

**A Frontline Analysis  
Of Increased Fire Risk  
In The City Of Milwaukee**

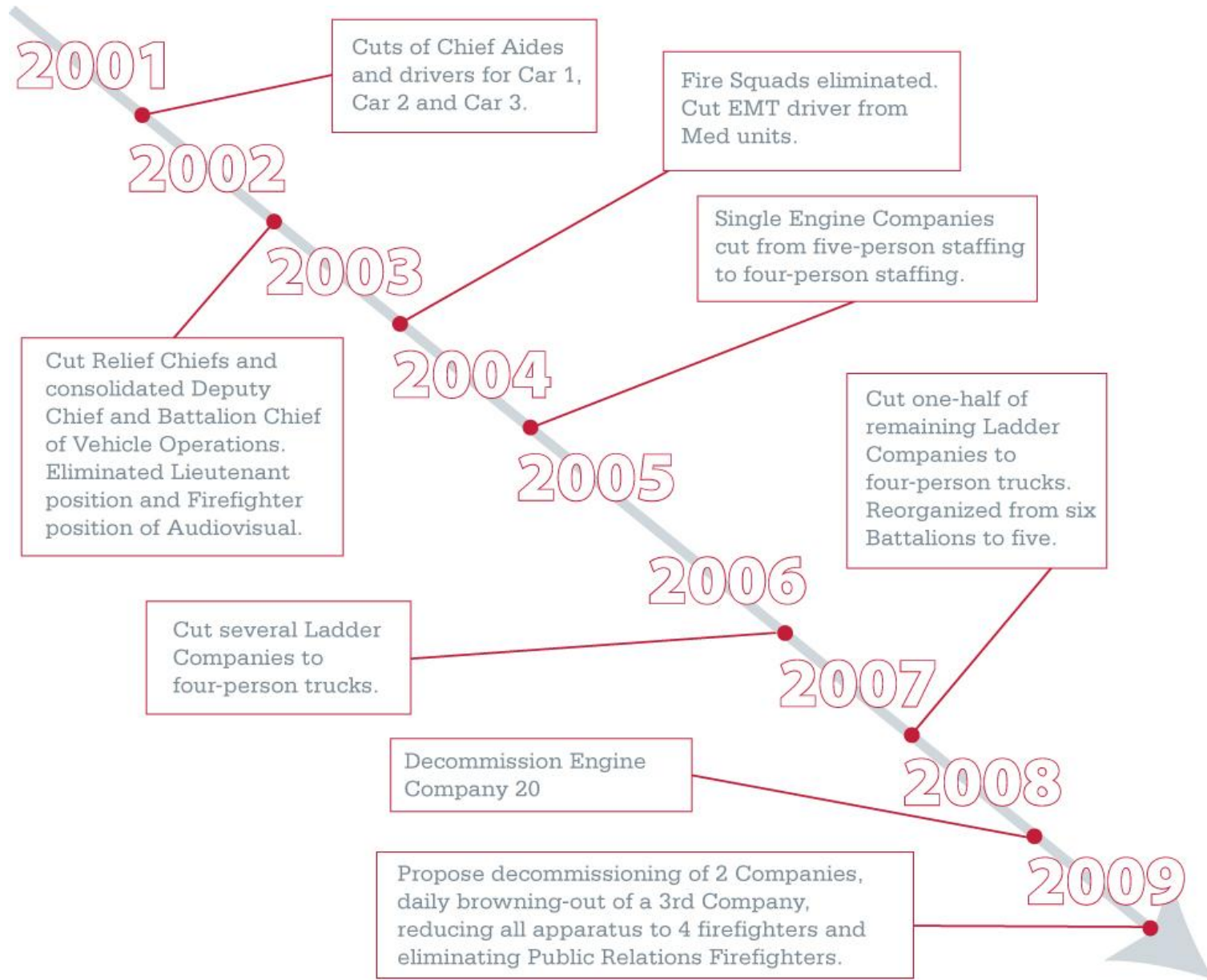


# A Frontline Analysis Of Increased Fire Risk In The City Of Milwaukee



2009  
UPDATE

# Frontline Staffing Cuts Since 2000



# Frontline Positions Lost

Position or Title	Positions Lost
Life-Saving Rescue Squads x 5	30
EMT Drivers for Paramedic Units x 8	24
Chief of Department Driver	3
Assistant Chief of Department Driver	1
Firefighting Deputy Chief Driver	3
Single Engine Company Firefighter x 20	60
Decommissioning Engine Company x 1	15
Ladder Company Firefighter x 8	24
Audio-Visual Department Staff	2
<b><i>Total Frontline Firefighter Positions Lost</i></b>	<b>162</b>

# Frontline Response Changes

## 2000 – Structural Fire Response

	ENGINES	TRUCKS	SUPPORT	TACTICAL/SUPPORT	RESERVE
1st Alarm	3	2	2BC, 1Sq, Car 15	22-25 / 5	34E, 14T
2nd Alarm	3	2	Car 3, CCU*, CAIR	22-25 / 8	30E, 12T
3rd Alarm	3	0	1BC, 1M	12-15 / 4	27E, 12T
4th Alarm	3	0		12-15 / 0	24E, 12T
5th Alarm	3	0		12-15 / 0	21E, 12T
Totals	15	4	Car 3, 3BC, 1Sq, 1M, CCU*, CAIR	80-95 / 17	

*\*CCU assumed to respond with full company complements and special equipment.  
 Life-saving squads (Sq) were two-person ambulances; Med units are now used in their place  
 Note: 2nd Alarm+Also brings misc. BIT staff as well as MFD MDs.*

# Frontline Response Changes

## 2009 – Structural Fire Response

	ENGINES	TRUCKS	SUPPORT	TACTICAL/SUPPORT	RESERVE
<b>1st Alarm</b>	3	2	2BC, 1M, Car 18, RIT (1T)	20-23 / 9-10	33E, 13T
<b>2nd Alarm</b>	3	2	Car 3, 1M, CCU*, CAIR	20-23 / 8	29E, 11T
<b>3rd Alarm</b>	3	0	1BC, HURT*	16-17 / 10	25E, 9T
<b>4th Alarm</b>	3	0		12 / 0	22E, 9T
<b>5th Alarm</b>	3	0		12 / 0	19E, 9T
<b>Totals</b>	15	5	Car 3, 3BC, CAR 18, RIT, 2M, CCU*, CAIR, HURT*	80-87 / 27-28	

\*CCU & HURT assumed to respond with full company complements and special equipment.

Note: 2nd Alarm + Also brings misc. BIT staff as well as MFD MDs. All engine companies are four-member companies except E3 and E25.

As of 2008, four-member truck companies are: T1, T8, T9, T8, T10, T14, T15 and T17.

# Frontline Response Changes

## Proposed 2010 – Structural Fire Response

	ENGINES	TRUCKS	SUPPORT	TACTICAL/SUPPORT	RESERVE
<b>1st Alarm</b>	3	2	2BC, 1M, Car 18, RIT (1T)	20 / 9	33E, 10T
<b>2nd Alarm</b>	3	2	Car 3, 1M, CCU*, CAIR	20 / 8	29E, 8T
<b>3rd Alarm</b>	3	1	1BC, HURT*	16 / 9	25E, 6T
<b>4th Alarm</b>	3	0		12 / 0	22E, 6T
<b>5th Alarm</b>	3	0		12 / 0	19E, 6T
<b>Totals</b>	15	5	Car 3, 3BC, CAR 18, RIT, 2M, CCU*, CAIR, HURT*	80 / 26	

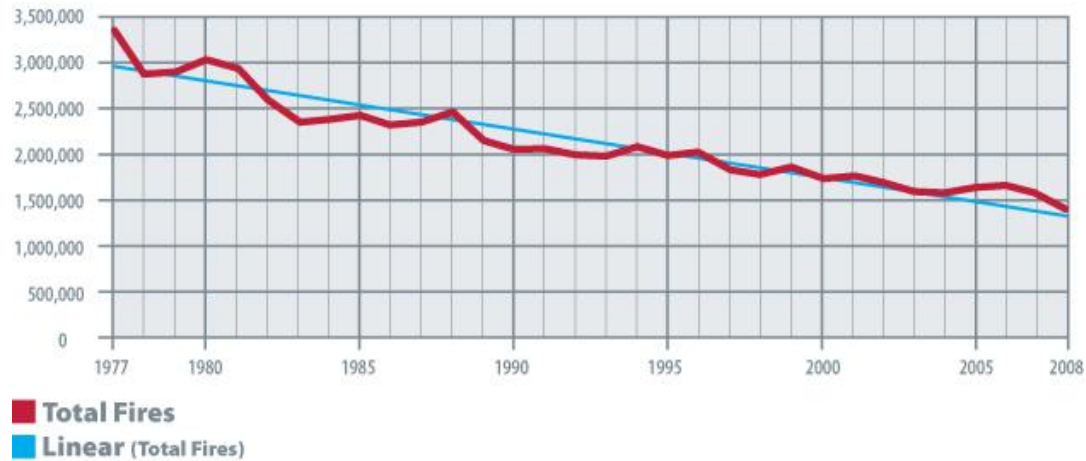
\*CCU & HURT assumed to respond with full company complements and special equipment.

Note: 2nd Alarm + Also brings misc. BIT staff as well as MFD MDs. All engine companies are four-member companies except E25.

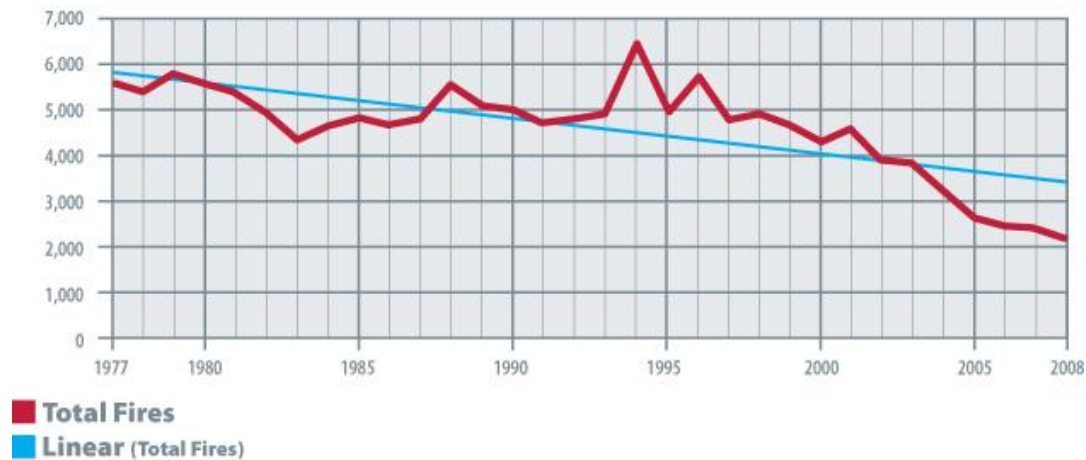
The eliminated and furloughed companies are reduced from the truck company counts, as no clarification of intent has been indicated by the Mayor or MFD administration. The running of single-truck houses has resulted in numerous fire fatalities nationwide.

# Total Fires

## Total U.S. Fires



## Total Milwaukee Fires





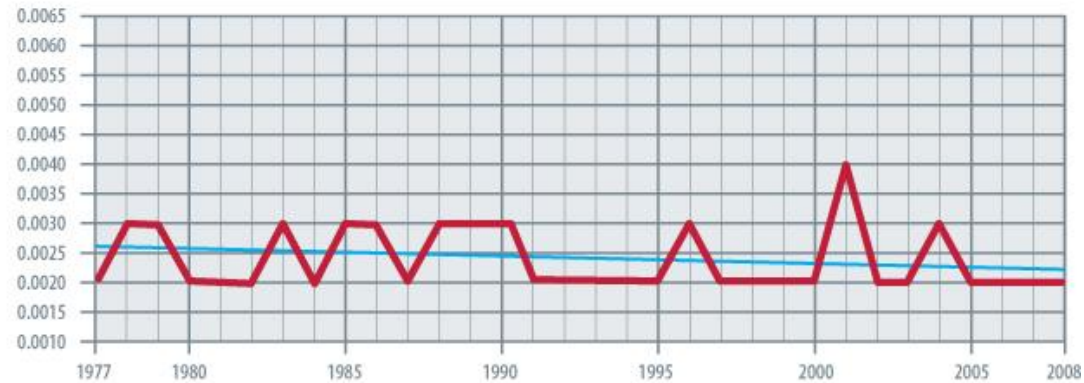
# Dollar Loss Per Fire

## Milwaukee Dollar Loss Per Fire



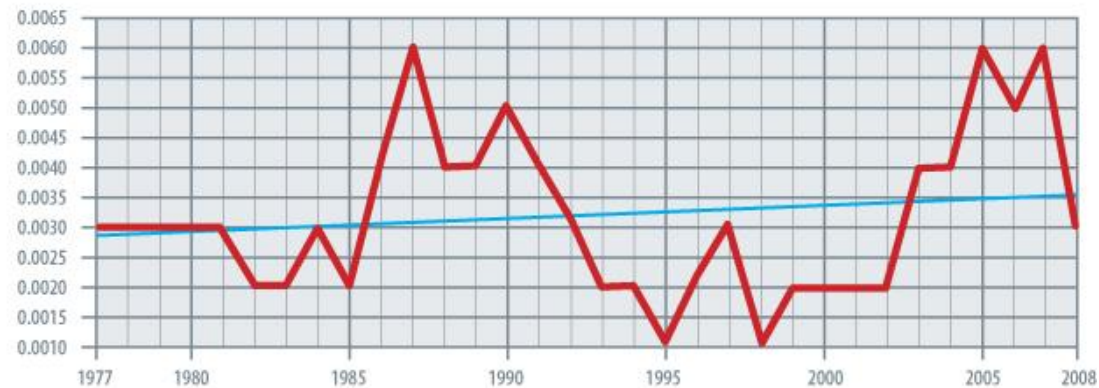
# Civilian Deaths

## U.S. Civilian Deaths Per Fire



■ Civilian Deaths Per Fire  
■ Linear (Civilian Deaths Per Fire)

## Milwaukee Civilian Deaths Per Fire



■ Milwaukee Civilian Deaths Per Fire  
■ Linear (Milwaukee Civilian Deaths Per Fire)

# NFPA Standard 1710

NFPA 1710  
Standard for the  
Organization and Deployment  
of Fire Suppression Operations,  
Emergency Medical Operations,  
and Special Operations  
to the Public by Career  
Fire Departments  
2004 Edition



NFPA, 1 Batterymarch Park, Quincy, MA 02169-7471  
An International Codes and Standards Organization

As it pertains to both Engine and Ladder Companies:

In jurisdictions with **HIGH HAZARD** occupancies, these companies shall be staffed with a minimum of five or six on-duty members

**HIGH HAZARD** occupancies are defined by the NFPA as:

- Schools
- Hospitals
- Nursing Homes
- High-Rise Buildings
- High-Life Hazard Occupancies
- Large Fire Potential Occupancies

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The '4 & 4' minimum is for a fire in a very specific LOW HAZARD occupancy:

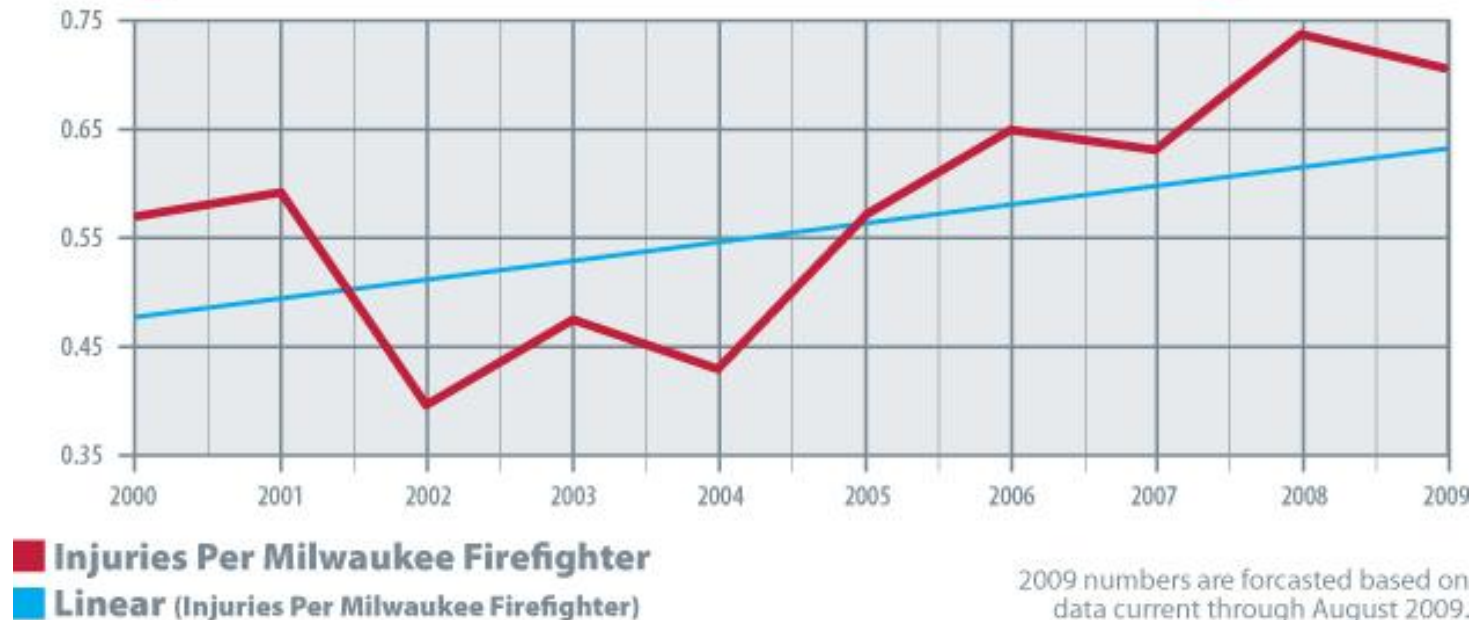
*A 2000 ft.<sup>2</sup>, 2-story, single-family occupancy with no basement and no exposures*

Milwaukee has very few such LOW HAZARD occupancies

Milwaukee has many MEDIUM and HIGH HAZARD occupancies

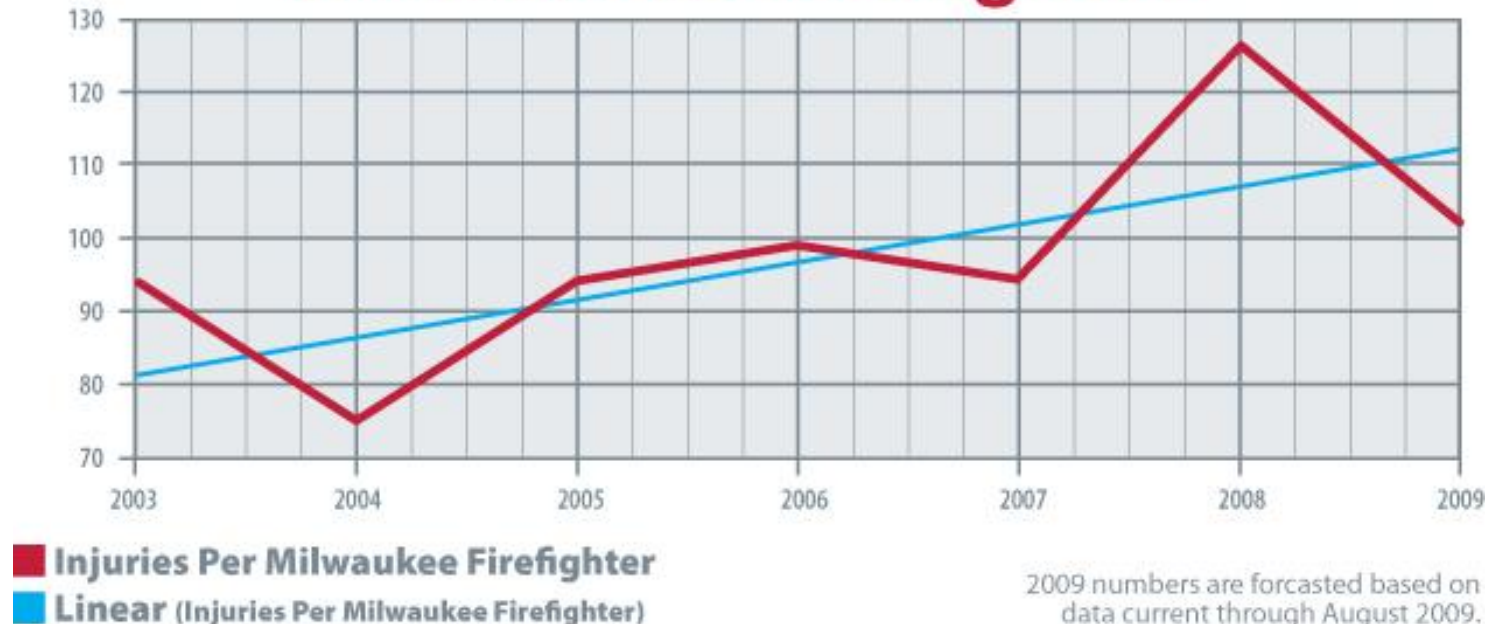
# Firefighter Injuries

## Injuries Per Milwaukee Firefighter



# Firefighter Injuries

## Injuries Hours Lost Per Milwaukee Firefighter



# Five-Person Engine & Truck Studies

**SUBJECT:** *Conclusions and Recommendations of Phase Number 2 Crew Size Study*

**From:** *Vincent Dunn, Deputy Chief FDNY (Retired)*

“...when the hose stretch team was reduced 20%, the hose stretch time was increased approximately 50-75%.”

## Five-Person Engine & Truck Studies

### **Metro Chiefs/International Association for Fire Chiefs, “Metro Fire Chiefs - Minimum Staffing Position”**

In order to permit the effective operation of fire companies at the scene of a structure fire, the minimum number of personnel on both engine and ladder companies should be five members per unit.

### **National Fire Academy, Executive Development Program III, “Fire Engines are Becoming Expensive Taxi Cabs: Inadequate Manning”**

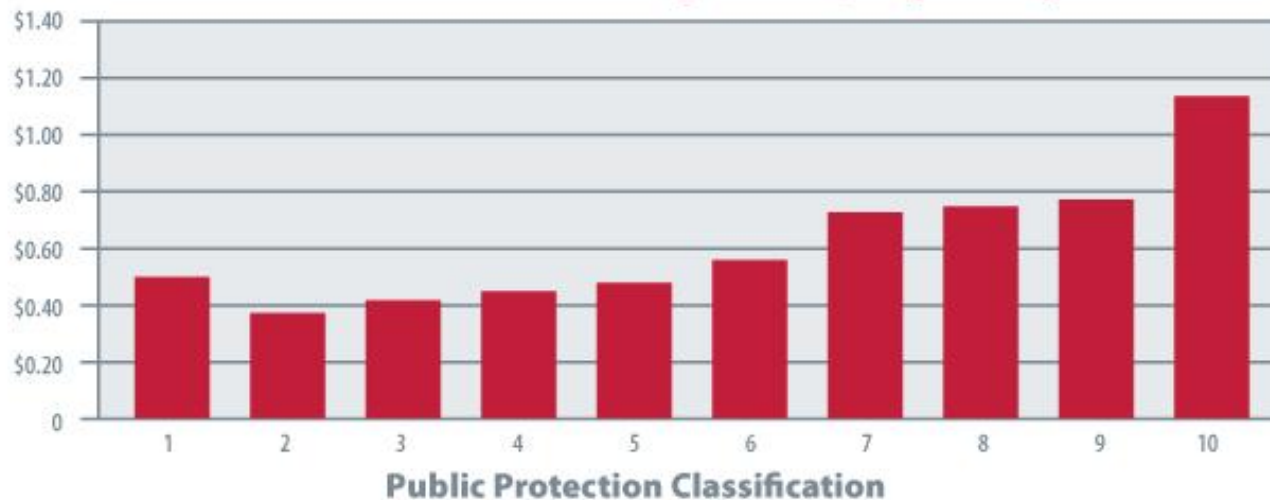
The average time for the engine companies to complete the tasks is revealing. The three-person team average was 18.8 minutes. All personnel were exhausted, rubber legged, had difficulty standing up and were unfit for further fire fighting. The four-person team, conducting the very same test, averaged 10.29 minutes and upon completion, were nearing exhaustion. The five-person team averaged 6.15 minutes, and showed little evidence of fatigue at the end of the exercise.

### **International City Management Association, Managing Fire Services, 2nd Edition (Washington, DC:ICMA)**

The ICMA cited various controlled and statistically-based experiments by jurisdictions and universities that reveal that if 16 trained fire fighters are not operating at the scene of a working fire within the critical time period, than dollar loss and injuries are significantly increased, as are the square feet of fire spread. Additionally, as fire fighting tactics were conducted for comparative purposes, five-person fire suppression companies were judged to be 100 percent effective in their task performance, four-person companies 65 percent effective and three person companies 38 percent effective. Six-person companies are judged 20 percent faster than four-person companies.

# Impact on Residential Insurance Rates

## Cost of Homeowner Property Fire Claims (Per \$1,000)

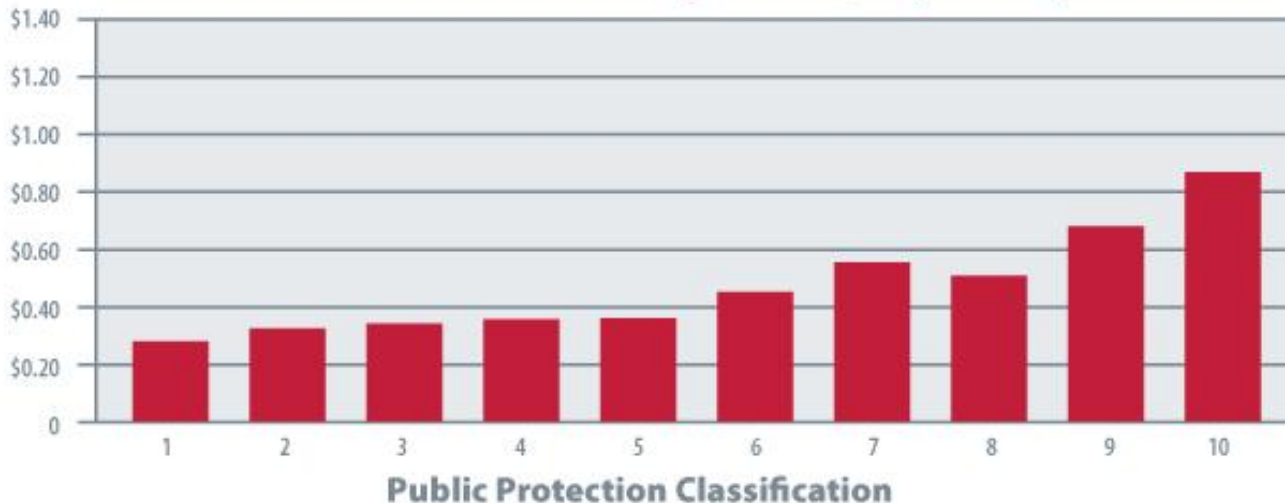


Based on premium and loss information that insurers reported to ISO. Excludes data from statistically rated cities. Out of more than 45,000 fire districts in the United States, only 42 have achieved a PPC of 1. Therefore, the data sample for Class 1 is not statistically credible.



# Impact on Commercial Insurance Rates

## Cost of Commercial Property Fire Claims (Per \$1,000)



Based on premium and loss information that insurers reported to ISO. Excludes data from statistically rated cities. Out of more than 45,000 fire districts in the United States, only 42 have achieved a PPC of 1. Therefore, the data sample for Class 1 is not statistically credible.





**NO MORE CUTS!**



*Milwaukee Professional*  
**FIRE FIGHTERS' ASSOCIATION**  
*Local 215*