State of Minnesota
Department of
Public Safety

FIRE IN MINNESOTA 1993

State Fire Marshal Division
Fire Reporting System

Thomas R. Brace
State Fire Marshal

The Rules became effective February 21, 1994. The effective date of the rules will generate a need to add plan review staff and will start a new responsibility to the State Fire Marshal Division. Please contact the Fire Protection Section with any comments or questions.

HAZARDOUS MATERIALS RESPONSE TEAM PROGRAM

Hazardous material response team program calls for statewide system of 5 regional response teams supported by a network of chemical assessment teams.

The Hazardous Materials Section is responsible for development, implementation, and administration of the operational components of the Department of Public Safety's Hazardous Materials Regional Response Team Program. Included in that assignment is responsibility for development of the administrative rules which will govern the program, as required by the Minnesota Hazardous Materials Incident Response Act.

The Act calls for the establishment of a statewide system of up to five regional response teams, supported by a network of chemical assessment teams. The teams will respond, when requested by local authorities, to assist and support local efforts to protect life, property, and the environment from the effects of a hazardous materials incident. Teams composed of personnel from existing public and private organizations will operate under contract with the Department of Public Safety. Funding for training, equipment, medical monitoring, and program administration will be provided by the state from fees paid by business and industry. The actual costs of a response will be recovered from the person responsible for the incident.

A fourteen-member Technical Advisory Committee, consisting of an equal number of public safety and industry representatives, was appointed in December, 1992, to assist state staff with development of the rules. The Committee began work in January, 1993, and was actively involved in the process throughout the year, and formulated a final draft in November. The proposed rules are scheduled to be published for public comment in the Spring of 1994.

As proposed, the rules address several key points including: development and assignment of team service areas, procedures for selecting and contract with teams, the number and qualifications of team members, training requirements, establishment of suggested operating guidelines, procedures for the recovery of response costs, equipment guidelines, dispatching criteria, team responsibilities, and methods of coordinating team operations.

In addition, a significant portion of the equipment to be used by the chemical assessment teams was purchased during the year. Chemical reference manuals, cellular facsimile equipment, computer equipment, special radio equipment, remote weather monitoring stations, and a complete decontamination system were obtained. The equipment will be owned by the state and loaned to the teams for the term of their contracts. Other purchases are scheduled for 1994.

The State Fire Marshal is also charged with the responsibility for collecting fire service hazardous materials emergency response data. A pilot test of the National Fire Incident Reporting system - Hazardous Materials Incident Report

(NFIC-HMI) was completed during 1993. As a result, the NFIC-HMI report was implemented as an additional component of the existing Minnesota Fire Incident Reporting System (MFIRS), with 620 participating departments statewide. The new report will provide valuable information about fire service involvement in hazardous materials emergency response, permitting the Division to better focus its efforts to meet the needs of local departments.

Efforts in 1994 will focus on the formal adoption of the administrative rules, development and issuance of a request for proposal to serve as a component of the team program, establishment of team service areas and the selection of teams for each area, development of suggested operating guidelines, and the purchase of additional team equipment.

MFIRS

The participation in the MFIRS was down in 1993. There remain, however, 620 departments reporting, with over 100 departments reporting by computer modem or diskette. The Division continues working on quality assurance of the data collected. Areas of special concern remain the causes of fires (22% reported unknown in 1993) and smoke detector and sprinkler performance. Now that detectors are mandatory, we had hoped the reporting of them would improve; it has not. We once again 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.

Participation in MFIRS reporting down in 1993.

ADMINISTRATIVE SUPPORT SERVICES

The Division has a hard working support staff whose responsibilities include timely turnaround of requests and inspections. This team processes Division fire investigation reports which totaled 619 field investigations in 1993. Our efforts to computerize field programs resulted in the pilot testing of a new inspection program and computer system during Fall Quarter, 1994.

The Division Office Manager, Connie Weaver, continues to serve as the support person for the Management Team and is an integral part of all the Division activities. Connie is the administrative head of the Support Services Team and Secretary to State Fire Marshal Tom Brace.

ACKNOWLEDGEMENTS

Fire in Minnesota 1993

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

The annual ***Fire in Minnesota*** report, now in its fifth 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, Supervisor, Nora Gierok, Irene Moore, and Ernie Scheidness, for their commitment and contributions to the report.

By analyzing Minnesota's 1993 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.

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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 1993, there was an increase of nearly 10,000 reports over last year, for a five year high of 107,000 identified runs made by the fire service in a single year. This however, is not the total picture of fire department services as 23% of fire departments do not report into the system. Last year 64 fire departments previously reporting into MFIRS did not participate; however, 39 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 1993:

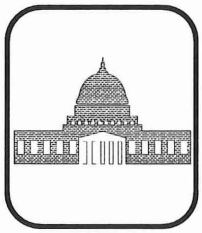
- 71 civilians lost their lives; a 42% increase over last year and 349 injuries were reported, also representing a 16% increase over 1992.
- 292 firefighters were injured; of these, 220 were either fighting fires or responding to fires.
- Arson shows an increase largely because we are now able to add 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 nearly double ($20 million) that of heating related causes at $10 million.
- Over $110 million dollars in property damage was sustained.

Of significant importance, in the statistics presented in this report, is the fact that 11 of the 23 children that died in fires in 1993, died as a direct result of fire play. All but one of the victims was under the age of eight. Early education of young children and caregivers is a priority of the Division. This year the Consumer Product Safety Commission issued fire resistive rules regarding 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.

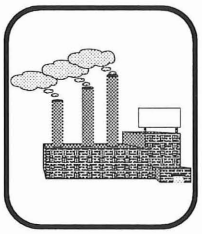
4,650 **RESIDENTIAL**

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



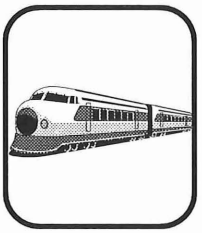
746 **PUBLIC AND MERCANTILE**

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



1,514 **INDUSTRIAL, MANUFACTURING, OTHER BUILDINGS**

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



4,746 **MOBILE PROPERTY**

(Automobile, trucks, trains, buses, boats)

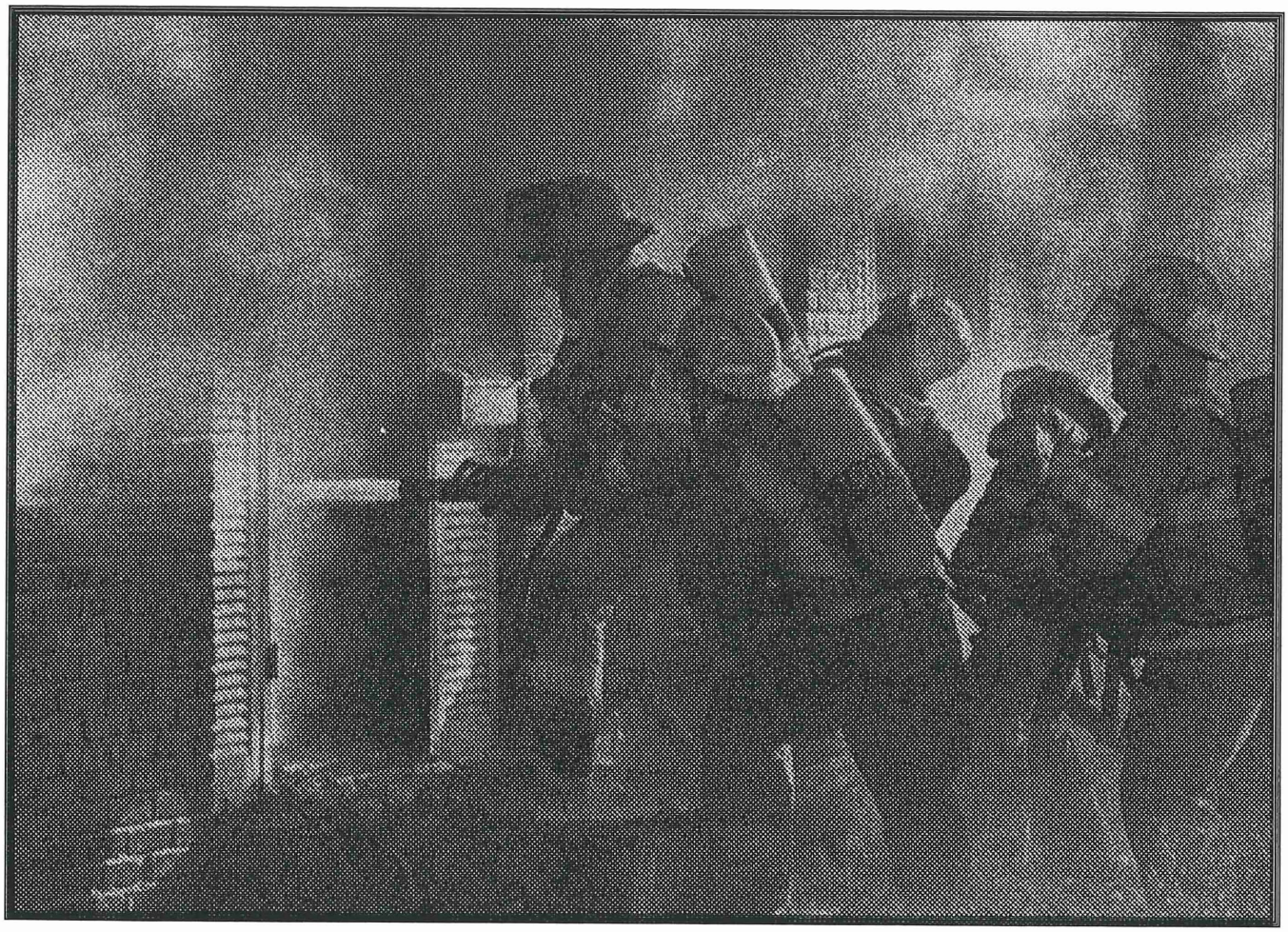
7,220 **OUTSIDE AND OTHER**

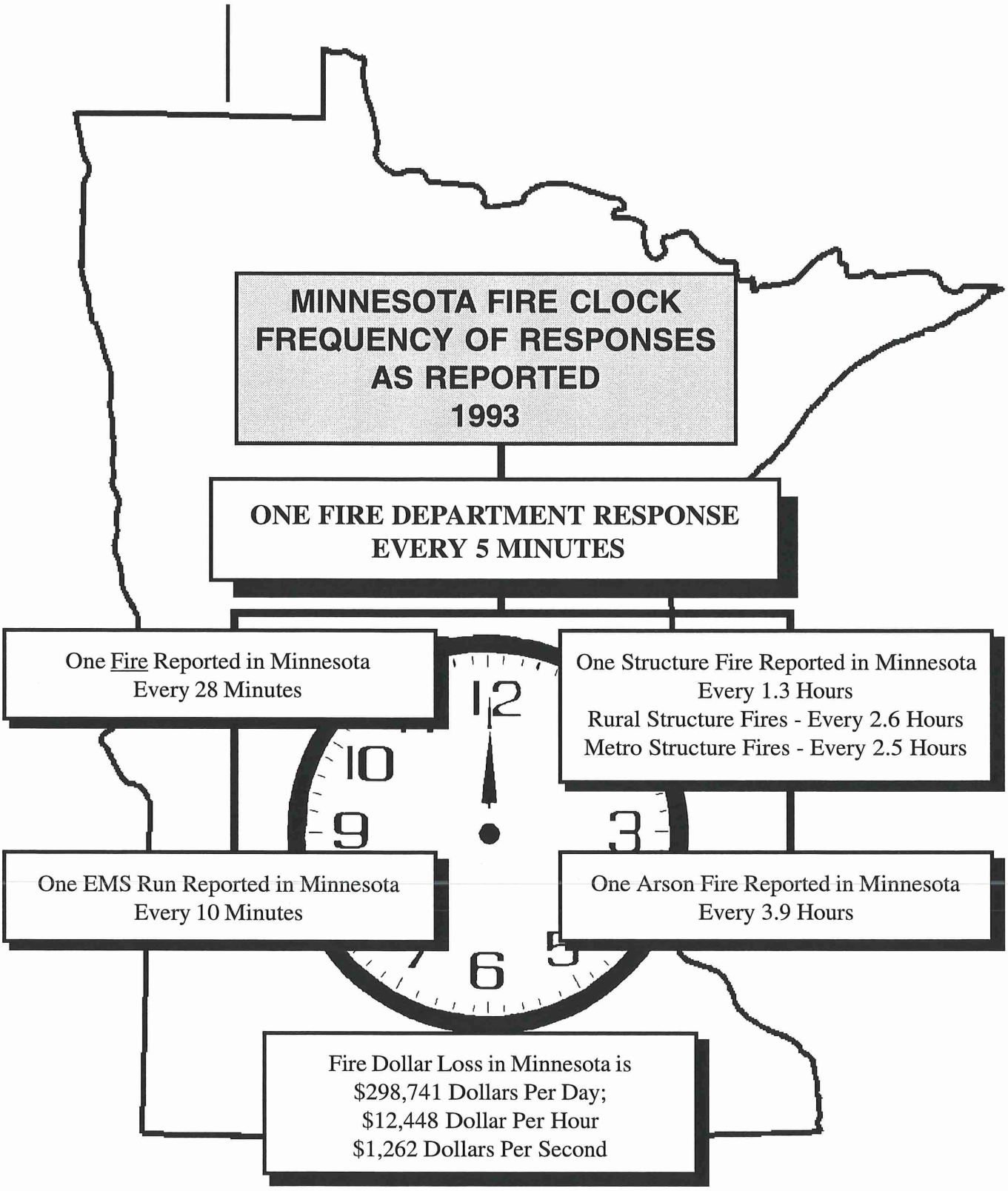
(Dumpsters, trash, wild land, grass, trees)

18,876 **TOTAL FIRES**

$109,040,626 **TOTAL DOLLAR LOSS**

TOTAL IMPACT





These figures represent the collective incidents reported by the 620 of Minnesota's 806 participating fire departments.

OVERALL STATE TOTALS

Four-fifths of the state's departments reported into the MFIRS program.

In 1993, 620 departments (78%) used the Minnesota Fire Incident Reporting System (MFIRS) to report fire incidents and related data. This year's figures represent a 2% decrease in the participation in the MFIRS system over last year (when 647 departments reported through MFIRS). (See the section titled "Participation," for a breakdown of reporting and non-reporting departments.)

REPORTED FIRE INCIDENTS 1993

Incidents Reported	7 County Metro Area	% State Total	Balance of State	% State Total	State Total
Structure Fires	3,408	49%	3,502	51%	6,910
Vehicle Fires	2,773	58%	1,973	42%	4,746
Other Fires	4,115	57%	3,105	43%	7,220
TOTAL FIRES	**10,296**	**55%**	**8,580**	**45%**	**18,876**
Rescue / EMS	39,188	84%	7,372	16%	46,560
Other Emergencies	2,511	66%	1,316	34%	3,827
TOTAL RESCUE	**41,699**	**83%**	**8,688**	**17%**	**50,387**
FALSE CALLS	**13,371**	**80%**	**3,384**	**20%**	**16,755**
MUTUAL AID GIVEN	**1,645**	**64%**	**911**	**36%**	**2,556**
OTHER INCIDENTS	**14,145**	**76%**	**4,454**	**24%**	**18,599**
TOTAL CALLS	**81,156**	**76%**	**26,017**	**24%**	**107,173**
Estimated Direct Dollar Loss Due to Fire	**$56,406,906**	**52%**	**$52,633,720**	**48%**	**$109,040,626**

ACTUAL FIRES

While total fire incidents remain constant, the number of total calls responded to by the fire service increased by 8% in 1993.

The total number of fires reported by Minnesota fire departments in 1993 increased by 1% over 1992. Despite sharp increases in proportion of state population being protected by reporting departments (1989 - see table on page 4), the number of actual fire incidents reported has remained relatively constant for the past five years. This would appear to indicate a decrease in the number of fires in the state on a per capita basis.

Total number of incident runs increased by nearly 10,000 incidents in 1993.

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
1989-1993

	1989†	1990	1991	1992	1993	92/93 Change + (-)	92/93 % Change + (-)
FIRES							
Structure	6,797	6,889	6,598	6,824	6,910	86	1%
Vehicle	4,859	4,633	4,733	4,397	4,746	349	8%
Other Fires	7,958	9,119	6,784	7,396	7,220	(176)	(2%)
TOTAL FIRES	**19,614**	**20,641**	**18,115**	**18,617**	**18,876**	**259**	**1%**
OVERPRESSURE RUPTURES	**322**	**333**	**309**	**299**	**385**	**76**	**3%**
RESCUE CALLS							
Emergency	34,648	40,636	42,809	42,164	46,560	3,751	9%
All Others	1,949	2,200	2,323	2,950	3,827	877	30%
TOTAL RESCUE CALLS	**36,597**	**42,836**	**45,132**	**45,114**	**50,387**	**4,628**	**10%**
HAZARDOUS CONDITION CALLS	**4,939**	**5,626**	**4,937**	**5,121**	**5,618**	**497**	**10%**
SERVICE CALLS	**4,251**	**4,355**	**4,487**	**4,790**	**4,547**	**(243)**	**(5%)**
GOOD INTENT CALLS	**5,856**	**6,283**	**6,195**	**6,622**	**7,499**	**877**	**13%**
FALSE CALLS							
Malicious	1,077	1,111	1,173	1,308	1,278	(30)	(2%)
Other False	14,032	14,283	14,773	14,133	15,477	1,344	10%
TOTAL FALSE CALLS	**15,109**	**15,394**	**15,946**	**15,441**	**16,755**	**1,314**	**9%**
MUTUAL AID GIVEN	**2,227**	**2,356**	**1,916**	**2,108**	**2,556**	**448**	**21%**
ALL OTHER	**763**	**661**	**524**	**425**	**550**	**125**	**29%**
TOTAL CALLS	**89,678**	**98,485**	**97,561**	**98,537**	**107,173**	**8,636**	**9%**
TOTAL DOLLAR LOSS	**$143.4M***	**$92.9M**	**$110.1M**	**$122.4M****	**$109.0M**	**($13.4M)**	**(11%)**

†Minneapolis and Duluth began participating in MFIRS.
*Includes one $30 million dollar fire.
**Includes two $10 million dollar fires.

Overall dollar loss decreased by $13.4 million.

Even though the overall dollar loss from fire decreased some 11%, this still represents **approximately $25 loss for every man, woman, and child in Minnesota.** This does not include expenses of the fire service, other emergency services, and the insurance industry. The majority of reported fires are structure and vehicle fires. These fires have stayed relatively constant in proportion to each other and as a proportion of all fires for the past several years.

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 1993, structure fires reached a five-year high. Approximately 4,500 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.

Structure Fires by Property Type
1989 - 1993

	1989	1990	1991	1992	1993	% increase (decrease) 1992-1993
Residential	4,565	4,468	4,457	4,515	4,650	3%
Educational/ Institutional	212	234	204	258	272	5%
Public Assembly/ Commercial	516	495	439	510	474	(7%)
Industrial/ Manufacturing	327	359	362	336	353	5%
Storage	904	1014	871	990	944	(5%)
Special/Other	148	169	214	170	156	(8%)
Unclassified	125	150	51	45	61	36%
TOTAL	**6,797**	**6,889**	**6,598**	**6,824**	**6,910**	**1%**

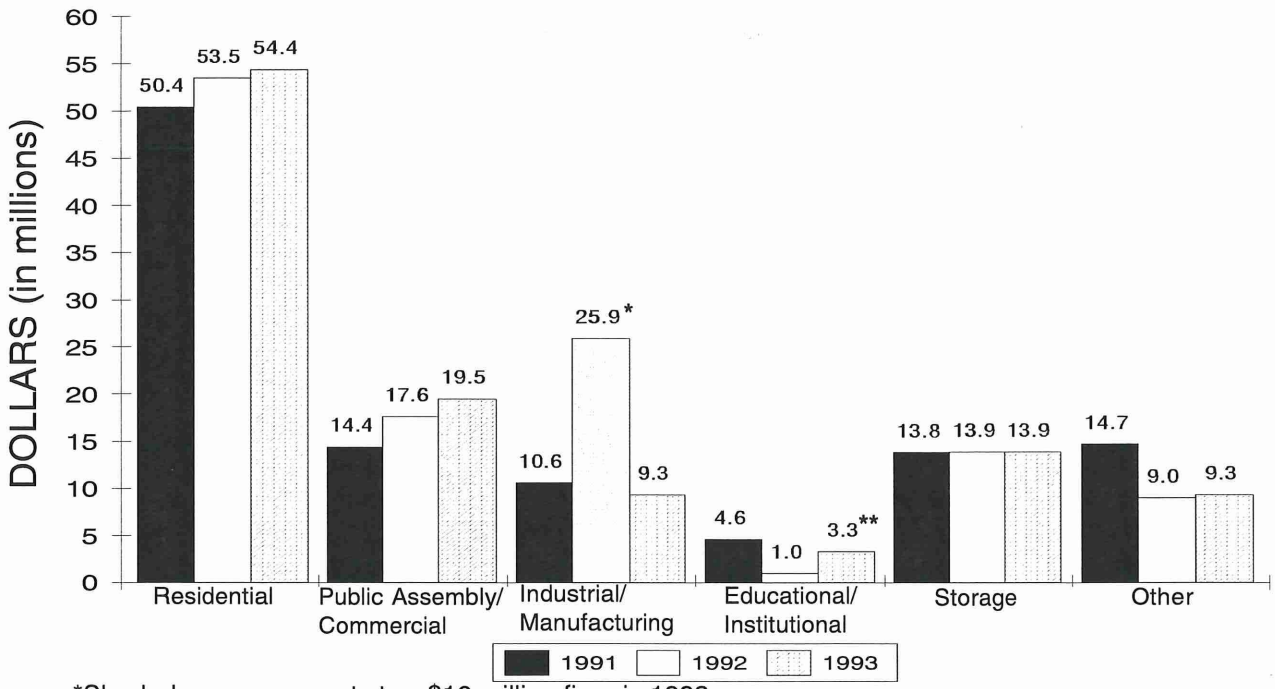
The number of reported fires in residential occupancies reached a five-year high.

The total number of reported structure fires reached a five-year high in 1993. Major increases were reported in residential and educational occupancies, which also reached a five-year high. This trend is alarming for two reasons: 1) The home, where we spend the majority of our time, is where most fire deaths occur and people oftentimes do not have smoke detectors; and 2) educational occupancies have the highest populations per building. Although dollar losses were not high in 1993, significant fires in May of 1994 resulted in $10 million in loss.

OVERALL STATEWIDE DOLLAR LOSS

67% of all structure fires were residential.

DOLLAR LOSS BY PROPERTY TYPE



*Shaded area represents two $10 million fires in 1992.

**Includes $2.5 million Duluth fire reported by State Investigators, but not by MFIRS.

Residential fires caused 50% of total dollar loss in 1993, reaching a five-year high in both the number of incidents and property dollar loss.

The 1993 dollar loss in residential property increased by slightly over $1 million; however, the number of reported fires in residential occupancies increased by 3%, a five-year high. Residential fires accounted for 67% of all structure fires and 50% of total dollar loss.

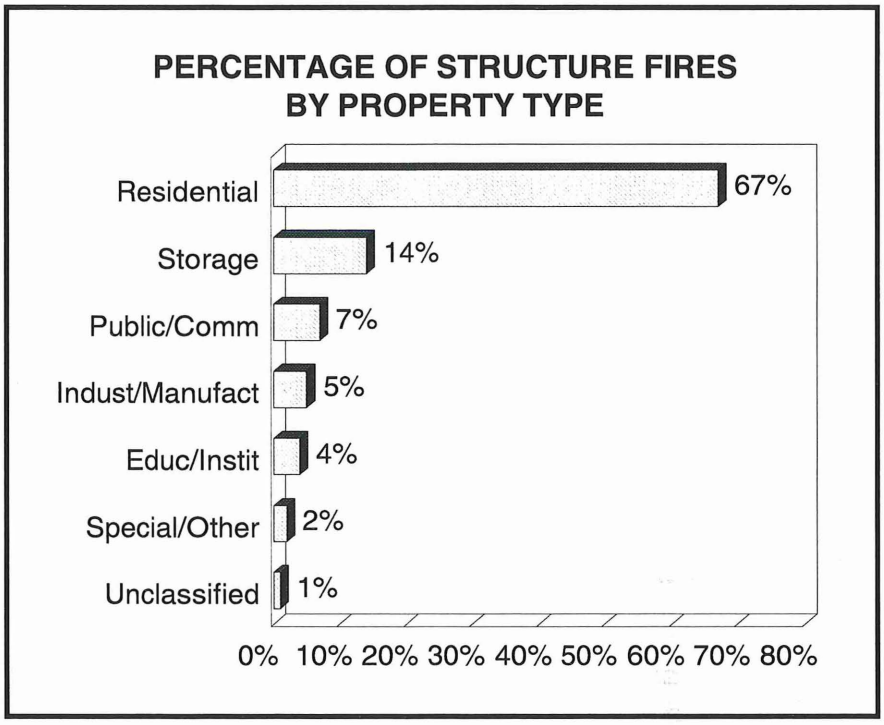
Although the number of fires reported in educational/institutional properties reached a five-year high, dollar loss decreased slightly. On the other hand, dollar loss in public assembly/commercial property increased by nearly $2 million. However, the number of reported fires decreased by 7%. Dollar losses in these two categories accounted for 19% of the total dollar loss in 1993.

SUMMARY

In the past six years residential dollar loss amounted to nearly $300 million dollars.

Participation in MFIRS decreased 2% in 1993, while the total number of reported fire incidents increased by 1%. Dollar loss was nearly $110 million.

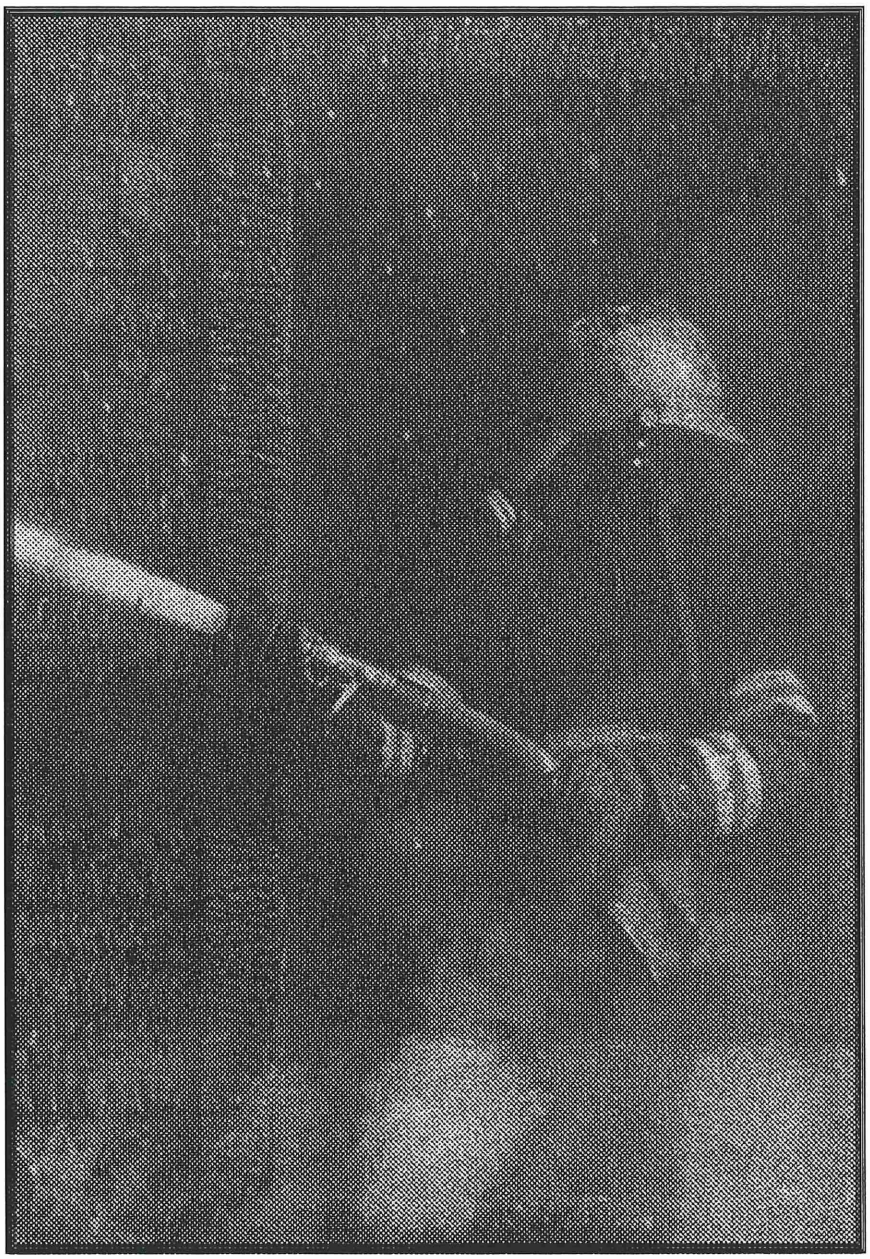
Structure fires occurred most frequently in residential properties and in significantly higher numbers than the next most reported property type: storage fires. **Residential fires accounted for 67% of all structure fires and were responsible for 50% of total dollar loss from all fires in 1993.**



In the last 6 years, of the $622.3 million in dollar loss caused by fire, nearly $300 million (48%) has been the result of residential fires.

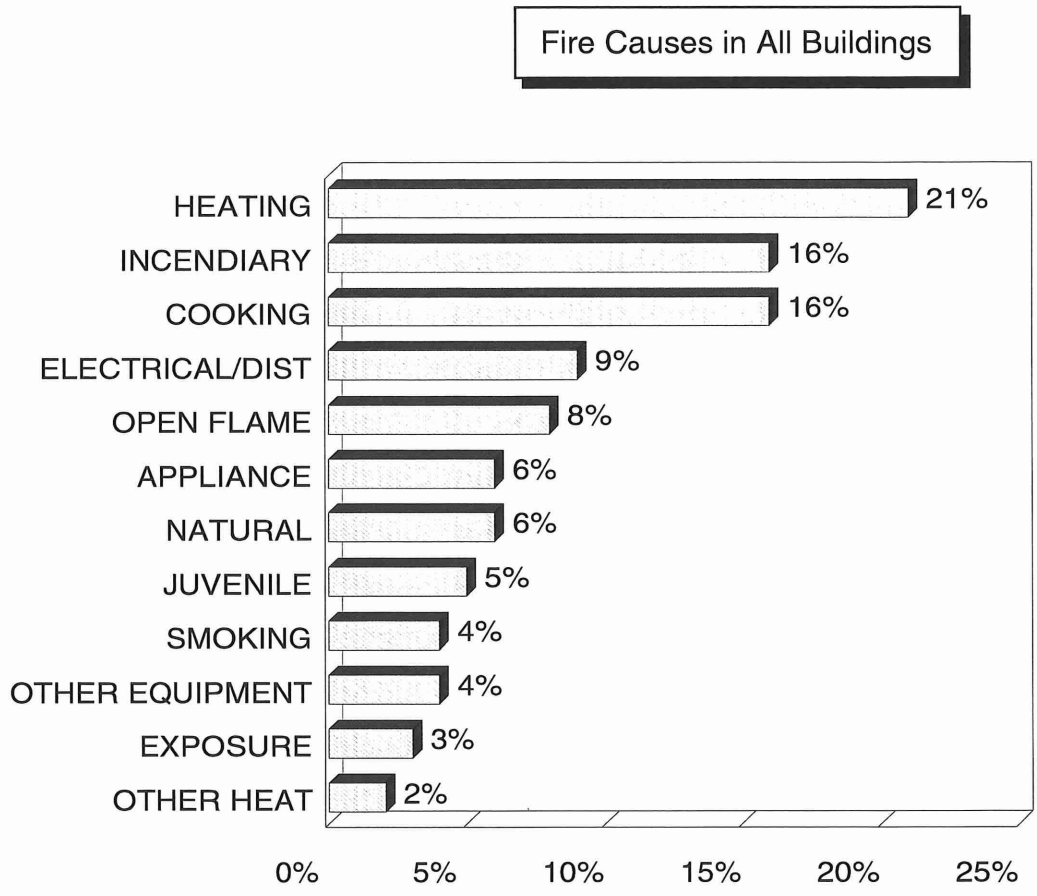
While participation in MFIRS has generally increased over the past six years, the number of reported fire incidents has remained essentially constant. This would appear to indicate that fires in Minnesota are decreasing. **However, dollar loss remains high and fire in Minnesota continues to be a significant problem. Commitment to stop fires before they occur is the only way to stop the significant loss of life and property from fire.**

CAUSES



CAUSES

For the 5th year in a row, heating, arson, and cooking are reported as the 1st, 2nd, and 3rd leading causes of fire in all structures.



(Based on reported known causes submitted by reporting fire departments)

The cause of 24% 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 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 (67% 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 47% of fires in educational property, 35% of fires in public assembly property, and 14% of store and office property fires (tied with electrical causes.)

The overall pattern of heating/incendiary/cooking as leading identified causes has been consistent for the past several years. Heating fires are 21% 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, and to 13% in 1991 and 1992. In terms of actual number of incendiary fires, 1993 saw an 6% increase over 1992.

CAUSE - A Closer Look at Major Fire Causes . . .

. . . Heating Fires

53% of residential heating fires were a result of fireplaces or chimneys.

The majority of heating-related fires occurred in residential property. Dollar loss reached over $9 million, an increase of 33% over 1992. Fifty-three percent of these fires involved fireplaces or chimneys. Portable heating units, while only causing 6% of the incidents, resulted in 25% of the dollar loss resulting from heating fires. Three people died in these fires and 57 civilians and firefighters were injured.

DOLLAR LOSS FROM HEATING FIRES IN RESIDENTIAL PROPERTIES ONLY

Equipment	# of Fire Incidents	% of Total	Dollar Loss	% of Total	Civ. Deaths	Civ. Injuries	Firefighter Injuries
Fireplace/Chimney	510	53%	$2,972,852	33%	--	13	9
Portable Heaters	55	6%	2,270,460	25%	1	4	--
Fixed Heating Units	181	19%	1,576,017	17%	1	11	5
Central Heating Units	112	12%	908,675	10%	1	4	2
Water Heaters	61	6%	717,600	8%	--	8	--
Other	50	5%	684,450	7%	--	--	1
Total	**969**	**100%**	**$9,130,054**	**100%**	**3**	**40**	**17**

. . . Cooking Fires

Cooking-related incidents and dollar loss are down; however, injuries increased by 23%.

Unattended cooking resulted in 47% of cooking-related fires and 25% of the dollar loss. While no loss of life occurred in 1993, 46 civilians and 13 firefighters were injured in these fires, representing a 23% increase over 1992. Dollar loss totaled nearly $3 million, a 36% decrease over 1992. Overall incidents and dollar loss decreased; however, the danger of such a fire, in regard to injury, is a major issue.

MOST COMMON CAUSES AND DOLLAR LOSS FOR ALL COOKING FIRES

Cause	# of Fire Incidents	% of Total	Dollar Loss	% of Total	Civ. Deaths	Civ. Injuries	Firefighter Injuries
Unattend./Fell Asleep	407	47%	$ 700,540	25%	--	16	2
Mechanical Failure	143	17%	521,590	19%	--	4	--
Operational Deficiency	58	7%	176,935	6%	--	1	1
Combustibles Too Close	65	8%	176,972	6%	--	8	1
Abandon. Material (Charcoal)	11	1%	2,150	<1%	--	1	--
Other Causes	113	13%	974,920	35%	--	15	8
Undetermined	64	7%	258,771	9%	--	1	1
Total	**861**	**100%**	**$2,811,878**	**100%**	**--**	**46**	**13**

AGRICULTURAL PROPERTIES

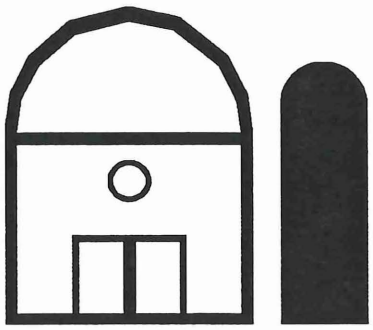
Total dollar loss in agricultural properties reached over $9 million.

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.

AGRICULTURE

Production Facil.	No. of Incidents	Dollar Loss
Poultry, Egg	10	$ 708,000
Cattle	45	986,580
Hog	31	934,350
Other Livestock	11	52,200
Crop/Orchards	91	340,930
Unclassified Ag.	210	924,545
TOTAL	**398**	**$3,946,605**

Dollar loss in production facilities increased by $1.1 million (28%), while decreasing by $1.2 million (22%) in agriculture storage facilities.



Overall dollar loss remained the same from 1992 to 1993, at $9.4 million in annual property loss. Fires in grain elevators averaged $58,000 in loss, while average dollar loss in barns and stables was $13,800.

AGRICULTURE

Storage Facilities	No. of Incidents	Dollar Loss
Seed, Silage	65	$ 312,692
Barns, Stables	144	1,994,949
Grain Elevators	24	1,395,300
Livestock	11	132,600
Ag. Supply Storage	55	471,750
Boxed, Bagged Prop.	3	55,050
Unclassified Ag.	19	1,169,000
TOTAL	**321**	**$5,531,341**

Grain elevator fires averaged $58,000 in loss per fire in 1993.

Overall fire incidents in agricultural-type properties have declined from the 1989 high by 38%; however, in the past three years, overall totals have remained fairly constant.

AGRICULTURAL PROPERTY FIRE CAUSES...

Agriculture Production and Storage Facilities

Ignition Factors	1991 No. of Incidents	1992 No. of Incidents	1993 No. of Incidents	1993 Dollar Loss	1993 % Total Dollar Loss
Mech. Failure/Malfunct.	115	157	145	$1,444,875	15%
Lightning/Other Natural Conditions	26	22	16	524,650	6%
Combustibles Too Close to Heat/Exposure	37	60	49	379,700	4%
Spontaneous Heating	38	41	38	221,892	2%
Open Flame/Inadeq. Ctrl.	55	94	93	217,784	2%
Incendiary	47	28	25	145,100	2%
Operational/Design Defic.	28	29	32	194,450	2%
Misuse of Heat	37	22	21	218,000	2%
Other	26	15	33	146,350	2%
Lack of Maintenance	11	18	14	28,800	<1%
Unattended	6	10	9	49,150	<1%
Children Playing w/Fire	2	19	8	18,250	<1%
Design, Construction, Installation Defic.	12	9	7	40,750	<1%
Fuel Spill	7	5	1	1,800	<1%
Ignited Material Misuse	10	4	15	27,250	<1%
Undeter./Not Class. Above	221	240	213	5,819,145	61%
TOTAL	**678**	**773**	**719**	**$9,477,946**	**100%**

Mechanical failure was listed as the #1 cause of fires; however, 61% 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, 30% of the incidents and 61% of the dollar loss was attributed to an undetermined, unclassified cause.

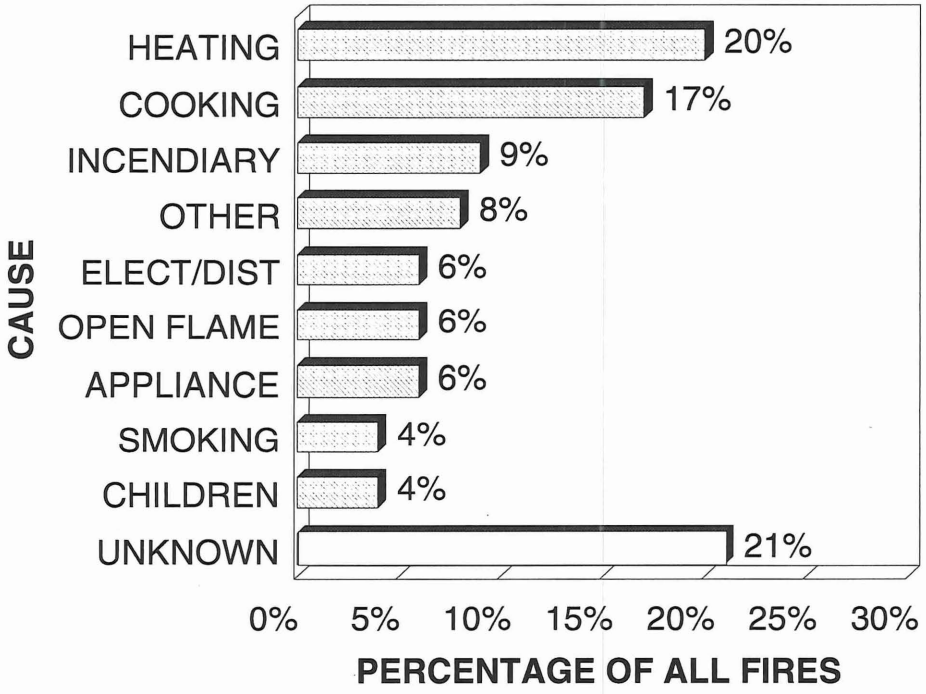
If we are to address the root cause of fires in agricultural properties, every effort must be made to investigate and determine the cause of these fires.

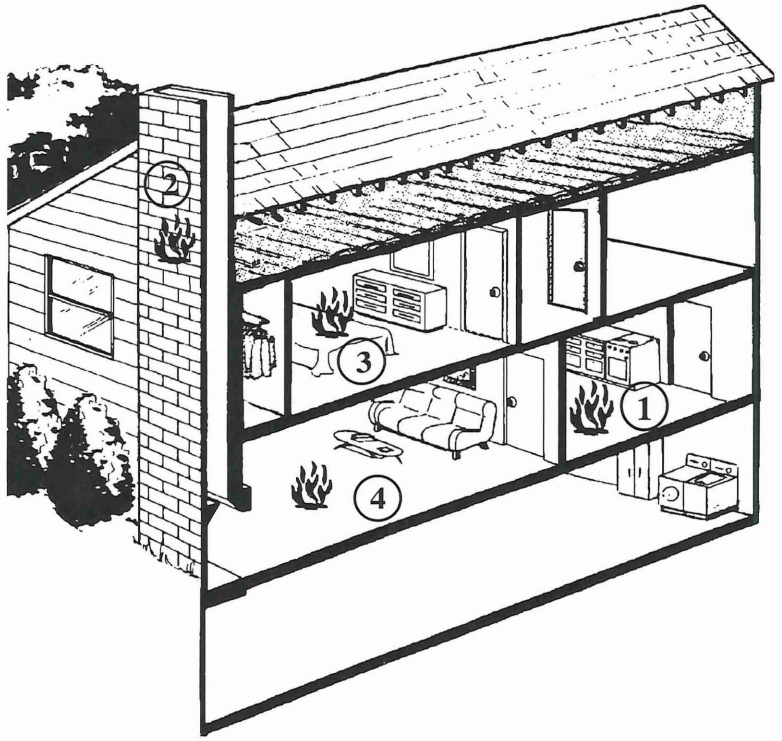
Fire Cause and Areas of Origin by Occupancy Class

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





	No. of Incidents	Firefighter Injuries	Civilian Injuries	Firefighter Deaths	Civilian Deaths	Dollar Loss
	4,650	152	235	--	52	$54,373,314
% of Total	67%*	76%	82%	--	73%	50%

*Percent of structure fires

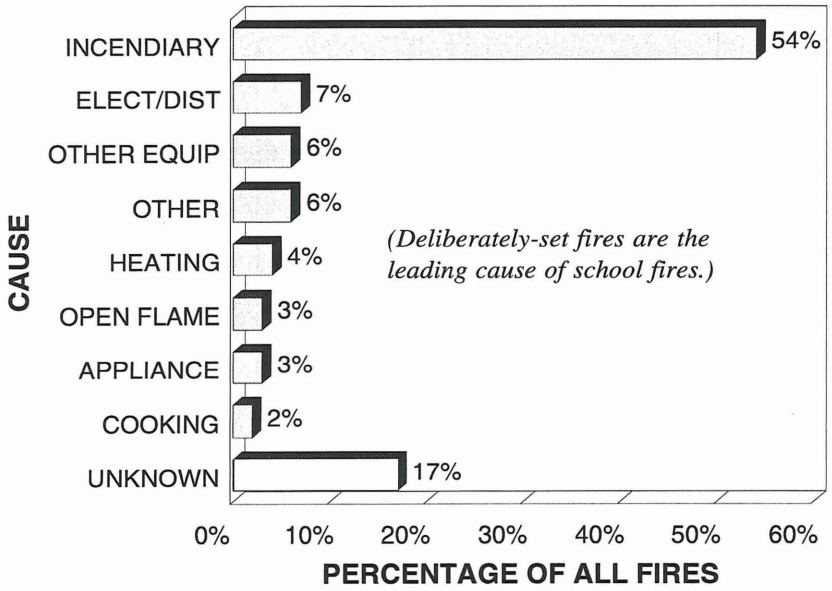
AREA OF FIRE ORIGIN

1. Kitchen/Cooking Area 21%
2. Chimney 14%
3. Sleeping Area 8%
4. Living/Family Room 5%

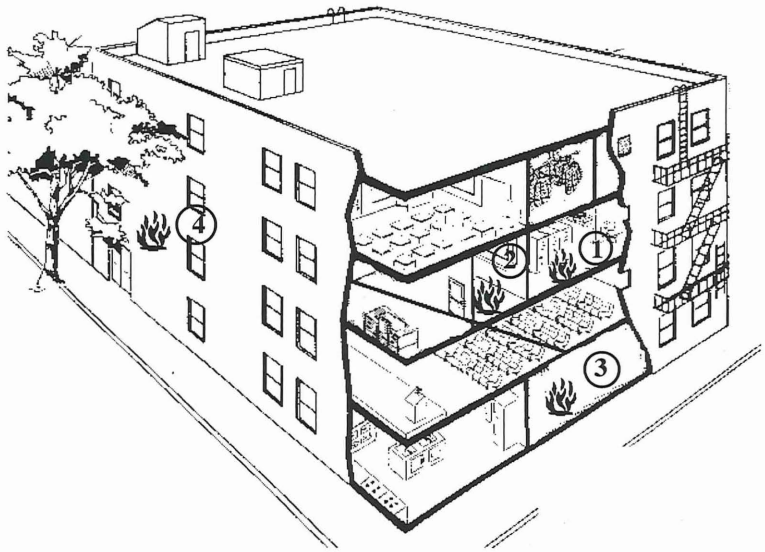
Other Areas of Fire Origin: 52%

EDUCATIONAL PROPERTY

LEADING FIRE CAUSES



(Deliberately-set fires are the leading cause of school fires.)



	No. of Incidents	Firefighter Injuries	Civilian Injuries	Firefighter Deaths	Civilian Deaths	Dollar Loss
	137	--	3	--	--	$3,147,945**
% of Total	2%*	--	1%	--	--	<1%

*Percent of structure fires
**Includes $2.5 million Duluth fire reported by State Investigators, but not by MFIRS.

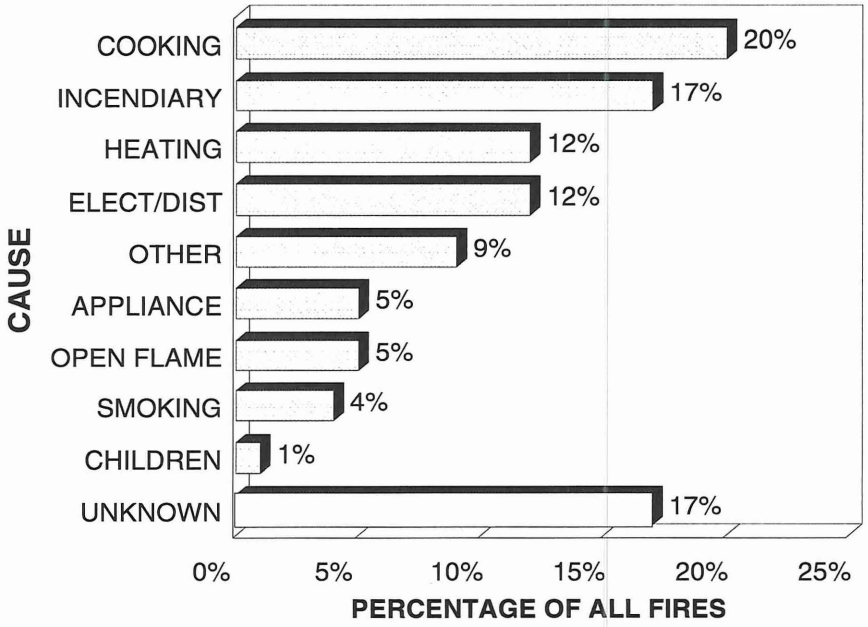
AREA OF FIRE ORIGIN

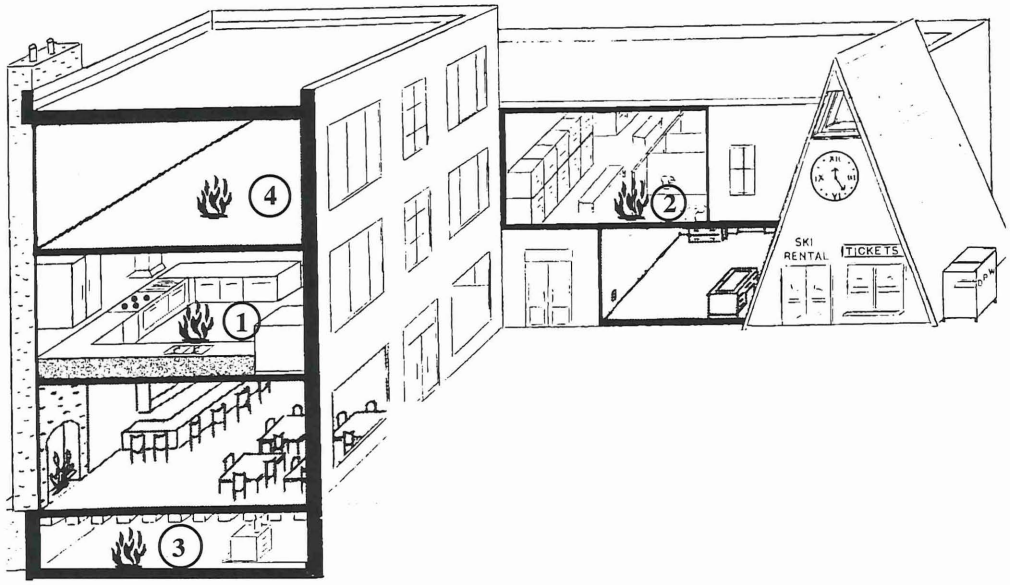
1. Lavatory/Locker Room 22%
2. Hallway/Corridor/Mall 17%
3. Storage 3%
4. Stairway 2%

Other Areas of Fire Origin: 56%

PUBLIC ASSEMBLY PROPERTY

LEADING FIRE CAUSES





	No. of Incidents	Firefighter Injuries	Civilian Injuries	Firefighter Deaths	Civilian Deaths	Dollar Loss
	199	3	3	--	1	$4,821,970
% of Total	3%*	2%	1%	--	1%	4%

*Percent of structure fires

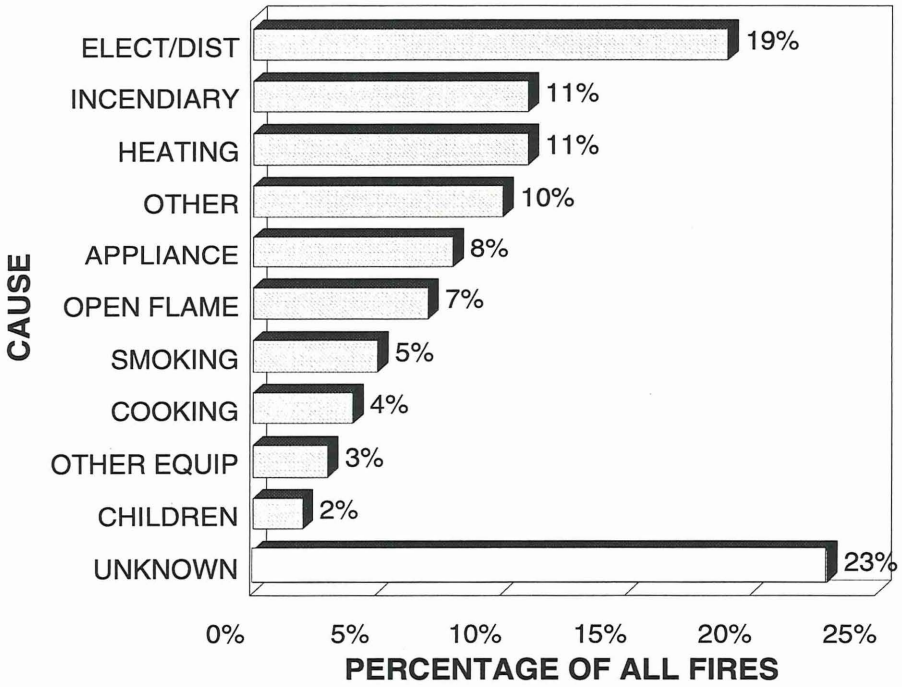
AREA OF FIRE ORIGIN

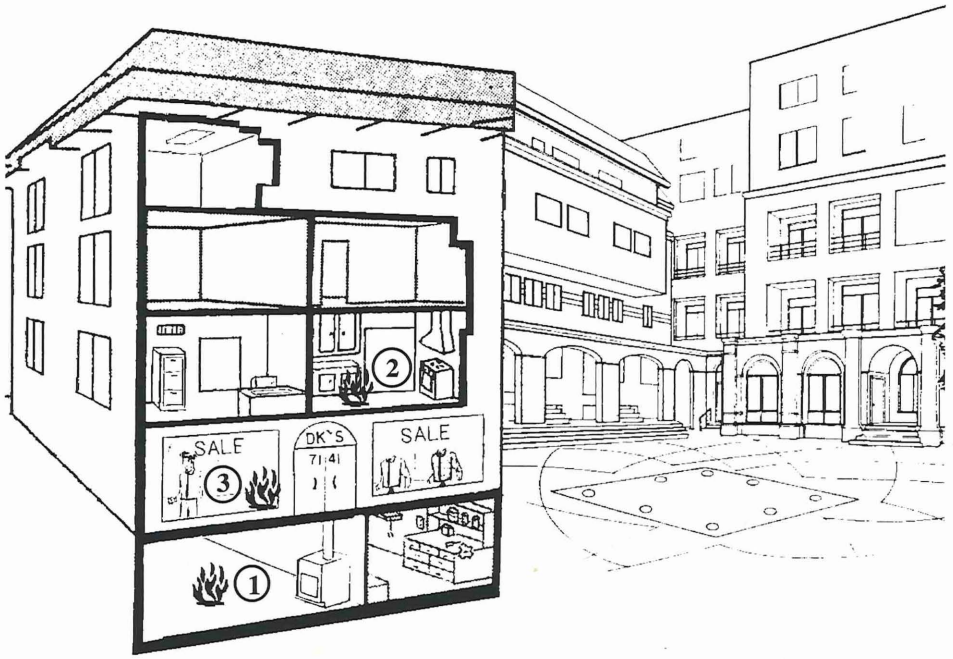
1. Kitchen/Cooking Area 26%
2. Lavatory/Locker Room 8%
3. Heating Equipment Room 5%
4. Supply/Storage Area 4%

Other Areas of Fire Origin: 57%

STORE AND OFFICE PROPERTY

LEADING FIRE CAUSES





	No. of Incidents	Firefighter Injuries	Civilian Injuries	Firefighter Deaths	Civilian Deaths	Dollar Loss
	275	20	11	--	--	$14,691,734
% of Total	4%*	10%	4%	--	--	13%

*Percent of structure fires

AREA OF FIRE ORIGIN

1. Heating/Equipment Room 5%
2. Kitchen/Cooking 5%
3. Sales/Showroom Area 5%

Other Areas of Fire Origin: 85%*

***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.**

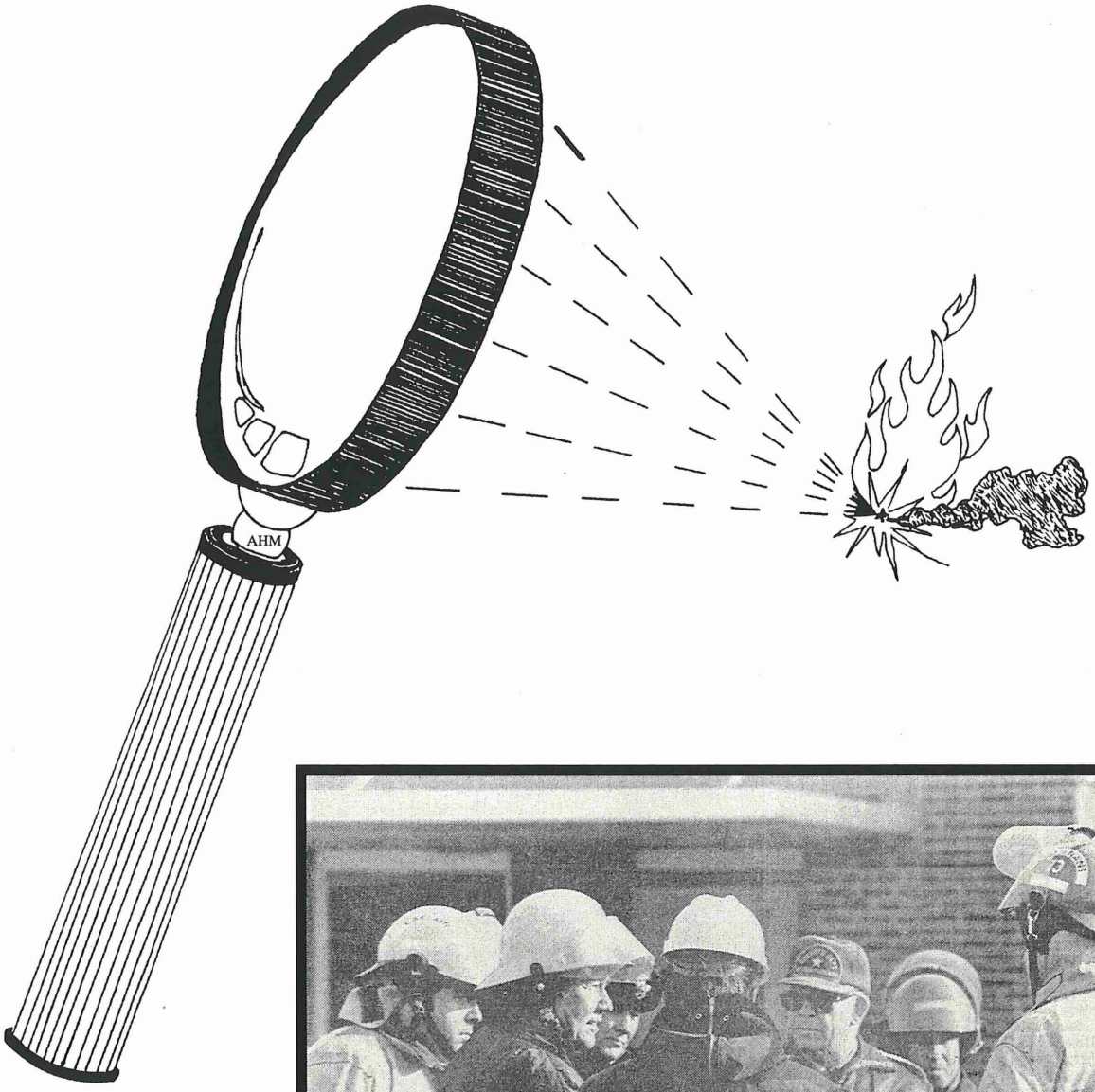
SUMMARY

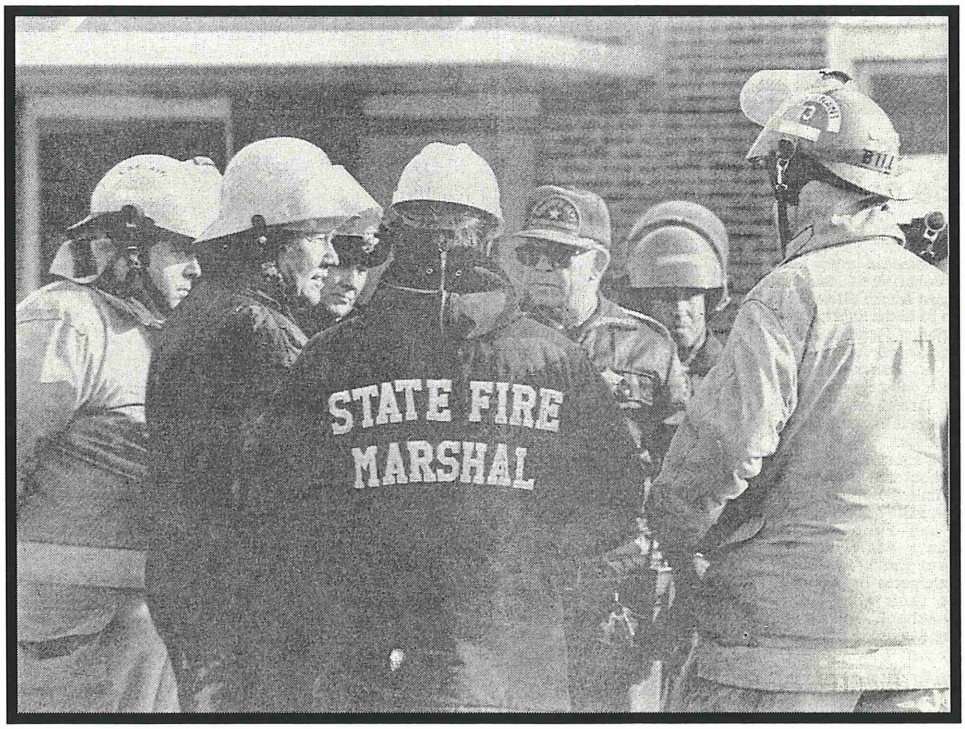
Heating, arson, and cooking are again the leading causes of fire where reported. These three causes resulted in 3 fire deaths and 158 injuries (both civilian and firefighter). A breakdown of fires by major property type gives additional insights into cause.

The leading cause of fires in residential properties (which accounted for 67% of total structure fires) was identified as heating and cooking. Residential fires also accounted for 73% of all fire deaths, 76% of firefighter injuries, and 82% of civilian injuries.

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

INCENDIARY TRENDS



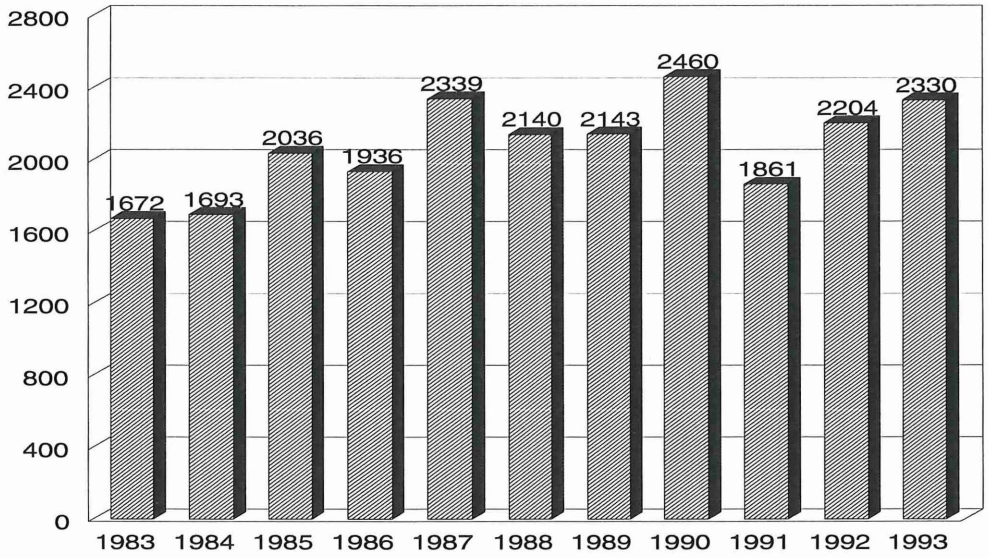


INCENDIARY TRENDS

Arson is the leading cause of fires in school and store and office properties.

Arson was identified as the second leading cause of all reported fires in Minnesota. Additionally, 1,327 (22%) fires were identified as undetermined. Experts agree that many of these fires were probably incendiary in nature. Arson was reported as the leading cause of fire in educational, and store and office occupancies.

ARSON IN MINNESOTA

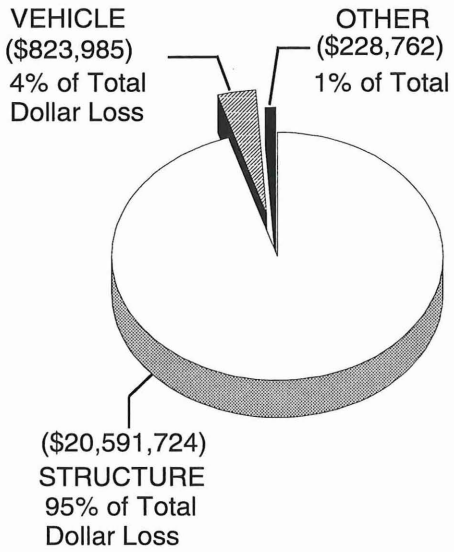


Arson dollar loss in 1993 -- nearly $22 million.

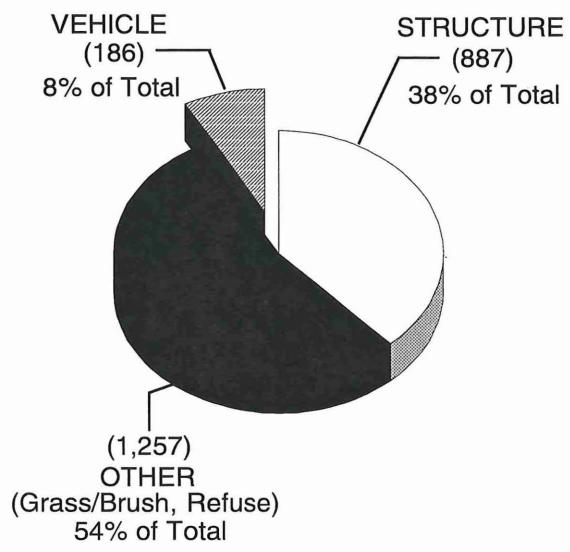
There were a total of 2,330 identified incendiary fires, a 6% increase over 1992. The value of property destroyed was estimated at nearly $22 million. The majority of the dollar loss (95%) occurred in structures and represents only 38% of the total incidents of arson reported in 1993. There were no reported fire deaths directly attributable to arson; however, 10 fire deaths were reported as undetermined for cause.

INCENDIARY FIRES BY DOLLAR LOSS AND TYPE

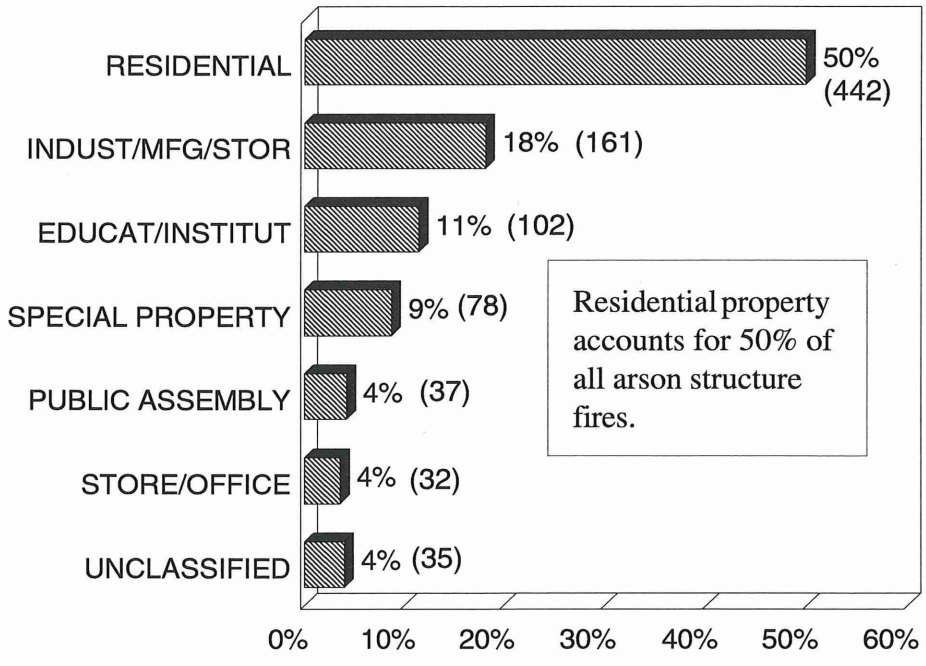
DOLLAR LOSS



TYPE OF FIRES



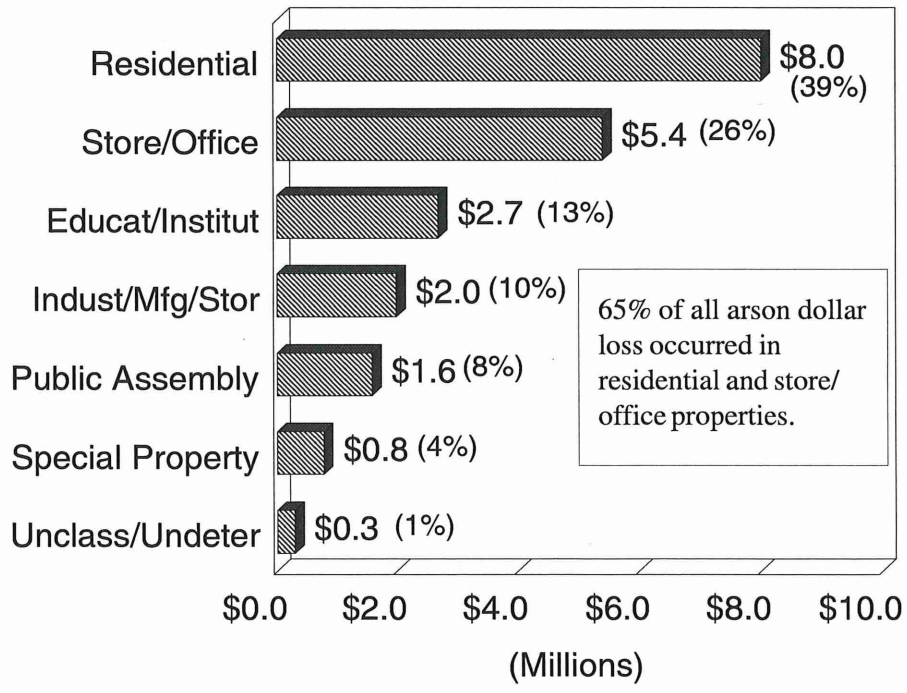
Percent of Arson Fire Incidents By Structure Type



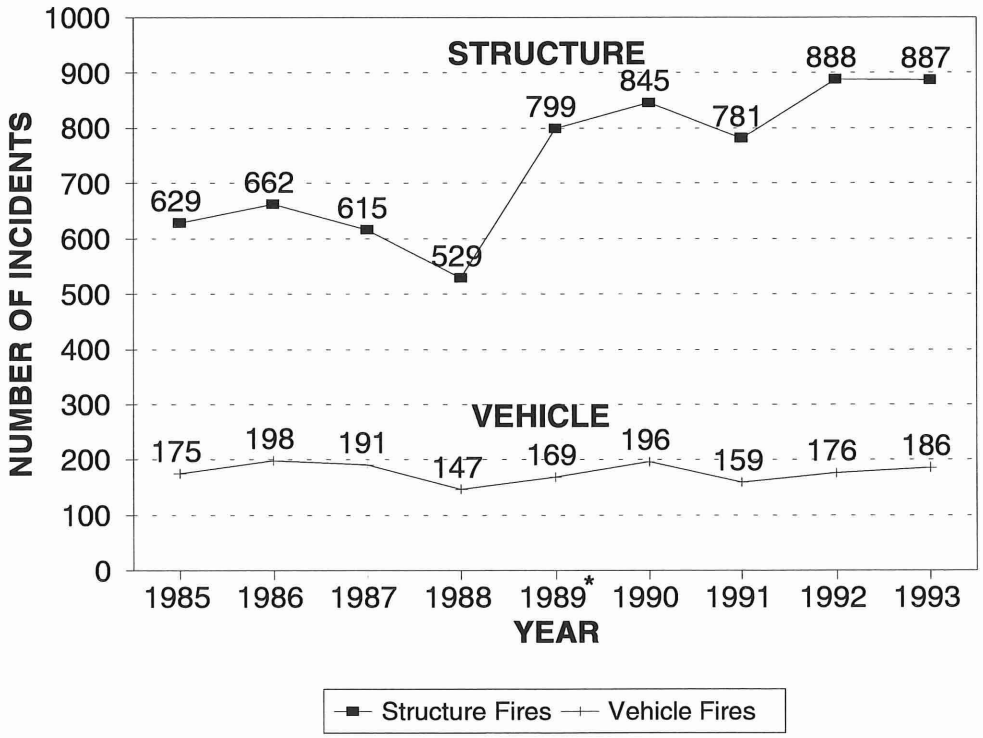
Average dollar loss in arson-related structure fires is $18,000, compared to $7,800, relating to all other fire causes.

A majority of arson structure fires (50%) occurred in residential dwellings. The dollar loss for these fires totalled $8 million, or 39% of the cost of all reported arson fires. The average loss for each fire equalled approximately $18,000, compared to an average dollar loss of $7,800 for nonarson structure fires.

Arson Fire Dollar Loss By Structure Type



REPORTED ARSON STRUCTURE AND VEHICLE FIRES, 1985-1993



Arson was listed as the cause of 13% of all reported structure fires and 4% of all reported vehicle fires in Minnesota in 1993. However, vehicle arson fires represented 44% of total vehicle fire dollar loss, with an average dollar loss per arson vehicle fire of $4,400 vs. $241 average loss in overall vehicle fires.

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

Arson Structure Fires by Time of Day

0000-0600	*259*
0600-1200	*167*
1200-1800	*203*
1800-2400	*258*
Total	***887***

RESIDENTIAL STRUCTURE ARSON FIRES

Property Type	Incidents	Dollar Loss	% of Total Dollar Loss
One-Two Family Dwelling	296	$6,697,406	84%
Apartment/Tenement/Flat	123	1,261,489	16%
Other Residential Occupancy	5	12,700	<1%
Hotel/Motel/Inn/Lodge	8	9,540	<1%
Dormitories	8	1,250	<1%
Rooming/Boarding/Lodging/Housing	2	510	<1%
TOTAL	**442**	**$7,982,895**	**100%**

As is the case with overall fire totals, residential structures are at greatest risk. The 442 residential arson incidents reported in 1993 accounted for 10% of all reported residential fires and also 15% 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.

County	Incidents	Arson Fires/ 100,000 Pop.	Dollar Loss	County	Incidents	Arson Fires/ 100,000 Pop.	Dollar Loss
Aitkin	1	8	$2,500	Martin	5	23	$36,650
Anoka	179	74	$344,356	McLeod	3	9	$400
Becker	14	52	$37,100	Meeker	2	10	$1,800
Beltrami	25	74	$81,550	Mille Lacs	6	33	$30,000
Benton	1	3	$1,000	Morrison	1	3	$0
Big Stone	0	0	$0	Mower	12	32	$36,475
Blue Earth	49	91	$34,225	Murray	1	10	$127,000
Brown	3	11	$0	Nicollet	7	25	$5,500
Carlton	25	86	$173,425	Nobles	1	5	$40,000
Carver	19	40	$21,500	Norman	1	14	$40,000
Cass	22	105	$3,000	Olmsted	40	38	$141,345
Chippewa	0	0	$0	Ottertail	8	16	$56,500
Chisago	4	13	$0	Pennington	3	23	$100
Clay	17	34	$23,300	Pine	2	10	$25,000
Clearwater	7	88	$3,000	Pipestone	0	0	$0
Cook	0	0	$0	Polk	17	53	$85,000
Cottonwood	1	8	$25,000	Pope	3	30	$10,700
Crow Wing	16	36	$17,500	Ramsey	432	89	$1,327,085
Dakota	164	60	$1,585,880	Red Lake	0	0	$0
Dodge	3	20	$60,000	Redwood	2	12	$6,000
Douglas	2	7	$1,100	Renville	0	0	$0
Faribault	1	6	$10,000	Rice	18	37	$63,000
Fillmore	2	10	$60,000	Rock	0	0	$0
Freeborn	11	33	$12,550	Roseau	1	7	$40,000
Goodhue	111	278	$52,495	St. Louis	219	111	$841,510
Grant	0	0	$0	Scott	38	67	$157,350
Hennepin	523	51	$9,256,704	Sherburne	7	17	$1,600
Houston	0	0	$0	Sibley	6	43	$22,000
Hubbard	3	21	$2,000	Stearns	19	16	$20,500
Isanti	7	28	$17,500	Steele	12	40	$1,430
Itasca	17	42	$16,000	Stevens	1	10	$0
Jackson	2	0	$45,000	Swift	6	60	$7,000
Kanabec	1	18	$300	Todd	1	4	$0
Kandiyohi	9	24	$17,250	Traverse	1	22	$6,000
Kittson	2	40	$0	Wabasha	2	11	$6,000
Koochiching	7	44	$25,075	Wadena	4	31	$220,000
Lac Qui Parle	0	0	$0	Waseca	5	28	$0
Lake	2	20	$40,000	Washington	58	40	$145,630
Lake of the Woods	0	0	$0	Watonwan	3	27	$10,100
LeSueur	5	22	$2,000	Wilkin	0	0	$0
Lincoln	0	0	$0	Winona	13	28	$10,550
Lyon	1	4	$5,000	Wright	8	12	$28,200
Mahnomen	7	140	$300	Yellow Medicine	5	45	$0
Marshall	7	70	$15,000				

* Based on data received from 620 departments. See pages 45-52 for MFIRS participation by county.

JUVENILE FIRE SETTING

73% of child fire play fatalities were children under age 8.

Children playing with fire resulted in $3.8 million in property loss in 1993, a 37% increase over 1992. These fires resulted in an average dollar loss per fire of $7,000 each. Of the 11 fatalities (an 82% increase over 1992), 73% were children under eight years of age. This equals one fire death per every 50 fires. Additionally, 43 injuries to civilians and 8 injuries to firefighters were a direct result of child-set fires.

Fires Involving Children Playing With Fire

	1993
Fires	538
Deaths	11
Civilians Injured	43
Firefighters Injured	8
Dollar Loss	$3.8 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. In 1993, one parent also died as a result of a fire set by a child.

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 five years.

The average dollar loss of an arson fire is approximately $18,000 per incident, compared to $7,800 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 39% of dollar loss from arson.

Extremely alarming is the fact that 54% of all fires in educational facilities were determined to be deliberately set.

In the past five years, arson related fires caused 11 deaths and $78 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

MULTIPLE DEATHS IN ST JAMES FIRE...

In the early hours of November 10, 1993, a young worker, Vicente Ibarra, finished his shift at the Swift-Eckrich plant in St. James, Minnesota, and headed home to the second floor apartment where he had recently moved with his wife and their five children.

As he neared his home, he could see flames coming from the area of his apartment, and fire trucks converging on the scene.

Although the next-door neighbor had aroused the family in the adjacent apartment, he was driven back by heat from a fire in the apartment where the Ibarra family slept.

The fire, in the opinion of State Fire Marshal Investigators, had begun in the roof and ceiling area, possibly from water leaking onto electric wiring. The destruction was so complete in that part of the building that no definite determination of cause could be made, although arson was ruled out.

Ibarra's wife, SanJuanita, and five children under seven years of age perished in the fire. The Ibarra apartment sustained little actual burn damage; however, the six victims died of asphyxiation from the smoke filtering into the room.

The presence of smoke detectors was not determined; the building owner claims they had been installed in every apartment. Residents dispute this, and none was found in the twice-sifted rubble.

Although the legal questions may not be decided for years to come, the issue of life and death was decided for five children and their mother in a brief moment of time on November 10, 1993.

Fire Deaths and Smoke Detector Performance

Fire deaths up 42% in 1993.

Fire deaths increased overall by 42% in 1993. Fifty-one Minnesota fire deaths (72%) occurred in residential settings. These figures represent a 42% increase in deaths in dwellings, and a 43% increase in fatalities in other than dwellings. In 47% of the dwelling fatalities, smoke detectors were either non-operating or absent altogether. In another 27% of the dwelling cases, it is not known whether a smoke detector was present or operating.

FIRE DEATHS IN DWELLINGS

	Fatalities	% of Dwelling Fires	% of Total Deaths
No Smoke Detectors Present	13	25%	18%
Inoperable Smoke Detectors Present	11	22%	15%
Working Smoke Detectors Present	10	20%	14%
Unk. if Detectors Present/Working	14	27%	20%
N/A in Residences (suicides, etc.)	3	6%	4%
Total Deaths in Dwellings	**51**	**100%**	**71%**
Other Fire Deaths	20	--	29%
Total Fire Deaths	**71**	**--**	**100%**

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

In 47% of fatalities in residential occupancies, smoke detectors were improperly maintained or absent altogether.

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

	Fatalities	Percent
Alcohol or Drug Impaired	4	40%
Elderly/Mobility Impaired	2	20%
Exits Blocked/Impeded	1	10%
Irrational Act/Went Back Inside	1	10%
Irrational Act/Children Too Young	2	20%
TOTAL	**10**	**100%**

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

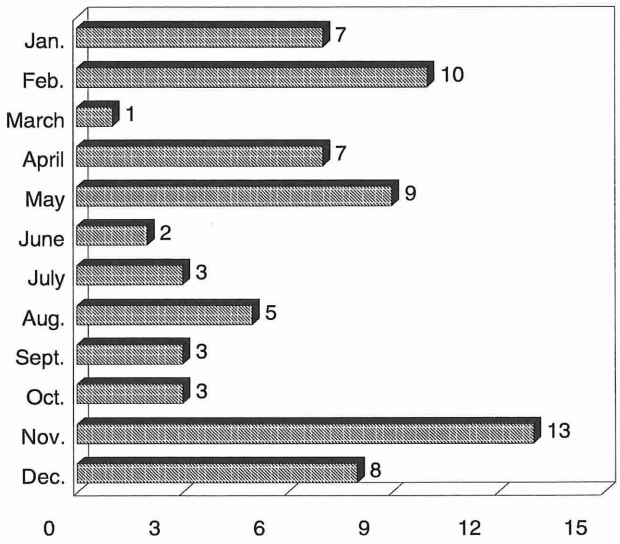
CIVILIAN FIRE DEATHS: WHO AND WHEN

Fifty percent of fire deaths occurred between the hours of midnight and 6:00 a.m. The two high-risk times of year were May and November through February, during the heating season.

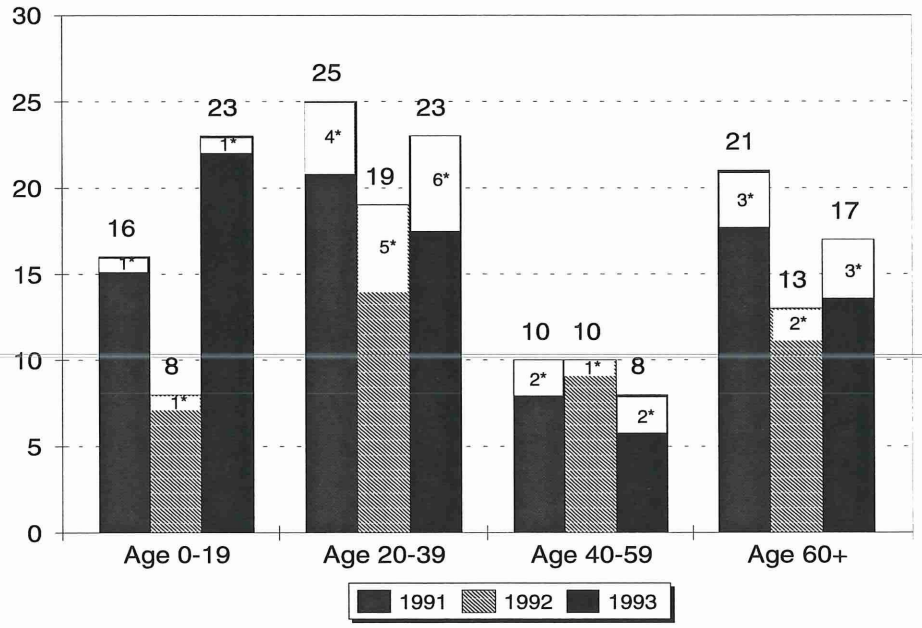
FIRE DEATHS BY TIME OF DAY

	TOTAL	0000-0600	0600-1200	1200-1800	1800-2400
Careless Smoking	21	14	3	3	1
Vehicle	12	2	5	1	4
Child Play w/Fire	11	0	4	4	3
Electrical Problem	3	2	1	0	0
Suicide	3	0	2	0	1
Natural Gas Leak	2	0	2	0	0
Combust. Too Close	2	1	1	0	0
Furnace Malfunction	2	1	1	0	0
Flammable Liquid Use	1	0	0	0	1
Wood Heating	1	0	0	0	1
Inadeq. Cont./Outdoor	1	0	0	1	0
Static Electricity	1	0	1	0	0
Lightning	1	0	1	0	0
Undetermined	1	8	0	0	2
Total	**71**	**28**	**21**	**9**	**13**

FIRE DEATHS BY MONTH



FIRE DEATHS BY AGE



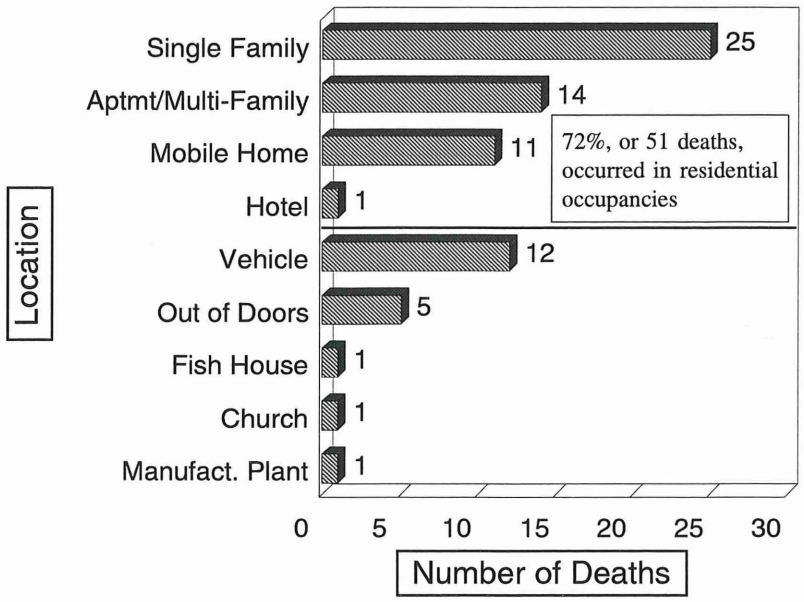
*Fire deaths listed as suicides or motor vehicle fire incidents.

47% of children ages, 0-19 yrs. died as a result of child fire play.

In 1993, 23 fire deaths in the 20-39 year old age group equalled the fatalities in the 0-19 year old population. Sadly, in 74% of the fatalities in the 20-39 year olds, alcohol impairment was identified as a contributing factor. In 69% of the 0-39 year age group, careless smoking caused the fire resulting in the death. Tragically, 47% of the youngest group perished as a result of children playing with fire. The majority of these children were 8 yrs. and under. The issue of these children having access to matches and lighters must be addressed.

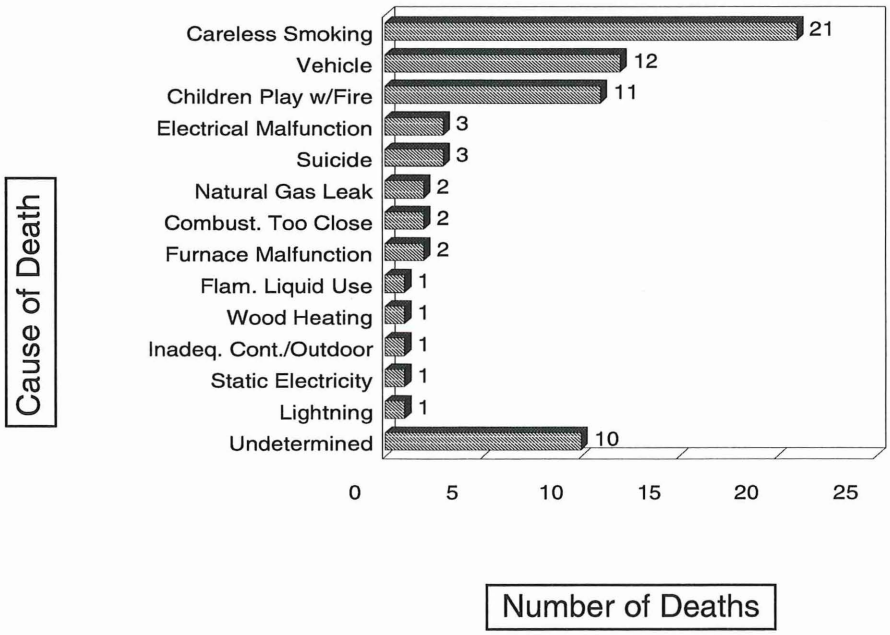
CIVILIAN FIRE DEATHS: WHERE AND WHY

72% of fire deaths occurred in residential settings.



Seventy-two percent of the 1993 fire deaths occurred where people generally feel safest - at home. Seven incidents involved multiple deaths totalling 22 fatalities. Careless smoke and children playing with fire were the two major causes of these deaths.

Careless smoking was identified as the cause of 30% of all fire deaths.

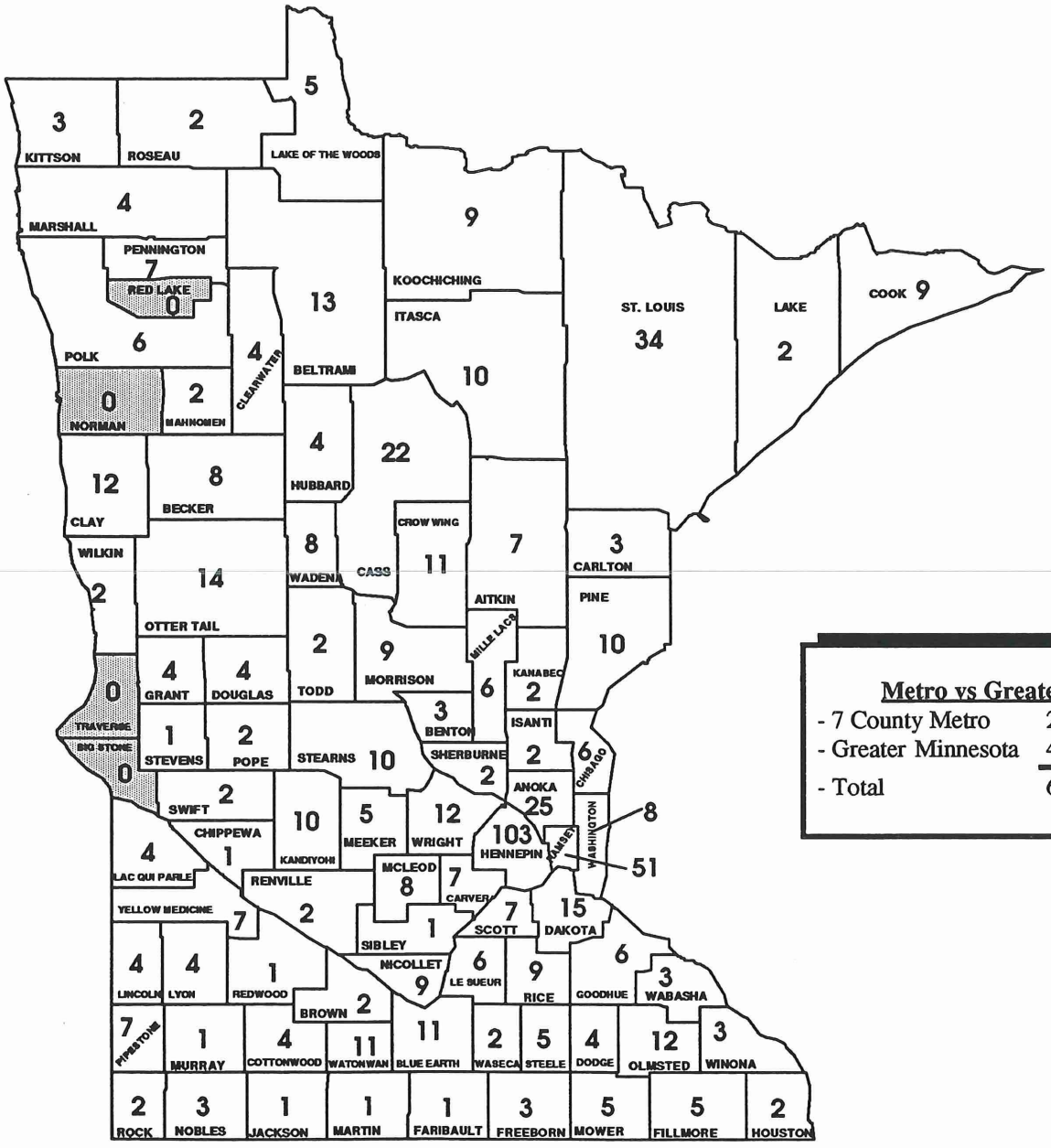


Careless smoking was the largest single identified cause in fire deaths, identified in 30% of all cases. Alcohol or other drug use was present or identified as an impairing factor in fully 37% of the deaths, including four of the five multiple death incidents.

Civilian Death Rates

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

In the past ten years, 671 Minneaota 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 1993, greater Minnesota contained 48% of the state's population and experienced a per capita death rate of 2.2 for every 100,000 people. This is nearly double from last year! The per capita rate for the metro area in 1993 was 1.09 per 100,000, while the rate for the state as a whole was 1.6 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.)



Metro vs Greater MN		
- 7 County Metro	216	32%
- Greater Minnesota	455	68%
- Total	671	100%

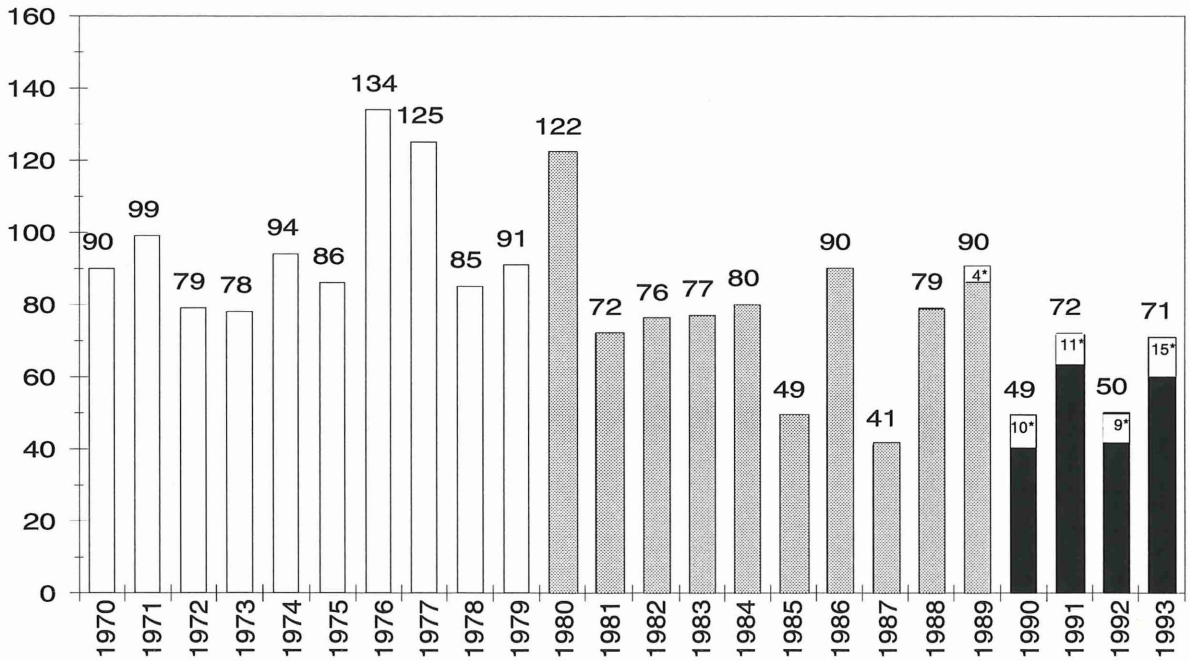
20 YEARS OF FIRE DEATH HISTORY

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, 1993, 242 Minnesotans have died in fires. Should this rate continue, the decade of the nineties may see 605 fire deaths, a 22% decrease 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 - 1992



*Number of vehicle/suicide fires.

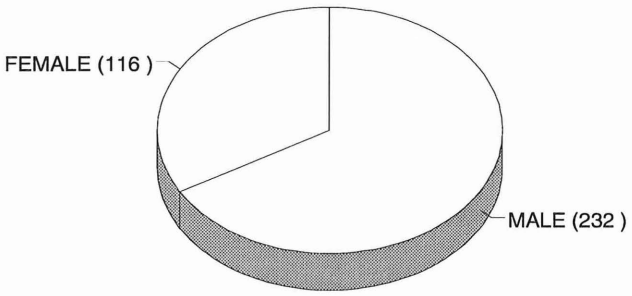
As of August 1, 1993, smoke detectors are required in every dwelling in Minnesota that has a sleeping area.

New 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 1993, 349 civilians were injured in Minnesota fires. Injuries to males outnumbered those to females by 2 to 1.

In 1993, 349 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.



AGE OF VICTIM	NO. OF VICTIMS
0-19	60
20-39	135
40-59	57
60-OVER	34
UNREPORTED	63
TOTAL	**349**

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

ACTIVITIES FOR ALL INJURIES

Activity	#	%
Fire Control	78	22%
Escape	55	16%
Sleeping	23	7%
Unable to act	22	6%
Rescue attempt	17	5%
Irrational act	15	4%
Other	57	16%
Unkn/unrep	82	23%
	349	100%

For all victims, twenty-two percent of injuries were incurred when the victim attempted to extinguish the fire. Residential structures, accounting for 67% of all fire incidents in 1993, were the site of 74% of reported injuries.

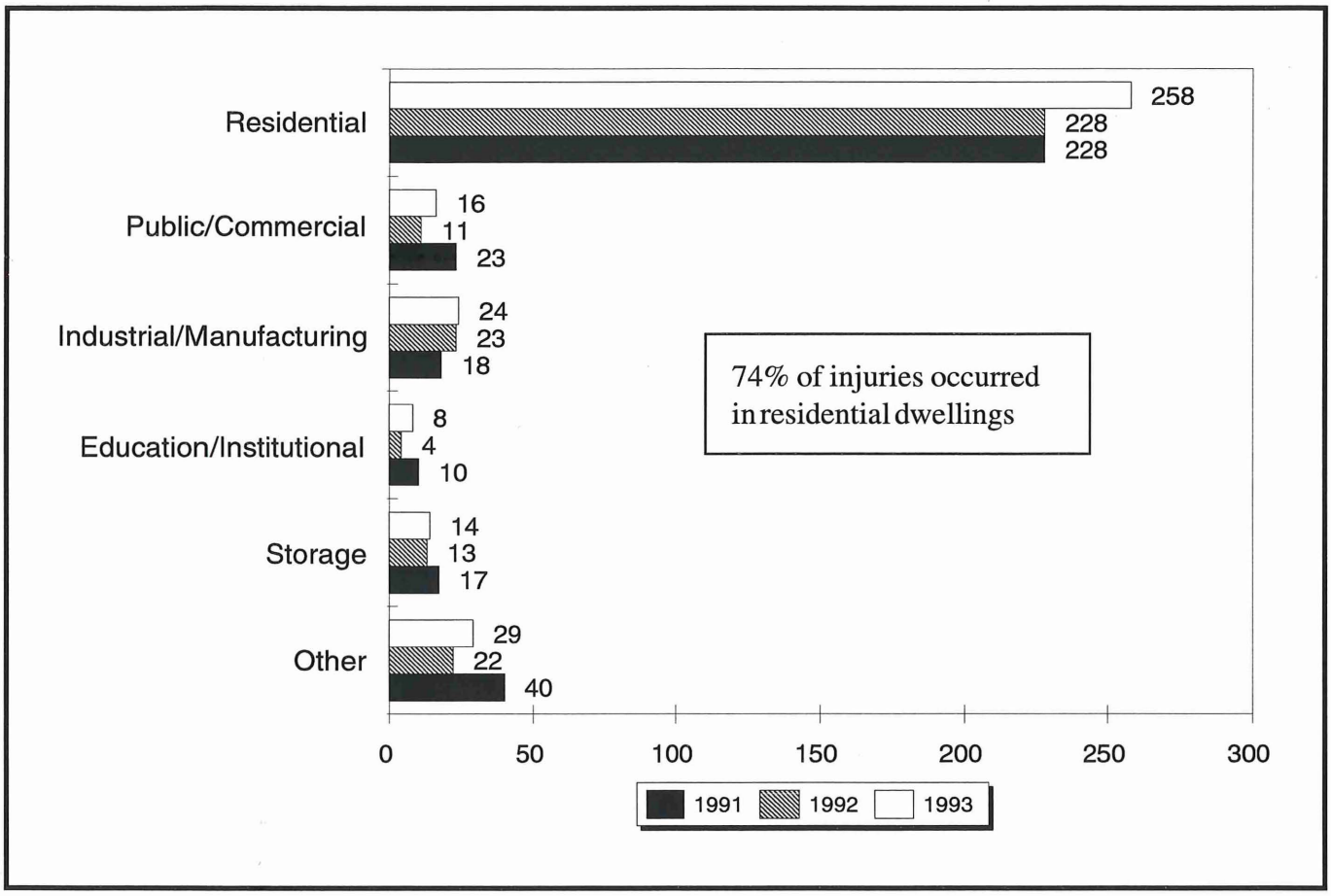
ACTIVITIES FOR 20-39 YEAR OLDS

Activity	#	%
Fire Control	40	30%
Sleeping	14	10%
Rescue attempt	12	9%
Escape	10	7%
Unable to act	4	3%
Irrational act	4	3%
Other	25	19%
Unkn/unrep	26	19%
	135	100%

CIVILIAN INJURIES BY ACTIVITY AND STRUCTURE

	Residential	Educ/Inst	Pub/Comm	Indus/Manu	Storage	Other
Fire Control	52	1	9	7	4	5
Escaping	43	--	3	2	2	5
Other	30	1	3	7	6	10
Sleeping	23	--	--	--	--	--
Rescue Attempt	17	--	--	--	--	--
Unable to Act	15	1	--	3	--	3
Irrational Action	14	1	--	--	--	--
Unknown	64	4	1	5	2	6
TOTAL	**258**	**8**	**16**	**24**	**14**	**29**

CIVILIAN INJURIES BY PROPERTY TYPE



FIREWORKS INJURIES

In the last five years, 209 people have been seriously injured by illegal fireworks. Nearly two thirds 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 - 1993, 77% of those seriously injured were male; 23% were female. Forty-five percent of the victims were between the ages of ten and nineteen, 22% were 20 - 29, and 15% were aged 0 - 9. The number of injuries has more than doubled from 28 in both 1989 and 1990, to 66 in 1993. Those sixty-six injuries in 1993 included first, second and third degree burns, eye injuries, abrasions, fractures, and the necessity for amputation.

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*
- *209 injured*
- *60% of injures were children*

FIREFIGHTER INJURIES

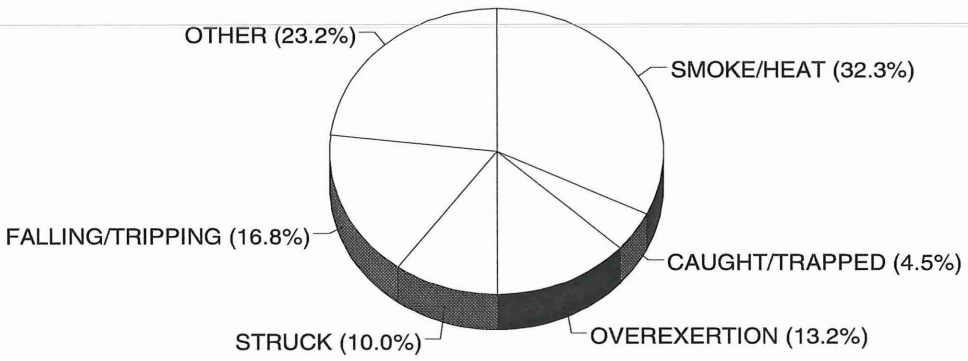
In 1993, 292 Minnesota firefighters were injured while responding to, involved in or returning from emergency situations. Of these 292 injuries, 220 were directly fire related. (This does not include injuries that occur during training or at the stations.) Seventy percent of these injuries occurred when firefighters were fighting fires in residential structures.

Of the 292 firefighter injuries, 220 occurred in the course of fighting fires.

NINE-YEAR HISTORY OF MINNESOTA FIREFIGHTER INJURIES

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

MINNESOTA FIREFIGHTER INJURIES: CAUSES



Exposure to smoke and heat accounted for 32.3% of the injuries, a rate slightly more than the 29.2% national average (National Fire Information Council figures). Falling or tripping caused 16.8% of Minnesota firefighter injuries, compared to 17.8% nationally. While overexertion and strains are responsible for a national average of 18.2%, only 13.2% of Minnesota firefighters were injured this way in 1993.

SUMMARY

Clearly, Minnesotans are most at risk from fire death and injury when in residential dwellings. **Seventy-two percent of the state's fire deaths (all civilian) and 74% of civilian injuries in 1993 occurred in residential occupancies.**

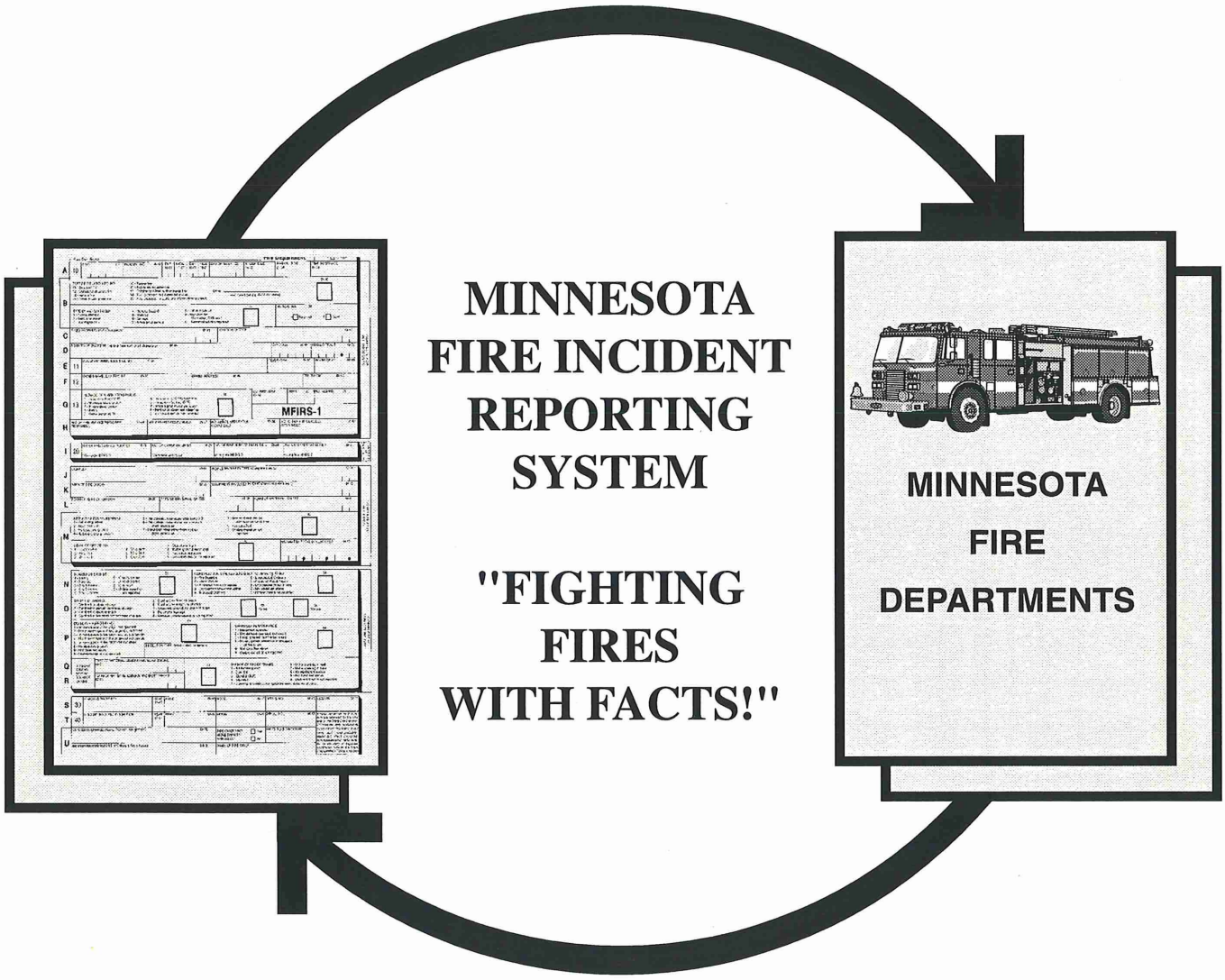
The presence or absence of working smoke detectors in dwellings is a critical factor in fire fatalities. In 74% of the 51 fire fatalities occurring in dwellings, either no smoke detectors were present, they were present but improperly maintained, or it was not known whether detectors were present or functioning. It is especially important to note that 10 of these fire deaths were children.

Careless smoking was the leading cause of death, identified in 30% of fatalities. Alcohol or other drug use was an impairing factor in 37% of fire deaths.

As noted above, nearly three fourths of all fire related injuries were sustained in residential dwellings. Almost a quarter of all fire injuries occurred during attempts to control the fire. **Seventy percent of firefighter injuries occurred in the course of battling residential fires.** Exposure to smoke and heat were clearly the leading causes of injury, followed by falling or tripping.

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



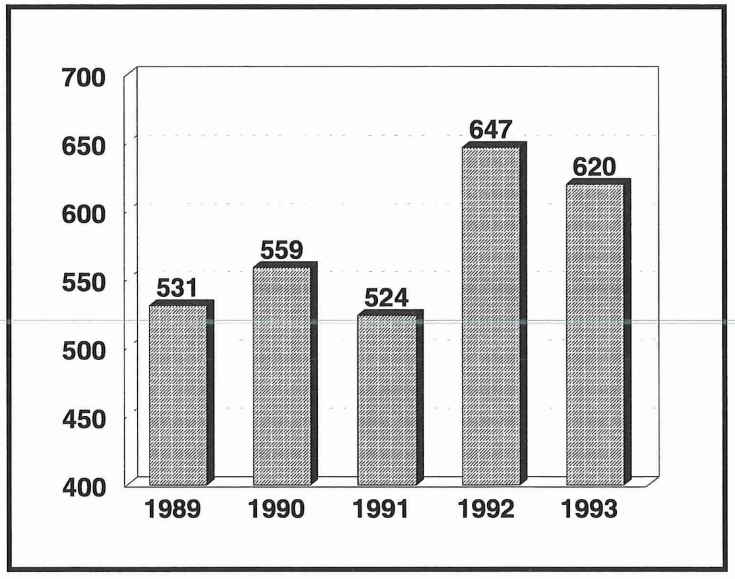
PARTICIPATION

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

The Minnesota State Fire Marshal Division appreciates the efforts of the fire departments who submitted MFIRS reports in 1993. 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 1989 - 1993 is listed on the following pages. Deaprtments are listed by county, with the total percent of those reporting in 1993 indicated. In only nine counties, 100% of the fire deparments reported to the MFIRS system. This represents a 44% increase in "100%" counties. Sixty-four departments are not represented in 1993 that were in 1992, and 39 departments were added.

FIRE DEPARTMENTS' MFIRS PARTICIPATION



Participation in MFIRS decreased by 4% in 1993. 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 Nora Gierok or Ernie Scheidness at 612/643-3080.

AITKIN COUNTY

71% Reporting

89	90	91	92	93	
*	*	*	*	*	AITKIN
*	*	*	*	*	HILL CITY
*	*	*	*	*	JACOBSON
	*	*	*	*	MCGREGOR VOL
*	*	*	*	*	PALISADE VOL
*	*	✎	*		McGrath
					Tamarack

ANOKA COUNTY

93% Reporting

*	*	*	*	*	ANDOVER
*	*	*	*	*	ANOKA-CHAMPLIN
		*	*	*	CEDAR-OAK GROVE
*	*	*	*	*	CENTENNIAL
*	*	*	*	*	COLUMBIA HEIGHTS
*	*	*	*	*	COON RAPIDS
*	*	*	*	*	EAST BETHEL
*	*	*	*	*	FRIDLEY
*	*	*	*	*	HAM LAKE
*	*	*	*	*	LEXINGTON
*	*	*	*	*	LINWOOD VOL
*	*	*	*	*	RAMSEY
*	*	*		*	ST FRANCIS
*	*	*	*	*	SPRING LAKE PARK
*	*	*	*		Bethel

BECKER COUNTY

78% Reporting

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

BELTRAMI COUNTY

83% Reporting

89	90	91	92	93	
				*	ALASKA
*	*	*	*	*	BEMIDJI
*	*	*	*	*	BLACKDUCK
*	*	*	*	*	KELLIHER VOL
*	*	*	*	*	RED LAKE
*	*	*			Solway

BENTON COUNTY

67% Reporting

*	*	*	*	*	FOLEY
*	✎	*	*	*	SAUK RAPIDS
					Rice

BIG STONE COUNTY

33% Reporting

	✎	✎		*	ODESSA
*	*	*	*	*	ORTONVILLE
		*	*	*	Beardsley
*	*	*	*		Clinton
		✎			Correll
					Graceville

BLUE EARTH COUNTY

83% Reporting

*	*	*	*	*	AMBOY
*	*		*	*	EAGLE LAKE VOL
*	*	*	*	*	GOOD THUNDER
*	*	*	*	*	LAKE CRYSTAL
*	*	*	*	*	MADISON LAKE
*	*	*	*	*	MANKATO
*	*	*	*	*	MAPLETON
*	*	*	*	*	SOUTH BEND
*	*	*	*	*	ST CLAIR
*	*		*	*	VERNON CENTER
	*	✎			Pemberton
	*				Skyline

BROWN COUNTY

60% Reporting

89	90	91	92	93	
*	*	*	*	*	COMFREY
*	*	*	*	*	NEW ULM
				*	SPRINGFIELD VOL
	✎				Hanska
*	*	*	*		Sleepy Eye

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

(12) - 100% Reporting

*	*	*	*	*	CARVER
*	*	*	*	*	CHANHASSEN
*	*	*	*	*	CHASKA
*	*	*	*	*	COLOGNE
*	*	*	*	*	HAMBURG
*	*	*	*	*	MAYER
*	*	*	*	*	NEW GERMANY
*	*	*	*	*	NORWOOD
*	*	*	*	*	VICTORIA
*	*	*	*	*	WACONIA
*	*	✎	*	*	WATERTOWN
*	*	*	*	*	YOUNG AMERICA

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
91% Reporting

89	90	91	92	93	
	*	✎	*	*	BACKUS VOL
*	*	*	*	*	CASS LAKE
*	✎	*	*	*	CROOKED LAKE VOL
		✎		*	FEDERAL DAM
*	*	*	*	*	HACKENSACK AREA
*	*	*	*	*	LONGVILLE VOL
*	*	*	*	*	PILLAGER AREA
*	*	*	*	*	PINE RIVER
*	*	*	*	*	REMER
	✎			*	WALKER
					Bena

CHIPPEWA COUNTY
80% Reporting

*	*	*	*	*	CLARA CITY
*	✎		*	*	MAYNARD
*	*	*	*	*	MONTEVIDEO
*	*	*	*	*	WATSON
					Milan

CHISAGO COUNTY
82% Reporting

*	*	*	*	*	ALMELUND
*	*	*	*	*	CENTER CITY
*	*	*	*	*	HARRIS
*	*	*	*	*	LINDSTROM
	✎	*	*	*	NORTH BRANCH
*	*	*	*	*	RUSH CITY
*	*	*	*	*	SHAFER
*	*	*	*	*	STACY
*	*	*	*	*	WYOMING
	*				Chisago City
	✎	✎			Taylors Falls

CLAY COUNTY
78% Reporting

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

CLEARWATER COUNTY
33% Reporting

89	90	91	92	93	
*	*	*	*	*	BAGLEY
	✎		*	*	CLEARBROOK
			*		Alida
		✎			Gonvick
	✎	✎	*		Hangaard Twp
	✎				Shevlin

COOK COUNTY
63% Reporting

			*	*	GUNFLINT TRAIL
*	✎	✎	*	*	HOVLAND
*			*	*	LUTSEN TWP VOL
			*	*	SCHROEDER
	*	✎	*	*	TOFTE
					Grand Marais Vol
					Grand Portage
		✎	*		Maple Hill

COTTONWOOD COUNTY
67% Reporting

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

CROW WING COUNTY
43% Reporting

*	*	*	*	*	BRAINERD
*	*	*	*	*	CROSSLAKE
*	*	*	*	*	DEERWOOD
	*	*	*	*	IDEAL TWP
*	*	*	*	*	NISSWA
*	*	*	*	*	PEQUOT LAKES
*					Crosby Vol
*	✎	*			Cuyuna
	✎	✎			Emily Vol
*	✎				Fifty Lakes
*	*				Garrison
					Ironton
	*	✎			Mission Twp
*	*	*	*		Riverton

DAKOTA COUNTY
93% Reporting

89	90	91	92	93	
*	*	*	*	*	APPLE VALLEY
*	*	*	*	*	BURNSVILLE
*	*	*	*	*	EAGAN
*	*	*	*	*	FARMINGTON
	✎	✎	*	*	HAMPTON
*	*	*	*	*	HASTINGS
*	*	*	*	*	INVER GROVE HTS
*	*	*	*	*	LAKEVILLE
*	*	*	*	*	MENDOTA HEIGHTS
*	*	*	*	*	MIESVILLE VOL
*	*	*	*	*	ROSEMOUNT
			*	*	SOUTH ST PAUL
*	*	*	*	*	WEST ST PAUL
					Randolph

DODGE COUNTY
(6) - 100% Reporting

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

DOUGLAS COUNTY
64% Reporting

*	*	*	*	*	ALEXANDRIA
	*	*	*	*	CARLOS
*	*	*	*	*	EVANSVILLE
*	*	*	*	*	FORADA TWP
	✎	✎		*	LEAF VALLEY TWP
	*			*	MILTONA
*	*	✎		*	OSAKIS
	✎	✎			Brandon
		✎	*		Garfield
*	*	*			Kensington
		✎	*		Millerville

FARIBAULT COUNTY

91% Reporting

89	90	91	92	93	
*	*	*	*	*	BLUE EARTH
*	✎	✎	*	*	BRICELYN
*	*	*	*	*	DELAVAN VOL
	*	*	*	*	EASTON VOL
	✎	✎	*	*	FROST
	*	*	*	*	KIESTER
	*	✎	*	*	MINNESOTA LAKE
*	*	*	*	*	WALTERS VOL
*	*	✎	*	*	WELLS
*	*	*	*	*	WINNEBAGO VOL
		✎			Elmore

FILLMORE COUNTY

67% Reporting

*	*	*	*	*	FOUNTAIN
*	*	✎	*	*	HARMONY
*	*	*	*	*	LANESBORO
*	*	*	*	*	MABEL VOL
*	*	*	*	*	OSTRANDER
*		*	*	*	PRESTON
*	*	*	*	*	RUSHFORD
*	*	*	*	*	SPRING VALLEY
		✎			Canton
*	*	*	*		Chatfield
					Greenleaf
*	*	*	*		Wykoff

FREEBORN COUNTY

44% Reporting

*	*	*	*	*	ALBERT LEA
*	*	*	*	*	ALBERT LEA TWP
				*	GENEVA
	*		*	*	HARTLAND
	✎	*	*	*	HOLLANDALE
*	*	*	*	*	LONDON
	*	✎	*	*	MANCHESTER
	✎	*			Alden
					Clarks Grove Vol
					Conger
	*	✎	*		Emmons
		*			Freeborn
	✎				Glenville
*	*	*	*		Hayward
	*				Myrtle
	*	*			Twin Lakes

GOODHUE COUNTY

88% Reporting

89	90	91	92	93	
*	*	*	*	*	CANNON FALLS
*	✎	✎	*	*	DENNISON
*	*	*	*	*	GOODHUE
*	*	*	*	*	PINE ISLAND
*	*		*	*	RED WING
		*	*	*	WANAMINGO
*	*	*	*	*	ZUMBROTA
	✎	✎			Kenyon

GRANT COUNTY

83% Reporting

		✎	✎	*	BARRETT
*	*	✎	*	*	ELBOW LAKE
*	*	*	*	*	HERMAN VOL
*	*	*	*	*	HOFFMAN
*	*	✎	*	*	WENDELL
*	*		*		Ashby

HENNEPIN COUNTY

(32) - 100% Reporting

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

89	90	91	92	93	
*	*	*	*	*	ST ANTHONY
*	*	*	*	*	ST BONIFACIUS
*	*	*	*	*	ST LOUIS PARK
*	*	*	*	*	WAYZATA

HOUSTON COUNTY

71% Reporting

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

HUBBARD COUNTY

60% Reporting

	*	*	*	*	AKELEY
*	*	*	*	*	LAPORTE/LAKEPORT
	*	*	*	*	PARK RAPIDS
	✎	*			Lake George
	✎		*		Nevis

ISANTI COUNTY

(4) - 100% Reporting

	✎	*	*	*	BRAHAM
*	*	*	*	*	CAMBRIDGE
	*	*	*	*	DALBO
*	*	*	*	*	ISANTI VOL

ITASCA COUNTY

75% Reporting

*	*	*	*	*	BALSAM VOL
*	*		*	*	BASS BROOK
*	*	*	*	*	BOVEY
*	*	*	*	*	CALUMET
*	✎	*	*	*	COLERAINE
*	*	*	*	*	DEER RIVER
*	*	*	*	*	GOODLAND
	✎	*	*	*	GRAND RAPIDS
		✎	*	*	MARBLE
*	*	*	*	*	NASHWAUK
*	*	✎	*	*	TACONITE
*	*	✎	*	*	WARBA
					Bearville Twp
*	*	✎			Bigfork Vol
*	*	*			Keewatin Vol
					Squaw Lake

JACKSON COUNTY
80% Reporting

89 90 91 92 93

	✎			*	ALPHA
	*		*	*	HERON LAKE VOL
	*	*	*	*	JACKSON
*	*	*	*	*	LAKEFIELD
	✎	✎			Okabena

KANABEC COUNTY
67% Reporting

	✎			*	MORA
*	*	*	*	*	OGILVIE
	✎		*		Grasston

KANDIYOHI COUNTY
55% Reporting

*	*		*	*	ATWATER
*	*	*	*	*	KANDIYOHI
*	✎		*	*	LAKE LILLIAN
*	*	*	*	*	NEW LONDON
	✎	✎		*	PRINSBURG
*	*	*	*	*	WILLMAR
	✎				Blomkest
	✎				Pennock
	*	*	*		Raymond
*	*	*	*		Spicer
		✎			Sunburg

KITTSON COUNTY
60% Reporting

*	*	*	*	*	HALLOCK
	✎		*	*	LAKE BRONSON
*	*	*		*	LANCASTER
*	✎	*	*		Karlstad Vol
	*				Kennedy

KOOCHICHING COUNTY
67% Reporting

*	*	✎	*	*	BIG FALLS VOL
*	*	*	*	*	INTERNATIONAL FLS
*	*	*	*	*	LITTLEFORK
*	✎	*	*	*	NORTHOME
		✎			Birchdale Rural
*	*		*		Loman Rural

LAC QUI PARLE COUNTY
57% Reporting

89 90 91 92 93

	✎	✎	*	*	DAWSON
*	*	*	*	*	MADISON
*	*	*	*	*	MARIETTA
		✎	*	*	NASSAU
*	✎				Bellingham
					Boyd
	✎	✎	*		Louisburg

LAKE COUNTY
(4) - 100% Reporting

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

LAKE OF THE WOODS COUNTY
50% Reporting

			*	*	BAUDETTE
*					Williams

LE SUEUR COUNTY
(8) - 100% Reporting

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

LINCOLN COUNTY
40% Reporting

		*	*	*	IVANHOE
	✎	*	*	*	TYLER
		✎	*		Arco
*					Hendricks
*		*	*		Lake Benton

LYON COUNTY
70% Reporting

89 90 91 92 93

*	*	*	*	*	BALATON
	✎	✎	*	*	GARVIN
		✎	*	*	LYND
*	*	*	*	*	MARSHALL
*	✎	✎	*	*	MINNEOTA
*	*		*	*	TAUNTON
*	*	*	*	*	TRACY
					Cottonwood
*	*	*	*		Ghent
	✎	✎	*		Russell

MC LEOD COUNTY
75% Reporting

*	*	*	*	*	BROWNTON VOL
*	*	*	*	*	GLENCOE
*	*	*	*	*	LESTER PRAIRIE
*	*	*	*	*	PLATO
*	*	*	*	*	SILVER LAKE
*	*		*	*	WINSTED
*	*	*	*		Hutchinson
*	*	*	*		Stewart

MAHNOMEN COUNTY
75% Reporting

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

MARSHALL COUNTY
63% Reporting

	✎	*	*	*	ALVARADO VOL
*	*	*	*	*	ARGYLE
*	*			*	MIDDLE RIVER
	✎	✎	*	*	OSLO
*	*	*	*	*	WARREN
		*			Grygla
	*	*	*		Newfolden
	*	✎	*		Stephen

MARTINCOUNTY

78% Reporting

89	90	91	92	93	
*	*	*	*	*	CEYLON
*	*	*		*	DUNNELL
*	*	*	*	*	FAIRMONT
	*	*	*	*	GRANADA
	✎	*	*	*	NORTHRUP
*	*	*	*	*	SHERBURN
	*	✎	*	*	TRIMONT
*	*	*	*		Truman
	✎				Welcome

MEEKER COUNTY

83% Reporting

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

MILLE LACS COUNTY

83% Reporting

*	*	*	*	*	FORESTON
	*	✎	*	*	ISLE
*	*	*	*	*	MILACA
	*	✎	*	*	PRINCETON
*	*	✎	*	*	WAHKON
*	*	*			Onamia

MORRISON COUNTY

82% Reporting

*	*	*	*	*	BELLE PRAIRIE RRL
	✎	✎	*	*	BOWLUS
		✎		*	FLENSBURG
*	*	*	*	*	LITTLE FALLS
*	*	*	*	*	MOTLEY
*	*	*	*	*	PIERZ
*	*	*	*	*	RANDALL
			*	*	SCANDIA VALLEY
*	*	*	*	*	SWANVILLE
					Royalton
	✎				Upsala

MOWER COUNTY

67% Reporting

89	90	91	92	93	
*	*	✎	*	*	ADAMS VOL
*	*	*	*	*	AUSTIN
	✎	✎	*	*	BROWNSDALE
*	*	✎	*	*	GRAND MEADOW
	*	✎		*	LE ROY
	*	*	*	*	ROSE CREEK AREA
					Dexter Vol
					Lyle
	✎	✎	*		Mapleview

MURRAY COUNTY

50% Reporting

		✎	✎	*	*	AVOCA
*	*	*	*	*	CURRIE VOL
*	*	*	*	*	FULDA
*	*	*	*	*	SLAYTON
	*		*		Chandler
					Dovray
*					Iona
	*	*			Lake Wilson

NICOLLET COUNTY

(5) - 100% Reporting

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

NOBLES COUNTY

80% Reporting

*	*	*	*	*	ADRIAN
	✎	✎		*	BIGELOW
*	*	*	*	*	BREWSTER
	✎	✎		*	DUNDEE
	*	*	*	*	ELLSWORTH
	*	*	*	*	ROUND LAKE
	*	*	*	*	WILMONT
*	*	*	*	*	WORTHINGTON
	✎		*		Lismore
	✎		*		Rushmore

NORMAN COUNTY

63% Reporting

89	90	91	92	93	
*	*	*		*	ADA
*	✎		*	*	BORUP
*	✎	*	*	*	GARY VOL
	*	✎	*	*	HALSTAD
*	*	✎	*	*	TWIN VALLEY
					Hendrum
	✎	✎	*		Perley-Lee Twp
	*	*			Shelly

OLMSTED COUNTY

88% Reporting

*	*	*	*	*	BYRON
*	*	*	*	*	DOVER
	*	*	*	*	ORONOCO
*	*	*	*	*	ROCHESTER
*	*	*	*	*	ROCHESTER AIRPORT
*	*	*	*	*	ROCHESTER RURAL
*	*	*	*	*	STEWARTVILLE
	*	*	*		Eyota Vol.

OTTERTAIL COUNTY

76% Reporting

			*	*	BATTLE LAKE
*	✎	✎	*	*	BLUFFTON
	*		*	*	DALTON
*	*	*	*	*	DEER CREEK
*	*	*	*	*	ELIZABETH
*	*	*	*	*	FERGUS FALLS
*	*	*	*	*	HENNING VOL
*	*	*	*	*	NEW YORK MILLS
*	*	*	*	*	OTTERTAIL
	✎	*	*	*	PARKERS PRAIRIE
		✎	*	*	PELICAN RPDS VOL
*	✎	*	*	*	UNDERWOOD
	*	✎	*	*	VERGAS
					Clitherall
*	*	✎	*		Dent
*	✎	*			Perham
		*			Vining

PENNINGTON COUNTY

(3) - 100% Reporting

*	*	*	*	*	GOODRIDGE AREA
*	*	*	*	*	ST HILLAIRE
*	*	*	*	*	THIEF RIVER FALLS

PINE COUNTY

75% Reporting

89 90 91 92 93

* * * * * BROOK PARK
* * ✎ * * BRUNO
* * * * * FINLAYSON
* * * * * HINCKLEY VOL
✎ * * * KERRICK
* * * * * SANDSTONE VOL
* * ✎ * * STURGEON LAKE
* * * * * WILLOW RIVER
* * * * Askov Vol
* * Pine City
Sandstone Prison

PIPESTONE COUNTY

83% Reporting

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

POLK COUNTY

38% Reporting

* * * * * CROOKSTON
* * * * * EAST GRAND FORKS
* * * * * ERSKINE
✎ ✎ * * FERTILE
* * * * * FOSSTON
Beltrami
✎ ✎ Climax
* ✎ ✎ * Fisher
Lengby
* ✎ * McIntosh
* * * Mentor
* * * * Nielsville
Winger

POPE COUNTY

83% Reporting

* * * * * GLENWOOD
* * * * LOWRY
✎ * * SEDAN
✎ ✎ * * STARBUCK
* * ✎ * * VILLARD VOL
✎ Cyrus

RAMSEY COUNTY

(15) - 100% Reporting

89 90 91 92 93

* * * * * 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

33% Reporting

* * * * * OKLEE
✎ ✎ Plummer
* Red Lake Falls

REDWOOD COUNTY

79% Reporting

* * * * * BELVIEW
* * * CLEMENTS
* * * * LAMBERTON
* * * * * LUCAN
* * * * MORGAN
* * * * * REDWOOD FALLS
* * * * * SANBORN
* * * * SEAFORTH
✎ * * * VESTA
* * * * * WALNUT GROVE
✎ * WANDA
* * * * Milroy
✎ ✎ Revere
✎ Wabasso Vol

RENVILLE COUNTY

60% Reporting

* * * * * BIRD ISLAND
* * * * * BUFFALO LAKE
* * * * * FAIRFAX
* * * HECTOR

89 90 91 92 93

✎ ✎ * * OLIVIA
* * * * RENVILLE
✎ Danube
✎ * Franklin
* * * * Morton
Sacred Heart

RICE COUNTY

80% Reporting

* * * * * FARIBAULT
* * * * * MORRISTOWN
* * * * NERSTRAND VOL
* * * * * NORTHFIELD
* * * Lonsdale

ROCK COUNTY

67% Reporting

✎ * * * BEAVER CREEK
* ✎ * * HARDWICK
* * * * HILLS
* * * * * LUVERNE
* * * * Kenneth Vol
Magnolia

ROSEAU COUNTY

50% Reporting

✎ ✎ * * BADGER
✎ * * ROSEAU
* * Greenbush
* * ✎ * Warroad

ST. LOUIS COUNTY

80% Reporting

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

89	90	91	92	93	
*	*	*	*	*	COLVIN TWP
*	*	*	*	*	COOK
*	*	*	*	*	COTTON VOL
*	*	*	*	*	DULUTH
				*	EAGLES NEST
				*	ELLSBURG
			*	*	ELMER
*	*	*	*	*	ELY
*	*	*	*	*	EMBARRASS VOL
*	*	*	*	*	EVELETH
		*	*	*	EVERGREEN
*	*	*	*	*	FAYAL
*				*	FLOODWOOD
*	*	*	*	*	FREDENBERG
*	*	*	*	*	FRENCH VOL
*	*	*	*	*	GNESEN VOL
*	*		*	*	GREENWOOD TWP
*	*	*	*	*	HIBBING
*	*	*	*	*	HOYT LAKES
*	*	*	*	*	INDUSTRIAL VOL
*	*		*	*	KABETOGAMA
*	*	*	*	*	KINNEY-GRT SCOTT
*	*	*	*	*	LAKELAND VOL
			*	*	LAKEWOOD TWP
*	*	*	*	*	MAKINEN
*	*	*	*	*	MC DAVITT
			*	*	MEADOWLNDS AREA
*	*	*	*	*	MOUNTAIN IRON
		*	*	*	NORTH STAR TWP
		*	*	*	NORTHLAND
*	*	*	*	*	ORR VOL
*	*	*	*	*	PALO TWP
*	*	*	*	*	PROCTOR
		*	*	*	RICE LAKE VOL
				*	SILICA AREA
	*			*	STURGEON TWP
*	*	*	*	*	SOLWAY RURAL
			*	*	TOIVOLA TWP
*	*	*	*	*	TOWER
*	*	*	*	*	VERMILLION LK
*	*	*	*	*	VIRGINIA
*	*	*	*		Biwabik Twp Vol
					Canosia Vol
*	*	*	*		Clifton Twp
			*		Crane Lake
*	*	*	*		Culver
		*			Gilbert
*					Grand Lake Vol
		*	*		Hermantown Vol
				*	Kelsey Vol
*	*		*		Mc Kinley Vol
*					Nett Lake
					Normanna Vol
				*	Pequaywan Lake
*	*	*	*		Pike-Sandy Britt

SCOTT COUNTY

(7) - 100% Reporting

89	90	91	92	93	
*	*	*	*	*	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
			*	*	BELGRADE
	*	*		*	BROOTEN
*	*	*	*	*	COLD SPRING
	*	*	*	*	FREEPORT
	*	*	*	*	HOLDINGFORD
*	*	*	*	*	KIMBALL
	*		*	*	LAKE HENRY
*	*	*	*	*	MELROSE
			*	*	NEW MUNICH
	*	*	*	*	PAYNESVILLE
*	*	*	*	*	RICHMOND
*		*	*	*	ROCKVILLE
*	*	*	*	*	ST CLOUD
*		*	*	*	ST JOHN'S UNIV
*	*	*	*	*	ST JOSEPH VOL
*			*	*	ST MARTIN
*	*	*	*	*	ST STEPHEN
*	*	*	*	*	SARTELL

89	90	91	92	93	
*	*	*	*	*	SAUK CENTRE
*	*	*	*	*	WAITE PARK
					Elrosa
*	*	*	*		St Cloud Twp

STEELE COUNTY

(4) - 100% Reporting

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

STEVENS COUNTY

(4) - 100% Reporting

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

SWIFT COUNTY

50% Reporting

			*	*	APPLETON
*	*	*	*	*	BENSON
			*	*	CLONTARF
*	*	*	*	*	DANVERS
					Degraff
					Holloway
*	*		*		Kerkhoven
					Murdock

TODD COUNTY

88% Reporting

*	*	*	*	*	BROWERVILLE
*	*	*	*	*	CLARISSA
	*	*	*	*	EAGLE BEND
*	*	*	*	*	GREY EAGLE
	*	*	*	*	HEWITT
*	*	*	*	*	LONG PRAIRIE
*	*	*	*	*	STAPLES
*					Bertha

TRAVERSE COUNTY

50% Reporting

	*	*	*	*	DUMONT
*	*	*	*	*	WHEATON
					Browns Valley
					Tintah

WABASHA COUNTY

86% Reporting

89	90	91	92	93	
	*	*	*	*	ELGIN
*	*	*	*	*	KELLOGG
*	*	*	*	*	LAKE CITY
*	*	*		*	PLAINVIEW
	*	*	*	*	WABASHA
*	*	*	*	*	ZUMBRO FALLS
*	*	*	*		Mazeppa Vol

WADENA COUNTY

75% Reporting

	*		*	*	SEBEKA
*	*	*	*	*	VERNDALE
*	*	*	*	*	WADENA
	✎		*		Menagha

WASECA COUNTY

75% Reporting

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

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

WATONWAN COUNTY

50% Reporting

89	90	91	92	93	
*	*	*	*	*	DARFUR
*	*	✎	*	*	MADELIA
	✎	✎	*	*	ODIN
*	*	*	*	*	ST JAMES
*	*	*			Butterfield
*	✎				LaSalle
	✎	✎			Lewisville
	✎	✎			Ormsby

WILKIN COUNTY

60% Reporting

*	*	*	*	*	BRECKENRIDGE
	✎		*	*	ROTHSAY
*	*	*	*	*	WOLVERTON
		✎	*		Campbell
	*				Foxhome

WINONA COUNTY

69% Reporting

*	*	*	*	*	ALTURA
	✎		*	*	DAKOTA
	✎	*	*	*	GOODVIEW
*	*	*	*	*	HIDDEN VALLEY
*	*	*	*	*	LEWISTON
*	*	*	*	*	MINNESOTA CITY
*	*	*	*	*	RIDGEWAY COMM
*	*	*	*	*	ROLLINGSTONE
*	*	*	*	*	WINONA
*	*	✎			Nodine Vol
					Pickwick Area
*	*				St Charles
*	*	✎			Wilson Vol

WRIGHT COUNTY

93% Reporting

89	90	91	92	93	
*	*	*	*	*	ALBERTVILLE
*	*	*	*	*	ANNANDALE
*	*	*	*	*	BUFFALO
*	*	*	*	*	CLEARWATER
*	*	*	*	*	COKATO
*	*			*	DELANO VOL
*	*	*	*	*	MAPLE LAKE
*	*	*	*	*	MONTICELLO
*	*	*	*	*	MONTROSE
*	*	*	*	*	ROCKFORD
*	*	*	*	*	SOUTH HAVEN
*	✎	✎	*	*	ST MICHAEL
*	*	*	*	*	WAVERLY
*	*	*	*		Howard Lake

YELLOW MEDICINE COUNTY

75% Reporting

*	*	*	*	*	CLARKFIELD
*	*	✎	*	*	ECHO
	✎			*	GRANITE FALLS
*	*	✎	*	*	HANLEY FALLS
		✎	*	*	PORTER
*	*	✎		*	WOODLAKE
					Canby
*	*	*			St Leo

Thirty-nine departments began participating in 1993.

We welcome in and welcome back the following departments reporting in 1993:

Detroit Lakes	Alaska	Odessa	Springfield
Walker	Claremont	Leaf Valley	Miltona
Osakis	Geneva	Barrett	Alpha
Mora	Prinsburg	Lancaster	Middle River
Dunnell	Flensburg	LeRoy	Bigelow
Dundee	Ada	Clements	Wanda
Greenbush	Warroad	Buyck	Eagles Nest
Ellsburg	Floodwood	Silica	Sturgeon
New Auburn	Brooten	Plainview	Delano
Granite Falls	Woodlake	Mahtowa	

We lost the following departments in 1993 and would like to welcome them back next year:

McGrath	Bethel	Sleep Eye	Hangaard
Alida	Maple Hill	Riverton	Garfield
Millerville	Chatfield	Wykoff	Emmons
Hayward	Ashby	Hokah	Nevis
Grasston	Raymond	Spicer	Karlstad
Loman	Louisburg	Arco	Lake Benton
Ghent	Russell	Hutchinson	Stewart
Waubun	Newfolden	Stephen	Truman
Mapleview	Chandler	Lismore	Rushmore
Perley-Lee	Eyota	Dent	Askov
Pine City	Fisher	McIntosh	Mentor
Nielsville	Milroy	Franklin	Morton
Kenneth	Biwabik	Clifton	Crane Lake
Kelsey	McKinley	Becker	Pequaywan Lake
Pike-Sandy-Britt	St. Cloud Twp.	Kerkhoven	Mazeppa
Menagha	Campbell	Howard Lake	Culver

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 1993 there was one fire for every 215 people.)*

County	Population	Total Fire Runs	Total Other Runs	Total Co. Dollar Loss	Fire Rate	Average Dollar Loss/Fire	Fire Deaths
*Hennepin	1,032,431	4,813	38,730	$25,701,032	215	$ 5,402	9
*Ramsey	485,765	2,485	15,165	10,908,704	195	4,420	8
Dakota	275,227	1,062	5,007	8,686,110	259	8,336	4
St. Louis	198,213	1,094	2,021	5,066,341	181	4,844	4
Anoka	243,641	1,167	6,605	4,222,791	209	3,678	2
*Washington	145,896	536	3,232	4,185,065	272	8,683	2
Stearns	118,791	425	601	2,968,049	280	7,420	1
Brown	26,984	41	82	2,028,407	658	49,473	
Polk	32,498	196	659	1,738,319	166	9,007	2
Becker	27,881	209	129	1,651,600	133	10,453	
*Scott	57,846	224	569	1,609,375	258	7,851	
Olmsted	106,470	319	1,051	1,548,152	334	5,010	3
Crow Wing	44,249	210	345	1,325,700	211	6,662	3
*LeSueur	23,239	98	160	1,268,300	237	14,748	2
Lyon	24,789	77	96	1,207,150	322	18,290	3
Kandiyohi	38,761	140	278	1,133,820	277	8,999	
*Dodge	15,731	59	28	1,122,290	267	20,783	
Wright	68,710	267	743	1,113,905	257	4,456	1
*Carver	47,915	233	1,655	1,111,829	206	5,615	
Itasca	40,863	289	304	1,103,711	141	4,261	1
*Steele	30,729	103	91	996,850	298	10,277	
Mower	37,385	119	154	960,960	314	8,075	
Blue Earth	54,044	229	1,064	952,695	236	4,311	
Ottertail	50,714	167	131	911,000	304	5,916	
Cook	3,868	12	2	904,100	322	113,012	
Chisago	30,521	168	258	881,900	182	5,959	1
Goodhue	40,690	278	779	817,905	146	2,996	
Waseca	18,079	52	111	811,100	348	16,222	1
Clay	50,422	169	1,597	806,790	298	4,831	1
Todd	23,363	119	56	800,204	196	7,275	
Beltrami	34,384	243	393	794,455	142	3,296	2
Faribault	16,937	68	30	770,470	249	13,517	
Rice	49,183	157	172	765,240	313	4,969	
*Isanti	25,921	112	211	695,650	231	6,563	
Winona	47,828	154	1,103	692,050	311	4,676	
Morrison	29,604	122	77	669,310	243	5,531	
*Carlton	29,259	234	773	660,955	125	3,425	
Koochiching	16,299	58	18	597,200	281	10,477	
Sherburne	41,945	207	272	584,500	203	3,012	
Wabasha	19,744	106	108	576,200	186	6,196	
Wadena	13,154	56	56	575,270	235	10,459	2
*Nicollet	28,076	96	177	563,045	292	6,187	1
Nobles	20,098	56	68	530,750	359	10,014	
Meeker	20,846	94	166	522,666	222	5,807	
Renville	17,673	52	41	515,848	340	10,317	

County	Population	Total Fire Runs	Total Other Runs	Total Co. Dollar Loss	Fire Rate	Average Dollar Loss/Fire	Fire Deaths
*Sibley	14,366	69	73	$ 507,950	208	$ 7,937	
Watonwan	11,682	59	38	507,010	198	9,218	6
*Lake	10,415	46	25	496,700	226	10,798	
Douglas	28,674	176	234	491,830	163	2,843	
Cass	21,791	197	121	488,840	111	2,533	3
Benton	30,185	117	68	482,885	258	4,311	
Swift	10,724	34	21	470,500	315	14,703	
Aitkin	12,425	95	99	445,100	131	5,001	
*Pennington	13,306	81	84	444,100	164	5,694	
Roseau	15,026	68	30	429,001	221	6,500	1
MIlle Lacs	18,670	159	188	415,550	117	2,789	2
Martin	22,914	64	125	397,270	358	6,849	
Kanabec	12,802	70	34	391,025	183	6,110	
McLeod	32,030	108	174	374,877	297	4,165	
Fillmore	20,777	62	166	372,088	335	6,415	1
Cottonwood	12,694	53	19	320,671	240	6,167	
Hubbard	14,939	48	13	314,850	311	6,699	
Traverse	4,463	15	9	288,400	298	19,227	
Freeborn	33,060	83	179	261,550	398	3,229	
Norman	7,975	31	13	259,425	257	9,265	
Pine	21,264	118	71	258,200	180	2,934	
Yellow Medicine	11,684	48	34	257,500	243	5,722	1
Chippewa	13,228	56	13	226,550	236	4,442	
Jackson	11,677	37	38	222,825	316	6,190	
Houston	18,497	41	184	222,000	451	6,000	
Redwood	17,254	72	56	217,406	240	3,151	
Murray	9,660	14	16	178,500	690	17,850	
Marshall	10,993	66	48	168,200	167	2,713	
Pope	10,745	83	45	155,500	129	2,101	
Clearwater	8,309	61	53	133,850	136	2,269	
Grant	6,246	20	15	133,750	312	6,687	1
*Stevens	10,634	29	7	132,900	367	4,746	
Lake of the Woods	4,076	17	3	122,000	240	8,714	1
Pipestone	10,491	39	28	100,450	269	2,790	
Mahnomen	5,044	42	16	78,800	120	2,251	1
Red Lake	4,525	14	8	71,600	323	7,956	
Wilkin	7,516	25	21	62,200	301	2,488	1
Big Stone	6,285	13	0	25,000	483	2,083	
Lac qui Parle	8,924	13	21	23,500	686	2,350	
Kittson	5,767	36	11	18,300	160	572	
Rock	9,806	28	32	10,210	350	464	
Lincoln	6,890	12	3	4,000	574	333	

* 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
ADA	11	4	$244,400
ADAMS VOL	3	3	$80,000
ADRIAN	2	0	$4,500
AITKIN	33	49	$254,300
ALASKA	11	0	$42,000
ALBANY	15	1	$9
ALBERT LEA	66	175	$161,050
ALBERT LEA TWP	10	4	$10,500
ALBERTVILLE	1	0	$35,000
ALBORN	9	17	$9,300
ALDEN TWP	3	0	$100,000
ALEXANDRIA	75	70	$190,700
ALMELUND	8	1	$60,000
ALPHA	2	0	$0
ALTURA	3	3	$300,000
ALVARADO VOL	14	0	$16,450
AMBOY	7	29	$10,000
ANDOVER	68	397	$130,700
ANNANDALE	34	71	$26,800
ANOKA-CHAMPLIN	145	363	$551,645
APPLE VALLEY	79	705	$1,197,000
APPLETON	3	2	$295,000
ARGYLE	11	37	$61,000
ARLINGTON	17	6	$57,700
ATWATER	23	11	$190,250
AUDUBON	33	2	$34,250
AURORA	10	19	$89,500
AUSTIN	109	150	$782,960
AVOCA	1	0	$15,000
AVON	14	5	$19,000
BABBITT VOL	13	13	$34,000
BACKUS VOL	11	0	$51,100
BADGER	11	1	$0
BAGLEY	40	15	$124,850
BALATON	13	1	$278,000
BALSAM VOL	7	31	$49,000
BARNESVILLE	20	6	$0
BARNUM VOL	10	17	$25,050
BARRETT	1	0	$0
BASS BROOK	45	25	$100,300
BATTLE LAKE	11	2	$40,000
BAUDETTE	17	3	$122,000
BAYPORT	21	139	$153,000
BEAVER BAY VOL	5	1	$0
BEAVER CREEK	0	3	$0
BELGRADE	1	0	$250,000
BELLE PLAINE	26	17	$267,250
BELLE PRAIRIE RURAL	37	6	$66,750
BELVIEW	6	1	$0
BEMIDJI	183	388	$241,055
BENSON	27	18	$90,500
BIG FALLS VOL	8	1	$106,500
BIG LAKE	38	37	$272,700
BIGELOW	1	0	$0
BINGHAM LAKE	4	4	$20
BIRD ISLAND	7	5	$97,800
BIWABIK VOL	7	12	$24,600
BLACKDUCK	13	4	$156,950
BLACKHOOF	4	0	$33,200
BLOOMING PRAIRIE	19	5	$68,000
BLOOMINGTON	248	828	$5,790,450
BLUE EARTH	13	0	$418,450
BLUFFTON	9	0	$81,000
BORUP	1	0	$0
BOVEY	17	39	$6,800
BOWLUS	4	0	$121,500
BRAHAM	8	0	$181,000
BRAINERD CITY	152	227	$675,100
BRECKENRIDGE	3	0	$36,000
BREITUNG	6	3	$62,000
BREVATOR	9	0	$0
BREWSTER	4	11	$2,500
BRICELYN	5	0	$145,000
BRIMSON AREA VOL	1	0	$0
BROOK PARK	12	0	$300
BROOKLYN CENTER	125	637	$418,995
BROOKLYN PARK	204	720	$1,843,785
BROOTEN	19	10	$11,000
BROWERVILLE	19	1	$96,900
BROWNSDALE	3	1	$42,000
BROWNSVILLE	10	21	$41,000
BROWNTON VOL	18	56	$25,000
BRUNO	16	2	$37,400
BUFFALO	48	88	$406, 125
BUFFALO LAKE	3	0	$0
BUHL VOL	1	0	$1,500
BURNSVILLE	210	1,300	$1,562,575
BUYCK COMMUNTY VOL	2	0	$615
BYRON	19	18	$548,400
CALEDONIA	12	11	$19,000
CALLAWAY	16	0	$155,100
CALUMET	17	29	$4,400
CAMBRIDGE	38	42	$301,700
CANNON FALLS	37	233	$137,945
CARLOS	28	38	$81,230
CARLTON VOL	30	16	$205,700
CARSONVILLE VOL	28	48	$133,500
CARVER	16	58	$110,104
CASS LAKE	80	36	$0
CEDAR-OAK GROVE	46	58	$81,000
CENTENNIAL	51	57	195,310
CENTER CITY	6	5	$5,000
CENTRAL LAKES VOL	1	0	$2,000
CEYLON	6	4	$2,500
CHANHASSEN	50	427	$505,850
CHASKA	53	627	$59,950
CHERRY TWP	7	21	$46,500
CHISHOLM	49	38	$497,500
CHOKIO	10	0	$92,000
CLARA CITY	11	0	$8,100
CLAREMONT	6	1	$41,800
CLARISSA	13	27	$2,400
CLARKFIELD	11	13	$0
CLEAR LAKE	27	23	$11,700
CLEARBROOK	21	38	$9,000
CLEARWATER	19	119	$6,530
CLEMENTS	2	0	$26,000
CLEVELAND	3	14	$90,000
CLINTON VOL	4	3	$118,000
CLONTARF	3	0	$80,000
CLOQUET	78	465	$159,505
COKATO	24	22	$43,800
COLD SPRING	19	127	$83,000
COLERAINE	18	34	$61
COLOGNE	14	47	$49,000
COLUMBIA HEIGHTS	86	1,614	$207,100
COLVIN TWP	5	0	$0
COMFREY	4	9	$89,542
COOK	20	6	$49,300
COON RAPIDS	246	2,532	$639,991
COTTAGE GROVE	76	1,177	$120,830
COTTON VOL	13	21	$0
COURTLAND	14	28	$81,450
CROMWELL VOL	12	1	$14,850
CROOKED LAKE VOL	2	0	$2,000
CROOKSTON	59	99	$326,684
CROSSLAKE	8	90	$523,300
CRYSTAL	56	532	$174,350
CURRIE VOL	2	0	$0
DAKOTA	6	0	$7,500
DALBO	21	25	$41,700
DALTON	3	0	$0
DANVERS	1	1	$5,000
DARFUR	3	0	$88,000
DASSEL	31	121	$131,600
DAWSON	1	0	$4,000
DAYTON	17	94	$41,700
DEER CREEK	6	35	$7,000
DEER RIVER	33	18	$87,000
DEERWOOD	13	10	$27,500
DELANO VOL	1	0	$0
DELAVAN VOL	2	0	$8,000
DENNISON	0	0	$0

City	Total Fire Runs	Total Other Runs	Dollar Loss
DETROIT LAKES	45	57	$951,650
DODGE CENTER	9	2	$766,600
DONNELLY	2	0	$23,000
DOVER	12	4	$7,350
DULUTH	436	1,121	$1,950,495
DUMONT	2	0	$1,500
DUNDEE	1	2	$0
DUNNELL	4	8	$10,070
E COTTAGE GROVE	13	53	$1,511,000
E COUNTY LINE I	45	1,030	$315, 759
E COUNTY LINE II	8	670	$2,875
EAGAN	133	444	$1,827,510
EAGLE BEND	9	0	$16,000
EAGLE LAKE VOL	14	73	$15,000
EAGLES NEST	0	1	$0
EAST BETHEL	44	284	$297,700
EAST GRAND FORKS	49	490	$1,159,730
E HUBBARD CO FIRE PROT	5	0	$0
EASTON VOL	7	3	$37,000
ECHO	5	1	$4,000
EDEN PRAIRIE	126	970	$695,490
EDEN VALLEY	18	1	$259,200
EDGERTON	9	4	$68,450
EDINA	117	3,080	$1,022,951
ELBOW LAKE	4	0	$0
ELBOW-TULABY LAKES	9	0	$6,100
ELGIN	12	0	$0
ELIZABETH	17	2	$22,500
ELK RIVER	100	190	$204,600
ELLENDALE VOL	10	6	$0
ELLSBURG VOL	2	0	$30,000
ELLSWORTH	5	23	$129,400
ELMER	2	0	$0
ELY	35	14	$197,810
ELYSIAN	18	36	$312,000
EMBARRASS VOL	8	21	$3,100
ERSKINE	20	35	$53,950
EVANSVILLE	12	39	$12,500
EVELETH	12	41	$11,000
EVERGREEN	2	1	$0
EXCELSIOR	37	456	$46,620
FAIRFAX	14	1	$24,948
FAIRMONT	47	112	$303,400
FALCON HEIGHTS	8	297	$13,950
FARIBAULT	87	135	$556,610
FARMINGTON	17	34	$0
FEDERAL DAM	0	0	$0
FAYAL	17	68	$132,700
FERGUS FALLS	57	76	$356,700
FERTILE	35	14	$3,630
FINLAND	5	5	$110,000
FINLAYSON	16	39	$18,300
FLENSBURG	9	2	$68,100
FLOODWOOD	13	4	$342,000
FOLEY	59	21	$351,485
FORADA TWP	11	19	$58,000
FOREST LAKE	100	125	$793,450
FORESTON	8	26	$2,900
FT SNELLING	17	377	$4,790
FOSSTON	33	21	$194,325
FOUNTAIN	2	1	$500
FRAZEE	46	7	$121,100
FREDENBERG	8	26	$3,000
FREEPORT	3	0	$228,000
FRENCH TWP VOL	4	6	$10,500
FRIDLEY	135	459	$558,980
FROST	0	1	$0
FULDA	4	10	$35,000
GARVIN	5	1	$2,500
GARY VOL	1	0	$0
GAYLORD	9	3	$40,000
GENEVA	1	0	$0
GIBBON	11	1	$21,250
GLADSTONE	21	891	$231,920
GLENCOE	44	41	$98,850
GLENWOOD	42	30	$71,300
GLYNDON VOL	18	6	$0
GNESEN VOL	1	0	$0
GOLDEN VALLEY	88	474	$307,471
GOOD THUNDER	9	61	$8,750
GOODHUE	15	5	$147,500
GOODLAND	1	6	$0
GOODRIDGE AREA	10	0	$0
GOODVIEW	9	9	$1,100
GRANADA	1	0	$0
GRAND MEADOW	4	0	$56,000
GRAND RAPIDS	125	99	$740,150
GRANITE FALLS	22	12	$68,000
GREEN ISLE	7	15	$29,500
GREENBUSH	4	0	$49,000
GREENWOOD TWP VOL	13	43	$78,500
GREY EAGLE	13	3	$75,800
GROVE CITY	3	0	$42,500
GUNFLINT TRAIL VOL	1	0	$0
HACKENSACK AREA	3	7	$20,000
HALLOCK	13	9	$0
HALSTAD	5	1	$500
HAM LAKE	41	126	$93,025
HAMBURG	12	25	$200
HAMEL	5	3	$131,500
HAMPTON	0	0	$0
HANCOCK	5	4	$7,000
HANLEY FALLS	2	5	$2,000
HANOVER	10	71	$0
HARDWICK	0	0	$0
HARMONY	8	9	$12,500
HARRIS	10	3	$40,500
HARTLAND	1	0	$2,000
HASTINGS	123	352	$2,072,450
HAWLEY	23	21	$109,600
HAYFIELD	19	10	$120,000
HAZELWOOD	19	805	$109,000
HECTOR	9	11	$67,400
HENDERSON	11	41	$247,800
HENNING VOL	10	4	$113,700
HERMAN VOL	1	0	$0
HERON LAKE VOL	6	8	$13,000
HEWITT	2	0	$27,000
HIBBING	164	127	$311,755
HIDDEN VALLEY	0	15	$0
HILL CITY	14	7	$0
HILLS	7	0	$1,100
HINCKLEY VOL	27	21	$92,600
HITTERDAL	1	2	$20,000
HOFFMAN	8	0	$121,100
HOLDINGFORD	3	2	$0
HOLLAND	4	0	$100
HOLLANDALE	0	0	$0
HOLYOKE VOL	5	12	$3,200
HOPKINS	35	639	$203,100
HOUSTON	7	6	$0
HOVLAND	4	2	$275,000
HOYT LAKES	9	4	$16,800
HUGO	19	128	$24,075
IDEAL TWP	6	3	$3,000
INDUSTRIAL VOL	7	19	$5,000
INTERNATIONAL FALLS	24	16	$394,925
INVER GROVE HEIGHTS	100	146	$434,050
ISANTI VOL	45	144	$171,250
ISLE	18	8	$10,000
IVANHOE	6	0	$0
JACKSON	20	28	$70,325
JACOBSON	3	7	$500
JANESVILLE	12	53	$270,500
JASPER	5	8	$100
JORDAN	18	39	$167,300
KABETOGAMA	2	0	$0
KANDIYOHI	13	32	$12,000
KASOTA	5	0	$138,000
KASSON	7	6	$140,510
KELLIHER VOL	3	0	$280,000
KELLOGG	16	2	$0
KERRICK	2	2	$500
KETTLE RIVER	5	0	$50,200
KIESTER	9	3	$0
KILKENNY	5	10	$0
KIMBALL	23	103	$77,000
KINNEY-GREAT SCOTT	1	0	$30,000
LACRESCENT	6	137	$82,000
LAFAYETTE	12	12	$72,050
LAKE BRONSON	14	2	$14,500
LAKE CITY	31	56	$384,900

City	Total Fire Runs	Total Other Runs	Dollar Loss
LAKE CRYSTAL	7	25	$12,400
LAKE ELMO	35	259	$106,900
LAKE HENRY	1	3	$3,000
LAKE JOHANNA VOL	72	257	$1,479,000
LAKE LILLIAN	3	0	$20,000
LAKE PARK	21	9	$99,500
LAKEFIELD	9	2	$139,500
LAKELAND VOL	3	0	$92,000
LAKEVILLE	88	272	$732,030
LAKEWOOD TWP	16	30	$57,000
LAMBERTON	3	4	$11,500
LANCASTER	9	0	$3,800
LANESBORO	8	106	$105,000
LAPORTE/LAKEPORT	6	0	$68,750
LE CENTER	16	6	$252,500
LEAF VALLEY TWP	3	0	$0
LE ROY	0	0	$0
LESTER PRAIRIE	11	56	$101,000
LESUEUR	17	12	$273,800
LEWISTON	18	8	$120,800
LEXINGTON	0	2	$0
LINDSTROM	14	14	$5,000
LINWOOD VOL	19	81	$20,000
LITCHFIELD	38	41	$74,866
LITTLE CANADA	48	91	$63,800
LITTLE FALLS	3	0	$22,000
LITTLEFORK	19	1	$95,775
LONDON	2	0	$60,000
LONG LAKE	4	32	$226,000
LONG PRAIRIE	35	13	$0
LONGVILLE VOL	17	4	$0
LORETTO VOL	1	0	$100,000
LOWER ST CROIX VLY	37	193	$28,700
LOWRY	1	2	$0
LUCAN	2	0	$0
LUTSEN TWP VOL	1	0	$250,000
LUVERNE	21	29	$9,110
LYND	1	0	$1,500
MABEL VOL	6	2	$23,000
MADELIA	22	12	$105,000
MADISON	10	20	$13,000
MADISON LAKE	13	41	$18,950
MAHNOMEN	20	13	$22,000
MAHTOMEDI	19	281	$42,950
MAHTOWA	7	0	$26,000
MAKINEN	4	0	$0
MANCHESTER	3	0	$28,000
MANKATO	136	722	$170,285
MANTORVILLE	9	9	$47,380
MAPLE GROVE	127	288	$726,305
MAPLE LAKE	33	28	$162, 400
MAPLE PLAIN	36	177	$29,800
MAPLETON	6	34	$9,400
MARBLE	1	0	$0
MARIETTA	1	1	$500
MARINE ON ST CROIX	7	25	$0
MARSHALL	16	71	$675,900
MAYER	9	49	$100,500
MAYNARD	9	4	$52,750
MC DAVITT	10	14	$9,000
MC GREGOR VOL	27	30	$190,300
MEADOWLANDS AREA VOL	4	1	$100
MEDFORD VOL	1	0	$0
MEDICINE LAKE	2	3	$0
MELROSE	21	22	$309,600
MENDOTA HEIGHTS	42	191	$56,950
MIDDLE RIVER	1	0	$0
MIESVILLE VOL	6	3	$30,000
MILACA	43	40	$99,200
MILTONA	16	36	$33,600
MINNEAPOLIS	2,595	21,927	$10,109,509
MINNEOTA	15	7	$54,700
MINNESOTA CITY	4	11	$500
MINNESOTA LAKE	4	4	$0
MINNETONKA	162	584	$532,603
MONTEVIDEO	27	9	$58,500
MONTGOMERY	10	11	$0
MONTICELLO	46	132	$259,150
MONTROSE	21	86	$0
MOORHEAD	87	1,558	$341,190
MOOSE LAKE	23	127	$33,750
MORA	49	30	$258,700
MORGAN	10	0	$21,400
MORRIS	12	3	$10,900
MORRISTOWN	9	1	$2,730
MOTLEY	13	56	$25,850
MOUND	55	547	$288,950
MOUNTAIN IRON	16	26	$42,240
MOUNTAIN LAKE	8	0	$0
MPLS/ST PAUL INT'L AIRPT	43	1,960	$0
NASHWAUK	24	22	$116,000
NASSAU	1	0	$6,000
NERSTRAND VOL	6	0	$2,000
NEW AUBURN	2	0	$50,500
NEW BRIGHTON	44	251	$7,000
NEW GERMANY	9	35	$0
NEW HOPE	68	467	$164,422
NEW LONDON	35	25	$613,600
NEW MARKET	16	88	$72,650
NEW MUNICH	2	2	$6,200
NEW PRAGUE	18	0	$100,950
NEW RICHLAND	10	3	$64,600
NEW SCANDIA	24	103	$249,510
NEW ULM	36	73	$1,688,865
NEW YORK MILLS	11	2	$25,400
NEWPORT	41	38	$26,850
NICOLLET	15	45	$10,000
NISSWA	14	4	$0
NORTH BRANCH	32	33	$2,700
NORTH MANKATO	25	54	$206,850
NORTH ST PAUL	43	177	$611,650
NORTH STAR TWP	0	0	$0
NORTHFIELD	55	36	$203,900
NORTHLAND	1	0	$350,000
NORTHOME	7	0	$0
NORTHROP	0	0	$0
NORWOOD	13	4	$70,000
OAKDALE	22	302	$156,950
ODESSA	1	0	$25,000
ODIN	4	0	$10,500
OGILVIE	21	4	$132,325
OKLEE	14	8	$71,600
OLIVIA	6	9	$182,500
ORONOCO	3	0	$50,000
ORR VOL	4	5	$275
ORTONVILLE	12	0	$0
OSAKIS	31	32	$115,800
OSLO	11	0	$31,950
OSSEO	7	0	$16,700
OSTRANDER	0	0	$0
OTTERTAIL	10	2	$102,200
OWATONNA	73	80	$928,850
PALISADE VOL	18	6	$0
PALO REGIONAL	11	53	$35,100
PARK RAPIDS	37	13	$246,100
PARKERS PRAIRIE	2	1	$18,000
PARKSIDE	25	441	$153,050
PAYNESVILLE	27	0	$0
PELICAN RAPIDS VOL	4	0	$60,000
PEQUOT LAKES	17	11	$96,800
PERCH LAKE VOL	16	31	$45,000
PIERZ	18	0	$82,060
PILLAGER AREA	16	55	$115,800
PINE ISLAND	26	104	$38,800
PINE RIVER	37	13	$6,500
PIPESTONE	19	16	$31,800
PLAINVIEW	15	5	$31,500
PLATO	10	15	$75,500
PLYMOUTH	167	605	$399,710
PORTER	4	3	$8,500
PRESTON	8	4	$99,000
PRINCETON	89	114	$303,450
PRINSBURG	1	0	$200,000
PRIOR LAKE	51	83	$741,200
PROCTOR	29	8	$144,350
RAMSEY	9	7	$19,300
RANDALL	18	10	$88,050
RED LAKE	33	1	$74,450
RED WING	171	421	$321,150
REDWOOD FALLS	29	47	$145,200
REMER	15	6	$25,500
RENVILLE	13	15	$143,200

City	Total Fire Runs	Total Other Runs	Dollar Loss
RICE LAKE VOL	23	73	$114,501
RICHFIELD	153	1,204	$311,671
RICHMOND	16	1	$81,140
RIDGEWAY COMMUNITY	14	8	$40,500
ROBBINSDALE	44	159	$29,750
ROCHESTER	222	921	$828,552
ROCHESTER AIRPORT	1	25	$0
ROCHESTER-RURAL	50	79	$66,350
ROCKFORD	18	176	$15,000
ROCKVILLE	24	57	$78,300
ROGERS	26	126	$62,500
ROLLINGSTONE	3	28	$2,500
ROSE CREEK AREA	0	0	$0
ROSEAU	25	4	$0
ROSEMOUNT	39	230	$222,000
ROSEVILLE	108	507	$720,350
ROTHSAY	16	21	$26,200
ROUND LAKE	3	0	$28,000
RUSH CITY	29	19	$467,850
RUSHFORD	12	19	$30,000
RUSHMORE	1	0	$20,000
SABIN-ELMWOOD	9	4	$21,000
SANBORN	7	0	$800
SANDSTONE VOL	18	3	$55,100
SARTELL	18	23	$14,500
SAUK CENTRE	35	26	$220,500
SAUK RAPIDS	58	47	$131,400
SAVAGE	38	205	$107,025
SCANDIA VALLEY	8	3	$1,000
SCANLON VOL	8	37	$21,500
SCHROEDER	4	0	$302,500
SEAFORTH	1	0	$750
SEBEKA	1	0	$7,000
SEDAN	3	7	$0
SHAFER	9	1	$0
SHAKOPEE	57	137	$153,000
SHERBURN	5	0	$80,800
SILICA AREA	1	0	$0
SILVER BAY	12	11	$75,000
SILVER LAKE	24	6	$74,527
SLAYTON	7	6	$128,500
SOLWAY TWP	17	34	$5,400
SOUTH BEND	12	20	$543,500
SOUTH HAVEN	18	12	$56,600
SOUTH ST PAUL	108	935	$33,200
SPRING GROVE	6	9	$80,000
SPRING LAKE PARK	256	475	$1,243,840
SPRING VALLEY	18	25	$102,088
SPRINGFIELD VOL	1	0	$250,000
ST ANTHONY	12	0	$30,000
ST BONIFACIUS	20	89	$375,050
ST CLAIR	17	58	$133,110
ST CLOUD	90	10	$1,112,250
ST FRANCIS	21	150	$184,200
ST HILLAIRE	9	3	$82,000
ST JAMES	30	26	$303,510
ST JOHN'S UNIVERSITY	8	12	$93,200
ST JOSEPH VOL	35	124	$204,350
ST LOUIS PARK	179	1,552	$924,610
ST MARTIN	3	0	$2,500
ST MICHAEL	3	0	$102,000
ST PAUL	1,897	9,082	$6,664,715
ST PAUL PARK VOL	36	37	$85,350
ST PETER	30	38	$192,695
ST STEPHEN	24	52	$80,000
STACY	35	135	$145,050
STAPLES	28	12	$582,104
STARBUCK	34	6	$63,200
STEWARTVILLE	12	4	$47,500
STILLWATER	70	372	$310,500
STURGEON LAKE	13	1	$16,000
STURGEON TWP	2	0	$0
SWANVILLE	12	0	$194,000
TACONITE	0	0	$0
TAUNTON	1	0	$0
THIEF RIVER FALLS	62	81	$362,100
THOMPSON TWP	25	64	$11,000
TOFTE	2	0	$76,600
TOIVOLA TWP	2	0	$0
TOWER	2	0	$300
TRACY	26	16	$194,550
TRIMONT	1	1	$500
TWIN LAKES VOL	13	3	$50,500
TWIN VALLEY	13	8	$14,525
TWO HARBORS	24	8	$311,700
TYLER	6	3	$4,000
ULEN	11	0	$315,000
UNDERWOOD	16	6	$66,000
VADNAIS HEIGHTS	37	388	$121,300
VERGAS	11	1	$18,500
VERMILLION LAKE	0	0	$0
VERNDALE	20	50	$151,000
VERNON CENTER	8	1	$31,300
VESTA	3	4	$670
VICTORIA	7	96	$52,550
VILLARD VOL	3	0	$21,000
VIRGINIA	53	128	$58.600
WABASHA	9	8	$5,000
WACONIA	22	165	$80,250
WADENA	35	6	$417,270
WAHKON	1	0	$0
WAITE PARK	24	21	$94,500
WALKER	16	0	$267,940
WALNUT GROVE	7	0	$11,086
WALTERS VOL	1	0	$0
WANAMINGO	17	3	$128,710
WANDA	2	0	$0
WARBA	1	1	$0
WARREN	29	11	$58,800
WARROAD	28	25	$380,001
WASECA	30	55	$476,000
WATERTOWN	18	99	$83,225
WATERVILLE	24	71	$202,000
WATKINS	4	3	$14,500
WATSON	9	0	$107,200
WAVERLY	1	9	$500
WAYZATA	27	129	$692,250
WELLS	12	13	$76,000
WENDELL	6	15	$12,650
WEST CONCORD	9	0	$6,000
WEST ST PAUL	117	395	$518,345
WESTBROOK	4	2	$300
WHEATON	13	9	$286,900
WHITE BEAR LAKE	104	278	$396,335
WILLMAR	65	210	$97,970
WILLOW RIVER	14	3	$38,000
WILMONT	1	0	$1,500
WINDOM	37	13	$239,651
WINNEBAGO VOL	15	6	$86,020
WINONA	97	1,021	$219,150
WINSTED	1	0	$0
WINTHROP VOL	12	7	$61,200
WOLF LAKE	20	6	$156,500
WOLVERTON	6	0	$0
WOODBURY	16	0	$575,500
WOODLAKE	4	0	175,000
WOODSTOCK	2	0	$0
WORTHINGTON	39	32	$364,850
WRENSHALL	9	3	$2,000
WRIGHT VOL	2	0	$30,000
WYOMING	25	47	$155,800
YOUNG AMERICA	10	24	$200
ZIMMERMAN	42	22	$95,500
ZUMBRO FALLS	23	37	$154,800
ZUMBROTA	12	13	$43,800

NON-REPORTING FIRE DEPARTMENTS

ALDEN
ALIDA
ARCO
ASHBY
ASKOV VOL
BEARDSLEY
BEARVILLE TWP
BECKER VOL
BELLINGHAM
BELTRAMI
BENA
BERTHA
BETHEL
BIGFORK VOL
BIRCHDALE RURAL
BIWABIK TWP VOL
BLOMKEST
BOYD
BRANDON
BROWNS VALLEY
BUTTERFIELD
CAMPBELL
CANBY
CANOSIA VOL
CANTON
CHANDLER
CHATFIELD
CHISAGO CITY
CLARKS GROVE VOL
CLIFTON TWP
CLIMAX
CLINTON
CLITHERALL
CONGER
CORRELL
COSMOS
COTTONWOOD
CRANE LAKE
CROSBY VOL
CULVER
CUYUNA
CYRUS
DANUBE
DEGRAFF
DENT
DEXTER VOL
DILWORTH
DOVRAY
EITZEN
ELMORE
ELROSA
EMILY VOL
EMMONS
EYOTA VOL
FELTON COMM
FIFTY LAKES
FISHER
FOXHOME
FRANKLIN
FREEBORN
GARFIELD
GARRISON
GHENT
GILBERT
GLENVILLE
GONVICK
GRACEVILLE
GRAND LAKE VOL
GRAND MARAIS VOL
GRAND PORTAGE
GRASSTON
GREENLEAF
GRYGLA
HANGAARD TWP
HANSKA
HAYWARD
HENDRICKS
HENDRUM
HERMANTOWN VOL
HOKAH VOL
HOLLOWAY
HOWARD LAKE
HUTCHINSON
IONA
IRONTON
JEFFERS
KARLSTAD VOL
KEEWATIN VOL
KELSEY VOL
KENNEDY
KENNETH VOL
KENSINGTON
KENYON
KERKHOVEN
LAKE BENTON
LAKE GEORGE
LAKE WILSON
LASALLE
LENGBY
LEWISVILLE
LISMORE
LOMAN RURAL
LONSDALE
LOUISBURG
LYLE
MAGNOLIA
MAPLE HILL
MAPLEVIEW
MAZEPPA VOL
MCGRATH
MCKINLEY
MCINTOSH
MENAHGA
MENTOR
MILAN
MILLERVILLE
MILROY
MISSION TWP
MORTON
MURDOCK
MYRTLE
NETT LAKE
NEVIS
NEWFOLDEN
NIELSVILLE
NODINE VOL
NORMANNA VOL
OGEMA
OKABENA
ONAMIA
ORMSBY
PEMBERTON
PENNOCK
PEQUAYWAN LK AREA
PERHAM
PERLEY-LEE TWP
PICKWICK AREA
PIKE-SANDY-BRITT
PINE CITY
PLUMMER
RANDOLPH
RAYMOND
RED LAKE FALLS
REVERE
RICE
RIVERTON
ROYALTON
RUSHMORE
RUSSELL
RUTHTON
SACRED HEART
SANDSTONE PRISON
SHELLY
SHEVLIN
SKYLINE
SLEEPY EYE
SOLWAY
SPICER
SQUAW LAKE
ST CHARLES
ST CLOUD TWP
ST LEO
STEPHEN
STEWART
STORDEN
SUNBURG
TAMARACK
TAYLORS FALLS
TINTAH
TRUMAN
TWIN LAKES
UPSALA
VINING
WABASSO VOL
WALDORF
WAUBUN
WELCOME
WHITE EARTH VOL
WILLIAMS
WILSON VOL
WINGER
WYKOFF

STATE FIRE MARSHAL ANNUAL REPORT

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

FROM: Thomas R. Brace, State Fire Marshal TRB

SUBJECT: State Fire Marshal Annual Report 1993

This has truly been a busy year filled with challenges for the Division. We are operating with less staff but accomplishing more and working at an accelerated speed. In FY 93/94 even with staff vacancies, illnesses, and budget cuts the average Deputy performed above the average number of inspections of the previous years.

Agreements with the health department enabled us to catch up on day care inspections. The licensers now do the follow-ups allowing us to increase our turnaround time on initial inspections. The division will continue to seek methods to increase our efficiency.

We are pleased by the work effort with the Hazardous Materials rule writing process. This lengthy document went through the process with only minor changes and without a hearing. The next phase of the program is well underway. Time frames for the team activations is outlined later in this report.

The Fire Protection Licensing program also is off to a good start, the rules are complete and the licensing of contractors, designers, journeymen and registration of apprentices began in July. We are now accepting sprinkler plans for review and will begin the inspection program the first of the year.

We continue to field thousands of questions annually for information regarding fire codes and standards. The code plan specialists are also an integral part of our code review panel that decides on variance issues.

As arson becomes more prevalent the complexity and technology of investigation increases. Our investigators responded to over 600 requests for investigation help in 1993, and to date, have exceeded that number. A new law enacted last year requires immediate notification of a fire death; a response of one of our investigators (except for cities of the first class), and an autopsy is also required.

We are pleased by the effort put forth by our MFIRS team and the Minnesota fire service. We are able to respond to requests for information from the media, fire service and legislators within hours. I cannot express enough how valuable data is to decisions of this office and those who make the decisions on capitol hill. I encourage the fire service to contact our office if you wish assistance with your reporting efforts

Finally I would like to thank Allen Rupp, Chief Deputy of the Division, for his contribution to this organization over the years. Allen will retire the end of October and his absence will be felt by all. Allen was a good solid influence in the office and was well thought of by the fire service, headquarters staff, and the members of the State Fire Marshal Division. We wish Allen the best in this new challenge: retirement.

We will continue our service to fire departments, providing good, timely and accurate data, and focus for addressing the fire problem. I hope you all find this document as valuable as I do.

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.

1993
Legislation requires a smoke detector in every dwelling that has a sleeping area.

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.

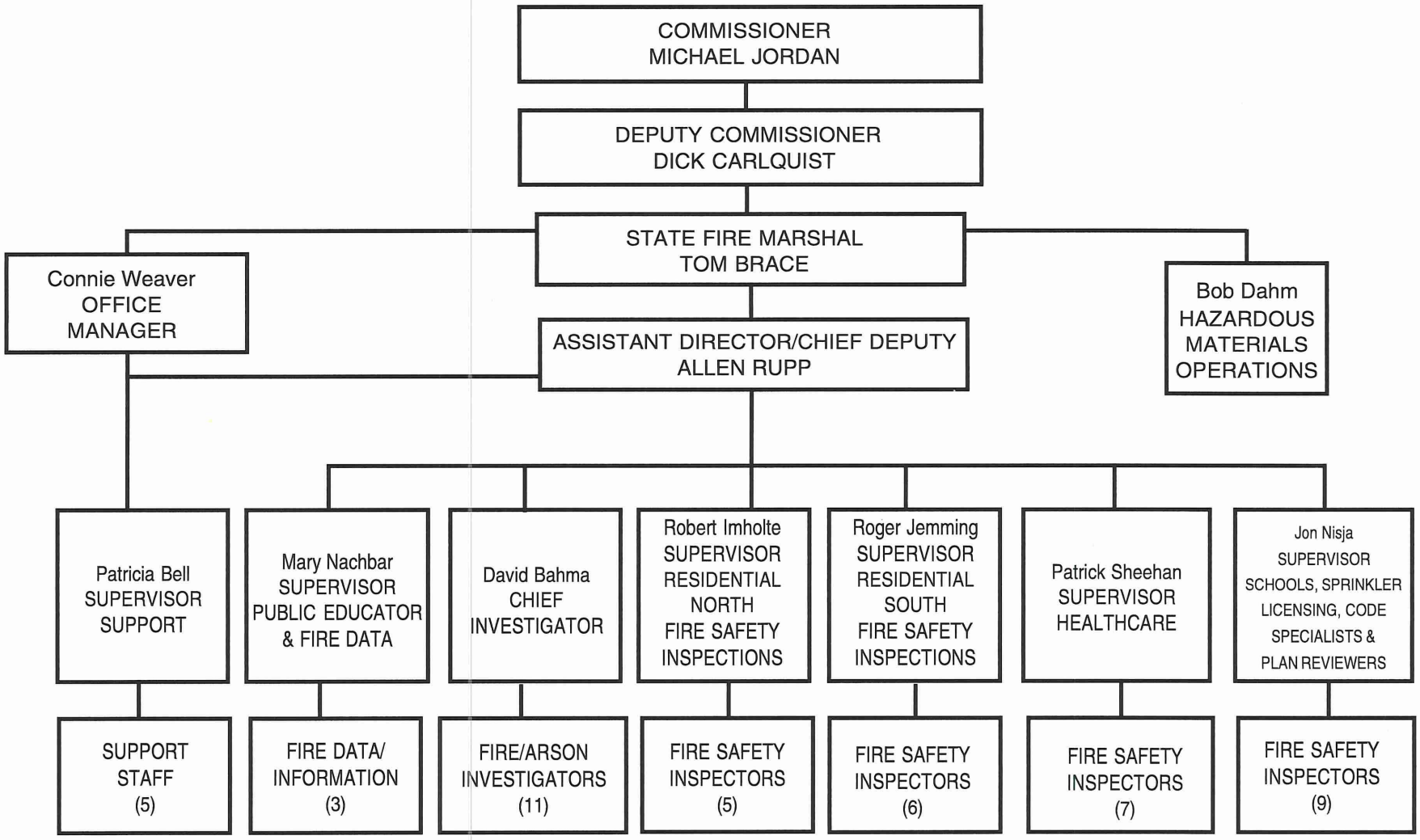
1907
Amendment authorizing two deputy SFM. Authorization to pay FD $1 for reports submitted to SFM.

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

Three new programs added 4.5 new positions to the State Fire Marshal Division in 1992: the School Inspection Program, the Hazardous Materials Response Team, and the Sprinkler Licensing and Plan Review Teams.

In 1991 and 1992, three new programs were added to the State Fire Marshal Division, which created 4.5 new positions (two senior program coordinators, two plan review specialists, and a half-time clerical position). This brings the complement of the State Fire Marshal Division to 57.

The State Fire Marshal Division currently consists of 3 senior staff, 6 supervisors, 40 deputies, and 8 clerical support staff, including:

1	State Fire Marshal
1	Chief Deputy
1	Office Manager/Administrative Secretary
1	Public Fire Safety Educator/Supervisor
6	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
2	Code Specialists
1	Data Technical Specialist
2	Sprinkler Plan Reviewers
2	Fire Data Technical Personnel
5	Clerical Support Staff
57	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.

FIRE/ARSON INVESTIGATION TEAM

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

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 ~~on~~ call 24 hours a day, 365 days of the year. SUBJECT TO

In 1993, the members of the fire/arson team assisted local fire and law enforcement agencies in investigating ~~619~~ 682 fires, totaling nearly ~~$50~~ 646 million dollars in property loss, of which ~~$8.3 million~~ NEARLY HALF was directly attributable to arson.

In an effort to increase prosecution of arson cases, the State Fire Marshal Division, ~~with the International Association of Arson Investigators, co-sponsored a training seminar for prosecutors, designed to inform and increase the awareness of the technical and complex issues involved in an arson investigation. The results were very positive and an increase in the number of prosecutions was noted.~~

~~The fire/arson investigation team is also responsible for the coordination of all the arson training provided by the BCA. The courses are currently being updated with some interesting changes in format.~~

~~The fire/arson investigation team received training in the area of "tire track" identification, providing them with yet another tool to help identify the make of a vehicle that may have been at a fire scene. Such courses will continue to be a part of the training program for state investigators.~~

In order to maximize resources, the fire/arson unit has taken the lead in developing and facilitating arson task forces in several areas of the state where large loss or serial-type arsons have occurred.

Arson legislation passed in 1992, prompted the sentencing guideline commission to revise the severity level of the crime. We are happy to report that the arson severity sentencing levels have been raised and are congruent with other similarly dangerous crimes.

In 1993, the service area in Southeastern Minnesota was reorganized, prompted by the resignation of two deputies who served the area. The reorganization and the addition of two new investigators will help serve our customers in that part of the state more efficiently.

The fire/arson team will continue to pursue methods, legislation and training opportunities that will help identify arsonists and in-turn assist in the reduction of the number of subsequent arson related fires in Minnesota.

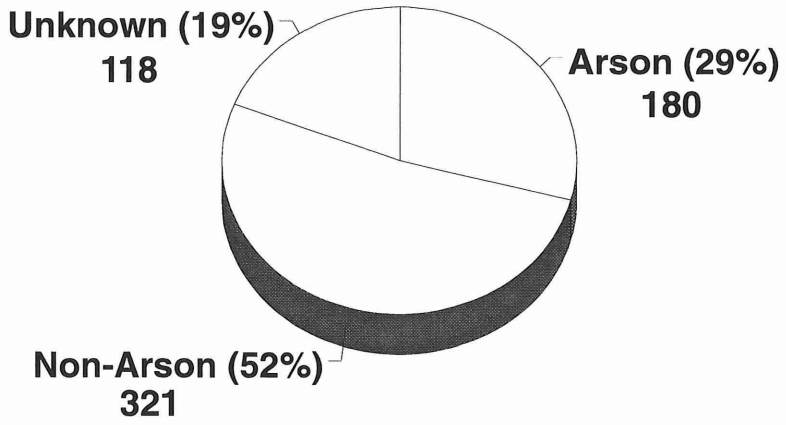
FIRE/ARSON INVESTIGATIONS BY PROPERTY TYPE

	1991 Causes		1992 Causes		1993 Causes			
	Total Fires	Total Arson	Total Fires	Total Arson	Total Fires	Total Dollar Loss	Total Arson	Arson Dollar Loss
One/Two Family Dwellings	375	151	383	133	302	$19,621,436	71	$ 3,948,636
Apartments	30	14	30	12	30	3,032,530	13	271,530
Hotels/Motels/Resorts	3	1	9	2	4	222,500	1	2,500
Institutional	7	2	—	—	1	500	1	500
Educational	10	5	16	13	11	3,033,615	4	2,503,100
Places of Assembly	24	9	11	4	10	2,472,500	4	67,500
Restaurants	6	1	16	6	15	2,929,100	3	1,600
Retail/Office	50	20	32	11	28	3,944,500	4	110,500
Industrial/Manufacturing	15	3	16	3	15	3,795,000	2	5,000
Agricultural	3	1	10	3	11	2,307,000	—	—
Storage Facilities	105	35	94	34	87	6,190,700	24	742,200
Special Structures	1	26	4	3	21	668,600	13	207,600
Mobile/Vehicle Property	48	0	35	20	78	1,198,150	37	435,000
Other	56	3	12	5	4	1,150	3	1,050
TOTAL	733	273	668	249	619	$49,417,281	180	$8,296,716

While the number of investigations appear to be down in 1993, the resignation of two deputies caused the decrease. The average number of investigations per deputy has remained at 60 investigations per year.

Residential property fire loss represents 67% of the total fires investigated by deputies, of which 32% were determined to be deliberately set. However, the arson dollar loss represented 53% of total fire loss investigated by state fire/arson investigators.

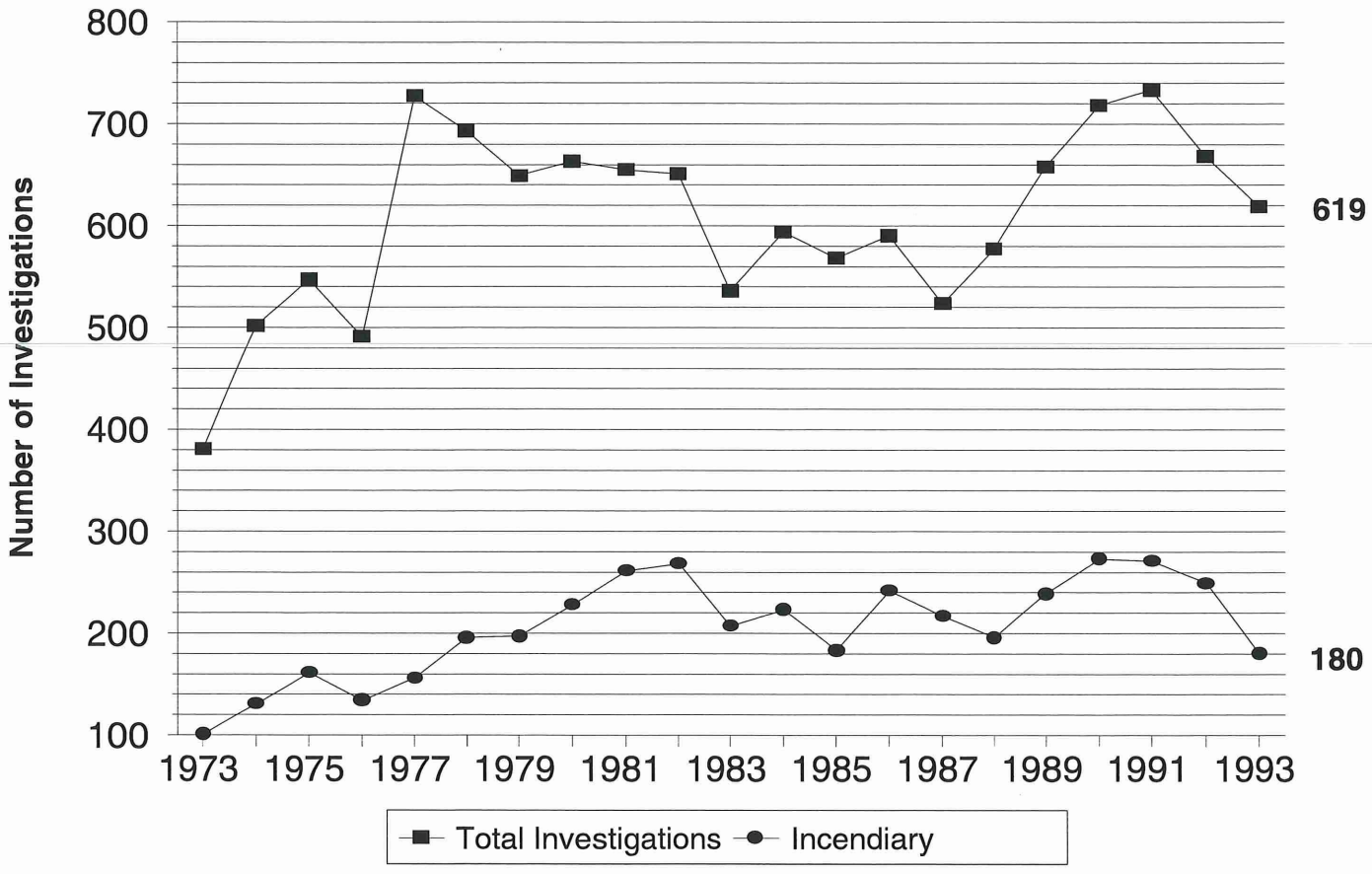
1993 Fire Investigation Accidental vs. Incendiary



Breakdown of Arson Investigations:

	Arson	Non-arson	Unknown	Total
Structure	140	291	107	538
Vehicle	37	30	10	77
Other	3	--	1	4

Fire Investigation 1973 - Present



21,613 violations and/or deficiencies were found in 7,753 inspections in 1993.

FIRE SAFETY INSPECTIONS

Deputy State Fire Inspectors conducted a total of 7,753 inspections and follow-up inspections in 1993. This total is below the previous two years because of an interagency agreement with the health department to relieve some of the day care work load.

SFMD FIRE SAFETY INSPECTIONS 1993, BY TYPE OF OCCUPANCY

	No. of Facilities	No. of Follow-ups	No. of Bldg. Inspections	No. of Orders	No. of Violations/ Deficiencies
CHILD CARE					
Family day care	1,446	245	1,712	201	5,731
Foster child care	462	84	532	69	1,711
Group day care	641	97	729	104	1,848
Child care centers	36	8	40	4	145
	2,585	**434**	**3,013**	**378**	**9,435**
LICENSED HEALTH CARE FACILITIES					
Nursing homes	566	104	756	237	1,798
Supervised living facilities >7	207	22	305	76	585
Adult foster care facilities	275	23	510	18	1,827
Class B nursing homes	148	14	238	72	503
Supervised living facilities <6	107	22	142	48	278
Group homes	13	8	29	6	43
Adult day care facilities	8	1	17	0	35
	1,324	**194**	**1,997**	**457**	**5,069**
HOTELS/MOTELS/RESORTS					
Resorts	373	502	1,143	248	1,326
Motels	257	221	509	115	615
Hotels	88	79	146	46	400
	718	**802**	**1,798**	**409**	**2,341**
RESIDENTIAL					
Boarding/Lodging	72	28	106	14	206
Apartments	35	85	134	27	181
One/two family dwellings	157	28	31	11	92
Dormitories	2	4	6	1	7
	266	**145**	**227**	**53**	**486**
MEDICAL FACILITIES					
Hospitals	107	21	171	45	530
Surgical centers	10	0	14	2	28
	117	**21**	**185**	**47**	**558**
EDUCATIONAL FACILITIES					
Schools	**276**	**409**	**279**	**242**	**3,138**
COMMERCIAL					
Public assembly	23	34	76	15	131
Offices	17	8	32	6	69
Restaurants	8	11	29	5	16
Beauty shops	3	0	3	0	13
Industrial/Manufacturing	7	4	9	4	25
Service stations	11	8	14	3	9
Retail	6	12	44	5	52
	75	**77**	**207**	**38**	**315**
OTHER PROPERTY					
Flammable/Combustible liquid	61	39	94	18	102
Prisons/Jails	54	16	166	22	156
Special properties	2	4	4	0	0
Special structures	2	0	2	0	2
Storage	2	1	3	0	3
L.P. facilities	4	1	2	0	4
Other properties	1	123	127	0	4
Natural Gas	0	0	0	0	0
	126	**184**	**398**	**40**	**271**
TOTAL INSPECTIONS	**5,487**	**2,266**	**8,104**	**1,664**	**21,613**

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. The team is divided into two regions - North and South. The Southern team is supervised by Roger Jemming, and covers 54 counties. This team is staffed with six Deputy State Fire Marshal-Inspectors. The Northern Region, supervised by Robert Imholte, covers 33 counties with five Deputy State Fire Marshal-Inspectors.

These two teams are responsible for the inspection of 995 hotels/motels and 1,355 licensed resorts in Minnesota. These facilities are mandated by statute to be inspected at least once every three years.

There are approximately 14,000 licensed day care facilities in the state with a high annual turnover rate of 3,000 new day care homes.

Another major responsibility of the Residential Inspection Team is to conduct fire/life safety inspections of day care and foster care facilities at the time of initial licensure by the Department of Human Services. There are roughly 14,000 licensed day care facilities in the state with a high annual turnover rate; well over 2,500 new day care and foster care inspections are conducted annually.

In spite of ongoing staff and budget cuts, this hard-working team of inspectors has continued to increase the annual number of inspections in an effort to keep current with the three-year requirements, and to ensure a timely response to requests for inspection of day care and foster care facilities.

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 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 all health care facilities licensed by the Minnesota Department of Health, as well as 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, developmental achievement centers, and home-based day care facilities, and various other occupancies as assigned.

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

This section includes a supervisor and two clerical support staff in the headquarters office, and seven field Deputy State Fire Marshal Inspectors located throughout the state. A retirement in July reduced the number of health care inspectors to seven. The health care deputies spend approximately 80% of their time in the field, conducting inspections. 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 contractual arrangements made with the Division and the Minnesota Department of Health, acting as the agents 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.

The team also provides in-service training for staff of health care facilities on 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 1993, the Health Care Team inspected 2,182 buildings in 1,441 facilities.

Inspection Mandates

Facility	Annually or one time inspection	Every 3 Years
Child Care	X	
Health care Facilities	X	
Hotel / Motel Resorts		X
Residential	X	
Medical Facilities	X	
Educational Facilities		X
Commercial	X	
Special Property	X	

PUBLIC SCHOOL INSPECTION PROGRAM

School inspections revealed 3,138 fire code violations in 247 schools in 1993.

The Public School Inspection Program completed its third full year of operation in 1993. 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. 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 deficiencies found in many of the state's schools. Emphasis is placed on life safety efforts to protect the school's occupants (most notably, students). Due to 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. Due to 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 1993-94 school year there were 392 school districts in the state providing education to approximately 803,100 students from pre-school through the 12th grade. When the number of teachers, staff, and community usage of the 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. This contract was developed out of concerns that many school projects were receiving no review (by state law, many projects under $100,000 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 safety projects, was being used inappropriately. The State Fire Marshal is now conducting these plan reviews and is working with the Deparment of Education to monitor the funding used to make these fire safety improvements.

In 1993 the School Inspection Team inspected 247 school buildings; these inspections noted 3,138 fire code violations and deficiencies. The number of inspections and violations was down somewhat from previous years due, in part, to a large number of follow-up inspections which were conducted in 1993. 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 411, with an additional 47 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 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 State Fire Marshal Division has two Code/Plans Specialists on staff. These individuals have responsibilities for conducting plan reviews for aboveground and underground flammable and combustible liquids installations, and Liquified Petroleum (L.P.) gas installations statewide. During 1993, 491 plan reviews were conducted.

In addition to their plan review activities, the Code/Plans Specialists also function as code consultants by responding to thousands of telephone and written requests for assistance in adopting, interpreting, and enforcing the applicable provisions of the Minnesota Uniform Fire Code (MUFC) and its related statutes and amendments. These requests frequently come from fire officials, building inspectors, property owners and managers, architects, engineers, attorneys, and the general public. As Code/Plans Specialists, these individuals also serve on the State Fire Marshal Code Advisory Panel to review fire code variance requests and also are members of the Minnesota State Fire Chief's Association Code Committee to evaluate and recommend code changes.

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

During 1993, the State Fire Marshal Division adopted the updated version of the MUFC.

PUBLIC EDUCATION AND FIRE DATA

The Public Education and Fire Data Analysis unit is headed by Mary Nachbar and includes Ernie Scheidness, Nora Gierok and Irene Moore. This team collects and analyzes over 107,000 NFIRS reports annually. They provided technical assistance to Minnesota's 620 reporting fire departments. This team is also on alert to react to incidents happening in Minnesota to provide data and information to the media and fire service leaders.

Data, Statewide Fire Drill, materials for the elderly, and smoke detector giveaways were the focus of 1993 efforts.

They also provide information for special projects and reports. They have been instrumental in some major legislative initiatives in the past 5 years, by providing historical data regarding fire trends relating to such topics as arson, children at risk, smoke detector usage, and injuries. This critical data, supplied by the Minnesota Fire Incident Reporting System (MFIRS), is invaluable. The goal of the unit is to increase fire reporting by 25% in the next two years. Training will be offered on a regional basis in CY 95 to assist fire departments with their reporting efforts, computerization and how to use the data at the local level.

The Public Education program, has worked very closely with the MN Department of Health, County Social Service Agencies and with the fire service to reach high risk target audiences. The Division and the MDH have continued their efforts on a County basis to reach low income families with children and the elderly. The public educator links local social service agencies with the fire service to work together to reach the public.

In 1993, 10 public health nurse in-services were conducted, reaching over 250 nurses who work in many counties throughout the state. This program has continued to grow in 1994 and year to date additional train the trainer programs have been conducted in 10 counties. We urge fire departments to attend these training sessions when contacted and get acquainted with a highly energetic dedicated group of individuals who are ready and willing to assist with the fire safety messages.

Project Fire Wise - a program developed jointly by the St. Paul Fire Department and the Red Cross has been adapted with the permission of the St. Paul Fire Department and utilized to train home health aides throughout the state who work with the elderly and persons who are mobility impaired. This program has assisted in reaching tenfold the number of aides trained. Of the approximately 100 aides trained, each reaches a minimum of 10 of the high-risk population on a weekly basis. These collaborative efforts will significantly increase the outreach of the fire messages.

Additionally, the PE program has solicited funds and in-kind services to be able to provide materials and smoke detectors to the fire service at cost. The Minneapolis. Fire Department has allowed us to re-produce "Slide Into Fire Safety" activity books for children at cost to the fire service. Smoke Detectors are available at $5.00 each and smoke detector maintenance brochures at 500 for $40.

We are in the process of attempting to make an agreement with NFPA to buy public education videos in bulk to offer back to the fire service and related industries at a cost of $50 each. Imagine the movie "Fire Power," or "Sparkys ABC's" for $50.00 each. Details of this program will be forthcoming in the form of a survey to fire departments in November of 1994. This type of cooperative purchasing of materials will help make public education even more affordable in the future.

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

In October of 1993, the Division cooperatively with the DNR, purchased a booth at the Minnesota Education Association's annual conference. The effort was a huge success. There were times during the day when so many teachers were in the booth that you couldn't even turn around. We will purchase a booth every other year at this convention.

The Statewide Fire Drill conducted on October 25, 1993 generated a lot of media attention in the Metro area. Press kits were sent to 450 media markets to promote the event and our clipping service picked up over 56 articles in local newspapers regarding Change Your Clock - Change Your Battery and the Statewide Fire Drill.

The city of Mendota Heights wanted to do something different and got an entire neighborhood involved in a drill. The media came to the event where families on the block all met outside after their drill. One family was featured where a young boy demonstrated for reporters how to properly react when the smoke detector goes off. Over 8 minutes of air time was devoted to this event on the evening news that night.

Last year we developed a media kit with accompanying data for the holiday seasons of Christmas - New Years and during the Fourth of July. These proved to be of much interest to the media, when both Tom Brace and Mary Nachbar appeared on numerous radio and TV shows to talk about the issues. Data collected regarding fireworks injuries helped quell the debate of the "Border Sting Operation" in June of 1994. Our data indicates that in Minnesota, where fireworks are totally illegal, over 200 persons were injured severely enough to be brought to or admitted to emergency rooms and hospitals. Tragically, 60% of those injuries were to children.

The goal of the Public Education Program is to continue to offer support to requesting fire departments, to help establish or re-establish local programs and to define the fire problem and to focus program efforts towards reducing those incidents, deaths and injuries. Further, we wish to encourage the fire service and the schools in Minnesota to implement a school curriculum to teach children the fire safety message at a young age so that the information will be instinctual when the child becomes an adult or parent.

Money for development continues to be an obstacle; therefore, working in collaboration with agencies such as the SAFE KIDS coalition, burn units, fire departments and associations is critical.

The public education program on the state level was never designed to take over public education on a local level, but to act as a resource to the fire service for all kinds of issues and to develop statewide initiatives.

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 projects that benefit all who reside, work or play in Minnesota. Thank you each and every one.

FIRE PROTECTION: SPRINKLER LICENSING AND PLAN REVIEW TEAM

In August of 1992, Minnesota Statute 299M, which regulates the fire protection industry, became law. A major component of the law required fire protection contractors to be licensed, journeyman sprinkler fitters to be certified, and apprentice sprinkler fitters to be registered. These licenses, certificates, and registration regulations are to be administered by the Minnesota State Fire Marshal, Department of Public Safety.

The last few months of 1992 and all of 1993 found the Governor's appointed Advisory Council on Fire Protection Systems developing the rules needed to enforce the law. The Minnesota Rules, parts 7512.0100 through 7512.2800 were published on August 30, 1993, in the State Register. This publishing of the proposed Rules generated a public hearing on October 12, 1993. The hearing then generated a few changes which the Administrative Law Judge reviewed and issued his findings on December 6, 1993.

The next action will be to publish the changes that were finalized at the hearing with the amendments given by the Administrative Law Judge.

The rules, as presented at the hearing, require that:

- A person must have a fire protection contractor's license (or be employed by a licensed contractor), to sell, design, install, modify, or inspect a fire protection system.
- Contractors may become licensed by employing or becoming a Managing Employee. If a person only wishes to design fire protection systems, that person may become a new type of contractor which is called a Design Contractor. Also, companies wanting to have employees of that company work on the fire protection systems owned by the company can apply for a license.

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

- Journeyman sprinkler fitters will have a choice of three different types of certificates. The first is a Journeyman Certificate, which will allow the journeyman to install, connect, alter, repair, and add-to all systems. The second is a Conditional Journeyman, which will allow a journeyman to perform all of the components of the job, but must be under the supervision of a full journeyman until the required examination is successfully passed. The final type of journeyman is a Limited Journeyman, which is a person that is employed by one company and will only work on the fire protection systems owned by that company. The Limited Journeyman will not be required to take the examination.
- Apprentice sprinkler fitters will be required to register with the Commissioner of Public Safety and be in a training program.