Expenditures*	\$31,272,000	\$30,731,000	\$31,884,406	\$36,133,284	\$38,451,455	23.0%
Expenditures per capita	\$178.19	\$174.84	\$181.27	\$205.42	\$218.60	22.7%
Uniformed Positions	459	424	475	475	473	3.1%
Officers per 1,000 Population	2.6	2.4	2.7	2.7	2.7	-
Civilian Positions	60	43	48	51	52	-13.3%
Civilians per 1,000 population	0.3	0.2	0.3	0.3	0.3	-
Total Positions	519	467	523	526	525	1.2%
Total Law Enforcement positions per 1,000 population	3.0	2.7	3.0	3.0	3.0	-

\*Excluding capital expenditures and fringe benefits

Data Sources: Comprehensive Annual Financial Reports, Office of the City Auditor (Actual expenditures for fiscal years 2003 through 2006) and City of Worcester Annual Budget (Recommended Appropriation for FY07). Uniformed and civilian positions reflect budgeted positions in the City of Worcester Annual Budgets for the years FY03 - FY07.

<sup>1</sup> City of Worcester Fiscal 2007 Annual Budget.

<sup>2</sup> 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.



**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 or 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 promote neighborhood stability, and increase a community’s attractiveness as a place to live, work, and conduct business. Accurate and timely crime data are a tool that allow the police to identify trends in both types of crimes and geographic areas in which they occur. These data enable the police to deploy resources most effectively.

**How does Worcester perform?**

In 2006, the WPD responded to 95,313 incidents.<sup>3</sup> As shown in **Table 1.1**, more than three-quarters of these incidents (79%) were reported by private citizens (primarily 9-1-1 emergency calls), while 21 percent were officer-initiated.<sup>4</sup> While the number of incidents police respond to annually decreased by 3.9% from 2003 to 2006, the number of arrests made by WPD officers steadily increased from 6,632 arrests made in 2003 to 8,698 in 2006 (a 31.2% increase). The specific charges associated with these arrests and the number of individuals arrested will be examined in further detail later in this section (see **Table 1.4**).

**Reported Crime**

During calendar year 2006, 1,499 violent crimes and 5,660 property crimes were reported in Worcester.<sup>5</sup> Aggravated assaults comprised about two-thirds of the reported violent crimes, followed by robbery (26%), rape (8%), and murder (0.4%). Larceny constituted the greatest proportion of property crimes reported in Worcester in 2006 (61%), followed by burglary (22%) and motor vehicle theft (17%). From 2001 to 2006, the number of reported violent crimes in Worcester increased by 5.4% overall.

**Table 1.2** shows trends in reported property and violent crime rates for Worcester and several other Northeastern cities since 2001. Worcester has typically experienced lower crime rates than Bridgeport, Hartford, and Springfield. Worcester’s property crime rate has consistently been the second-lowest among the six cities listed, and more recently Worcester’s violent crime rate has also been the second-lowest among these cities.

While preliminary data from 2006 show that Worcester experienced a 7.8% increase in the number of reported violent crimes compared to 2005 (1,499 in 2006 compared to 1,390 in 2005), there was a 7% decline in the number of reported property crimes in the City during this same period (5,660 compared to 6,078). Violent crime in the Northeast region during this period remained relatively unchanged (a .1% decrease) while nationwide it increased by 1.3%. Reported property crimes nationwide exhibited a more modest 2.9% decline compared to Worcester’s 7% decline, while the Northeast region saw just a .8% drop in property crime.

**Table 1.1: WPD Workload Measures, 2003 – 2006**

Incidents	2003	2004	2005	2006	% Change 03-06
Total Incidents	99,174	97,829	97,163	95,313	-3.9%
Citizen-Reported	83,044	77,841	74,697	75,184	-9.5%
WPD-Initiated	16,130	19,988	22,466	20,229	25.4%
<b>Arrests</b>					
Total arrests made by WPD	6,632	7,179	8,028	8,698	31.2%

Source: Worcester Police Department, Crime Analysis Unit, *Police Incident Statistics*

<sup>3</sup> 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, since 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.

<sup>4</sup> The numbers reported in **Tables 1.1, 1.4, & 1.5** may differ from those published in previous reports, as the WPD has taken efforts to deal with coding anomalies that may have occurred.

<sup>5</sup> Reported crime data are from the FBI’s Uniform Crime Reporting Program. The violent-crime category includes murder, forcible rape, robbery, and aggravated assault. Property crimes include burglary, larceny/theft, and motor vehicle theft. See <http://www.fbi.gov/ucr/ucr.htm> for additional information about reported crime, including the FBI’s annual publication *Crime in the United States*.



**Crime Rates and Arrests (continued)**

**Table 1.2: Reported Crimes per 10,000 Population**

	Bridgeport, CT		Hartford, CT		Lowell, MA		Springfield, MA		Worcester, MA		Providence, RI	
	Violent	Property	Violent	Property	Violent	Property	Violent	Property	Violent	Property	Violent	Property
<b>2001</b>	136.6	447.1	128.1	739.5	80.9	348.2	216.2	628.2	81.7	390.0	82.6	729.2
<b>2002</b>	121.4	491.0	124.3	749.4	81.3	326.3	204.1	736.2	NA	NA	74.0	713.7
<b>2003</b>	97.5	457.3	145.4	791.0	83.2	295.9	191.4	763.6	87.5	434.9	78.9	627.2
<b>2004</b>	101.4	445.9	121.3	878.6	95.4	309.8	183.7	655.7	78.6	371.4	60.7	583.9
<b>2005</b>	108.5	512.1	115.9	764.7	97.9	319.6	177.4	573.6	79.0	345.5	68.2	515.9
<b>2006</b>	108.7	503.4	128.0	710.4	88.7	323.1	148.2	572.5	84.7	319.9	55.4	489.3

Source: Rates calculated by The Research Bureau using FBI Uniform Crime Reports data.

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 diminish residents’ quality of life and can lead to an increase in the occurrence of other types of crime. **Table 1.3** shows the geographic distribution of violation-of-public-order incidents (including disorderly conduct, fights, trespassing, gun shots, illegal carrying of weapons, noise-related complaints, drugs, prostitution, alcohol-related offenses, other vice, and non-domestic disputes) to which WPD responded in 2006.

**Arrests**

In 2006, the WPD made 8,698 arrests. **Table 1.4** shows that the total number of arrests in Worcester (for all ages) increased by 31.2 % from 2003 to 2006.<sup>6</sup>

*Juvenile Arrests*

In 2006, 5.7% of all arrests made by the WPD involved youth under the age of 17. Since 2003, the number of youth arrests has declined by 13%, from 572 to 496. The 496 arrests in 2006 lead to 802 charges being filed (a single arrest may result in multiple charges). As shown in **Table 1.5**, the majority of juvenile arrests in Worcester were for disorderly conduct, aggravated assault, vandalism, and shoplifting. Liquor-law violations was the only category of charges that increased from 2003 to 2006, and the number of vandalism arrests remained unchanged from 2003 to 2006.

**Table 1.3: Violations of Public Order, 2006**

	Number	Percent of Total
Central Zone	6,448	32.61%
South Zone	3,011	15.23%
Downtown Zone	2,134	10.79%
Southeast Zone	2,376	12.02%
East Zone	1,847	9.34%
West Zone	1,727	8.73%
North Zone	1,425	7.21%
Northwest Zone	779	3.94%
Unknown	26	0.13%
<b>Total</b>	<b>19,773</b>	<b>100.00%</b>

Source: Worcester Police Department, Crime Analysis Unit

**What does this mean for Worcester?**

Annual data for the four-year period from 2003 to 2006 show that the number of incidents (criminal and non-criminal) entailing police response dropped by almost 4,000 (3.9%), though in 2006, WPD still responded to an average of 261 incidents per day. For the second consecutive year, reports of violent crime in Worcester increased (rising from 1,383 reported incidents in 2004 to 1,499 incidents in 2006). This resulted in an 8.3% increase in reported violent crime in the City since 2004, compared to a 4.2% increase nationally during the same period. In conformity with national trends, aggravated assault has been the most frequently reported violent offense in Worcester since 2001 (on average, almost two-thirds of violent offenses reported to the WPD). Also, the number of total arrests in the City has increased by almost a third since 2003.<sup>7</sup>

<sup>6</sup> 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 among police departments, and even within a single department arrest practices are likely to vary over time.

<sup>7</sup> See Worcester Police Department’s Annual Report for details, [www.ci.worcester.ma.us/wpd](http://www.ci.worcester.ma.us/wpd).



**Crime Rates and Arrests (continued)**

Since his appointment in late 2004, the Police Chief has implemented a department restructuring designed to meet one of the WPD’s primary goals: to work more closely 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 as evidenced by the expansion of the Department’s Crime Analysis Unit in the past year to ensure that officers have timely and accurate data to aid in solving crime and quality-of-life issues. WPD is also sharing its data with the community, and as part of the reorganization of

its community policing efforts, is working systematically with neighborhood groups to combat identified problems and to develop tactics that anticipate problems rather than simply reacting to them. The community-policing approach also includes efforts to better coordinate WPD’s activities with those of other municipal departments and community services such as Code Enforcement and Public Works.

**Table 1.4: Summary of WPD Arrests, 2003-2006**

	2003	2004	2005	2006	% Change 2003-2006
<b>Total Arrests (All Ages)</b>	6,632	7,179	8,028	8,698	31.2%
<b>Individuals Arrested</b>	5,258	5,465	6,027	6,762	28.6%
<b>Total Arrests with this Charge:</b>					
Drug Violations	1,062	1,115	1,310	1,248	17.5%
Assault and Battery/Aggravated Assault	567	511	530	600	5.8%
Disorderly Conduct, Disturbing Peace	1,141	1,079	1,115	1,253	9.8%
Prostitution and Related	237	267	232	178	-24.9%
Sexual Assault, Including Rape	21	19	33	29	38.1%
Armed Robbery	42	55	57	67	59.5%
Murder, Manslaughter, Attempted Murder	4	11	8	14	250.0%

*Source: Worcester Police Department, Crime Analysis Unit*

**Table 1.5: Summary of WPD Juvenile Arrests, 2003-2006**

	2003	2004	2005	2006	% Change 2003-2006
<b>Total Arrests: Youth under 17 years of age</b>	572	583	528	496	-13.29%
<b>Total Youth Arrests with this Charge:</b>					
Disorderly Conduct, Disturbing Peace	100	74	95	93	-7.0%
Assault and Battery/Aggravated Assault	49	52	53	46	-6.1%
Shoplifting	53	52	34	33	-37.7%
Drug Violations	53	36	38	25	-52.8%
Vandalism	41	27	22	41	0.0%
Breaking & Entering	30	12	21	24	-20.0%
Larceny (except motor vehicle)	24	21	29	20	-16.7%
Liquor Law Violations	3	6	18	20	566.7%
Firearms (discharge and other related violations)	4	3	2	2	-50.0%
Motor Vehicle Theft & related	36	44	42	12	-66.7%

*Source: Worcester Police Department, Crime Analysis Unit*



**Why is it important?**

Citizen perceptions of public safety are important to a community’s vibrancy and can affect the quality of life in a neighborhood. Citizen perception that a neighborhood is unsafe can lead to decreased community investment, mistrust of the local police force, and decreases in neighborhood participation. However, numerous studies have found that there is often a disconnect between the public’s perception of crime and actual crime rates. Measuring citizens’ perceptions of public safety in their neighborhood and even in the larger community is important because it is the first step to challenging inconsistencies that may arise.

**How does Worcester perform?**

The Center for Community Performance Measurement surveys two populations annually to evaluate citizens’ perceptions of safety in Worcester. The City of Worcester 2006 Citizen Survey, completed by 1,615 randomly selected households in the City, measured Worcester residents’ satisfaction with services provided by a number of City departments, including the Worcester Police Department. Slightly more than one-quarter of the 1,546 respondents (26.7%) reported that they or a member of their household had received assistance from the WPD within the past 12 months. Of those who had contact with the police during the past year, 76.2% were satisfied with the department’s response time, 80.3% were satisfied with the professionalism of staff, and 77.7% were satisfied with the quality of services provided by the WPD.<sup>8</sup>

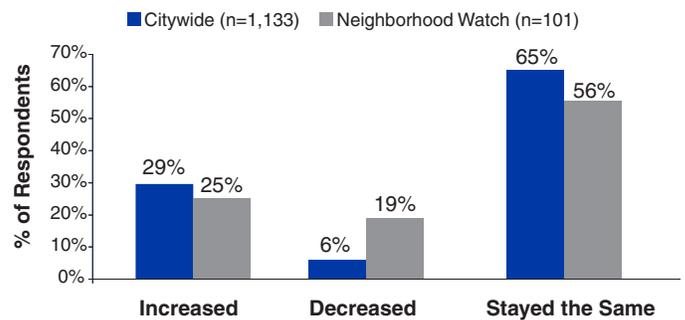
The CCPM also administers an annual survey of participants in the more than 50 neighborhood associations/Neighborhood Watch groups meeting throughout the City. The majority of these groups meet on a monthly basis to discuss a variety of neighborhood issues, including public safety and quality-of-life concerns. During the winter of 2006-2007, 129 participants from 14 of the neighborhood associations responded to a survey that measures participants’ perceptions of neighborhood safety, their assessment of WPD performance, and quality-of-life issues. Among respondents, 86% have participated in their neighborhood groups for two or more years and almost three-quarters have lived in their neighborhoods more than ten years.

Both the citywide citizen satisfaction and the Neighborhood Watch surveys asked respondents whether they thought crime

in their neighborhoods had increased, decreased or stayed the same during the past year. As shown in **Chart 2.1**, 19% of Neighborhood Watch participants judged that the level of crime in their neighborhood had decreased during the last 12 months, while citywide only 6% of the respondents had the same perception.

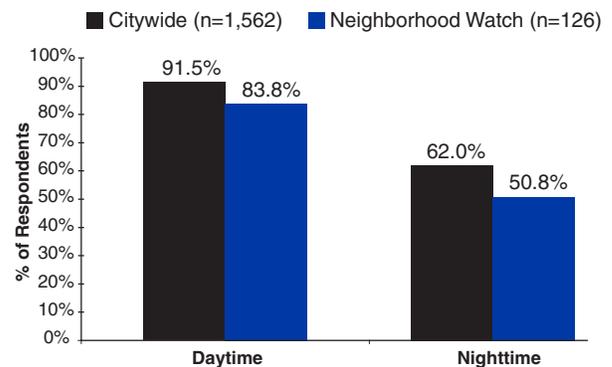
However, when asked if they felt safe walking alone in their neighborhoods during the daytime, 92% of respondents citywide said they felt safe, compared to 84% of Neighborhood Watch participants, as shown in **Chart 2.2**. Regarding how safe people felt at night walking alone in their neighborhoods, percentages decreased by about 30 points. About 62% of respondents citywide said they felt safe walking alone in their neighborhoods at night, compared to 51% of Neighborhood Watch participants.

*Chart 2.1: Crime in Neighborhood*



Source: The Research Bureau

*Chart 2.2: Respondents who felt "Very Safe" or "Safe" Walking Alone in their Neighborhood*



<sup>8</sup>See Report 07-01, *Citizen Satisfaction with Municipal Services and Quality of Life in Worcester: 2006 Survey Findings*, available online at <http://www.wrrb.org>.



Table 2.1: Neighborhood Watch Respondent Ratings of WPD Performance

	Year	#	Very Poor	Poor	Average	Good	Very Good
Quality of services provided by WPD in your neighborhood	2005	129	1.6%	10.1%	33.3%	41.1%	14.0%
	2006	183	1.6%	9.3%	28.4%	40.4%	20.2%
	2007	127	0.8%	3.9%	20.5	47.2%	27.6%
WPD officers' attitude and behavior toward citizens	2005	125	0.8%	7.2%	20.8%	42.4%	28.8%
	2006	182	1.1%	6.6%	20.3%	38.5%	33.5%
	2007	127	0.8%	2.4%	16.5%	35.4%	44.9%
WPD's responsiveness to quality-of-life issues in the community (neighborhood disputes, loud noise concerns, graffiti, etc.)	2005	121	5.8%	10.7%	28.1%	38.0%	17.4%
	2006	179	3.4%	13.4%	30.2%	32.4%	20.7%
	2007	121	0.8%	6.6%	22.3%	41.3%	28.9%
WPD's responsiveness to the community's overall policing needs	2005	126	0.8%	11.1%	27.8%	45.2%	15.1%
	2006	175	3.4%	6.3%	30.9%	39.4%	20.0%
	2007	117	0.0%	6.8%	21.4%	44.4%	27.4%

Source: The Research Bureau

Table 2.1 shows Neighborhood Watch 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 community's overall policing needs over the past three years. About three-quarters of respondents felt that the quality of services provided in their neighborhoods was "good" or "very good" while 72% felt that WPD's responsiveness to the community's overall policing needs was "good" or "very good." Officers' attitudes and behavior towards citizens received the highest rating, with 80% of respondents offering a rating of good/very good, 17% offering an average rating and 2% submitting a poor rating (only one individual gave a response of "very poor").

When asked whether police presence in their neighborhood was adequate, two-thirds of respondents said "yes."

When asked to identify specific times of day when greater police presence is needed, respondents said the greatest need was "nighttime/after dark" (50%) followed by "late afternoon/early evening" (33%).

Eighty-one percent of respondents indicated that a police officer always attends the Neighborhood Watch meeting (13% indicated that an officer attends "most of the time" and 2% stated "sometimes"). In addition, 87% indicated that the same

police officer attends each meeting. Only 16% of Neighborhood Watch participants felt they were uninformed about WPD projects, programs, activities, and services. An overwhelming majority - about 95% of respondents - thought that Neighborhood Watch made their neighborhood safer.

### What does this mean for Worcester?

Citizens of the City of Worcester and participants in the City's Neighborhood Watch groups felt safer walking alone in their neighborhoods during the daytime than at nighttime. However, about a quarter of respondents in each group thought that crime had increased in their neighborhood over the past year. Having this information about citizens' perceptions of crime provides the WPD with an opportunity to compare perception to reality, as tracked by the Department's expanded use of neighborhood-level crime data, and to respond to citizen concerns appropriately. It is important for the community to perceive that it is safe, and if crime rates are at odds with the perceptions held by citizens, this issue should be further examined to find out what exactly leads to any false perceptions.



Allegations of Police Misconduct

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 established internal procedures. The Worcester Police Department’s complaint investigation procedure provides a venue for citizens to express concerns about police conduct. The review process holds officers accountable for improper behavior, but also protects police officers against unwarranted criticism while fulfilling their duties. Citizen trust in the fairness of police conduct is essential to effective policing. When trust in a police department erodes, citizens can become hesitant to report crimes or assist in police investigations. Therefore, the quality of each of the thousands of police-citizen interactions 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.”<sup>9</sup>

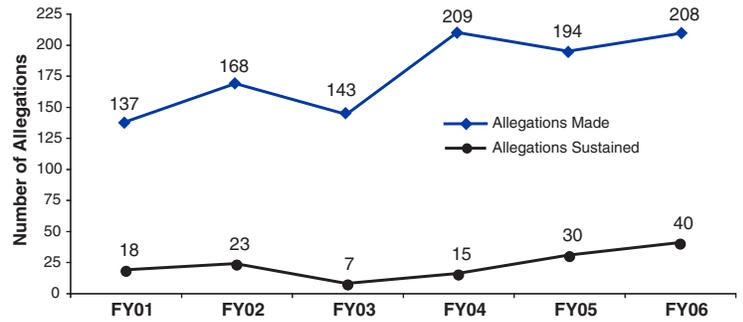
Continued improvement in, and strengthening of, police-community relations forms the foundation of the Worcester Police Department’s (WPD) community-policing initiative.

How does Worcester perform?

WPD’s Bureau of Professional Standards (formerly the Internal Affairs Division) reviews and investigates all citizen complaints alleging police officer misconduct. In FY06, there were 109 complaints against the WPD containing 208 allegations.<sup>10</sup> As shown in **Chart 3.1**, the number of allegations of misconduct increased by more than half (52%) from FY01 to FY06. Forty allegations in FY06 were sustained following an investigation, indicating that there was sufficient evidence supporting the charge of misconduct.<sup>11</sup>

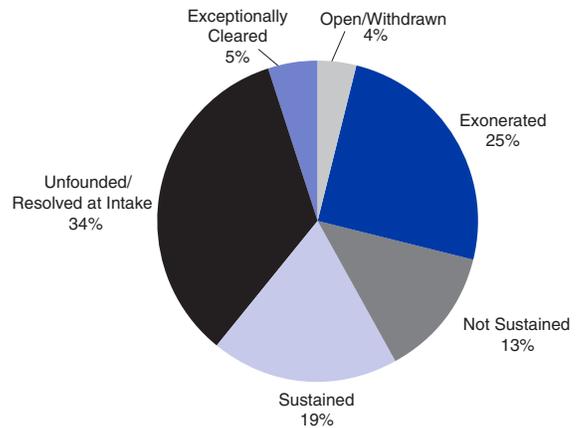
As shown in **Chart 3.2**, about a third of all allegations in FY06 (33%) were determined to be unfounded or resolved at intake, and another quarter resulted in the officer being exonerated of any unlawful or improper conduct. In FY06, the proportion of sustained allegations-- those in which evidence supports the alleged improper conduct—reached the highest level of the five-year period from FY02 to FY06, with nearly 20% of allegations sustained.

Chart 3.1: Allegations of Police Misconduct



Source: Worcester Police Department, Bureau of Professional Standards

Chart 3.2: Disposition of Citizen Allegations, FY06 (N=208)



Source: Worcester Police Department, Bureau of Professional Standards

Allegations are deemed *unfounded/resolved* at intake if the investigation indicates that the act or acts complained of did not occur, or they did not involve police department personnel. 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 found to be justified, lawful, and proper. *Sustained* allegations are those in which the investigation discloses sufficient evidence to clearly prove the allegations made in the complaint. *Exceptionally cleared* occurs when a factor that is external to the investigation interrupts or halts the process, such as when the individual who filed the complaint refuses to cooperate in the investigation. *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 was true, but the officer was acting in a manner consistent with policy, which indicates a policy revision is required.

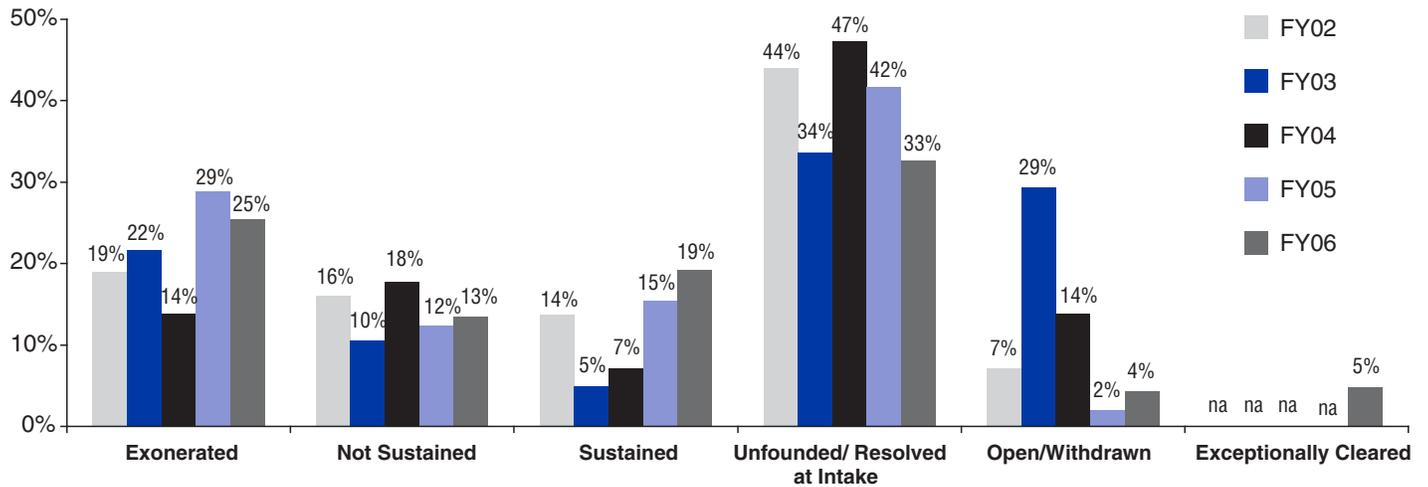
<sup>9</sup> Moore, Mark with Anthony Braga. 2003. *The Bottom Line of Policing: What Citizens Should Value (and Measure!) in Police Performance*. Police Executive Research Forum.

<sup>10</sup> A single complaint may contain multiple allegations of misconduct.

<sup>11</sup> In cases where evidence supports improper conduct, disciplinary action is determined by the Chief of Police.



Chart 3.3: Disposition of Citizen Allegations FY02 – FY06



Source: Worcester Police Department, Bureau of Professional Standards

Chart 3.3 shows the disposition of allegations from each of the past five years. From FY05 to FY06, the percentage of allegations resulting in exoneration dropped slightly, from 29% to 25%. During FY05 and FY06, the proportion of allegations that were withdrawn or still open at year end was well below previous years’ levels. Additionally, the largest category of allegations (about one-third in FY06) continue to be those that are determined to be unfounded or are resolved at intake. In FY06, “exceptionally cleared” was added as a new category of complaints and constituted about 5% of all allegations.

**What does this mean for Worcester?**

During the six-year period from FY01 to FY06 the number of allegations of police misconduct contained in citizen complaints increased by nearly 52%, from 137 to 208 allegations. The rate at which alleged misconduct was deemed to have actually occurred, that is, the allegations were sustained after investigation, also reached its highest level in FY06 when about one in five allegations were proven compared to about one in twenty just three years earlier in FY03. The data also reveal a slight decrease from FY05 to FY06 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 in which the behavior complained of was outside the scope of WPD’s responsibility. As well, the

number of open allegations dropped considerably the past two fiscal years, perhaps reflecting a more expeditious review of cases by the WPD’s Bureau of Professional Standards.

WPD’s Bureau of Professional Standards 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, 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 Chief’s reorganization initiative. For example, citizen support of community policing will likely be strongest if citizens perceive a fair and timely review of complaints that are made, and feel that the process is transparent. Questions regarding citizen awareness of the Bureau of Professional Standards process and outcomes may be added to future citizen satisfaction surveys (see **Indicator 2: Perceptions of Crime and Neighborhood Safety**). Additionally, further monitoring of the average length of time it takes to complete an investigation ought to be considered. This may be especially useful when describing the trends of open allegations, since a significant decline in these numbers occurred during the past two years. We do not know whether these open allegations represent complaints received at year end (which may then be resolved in a timely manner early the next year), or whether they represent investigations which have not been completed in a timely manner.



# Worcester Fire Department

## Department Overview and Input Indicators

The mission of the Worcester Fire Department is to protect the lives and property of the visitors and citizens of Worcester from the adverse effects of fire, medical emergencies, and other hazardous conditions both man-made and natural.<sup>12</sup>

The Worcester Fire Department's (WFD) FY07 budget of \$31.7 million (excluding capital expenditures and fringe benefits) comprised 6.8% of the City's total operating budget.<sup>13</sup>

The budget authorized funding for 410 firefighters and 11 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 allow 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.

As shown in the table below, the WFD's budget decreased by about \$1.5 million (5%) from FY02 to FY04, then increased modestly in each of the past three years (due primarily to contractually-obligated salary increases). While the Department's budget of \$31.7 million in FY07 was about 4% higher than the FY02 budget, during the same period, staffing levels declined by more than 10% (from 479 to 421 positions). During FY02, there were 2.7 budgeted firefighter positions per 1,000 Worcester residents; by FY07, this ratio was 2.3 per 1,000.



	FY02	FY03	FY04	FY05	FY06	FY07	% Change FY02-FY07
<b>Expenditures*</b>	\$30,491,000	\$29,373,000	\$28,961,000	\$29,082,192	\$31,542,394	\$31,664,500	3.8%
Expenditures per capita	\$174.16	\$167.37	\$164.77	\$165.34	\$179.32	\$180.02	3.4%
<b>Total Positions (Budgeted)</b>	479	449	411	446	429	421	-12.1%
<i>Total per 1,000 population</i>	<i>2.74</i>	<i>2.56</i>	<i>2.34</i>	<i>2.54</i>	<i>2.44</i>	<i>2.39</i>	
<b>Firefighter Positions (Budgeted)</b>	466	438	401	436	418	410	-12.0%
<i>Firefighters per 1,000 population</i>	<i>2.7</i>	<i>2.5</i>	<i>2.3</i>	<i>2.5</i>	<i>2.4</i>	<i>2.3</i>	
<b>Civilian Positions (Budgeted)</b>	13	11	10	10	11	11	-15.4%
<i>Civilian positions per 1,000 population</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	

\*Excluding capital expenditures and fringe benefits

Data Sources: Comprehensive Annual Financial Reports, Office of the City Auditor (Actual expenditures for FY02-FY06) and City of Worcester Annual Budget (Recommended Appropriation for FY07). Firefighter and civilian positions reflect budgeted positions in the City of Worcester Annual Budgets for the years FY02 - FY07.

<sup>12</sup> City of Worcester Fiscal 2007 Annual Budget.

<sup>13</sup> This report examines FY07 budget and staffing levels; while the City's fiscal year is July 1 – June 30, the performance data are typically tracked on a calendar year basis. The most recent performance data available for CY06 fall within the City's FY07.



### Why is it important?

The number of fire suppression responses, first responder calls, inspections, and fire safety and prevention activities is an indicator of the fire department's workload. The ability of emergency personnel to respond quickly to a fire or other emergency situations 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 both the frequency and location of fires and emergency situations to which fire personnel respond enables the Chief and City officials to examine coverage to ensure that 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.

### How does Worcester perform?

In 2006, the Worcester Fire Department (WFD) responded to 23,427 calls for service, an increase of about 6% (1,357 calls) compared to 2005, driven primarily by an increase in the number of first-responder calls. First responder/rescue calls continue to represent the largest proportion of calls to which

WFD responds, comprising two-thirds (15,663) of all incidents in 2006.<sup>14,15</sup> As shown in **Table 4.1**, in 2006, WFD responded to 678 structure fires.<sup>16</sup> From 2005 to 2006, the number of false alarms to which WFD responded decreased by about 4%, from 3,102 to 2,971. In 2006, the Worcester Fire Department's average response time from dispatch to arrival on scene for all incident calls was 3 minutes 59 seconds (unchanged from 2005, and significantly below the five-year high of 4 minutes, 48 seconds in 2004). The Department's average response time for fire incidents was 3 minutes 19 seconds, and for EMS incidents it was 4 minutes 3 seconds.

In addition to responding to the emergency calls for fire and emergency medical services described above, the WFD personnel perform a range of education, enforcement, and engineering functions. In FY06, firefighters in the fire prevention division conducted 8,410 fire safety inspections (275 more than in FY05), reviewed 890 building plans, issued almost 6,500 permits (300 more than in FY05), and conducted fire safety education programs at 162 locations (excluding schools). Additionally, 1,580 students attended the Department's S.A.F.E. (Student Awareness of Fire Education) program which is presented in schools.

**Table 4.1: Worcester Fire Department Incidents and Response Times**

	2002	2003	2004	2005	2006	% Change 2002-2006
Total Incidents/Dispatched Calls	29,350	22,839	21,778	22,070	23,427	-20.2%
First Responder/Rescue Calls	14,624	16,038	15,383	14,558	15,663	7.1%
Structure Fires	716	454	417	749	678	-5.3%
Incendiary (Arson)	43	42	31	29	28	-34.9%
Vehicle Fires	360	334	287	184	139	-61.4%
Hazardous Conditions without a Fire (e.g., chemical spills, natural gas leaks, electrical equipment)	805	901	804	726	825	2.5%
Good Intent	3,658	1,019	1,149	1,322	1,109	-69.7%
False Alarms	1,591	1,542	1,705	3,102	2,971	86.7%
Average Response Time	4:07	4:11	4:48	3:59	3:59	-8 seconds

Source: Worcester Fire Department

<sup>14</sup> Worcester firefighters are dispatched to medical emergencies as first responders to provide basic life support services (CPR, first aid, and early defibrillation). For a further discussion of Worcester's First Responder System, see Research Bureau Report #06-03 *Dial 911: Whose Call is it, Anyway?* available at [www.wrrb.org](http://www.wrrb.org).

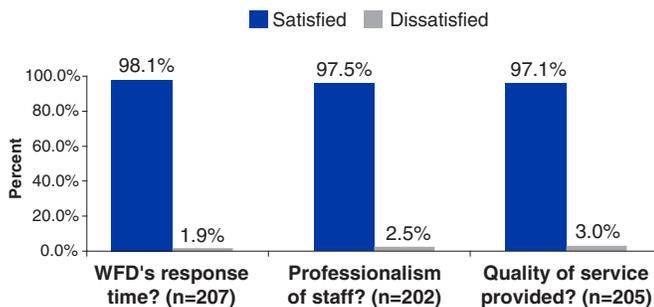
<sup>15</sup> The latest data available from the State Fire Marshall indicates that in 2005, 52% of all incidents statewide to which fire department personnel responded were rescue and EMS incidents.

<sup>16</sup> Caution is needed as these numbers are not directly comparable to prior years. Starting in 2005, many situations which were previously counted as "fire; other" are now being more accurately coded as structure fires or false alarms.



**Citizen Satisfaction with the Worcester Fire Department**

The Center for Community Performance Measurement's fifth annual survey of citizen satisfaction with municipal services measured Worcester residents' satisfaction with services provided by the Worcester Fire Department.<sup>17</sup> The mail survey was completed by 1,615 households in Worcester during the summer of 2006. 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. About fourteen percent of the households surveyed reported contact with the WFD for reasons ranging from reported fires to emergency medical services. Respondents who had contacted the WFD were asked to rate their satisfaction with various aspects of their experience. As shown in **Chart 4.1**, high levels of satisfaction were reported for the quality of service they received (97.1% satisfied), the professionalism of the staff (97.5% satisfied), and the amount of time the WFD took to respond (98.1% satisfied).

**Chart 4.1: Satisfaction with the Fire Department**

Source: The Research Bureau, 2006 Citizen Satisfaction Survey

**What does this mean for Worcester?**

In 2006, the vast majority of incidents to which WFD personnel were dispatched were first responder/rescue incidents, which comprised two-thirds of all responses. In FY06, the Department's average response time was unchanged from the previous year's (3 minutes and 59 seconds), despite the fact that the Department responded to an additional 1,357 calls with 18 fewer budgeted firefighter positions. Although the number of calls to which WFD responded increased by six percent between 2005 and 2006, the longer-term five-year trend shows a significant (20%) decline in call volume (23,427 calls in FY06 vs. 29,350 calls in FY02).

In February 2007, the Worcester Fire Chief released a Redeployment Plan for the Fire Department proposing the closure of two engine companies to "provide an equal or improved service at a reduced cost [to the City]."<sup>19</sup> The 24 firefighters of these closed companies will be transferred to other fire stations. Opponents of the Plan were concerned that closing two companies would lead to significantly longer response times (one estimate indicated a 50 second across-the-board increase). Future editions of this report will seek to address the effects of these closures on response times.

<sup>17</sup> See CCPM publication 07-01, *Citizen Satisfaction with Municipal Services and Quality of Life in Worcester: 2006 Survey Findings* (available at [www.wrrb.org](http://www.wrrb.org)) for a complete discussion of the survey findings.

<sup>19</sup> Fire Department Redeployment Plan, <http://www.ci.worcester.ma.us/reports/RedeploymentPlan.pdf>



**Why is it important?**

An ambulance is dispatched to respond to each 911 call for medical assistance. In Worcester, ambulance services are provided by UMass Memorial EMS. The all-paramedic, hospital-based service operates a fleet of six ambulances staffed by 50 full-time and 25 part-time paramedics. Since 1991, UMass Memorial Hospital has operated the ambulance service at no cost to the City.<sup>19</sup>

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 an emergency medical 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 911 emergency calls to which UMass Memorial EMS responded increased from 23,620 in 2001 to 27,769 in 2006 (a 17.6 % increase). During this period, the number of calls resulting in the transport of a patient to a hospital increased by one quarter, from 16,022 (about 68 % of all calls) to 20,154 (about 73 % of all calls).

During 2006, UMass Memorial EMS's response time for all calls increased by just one second from 2005, and was still nine seconds less than in 2001. 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 2006 compared to 2001. 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.

**Table 5.1: UMass Memorial EMS Responses**

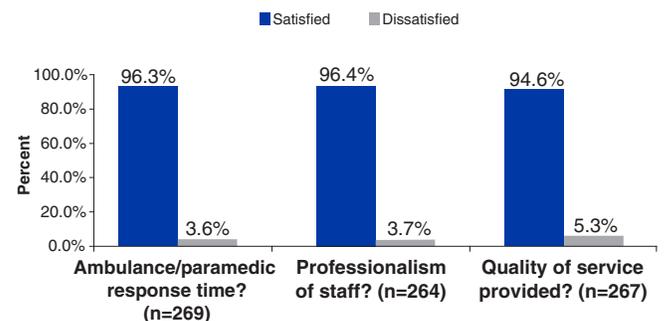
	2001	2002	2003	2004	2005	2006	% Change 2001-2006
Responses	23,620	24,690	26,024	24,671	26,498	27,769	17.6%
Transports	16,022	17,108	18,865	17,040	19,687	20,154	25.8%
Average Response Time	6:06	6:11	6:05	5:56	5:56	5:57	-0:09
Average Priority One Response Time	5:13	5:07	5:13	5:46	5:51	5:51	+0:38

Source: UMass Memorial EMS

**Citizen Satisfaction with UMass Memorial EMS**

The Center for Community Performance Measurement's fifth annual survey of citizen satisfaction with municipal services, distributed to 10,000 Worcester citizens, included questions regarding respondents' experiences with ambulance/paramedic services provided by UMass Memorial EMS. Among the 1,615 residents responding, 14.8 percent stated that they or a member of their household had received assistance from UMass Memorial EMS during the preceding 12 months. These individuals were then asked to rate their satisfaction with various aspects of their experience. As shown in **Chart 5.1**, high levels of satisfaction were reported for the quality of service they received (94.6% satisfied), the professionalism of the staff (96.4% satisfied), and the amount of time the ambulance took to respond (96.3% satisfied).

**Chart 5.1: Satisfaction with UMass Memorial EMS**



Source: The Research Bureau, 2006 Citizen Satisfaction Survey

<sup>19</sup> 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.

<sup>20</sup> Williams, David M. 2006 JEMS 200-City Survey, EMS From All Angles. February, 2007. <http://www.jems.com>



**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 in 2006, approximately 5.6% utilized hospital-based EMS services.<sup>20</sup> As a hospital-based EMS service, UMass Memorial EMS provides those it serves with the benefits of clinical oversight provided by UMass Medical Center's Department of Emergency Medicine, and ongoing training and professional development programs available to its staff. 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 could otherwise be performed only in a hospital setting.

It should be stressed 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 saves Worcester's taxpayers the expense of operating a municipally-run ambulance service.



*Mission Statement:*

*The Research Bureau serves the public interest of the Greater Worcester region by conducting independent, non-partisan research and analysis of public policy issues to promote informed public debate and decision-making.*



## The Research Bureau

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