



**Worcester
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WORCESTER'S FIRE DEPARTMENT: FACTS AND FIGURES

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INTRODUCTION

In order to attain the Fire Department's full uniformed complement of 479 firefighters, the City Manager is requesting a new class of 25 firefighters for FY99 at an additional cost of more than \$1 million during the first year. (This figure includes salaries and benefits.) Should the City Manager recommend a new class at a time of budget constraints and a decreasing number of structure fires?

RECENT DATA ON WORCESTER'S FIRE DEPARTMENT

According to data from the State Fire Marshal's Office recorded in the chart below, the number of structure fires in Worcester decreased by 34% from 753 to 496 between FY92 and FY97.¹ During the same time period, the authorized complement of uniformed employees increased by 13% from 423 to 479. Departmental expenditures increased by 35% from \$16.4 million to \$22.2 million during the same time period, FY92 - FY97. (The overall rate of inflation during this entire period was 14.1%.)²

FISCAL YEAR	AUTHORIZED COMPLEMENT (Uniformed personnel)	STRUCTURE FIRES	TOTAL DEPARTMENT EXPENDITURES (MILLIONS)
1992	423	753	\$16.4
1993	450	703	20.1
1994	456	640	17.9
1995	479	548	20.5
1996	479	556	21.6
1997	479	496	22.2

Source: Annual Budgets, City of Worcester
Comprehensive Annual Financial Reports, City of Worcester
Office of the State Fire Marshal, Department of Fire Services

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The decline in structure fires may be attributable to a number of factors:

- City accepted state laws that require the installation of heat and smoke detectors in new

¹ According to the National Fire Protection Association, structure fires have declined nationwide. Between 1992-1996, structure fires decreased by 10%. Since 1980, there has been a 46% decline nationwide.

²Consumer Price Index, U.S. Department of Labor, Bureau of Labor Statistics.

residences, substantial additions, lodging houses and boarding houses, and in resales of homes.

- City accepted state law that requires the use of sprinklers in new buildings or additions over 7,500 square feet.
- Fire prevention education has been expanded and enhanced.
- Changes in building codes require new buildings to be built with more fireproof materials.

Several other factors should be considered in determining whether an additional class of firefighters is needed:

1. In a survey of fire department staffing in Worcester and eleven other cities of comparable characteristics³ completed by the Research Bureau last year (#97-1), we found that the Worcester Fire Department has more companies⁴ than any other city except Providence, and 5 of Providence's 28 companies are assigned to ambulance transport units. (The Providence Fire Department provides Emergency Medical Services (EMS) transport for the city, while in Worcester, EMS has been provided free of charge to the City by University of Massachusetts Medical Center since the closing of Worcester City Hospital in 1992.)

2. As Chart B below indicates, most of the departments surveyed operate their trucks with 3-4 person crews. Only Bridgeport and Hartford operate with more than a 4-person crew. Worcester fire union officials have suggested that the size of crews on engines and ladder trucks needs to be increased to at least five people. Increasing the size of the crews would, of course, require more uniformed personnel.

TABLE B: NUMBER OF COMPANIES AND SIZE OF CREWS

	Companies	Crew Size
Worcester	23	3-4 person engines and ladders ⁵
Bridgeport	15	4-5 person engines and ladders
Hartford	17	4-6 person engines and ladders

³ The northeastern cities included the following: Bridgeport, Hartford, New Haven, Providence, Rochester, Springfield, Syracuse, and Waterbury. They were selected on the basis of several criteria. First, they are generally comparable in population size to Worcester, ranging from 103,000 to 230,000 people. Second, cities had to have a relatively large land area to be included (although few of the cities considered came close to the size of Worcester). Third, for purposes of comparing fire departments, we attempted to select cities that were relatively close to Worcester in the age and composition of their housing stock. Three Western cities, Modesto, California, Scottsdale, Arizona and Lincoln, Nebraska were included in order to provide some contrast with the staffing levels and practices characteristic of the Northeast.

⁴ A company constitutes all the people assigned to one piece of apparatus (engine, ladder truck, etc.) across all shifts.

⁵ Engines, ladders, quints, and mini-pumpers constitute different pieces of fire apparatus.

New Haven	19*	4 person engines and ladders
Providence	28**	3-4 person engines and ladders
Rochester	18	4 person engines; 2 person mini-pumpers; 4 person Quints (combined pumper/ladder trucks)
Springfield	19	4 person engines; 3 person ladders
Syracuse	18	4 person engines; 2 person mini-pumpers; 4 person ladders; 6 person combined engine/ladder
Waterbury	13	3-4 person engines and ladders
Scottsdale, AZ	13	3 person engines and ladders
Lincoln, NE	19***	4 person engines and ladders
Modesto, CA	13	3 person engines; 4 men ladders

* Includes four 2-person non-transporting EMS units

** Includes five companies dedicated to ambulance transport

***Does not include one 1-person airport crash/fire/rescue unit

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3. The Fire Department vacation schedule is compressed into twelve weeks during the summer, which requires having more firefighters available to cover stations during that period than if vacations were scheduled on a year-round basis.

4. It should also be noted that the “calls for service” increased by 32% from 19,907 to 26,220 between FY92-FY97. About 10% of those calls are for structure and non-structure fires, the suppression of which is the primary function of the Fire Department. A secondary mission of the Fire Department is to respond to other calls, such as first responder (35% of calls) and fire prevention (23% of calls), which have increased. The City Manager and the City Council should determine which additional services should be provided and at what level.

RECOMMENDATIONS

In light of these data, the Research Bureau repeats its recommendations of the last two years (#96-3, #97-1) that the city contract with an outside consultant for a comprehensive examination of the Fire Department. The City Manager should defer recommending any new class until after this study is completed. The City Council should authorize this study, a one-time investment at a cost of \$100,000. The consultant should evaluate the various roles and responsibilities of the Fire Department, and make recommendations on the relocation and rehabilitation of fire stations, the best type and mix of fire suppression equipment, the opportunities for increased efforts at fire prevention and education, and the optimal number of personnel, including shifts, work schedules, deployment, and number of supervisors to meet the Department’s responsibilities. The consultant should develop a multi-year capital plan for the department to accompany any recommendations, as well as an implementation plan for any recommended changes in deployment or numbers of personnel.

Mission Statement: The Worcester Municipal Research Bureau is a private, non-profit organization dedicated to conducting independent, non-partisan research on financial, administrative, management and community issues facing Worcester’s municipal government and the surrounding region.