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State of Minnesota
Department of
Public Safety

FIRE IN MINNESOTA 1994

*State Fire Marshal Division
Fire Reporting System*

*Thomas R. Brace
State Fire Marshal*



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ACKNOWLEDGEMENTS

Fire in Minnesota 1994

The story of the Minnesota fire problem: incidence, impact, causes, casualties

The annual *Fire in Minnesota* report, now in its sixth year, is a collaborative effort. The participation of the great majority of the state's fire service in the Minnesota Fire Reporting System (MFIRS), has resulted in the collection of significant data describing our fire problem. The dedication and effort by those participating is greatly appreciated.

Within the State Fire Marshal Division, a number of individuals collect, enter and analyze the MFIRS data. Special thanks to Mary Nachbar, Bureau Chief, Nora Gierok, Irene Moore, and Ernie Scheidness, for their commitment and contributions to the report.

By analyzing Minnesota's 1994 fire statistics, the report reveals patterns, and highlights problems and issues of concern to the fire service and citizens of Minnesota.

I hope you will find *Fire in Minnesota* to be a valuable strategic tool which can be used in managing, planning, education, and prevention at both the state and local level.



CONTENTS

Total Impact	1
Minnesota Fire Clock	2
Overall State Totals	3
Fires by Property Type	5
Dollar Loss by Property	6
Summary	7

Causes	9
Leading Fire Causes	10
Agricultural	12
Cause by Occupancy/Area	15
Summary	20

Incendiary Trends	21
Trends	22
Arson in Structures	23
Arson by County	25
Juvenile Firesetting	26
Summary	27

Casualties	29
Case Studies	30
Smoke Detector Performance	31
Civilian Deaths	32
20 Year History	35
Civilian Injuries	36
Firefighter Death/Injuries	38
Summary	39

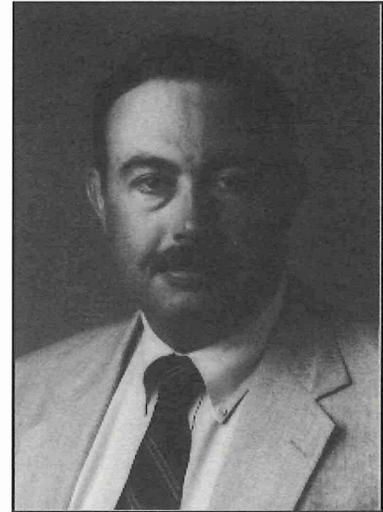
Participation	41
Participation by City/County	43
Runs, Dollar Loss, and Deaths by County	52
Runs and Dollar Loss by City	54
Non-Reporting Departments	59

State Fire Marshal Annual Report	61
Activities/Functions	66

**From the desk of State Fire Marshal
Thomas R. Brace**

Fire in Minnesota has proven to be one of the most valuable tools of the Fire Marshal Division. I am sure as you read this document you will agree it will prove a valuable resource to you as well. As the data collection effort increases in Minnesota, so does the information we are able to glean.

As you read through this document, you will find we have been able to provide you, the reader, with a historical perspective of the Minnesota fire problem over the past five years.



In 1994, there was an increase of more than 15,000 reports over last year, for a five year high of 122,000 identified runs made by the fire service in a single year. This, however, is not the total picture of fire department services as 15% of fire departments do not report into the system. Last year 32 fire departments previously reporting into MFIRS did not participate; however, 91 other communities began their reporting efforts. We sincerely wish to extend our thanks to the fire service for the valuable time and information forwarded to help with our efforts to identify the fire problem in Minnesota.

In 1994:

- 46 civilians lost their lives; a 35% decrease over last year and 319 injuries were reported, also representing a 9% decrease over 1993.
- 263 firefighters were injured; of these, 209 were either fighting fires or responding to fires.
- Arson shows an increase largely because we are now able to add the investigations conducted by state fire marshal investigators for which MFIRS were not filled out by fire departments. Although arson was listed as the 2nd leading cause of fire, dollar loss from arson fires was over three times (\$43 million) that of heating-related causes at \$12 million.
- Over \$156 million dollars in property damage was sustained.

Of significant importance, in the statistics presented in this report, is the fact that 5 of the 11 children who died in fires in 1994, died as a direct result of arson. All but one of the victims was under the age of nine.

Early education of young children and caregivers is a priority of the Division. This year the Consumer Product Safety Commission issued rules regarding the child resistive levels necessary in the manufacture, sale and importation of disposable lighters. In field tests 85% of the children could not operate the child resistive lighters. While this is an important first step, we must be diligent in our efforts to educate parents and caregivers to keep matches and lighters out of reach of children.

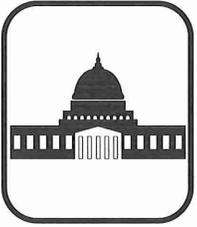
We in the State Fire Marshal Division will continue our efforts to inform the public, media and legislature regarding the fire problems, so that we may move toward a fire and fatality free Minnesota for the future.



4,741

RESIDENTIAL

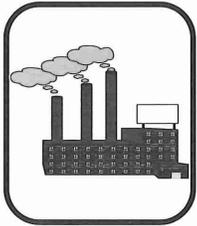
(Single family dwellings, apartments, mobile homes, hotels, motels, etc.)



746

PUBLIC AND MERCANTILE

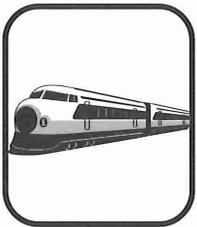
(Stores, restaurants, institutions, churches, public facilities, education)



1,736

**INDUSTRIAL, MANUFACTURING,
OTHER BUILDINGS**

*(Basic industry, manufacturing, storage, residential garages,
vacant buildings, unknown)*



5,477

MOBILE PROPERTY

(Automobile, trucks, trains, buses, boats)



8,612

OUTSIDE AND OTHER

(Dumpsters, trash, wild land, grass, trees)

21,312

TOTAL FIRES

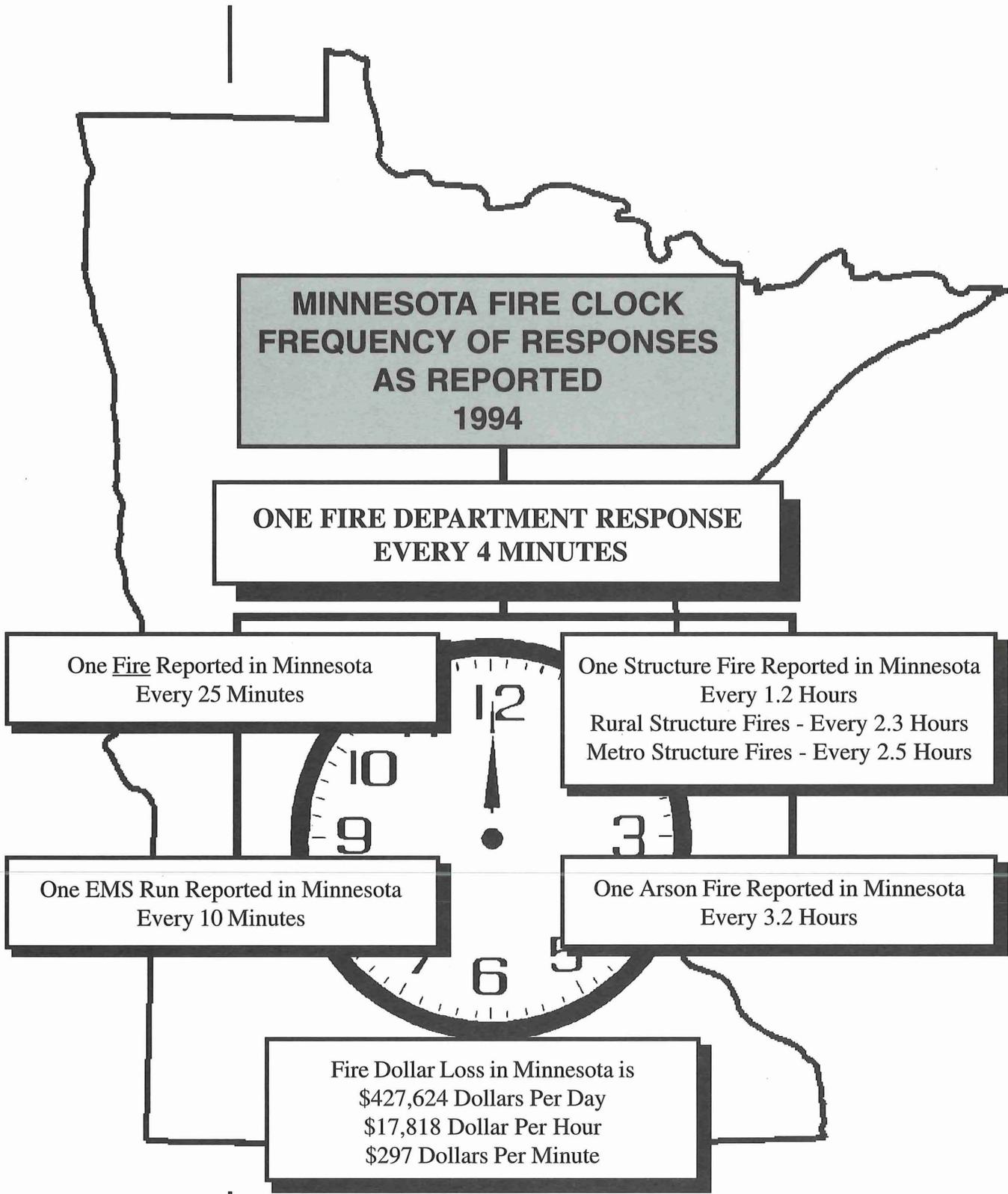
\$156,082,657

TOTAL DOLLAR LOSS

TOTAL IMPACT



Photo-Two Harbors Fire Department



These figures represent the collective incidents reported by 679 of Minnesota's 802 fire departments.

Seven-eighths of the state's departments reported into the MFIRS program.

OVERALL STATE TOTALS

In 1994, 679 departments (85%) used the Minnesota Fire Incident Reporting System (MFIRS) to report fire incidents and related data. This year's figures represent a 10% increase in the participation in MFIRS over last year (when 620 departments reported through MFIRS). (See the section titled "Participation," for a breakdown of reporting and non-reporting departments.)

REPORTED FIRE INCIDENTS 1994					
Incidents Reported	7 County Metro Area	% State Total	Balance of State	% State Total	State Total
Structure Fires	3,466	48%	3,757	52%	7,223
Vehicle Fires	3,266	60%	2,211	40%	5,477
Other Fires	<u>5,002</u>	<u>58%</u>	<u>3,610</u>	<u>42%</u>	<u>8,612</u>
TOTAL FIRES	11,734	55%	9,578	45%	21,312
Rescue / EMS	41,790	80%	10,403	20%	52,193
Other Emergencies	<u>4,129</u>	<u>72%</u>	<u>1,633</u>	<u>28%</u>	<u>5,762</u>
TOTAL RESCUE	45,919	79%	12,036	21%	57,955
FALSE CALLS	14,175	78%	4,052	22%	18,227
MUTUAL AID GIVEN	1,303	51%	1,254	49%	2,557
OTHER INCIDENTS	<u>16,885</u>	<u>76%</u>	<u>5,472</u>	<u>24%</u>	<u>22,357</u>
TOTAL CALLS	90,016	74%	32,392	26%	122,408
Estimated Direct Dollar Loss Due to Fire	\$79,081,766	51%	\$77,000,891	49%	\$156,082,657

Total fire incidents increased by 13%. The number of total calls responded to by the fire service increased by 14% in 1994.

ACTUAL FIRES

The total number of fires reported by Minnesota fire departments in 1994 increased by 13% over 1993. With significant increases in proportion of state population being protected by reporting departments (1990-1994 -- see table on page 4), the number of actual fire incidents reported has increased steadily from 1991-1994. This would also appear to indicate an increase in the number of fires in the state on a per capita basis.

Total number of incident runs increased by over 15,000 incidents in 1994.

Comparison of data from year to year must take into account the varying levels of fire department participation for those years. In other words, because participation is not uniform across the years compared, direct comparison is not possible. However, the reporting departments consistently represent fire protection services for the overwhelming majority of the state's population and the data provides an overall picture of the fire problem from year to year.

**FIVE-YEAR OVERALL INCIDENT COMPARISONS
1990-1994**

	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>93/94 Change + (-)</u>	<u>93/94 % Change + (-)</u>
FIRES							
Structure	6,889	6,598	6,824	6,910	7,223	313	5%
Vehicle	4,633	4,733	4,397	4,746	5,477	731	15%
Other Fires	9,119	6,784	7,396	7,220	8,612	1,392	19%
TOTAL FIRES	20,641	18,115	18,617	18,876	21,312	2,436	13%
OVERPRESSURE RUPTURES	333	309	299	385	520	135	35%
RESCUE CALLS							
Emergency	40,636	42,809	42,164	46,560	52,193	5,633	12%
All Others	2,200	2,323	2,950	3,827	5,762	1,935	51%
TOTAL RESCUE CALLS	42,836	45,132	45,114	50,387	57,955	7568	15%
HAZARDOUS CONDITION CALLS	5,626	4,937	5,121	5,618	6,448	830	15%
SERVICE CALLS	4,355	4,487	4,790	4,547	5,265	718	16%
GOOD INTENT CALLS	6,283	6,195	6,622	7,499	9,451	1,952	26%
FALSE CALLS							
Malicious	1,111	1,173	1,308	1,278	1,445	167	13%
Other False	14,283	14,773	14,133	15,477	16,782	1,305	8%
TOTAL FALSE CALLS	15,394	15,946	15,441	16,755	18,227	1,472	9%
MUTUAL AID GIVEN	2,356	1,916	2,108	2,556	2,557	1	<1%
ALL OTHER	661	524	425	550	673	123	22%
TOTAL CALLS	98,485	97,561	98,537	107,173	122,408	15,235	14%
TOTAL DOLLAR LOSS	\$92.9M	\$110.1M	\$122.4M*	\$109.0M	\$156.1M**	\$47.1M	43%

*Includes two \$10 million dollar fires.

**Includes one \$12 million and two \$4 million dollar fires.

Overall dollar loss increased by \$47.1 million.

The overall dollar loss from fire increased by 43% and represents a loss of approximately \$36 for every man, woman, and child in Minnesota. This does not include expenses of the fire service, other emergency services, and insurance costs. The majority of reported fires are structure and vehicle fires. These fires have increased steadily from 1991-1994. Vehicle fires increased significantly at 15%, representing a five-year high.

For each of the past five years, residential structure fires have occurred at the rate of one for every 1,000 Minnesotans or one for every 366 households.

STRUCTURE FIRES BY PROPERTY TYPE

Fires in structures continue to occur most frequently in residential property, a category that includes houses, apartments, boarding houses, dorms, hotels/motels, etc. In 1994, structure fires reached a five-year high. Approximately 4,550 fires have occurred in residential structures each of the past five years. This is roughly equivalent to one structure fire for every 1,000 Minnesota residents annually or one fire for every 366 households in the state.

	1990	1991	1992	1993	1994	% increase (decrease) 1993-1994
Residential	4,468	4,457	4,515	4,650	4,741	2%
Educational/ Institutional	234	204	258	272	234	(14%)
Public Assembly/ Commercial	495	439	510	474	512	8%
Industrial/ Manufacturing	359	362	336	353	380	8%
Storage	1014	871	990	944	1,053	12%
Special/Other	169	214	170	156	215	38%
Unclassified	150	51	45	61	88	44%
TOTAL	6,889	6,598	6,824	6,910	7,223	5%

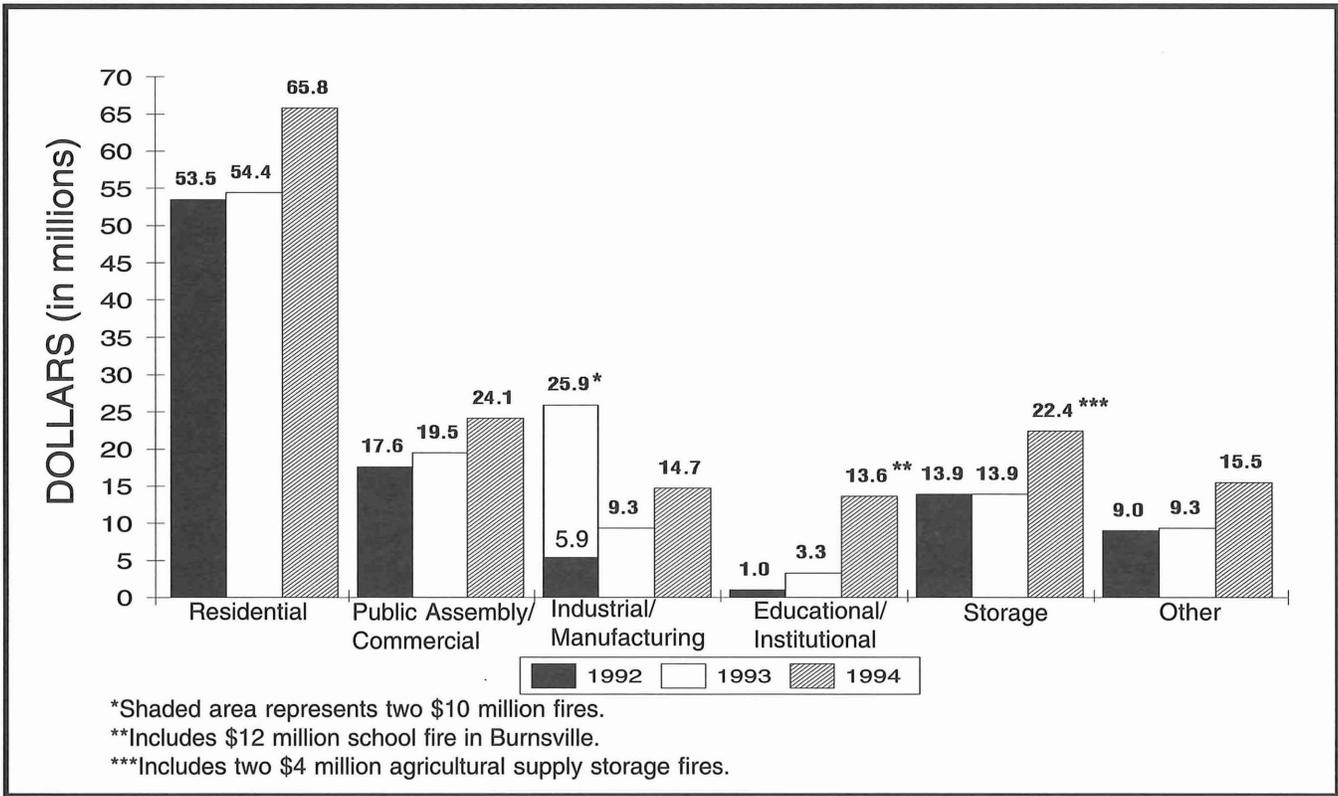
The number of reported fires in residential occupancies reached a five-year high.

The total number of reported structure fires reached a five-year high in 1994. Major increases were reported in residential occupancies, which also reached a five-year high. This trend is alarming because the home, where we spend the majority of our time, is where most fire deaths occur and people oftentimes do not have smoke detectors.

66% of all structure fires were in residences.

OVERALL STATEWIDE DOLLAR LOSS

DOLLAR LOSS BY PROPERTY TYPE



Residential fires caused 42% of total dollar loss in 1994, reaching a five-year high in both the number of incidents and property dollar loss.

The 1994 dollar loss in residential property increased by \$11 million and the number of reported fires in residential occupancies increased by 5%, a five-year high. Residential fires accounted for 66% of all structure fires and 42% of total dollar loss.

Although the number of fires reported in educational/institutional properties decreased by 14%, dollar loss reached a five-year high. A \$12 million school fire in Burnsville accounted for the majority of the high loss. Dollar loss in public assembly/commercial property increased by over \$4 million and the number of reported fires increased by 8%. Dollar losses in these two categories accounted for 24% of the total dollar loss in 1994. High school fires were in the headlines several times in 1994. One had disastrous consequences resulting in a \$12 million loss. The other two had fully automatic fire sprinkler systems resulting in only one-half million dollars in loss. These fires graphically illustrate the advantage that automatic fire protection have on significantly reducing loss of property in a fire.

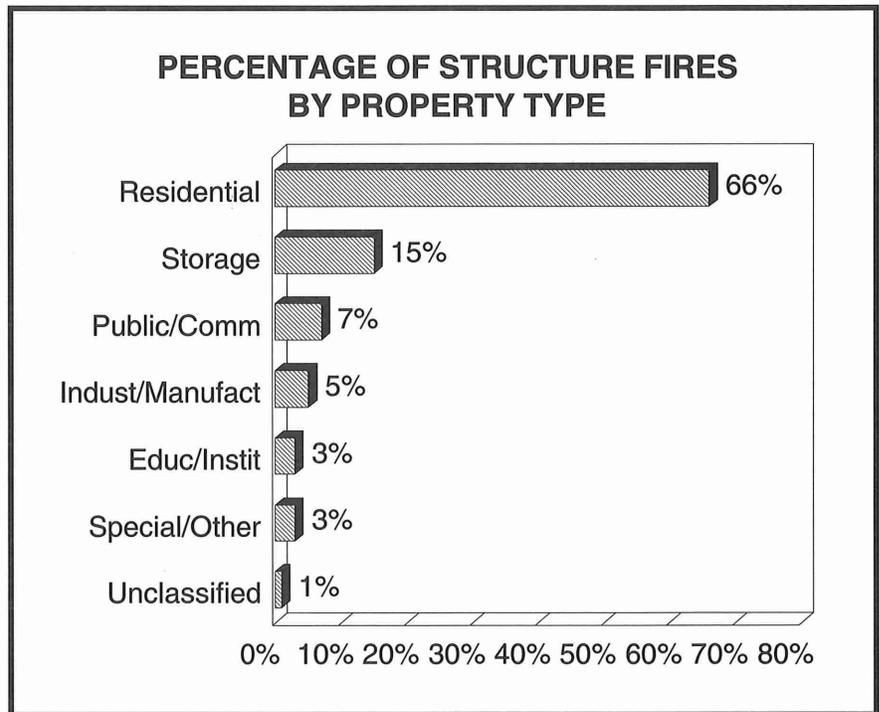
Fires in storage facilities increased by 12% in 1994 with an increase in dollar loss of 61%.

SUMMARY

In the past seven years residential dollar loss amounted to over \$350 million dollars.

Participation in MFIRS increased 10% in 1994 with a total number of reported fire incidents increasing by 13%. Dollar loss reached over \$156 million.

Fires occurred most frequently in residential-type properties and in significantly higher percentages than the next most reported property type: storage facilities. **Residential fires accounted for 66% of all structure fires and were responsible for 42% of total dollar loss and 87% of all fire deaths, making the home one of the most dangerous places to be in regard to fire.**



In the last 7 years, of the \$778.4 million in dollar loss caused by fire, over \$350 million (46%) has been the result of fires in residences.

While participation in MFIRS has generally increased over the past six years, the number of reported fire incidents had remained essentially constant until 1994, when a 13% increase in fires was reported. **Dollar loss and fires remain high in Minnesota and continue to be a significant problem. Commitment to stop fires before they occur is the only way to stop the significant loss of life and property from fire. This can only occur if there is a recommitment to public education efforts.**

CAUSES

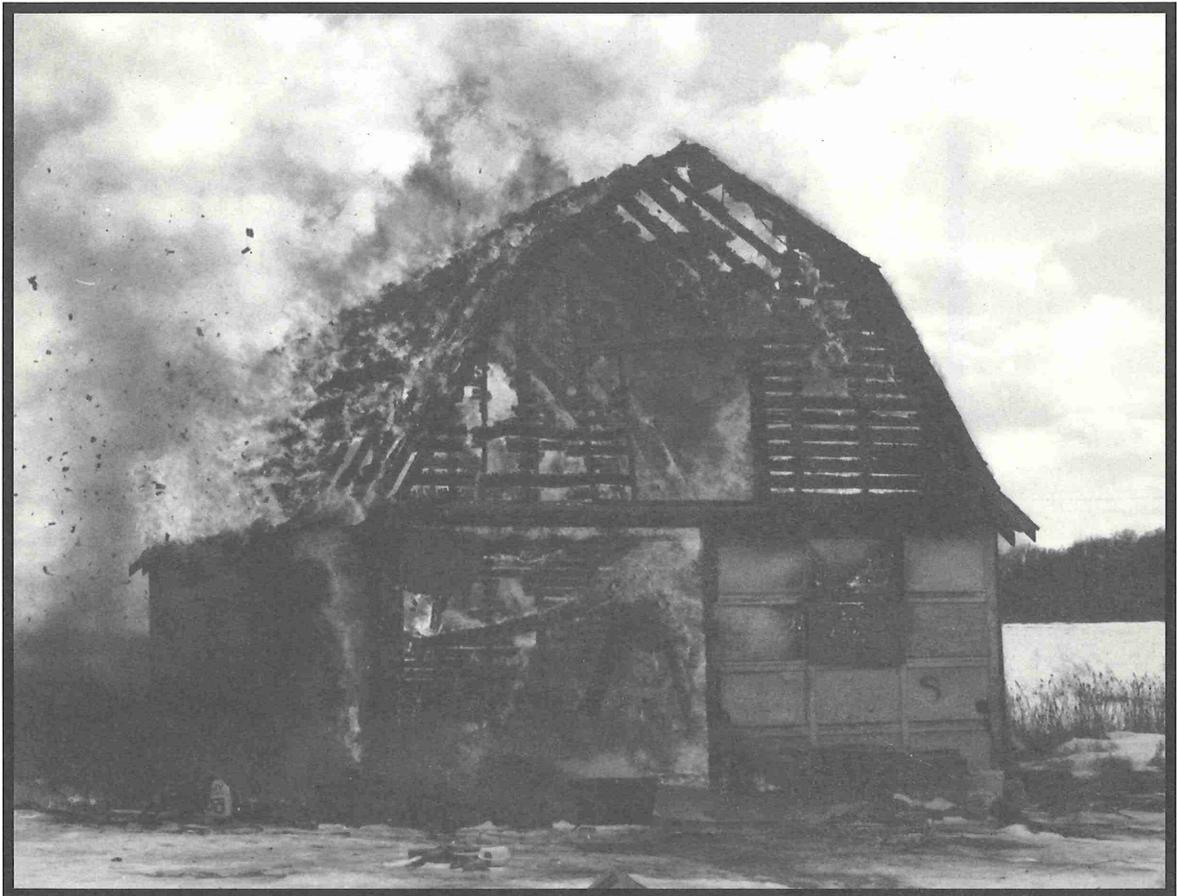
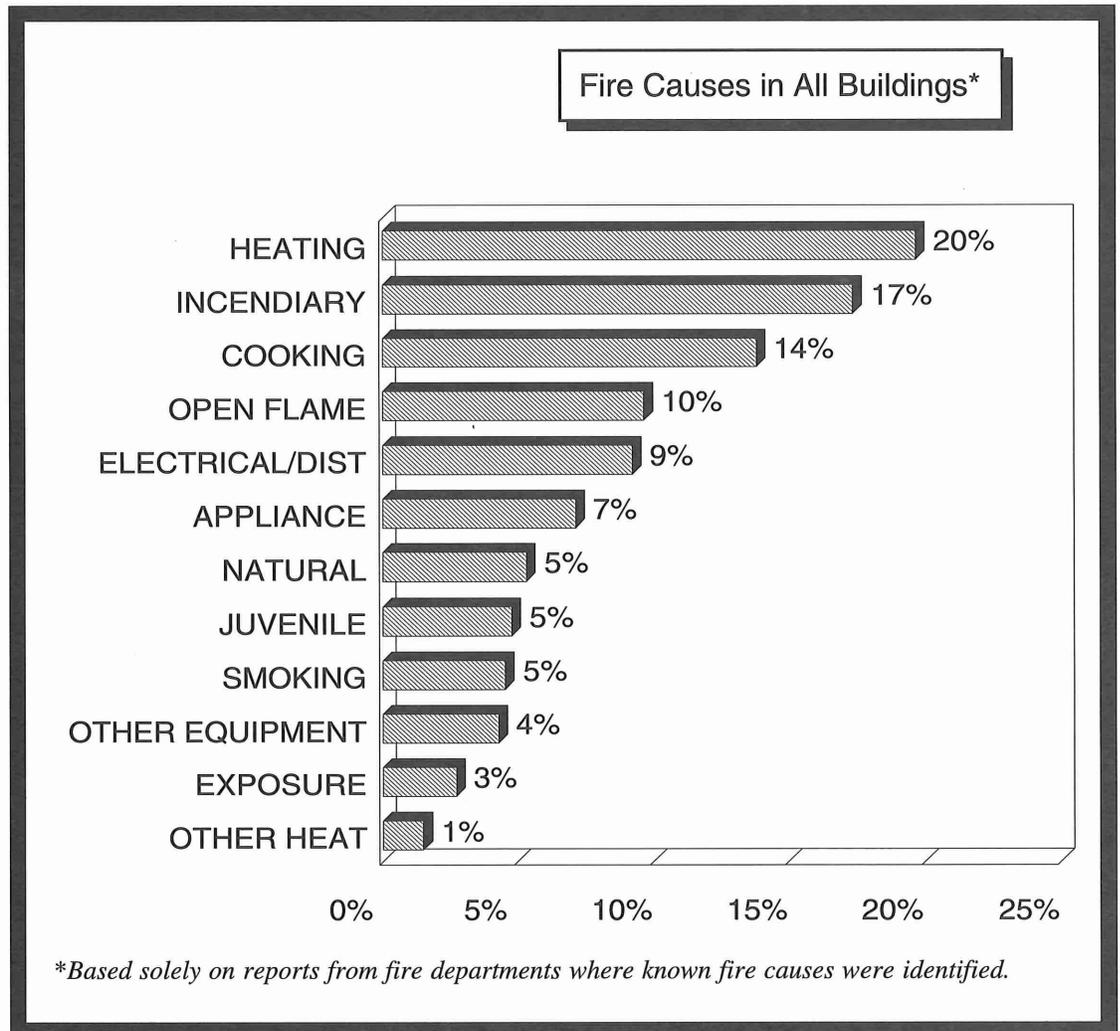


Photo-Denise DeMars

CAUSES

For the 6th year in a row, heating, arson, and cooking are reported as the 1st, 2nd, and 3rd leading causes of fire in all structures.



Overall, the cause of 23% of structure fires was reported as unknown. This is largely a result of the use of computer coding systems incompatible with MFIRS and a failure to determine cause as marked on MFIRS reports.

When fire causes in all types of buildings are combined, heating, arson, and cooking emerge as the first, second and third overall leading causes of structure fires. This statistic is weighted by the large proportion of residential fires (66% of structure fires), in which heating is followed by cooking and then arson as leading fire causes. It should be noted, however, that in the other major categories of structures examined, incendiary fires are the leading cause. They account for 57% of fires in educational property and 18% of fires in public assembly property.

The overall pattern of heating/incendiary/cooking as leading identified causes has been consistent for the past several years. Heating fires are 20% of the total identified fires. Arson, however, has increased as a percentage of total structure fires, from 11.6% in 1989 to 12.1% in 1990, to 13% in 1991 and 1992, and jumped to 16% in 1993. In terms of actual number of incendiary fires, 1994 saw a 16% increase over 1993.

A Closer Look at Major Fire Causes . . .

. . . Heating Fires

55% of residential heating fires were a result of fireplaces or chimneys.

The majority of heating-related fires occurred in residential property. Overall, heating-related fires decreased by 11%, but the dollar loss reached over \$12 million, an increase of 32% over 1993. Fifty-five percent of these fires involved fireplaces or chimneys. Three people died in these fires and 35 civilians and firefighters were injured.

DOLLAR LOSS FROM HEATING FIRES IN RESIDENTIAL PROPERTIES ONLY

<u>Equipment</u>	<u># of Fire Incidents</u>	<u>% of Total</u>	<u>Dollar Loss</u>	<u>% of Total</u>	<u>Civ. Deaths</u>	<u>Civ. Injuries</u>	<u>Firefighter Injuries</u>
Fixed Heating Units	162	19%	\$4,738,400	39%	1	7	3
Fireplace/Chimney	470	55%	4,361,685	36%	--	8	7
Central Heating Units	76	9%	862,600	7%	1	4	1
Portable Heaters	55	6%	788,250	7%	--	4	1
Other	45	5%	781,316	6%	1	--	--
Water Heaters	51	6%	555,850	5%	--	--	--
Total	859	100%	\$12,088,101	100%	3	23	12

. . . Cooking Fires

Cooking-related incidents are up slightly; however, dollar loss increased by 70 percent.

Unattended cooking resulted in 37% of cooking-related fires and 13% of the dollar loss. Four fire deaths occurred in 1994 and 40 civilians and 6 firefighters were injured in these fires, which increased slightly from 1993. However, dollar loss totaled nearly \$5 million, a 70% increase over 1993.

MOST COMMON CAUSES AND DOLLAR LOSS FOR ALL COOKING FIRES

<u>Cause</u>	<u># of Fire Incidents</u>	<u>% of Total</u>	<u>Dollar Loss</u>	<u>% of Total</u>	<u>Civ. Deaths</u>	<u>Civ. Injuries</u>	<u>Firefighter Injuries</u>
Mechanical Failure	138	16%	\$3,130,563	65%	--	3	3
Unattend./Fell Asleep	319	37%	619,587	13%	2	13	--
Operational Deficiency	69	8%	270,320	6%	--	6	1
Combustibles Too Close	74	9%	128,698	3%	1	4	1
Abandon. Material (Charcoal)	18	2%	41,650	<1%	--	--	--
Other Causes	189	22%	453,339	9%	--	12	1
Undetermined	63	7%	139,000	3%	1	2	--
Total	870	100%	\$4,783,157	100%	4	40	6

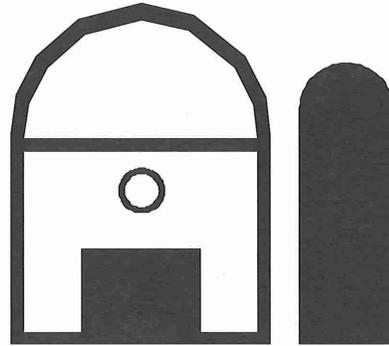
AGRICULTURAL PROPERTIES

Total dollar loss in agricultural properties reached nearly \$18 million.

Agricultural properties are defined as those structures or open pieces of land on which the production of raw agricultural products and farming occurs. Agricultural production and storage properties do not include processing facilities.

Dollar loss in production facilities increased by \$500,000 (14%) and increased by \$7.9 million (143%) in agriculture storage facilities. However, \$8 million of that loss resulted from two storage fires (each fire was estimated at \$4 million dollars in loss).

AGRICULTURE		
<u>Production Facil.</u>	<u>No. of Incidents</u>	<u>Dollar Loss</u>
Poultry, Egg	9	\$ 7,195
Cattle	49	2,832,460
Hog	22	163,775
Other Livestock	7	3,500
Crop/Orchards	103	476,335
Unclassified Ag.	266	1,029,800
TOTAL	456	\$4,513,065



Overall annual property dollar loss increased from 1993 to 1994, by \$8.5 million dollars, an 89% increase.

AGRICULTURE		
<u>Storage Facilities</u>	<u>No. of Incidents</u>	<u>Dollar Loss</u>
Seed, Silage	61	\$ 290,090
Barns, Stables	215	3,997,775
Grain Elevators	26	233,650
Livestock	8	64,200
Ag. Supply Storage	47	8,360,070
Boxed, Bagged Prop.	5	51,000
Unclassified Ag.	22	467,000
TOTAL	384	\$13,463,785

Fires in agricultural-related properties were at the highest level since 1989.

Overall fire incidents in agricultural-related properties have increased from 1993 by 17% and are at their highest since 1989. This is a departure from the previous three years when overall totals remained constant.

AGRICULTURAL PROPERTY FIRE CAUSES...

Agriculture Production and Storage Facilities

<u>Ignition Factors</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>		
	<u>No. of Incidents</u>	<u>No. of Incidents</u>	<u>No. of Incidents</u>	<u>Dollar Loss</u>	<u>% Total Dollar Loss</u>
Mech. Failure/Malfunct.	157	145	172	\$2,184,470	12%
Lightning/Other Natural Conditions	22	16	36	384,320	2%
Combustibles Too Close to Heat/Exposure	60	49	73	619,320	3%
Spontaneous Heating	41	38	42	414,000	2%
Open Flame/Inadeq. Ctrl.	94	93	89	317,935	2%
Incendiary	28	25	40	4,201,935	23%
Operational/Design Defic.	29	32	28	140,550	<1%
Misuse of Heat	22	21	40	330,900	2%
Other	15	33	20	2,250	<1%
Lack of Maintenance	18	14	19	1,105,400	6%
Unattended	10	9	10	7,200	<1%
Children Playing w/Fire	19	8	21	132,250	<1%
Design, Construction, Installation Defic.	9	7	5	192,500	1%
Fuel Spill	5	1	4	9,500	<1%
Ignited Material Misuse	4	15	8	83,250	<1%
Undeter./Not Class. Above	240	213	233	7,851,070	44%
TOTAL	773	719	840	\$17,976,850	100%

Mechanical failure was listed as the #1 cause of fires; however, 44% of fire dollar loss was listed as undetermined/not classified.

Based on identified causes, mechanical failure or malfunction was the leading cause of fire in agricultural facilities. However, 28% of the incidents and 44% of the dollar loss was attributed to an undetermined, unclassified cause.

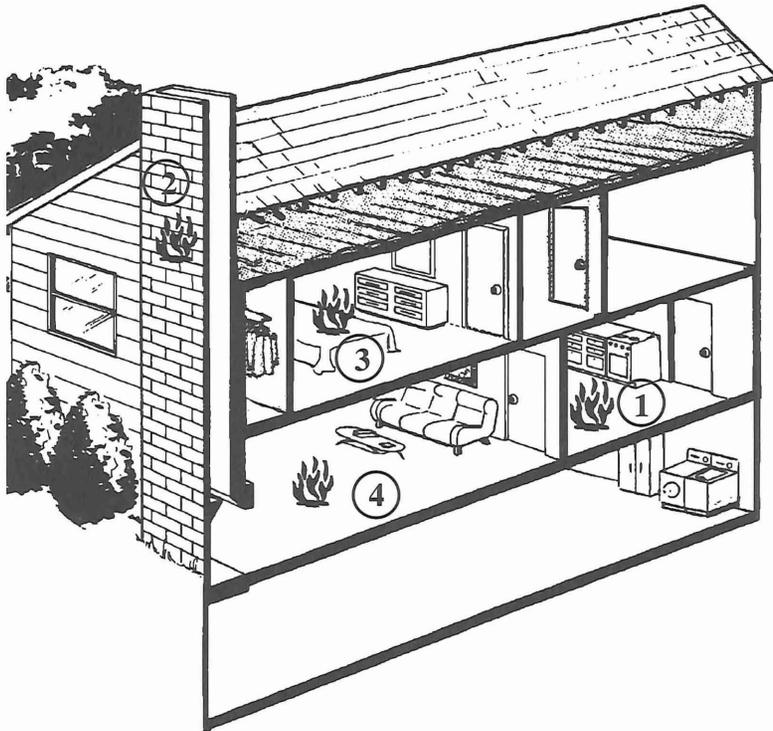
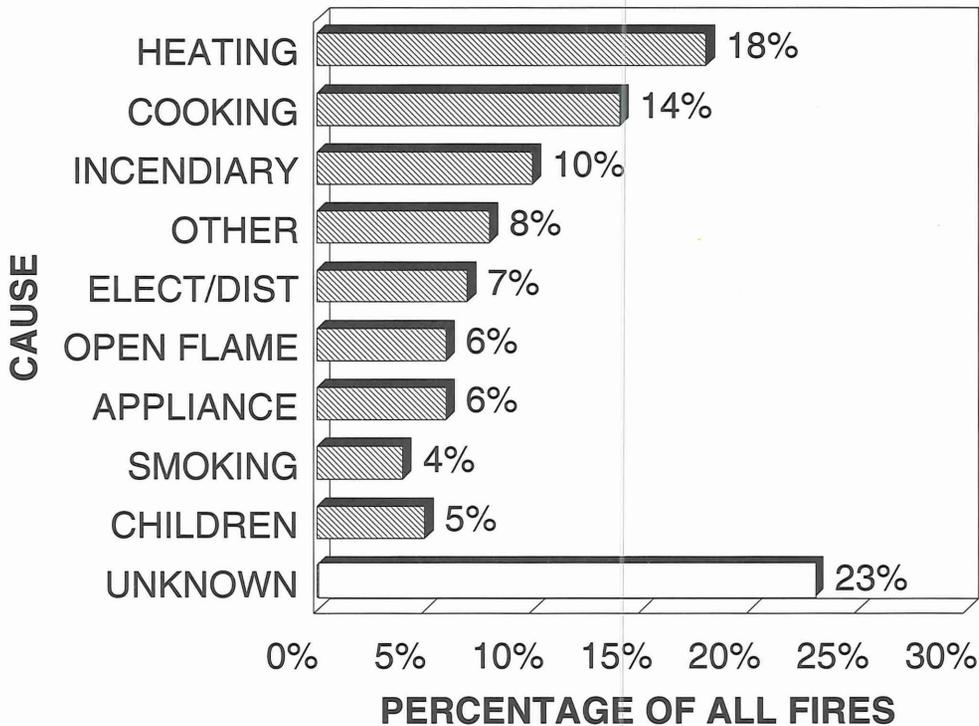
If we are to address the root cause of fires in agricultural properties, every effort must be made to investigate and determine the cause of these fires.

Fire Cause and Areas of Origin by Occupancy Class

The following pages contain additional information about fire causes and most common areas of fire origin. For each of the four major property types (residential, educational, public assembly, and store/office), leading fire causes are presented. Separate data is included with an illustration of the property type, depicting, to the extent reported, which rooms in a given type of structure are most frequently found to be the origin of a fire. For example, in residential properties the kitchen has been identified as the most hazardous area, where fires may result from any number of causes (e.g., cooking, heating, electrical causes, arson, etc.).

RESIDENTIAL PROPERTY

LEADING FIRE CAUSES



AREA OF FIRE ORIGIN

- 1. Kitchen/Cooking Area 19%
- 2. Chimney 11%
- 3. Sleeping Area 8%
- 4. Living/Family Room 6%

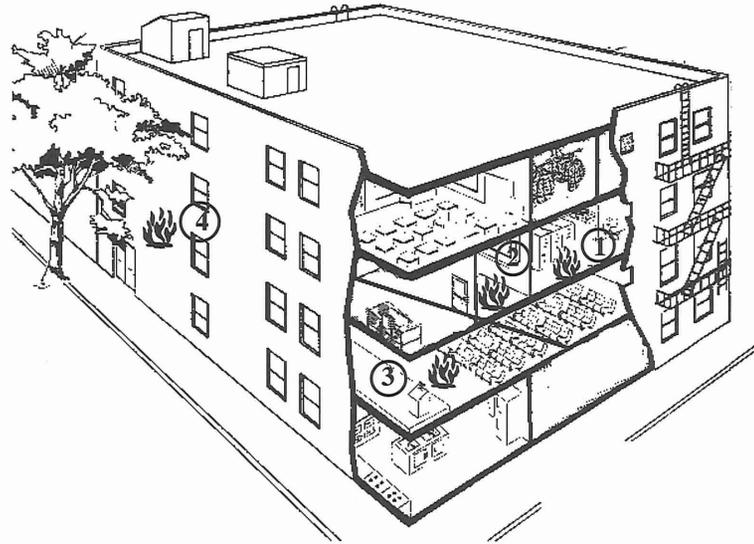
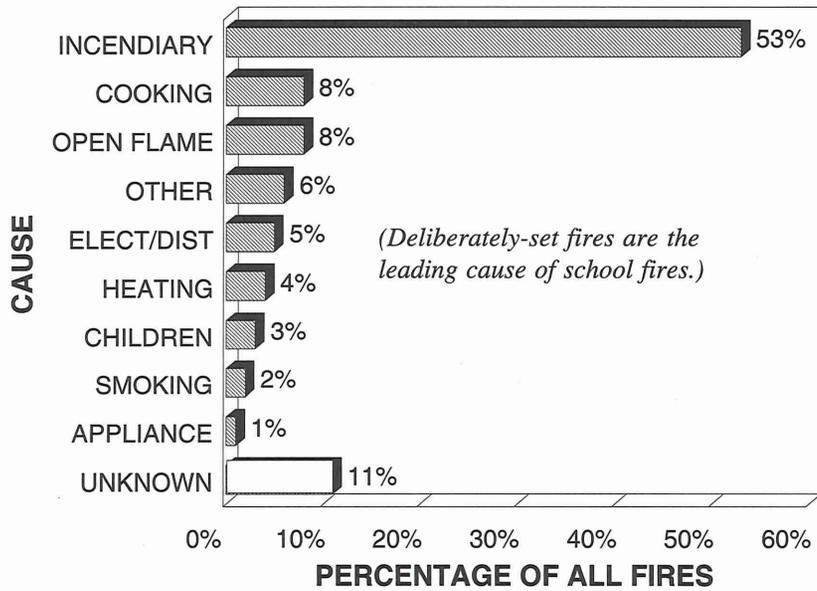
Other Areas of Fire Origin: 56%

	No. of Incidents	Firefighter Injuries	Civilian Injuries	Firefighter Deaths	Civilian Deaths	Dollar Loss
	4,741	133	238	--	40	\$65,830,576
% of Total	66%*	51%	75%	--	87%	42%

*Percent of structure fires

EDUCATIONAL PROPERTY

LEADING FIRE CAUSES



AREA OF FIRE ORIGIN

- 1. Lavatory/Locker Room 27%
- 2. Hallway/Corridor/Mall 12%
- 3. Small Assembly 5%
- 4. Stairway 4%

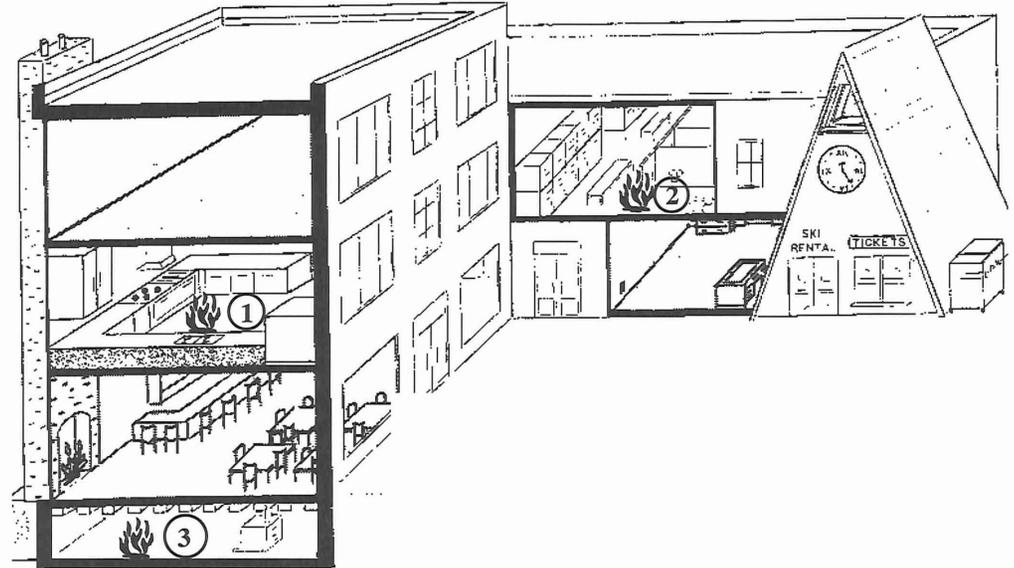
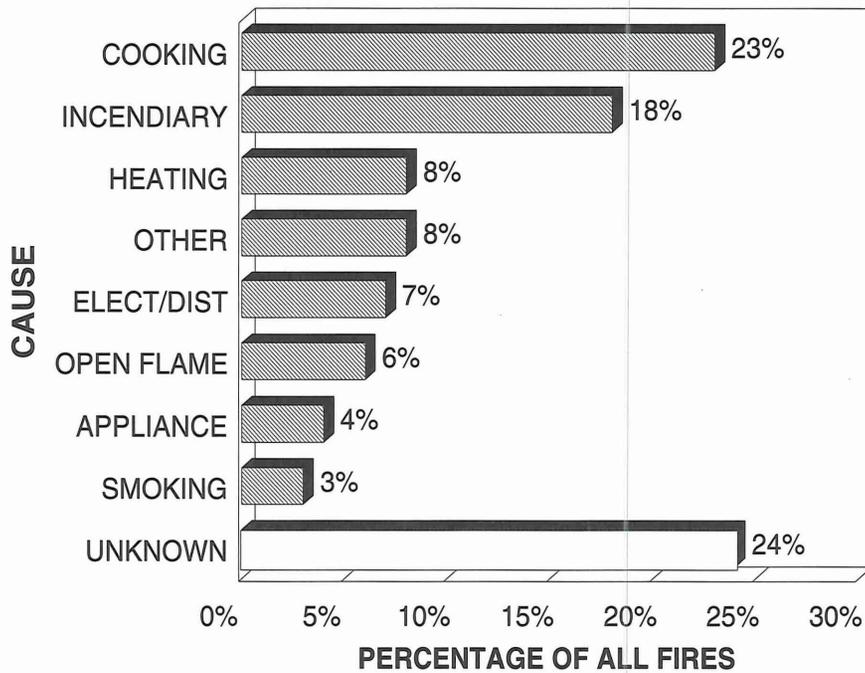
Other Areas of Fire Origin: 52%

	No. of Incidents	Firefighter Injuries	Civilian Injuries	Firefighter Deaths	Civilian Deaths	Dollar Loss
	131	1	7	--	--	\$12,701,148
% of Total	2%*	<1%	2%	--	--	8%

*Percent of structure fires

PUBLIC ASSEMBLY PROPERTY

LEADING FIRE CAUSES



	No. of Incidents	Firefighter Injuries	Civilian Injuries	Firefighter Deaths	Civilian Deaths	Dollar Loss
	181	9	2	--	--	\$5,367,241
% of Total	3%*	3%	<1%	--	--	3%

*Percent of structure fires

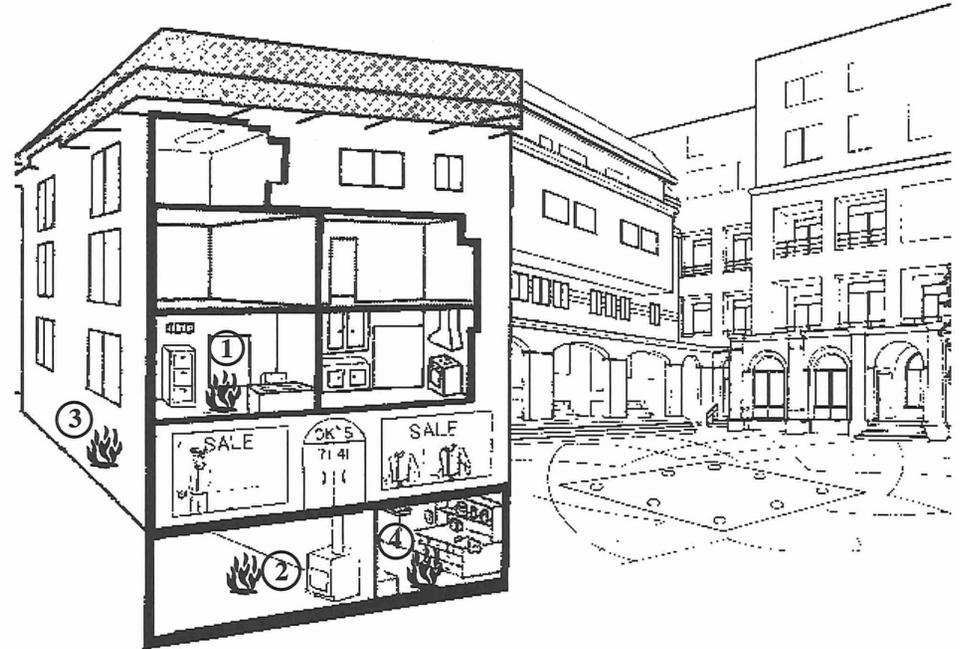
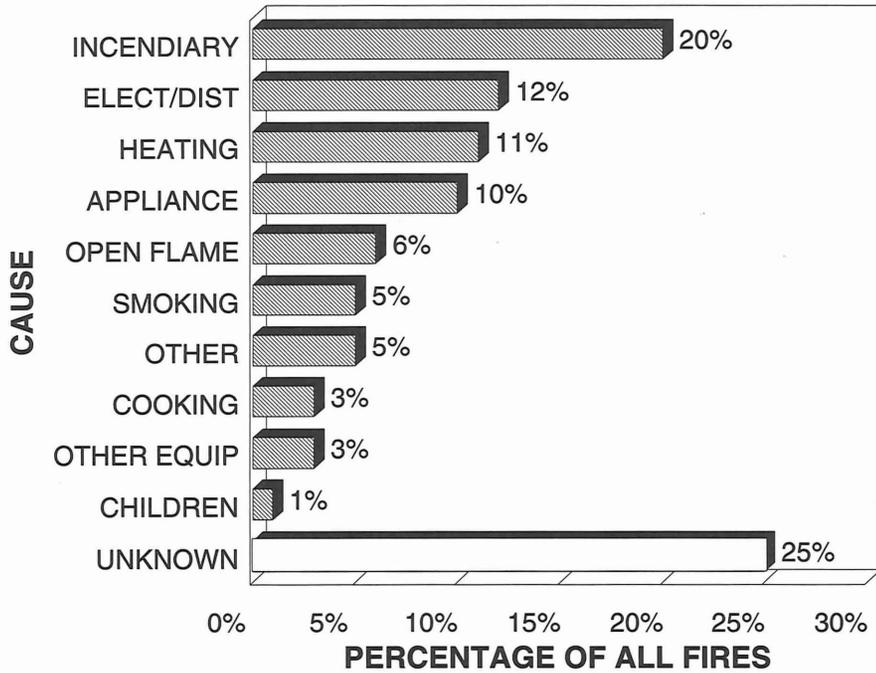
AREA OF FIRE ORIGIN

- 1. Kitchen/Cooking Area 24%
- 2. Lavatory/Locker Room 8%
- 3. Heating Equipment Room 6%

Other Areas of Fire Origin: 62%

STORE AND OFFICE PROPERTY

LEADING FIRE CAUSES



AREA OF FIRE ORIGIN

- 1. Office..... 7%
- 2. Maintenance Shop/Area 5%
- 3. Exterior Wall Surface 4%
- 4. Laundry Room/Area 4%

Other Areas of Fire Origin: 80%*

*The high percentage of "Other" in this category may reflect the difficulty in naming the area of fire origin based on coding associated with the MFIRS report form.

	No. of Incidents	Firefighter Injuries	Civilian Injuries	Firefighter Deaths	Civilian Deaths	Dollar Loss
	331	14	8	--	--	\$18,712,882
% of Total	5%*	5%	3%	--	--	12%

*Percent of structure fires

SUMMARY

Heating, arson, and cooking are again the leading causes of fire when identified. These three causes resulted in 14 fire deaths and 173 injuries (both civilian and firefighter). A breakdown of fires by major property type gives additional insights into cause.

The leading cause of fires in residential properties (which accounted for 66% of total structure fires) was identified as heating and cooking. Residential fires also accounted for 89% of all fire deaths, 64% of firefighter injuries, and 75% of civilian injuries.

The most dangerous place to be, in regard to fire, is the home. Fire prevention efforts relating to heating and cooking safety in residences must be one of our top priorities.

The 1995 National Fire Prevention Week theme is "WATCH WHAT YOU HEAT." This includes home, heating, cooking, appliances, and fueling. Heat-related incidents are the leading cause of fire nationally and in Minnesota.

Safety around heating equipment and appliances is an important first step in reducing the number of fires that occur annually.

INCENDIARY TRENDS

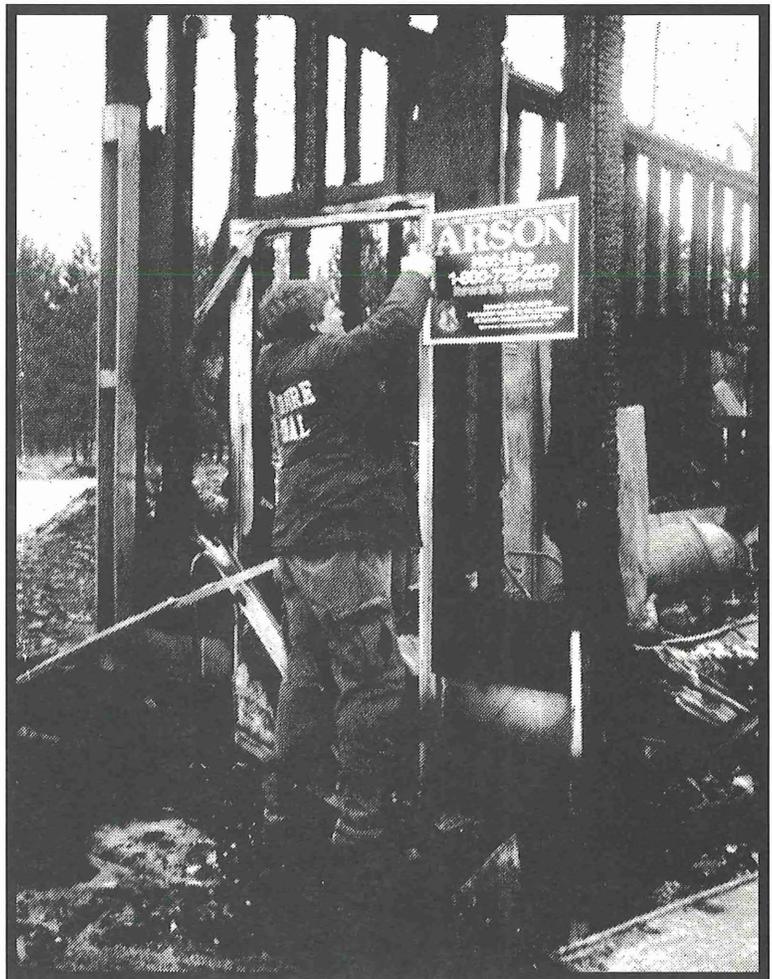
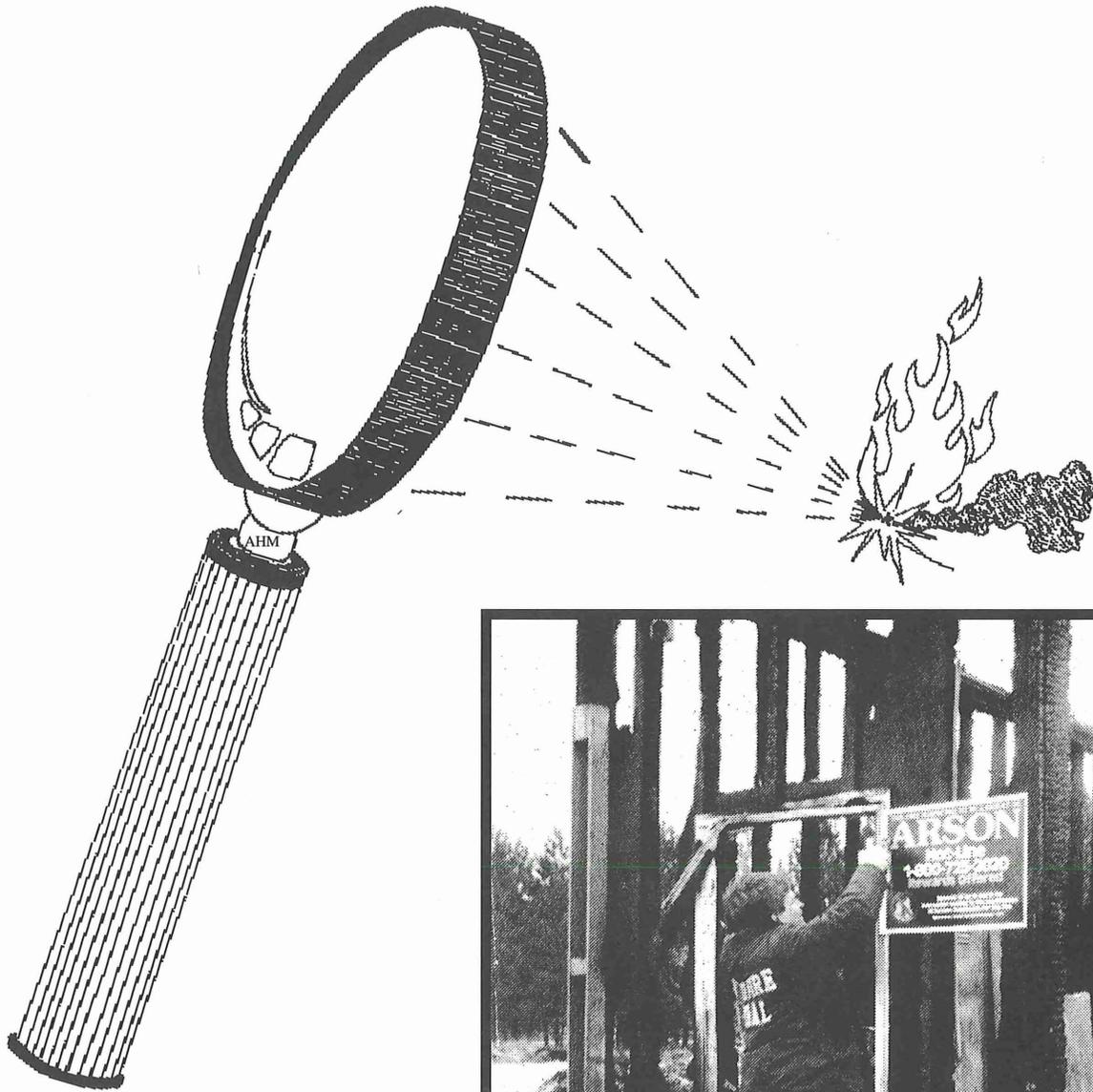


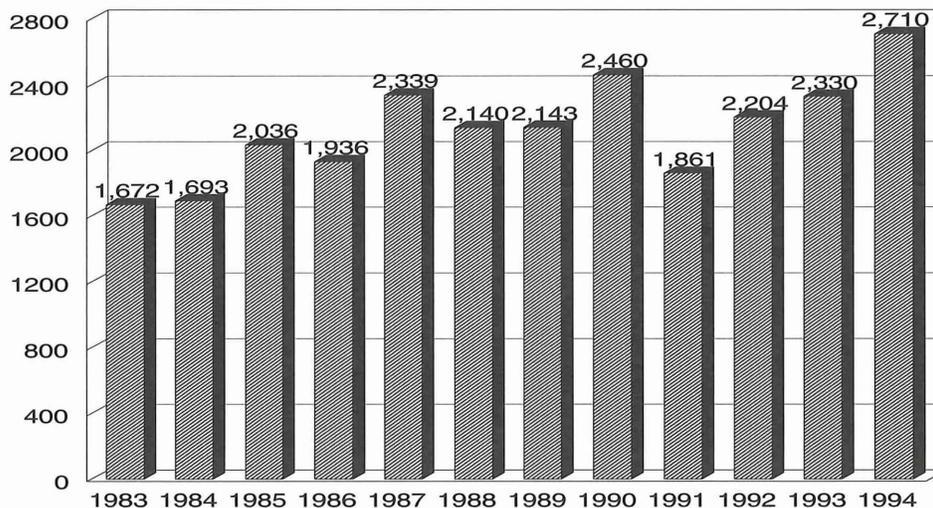
Photo-Country Messenger, Marine on St. Croix

INCENDIARY TRENDS

In 1994, arson fires reached a 12-year high. Arson was identified as the second leading cause of all reported fires in Minnesota. However, it was the leading cause of dollar loss. Additionally, another 1,702 (24%) fires were reported as undetermined and experts agree that many of these fires were probably incendiary in nature.

In 1994, arson fires reached a 12-year high.

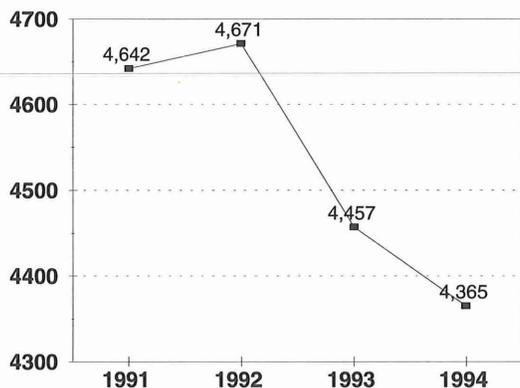
ARSON IN MINNESOTA



There were a total of 2,710 identified incendiary fires, a 16% increase over 1993. The value of property destroyed was estimated at over \$43 million. The majority of the dollar loss (97%) occurred in structures which represents 36% of the total incidents of arson reported in 1994. There were 7 reported fire deaths directly attributable to arson. Five of the deaths were children, the innocent victims of this heinous crime.

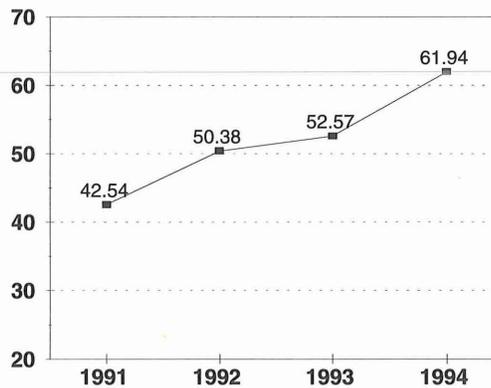
Arson crimes up 16% in 1994.

PART I CRIME RATE PER 100,000 INHABITANTS



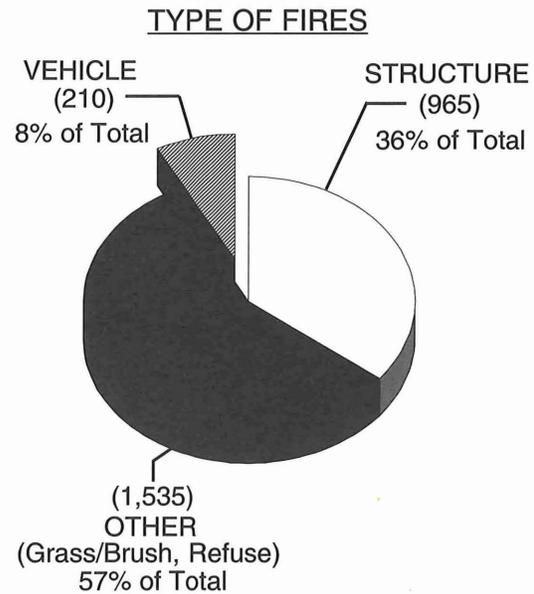
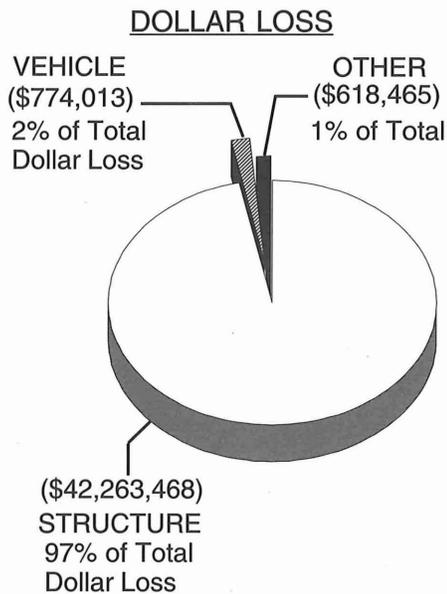
Source: Minnesota Crime Information - 1991, 1992, 1993, 1994
 Minnesota Dept. of Public Safety
 Office of Information Systems Management

ARSON RATE PER 100,000 INHABITANTS



According to Minnesota Crime Information 1991, 1992, 1993, and 1994, there has been a decrease in the Part I Crime Index in Minnesota from 1991 through 1994. Part I crimes include rape, robbery, burglary, and arson. Arson alone has seen a steady increase during the same period. In arson, there is a 13% average per year increase. Overall, there is a 2% average decrease per year in Part I crime.

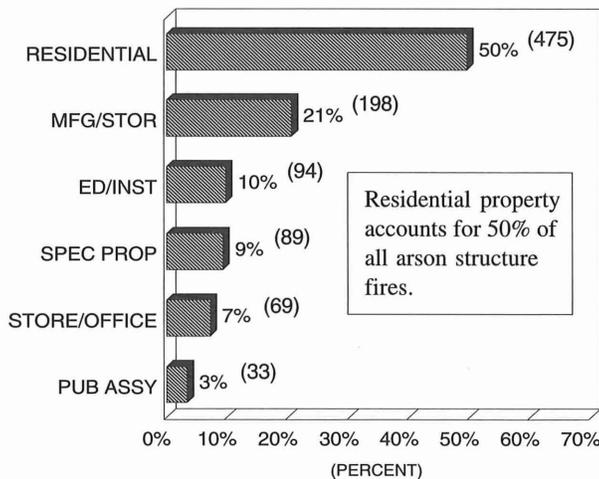
INCENDIARY FIRES BY DOLLAR LOSS AND TYPE



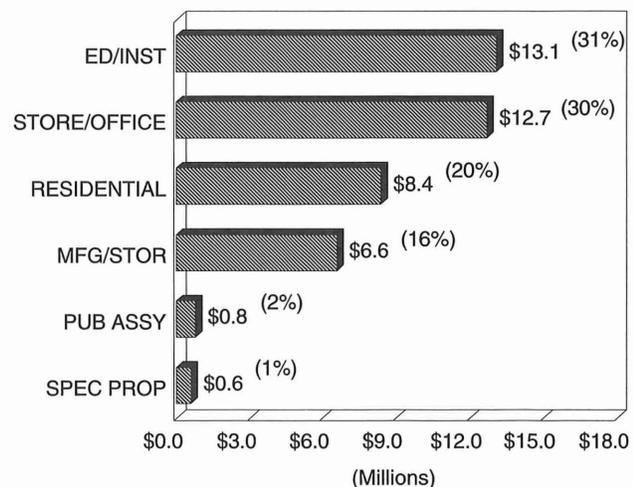
Average dollar loss in arson-related structure fires is \$44,000, compared to \$15,000, relating to all other fire causes.

The majority of arson fires in structures (50%) occurred in residential properties where dollar loss was \$8.4 million or 20% of overall dollar losses. However, the dollar loss for Educational/Institutional and Store/Office fires totalled \$25.8 million, or 61% of the cost of all reported arson structure fires, yet accounted for only 17% of the fires. The large dollar loss was a result of a \$12 million high school fire, a \$3 million restaurant fire, an \$2.7 million office building fire, and a \$2.5 million sporting goods store fire. The average loss for arson fires equalled approximately \$44,000 per fire, compared to an average dollar loss of \$15,000 for non-arson structure fires.

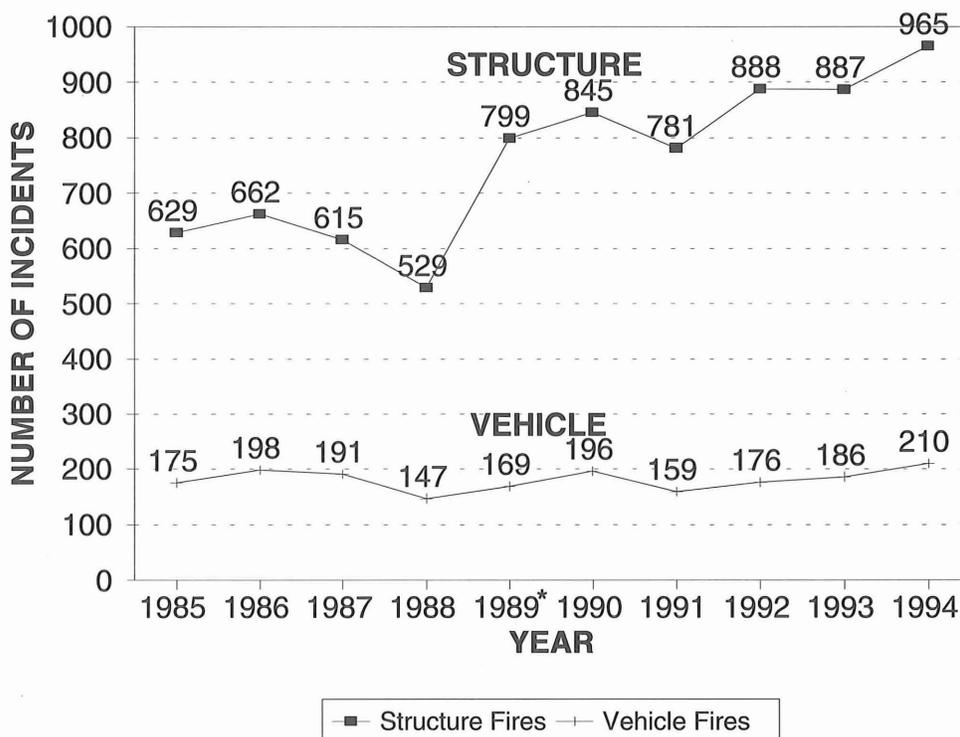
Arson Fire Incidents By Structure Type



Arson Fire Dollar Loss By Structure Type



ARSON TREND IN STRUCTURE AND VEHICLE FIRES, 1985-1994



Arson Structure Fires by Time of Day

0001-0400	227
0401-0800	106
0801-1200	94
1201-1600	133
1601-2000	178
2001-2400	227
Total	965

In 1994, arson was listed as the cause of 17% of all reported structure fires with known causes and 4% of all reported vehicle fires in Minnesota. Vehicle arson fires represented 44% of total vehicle fire dollar loss, with an average dollar loss per arson vehicle fire of \$3,700.

*Two major cities began reporting in 1989. This had a significant impact on the number of arson structure fires reported.

RESIDENTIAL STRUCTURE ARSON FIRES

Property Type	Incidents	Dollar Loss	% of Total Dollar Loss
One-Two Family Dwelling	328	\$6,030,466	72%
Apartment/Tenement/Flat	127	2,337,084	28%
Other Residential Occupancy	5	4,550	<1%
Hotel/Motel/Inn/Lodge	6	45,200	<1%
Dormitories	7	2,525	<1%
Rooming/Boarding/Lodging/Housing	2	1,050	<1%
TOTAL	475	\$8,420,875	100%

As is the case with overall fire totals, residential structures are at greatest risk from arson. The 475 residential arson incidents reported in 1994 accounted for 7% of all reported residential fires and 13% of the dollar loss for this property type.

ARSON FIRE INCIDENTS AND DOLLAR LOSS BY COUNTY*

In some instances, the protection district of the reporting fire department goes beyond its county boundary, but the incident will still be recorded within the department's home county. Per capita data is calculated at a standard rate of arson fires per 100,000 people.

<u>County</u>	<u>Arson Incidents</u>	<u>Arson Fires/ 100,000 Pop.</u>	<u>Arson Dollar Loss</u>	<u>County</u>	<u>Arson Incidents</u>	<u>Arson Fires/ 100,000 Pop.</u>	<u>Arson Dollar Loss</u>
Aitkin	5	40	\$51,000	Martin	5	22	\$125,000
Anoka	261	107	\$5,479,628	McLeod	4	12	\$6,000
Becker	19	68	\$275,200	Meeker	6	29	\$50,000
Beltrami	21	61	\$142,600	Mille Lacs	4	21	\$56,000
Benton	6	20	\$1,035	Morrison	4	14	\$40,500
Big Stone	1	16	\$0	Mower	5	13	\$2,500
Blue Earth	30	56	\$71,025	Murray	2	21	\$16,597
Brown	0	0	\$0	Nicollet	7	25	\$35,650
Carlton	19	65	\$178,200	Nobles	5	25	\$29,000
Carver	8	17	\$176,000	Norman	2	25	\$300
Cass	27	124	\$203,000	Olmsted	45	42	\$68,150
Chippewa	1	8	\$500	Ottertail	8	16	\$1,800
Chisago	5	16	\$102,500	Pennington	2	15	\$950
Clay	15	30	\$96,800	Pine	3	14	\$0
Clearwater	6	72	\$0	Pipestone	1	10	\$8,000
Cook	0	0	\$0	Polk	5	15	\$1,000
Cottonwood	2	16	\$0	Pope	5	47	\$11,000
Crow Wing	26	59	\$1,085,600	Ramsey	523	108	\$6,264,584
Dakota	218	79	\$12,177,145	Red Lake	1	22	\$10,000
Dodge	6	38	\$1,300	Redwood	1	6	\$7,500
Douglas	2	7	\$15,200	Renville	4	23	\$16,750
Faribault	6	35	\$103,000	Rice	26	53	\$30,140
Fillmore	0	0	\$0	Rock	2	20	\$11,000
Freeborn	16	48	\$3,100	Roseau	0	0	\$0
Goodhue	108	265	\$132,900	St. Louis	300	151	\$4,330,705
Grant	1	16	\$0	Scott	31	54	\$122,709
Hennepin	603	58	\$5,155,885	Sherburne	19	45	\$186,205
Houston	5	27	\$55,000	Sibley	5	35	\$10,600
Hubbard	4	27	\$44,000	Stearns	30	25	\$195,885
Isanti	9	35	\$149,500	Steele	5	16	\$18,750
Itasca	12	29	\$94,050	Stevens	2	19	\$600
Jackson	0	0	\$0	Swift	2	19	\$5,100
Kanabec	3	23	\$5,550	Todd	1	4	\$0
Kandiyohi	31	80	\$4,342,620	Traverse	0	0	\$0
Kittson	5	87	\$0	Wabasha	6	30	\$15,000
Koochiching	14	86	\$158,500	Wadena	4	30	\$0
Lac Qui Parle	4	45	\$10,000	Waseca	2	11	\$40,000
Lake	0	0	\$0	Washington	71	49	\$573,075
Lake of the Woods	0	0	\$0	Watsonwan	0	0	\$0
LeSueur	8	34	\$50,000	Wilkin	2	27	\$0
Lincoln	0	0	\$0	Winona	21	44	\$639,000
Lyon	5	20	\$202,500	Wright	20	29	\$123,000
Mahnomen	1	20	\$4,000	Yellow Medicine	2	17	\$34,058
Marshall	4	36	\$1,500				
				TOTAL	2,710	62	\$43,655,946

* Based on data received from 679 departments. See pages 45-52 for MFIRS participation by county.

JUVENILE FIRE SETTING

Children playing with fire resulted in \$4.5 million in property loss in 1994, an 18% increase over 1993. These fires resulted in an average dollar loss per fire of \$7,000 each. Of the 2 fatalities, both were children under five years of age. Additionally, 24 injuries to civilians and 6 injuries to firefighters were a direct result of child-set fires.

Dollar loss in child-set fires increased 18%.



Fires Involving Children Playing With Fire

	<u>1994</u>
Fires	687
Deaths	2
Civilians Injured	24
Firefighters Injured	6
Dollar Loss	\$4.5 million

The question must be: "How did these children gain access to matches and lighters?" It must be the responsibility of every parent and/or caregiver to keep these devices out of reach of children. This dangerous activity puts children at risk. It also puts family members at risk.

Parents and caregivers must take the initiatives to teach children, starting at age three, about their role with fire. Parents must be prepared to deal with a child's natural curiosity about one of the most deadly and powerful elements: fire. When children are older, parents/caregivers need to teach children the proper way to use fire, light matches, and build a campfire.

Remember, a single match can be just as deadly as a loaded gun in the hands of a child. It can destroy lives, property, and dreams at a rapid speed.

SUMMARY

Arson has remained one of the top three causes of fire in Minnesota for the past six years.

The average dollar loss of an arson fire is approximately \$44,000 per incident, compared to \$15,000 average loss in all other fire causes.

Half of all arson structure fires were in residential type dwellings where people sleep. These fires accounted for 20% of dollar loss from arson.

Extremely alarming is the fact that 53% of all fires in educational facilities were determined to be deliberately set.

In the past six years, arson-related fires caused 18 deaths and \$124 million in property loss. Arson prevention must continue to be a priority; it kills, maims, and destroys at an alarming rate. **It is a crime against every Minnesotan.**

CASUALTIES



Photo-Associated Press, Detroit, MI

ALCOHOL AND FIRE IS A DEADLY MIX...

When we think of alcohol-related deaths, we usually think of intoxicated drivers, endangering themselves and others on the highways. We say, "If you're drinking, don't drive; if you're driving, don't drink." This is a valid and worthwhile message for all ages.



Photo-MN State Patrol



Photo-St. Paul Fire Department

Perhaps it is time, however, to address the drinkers, and especially drinkers/smokers, who are home in easy chairs, far from the dangers on the road. In 1994, one-third (33%) of home fire fatalities were traced to careless smoking. Of that smoking group, over half (53%) showed significant Blood Alcohol Levels (BAL) - enough to prevent waking or impede escape.

Thirty-five percent (35%) of all fire deaths in 1994 showed a positive BAL. This condition makes the simplest activities dangerous ones. Cooking food is forgotten on the stove. The flame of the LP torch hits the insulation instead of the frozen pipe. The cigarette falls into the chair instead of the ashtray. The highway is clearly not the only place we are endangered by alcohol consumption. Even in homes with working smoke detectors, 45.5% of the fatalities showed a BAL.

Further, 38% of careless smoking deaths occurred among the more vulnerable elderly population (all were over 70 years of age). It also must be noted that none of the elderly fatalities had a Blood Alcohol Level.

The correlation of fire deaths and alcohol is a complex issue, but one that surely must be addressed to deal with Fire in Minnesota!

Fire Deaths and Smoke Detector Performance

Fire deaths down by 35% in 1994.

Fire deaths decreased overall by 35% in 1994. Forty Minnesota fire deaths (87%) occurred in residential settings. These figures represent a 22% decrease in deaths in dwellings, and a 35% decrease in fatalities in other than dwellings. In 25% of the dwelling fatalities, smoke detectors were either non-operating or absent altogether. In another 36% of the dwelling cases, it is not known whether a smoke detector was present or operating.

FIRE DEATHS IN DWELLINGS

	<u>Fatalities</u>	<u>% of Dwelling Fires</u>	<u>% of Total Deaths</u>
No Smoke Detectors Present	4	10%	9%
Inoperable Smoke Detectors Present	6	15%	13%
Working Smoke Detectors Present	11	28%	24%
Unk. if Detectors Present/Working	14	36%	30%
N/A in Residences (suicides, etc.)	<u>4</u>	<u>10%</u>	<u>9%</u>
Total Deaths in Dwellings	39	100%	85%
Other Fire Deaths	<u>7</u>	--	<u>15%</u>
Total Fire Deaths	46	--	100%

What can be said of the 11 people who died in dwellings equipped with working smoke detectors? The following additional factors have been identified.

ELEVEN FATALITIES WITH WORKING SMOKE DETECTORS: WHY DIDN'T THEY GET OUT?

	<u>Fatalities</u>	<u>Percent</u>
Alcohol or Drug Impaired	5	46%
Elderly/Mobility Impaired	3	27%
Irrational Act	2	18%
Irrational Act/Children Too Young	<u>1</u>	<u>9%</u>
TOTAL	11	100%

In 25% of fatalities in residential occupancies, smoke detectors were improperly maintained or absent altogether.

In the above 11 cases, although a working smoke detector was present, victims were unable to react effectively.

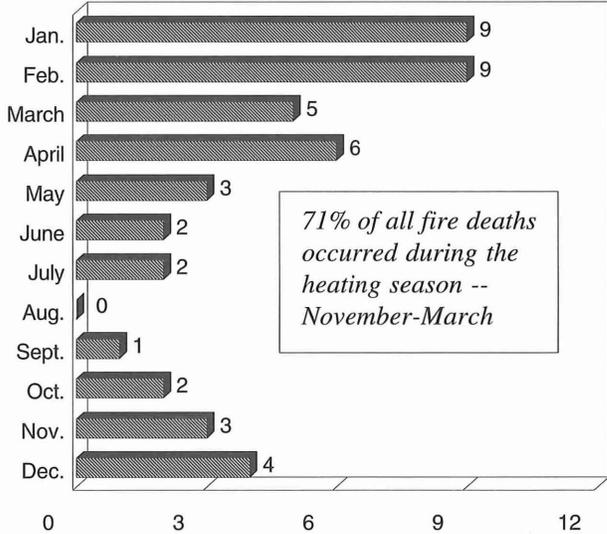
CIVILIAN FIRE DEATHS: WHO AND WHEN

Seventy percent of fire deaths occurred between the hours of 6:00 p.m. and 6:00 a.m. The two high-risk months of year were January and February, during the heating season.

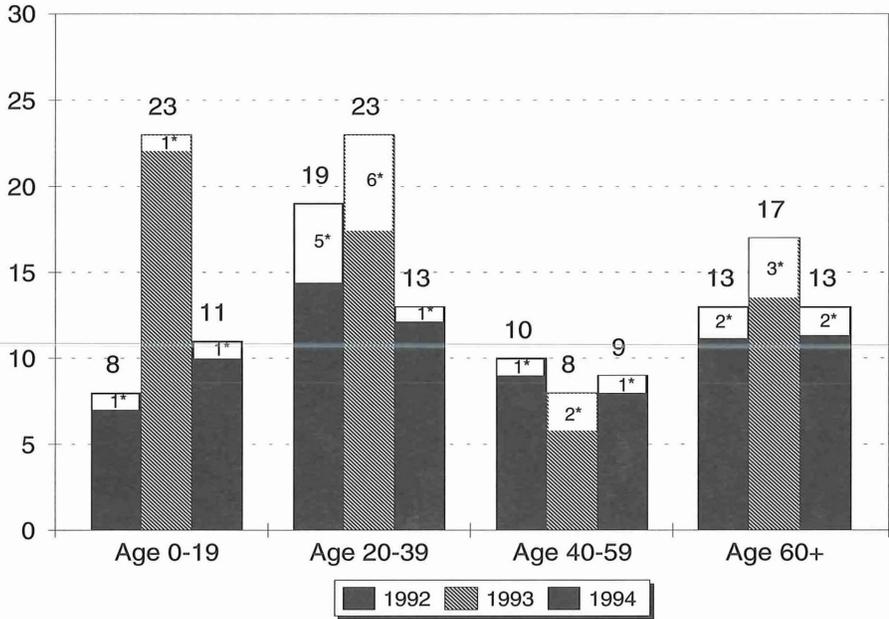
FIRE DEATHS BY TIME OF DAY

	TOTAL	0000-0600	0600-1200	1200-1800	1800-2400
Careless Smoking	13	9	2	1	1
Arson	7	1	0	0	6
Vehicle	5	2	0	0	3
Combust. Too Close	4	1	2	1	0
Candle/Match Misuse	3	0	2	1	0
Child Play w/Fire	2	0	1	1	0
Flammable Liquid Use	2	0	1	1	0
Unattended Cooking	2	2	0	0	0
Thawing Pipes	2	1	0	0	1
Natural Gas Leak	1	0	0	1	0
Undetermined	5	5	0	0	0
Total	46	21	8	6	11

FIRE DEATHS BY MONTH



FIRE DEATHS BY AGE



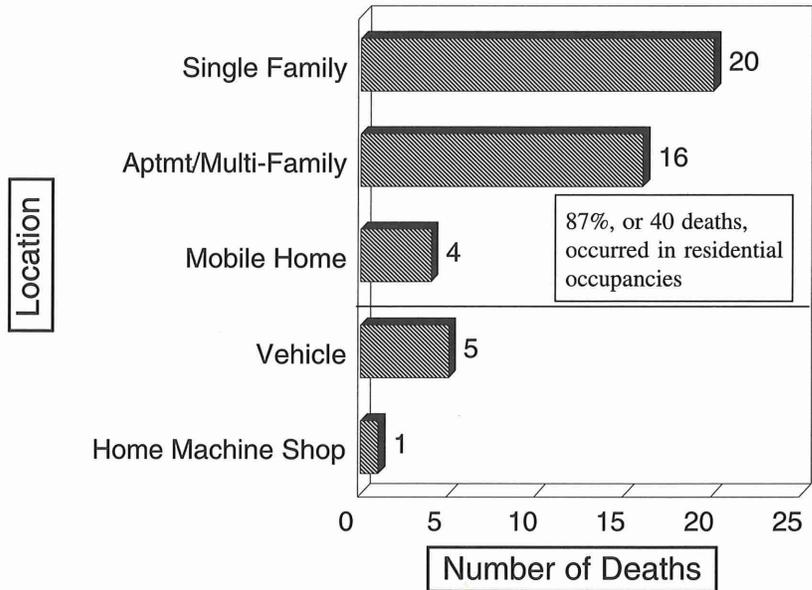
*Fire deaths listed as suicides or motor vehicle fire incidents.

In 1994, fire deaths in the 20-39 year-old age group equalled the fatalities in the 60+ population. Sadly, in 76% of the deaths in the 20-39 year age group, alcohol impairment was identified as a contributing factor. In the elderly group, 38% of fire deaths were caused by careless smoking, and another 31% occurred as the result of careless/age impaired use of cooking/heating devices. The safety and supervision of our independently-living elderly are an increasing concern as our population ages. Perhaps most tragically, of the seven arson fatalities in 1994, five children of one family (46% of the 0-19 yr. age group) died in one arson incident. Our efforts to stop this brutal crime must continue unceasingly.

46% of child fatalities, ages 0-19 yrs., died in one arson-related fire; two deaths were the result of child fire play.

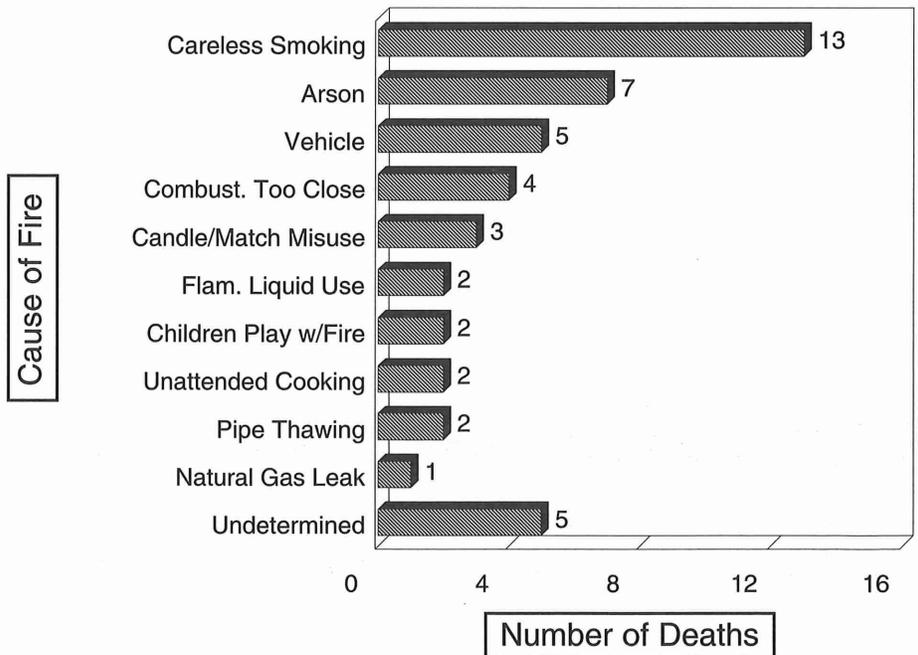
CIVILIAN FIRE DEATHS: WHERE AND WHY

87% of fire deaths occurred in residential property.



Careless smoking was identified as the cause of 28% of all fire deaths.

Eighty-seven percent of the 1994 fire deaths occurred where people generally feel safest - at home. Careless smoking and arson were the two major causes of these deaths.



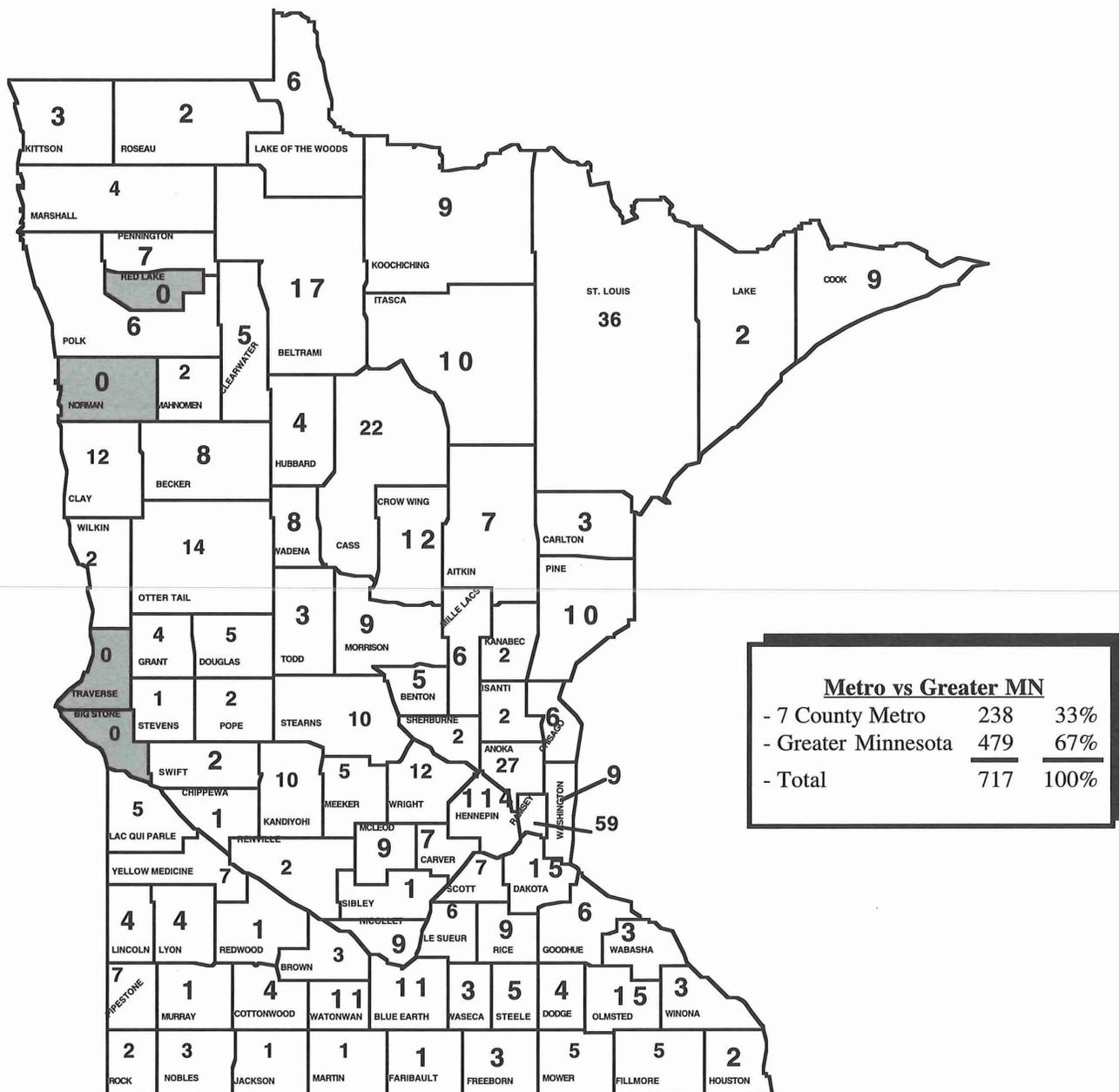
Alcohol/Drugs was clearly a factor in 35% of all fire deaths.

Careless smoking was the largest single identified cause in fire deaths, identified in 32% of structure fires. Alcohol or other drug use was present or identified as an impairing factor in fully 35% of the deaths.

Civilian Death Rates

In the past 11 years, 717 Minneapota civilians have died in fires (see distribution by county below). During that time, fire deaths in greater Minnesota have out paced those in the seven county metro area by a rate slightly over two to one. In 1994, greater Minnesota contained 48% of the state's population and experienced a per capita death rate of 1.1 for every 100,000 people. This is half of last year's rate. The per capita rate for the metro area in 1994 was 1 per 100,000, while the rate for the state as a whole was 1 per 100,000. From 1984 to 1991 the fire death rate for the state was 1.6 per 100,000 compared to a national rate of 2.3/100,000 for the same period. (The United States consistently has among the highest per capita death rates in the world.)

Fire deaths in greater Minnesota outpace those in the seven county metro area by slightly over a rate of two to one.



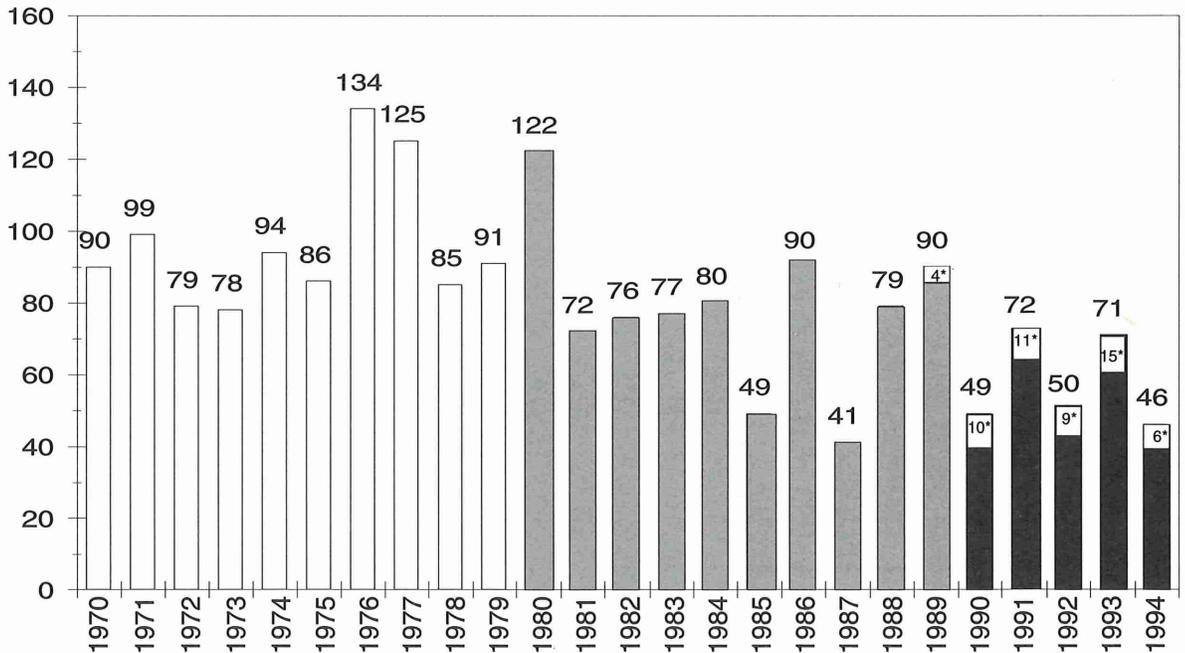
20 YEARS OF FIRE DEATH HISTORY

As the population of Minnesota has continued to grow, from 3.8 million in 1970 to 4.4 million in 1990, fire deaths have decreased. During the decade of the eighties, fire deaths in Minnesota dropped 19% from the levels of the 1970s. In the first four years of this decade, from January, 1990 through December, 1994, 288 Minnesotans have died in fires. Should this rate continue, the decade of the nineties may see a 22% decrease in fire deaths from the eighties.

1970's 961 deaths
 1980's 776 deaths
 1990's 605 deaths
 (projected)

What factors might be affecting the rate of deaths? Since the mid-seventies, the promotion of fire protection technology (smoke detectors, sprinkler systems, etc.) has become more widespread in Minnesota. During this time, the state has mandated new inspection programs targeting hotels, motels and schools. Awareness and public education efforts have increased.

FIRE DEATHS 1970 - 1994



*Number of vehicle/suicide fires.

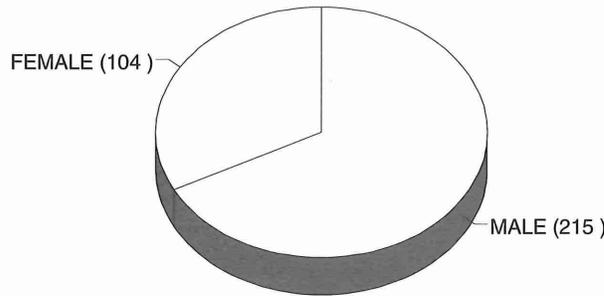
As of August 1, 1993, smoke detectors are required in every dwelling in Minnesota that has a sleeping area.

Legislation passed by the 1993 Legislature will aid the continuation of this trend. As of August 1, 1993, smoke detectors are required in every dwelling in Minnesota that has a sleeping area.

CIVILIAN INJURIES

In 1994, 319 civilian injuries were reported through the MFIRS system. The number represents an under-reporting of actual injuries, as it includes only those victims who have direct contact with the fire department. Many burn victims are taken to emergency rooms by private car or ambulance.

In 1994, 319 civilians were injured in Minnesota fires. Injuries to males outnumbered those to females by 2 to 1.



AGE OF VICTIM	NO. OF VICTIMS
0-19	65
20-39	121
40-59	55
60-OVER	31
UNREPORTED	47
TOTAL	319

A breakdown of reported injuries by gender shows injuries to males outnumbering injuries to females by a rate of 2 to 1. Persons age 20-39 were most frequently reported as injured.

ACTIVITY AT TIME OF FIRE

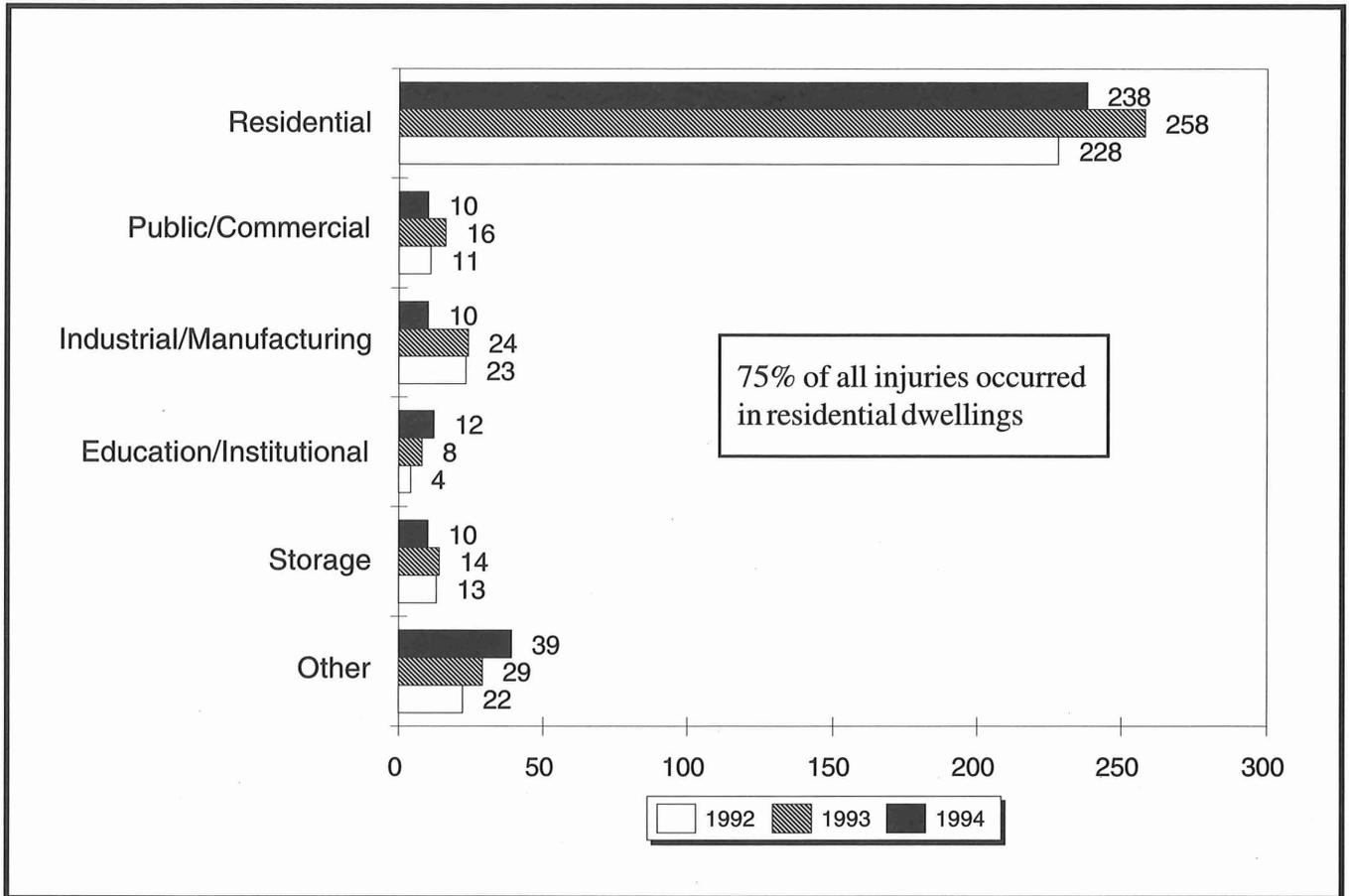
Activity	#	%
Fire Control	78	24%
Escape	57	18%
Sleeping	22	7%
Irrational act	18	6%
Unable to act	12	4%
Rescue attempt	10	3%
Other	38	12%
Unkn/unrep	84	26%
TOTAL	319	100%

For all victims, twenty-two percent of injuries were incurred when the victim attempted to extinguish the fire. Residential structures, accounting for 66% of all fire incidents in 1994, were the site of 75% of reported injuries.

Activity	#	%
Fire Control	40	33%
Escape	13	11%
Sleeping	8	7%
Unable to act	5	4%
Rescue attempt	4	3%
Irrational act	4	3%
Other	14	12%
Unkn/unrep	33	27%
TOTAL	121	100%

	Residential	Educ/Inst	Pub/Comm	Indus/Manu	Storage	Other
Fire Control	55	2	2	4	4	11
Escaping	41	4	1	--	--	11
Other	19	2	4	4	3	6
Sleeping	21	--	--	--	--	1
Rescue Attempt	9	--	--	1	--	--
Unable to Act	11	--	--	1	--	--
Irrational Action	16	2	--	--	--	--
Unknown	66	2	3	--	3	10
TOTAL	238	12	10	10	10	39

CIVILIAN INJURIES BY PROPERTY TYPE



FIREWORKS INJURIES

In the last six years, 234 people have been seriously injured by illegal fireworks. Sixty percent (60%) of them have been children. During the same period, nearly \$1 million in property damage has been sustained. More than half of the injuries each year occur during June and July. The majority of property damage from fireworks also occurs during these two months. From 1989 - 1994, 76% of those seriously injured were male; 24% were female. Forty-three percent (43%) of the victims were between the ages of ten and nineteen, 22% were 20 - 29, and 17% were aged 0 - 9. In 1994, there was a dramatic drop in fireworks injuries due, in part, to increased public awareness and a sting operation conducted at the Minnesota/Wisconsin border that was highly publicized.

Minnesota State Statute specifically states that "it shall be unlawful for any person to offer for sale, expose for sale, sell at retail or wholesale, possess, advertise, use or explode any fireworks." The term fireworks includes all firecrackers, sparklers, party poppers, whipper snappers, and snap-n-pops. The only legal items in the state are fireworks for public display (for which a permit is required), and caps for toy guns.

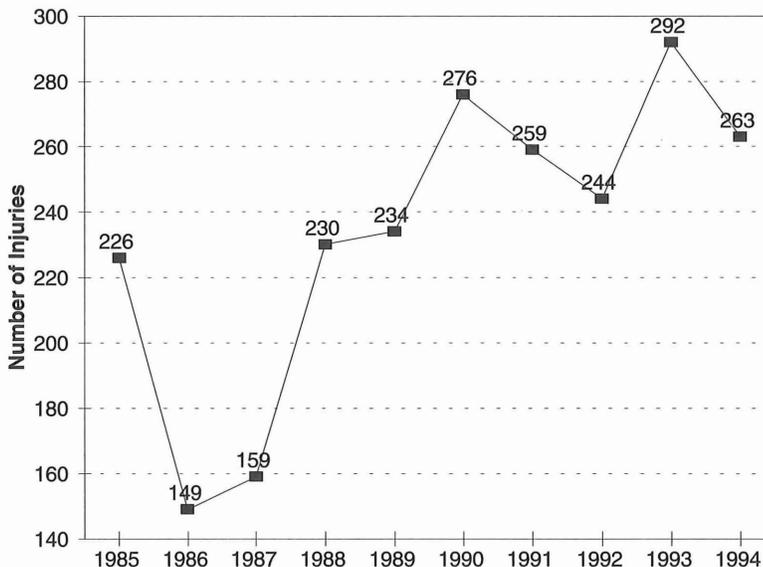
In Minnesota, a state where fireworks are illegal, firework losses since 1989 caused:

- near \$1 million loss
 - 234 injured
 - 60% of injuries were children
-

FIREFIGHTER INJURIES

In 1994, 263 Minnesota firefighters were injured while responding to, involved in or returning from emergency situations (a 10% decrease from 1993). Of these 263 injuries, 209 were directly fire related. (This does not include injuries that occur during training or at the stations.) Sixty-four percent of these injuries occurred when firefighters were fighting fires in residential structures.

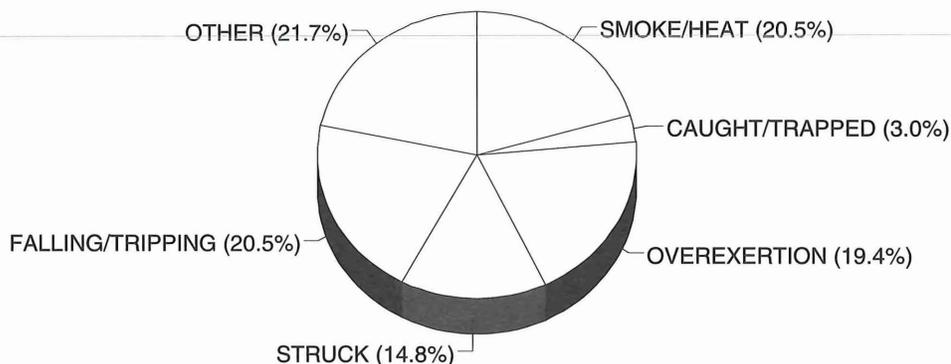
NINE-YEAR HISTORY OF MINNESOTA FIREFIGHTER INJURIES



Of the 263 firefighter injuries, 209 (80%) occurred in the course of fighting fires.

A breakdown of injuries shows that smoke/heat, falling/tripping and overexertion are the most frequent causes of firefighter injuries.

MINNESOTA FIREFIGHTER INJURIES: CAUSES



Exposure to smoke and heat accounted for 20.5% of the injuries, a rate slightly less than the 29% national average (National Fire Information Council figures). Falling or tripping also caused 20.5% of Minnesota firefighter injuries, compared to 17.8% nationally. While overexertion and strains are responsible for a national average of 18%, 19.4% of Minnesota firefighters were injured this way in 1994, slightly higher than the national average.

SUMMARY

Clearly, Minnesotans are most at risk from fire death and injury when in residential dwellings. **Eighty-seven percent of the state's fire deaths (all civilian) and 75% of civilian injuries in 1994 occurred in residential occupancies.**

The presence or absence of working smoke detectors in dwellings is a critical factor in fire fatalities. In 61% of the 46 fire fatalities occurring in dwellings, either no smoke detectors were present, they were present but not working, or it was not known whether detectors were present or functioning. It is especially important to note that 9 of these fire deaths were children.

Careless smoking was the leading cause of death, identified in 28% of fatalities. Alcohol or other drug use was an impairing factor in 35% of fire deaths.

As is the case above, three fourths of all fire related civilian injuries were sustained in residential dwellings. Almost a quarter of all fire injuries occurred during attempts to control the fire. **Sixty-four percent of firefighter injuries occurred in the course of battling residential fires.**

Since 1984, fire deaths in greater Minnesota have outpaced those in the metro area at a rate slightly greater than two to one. Overall, fire deaths have decreased over the past twenty years, even as Minnesota's population has grown. Total fire deaths during the eighties reflected a 19% drop from the seventies. If current trends continue, the decade of the nineties will see a 22% decrease in fire deaths. However, many preventable tragedies continue to occur. **Prevention efforts, particularly those targeting the home, are essential to curb this needless suffering and loss.**

PARTICIPATION

MINNESOTA FIRE INCIDENT REPORTING SYSTEM

"FIGHTING
FIRES
WITH FACTS!"

The image shows a sample of the MFIRS-1 form, which is a detailed reporting system for fire incidents. The form is divided into several sections, each with specific fields for data entry. The sections are labeled with letters A through U. Section A includes fields for incident number, date, time, and location. Section B covers the type of incident and the nature of the fire. Section C details the equipment used, including the type and quantity of apparatus. Section D lists the personnel involved, such as the incident commander and other firefighters. Section E provides information about the fire's cause and the actions taken. Section F describes the fire's extent and the damage done. Section G includes details about the fire's origin and the fire's behavior. Section H covers the fire's impact on the community and the environment. Section I details the fire's impact on the economy and the environment. Section J includes information about the fire's impact on the community and the environment. Section K covers the fire's impact on the community and the environment. Section L details the fire's impact on the community and the environment. Section M includes information about the fire's impact on the community and the environment. Section N covers the fire's impact on the community and the environment. Section O details the fire's impact on the community and the environment. Section P includes information about the fire's impact on the community and the environment. Section Q covers the fire's impact on the community and the environment. Section R details the fire's impact on the community and the environment. Section S includes information about the fire's impact on the community and the environment. Section T covers the fire's impact on the community and the environment. Section U details the fire's impact on the community and the environment.



MINNESOTA
FIRE
DEPARTMENTS

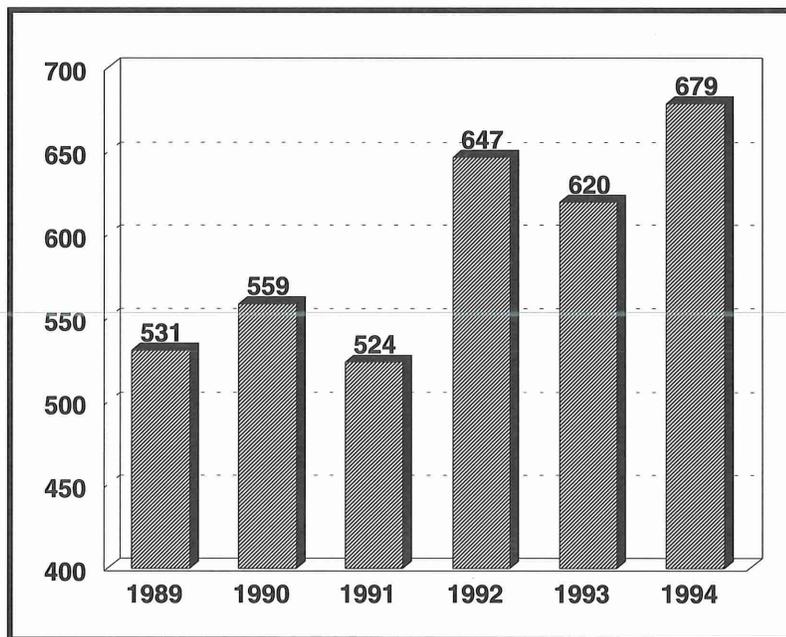
Data can play a significant role as a management tool on the local level.

PARTICIPATION

The Minnesota State Fire Marshal Division appreciates the efforts of the fire departments who submitted MFIRS reports in 1994. This information is essential if we are to understand and effectively combat the fire problem in Minnesota. It allows us to focus on real versus perceived problems. Fire data is requested on a weekly basis by the media, the public, the fire service and the fire protection community. It is used to support legislative initiatives and to guide public fire safety education campaigns. On the local level, this data can be used to support prevention efforts and to justify strategic fire department budget elements, staffing and equipment.

The reporting history of Minnesota fire departments from 1990 - 1994 is listed on the following pages. Departments are listed by county, with the total percent of those reporting in 1994 indicated. In 27 counties (nearly 1/3 of all counties), 100% of the fire departments reported to the MFIRS system. This represents a 80% increase in "100%" counties!

FIRE DEPARTMENTS' MFIRS PARTICIPATION



Participation in MFIRS increased by 10% in 1994 with 91 fire departments added to the system. We applaud fire service leaders who are participating in the system and encourage those who are not to make a commitment to do so. If you would like information about how to set up the MFIRS system or how to computerize your reporting, call Ernie Scheidness or Nora Gierok at 612/215-050

AITKIN COUNTY

86% Reporting

90 91 92 93 94

- * * * * * AITKIN
- * * * * * HILL CITY
- * * * * * JACOBSON
- * * * * * MCGREGOR VOL
- * * * * * MCGRATH
- * * * * * PALISADE VOL
- Tamarack

ANOKA COUNTY

93% Reporting

- * * * * * ANDOVER
- * * * * * ANOKA-CHAMPLIN
- * * * * * CENTENNIAL
- * * * * * COLUMBIA HEIGHTS
- * * * * * COON RAPIDS
- * * * * * EAST BETHEL
- * * * * * FRIDLEY
- * * * * * HAM LAKE
- * * * * * LEXINGTON
- * * * * * LINWOOD VOL
- * * * * * RAMSEY
- * * * * * ST FRANCIS
- * * * * * SPRING LAKE PARK
- * * * * * BETHEL
- * * * Cedar-Oak Grove

BECKER COUNTY

78% Reporting

- * * * * * AUDUBON
- * * * * * CALLAWAY
- * * * * * CARSONVILLE VOL
- * * * * * DETROIT LAKES
- * * * * * FRAZEE
- * * * * * LAKE PARK
- * * * * * WOLF LAKE
- * Ogema
- * * * * * White Earth Vol

BELTRAMI COUNTY

83% Reporting

90 91 92 93 94

- * * * * * ALASKA
- * * * * * BEMIDJI
- * * * * * BLACKDUCK
- * * * * * KELLIHER VOL
- * * * * * RED LAKE
- * * Solway

BENTON COUNTY

67% Reporting

- * * * * * FOLEY
- * * * * * SAUK RAPIDS
- Rice

BIG STONE COUNTY

67% Reporting

- * * * * * BEARDSLEY
- * * * * * GRACEVILLE
- * * * * * ODESSA
- * * * * * ORTONVILLE
- * * * Clinton
- * * * Correll

BLUE EARTH COUNTY

83% Reporting

- * * * * * AMBOY
- * * * * * EAGLE LAKE VOL
- * * * * * GOOD THUNDER
- * * * * * LAKE CRYSTAL
- * * * * * MADISON LAKE
- * * * * * MANKATO
- * * * * * MAPLETON
- * * * * * SKYLINE
- * * * * * SOUTH BEND
- * * * * * ST CLAIR
- * * * * * Pemberton
- * * * * * Vernon Center

BROWN COUNTY

60% Reporting

90 91 92 93 94

- * * * * * COMFREY
- * * * * * NEW ULM
- * * * * * SLEEPY EYE
- Hanska
- * * * * * Springfield Vol

CARLTON COUNTY

(14) - 100% Reporting

- * * * * * BARNUM VOL
- * * * * * BLACKHOOF
- * * * * * CARLTON VOL
- * * * * * CLOQUET
- * * * * * CROMWELL VOL
- * * * * * HOLYOKE VOL
- * * * * * KETTLE RIVER
- * * * * * MAHTOWA
- * * * * * MOOSE LAKE
- * * * * * PERCH LAKE VOL
- * * * * * SCANLON VOL
- * * * * * THOMSON TWP
- * * * * * WRENSHALL
- * * * * * WRIGHT VOL

CARVER COUNTY

92% Reporting

- * * * * * CARVER
- * * * * * CHANHASSEN
- * * * * * COLOGNE
- * * * * * HAMBURG
- * * * * * MAYER
- * * * * * NEW GERMANY
- * * * * * NORWOOD
- * * * * * VICTORIA
- * * * * * WACONIA
- * * * * * WATERTOWN
- * * * * * YOUNG AMERICA
- * * * * * Chaska

KEY

* Fire Departments submitting MFIRS each year.

* Departments that submitted year-end totals only.

We are now only accepting MFIRS report forms or those submitted electronically by modem or diskette.

CASS COUNTY

82% Reporting

- 90 91 92 93 94
- * * * * * BACKUS VOL
- * * * * * CASS LAKE
- * * * * * CROOKED LAKE VOL
- * * * * * HACKENSACK AREA
- * * * * * LONGVILLE VOL
- * * * * * PILLAGER AREA
- * * * * * PINE RIVER
- * * * * * REMER
- * * * * * WALKER
- Bena
- Federal Dam

CHIPPEWA COUNTY

(5) - 100% Reporting

- * * * * * CLARA CITY
- * * * * * MAYNARD
- * * * * * MILAN
- * * * * * MONTEVIDEO
- * * * * * WATSON

CHISAGO COUNTY

82% Reporting

- * * * * * ALMELUND
- * * * * * CENTER CITY
- * * * * * HARRIS
- * * * * * LINDSTROM
- * * * * * NORTH BRANCH
- * * * * * RUSH CITY
- * * * * * SHAFER
- * * * * * TAYLORS FALLS
- * * * * * WYOMING
- Chisago City
- * * * * * Stacy

CLAY COUNTY

89% Reporting

- * * * * * BARNESVILLE
- * * * * * DILWORTH
- * * * * * GLYNDON VOL
- * * * * * HAWLEY
- * * * * * HITTERDAL
- * * * * * MOORHEAD
- * * * * * SABIN-ELMWOOD
- * * * * * ULEN
- Felton Community

CLEARWATER COUNTY

(6) - 100% Reporting

- 90 91 92 93 94
- * * * * * ALIDA
- * * * * * BAGLEY
- * * * * * CLEARBROOK
- * * * * * GONVICK
- * * * * * HANGAARD TWP
- * * * * * SHEVLIN

COOK COUNTY

50% Reporting

- * * * * * GUNFLINT TRAIL
- * * * * * HOVLAND
- * * * * * SCHROEDER
- * * * * * TOFTE
- Grand Marais Vol
- Grand Portage
- * * * * * Lutsen Twp Vol
- * * * * * Maple Hill

COTTONWOOD COUNTY

67% Reporting

- * * * * * BINGHAM LAKE
- * * * * * MOUNTAIN LAKE
- * * * * * WESTBROOK
- * * * * * WINDOM
- Jeffers
- * * * * * Storden

CROW WING COUNTY

93% Reporting

- * * * * * BRAINERD
- * * * * * CROSBY VOL
- * * * * * CROSSLAKE
- * * * * * CUYUNA
- * * * * * DEERWOOD
- * * * * * EMILY VOL
- * * * * * GARRISON
- * * * * * IDEAL TWP
- * * * * * IRONTON
- * * * * * MISSION TWP
- * * * * * NISSWA
- * * * * * PEQUOT LAKES
- * * * * * RIVERTON
- Fifty Lakes

DAKOTA COUNTY

(14) - 100% Reporting

- 90 91 92 93 94
- * * * * * APPLE VALLEY
- * * * * * BURNSVILLE
- * * * * * EAGAN
- * * * * * FARMINGTON
- * * * * * HAMPTON
- * * * * * HASTINGS
- * * * * * INVER GROVE HTS
- * * * * * LAKEVILLE
- * * * * * MENDOTA HEIGHTS
- * * * * * MIESVILLE VOL
- * * * * * RANDOLPH
- * * * * * ROSEMOUNT
- * * * * * SOUTH ST PAUL
- * * * * * WEST ST PAUL

DODGE COUNTY

(6) - 100% Reporting

- * * * * * CLAREMONT
- * * * * * DODGE CENTER
- * * * * * HAYFIELD
- * * * * * KASSON
- * * * * * MANTORVILLE
- * * * * * WEST CONCORD

DOUGLAS COUNTY

82% Reporting

- * * * * * ALEXANDRIA
- * * * * * CARLOS
- * * * * * EVANSVILLE
- * * * * * FORADA TWP
- * * * * * GARFIELD
- * * * * * KENSINGTON
- * * * * * LEAF VALLEY TWP
- * * * * * MILTONA
- * * * * * OSAKIS
- Brandon
- Millerville

FARIBAULT COUNTY

(11) - 100% Reporting

90 91 92 93 94
* * * * * BLUE EARTH
✍ * * * * BRICELYN
* * * * * DELAVAN VOL
* * * * * EASTON VOL
✍ * * * * * ELMORE
✍ * * * * * FROST
* * * * * KIESTER
* ✍ * * * * MINNESOTA LAKE
* * * * * WALTERS VOL
* ✍ * * * * WELLS
* * * * * WINNEBAGO VOL

FILLMORE COUNTY

83% Reporting

* * * * * CHATFIELD
* * * * * FOUNTAIN
* ✍ * * * * HARMONY
* * * * * LANESBORO
* * * * * MABEL VOL
* * * * * OSTRANDER
* * * * * PRESTON
* * * * * RUSHFORD
* * * * * SPRING VALLEY
* * * * * WYKOFF
✍ Canton
Greenleaf

FREEBORN COUNTY

63% Reporting

* * * * * ALBERT LEA
* * * * * ALBERT LEA TWP
* * * * * CONGER
* * * * * FREEBORN
* * * * * HARTLAND
* * * * * HAYWARD
✍ * * * * * HOLLANDALE
* * * * * LONDON
* ✍ * * * * MANCHESTER
* * * * * MYRTLE
✍ * Alden
Clarks Grove Vol
* ✍ * Emmons
* Geneva
✍ Glenville
* * Twin Lakes

GOODHUE COUNTY

63% Reporting

90 91 92 93 94
* * * * * CANNON FALLS
* * * * * GOODHUE
* * * * * PINE ISLAND
* * * * * RED WING
* * * * * ZUMBROTA
✍ ✍ * * * * Dennison
✍ ✍ * * * * Kenyon
* * * * * Wanamingo

GRANT COUNTY

(6) - 100% Reporting

* * * * * ASHBY
✍ ✍ * * * * BARRETT
* ✍ * * * * ELBOW LAKE
* * * * * HERMAN VOL
* * * * * HOFFMAN
* ✍ * * * * WENDELL

HENNEPIN COUNTY

94% Reporting

* * * * * BLOOMINGTON
* * * * * BROOKLYN CENTER
* * * * * BROOKLYN PARK
* * * * * CRYSTAL
* * * * * DAYTON
* * * * * EDEN PRAIRIE
* * * * * EDINA
* * * * * EXCELSIOR
* * * * * FORT SNELLING
* * * * * GOLDEN VALLEY
* * * * * HAMEL
✍ * * * * * HANOVER
* * * * * HOPKINS
* * * * * LORETTO VOL
* * * * * MAPLE GROVE
* * * * * MAPLE PLAIN
* * * * * MINNEAPOLIS
* * * * * MINNETONKA
* * * * * MOUND
* * * * * MPLS/ST PAUL INT'L
AIRPORT
* * * * * NEW HOPE
* * * * * OSSEO
* * * * * PLYMOUTH
* * * * * RICHFIELD
* * * * * ROBBINSDALE
* * * * * ROGERS
* * * * * ST ANTHONY
* * * * * ST BONIFACIUS

90 91 92 93 94

* * * * * ST LOUIS PARK
* * * * * WAYZATA
* * * * * Long Lake
* * * * * Medicine Lake

HOUSTON COUNTY

71% Reporting

* * * * * BROWNSVILLE
* * * * * CALEDONIA
* * * * * HOUSTON
* * * * * LACRESCENT
* * * * * SPRING GROVE
* Eitzen
* * * * * Hokah Vol

HUBBARD COUNTY

40% Reporting

* * * * * LAPORTE/LAKEPORT
* * * * * PARK RAPIDS
* * * * * East Hubbard Co.
Lake George
✍ * Nevis

ISANTI COUNTY

(4) - 100% Reporting

✍ * * * * * BRAHAM
* * * * * CAMBRIDGE
* * * * * DALBO
* * * * * ISANTI VOL

ITASCA COUNTY

88% Reporting

* * * * * BALSAM VOL
* * * * * BEARVILLE TWP
* * * * * BOVEY
* * * * * CALUMET
* * * * * COHASSET
✍ * * * * * COLERAINE
* * * * * DEER RIVER
* * * * * GOODLAND
✍ * * * * * GRAND RAPIDS
* * * * * KEEWATIN VOL
✍ * * * * * MARBLE
* * * * * NASHWAUK
* ✍ * * * * TACONITE
* ✍ * * * * WARBA
* ✍ Bigfork Vol
Squaw Lake

JACKSON COUNTY

80% Reporting

- 90 91 92 93 94
- * * ALPHA
- * * * * HERON LAKE VOL
- * * * * JACKSON
- * * * * LAKEFIELD
- * * Okabena

KANABEC COUNTY

(3) - 100% Reporting

- * * GRASSTON
- * * MORA
- * * * * OGILVIE

KANDIYOHI COUNTY

73% Reporting

- * * * * ATWATER
- * * * * KANDIYOHI
- * * * * LAKE LILLIAN
- * * * * NEW LONDON
- * * PRINSBURG
- * * * * RAYMOND
- * * * * SPICER
- * * * * WILLMAR
- Blomkest
- Pennock
- Sunburg

KITTSOON COUNTY

(5) - 100% Reporting

- * * * * HALLOCK
- * * * * KARLSTAD VOL
- * * KENNEDY
- * * * * LAKE BRONSON
- * * * * LANCASTER

KOOCHICHING COUNTY

67% Reporting

- * * * * BIG FALLS VOL
- * * * * BIRCHDALE RURAL
- * * * * INTERNATIONAL FLS
- * * * * LITTLEFORK
- * * Loman Rural
- * * * * Northome

LAC QUI PARLE COUNTY

71% Reporting

- 90 91 92 93 94
- * BOYD
- * * * * DAWSON
- * * * * LOUISBURG
- * * * * MADISON
- * * * * NASSAU
- Bellingham
- * * * * Marietta

LAKE COUNTY

(4) - 100% Reporting

- * * * * BEAVER BAY VOL
- * * * * FINLAND
- * * * * SILVER BAY
- * * * * TWO HARBORS

LAKE OF THE WOODS COUNTY

(2) - 100% Reporting

- * * * BAUDETTE
- * WILLIAMS

LE SUEUR COUNTY

(8) - 100% Reporting

- * * * * CLEVELAND
- * * * * ELYSIAN
- * * * * KASOTA
- * * * * KILKENNY
- * * * * LE CENTER
- * * * * LESUEUR
- * * * * MONTGOMERY
- * * * * WATERVILLE

LINCOLN COUNTY

(5) - 100% Reporting

- * * * * ARCO
- * * * * HENDRICKS
- * * * * IVANHOE
- * * * * LAKE BENTON
- * * * * TYLER

LYON COUNTY

80% Reporting

- 90 91 92 93 94
- * * * * BALATON
- * * * * GARVIN
- * * * * GHENT
- * * * * LYND
- * * * * MARSHALL
- * * * * MINNEOTA
- * * * * TAUNTON
- * * * * TRACY
- Cottonwood
- Russell

MC LEOD COUNTY

88% Reporting

- * * * * BROWNTON VOL
- * * * * GLENCOE
- * * * * LESTER PRAIRIE
- * * * * PLATO
- * * * * SILVER LAKE
- * * * * STEWART
- * * * * WINSTED
- * * * Hutchinson

MAHNOMEN COUNTY

75% Reporting

- * * * * ELBOW-TULABY LKS
- * * * * MAHNOMEN
- * * * * TWIN LAKES VOL
- * * Waubun

MARSHALL COUNTY

75% Reporting

- * * * * ALVARADO VOL
- * * * * ARGYLE
- * * * * NEWFOLDEN
- * * * * OSLO
- * * * * STEPHEN
- * * * * WARREN
- * Grygla
- * * Middle River

MARTIN COUNTY

89% Reporting

90 91 92 93 94
* * * * * CEYLON
* * * * * DUNNELL
* * * * * FAIRMONT
* * * * * GRANADA
✍ * * * * * NORTHROP
* * * * * SHERBURN
* ✍ * * * * * TRIMONT
* * * * * TRUMAN
✍ * * * * * Welcome

MEEKER COUNTY

83% Reporting

* * * * * DASSEL
* * * * * EDEN VALLEY
✍ * * * * * GROVE CITY
* * * * * LITCHFIELD
* * * * * WATKINS
✍ ✍ * * * * * Cosmos

MILLE LACS COUNTY

83% Reporting

* * * * * FORESTON
* ✍ * * * * * ISLE
* * * * * MILACA
* * * * * ONAMIA
* ✍ * * * * * PRINCETON
* ✍ * * * * * Wahkon

MORRISON COUNTY

82% Reporting

* * * * * BELLE PRAIRIE RRL
✍ ✍ * * * * * BOWLUS
* * * * * LITTLE FALLS
* * * * * MOTLEY
* * * * * PIERZ
* * * * * RANDALL
* * * * * SCANDIA VALLEY
* * * * * SWANVILLE
✍ * * * * * UPSALA
✍ * * * * * Flensburg
* * * * * Royalton

MOWER COUNTY

78% Reporting

90 91 92 93 94
* ✍ * * * * * ADAMS VOL
* * * * * AUSTIN
✍ ✍ * * * * * BROWNSDALE
* ✍ * * * * * GRAND MEADOW
* ✍ * * * * * LE ROY
✍ ✍ * * * * * MAPLEVIEW
* * * * * ROSE CREEK AREA
* * * * * Dexter Vol
* * * * * Lyle

MURRAY COUNTY

88% Reporting

✍ ✍ * * * * * AVOCA
* * * * * CHANDLER
* * * * * CURRIE VOL
* * * * * DOVRAY
* * * * * FULDA
* * * * * LAKE WILSON
* * * * * SLAYTON
* * * * * Iona

NICOLLET COUNTY

(5) - 100% Reporting

* * * * * COURTLAND
* * * * * LAFAYETTE
* * * * * NICOLLET
* * * * * NORTH MANKATO
* * * * * ST PETER

NOBLES COUNTY

90% Reporting

* * * * * ADRIAN
* * * * * BREWSTER
✍ ✍ * * * * * DUNDEE
* * * * * ELLSWORTH
✍ * * * * * LISMORE
* * * * * ROUND LAKE
✍ * * * * * RUSHMORE
* * * * * WILMONT
* * * * * WORTHINGTON
✍ ✍ * * * * * Bigelow

NORMAN COUNTY

88% Reporting

90 91 92 93 94
* * * * * ADA
✍ * * * * * BORUP
✍ * * * * * GARY VOL
* ✍ * * * * * HALSTAD
* * * * * HENDRUM
✍ ✍ * * * * * PERLEY-LEE TWP
* ✍ * * * * * TWIN VALLEY
* * * * * Shelly

OLMSTED COUNTY

(8) - 100% Reporting

* * * * * BYRON
* * * * * DOVER
* * * * * EYOTA VOL.
* * * * * ORONOCO
* * * * * ROCHESTER
* * * * * ROCHESTER AIRPT
* * * * * ROCHESTER RURAL
* * * * * STEWARTVILLE

OTTERTAIL COUNTY

71% Reporting

* * * * * BATTLE LAKE
✍ ✍ * * * * * BLUFFTON
* * * * * DALTON
* * * * * DEER CREEK
* * * * * ELIZABETH
* * * * * FERGUS FALLS
* * * * * HENNING VOL
* * * * * NEW YORK MILLS
* * * * * OTTERTAIL
✍ * * * * * PARKERS PRAIRIE
✍ * * * * * UNDERWOOD
* ✍ * * * * * VERGAS
* ✍ * * * * * Clitherall
* ✍ * * * * * Dent
✍ * * * * * Pelican Rapids Vol
✍ * * * * * Perham
* * * * * Vining

PENNINGTON COUNTY

(3) - 100% Reporting

* * * * * GOODRIDGE AREA
* * * * * ST HILAIRE
* * * * * THIEF RIVER FALLS

PINE COUNTY

80% Reporting

90 91 92 93 94
 * * * * * BROOK PARK
 * * * * * BRUNO
 * * * * * FINLAYSON
 * * * * * HINCKLEY VOL
 * * * * * PINE CITY
 * * * * * SANDSTONE VOL
 * * * * * STURGEON LAKE
 * * * * * WILLOW RIVER
 * * * Askov Vol
 * * * Kerrick

PIPESTONE COUNTY

83% Reporting

* * * * * EDGERTON
 * * * * * HOLLAND
 * * * * * JASPER
 * * * * * PIPESTONE
 * * * * * WOODSTOCK
 * Ruthton

POLK COUNTY

69% Reporting

* * * * * CROOKSTON
 * * * * * EAST GRAND FORKS
 * * * * * ERSKINE
 * * * * * FERTILE
 * * * * * FISHER
 * * * * * FOSSTON
 * * * * * LENGBY
 * * * * * MCINTOSH
 * * * * * MENTOR
 * * * * * Beltrami
 * * * * * Climax
 * * * * * Nielsville
 * * * * * Winger

POPE COUNTY

67% Reporting

* * * * * GLENWOOD
 * * * * * LOWRY
 * * * * * SEDAN
 * * * * * STARBUCK
 * * * * * Cyrus
 * * * * * Villard Vol

RAMSEY COUNTY

(15) - 100% Reporting

90 91 92 93 94
 * * * * * E COUNTY LINE I
 * * * * * E COUNTY LINE II
 * * * * * FALCON HEIGHTS
 * * * * * FIRE MARSHAL
 * * * * * CENT. OFF.
 * * * * * GLADSTONE
 * * * * * HAZELWOOD
 * * * * * LAKE JOHANNA
 * * * * * LITTLE CANADA
 * * * * * NEW BRIGHTON
 * * * * * NORTH ST PAUL
 * * * * * PARKSIDE
 * * * * * ROSEVILLE
 * * * * * ST PAUL
 * * * * * VADNAIS HEIGHTS
 * * * * * WHITE BEAR LAKE

RED LAKE COUNTY

67% Reporting

* * * * * OKLEE
 * * * * * RED LAKE FALLS
 * * * * * Plummer

REDWOOD COUNTY

93% Reporting

* * * * * BELVIEW
 * * * * * CLEMENTS
 * * * * * LAMBERTON
 * * * * * LUCAN
 * * * * * MILROY
 * * * * * MORGAN
 * * * * * REVERE
 * * * * * SANBORN
 * * * * * SEAFORTH
 * * * * * VESTA
 * * * * * WABASSO VOL
 * * * * * WALNUT GROVE
 * * * * * WANDA
 * * * * * Redwood Falls

RENVILLE COUNTY

60% Reporting

* * * * * BIRD ISLAND
 * * * * * FAIRFAX
 * * * * * FRANKLIN
 * * * * * HECTOR

90 91 92 93 94

* * * * * OLIVIA
 * * * * * RENVILLE
 * * * * * Buffalo Lake
 * * * * * Danube
 * * * * * Morton
 * * * * * Sacred Heart

RICE COUNTY

(5) - 100% Reporting

* * * * * FARIBAULT
 * * * * * LONSDALE
 * * * * * MORRISTOWN
 * * * * * NERSTRAND VOL
 * * * * * NORTHFIELD

ROCK COUNTY

83% Reporting

* * * * * BEAVER CREEK
 * * * * * HARDWICK
 * * * * * HILLS
 * * * * * KENNETH VOL
 * * * * * LUVERNE
 * * * * * Magnolia

ROSEAU COUNTY

(4) - 100% Reporting

* * * * * BADGER
 * * * * * GREENBUSH
 * * * * * ROSEAU
 * * * * * WARROAD

ST. LOUIS COUNTY

88% Reporting

* * * * * ALBORN
 * * * * * ALDEN TWP
 * * * * * AURORA
 * * * * * BABBITT VOL
 * * * * * BIWABIK VOL
 * * * * * BIWABIK TWP VOL
 * * * * * BREITUNG
 * * * * * BREVATOR
 * * * * * BRIMSON AREA VOL
 * * * * * BUHL VOL
 * * * * * BUYCK COMM VOL
 * * * * * CANOSIA VOL
 * * * * * CENTRAL LKS VOL
 * * * * * CHERRY TWP

90 91 92 93 94

* * * * * CHISHOLM
 * * * * * CLINTON VOL
 * * * * * COLVIN TWP
 * * * * * COOK
 * * * * * COTTON VOL
 ✎ * * * * * CRANE LAKE
 * * * * * CULVER
 * * * * * DULUTH
 * * * * * EAGLES NEST
 ✎ * * * * * ELLSBURG
 ✎ * * * * * ELMER
 * * * * * ELY
 * * * * * EMBARRASS VOL
 * * * * * EVELETH
 * * * * * EVERGREEN
 * * * * * FAYAL
 ✎ ✎ * * * * * FLOODWOOD
 * * * * * FREDENBERG
 * * * * * FRENCH VOL
 ✎ ✎ * * * * * GRAND LAKE VOL
 * ✎ * * * * * GREENWOOD TWP
 * * * * * HERMANTOWN VOL
 * * * * * HIBBING
 * * * * * HOYT LAKES
 * * * * * INDUSTRIAL VOL
 * ✎ * * * * * KABETOGAMA
 * * * * * KELSEY VOL
 * * * * * KINNEY-GRT SCOTT
 * * * * * LAKELAND VOL
 ✎ ✎ * * * * * LAKEWOOD TWP
 * * * * * MAKINEN
 * * * * * MC DAVITT
 * ✎ * * * * * MC KINLEY VOL
 ✎ ✎ * * * * * MEADOWLNDs AREA
 * * * * * MOUNTAIN IRON
 * * * * * NORTH STAR TWP
 * * * * * NORTHLAND
 * * * * * ORR VOL
 * * * * * PALO TWP
 * * * * * PROCTOR
 ✎ * * * * * RICE LAKE VOL
 ✎ ✎ * * * * * SILICA AREA
 ✎ * * * * * STURGEON TWP
 * * * * * SOLWAY RURAL
 * * * * * TOWER
 * * * * * VERMILLION LK
 * * * * * VIRGINIA
 * * * * * Clifton Twp
 * * * * * Gilbert
 * * * * * Gnesen Vol
 ✎ * * * * * Nett Lake
 ✎ * * * * * Normanna Vol
 ✎ ✎ * * * * * Pequaywan Lake
 * * * * * Pike-Sandy Britt
 ✎ * * * * * Toivola Twp

SCOTT COUNTY

(7) - 100% Reporting

90 91 92 93 94

* * * * * BELLE PLAINE
 * * * * * JORDAN
 * * * * * NEW MARKET
 * * * * * NEW PRAGUE
 * * * * * PRIOR LAKE
 * * * * * SAVAGE
 * * * * * SHAKOPEE

SHERBURNE COUNTY

80% Reporting

* * * * * BIG LAKE
 * * * * * CLEAR LAKE
 * * * * * ELK RIVER
 * * * * * ZIMMERMAN
 * * * * * Becker Vol

SIBLEY COUNTY

(7) - 100% Reporting

✎ * * * * * ARLINGTON
 * * * * * GAYLORD
 * * * * * GIBBON
 * * * * * GREEN ISLE
 * * * * * HENDERSON
 * * * * * NEW AUBURN
 * * * * * WINTHROP VOL

STEARNS COUNTY

92% Reporting

* * * * * ALBANY
 * * * * * AVON
 * * * * * BROOTEN
 * * * * * COLD SPRING
 * * * * * FREEPORT
 * * * * * HOLDINGFORD
 * * * * * KIMBALL
 * ✎ * * * * * LAKE HENRY
 * * * * * MELROSE
 ✎ ✎ * * * * * NEW MUNICH
 * * * * * PAYNESVILLE
 * * * * * RICHMOND
 ✎ * * * * * ROCKVILLE
 * * * * * ST CLOUD
 * * * * * ST CLOUD TWP
 ✎ * * * * * ST JOHN'S UNIV
 * * * * * ST JOSEPH VOL
 ✎ ✎ * * * * * ST MARTIN
 * * * * * ST STEPHEN
 * * * * * SARTELL-LESAUK

90 91 92 93 94

* * * * * SAUK CENTRE
 * * * * * WAITE PARK
 ✎ ✎ * * * * * Belgrade
 ✎ * * * * * Elrosa

STEELE COUNTY

(4) - 100% Reporting

✎ * * * * * BLOOMING PR
 * * * * * ELLENDALE VOL
 * * * * * MEDFORD VOL
 * * * * * OWATONNA

STEVENS COUNTY

(4) - 100% Reporting

* * * * * CHOKIO
 * ✎ * * * * * DONNELLY
 * * * * * HANCOCK
 * * * * * MORRIS

SWIFT COUNTY

75% Reporting

* * * * * APPLETON
 * * * * * BENSON
 ✎ ✎ * * * * * CLONTARF
 * * * * * DANVERS
 ✎ * * * * * HOLLOWAY
 * ✎ * * * * * KERKHOVEN
 Degraff
 Murdock

TODD COUNTY

75% Reporting

* * * * * BROWERVILLE
 * * * * * EAGLE BEND
 * * * * * GREY EAGLE
 * * * * * HEWITT
 * * * * * LONG PRAIRIE
 * * * * * STAPLES
 ✎ ✎ * * * * * Bertha
 * * * * * Clarissa

TRAVERSE COUNTY

25% Reporting

* * * * * DUMONT
 ✎ * * * * * Browns Valley
 Tintah
 * * * * * Wheaton

WABASHA COUNTY

(7) - 100% Reporting

90	91	92	93	94	
*	*	*	*	*	ELGIN
*	*	*	*	*	KELLOGG
*	*	*	*	*	LAKE CITY
*	*	*	*		MAZEPPA VOL
*	*	*	*	*	PLAINVIEW
*	*	*	*	*	WABASHA
*	*	*	*	*	ZUMBRO FALLS

WATONWAN COUNTY

50% Reporting

90	91	92	93	94	
*	*	*	*	*	DARFUR
				*	LASALLE
			*	*	MADELIA
		*	*	*	ODIN
*	*	*	*	*	Butterfield
				*	Lewisville
		*	*	*	Ormsby
*	*	*	*	*	St James

WRIGHT COUNTY

(14) - 100% Reporting

90	91	92	93	94	
*	*	*	*	*	ALBERTVILLE
*	*	*	*	*	ANNANDALE
*	*	*	*	*	BUFFALO
*	*	*	*	*	CLEARWATER
*	*	*	*	*	COKATO
*	*	*	*	*	DELANO VOL
*	*	*	*	*	HOWARD LAKE
*	*	*	*	*	MAPLE LAKE
*	*	*	*	*	MONTICELLO
*	*	*	*	*	MONTROSE
*	*	*	*	*	ROCKFORD
*	*	*	*	*	SOUTH HAVEN
			*	*	ST MICHAEL
*	*	*	*	*	WAVERLY

WADENA COUNTY

50% Reporting

*	*	*	*	*	VERNDALE
*	*	*	*	*	WADENA
	*	*	*	*	Menagha
*	*	*	*	*	Sebeka

WILKIN COUNTY

80% Reporting

*	*	*	*	*	BRECKENRIDGE
		*	*	*	CAMPBELL
	*	*	*	*	ROTHSAY
*	*	*	*	*	WOLVERTON
*	*	*	*	*	Foxhome

YELLOW MEDICINE COUNTY

88% Reporting

*	*	*	*	*	CANBY
*	*	*	*	*	CLARKFIELD
*	*	*	*	*	ECHO
	*	*	*	*	GRANITE FALLS
*	*	*	*	*	HANLEY FALLS
	*	*	*	*	PORTER
*	*	*	*	*	WOODLAKE
*	*	*	*	*	St Leo

WASECA COUNTY

75% Reporting

*	*	*	*	*	JANESVILLE
*	*	*	*	*	NEW RICHLAND
*	*	*	*	*	WASECA
	*	*	*	*	Waldorf

WINONA COUNTY

69% Reporting

*	*	*	*	*	ALTURA
	*	*	*	*	DAKOTA
	*	*	*	*	GOODVIEW
*	*	*	*	*	HIDDEN VALLEY
*	*	*	*	*	LEWISTON
*	*	*	*	*	MINNESOTA CITY
*	*	*	*	*	ROLLINGSTONE
*	*	*	*	*	ST CHARLES
*	*	*	*	*	WINONA
*	*	*	*	*	Nodine Vol
*	*	*	*	*	Pickwick Area
*	*	*	*	*	Ridgeway Comm.
*	*	*	*	*	Wilson Vol

WASHINGTON COUNTY

(15) - 100% Reporting

*	*	*	*	*	BAYPORT
*	*	*	*	*	COTTAGE GROVE
*	*	*	*	*	E COTTAGE GROVE
*	*	*	*	*	FOREST LAKE
*	*	*	*	*	HUGO
*	*	*	*	*	LAKE ELMO
*	*	*	*	*	LWR ST CROIX VLY
*	*	*	*	*	MAHTOMEDI
*	*	*	*	*	MARINE ON ST CROIX
*	*	*	*	*	NEWPORT
*	*	*	*	*	NEW SCANDIA
*	*	*	*	*	OAKDALE
*	*	*	*	*	STILLWATER
*	*	*	*	*	ST PAUL PARK VOL
*	*	*	*	*	WOODBURY

*Ninety-one departments
began participating in
1994.*

We welcome in and welcome back the following departments reporting in 1994:

Alida	Eyota	Kenneth	Pine City
Arco	Fisher	Kensington	Randolph
Ashby	Franklin	Kerkhoven	Raymond
Beardsley	Freeborn	LaSalle	Red Lake Falls
Bearville Twp.	Garfield	Lake Benton	Revere
Bethel	Garrison	Lake Wilson	Riverton
Birchdale Rural	Ghent	Lengby	Rushmore
Biwabik Twp.	Gonvick	Lismore	Sandstone Prison
Boyd	Graceville	Lonsdale	Shevlin
Campbell	Grand Lake	Louisburg	Skyline
Canby	Grasston	Mapleview	Sleepy Eye
Canosia	Hangaard Twp.	Mazeppa	Spicer
Chandler	Hayward	McKinley	St. Charles
Chatfield	Hendricks	McGrath	St. Cloud Twp.
Conger	Hendrum	McIntosh	Stephen
Crane Lake	Hermantown	Mentor	Stewart
Crosby	Holloway	Milan	Taylor's Falls
Culver	Howard Lake	Milroy	Truman
Cuyuna	Ironton	Mission Twp.	Upsala
Dilworth	Karlstad	Myrtle	Wabasso
Dovray	Keewatin	Newfolden	Williams
Elmore	Kelsey	Onamia	Wykoff
Emily	Kennedy	Perley-Lee Twp.	

We lost the following departments in 1994 and would like to welcome them back next year:

Belgrade	Federal Dam	Medicine Lake	St. James
Bigelow	Flensburg	Middle River	Stacy
Buffalo Lake	Geneva	Northome	Toivola Twp.
Cedar-Oak Grove	Gnesen	Pelican Rapids	Vernon Center
Chaska	Kerrick	Redwood Falls	Villard
Clarissa	Long Lake	Ridgeway Comm.	Wahkon
Dennison	Lutsen Twp.	Sebeka	Wanamingo
East Hubbard Co.	Marietta	Springfield	Wheaton

FIRE DEPARTMENT RUNS, DOLLAR LOSSES, AND FIRE DEATHS PER COUNTY IN ORDER OF TOTAL DOLLAR LOSS

In some instances, the protection district of the reporting fire department goes beyond its county boundary, but the incident will still be recorded within the department's home county. (*Fire rate = one fire for number of persons indicated. For example, in Hennepin County in 1994 there was one fire for every 198 people.*)

<u>County</u>	<u>Population</u>	<u>Total Fire Runs</u>	<u>Total Other Runs</u>	<u>Total Co. Dollar Loss</u>	<u>Fire Rate</u>	<u>Average Dollar Loss/Fire</u>	<u>Fire Deaths</u>
Hennepin	1,032,431	5,300	42,904	\$23,440,774	198	\$ 4,493	11
*Dakota	275,227	1,307	5,645	21,168,998	216	16,603	
*Ramsey	485,765	2,856	15,687	16,988,193	172	6,005	8
*Scott	57,846	1,240	5,672	11,268,834	50	9,833	
Anoka	243,641	1,438	8,415	8,481,897	175	6,098	2
Kandiyohi	38,761	202	315	5,044,995	225	29,331	1
Brown	26,984	53	67	4,742,040	529	92,981	1
Mille Lacs	18,670	155	185	4,526,650	123	29,781	1
*Washington	145,896	636	3,876	4,279,751	248	7,278	1
Sherburne	41,945	306	599	2,782,909	150	9,975	
Crow Wing	44,249	284	490	2,361,650	164	8,779	1
Beltrami	34,384	237	542	2,354,255	145	9,934	4
Chisago	30,521	195	167	2,312,600	184	13,931	
Stearns	118,791	469	541	2,178,430	269	4,929	
Carver	47,915	183	1,245	1,939,244	309	12,511	
*Olmsted	106,470	361	1,179	1,712,098	297	4,769	3
*Kanabec	12,802	66	23	1,658,050	221	28,587	
Winona	47,828	181	1,141	1,595,046	267	8,911	
Meeker	20,846	115	152	1,585,451	191	14,545	
*Rice	49,183	192	180	1,518,380	270	8,343	
*Wright	68,710	315	1,146	1,510,750	235	5,174	
*Sibley	14,366	239	395	1,385,696	65	6,242	
Becker	27,881	209	162	1,360,588	163	7,957	
Cottonwood	12,694	55	32	1,324,958	249	25,980	
Blue Earth	54,044	238	1,074	1,248,525	237	5,476	
*Carlton	29,259	289	858	1,201,595	128	5,270	
Itasca	40,863	265	524	1,112,196	182	4,943	
Fillmore	20,777	113	77	1,074,500	191	9,858	
Polk	32,498	154	710	966,585	223	6,620	
Morrison	29,604	109	88	963,100	274	8,918	
*Steele	30,729	131	120	913,992	240	7,141	
*Isanti	25,921	143	308	869,725	192	6,442	
Aitkin	12,425	100	84	855,100	128	8,815	
Clay	50,422	192	1,631	836,395	268	4,449	
Ottertail	50,714	174	99	809,450	315	5,028	
*LeSueur	23,239	129	187	734,000	195	6,168	1
Redwood	17,254	61	9	712,075	359	14,835	
Houston	18,497	78	189	703,400	268	10,194	
Goodhue	40,690	305	751	696,002	137	2,343	
Mower	37,385	121	193	670,260	312	5,586	
Waseca	18,079	71	129	668,150	270	9,972	1
Pine	21,264	137	80	650,000	182	5,556	
Freeborn	33,060	122	169	605,925	287	5,269	
Benton	30,185	109	94	597,285	285	5,635	2
McLeod	32,030	105	116	\$593,580	320	5,936	1

<u>County</u>	<u>Population</u>	<u>Total Fire Runs</u>	<u>Total Other Runs</u>	<u>Total Co. Dollar Loss</u>	<u>Fire Rate</u>	<u>Average Dollar Loss/Fire</u>	<u>Fire Deaths</u>
*Wabasha	19,744	139	141	\$ 590,650	153	\$ 4,579	
Lyon	24,789	95	129	587,654	306	7,255	
*Nicollet	28,076	117	209	545,998	251	4,875	1
St. Louis	198,213	77	78	527,320	2,679	7,126	2
Douglas	28,674	182	262	489,865	168	2,865	1
Wadena	13,154	52	51	466,600	263	9,332	
*Kittson	5,767	91	54	463,250	75	6,016	
Nobles	20,098	75	62	459,350	275	6,292	
*Roseau	15,026	89	31	443,300	173	5,095	
*Faribault	16,937	76	62	440,050	249	6,471	
Cass	21,791	179	130	432,755	122	2,431	
*Pennington	13,306	93	83	402,690	145	4,377	
Koochiching	16,299	66	22	360,580	255	5,634	
*Clearwater	8,309	71	54	358,270	128	5,512	1
Todd	23,363	121	41	354,350	227	3,440	1
*Dodge	15,731	93	42	332,725	175	3,697	
Murray	9,660	37	21	330,350	293	10,011	
*Grant	6,246	16	5	321,500	416	21,433	
Jackson	11,677	45	39	300,000	265	6,818	
Renville	17,673	53	35	292,935	347	5,744	
Rock	9,806	53	34	290,375	223	6,599	
Mahnomen	5,044	88	176	263,338	62	3,251	
Pope	10,745	48	54	254,500	262	6,207	
*Lake	10,415	49	24	248,250	222	5,282	
Swift	10,724	42	47	217,200	290	5,870	
Yellow Medicine	11,684	32	25	180,500	377	5,823	
Wilkin	7,516	29	36	146,550	278	5,428	
Watonwan	11,682	24	25	122,300	487	5,096	
Norman	7,975	52	13	102,850	173	2,236	
Pipestone	10,491	60	25	102,375	191	1,861	
Martin	22,914	66	75	92,800	382	1,547	
Hubbard	14,939	50	22	86,200	311	1,796	
*Chippewa	13,228	40	36	84,500	348	2,224	
Big Stone	6,285	17	5	74,500	370	4,382	
Cook	3,868	13	2	73,500	387	7,350	
Lac Qui Parle	8,924	14	19	56,000	744	4,667	1
*Stevens	10,634	47	18	48,850	236	1,086	
Marshall	10,993	32	23	43,500	440	1,740	
*Lincoln	6,890	34	8	42,300	203	1,244	
*Lake of the Woods	4,076	14	4	26,300	314	2,023	1
Red Lake	4,525	16	1	17,200	302	1,147	
Traverse	4,463	2	0	4,500	2,232	2,250	

* Indicates counties with 100% participation.

FIRE DEPARTMENT RESPONSES AND DOLLAR LOSS AS REPORTED BY MFIRS DATA

City	Total Fire Runs	Total Other Runs	Dollar Loss	City	Total Fire Runs	Total Other Runs	Dollar Loss	City	Total Fire Runs	Total Other Runs	Dollar Loss
ADA	18	1	\$53,690	BEARDSLEY	4	0	\$32,500	BUHL VOL	2	0	\$24,000
ADAMS VOL	9	6	\$72,250	BEARVILLE TWP	6	1	\$10,000	BURNSVILLE	242	1413	\$12,683,442
ADRIAN	8	0	\$50	BEAVER BAY VOL	8	1	\$0	BUYCK COMM VOL	2	0	\$0
AITKIN	45	41	\$634,000	BEAVER CREEK	4	1	\$54,000	BYRON	31	31	\$26,725
ALASKA	5	1	\$84,000	BELLE PLAINE	30	20	\$188,300	CALEDONIA	27	12	\$131,000
ALBANY	9	4	\$0	BELLE PRAIRIE RURAL	25	6	\$116,350	CALLAWAY	12	0	\$100,000
ALBERT LEA	77	165	\$296,825	BELVIEW	8	0	\$0	CALUMET	14	40	\$0
ALBERT LEA TWP	18	0	\$62,200	BEMIDJI	157	528	\$1,674,005	CAMBRIDGE	64	62	\$387,500
ALBERTVILLE	6	38	\$10,000	BENSON	21	46	\$127,700	CAMPBELL	1	0	\$7,000
ALBORN	9	17	\$43,650	BETHEL	11	12	\$55,000	CANBY	5	2	\$46,000
*ALDEN TWP	0	0	\$0	BIG FALLS VOL	5	0	\$28,450	CANNON FALLS	51	232	\$237,762
ALEXANDRIA	68	81	\$100,515	BIG LAKE	48	64	\$465,500	CANOSIA VOL	2	0	\$15,000
ALIDA	6	0	\$3,500	BINGHAM LAKE	5	8	\$1,550	CARLOS	20	44	\$54,000
ALMELUND	23	25	\$137,200	*BIRCHDALERURAL	0	0	\$0	CARLTON VOL	19	26	\$15,000
ALPHA	5	2	\$0	BIRD ISLAND	4	3	\$24,500	CARSONVILLE VOL	25	62	\$147,000
ALTURA	3	1	\$0	BIWABIK TWP VOL	2	0	\$3,500	CARVER	20	65	\$311,969
ALVARADO VOL	6	7	\$1,000	BIWABIK VOL	7	5	\$10,750	CASS LAKE	73	32	\$0
AMBOY	5	34	\$10,000	BLACKDUCK	33	5	\$387,150	CENTENNIAL	55	554	\$50,929
ANDOVER	64	478	\$143,000	BLACKHOOF	21	17	\$19,000	CENTER CITY	8	14	\$154,500
ANNANDALE	34	74	\$128,450	BLOOMING PRAIRIE	29	8	\$386,750	CENTRAL LAKES VOL	2	0	\$0
ANOKA-CHAMPLIN	156	352	\$440,050	BLOOMINGTON	251	753	\$1,471,165	CEYLON	9	4	\$2,750
APPLE VALLEY	147	720	\$700,390	BLUE EARTH	18	23	\$115,850	CHANDLER	4	11	\$26,000
APPLETON	5	0	\$82,400	*BLUFFTON	0	0	\$0	CHANHASSEN	35	455	\$90,500
ARCO	1	0	\$500	BORUP	2	0	\$0	CHATFIELD	24	5	\$38,000
ARGYLE	8	17	\$9,200	BOVEY	22	51	\$15,790	CHERRY TWP	7	24	\$21,500
ARLINGTON	13	15	\$84,200	BOWLUS	6	0	\$158,000	CHISHOLM	26	60	\$249,000
*ASHBY	0	0	\$0	BOYD	1	4	\$0	CHOKIO	5	0	\$27,100
ATWATER	14	3	\$85,900	BRAHAM	4	0	\$26,500	CLARA CITY	7	6	\$12,350
AUDUBON	33	3	\$194,350	BRAINERD CITY	141	306	\$1,644,661	CLAREMONT	9	0	\$2,250
AURORA	15	14	\$73,100	BRECKENRIDGE	15	24	\$115,050	CLARKFIELD	11	13	\$0
AUSTIN	89	182	\$377,410	BREITUNG	8	0	\$1,000	CLEAR LAKE	28	61	\$201,250
AVOCA	3	0	\$50,000	BREVATOR	15	1	\$7,100	CLEARBROOK	15	32	\$111,000
AVON	9	27	\$118,000	BREWSTER	3	0	\$16,250	CLEARWATER	25	132	\$34,500
BABBITT VOL	15	15	\$21,500	BRICELYN	7	1	\$195,000	CLEMENTS	0	1	\$0
BACKUS VOL	9	5	\$25,500	BRIMSON AREA VOL	6	0	\$0	CLEVELAND	11	20	\$114,000
BADGER	9	1	\$212,200	BROOK PARK	12	0	\$3,650	CLINTON VOL	8	0	\$5,300
BAGLEY	37	22	\$180,520	BROOKLYN CENTER	119	590	\$861,080	CLONTARF	3	0	\$0
BALATON	4	1	\$7,000	BROOKLYN PARK	258	771	\$465,445	CLOQUET	86	452	\$499,200
BALSAM VOL	11	38	\$32,106	BROOTEN	18	11	\$7,100	COHASSET	34	53	\$52,050
BARNESVILLE	19	13	\$0	BROWERVILLE	31	5	\$135,900	COKATO	18	29	\$12,300
BARNUM VOL	25	1	\$55,000	BROWNSDALE	9	3	\$40,000	COLD SPRING	14	9	\$14,125
*BARRETT	0	0	\$0	BROWNSVILLE	7	35	\$60,000	COLERAINE	16	55	\$0
BATTLE LAKE	7	2	\$0	BROWNTON VOL	13	42	\$0	COLOGNE	14	62	\$201,000
BAUDETTE	12	4	\$26,300	BRUNO	9	0	\$6,500	COLUMBIA HEIGHTS	89	1614	\$318,300
BAYPORT	15	211	\$20,000	BUFFALO	44	79	\$253,950	COLVIN TWP	8	3	\$4,000

City	Total Fire Runs	Total Other Runs	Dollar Loss	City	Total Fire Runs	Total Other Runs	Dollar Loss	City	Total Fire Runs	Total Other Runs	Dollar Loss
COMFREY	7	2	\$21,550	EAST GRAND FORKS	38	522	\$98,950	FRAZEE	45	3	\$59,000
CONGER	7	0	\$11,200	EASTON VOL	4	12	\$12,000	FREDENBERG	12	29	\$26,000
COOK	25	16	\$597,100	ECHO	0	1	\$0	FREEBORN	3	1	\$40,500
COON RAPIDS	326	2585	\$2,140,251	EDEN PRAIRIE	164	900	\$1,043,130	FREEPORT	1	0	\$25,000
COTTAGE GROVE	88	1303	\$592,055	EDEN VALLEY	24	0	\$187,350	FRENCH TWP VOL	5	1	\$17,500
COTTON VOL	9	31	\$0	EDGERTON	16	6	\$17,525	FRIDLEY	200	1306	\$165,567
COURTLAND	5	28	\$38,500	EDINA	109	3274	\$1,257,350	FROST	4	0	\$82,500
CRANE LAKE	2	4	\$15,000	ELBOW LAKE	1	0	\$100,000	FULDA	9	2	\$166,000
CROMWELL VOL	17	3	\$21,970	ELBOW-TULABY LKS	1	1	\$0	GARFIELD	6	8	\$31,500
CROOKED LAKE VOL	2	0	\$500	ELGIN	16	1	\$20,000	GARRISON	33	77	\$24
CROOKSTON	48	122	\$529,185	ELIZABETH	10	2	\$6,000	GARVIN	4	1	\$0
CROSBY VOL	34	28	\$235,800	ELK RIVER	105	241	\$485,146	GARY VOL	3	1	\$24,500
CROSSLAKE	2	5	\$36,000	ELLENDALE VOL	14	8	\$0	GAYLORD	15	6	\$84,050
CRYSTAL	102	610	\$890,100	ELLSBURG VOL	1	1	\$0	GHENT	5	0	\$1,500
CULVER	15	1	\$91,100	ELLSWORTH	4	17	\$86,000	GIBBON	10	1	\$73,250
CURRIE VOL	9	3	\$55,350	*ELMER	0	0	\$0	GLADSTONE	34	819	\$98,220
*CUYUNA	0	0	\$0	ELMORE	1	0	\$2,000	GLADSTNE/HAZELWD	30	714	\$215,850
DAKOTA	5	1	\$60,000	ELY	45	19	\$464,100	GLENCOE	46	27	\$191,038
DALBO	18	56	\$91,100	ELYSIAN	18	24	\$13,000	GLENWOOD	23	24	\$216,500
DALTON	2	1	\$50,150	EMBARRASS VOL	8	29	\$15,250	GLYNDON VOL	13	8	\$0
DANVERS	7	1	\$7,100	EMILY VOL	6	12	\$51,200	GOLDEN VALLEY	82	476	\$177,350
DARFUR	1	6	\$0	ERSKINE	15	3	\$44,500	GONVICK	4	0	\$40,000
DASSEL	35	117	\$141,700	EVANSVILLE	18	50	\$2,050	GOOD THUNDER	14	27	\$35,000
DAWSON	7	0	\$55,500	EVELETH	22	50	\$8,100	GOODHUE	26	5	\$128,900
DAYTON	27	106	\$194,785	EVERGREEN	8	0	\$2,000	GOODLAND	2	15	\$0
DEER CREEK	6	24	\$0	EXCELSIOR	46	487	\$331,325	GOODRIDGE AREA	19	2	\$0
DEER RIVER	33	37	\$170,000	EYOTA VOL	4	9	\$300	GOODVIEW	10	4	\$77,000
DEERWOOD	13	13	\$69,500	FAIRFAX	13	0	\$60,220	GRACEVILLE	4	1	\$0
DELANO VOL	21	269	\$68,000	FAIRMONT	63	104	\$417,880	GRANADA	1	0	\$0
DELAVAN VOL	5	1	\$2,100	FALCON HEIGHTS	26	340	\$39,650	GRAND LAKE VOL	28	13	\$294,800
DETROIT LAKES	65	81	\$719,238	FARIBAULT	94	140	\$443,430	GRAND MEADOW	6	0	\$150,100
DILWORTH	19	23	\$88,050	FARMINGTON	49	54	\$0	GRAND RAPIDS	100	135	\$790,850
DODGE CENTER	17	6	\$12,075	FAYAL	12	76	\$33,500	GRANITE FALLS	1	0	\$0
DONNELLY	2	0	\$0	FERGUS FALLS	67	53	\$280,400	*GRASSTON	0	0	\$0
DOVER	5	10	\$16,000	FERTILE	22	15	\$265,550	GREEN ISLE	12	14	\$57,500
DOVRAY	1	1	\$0	FINLAND	8	3	\$83,000	GREENBUSH	12	1	\$67,500
DULUTH	501	4639	\$7,612,820	FINLAYSON	15	43	\$21,500	GREENWOOD TWP VOL	12	53	\$88,000
DUMONT	2	0	\$4,500	FISHER	4	0	\$1,200	GREY EAGLE	14	0	\$44,450
DUNDEE	2	4	\$0	FLOODWOOD	14	3	\$60,500	GROVE CITY	9	0	\$1,049,500
DUNNELL.-LK FREMNT	8	3	\$7,300	FOLEY	60	33	\$395,085	GUNFLINT TRAIL VOL	6	0	\$72,500
E COUNTY LINE I	66	1146	\$438,750	FORADA TWP	7	11	\$120,000	HACKENSACK AREA	9	6	\$58,500
E COUNTY LINE II	12	681	\$10,150	FOREST LAKE	114	154	\$796,150	HALLOCK	24	12	\$5,000
EAGAN	145	493	\$1,126,290	FORESTON	9	40	\$350	HALSTAD	6	3	\$2,400
EAGLE BEND	6	1	\$1,100	FORT SNELLING	20	490	\$24,550	HAM LAKE	61	240	\$295,075
EAGLE LAKE VOL	14	66	\$9,500	FOSSTON	3	0	\$2,200	HAMBURG	7	34	\$36,500
EAGLES NEST	2	1	\$100	FOUNTAIN	4	6	\$1,100	HAMEL	4	0	\$12,900
EAST BETHEL	43	312	\$428,600	FRANKLIN	4	0	\$19,750	HAMPTON	2	0	\$800

<u>City</u>	<u>Total Fire Runs</u>	<u>Total Other Runs</u>	<u>Dollar Loss</u>	<u>City</u>	<u>Total Fire Runs</u>	<u>Total Other Runs</u>	<u>Dollar Loss</u>	<u>City</u>	<u>Total Fire Runs</u>	<u>Total Other Runs</u>	<u>Dollar Loss</u>
*HANCOCK	14	1	\$4,150	JACOBSON	5	11	\$12,000	LESUEUR	34	13	\$215,200
HANGAARD TWP	0	0	\$0	JANESVILLE	23	74	\$130,500	LEWISTON	18	8	\$96,800
HANLEY FALLS	3	0	\$35,000	JASPER	17	4	\$28,500	LEXINGTON	6	10	\$100
HANOVER	22	81	\$5,700	JORDAN	33	39	\$131,500	LINDSTROM	24	17	\$0
HARDWICK	1	0	\$25,000	KABETOGAMA	0	2	\$0	LINWOOD VOL	42	107	\$73,400
HARMONY	12	4	\$29,000	KANDIYOHI	15	44	\$181,000	LISMORE	5	1	\$6,000
HARRIS	14	3	\$71,000	KARLSTAD VOL	31	27	\$263,000	LITCHFIELD	45	35	\$131,901
*HARTLAND	0	0	\$0	KASOTA	2	0	\$60,000	LITTLE CANADA	64	110	\$895,500
HASTINGS	136	353	\$450,620	KASSON	24	18	\$110,950	LITTLE FALLS	3	0	\$5,000
HAWLEY	22	10	\$61,800	KEEWATIN VOL	14	60	\$36,900	LITTLEFORK	17	6	\$23,080
HAYFIELD	27	9	\$106,950	KELLIHER VOL	4	0	\$17,000	LONDON	2	0	\$6,000
HAYWARD	1	0	\$10,000	KELLOGG	14	0	\$0	LONG PRAIRIE	41	14	\$0
HECTOR	7	9	\$13,000	KELSEY VOL	4	0	\$8,700	LONGVILLE VOL	13	12	\$0
HENDERSON	7	25	\$51,400	KENNEDY	12	6	\$110,100	LONSDALE	30	4	\$522,500
HENDRICKS	0	1	\$0	KENNETH VOL	1	0	\$0	LORETTO VOL	6	0	\$187,000
HENDRUM	5	2	\$0	KENSINGTON	10	0	\$1,700	*LOUISBURG	0	0	\$0
HENNING VOL	16	8	\$59,500	KERKHOVEN	6	0	\$0	LOWER ST CROIX VLY	20	185	\$110,000
HERMAN VOL	3	0	\$146,000	KETTLE RIVER	7	1	\$76,350	LOWRY	6	3	\$0
HERMANTOWN VOL	6	30	\$23,700	KIESTER	4	1	\$1,500	LUCAN	4	0	\$200,000
HERON LAKE VOL	4	9	\$38,000	KILKENNY	13	14	\$128,000	LUVERNE	43	33	\$210,875
HEWITT	1	0	\$0	KIMBALL	22	93	\$205,000	LYND	1	0	\$1,000
HIBBING	117	125	\$246,859	KINNEY-GREAT SCOTT	6	8	\$0	MABEL VOL	9	0	\$109,000
HIDDEN VALLEY	2	6	\$125	LACRESCENT	12	129	\$40,000	MADELIA	19	17	\$60,100
HILL CITY	15	8	\$0	LAFAYETTE	14	8	\$31,528	MADISON	6	15	\$500
HILLS	4	0	\$500	LAKE BENTON	20	0	\$1,500	MADISON LAKE	9	46	\$16,900
HINCKLEY VOL	44	25	\$286,550	LAKE BRONSON	13	7	\$25,000	MAHNOMEN	23	18	\$38,000
HITTERDAL	5	0	\$50,000	LAKE CITY	30	32	\$105,500	MAHTOMEDI	26	259	\$148,375
HOFFMAN	6	0	\$35,200	LAKE CRYSTAL	20	23	\$30,300	MAHTOWA	14	0	\$314,700
HOLDINGFORD	3	1	\$110,000	LAKE ELMO	28	269	\$154,250	MAKINEN	3	1	\$0
HOLLAND	6	0	\$17,500	LAKE HENRY	1	2	\$0	MANCHESTER	7	2	\$178,000
HOLLANDALE	5	1	\$1,000	LAKE JOHANNA VOL	99	324	\$1,648,750	MANKATO	127	733	\$922,025
HOLYOKE VOL	3	0	\$1,300	LAKELILLIAN	11	7	\$0	MANTORVILLE	10	9	\$100,500
HOPKINS	48	600	\$529,300	LAKE PARK	12	8	\$37,000	MAPLE GROVE	121	404	\$933,215
HOUSTON	16	3	\$17,600	LAKE WILSON	3	0	\$11,000	MAPLE LAKE	22	22	\$61,000
HOVLAND	2	0	\$0	LAKEFIELD	12	2	\$15,000	MAPLE PLAIN	51	229	\$242,850
HOWARD LAKE	26	18	\$178,900	LAKELAND VOL	1	1	\$0	MAPLETON	21	69	\$191,050
HOYT LAKES	10	4	\$13,250	LAKEVILLE	107	340	\$1,089,221	MAPLEVIEW	1	0	\$0
HUGO	22	152	\$215,100	LAKESWOOD TWP	13	33	\$40,000	MARBLE	0	16	\$0
IDEAL TWP	9	4	\$145,000	LAMBERTON	6	3	\$255,300	MARINE ON ST CROIX	11	40	\$0
INDUSTRIAL VOL	13	25	\$43,000	LANCASTER	11	2	\$60,150	MARSHALL	47	103	\$283,454
INTERNATIONAL FLLS	44	16	\$309,050	LANESBORO	10	18	\$103,000	MAYER	17	39	\$70,000
INVER GROVE HGTS	134	137	\$521,250	LAPORTE/LAKEPORT	10	3	\$40,300	MAYNARD	6	4	\$200
IRONTON	2	0	\$104,000	LASALLE	0	1	\$0	MAZEPPA VOL	10	33	\$36,000
ISANTI VOL	57	190	\$364,625	LE CENTER	21	12	\$131,200	MC DAVITT	10	22	\$98,000
ISLE	21	0	\$225,900	LE ROY	4	2	\$0	MC GREGOR VOL	19	22	\$159,100
IVANHOE	7	0	\$19,800	LEAF VALLEY TWP	5	0	\$0	MC KINLEY VOL	3	0	\$101,000
JACKSON	24	26	\$247,000	LESTER PRAIRIE	6	64	\$37,800	MCGRATH	7	0	\$50,000

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MCINTOSH	9	0	\$0	NEW YORK MILLS	18	5	\$54,600	PORTER	8	9	\$81,000
MEADOWLANDS AREA	5	1	\$47,500	NEWFOLDEN	21	6	\$17,200	PRESTON	8	8	\$42,000
MEDFORD VOL	4	1	\$1,500	NEWPORT	37	61	\$16,700	PRINCETON	78	107	\$4,053,000
MELROSE	20	38	\$77,700	NICOLLET	28	72	\$166,200	PRINSBURG	3	0	\$53,500
MENDOTA HEIGHTS	47	221	\$1,425,725	NISSWA	13	1	\$0	PRIOR LAKE	48	84	\$202,509
MENTOR	15	48	\$25,000	NORTH BRANCH	47	37	\$126,700	PROCTOR	30	15	\$107,000
MIESVILLE VOL	3	1	\$0	NORTH MANKATO	32	64	\$134,720	RAMSEY	74	149	\$415,800
MILACA	32	24	\$126,900	NORTH ST PAUL	42	133	\$132,375	RANDALL	14	5	\$21,300
MILAN	5	0	\$500	NORTH STAR TWP	4	1	\$5,000	RANDOLPH	18	1	\$80,700
MILROY	4	1	\$20,000	NORTHFIELD	56	35	\$497,400	RAYMOND	17	5	\$4,033,770
MILTONA	18	34	\$136,900	NORTHLAND	3	0	\$16,200	RED LAKE FALLS	4	1	\$16,700
MINNEAPOLIS	2791	22740	\$11,228,605	*NORTHROP	0	0	\$0	RED LAKE	38	8	\$192,100
MINNEOTA	14	6	\$195,700	NORWOOD	9	16	\$0	RED WING	181	392	\$296,940
MINNESOTA CITY	3	2	\$0	OAKDALE	33	388	\$655,000	REMER	13	9	\$90,500
MINNESOTA LAKE	11	3	\$4,100	ODESSA	2	1	\$42,000	RENVILLE	12	14	\$31,865
MINNETONKA	144	664	\$616,530	ODIN	4	1	\$62,200	REVERE	1	1	\$2,000
MISSION TWP	9	29	\$4,315	OGILVIE	22	7	\$29,700	RICE LAKE VOL	25	81	\$41,500
MONTEVIDEO	19	26	\$62,450	OKLEE	12	0	\$500	RICHFIELD	184	2768	\$487,485
MONTGOMERY	17	16	\$0	OLIVIA	13	9	\$143,600	RICHMOND	6	0	\$31,300
MONTICELLO	34	136	\$78,250	ONAMIA	15	14	\$120,500	RIVERTON	3	0	\$2,150
MONTROSE	20	103	\$0	ORONOCO	4	0	\$1,500	ROBBINSDALE	60	231	\$26,500
MOORHEAD	98	1567	\$499,225	ORR VOL	14	2	\$117,000	ROCHESTER	242	1014	\$904,923
MOOSE LAKE	24	206	\$34,950	ORTONVILLE	7	3	\$0	ROCHESTER AIRPORT	1	34	\$0
MORA	44	16	\$1,628,350	OSAKIS	30	34	\$43,200	ROCHESTER-RURAL	55	69	\$614,050
MORGAN	10	1	\$42,500	OSLO	6	15	\$0	ROCKFORD	26	163	\$0
MORRIS	26	17	\$17,600	OSSEO	5	0	\$20,200	ROCKVILLE	22	38	\$88,500
MORRISTOWN	5	1	\$5,050	OSTRANDER	4	0	\$0	ROGERS	46	177	\$424,000
MOTLEY	22	69	\$29,400	OTTERTAIL	17	1	\$135,900	ROLLINGSTONE	5	31	\$5,000
MOUND	42	589	\$347,900	OWATONNA	84	103	\$525,742	ROSE CREEK AREA	3	0	\$30,500
MOUNTAIN IRON	16	20	\$12,770	PALISADE VOL	9	2	\$0	ROSEAU	44	12	\$0
MOUNTAIN LAKE	2	0	\$554,000	PALO REGIONAL	21	38	\$147,500	ROSEMOUNT	53	292	\$2,276,500
MPLS/ST PAUL AIRPT	64	2111	\$2,000	PARK RAPIDS	40	19	\$45,900	ROSEVILLE	154	561	\$6,321,080
MYRTLE	2	0	\$200	PARKERS PRAIRIE	2	0	\$110,000	ROTHSAY	8	11	\$24,500
NASHWAUK	9	23	\$3,500	PARKSIDE	27	446	\$45,150	ROUND LAKE	10	2	\$71,000
*NASSAU	0	0	\$0	PAYNESVILLE	17	4	\$43,500	RUSH CITY	31	23	\$1,361,150
NERSTRAND VOL	7	0	\$50,000	PEQUOT LAKES	19	15	\$69,000	RUSHFORD	18	8	\$430,000
NEW AUBURN	5	1	\$43,500	PERCH LAKE VOL	12	24	\$10,500	RUSHMORE	3	0	\$6,000
NEW BRIGHTON	74	270	\$0	PERLEY-LEE TWP	0	0	\$0	SABIN-ELMWOOD	7	7	\$100,000
NEW GERMANY	7	30	\$0	PIERZ	30	8	\$471,550	SANBORN	4	0	\$78,000
NEW HOPE	91	638	\$169,537	PILLAGER AREA	14	56	\$33,700	SANDSTONE VOL	32	1	\$107,700
NEW LONDON	27	22	\$206,800	PINE CITY	0	1	\$0	SARTELL	29	22	\$82,950
NEW MARKET	17	62	\$216,000	PINE ISLAND	31	109	\$9,300	SAUK CENTRE	37	21	\$118,100
NEW MUNICH	1	5	\$0	PINE RIVER	28	10	\$78,000	SAUK RAPIDS	49	61	\$202,200
NEW PRAGUE	32	21	\$176,050	PIPESTONE	17	15	\$38,300	SAVAGE	48	160	\$265,150
NEW RICHLAND	16	2	\$107,650	PLAINVIEW	20	7	\$17,550	SCANDIA VALLEY	2	0	\$0
NEW SCANDIA	30	98	\$136,950	PLATO	8	31	\$16,400	SCANLON VOL	11	34	\$15,600
NEW ULM	36	64	\$361,490	PLYMOUTH	184	694	\$893,745	SCHROEDER	1	0	\$1,000

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SEAFORTH	5	1	\$0	STEWART	1	0	\$5,500	WARREN	22	28	\$65,400
SEDAN	6	2	\$0	STEWARTVILLE	19	12	\$148,600	WARROAD	24	17	\$163,600
SHAFER	8	2	\$1,500	STILLWATER	82	459	\$284,101	WASECA	32	53	\$430,000
SHAKOPEE	98	213	\$1,603,400	STURGEON LAKE	11	3	\$50,000	WATERTOWN	21	154	\$825,600
SHERBURN	10	1	\$61,900	STURGEON TWP	1	0	\$0	WATERVILLE	13	88	\$72,600
SHEVLIN	9	0	\$23,250	SWANVILLE	3	0	\$161,500	WATKINS	2	0	\$75,000
SILICA AREA	0	0	\$0	TACONITE	2	0	\$1,000	WATSON	3	0	\$9,000
SILVER BAY	8	15	\$63,500	*TAUNTON	0	0	\$0	WAVERLY	17	73	\$95,000
SILVER LAKE	11	12	\$12,100	TAYLORS FALLS	10	10	\$0	WAYZATA	28	148	\$36,000
*SKYLINE	0	0	\$0	THIEF RIVER FALLS	61	75	\$337,690	WELLS	8	9	\$18,500
SLAYTON	8	4	\$22,000	THOMPSON TWP	33	76	\$40,700	WENDELL	6	5	\$40,300
SLEEPY EYE	10	1	\$4,359,000	TOFTE	4	2	\$0	WEST CONCORD	6	0	\$0
SOLWAY TWP	16	28	\$66,200	TOWER	5	0	\$112,560	WEST ST PAUL	101	345	\$691,760
SOUTH BEND	17	23	\$33,500	TRACY	20	18	\$99,000	WESTBROOK	4	8	\$5,500
SOUTH HAVEN	20	10	\$89,400	TRIMONT	6	0	\$21,800	WHITE BEAR LAKE	111	264	\$419,725
SOUTH ST PAUL	123	1275	\$122,300	TRUMAN	8	4	\$81,950	WILLIAMS	2	0	\$0
SPICER	19	13	\$214,400	TWIN LAKES VOL	8	4	\$5,500	WILLMAR	96	221	\$269,625
SPRING GROVE	16	10	\$454,800	TWIN VALLEY	18	6	\$22,260	WILLOW RIVER	14	7	\$174,100
SPRING LAKE PARK	292	511	\$3,943,825	TWO HARBORS	25	5	\$101,750	WILMONT	4	1	\$0
SPRING VALLEY	18	27	\$322,400	TYLER	6	7	\$20,500	WINDOM	44	16	\$763,908
ST ANTHONY	25	604	\$30,211	ULEN	9	3	\$37,320	WINNEBAGO VOL	12	12	\$5,500
ST BONIFACIUS	21	92	\$67,910	UNDERWOOD	19	2	\$61,000	WINONA	124	1083	\$1,273,421
ST CHARLES	11	5	\$82,700	UPSALA	4	0	\$0	WINSTED	3	0	\$500
ST CLAIR	11	53	\$250	VADNAIS HEIGHTS	44	420	\$91,800	WINTHROP VOL	15	16	\$133,420
ST CLOUD	144	17	\$818,205	VERGAS	10	1	\$51,900	WOLF LAKE	17	5	\$104,000
ST CLOUD TWP	41	14	\$130,500	VERMILLIONLAKE	3	0	\$31,000	WOLVERTON	5	1	\$0
ST FRANCIS	19	185	\$12,000	VERNDALE	21	37	\$430,500	WOODBURY	99	257	\$998,350
ST HILAIRE	13	6	\$65,000	VESTA	4	0	\$15,200	WOODLAKE	4	0	\$18,500
ST JOHN'S UNIVERSITY	3	21	\$5,000	VICTORIA	21	123	\$86,750	WOODSTOCK	4	0	\$550
ST JOSEPH VOL	29	137	\$87,600	VIRGINIA	56	130	\$184,825	WORTHINGTON	36	37	\$274,050
ST LOUIS PARK	185	1677	\$462,906	WABASHA	25	16	\$231,200	WRENSHALL	16	18	\$57,325
ST MARTIN	5	6	\$3,000	WABASSO VOL	3	0	\$70,000	WRIGHT VOL	1	0	\$40,000
ST MICHAEL	2	0	\$501,000	WACONIA	21	202	\$316,925	WYKOFF	6	1	\$0
ST PAUL	2068	9459	\$6,475,193	WADENA	31	14	\$36,100	WYOMING	30	36	\$460,550
ST PAUL PARK VOL	31	40	\$152,720	WAITE PARK	21	28	\$82,450	YOUNG AMERICA	11	65	\$0
ST PETER	38	37	\$175,050	WALKER	18	0	\$146,055	ZIMMERMAN	58	29	\$233,800
ST STEPHEN	17	43	\$130,400	WALNUT GROVE	9	0	\$14,575	ZUMBRO FALLS	24	52	\$180,400
STAPLES	28	21	\$172,900	WALTERS VOL	2	0	\$1,000	ZUMBROTA	16	13	\$23,100
STARBUCK	13	25	\$38,000	WANDA	3	1	\$14,500				
STEPHEN	3	2	\$0	WARBA	2	0	\$0				

*These fire departments reported no fire/nonfire runs for 1994.

NON-REPORTING FIRE DEPARTMENTS

ALDEN
ASKOV
BECKER
BELGRADE
BELLINGHAM
BELTRAMI
BENA
BERTHA
BIGELOW
BIGFORK
BLOMKEST
BRANDON
BROWNS VALLEY
BUFFALO LAKE
BUTTERFIELD
CANTON
CEDAR-OAK GROVE
CHASKA
CHISAGO CITY
CLARISSA
CLARKS GROVE
CLIFTON TWP.
CLIMAX
CLINTON
CLITHERALL
CORRELL
COSMOS
COTTONWOOD
CYRUS
DANUBE
DEGRAFF

DENNISON
DENT
DEXTER
EAST HUBBARD CO.
EITZEN
ELROSA
EMMONS
FEDERAL DAM
FELTON COMM.
FIFTY LAKES
FLENSBURG
FOXHOME
GENEVA
GILBERT
GLENVILLE
GNESEN
GRAND MARAIS
GRAND PORTAGE
GREENLEAF
GRYGLA
HANSKA
HOKAH
HUTCHINSON
IONA
JEFFERS
KENYON
KERRICK
LAKE GEORGE
LEWISVILLE
LOMAN RURAL
LONG LAKE

LUTSEN TWP.
LYLE
MAGNOLIA
MAPLE HILL
MARIETTA
MEDICINE LAKE
MENAGHA
MIDDLE RIVER
MILLERVILLE
MORTON
MURDOCK
NETT LAKE
NEVIS
NIELSVILLE
NODINE
NORMANNA
NORTHOME
OGEMA
OKABENA
ORMSBY
PELICAN RAPIDS
PEMBERTON
PENNOCK
PEQUAYWAN LAKE
PERHAM
PICKWICK AREA
PIKE-SANDY BRITT
PLUMMER
REDWOOD FALLS
RICE
RIDGEWAY COMM.

ROYALTON
RUSSELL
RUTHTON
SACRED HEART
SEBEKA
SHELLY
SOLWAY
SPRINGFIELD
SQUAW LAKE
ST. JAMES
ST. LEO
STACY
STORDEN
SUNBURG
TAMARACK
TINTAH
TOIVOLA TWP.
TWIN LAKES
VERNON CENTER
VILLARD
VINING
WAHKON
WALDORF
WANAMINGO
WAUBUN
WELCOME
WHEATON
WHITE EARTH
WILSON
WINGER

STATE FIRE MARSHAL ANNUAL REPORT



TO: All Minnesota Fire Chiefs, Fire Service, State and Local Officials

FROM: Thomas R. Brace, State Fire Marshal *T R B*

SUBJECT: State Fire Marshal Annual Report 1994

This has truly been another record year of challenges for the Division. We continue to work with reduced staff and at an accelerated pace. Our dedicated Deputies in the field and in the office deserve a special thanks for all their hard work and commitment to furthering the fire and life safety of Minnesota citizens.

Our Investigation Team conducted nearly 700 investigations in 1994, and nearly one-third of them were determined to be arson. Arson is the leading cause of dollar loss from fire in the state and is one of our targeted goals for 1995/96.

The Fire Safety Inspection Team found and had corrections completed on nearly 20,000 violations in mandated facilities inspections in 1994. Team members inspected 5,322 facilities and conducted an additional 1,967 follow-up inspections. On average, that is 331 inspections per deputy per year.

A new inspection reporting system was implemented by our data team, pilot tested by five deputies and fully implemented in January of 1995. The information that we now collect will enable us to identify specific common violations that occur and any recurring violations between inspection cycles. We are proud of the effort of these two teams.

The School Inspection Program was able to add a plan reviewer position in headquarters for the purpose of ensuring that all major school projects were being reviewed for compliance with building and/or fire codes. The first three-year inspection cycle of Minnesota schools will be completed in 1995.

The Hazardous Materials Regional Response Team Program, in cooperation with the Department of Emergency Management, chose sites for four Emergency Response Teams and Six Chemical Assessment Teams.

The Fire Sprinkler Licensing Program was initiated in 1994 and began the renewal process in June of 1995. A full report of this program activity will be forthcoming.

Replacing the former Chief Deputy position are two newly formed Bureaus. One has responsibility for fire inspection services and the other regulation and plan review, code specialties, public information and data analysis.

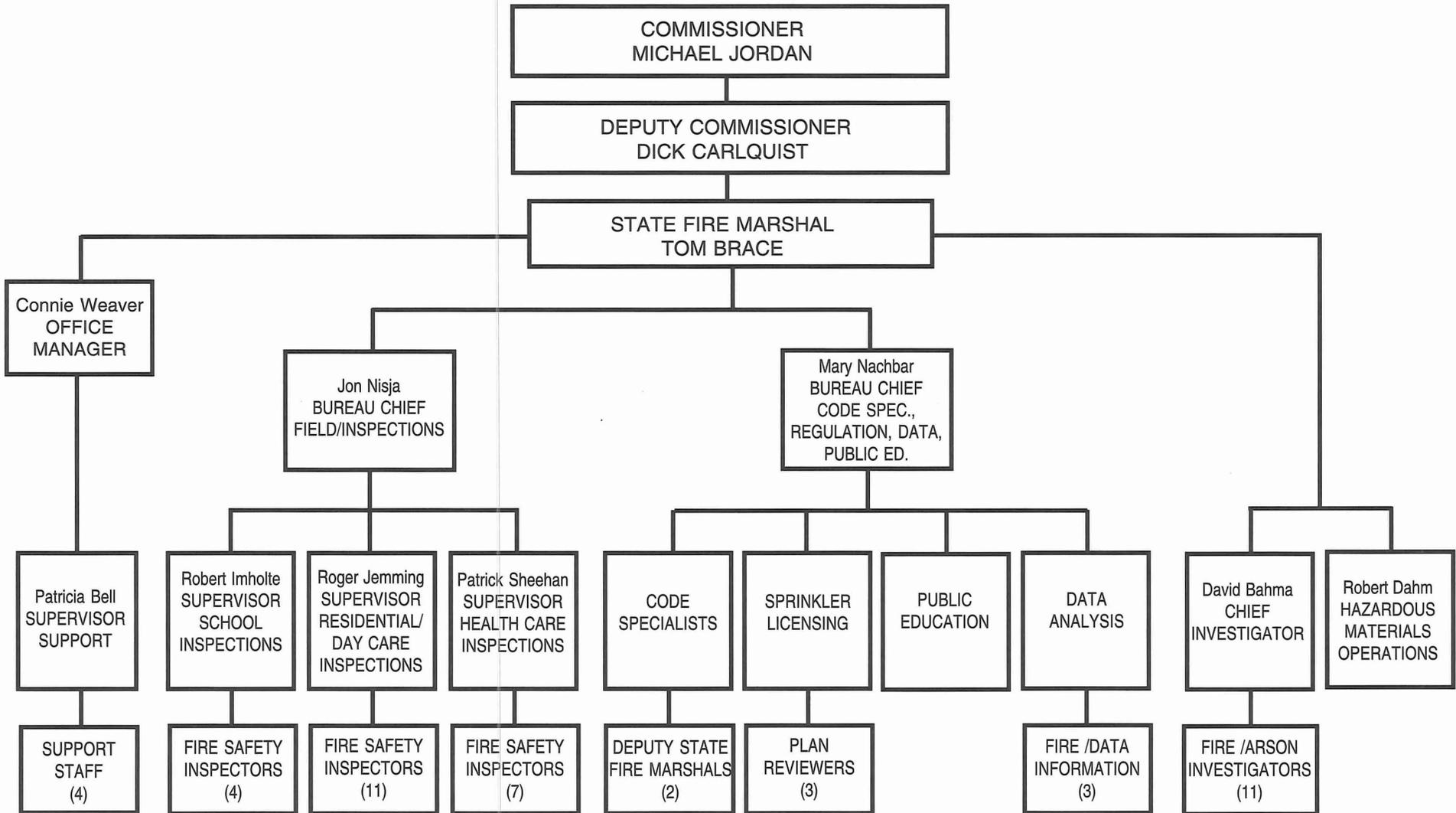
I would like to thank the fire service for its support over the past year and promise our commitment of service to fire departments and the public by providing timely and accurate data to define the fire problem in Minnesota. I sincerely hope you find this report of value.

BRIEF HISTORY OF THE STATE FIRE MARSHAL DIVISION

1992 New program added to license fire sprinkler contractors, designers, and fitters.	1992 New program to develop operation of Hazardous Material Response Teams.	1993 Legislative action updated arson statutes. Legislation requires a smoke detector in every dwelling.	1995 Licensing of operators of public fireworks displays. 1 fire investigator position added.
1978 10 additional positions to implement hotel/motel/resort inspection program.	1980 MN first state in nation to require smoke detectors in new and rental residential properties.	1989 10/2/89 - the 1988 MUFC was adopted. 3 more positions added to SFM Division: 2 day care inspectors, 1 public educator/data.	1990 Legislation added 5 new positions to SFMD to conduct school inspections in Minnesota.
1969 Legislative action created a Department of Public Safety.	1970 SFM Department moved into DPS to be known as SFM Division.	1975 Legislature authorized adoption of Minnesota UFC.	1978-79 Legislation action enabled local FD's to enforce UFC without local adoption.
1925 Legislative action made Commissioner of Insurance the Ex-Officio SFM.	1937 Tax levy to fund SFM Department was raised to 1/2% of all ins. premiums to include Town Fire Ins. Co. and Farmers Mutuals.	1941 Legislature directed all monies collected by SFM for tax and license fees, etc., to be turned over to General Fund. FM Dept. to be operated under an appropriation by legislative action.	
1907 Amendment authorizing two deputy SFM. Authorization to pay FD \$1 for reports submitted to SFM.	1913 All former acts repealed and new FM Dept. was created. Governor appointed FM and 2 deputies.	1919 The Appointing Authority was given to Commissioner of Insurance.	

1905, April 19
Legislation authorizing Governor to appoint SFM for two-year term. Funding through tax levy on Insurance Companies. (Town Mutuals Exempt)

STATE OF MINNESOTA DEPARTMENT OF PUBLIC SAFETY STATE FIRE MARSHAL DIVISION



Vacancies (Special Projects, Supervisor, 4- Inspector/Code Specialist)

HEADQUARTERS OFFICE

The State Fire Marshal Division currently consists of 4 senior staff, 5 supervisors, 38 deputies, and 8 clerical support staff, including:

- 1 State Fire Marshal
- 2 Bureau Chiefs
- 1 Office Manager/Administrative Secretary
- 5 Supervisors
- 3 School Inspectors
- 1 School Plan Reviewer
- 1 Sr. Planner, Hazardous Materials
- 11 Fire/Arson Investigators
- 11 Fire Safety Inspectors
- 7 Health Care Inspectors
- 1 Lead Code Specialist, Coordinator of
Sprinkler Licensing Program
- 1 Code Specialist
- 1 Data Technical Specialist
- 2 Sprinkler Plan Reviewers
- 2 Fire Data Technical Personnel
- 5 Clerical Support Staff
- 55 Total Staff

The Division is currently divided into nine special purpose/function teams.

- 1. Management Team
- 2. Public Education/Fire Data Team
- 3. Fire/Arson Investigation Team
- 4. Fire Safety Inspection Teams - Residential,
Health Care, and Day Care
- 5. School Inspection/Plan Review Team
- 6. Code Development
- 7. Hazardous Material Regional Response Teams
- 8. Sprinkler Licensing/Plan Review Team
- 9. Administrative Team

The functions of these teams are outlined on the following pages.

The Fire/Arson Investigation Team investigated fires accounting for roughly half of the state's total dollar loss.

FIRE/ARSON INVESTIGATION TEAM

The fire/arson investigation team consists of eleven Deputy State Fire Marshals, led by Chief Fire Investigator, David Bahma. The arson investigators in the division are trained origin and cause specialists and are assigned to cover a territory with maximum response time of within two hours. Fire/arson investigators are subject to be called 24 hours a day, 365 days of the year.

In 1994, the members of the fire/arson team assisted local fire and law enforcement agencies in investigating 682 fires, totaling over \$68 million dollars in property loss, of which nearly half was directly attributable to arson.

In an effort to increase prosecution of arson cases, the State Fire Marshal Division, in cooperation with the Bureau of Criminal Apprehension, revised and updated the Arson Investigation series of instruction to fall in line with today's technology and current needs. The result is the availability of training for law enforcement and fire service to help recognize arson and to improve methods of processing arson scenes.

The team continues to develop new training methods, including conducting live burns and explosions to help the investigators better understand fire behavior under certain conditions.

1994 saw a 16% increase in fires that were determined to be incendiary.

The investigation unit continues to fine-tune its operation, resulting in a continued rise in cases that are prosecuted and also rising numbers of convictions.

The Investigation Unit is continuing its process of developing an educational block of instruction that will provide the latest methods and technology for persons having completed the arson series of instruction. This series will be developed for law enforcement, fire chiefs, and fire officers actually involved in investigating fires.

The pursuit of arson prosecution for those who commit this crime is one of the priority goals for the Unit. This will be accomplished by working closely with local fire and law enforcement officials in the state.

FIRE/ARSON INVESTIGATIONS BY PROPERTY TYPE

	<u>1992 Causes</u>		<u>1993 Causes</u>		<u>1994 Causes</u>			
	<u>Total Fires</u>	<u>Total Arson</u>	<u>Total Fires</u>	<u>Total Arson</u>	<u>Total Fires</u>	<u>Total Dollar Loss</u>	<u>Total Arson</u>	<u>Arson Dollar Loss</u>
One/Two Family Dwellings	383	133	304	71	369	\$19,504,816	92	\$ 3,194,936
Apartments	30	12	30	13	36	2,403,300	16	987,900
Hotels/Motels/Resorts	9	2	4	1	3	55,000	1	0
Dormitories	—	—	—	—	1	100	1	100
Institutional	—	—	1	1	5	539,100	3	526,000
Educational	16	13	11	4	13	12,253,300	8	12,240,500
Places of Assembly	11	4	10	4	11	1,860,400	4	150,400
Restaurants	16	6	15	3	9	1,255,000	5	975,000
Retail/Office	32	11	28	4	57	13,240,374	27	9,867,624
Industrial/Manufacturing	16	3	15	2	13	5,286,600	2	100,000
Agricultural	10	3	11	—	8	668,000	1	6,000
Storage Facilities	94	34	87	24	97	10,442,476	30	3,578,038
Special Structures	4	3	21	13	15	591,100	10	116,000
Mobile/Vehicle Property	35	20	78	37	41	344,314	19	201,966
Other	<u>12</u>	<u>5</u>	<u>4</u>	<u>3</u>	<u>4</u>	<u>160,000</u>	<u>1</u>	<u>150,000</u>
TOTAL	668	249	619	180	682	\$68,603,880	220	\$32,094,464

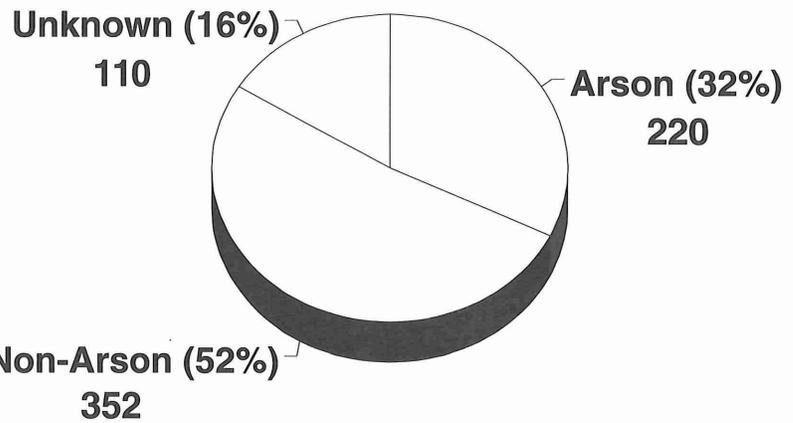
There was a significant dollar loss increase in arson-related fires investigated by state fire investigators, from \$8 million to \$32 million dollars.

Twelve million dollars was attributable to the Burnsville High School arson fire and another \$5.5 million dollars resulted from arson fires in the northwest metro arson-burglary ring.

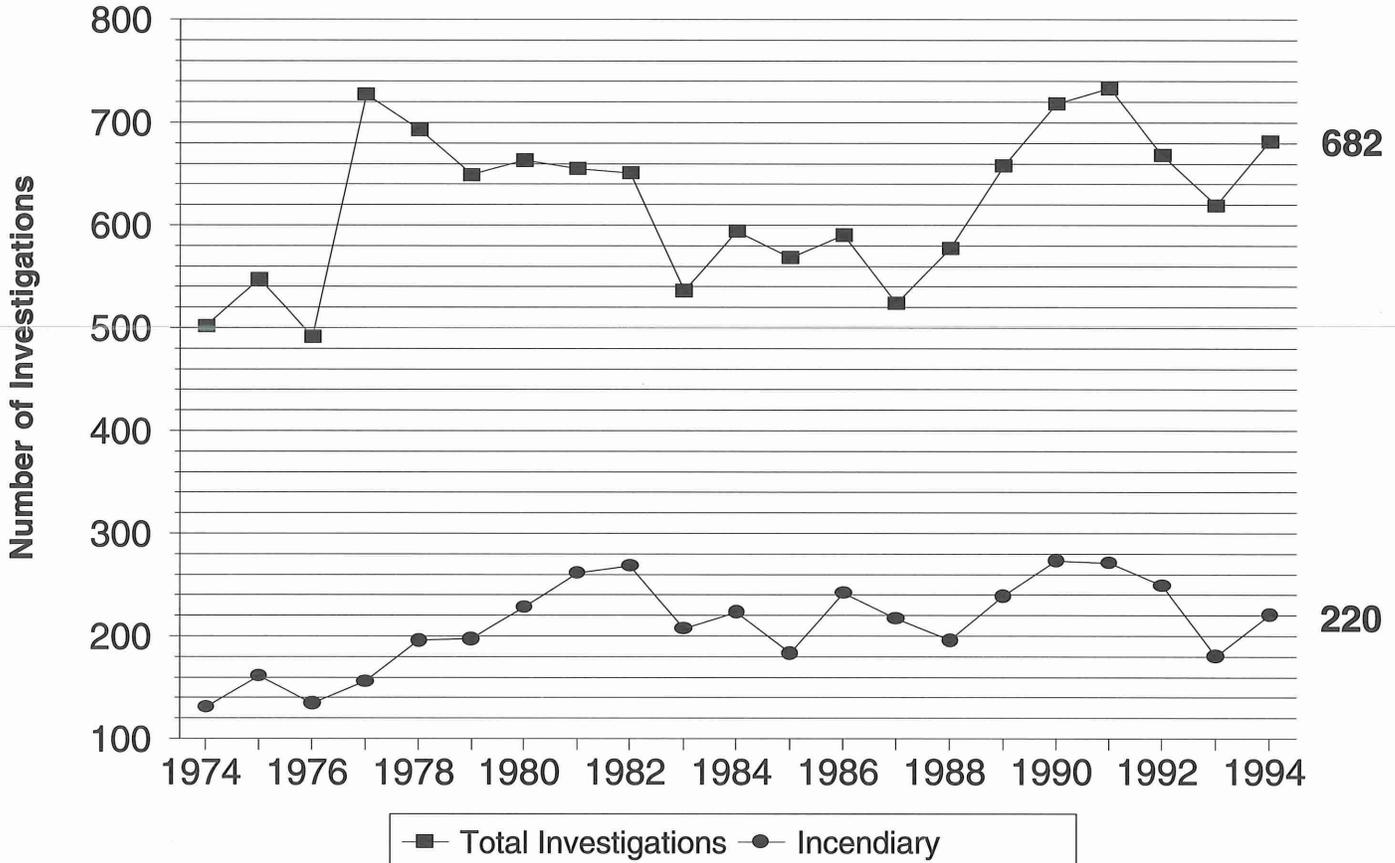
1994 Fire Investigation Accidental vs. Incendiary

Breakdown of Arson Investigations:

	Arson	Non-arson	Unknown	Total
Structure	200	334	103	637
Vehicle	19	17	5	41
Other	1	1	2	4
Total	220	352	110	682



Fire Investigation 1974 - Present



FIRE SAFETY INSPECTIONS

19,783 violations and/or deficiencies were found in 7,289 inspections in 1994.

Deputy State Fire Inspectors conducted a total of 7,289 inspections and follow-up inspections in 1994.

SFMD FIRE SAFETY INSPECTIONS 1994, BY TYPE OF OCCUPANCY

	No. of Facilities	No. of Follow-ups	No. of Bldg. Inspections	No. of Orders	No. of Violations/ Deficiencies
<u>CHILD CARE</u>					
Family day care	1,439	183	1,597	169	5,651
Foster child care	529	102	620	112	1,840
Group day care	771	108	876	120	2,628
Child care centers	<u>71</u>	<u>13</u>	<u>84</u>	<u>16</u>	<u>249</u>
	2,810	406	3,177	417	10,368
<u>LICENSED HEALTH CARE FACILITIES</u>					
Nursing homes	414	65	589	173	1,410
Supervised living facilities >7	185	19	228	39	344
Adult foster care facilities	417	27	450	31	1,643
Class B nursing homes	132	11	186	43	393
Supervised living facilities <6	78	14	92	24	174
Group homes	7	4	10	2	23
Adult day care facilities	<u>11</u>	<u>1</u>	<u>16</u>	<u>1</u>	<u>29</u>
	1,244	141	1,571	313	4,016
<u>HOTELS/MOTELS/RESORTS</u>					
Resorts	363	534	1,225	249	1,000
Motels	247	166	441	89	485
Hotels	<u>60</u>	<u>77</u>	<u>156</u>	<u>33</u>	<u>253</u>
	670	777	1,822	371	1,738
<u>RESIDENTIAL</u>					
Boarding/Lodging	43	19	71	11	176
Apartments	34	73	126	27	255
One/two family dwellings	20	30	75	14	143
Dormitories	<u>1</u>	<u>4</u>	<u>4</u>	<u>1</u>	<u>8</u>
	98	126	276	53	582
<u>MEDICAL FACILITIES</u>					
Hospitals	83	13	103	18	298
Surgical centers	<u>6</u>	<u>2</u>	<u>14</u>	<u>6</u>	<u>46</u>
	89	15	117	24	344
<u>EDUCATIONAL FACILITIES</u>					
Schools	249	330	249	183	2,300
<u>COMMERCIAL</u>					
Public assembly	10	26	31	7	57
Offices	14	12	25	4	38
Restaurants	7	10	12	7	28
Industrial/Manufacturing	16	11	33	8	48
Service stations	2	3	9	3	7
Retail	<u>13</u>	<u>9</u>	<u>22</u>	<u>11</u>	<u>68</u>
	62	71	132	40	246
<u>OTHER PROPERTY</u>					
Flammable/Combustible liquid	46	40	83	19	117
Prisons/Jails	45	16	175	11	62
Special properties	0	8	1	0	0
Special structures	0	1	1	0	0
Storage	4	1	6	3	6
L.P. facilities	4	4	6	2	4
Other properties	0	31	41	0	0
Natural gas	0	0	0	0	0
Fire stations	<u>1</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>
	100	101	314	35	189
TOTAL INSPECTIONS	5,322	1,967	7,658	1,436	19,783

INSPECTIONS - WHAT WE FOUND

Although the new data collection system for our Inspection Teams was only pilot tested during the last quarter of 1994, and then only by a select number of inspectors, we found the following general areas of violation and discrepancy with the MUFC:

In education properties, violations occurred most often in the Exiting and Construction features of the building. In hotels, motels, and resorts, Fire Alarm and Fire Extinguisher were the most commonly found violations. Like educational properties, health care property violations were in regard to Exiting and Construction features. In addition, in day care facilities, State Fire Marshal Division inspectors found Fire Extinguisher, Construction feature, and Electrical feature violations to occur most often.

More complete data will be available at the end of 1995 when our new data collection system will have been in operation for one year.

FIRE AND LIFE SAFETY INSPECTION

- **Residential Team**

The Residential Inspection Team is responsible for the fire and life safety inspection of all hotels, motels, and resorts in Minnesota. During 1994, the team was divided into two regions - North and South. The Southern team was supervised by Roger Jemming, and covers 54 counties. The team was staffed by six Deputy State Fire Marshal-Inspectors. The Northern team was supervised by Robert Imholte, covered 33 counties and was staffed with five Deputy State Fire Marshal-Inspectors. During Fall 1995, the teams were reorganized, making Mr. Jemming supervisor of all residential inspections and Mr. Imholte supervisor of all education property inspections.

The North and South Residential teams are responsible for the inspection of 1,006 hotels/motels and 1,310 licensed resorts in Minnesota. These facilities are mandated by statute to be inspected at least once every three years.

The inspection of day care and foster care facilities for initial licensure by the Department of Human Services remains a major responsibility of the Residential Teams. There are roughly 16,000 licensed day care facilities in the state. In this field, there is a high turnover rate; well over 2,800 new day care and foster care inspections are conducted annually.

Partially due to the cyclic nature of mandatory inspections and the loss of one inspector, the annual number of inspections decreased slightly in 1994. The hard-working team continues its efforts to keep current and to ensure a timely response to requests for day care and foster care facility inspections.

This team is also responsible, through a contract with the Minnesota Department of Corrections, for inspecting every state-owned correctional facility at least once a year, including many county jails that are inspected

There are approximately 16,000 licensed day care facilities in the state with a high annual turnover rate of over 2,800 new day care homes.

Every hospital, health care facility, and licensed residential group home in Minnesota is inspected annually.

annually. In addition, they inspect aboveground tank dispensing systems for compliance with the MUFC; conduct inspections on various other types of facilities as requested by local or county authorities; and act as consultants to property owners, architects, contractors, public officials, and the general public on requirements of the MUFC.

- **Health Care Team**

The Health Care Section of the State Fire Marshal Division has the responsibility for conducting annual fire and life safety inspections in 1,150 health care facilities licensed by the Minnesota Department of Health, as well as approximately 100 residential group homes licensed by the Minnesota Department of Human Services. In addition to the above facilities, the Health Care Team is responsible for inspecting, on a one-time-only basis, adult day care, adult foster care, and developmental achievement centers. The Health Care Section also regularly assists the Residential Team with their backlog of one-time-only inspections of home-based day care facilities.

This section includes a supervisor and one clerical staff person in the headquarters office, and seven field Deputy State Fire Marshal Inspectors located throughout the state. The health care deputies spend approximately 80% of their time in the field, conducting inspections, fire safety in-services for health care staff and consulting with facility owners, architects, and local building officials on health care facility issues. The remaining time is spent in their offices writing reports, returning phone calls, and making appointments.

The 1991 edition of the MUFC is used to inspect health care facilities as part of state licensing under the Minnesota Department of Health regulations. Under the Medicare/Medicaid Certification Program, the NFPA 101 Life Safety Code is enforced in facilities that receive federal money. This is part of a contractual arrangement between the Division and the Minnesota Department of Health, acting as the agent for the Federal Health Care Financing Administration. This contract makes up 50% of the Health Care Team Budget. Training sponsored by the federal program is required for all inspectors and includes specialized fire safety evaluations systems for health care facilities and board and care facilities courses. Knowledge of both the Minnesota Uniform Fire Code and the Federal Certification Program Fire Safety regulations and their joint application in most health care facilities is an important aspect of health care inspections.

The in-service training provided to the staff of health care facilities includes emergency procedures, use of fire extinguishers, and evacuation techniques for moving mobility-impaired hospital patients and nursing home residents in the event of fire.

During 1994, the Health Care Team inspected 1,688 buildings in 1,333 facilities.

School inspections revealed 2,091 fire code violations in 208 schools in 1994.

PUBLIC SCHOOL INSPECTION PROGRAM

The Public School Inspection Program has completed its fourth full year of operations in 1994. This program, established by the legislature in 1990, requires the State Fire Marshal to inspect all of the state's approximately 1,500 schools once every three years. The legislation also allows local fire departments who had been inspecting the schools within their jurisdiction to continue their inspection efforts, following guidelines established by the State Fire Marshal Division. The program maintains a close working relationship with the Minnesota Department of Education, which controls funding for many school facility upgrades and safety improvements.

The primary focus of this program is to improve the fire and life safety violations found in many of the public schools. Emphasis is placed on life safety efforts to protect the school's occupants (most notably, students). Because of the age, construction, and use of many of the state's school buildings, policies were developed which allow the installation of automatic fire protection systems, primarily automatic sprinklers and automatic fire alarms, as alternatives to correct many of the fire and life safety problems found in these buildings. Because of the expenses associated with major construction or remodeling projects, many school buildings are being "retroactively" equipped with automatic sprinkler systems and automatic fire alarm systems.

For the 1994-95 school year there were 379 school districts in the state serving approximately 803,393 students from pre-school through the 12th grade. When the number of teachers, staff, and community usage of these buildings is added to the student population, the school inspection program's efforts impact the fire safety of well over one million persons.

In 1993 the State Fire Marshal Division entered into a contract with the Department of Education for conducting plan reviews on school projects that exceeded \$10,000.00. This contract was developed out of concerns that many school projects were receiving no review for compliance with building or fire codes (by state law, many projects under \$100,000.00 are not subject to building code review). In addition, there were concerns that some of the money, which was intended to be used for fire and life safety projects, was being used inappropriately. The State Fire Marshal is now conducting these plan reviews and is working with the Department of Education to monitor the funding used to make these fire and life safety improvements.

In 1994 the School Inspection Team inspected 208 school buildings; these inspections noted 2,091 fire code violations and deficiencies. The number of inspections and violations was down somewhat from the previous year due, in part, to a large number of follow-up inspections which were conducted in 1994. The purpose of follow-up inspections is to verify that corrections had been made at schools which had been previously inspected. The number of follow-up

inspections conducted was 310, with an additional 43 site visits (site visits are partial inspections conducted at the school district's request, usually for facility planning or budgetary purposes).

The first three-year inspection cycle of Minnesota public schools will be completed in 1995. Through the cooperative efforts of the Department of Education, school districts, administrators, and the State Fire Marshal Deputies, Minnesota schools will be safer places to educate the next generation.

CODE DEVELOPMENT/PLAN REVIEW SECTION

The Code Development/Plan Review Section is staffed by two code/plan specialists. This section has responsibility for the review of plans for installations of liquefied petroleum (LP) gas, flammable and combustible liquids. During 1994, 573 plan reviews were completed, a 17% increase over 1993.

In addition to the plan review of tank installations, code/plan specialists function as code consultants. Many thousands of telephone and written requests are handled regarding code interpretation, code adoption, and enforcement of the Minnesota Uniform Fire Code and related statutes. These requests come from fire officials, building inspectors, property owners/managers, architects, engineers, contractors, elected officials, attorneys, other state agencies, and the general public.

Code specialists serve on the State Fire Marshal Code Advisory Panel to review fire code variance requests, serve on the Minnesota State Fire Chiefs Association Code Committee to recommend code changes, and assist the administration of the Fire Protection Contractor Licensing Program. Another special assignment included the development of a process to license pyrotechnic operators who conduct public fireworks displays in the state.

In addition to the code consultant and plan review functions, the Code/Plan Specialists serve as instructors at fire-related training sessions for fire service organizations, private industry, and the public.

PUBLIC EDUCATION AND FIRE DATA

The Public Education and Fire Data Analysis is headed by Mary Nachbar, Bureau Chief, and includes Ernie Scheidness, Nora Gierok, and Irene Moore. This team collects and analyzes well over 120,000 reports annually. They also provide technical assistance to 802 Minnesota fire departments. This team tracks major incidents as they occur and begins the process of providing data and information to local fire service leaders and the media regarding similar incidents and/or trends occurring regarding the causes of other such events.

This team also provides special reports to local fire departments that request comparative data for budget justifications, public education, or special requests to

*A new PC-Based
NFIRS reporting
system to be released
in mid-1997.*

further the adoption of local codes or ordinances. Additionally, arson fires in Minnesota have been watched very closely and data is being used to develop strategic plans and trend analysis to combat the problem. In addition, those in the high-risk fire death groups, such as the elderly and young children, are being monitored and public education programs are being developed to teach them fire and life safety behaviors.

Data collection through the Minnesota Fire Incident Reporting System is a major program in the Division. Data is critical in determining where efforts and resources should be placed. This data has been invaluable in our efforts to pass legislation relating to the life safety of Minnesota citizens. The number of fire departments reporting into MFIRS has increased significantly in the past five years. The efforts of the fire departments is critical in determining the Minnesota fire and emergency response problems.

In mid-1997, the National Fire Information Council (NFIC) will be releasing a brand new PC-based National Fire Incident Reporting System to states. We will be preparing for the implementation of this new Windows-based program in 1996. The new system will be much improved. The PC-based version will be simple to use with screens that give you choices to point and click. The new manual, as we have seen, is only 78 pages. The information that will be generated from this system will better help us define the fire problem. Information will now be collected regarding the human factors involved in the fire incident.

We will be providing technical support information to the fire service regarding the purchase of equipment, software, modems, and the process for electronic data submittal. We have been working on a national basis with NFIC for three years to assist in the development and implementation of new NFIRS. We encourage fire departments to contact the division as they are considering purchasing computer equipment in the future to ensure the system and components will be capable of operating the new system. And, of course, the software vendors that work with the fire service will also be able to assist you.

Reducing the loss of life and injuries from fire is a major focus of the Division. One of our goals is to reduce the number of fire deaths in homes with no smoke detectors by 25% in the year 2000. In 1994, fire deaths decreased by 35%. Of the 39 fire deaths in structures in 1994, 10 were in dwellings with no detectors present or where the smoke detectors were not working. Smoke detectors installed and maintained in every dwelling possible is our public education goal to the year 2000. The fire service, Minnesota Department of Health, and SAFE Kids have been major contributors working with the Division.

The Division has been working very closely with two smoke detector program efforts. We formed a partnership with the Minnesota Department of Health, who received a grant from the Center for Disease Control (CDC) to provide smoke detectors to low income families in the state. They are currently concentrating on five counties/communities in the state. They are Moorhead, Grand Rapids, Cass Lake, St. Paul, and Duluth. Funds and resources for smoke

*State Fire Marshal
remains committed to
public education efforts
to reduce the Minnesota
fire problem.*

detectors and batteries are being supplied by the State Fire Marshal Division through the International Association of Fire Chiefs, Change Your Clock, Change Your Battery Program, and through funds from a fine that was requested to be given to the State Fire Marshal Division.

We continue to work with our limited resources to provide technical support and assistance to the fire service and public in the form of resources, presentations, and exhibits. In 1994, two Minnesota cities received Champion Grants from the National Fire Protection Association to implement the Learn Not To Burn Program in their schools. They were the Minneapolis Fire Department, submitted by Ann Fischer, and the Naytahwaush School, submitted by Rhonda Estes. Unfortunately, the Minneapolis Fire Department experienced budget cuts and Champion Ann Fischer's position was eliminated before the program could be fully implemented. The role the Division played in this project was to provide the inservice training for school teachers prior to the implementation. We are proud of the efforts of these two public educators. These Champion Grants will be offered annually and we encourage other Minnesota cities to apply.

We continue to offer support to local fire department public education efforts in establishing a program or reestablishing local programs. We conduct training sessions and provide data to assist local fire departments in assessing their real vs. perceived fire problem.

In the year 1995, as of the writing of this document, fire deaths in Minnesota have surpassed those of 1994. Several of these fires involved multiple fire deaths of children where the parents were directly responsible for the incident. We will continue to pursue education as a means to reduce these deadly incidents. Responsibility is a key issue and knowledge and understanding of how fire behaves and what people need to do are the elements we will address in FY 95-96.

The Division wishes to thank all those individuals, agencies, departments, and organizations, too numerous to mention here, for their support and willingness to work on special projects that benefit all who reside, work, or play in Minnesota. Collectively, we are a community. Thank you.

FIRE PROTECTION LICENSING SECTION

The Fire Protection Licensing Section has two code specialists who serve as full-time plan reviewers, John Eibner and David Stegura, and one clerical support, Renee DuBois. Code Specialist Brian Holzer served as temporary section leader after the departure of Lead Code Specialist Robert James.

Licensing of fire sprinkler contractors and certifying journeymen began on February 21, 1994. As a result, 57 contractors and 7 design contractors were licensed. In addition, 464 journeymen, 31 conditional journeymen, 87 limited journeymen, and 121 apprentices were processed during the year. Litigation was filed on February 22, 1994, which complicated the process for the registration of apprentices. This litigation is still pending.

Program calls for licensing fire protection contractors who sell, design, install, modify, or inspect fire protection systems.

On July 1, 1994, the review of plans and the issuing of fire protection system permits began. Contractors were required to obtain permits for all installations in locations where cities did not retain permitting authority. Approximately 150 cities retained permitting authority. In all other communities, the State Fire Marshal is the authority having jurisdiction for the purpose of issuing fire protection system permits. During the first six months of 1994, 116 permits were issued. Additionally, plan reviewers assisted with reviews of schools and special projects when requested by city officials.

The Minnesota Fire Protection Contractor Licensing Law and Rules required an enforcement role for the Division in its provisions. An enforcement procedure was established and 20 complaints were received in 1994. Most of the complaints were for failing to obtain a permit for a sprinkler installation. The balance were for non-certified fitters and substandard installations.

Concurrent with the beginning of the plan review process, inspections were conducted based on requests from State Fire Marshal Inspectors, local officials, and the public. During 1994, 17 inspections were conducted. In addition, there were site visits to facilities under construction.

The State Fire Marshal Division continued to support the Minnesota Advisory Council on Fire Protection Systems. Its members are appointed by the Governor and serve to advise the State Fire Marshal on all matters regarding fire protection licensing.

HAZARDOUS MATERIALS REGIONAL RESPONSE TEAM PROGRAM

The Minnesota Hazardous Materials Incident Response Act (MN Statute 299A.48 - 52) requires the Commissioner of the Minnesota Department of Public Safety to establish a state-wide hazardous materials incident response system. Known as the Hazardous Materials Regional Response Team Program, the system will consist of regionally located emergency response teams and chemical assessment teams working in support of local authorities responding to hazardous materials incidents. The Hazardous Materials Section of the State Fire Marshal Division is responsible for development, implementation, and administration of the operational components of the program.

Before the program could be developed, the Act required the Commissioner to establish administrative rules to provide the framework for its implementation and operation. Developed during 1993 by a 14 member Technical Advisory Committee, program efforts during the first half of 1994 were directed toward completion of the rulemaking process. Those efforts were successful with the adoption of the Hazardous Materials Incident Response Plan and System as MN Rules Chapter 7514. Issues addressed in the rules include procedures for the development and assignment of team response areas, procedures for selecting and contracting with teams, the minimum number and qualifications of team members, training requirements, development of suggested operating guidelines, procedures

Hazardous material response team program calls for statewide system of 4 regional response teams supported by 6 chemical assessment teams.

for the recovery of response costs, equipment guidelines, dispatching criteria, team responsibilities, methods of coordinating team operations, and the provision of liability and workers' compensation coverage for team members.

Following adoption of the rules, attention turned to the issuance of a Request for Proposal to serve as a component of the team program. Published in the State Register on December 12, 1994, the RFP resulted in the submission of fifteen proposals from thirteen public and private entities. A seven member RFP Evaluation Committee reviewed each proposal and formulated recommendations to the State Fire Marshal, Director of the Division of Emergency Management, and the Commissioner of Public Safety. Although the RFP sought to select two Emergency Response Teams (ERTs) and three Chemical Assessment Teams (CATs), the quality of the proposals received resulted in the selection four ERTs and six CATs. Emergency response teams selected to participate in contract negotiations include the Duluth Fire Department, Moorhead Fire Department, Rochester Fire Department, and the St. Paul Fire Department. Chemical Assessment Teams selected include the Arrowhead HazMat Team (Grand Rapids area), Fridley Fire Department, Hopkins Fire Department, Mankato Fire Department, St. Cloud Fire Department, and one private entity; West Central Environmental Consultants, Inc. (Morris). Contract negotiations will continue during 1995.

Equipment for use by the teams was purchased during the year, adding to that purchased in 1993. Items included radio communications equipment, toxic and combustible gas monitors, colorimetric detector tube systems, and chemical identification and classification systems. This equipment will be owned by the state and loaned to the teams for the term of their contracts. Other purchases, including response vehicles, mitigation equipment, and chemical protective clothing are scheduled for 1995.

The State Fire Marshal is also charged with the responsibility for collecting fire service hazardous materials emergency response data. The National Fire Incident Reporting System - Hazardous Materials Incident Report (NFIC-HMI) was fully implemented during 1994 as an additional component of the existing Minnesota Fire Incident Reporting System (MFIRS), with 620 participating departments state-wide. In its first year the new report has already provided valuable information about fire service involvement in hazardous materials emergency response. This information will allow the regional team program to focus its training and preparedness efforts toward those types of incidents most commonly encountered by Minnesota's fire service community.

The Division also expanded its scope of training activities during the year with the inclusion of specialized hazardous materials programs. Railroad tank car incident response was the subject of a course provided by the DuPont Chemical Company. Nearly 100 hazardous materials technicians and specialists participated in the three day event. Hazardous materials training also returned to the State Fire School, with the pilot testing of a new 16 hour course designed to train local

personnel in procedures for providing on-scene support to the regional teams. The course will be refined and provided state-wide during 1995, along with other specialized hazmat programs.

MFIRS

With 679 fire departments reported in 1994, the participation in MFIRS was up by 10%. Of the reporting departments, 120 do so by computer modem or diskette. Major concerns with reporting deal with quality assurance and blank fields. Again in 1994, 23% of structure fires were reported as cause unknown. The reporting of smoke detectors and sprinkler performance also needs improvement. We sincerely encourage each fire department to join our efforts and support the MFIRS system. The data we collect can assist departments in justification of staffing, equipment, training, and prevention needs for their communities. Please contact our office for assistance in getting started with MFIRS reporting.

ADMINISTRATIVE SUPPORT SERVICES

The Division continues to enjoy a dedicated, hard-working support staff whose responsibilities include timely turnaround of requests and inspections. This team processes Division fire investigation reports which totaled 682 investigations in 1994.

1994 brought the development of a new computerized system to record and analyze data collected by the Fire Safety Inspection teams. One of the goals was to collect data which could be studied to ascertain the fire safety condition of properties we inspect and to later ascertain the impact of the inspections. The system development was a cooperative effort between the State Fire Marshal Division and the Office of Information Systems Management.

*Participation in MFIRS
reporting up in 1994.*

Beginning October 1, 1994, five Deputies participated in pilot testing the new system. Their cooperation, patience, comments and suggestions were invaluable in refining the system. That new system was then put into place at the beginning of 1995. We believe the new data collected will give you, our reader, a more clear picture of the fire safety aspects of properties inspected throughout the state.

SUMMARY

In brief, I hope this report has helped acquaint you with the services the State Fire Marshal provides. We look forward to working with the fire service and other agencies and organizations interested in the fire/life safety issues concerning Minnesota citizens in 1995.

Again, I encourage your feedback regarding this report and any concerns regarding the Minnesota fire problem or the operation of the State Fire Marshal Division.