

Residential Fire Sprinklers

“Protecting What You Value Most!”

A REPORT ON VANCOUVER'S
10 YEAR STATISTICS ON
RESIDENTIAL FIRE SPRINKLERS



Home Fire Sprinkler

C O A L I T I O N

Improved Fire Protection Through Public Education

Canadian Fire Loss Statistics

- There are on average 416 deaths each year in fires.
- In 1997, there were 20 853 fires in this category, 37% of the Canadian total.
- These incidents resulted in 290 deaths or approximately 70% of the nation's fire fatalities. The monetary loss amounted to \$502 million, which is 24% of the total loss.

“The United States has the highest residential fire death rate of any developed country in the world, except Canada.” US Fire Administration

City of Vancouver

Vital Statistics

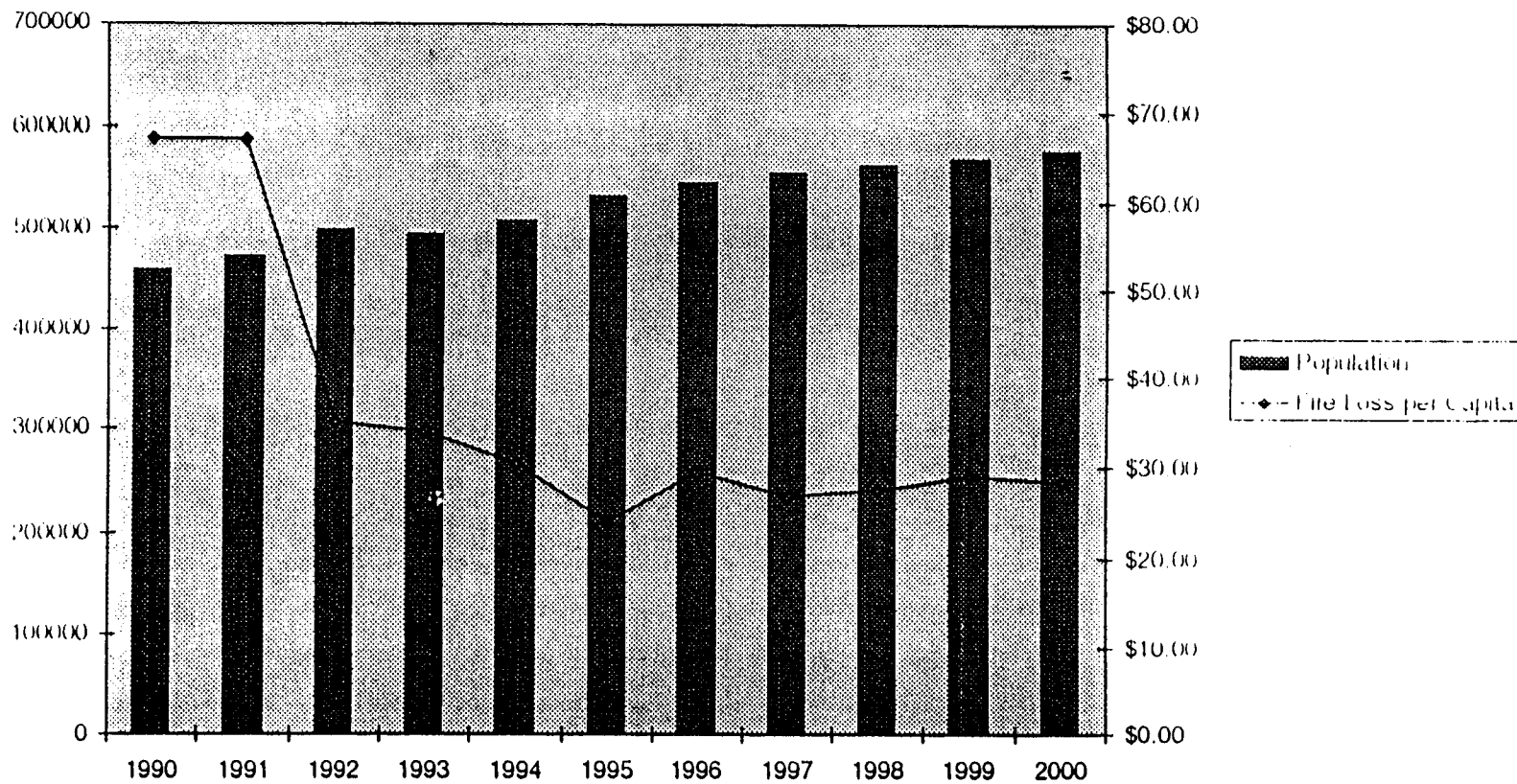
- Located on Canada's West Coast
- A growth of over 25% in population in the past 10 years.
- Concerned with the high death rate in residential occupancies they introduced a residential sprinkler program in 1990.
- Respond to approximately 37,000 calls per year.

City of Vancouver

Experience with Sprinklers

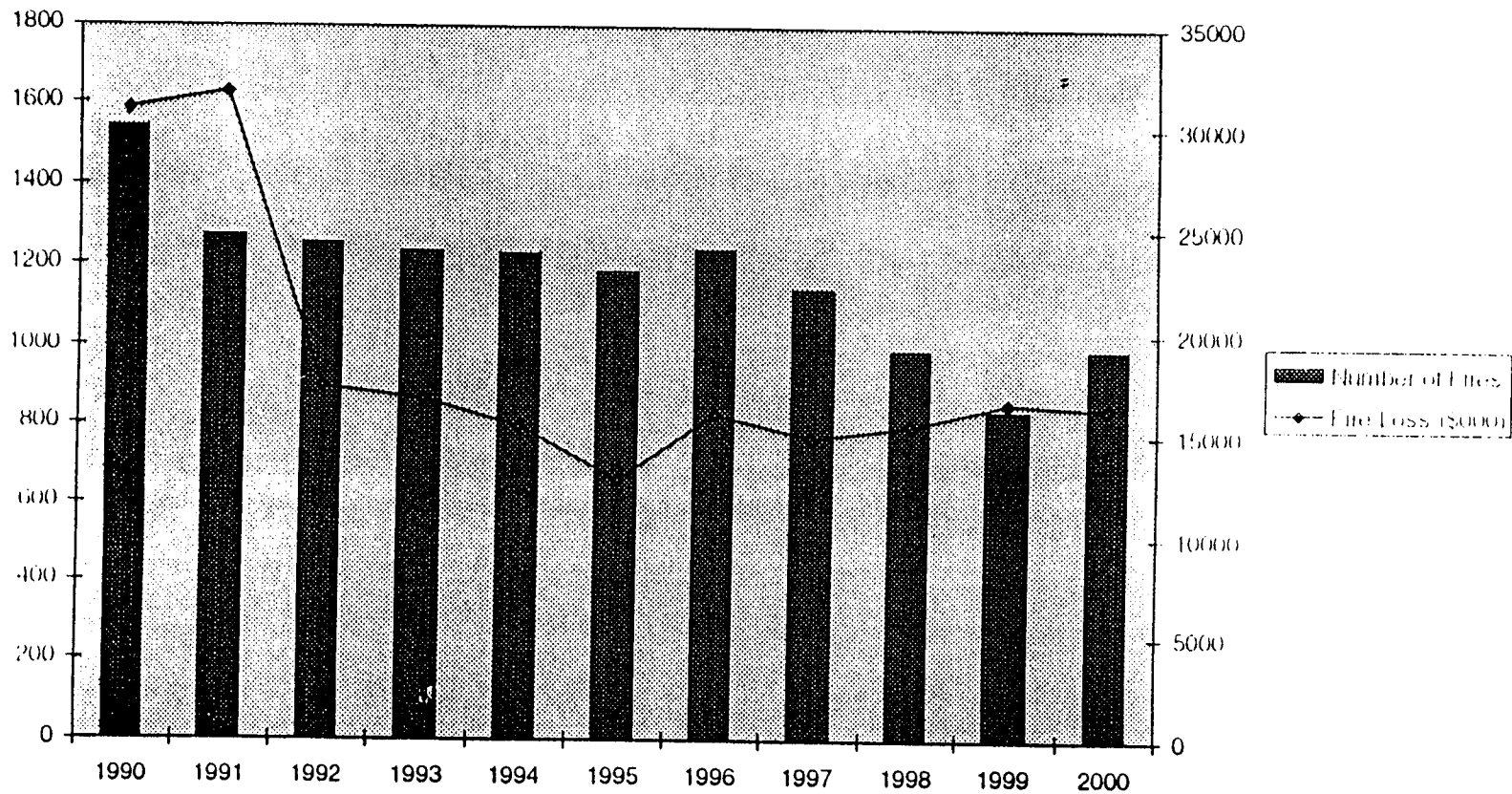
- City has reduced its fire fatalities to an average of 3.33 per year (0.6 per 100,000) from an average of 8.8 a year for the previous decade.
- This is well below the provincial average and half the Canadian National average.
- Approximately 26 % of single and multi-family residences are sprinklered with 38% of multi-family residences being sprinklered.

Population & Fire Losses per capita



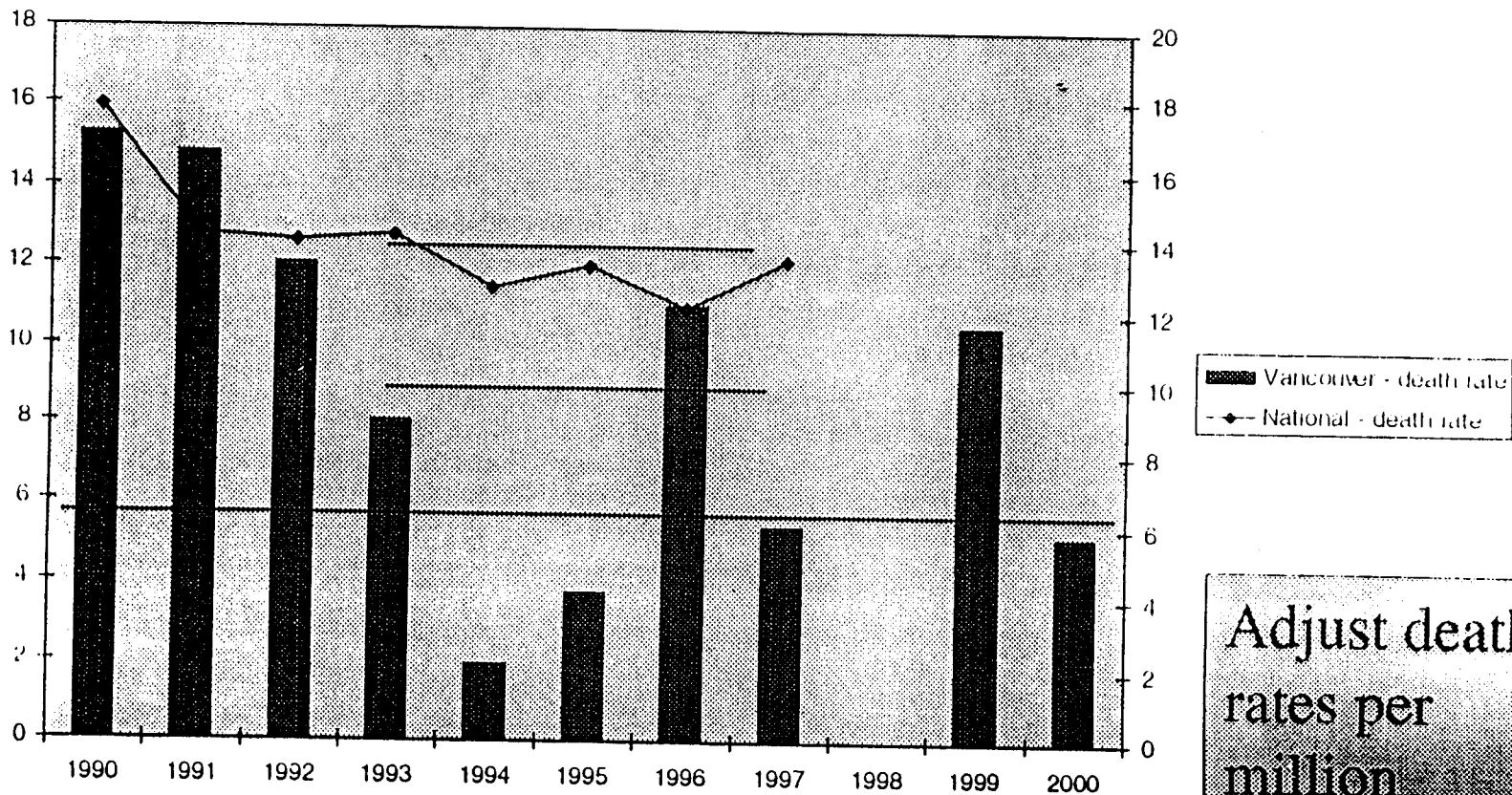
Note: Figures are not adjusted for inflation.

Number of Fires & Fire Loss per fire (\$000)



Note: Figures are not adjusted for inflation.

Adjusted Fire Fatalities Rates (per million people)



Adjust death
rates per
million
people

A Comparison of Fire Damage

Sprinklered Home

- From the recorded fires, 10 year average of loss of approximately \$2.22 per \$1000 of sprinklered property at risk.
- i.e. A house and contents valued at \$300K would suffer \$666 in damage.

Non-sprinklered Home

- For non-sprinklered buildings the the loss has been greater. The loss is approximately \$29.69 per \$1000 of property at risk
- A house and contents valued at \$300K would suffer \$8910 in damage.

In Vancouver's experience the sprinklered home will experience 92.4% less damage than an equivalent non-sprinklered home.

SUMMARY

- No fire fatalities have occurred in a residential property protected by a sprinkler system installed to NFPA 13D standards.
- Fire losses have reduced from over \$30.8M per year in 1990 to \$15.4M – a 50% reduction despite a 25% population growth.
- Over the 10 year average, the damage in a sprinklered residential unit was 13 times less than for an equivalent non-sprinklered unit.