



# **1996 Residential Fire Loss Estimates**

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## Executive Summary

The attached tables present estimated product-related fire losses that occurred in U.S. residential structure fires attended by the fire service during 1996, the most recent year for which these data are available. In addition, data for the latest five years and the benchmark years<sup>1</sup> are presented. These estimates were derived from data provided by the U.S. Fire Administration (USFA) and the National Fire Protection Association (NFPA).

- An estimated 428,000 residential structure fires were attended by fire departments in 1996. These fires resulted in an estimated 4,080 civilian deaths, 19,300 civilian injuries, and \$4.96 billion in property loss.<sup>2</sup> (Table 1)
- Fires in residential properties accounted for about 74 percent of all structure fires in 1996 and resulted in 97 percent of civilian deaths and 88 percent of civilian injuries in all structure fires.
- Among products within CPSC jurisdiction (which excludes cigarettes), the products most frequently involved in fire deaths were mattresses/bedding (17%), upholstered furniture (16%), and heating equipment (15%). Electrical distribution systems, mainly home wiring and light fixtures, and cooking equipment each accounted for 9 percent of all residential structure fire deaths. (Tables 1 and 2)
- Cooking equipment, primarily ranges and ovens, was the most frequent product type involved in residential fires and injuries (about 25 percent for both). Most cooking equipment-related fires and injuries involved electrical products (13 percent and 15 percent, respectively, of all residential structure fires and injuries.) Heating equipment was the second leading product type involved in fires (15%). (Table 1)
- Between 1980 and 1996, estimated residential structure fires decreased about 43 percent. Estimated deaths associated with these fires decreased about 26 percent and estimated injuries decreased about 9 percent.

Fire loss estimates presented in this report are fires, deaths, and injuries associated with consumer products. Only selected product categories are presented in the attached tables; therefore, the detail of the product categories may not add to the total number of residential structure fires, deaths, injuries, and property loss. The product categories selected represent most of the products within the jurisdiction of CPSC. The remaining product categories include medical and industrial equipment and other miscellaneous items.

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<sup>1</sup> Tables 9, 13, 15, and 17 contain benchmark data from 1990 and all other tables contain benchmark data from 1980.

<sup>2</sup> Michael J. Karter, Jr., "1996 U.S. Fire Loss", NFPA Journal, Sept./Oct.1997, pp. 77 - 83.

**TABLE 1**  
**ESTIMATED FIRE LOSSES IN RESIDENTIAL STRUCTURES**  
**SELECTED EQUIPMENT, 1996**

<b>Equipment</b>	<b>Fires</b>	<b>Civilian Deaths</b>	<b>Civilian Injuries</b>	<b>Property Loss (In Millions)</b>
<b>Total Residential</b>	<b>428,000</b>	<b>4,080</b>	<b>19,300</b>	<b>\$4,962.0</b>
<b>Total Heating Equipment</b>	<b>64,500</b>	<b>630</b>	<b>1,810</b>	<b>\$736.9</b>
Fixed Heater	15,800	140	380	\$207.0
Portable Heater	5,700	280	490	\$110.1
Central Heating	10,200	40	260	\$86.8
Fireplace	7,800	60	130	\$99.8
Chimney or Connector	12,900	40	70	\$89.5
Water Heater	8,400	50	400	\$97.8
Other or Unknown	3,700	20	80	\$45.8
<b>Total Cooking Equipment</b>	<b>101,500</b>	<b>370</b>	<b>4,870</b>	<b>\$430.7</b>
Range/Oven	85,000	300	4,170	\$322.2
Gas	24,100	140	950	\$76.2
Electric	47,300	100	2,640	\$180.0
Other or Unknown	13,600	60	580	\$66.0
All Other Cooking	16,500	70	700	\$108.5
Gas	2,200	10	110	\$17.1
Electric	7,900	50	300	\$46.8
Other or Unknown	6,400	20	280	\$44.5
<b>Total Electric Distribution</b>	<b>41,600</b>	<b>370</b>	<b>1,430</b>	<b>\$682.5</b>
Installed Wiring	14,300	120	340	\$259.9
Cord, Plug	7,100	120	460	\$121.6
Switch, Outlet	4,700	30	130	\$63.7
Lamp, Light Fixture	8,900	60	320	\$99.0
Other or Unknown	6,600	30	170	\$138.4
<b>Total Appliances (Except Above)</b>	<b>29,300</b>	<b>140</b>	<b>960</b>	<b>\$265.4</b>
TV, Radio, Phono	2,000	20	150	\$36.2
Dryer	15,500	20	320	\$84.4
Washing Machine	1,900	--	20	\$2.8
Heat Producing Appliance	3,400	60	180	\$57.6
Non-Heat Producing Appliance	800	--	30	\$8.2
Other or Unknown	5,800	40	260	\$76.3
<b>Total Cooling, Air Conditioning</b>	<b>4,100</b>	<b>*</b>	<b>90</b>	<b>\$52.1</b>

Source: U.S. Consumer Product Safety Commission / EHHA, from data obtained from the U.S. Fire Administration and NFPA.

Note: Detail may not add to total due to rounding. Estimates less than 10 are denoted by an asterisk (\*).

**TABLE 2**  
**ESTIMATED FIRE LOSSES IN RESIDENTIAL STRUCTURES**  
**SELECTED PRODUCTS, 1996**

<b>Product</b>	<b>Fires</b>	<b>Civilian Deaths</b>	<b>Civilian Injuries</b>	<b>Property Loss (In Millions)</b>
<b>Total Residential</b>	<b>428,000</b>	<b>4,080</b>	<b>19,300</b>	<b>\$4,962.0</b>
<b>By Form of Heat of Ignition</b>				
<b>Cigarette, Other Tobacco Prod.</b>	<b>28,200</b>	<b>1,140</b>	<b>2,570</b>	<b>\$325.9</b>
<b>Match</b>	<b>21,500</b>	<b>200</b>	<b>1,180</b>	<b>\$243.8</b>
Child Play	7,200	80	620	\$97.3
Other	13,600	110	520	\$140.4
Unknown	600	*	30	\$6.1
<b>Lighter</b>	<b>11,700</b>	<b>210</b>	<b>1,510</b>	<b>\$194.9</b>
Child Play	7,200	130	1,090	\$117.0
Other	4,300	70	400	\$73.5
Unknown	300	20	20	\$4.3
<b>Candle</b>	<b>10,300</b>	<b>120</b>	<b>1,150</b>	<b>\$175.9</b>
<b>By Form of Material First Ignited</b>				
<b>Upholstered Furniture</b>	<b>13,100</b>	<b>650</b>	<b>1640</b>	<b>\$253.1</b>
Smoking Material Ignition	6,000	470	940	\$96.7
Open Flame Ignition	3,200	90	410	\$61.4
Other	3,900	90	290	\$95.0
<b>Mattress, Bedding</b>	<b>26,000</b>	<b>700</b>	<b>2660</b>	<b>\$356.9</b>
Smoking Material Ignition	7,400	330	830	\$79.3
Open Flame Ignition	10,600	130	1270	\$172.7
Other	8,000	240	560	\$105.0
<b>Other Materials</b>				
Electric Cable Insulation	32,100	160	730	\$321.4
Interior Wall Covering	16,300	190	550	\$296.7
Wearing Apparel-Worn	800	120	210	\$5.2
Wearing Apparel-Not Worn	16,100	110	860	\$157.7
Floor Covering	10,400	110	480	\$147.3
Curtains, Drapes	4,200	20	430	\$49.8
Magazine, Newspaper	6,400	70	300	\$64.6
Thermal Insulation	4,800	--	60	\$47.9
Cabinet, Desk	7,000	70	540	\$92.0
Trash, Rubbish	33,700	90	450	\$142.6
Toy, Game	800	20	80	\$6.8

Source: U.S. Consumer Product Safety Commission / EHHA, from data obtained from the U.S. Fire Administration and NFPA.

Note: Detail may not add to total due to rounding. Estimates less than 10 are denoted by an asterisk (\*).

**TABLE 3**  
**ESTIMATED FIRE LOSSES IN RESIDENTIAL STRUCTURES**  
**HEATING EQUIPMENT, 1996**

Heating Equipment	Fires	Civilian Deaths	Civilian Injuries	Property Loss (In Millions)
<b>Total Residential</b>	<b>428,000</b>	<b>4,080</b>	<b>19,300</b>	<b>\$4,962.0</b>
<b>Total Heating Equipment</b>	<b>64,500</b>	<b>630</b>	<b>1,810</b>	<b>\$736.9</b>
<b>Solid Fuel</b>	<b>23,600</b>	<b>130</b>	<b>230</b>	<b>\$184.4</b>
Fixed Heater	8,300	60	80	\$51.8
Portable Heater	100	*	*	\$2.4
Fireplace	5,100	40	80	\$62.8
Central Furnace	300	--	*	\$4.5
Chimney	7,300	10	20	\$40.3
Chimney Connector	1,700	10	20	\$17.3
Other or Unknown	700	10	20	\$5.3
<b>Gas-Fired</b>	<b>11,900</b>	<b>160</b>	<b>620</b>	<b>\$159.4</b>
Fixed Heater	2,500	30	130	\$32.8
Portable Heater	800	40	60	\$14.3
Water Heater	4,800	50	290	\$64.7
Central Furnace	2,800	10	110	\$32.8
Other or Unknown	1,100	20	20	\$14.7
<b>Electric</b>	<b>10,900</b>	<b>150</b>	<b>420</b>	<b>\$108.4</b>
Fixed Heater	2,300	10	100	\$22.1
Portable Heater	2,500	130	200	\$45.4
Water Heater	1,800	--	30	\$9.8
Central Furnace	3,100	10	50	\$14.3
Other or Unknown	1,200	--	40	\$16.8
<b>Liquid Fuel</b>	<b>4,800</b>	<b>70</b>	<b>210</b>	<b>\$114.8</b>
Fixed Heater	700	10	20	\$72.2
Portable Heater	1,100	40	140	\$23.4
Water Heater	400	--	10	\$4.8
Central Furnace	2,200	10	40	\$10.1
Chimney or Connector	100	--	*	\$1.4
Other or Unknown	300	*	--	\$2.9
<b>All Other, Unknown Fuel</b>	<b>13,300</b>	<b>130</b>	<b>330</b>	<b>\$169.8</b>
Fixed Heater	2,200	30	50	\$28.0
Portable Heater	1,100	60	90	\$24.6
Fireplace	2,300	10	40	\$33.9
Water Heater	1,300	*	60	\$17.8
Central Furnace	1,800	10	50	\$25.1
Chimney	2,300	*	10	\$14.0
Chimney Connector	800	10	10	\$7.4
Other or Unknown	1,500	10	20	\$19.0

Source: U.S. Consumer Product Safety Commission / EHHA, from data obtained from the U.S. Fire Administration and NFPA.

Note: Detail may not add to total due to rounding. Estimates less than 10 are denoted by an asterisk (\*).

**TABLE 4**  
**ESTIMATED FIRE LOSSES IN RESIDENTIAL STRUCTURES**  
**ELECTRICAL EQUIPMENT, 1996**

Electrical Equipment	Fires	Civilian Deaths	Civilian Injuries	Property Loss (In Millions)
<b>Total Residential</b>	<b>428,000</b>	<b>4,080</b>	<b>19,300</b>	<b>\$4,962.0</b>
<b>Total Electrical</b>	<b>149,500</b>	<b>870</b>	<b>6,350</b>	<b>\$1,484.8</b>
<b>Electrical Heating Equipment</b>	<b>10,900</b>	<b>150</b>	<b>420</b>	<b>\$108.4</b>
Central Heating	3,100	10	50	\$14.3
Fixed Heater	2,300	10	100	\$22.1
Portable Heater	2,500	130	200	\$45.4
Water Heater	1,800	--	30	\$9.8
Other or Unknown	1,200	--	40	\$16.8
<b>Electrical Cooking Equipment</b>	<b>55,200</b>	<b>140</b>	<b>2,940</b>	<b>\$226.8</b>
Range/Oven	47,300	90	2,640	\$180.0
Toaster/Toaster Oven	3,300	20	110	\$24.8
Microwave Oven	1,600	10	60	\$9.2
Range/Oven Hood	800	--	10	\$2.9
Coffee Maker, Teapot	500	--	20	\$4.4
Deep Fat Fryer	200	--	20	\$0.9
Hot Plate	200	--	10	\$1.5
Other or Unknown	1,300	20	70	\$3.1
<b>Electrical Distribution</b>	<b>41,600</b>	<b>370</b>	<b>1,430</b>	<b>\$682.5</b>
Installed Wiring	14,300	120	340	\$259.9
Light Fixture	5,400	30	140	\$54.3
Receptacle	3,600	20	110	\$50.6
Extension Cord	2,500	40	150	\$47.5
Other Electrical Cord	4,100	60	260	\$81.9
Lamp, Light Bulb	3,600	30	190	\$44.7
Circuit Breaker	2,300	10	60	\$36.6
Switch	1,600	10	50	\$33.3
Meter	900	--	10	\$8.9
Fuse	800	--	20	\$17.4
Transformer	400	10	10	\$4.1
Other or Unknown	2,100	40	90	\$43.3
<b>Electrical Appliances</b>	<b>19,200</b>	<b>110</b>	<b>670</b>	<b>\$181.9</b>
Clothes Dryer	8,600	10	170	\$47.5
Fan	2,700	10	110	\$34.7
Washing Machine	1,400	--	10	\$2.0
Heat Tape	1,300	10	50	\$21.5
Television	1,000	10	80	\$18.8
Iron	400	10	20	\$5.8
Dishwasher	1,000	10	40	\$13.2
Radio, Cassette Player	800	10	60	\$14.7
Hair Dryer, Curling Iron	800	10	40	\$11.4
Electric Blanket	400	10	30	\$6.6
Other or Unknown	800	20	60	\$5.7
<b>Cooling Equipment</b>	<b>3,500</b>	<b>*</b>	<b>80</b>	<b>\$45.6</b>
Refrigerator, Freezer	1,000	--	20	\$11.4
Central Air Conditioning	900	--	*	\$16.8
Fixed Room Air Conditioning	600	--	20	\$4.0
Portable Air Conditioning	600	*	10	\$6.9
Other or Unknown	500	--	10	\$6.5

Source: U.S. Consumer Product Safety Commission / EHHA, from data obtained from the U.S. Fire Administration and NFPA.

Note: Detail may not add to total due to rounding. Estimates less than 10 are denoted by an asterisk (\*).

**TABLE 5**  
**ESTIMATED FIRE LOSSES IN RESIDENTIAL STRUCTURES**  
**GAS-FIRED EQUIPMENT, 1996**

<b>Gas-Fired Equipment</b>	<b>Fires</b>	<b>Civilian Deaths</b>	<b>Civilian Injuries</b>	<b>Property Loss (In Millions)</b>
<b>Total Residential</b>	<b>428,000</b>	<b>4,080</b>	<b>19,300</b>	<b>\$4,962.0</b>
<b>Total Gas-Fired Equipment</b>	<b>49,900</b>	<b>330</b>	<b>2,090</b>	<b>\$321.7</b>
<b>Gas Heating Equipment</b>	<b>11,900</b>	<b>160</b>	<b>620</b>	<b>\$159.4</b>
Fixed Heater	2,500	30	130	\$32.8
Portable Heater	800	40	60	\$14.3
Central Furnace	2,800	10	110	\$32.8
Fireplace	300	10	10	\$2.3
Water Heater	4,800	50	290	\$64.7
Other or Unknown	800	10	10	\$12.5
<b>Gas Cooking Equipment</b>	<b>26,400</b>	<b>150</b>	<b>1060</b>	<b>\$93.3</b>
Range/Oven	24,100	140	950	\$76.2
Open Grill Gas	500	*	30	\$6.9
Portable Cooking	200	--	20	\$3.0
Other or Unknown	1,500	*	60	\$7.2
<b>Gas Appliances (Except Above)</b>	<b>3,400</b>	<b>*</b>	<b>80</b>	<b>\$17.2</b>
Dryer	3,200	*	70	\$14.5
Other or Unknown	200	--	10	\$2.8

Source: U.S. Consumer Product Safety Commission / EHHA, from data obtained from the U.S. Fire Administration and NFPA.

Note: Detail may not add to total due to rounding. Estimates less than 10 are denoted by an asterisk (\*).



**TABLE 6**  
**ESTIMATED RESIDENTIAL STRUCTURE FIRES**  
**SELECTED EQUIPMENT, 1992-1996**

<b>Equipment</b>	<b>1980</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>
<b>Total Residential</b>	<b>757,500</b>	<b>472,000</b>	<b>470,000</b>	<b>451,000</b>	<b>425,500</b>	<b>428,000</b>
<b>Total Heating Equipment</b>	<b>210,400</b>	<b>84,500</b>	<b>85,500</b>	<b>75,100</b>	<b>69,600</b>	<b>64,500</b>
Fixed Heater	42,100	26,800	26,200	22,100	19,300	15,800
Portable Heater	6,500	5,300	5,700	5,500	5,400	5,700
Central Furnace	22,800	11,400	11,800	10,700	10,100	10,200
Fireplace	39,800	11,000	10,400	9,100	9,000	7,800
Chimney or Connector	77,800	17,400	18,900	15,700	14,100	12,900
Water Heater	15,400	8,500	8,500	8,200	7,900	8,400
Other or Unknown	5,900	4,100	4,000	3,900	3,700	3,700
<b>Total Cooking Equipment</b>	<b>141,700</b>	<b>114,600</b>	<b>113,300</b>	<b>104,800</b>	<b>99,400</b>	<b>101,500</b>
Range/Oven	124,900	98,200	96,700	88,500	84,600	85,000
Gas	40,400	29,500	29,000	24,800	21,500	24,100
Electric	63,100	53,800	53,400	51,000	50,700	47,300
Other or Unknown	21,400	14,900	14,300	12,700	12,400	13,600
All Other Cooking	16,800	16,400	16,600	16,300	14,800	16,500
Gas	1,300	1,900	2,100	2,300	2,000	2,200
Electric	9,000	8,000	8,100	7,900	7,700	7,900
Other or Unknown	6,400	6,500	6,400	6,000	5,100	6,400
<b>Total Electrical Distribution</b>	<b>64,700</b>	<b>41,000</b>	<b>43,400</b>	<b>42,900</b>	<b>42,100</b>	<b>41,600</b>
Installed Wiring	22,300	14,600	15,200	15,200	14,600	14,300
Cord, Plug	12,200	7,500	7,800	7,400	7,200	7,100
Switch, Outlet	7,400	4,800	5,200	4,900	4,900	4,700
Lamp, Light Fixture	12,100	7,800	8,400	8,700	8,800	8,900
Other or Unknown	10,700	6,400	6,800	6,800	6,600	6,600
<b>Total Appliances (Except Above)</b>	<b>49,900</b>	<b>29,700</b>	<b>30,300</b>	<b>30,700</b>	<b>29,700</b>	<b>29,300</b>
TV, Radio, Phono	9,700	2,300	2,100	2,200	1,900	2,000
Dryer	19,200	14,300	14,800	15,300	15,800	15,500
Washing Machine	3,400	2,500	2,400	2,100	1,900	1,900
Heat Producing Appliance	7,900	3,900	3,800	3,800	3,300	3,400
Other or Unknown	9,700	6,000	6,300	6,400	6,800	6,600
<b>Total Cooling, Air Conditioning</b>	<b>6,400</b>	<b>4,800</b>	<b>4,900</b>	<b>4,500</b>	<b>4,600</b>	<b>4,100</b>

Source: U.S. Consumer Product Safety Commission / EHHA, from data obtained from the U.S. Fire Administration and NFPA.

Note: Detail may not add to total due to rounding. Estimates less than 10 are denoted by an asterisk (\*).

**TABLE 7**  
**ESTIMATED RESIDENTIAL STRUCTURE FIRES**  
**SELECTED PRODUCTS, 1992-1996**

<b>Product</b>	<b>1980</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>
<b>Total Residential</b>	<b>757,500</b>	<b>472,000</b>	<b>470,000</b>	<b>451,000</b>	<b>425,500</b>	<b>428,000</b>
<b>By Form of Heat of Ignition</b>						
<b>Cigarette, Other Tobacco Prod.</b>	<b>79,400</b>	<b>30,200</b>	<b>29,300</b>	<b>28,000</b>	<b>27,000</b>	<b>28,200</b>
<b>Match</b>	<b>71,600</b>	<b>29,900</b>	<b>26,600</b>	<b>25,200</b>	<b>22,700</b>	<b>21,500</b>
Child Play	25,600	10,200	9,200	9,100	7,700	7,200
Other, Unknown	46,000	19,700	17,400	16,100	15,000	14,200
<b>Lighter</b>	<b>11,900</b>	<b>13,600</b>	<b>14,600</b>	<b>15,500</b>	<b>12,800</b>	<b>11,700</b>
Child Play	8,500	9,300	9,900	10,600	8,200	7,200
Other, Unknown	3,400	4,200	4,700	4,900	4,600	4,600
<b>Candle</b>	<b>8,800</b>	<b>6,300</b>	<b>6,600</b>	<b>7,400</b>	<b>8,700</b>	<b>10,300</b>
<b>By Form of Material First Ignited</b>						
<b>Upholstered Furniture</b>	<b>38,600</b>	<b>15,600</b>	<b>14,700</b>	<b>14,300</b>	<b>13,600</b>	<b>13,100</b>
Smoking Material Ignition	24,600	7,300	7,100	6,500	6,400	6,000
Open Flame Ignition	7,400	4,000	3,600	3,800	3,500	3,200
Other	6,600	4,300	4,000	4,000	3,700	3,900
<b>Mattress, Bedding</b>	<b>68,000</b>	<b>31,800</b>	<b>31,300</b>	<b>30,200</b>	<b>26,400</b>	<b>26,000</b>
Smoking Material Ignition	29,800	9,900	9,300	8,400	7,300	7,400
Open Flame Ignition	21,700	13,100	13,100	13,400	11,100	10,600
Other	16,500	8,800	8,900	8,400	8,000	8,000
<b>Other Materials</b>						
Electric Cable Insulation	46,400	34,600	35,900	34,200	33,800	32,100
Interior Wall Covering	34,200	17,900	18,400	17,100	16,300	16,300
Wearing Apparel-Worn	1,300	900	900	900	800	800
Wearing Apparel-Not Worn	20,900	16,200	16,200	15,800	15,400	16,100
Floor Covering	18,300	11,000	10,400	10,100	9,800	10,400
Curtains, Drapes	10,000	4,600	4,600	4,200	4,000	4,200
Magazine, Newspaper	11,000	6,700	6,600	6,300	6,000	6,400
Thermal Insulation	9,200	4,800	5,000	5,200	4,600	4,800
Cabinet, Desk	8,900	6,600	6,800	6,600	6,200	7,000
Toy, Game	1,400	800	900	800	800	800

Source: U.S. Consumer Product Safety Commission / EHHA, from data obtained from the U.S. Fire Administration and NFPA.

Note: Detail may not add to total due to rounding. Estimates less than 10 are denoted by an asterisk (\*).

**TABLE 8**  
**ESTIMATED RESIDENTIAL STRUCTURE FIRES**  
**HEATING EQUIPMENT, 1992-1996**

<b>Heating Equipment</b>	<b>1980</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>
<b>Total Residential</b>	<b>757,500</b>	<b>472,000</b>	<b>470,000</b>	<b>451,000</b>	<b>425,500</b>	<b>428,000</b>
<b>Total Heating Equipment</b>	<b>210,400</b>	<b>84,500</b>	<b>85,500</b>	<b>75,100</b>	<b>69,600</b>	<b>64,500</b>
<b>Solid Fuel</b>	<b>112,000</b>	<b>39,200</b>	<b>39,500</b>	<b>32,500</b>	<b>29,100</b>	<b>23,600</b>
Fixed Heater	22,200	17,700	17,400	13,800	11,500	8,300
Portable Heater	1,200	200	200	200	200	100
Fireplace	28,300	7,700	7,100	6,300	6,400	5,100
Central Furnace	2,000	600	600	500	400	300
Chimney	47,000	9,900	10,800	9,000	8,200	7,300
Chimney Connector	8,700	2,400	2,700	2,100	1,900	1,700
Other or Unknown	2,400	700	700	600	500	700
<b>Gas-Fired</b>	<b>27,000</b>	<b>13,400</b>	<b>13,500</b>	<b>12,700</b>	<b>11,900</b>	<b>11,900</b>
Fixed Heater	6,600	3,000	2,800	2,600	2,500	2,500
Portable Heater	600	700	900	800	800	800
Water Heater	11,200	5,400	5,100	4,900	4,600	4,800
Central Furnace	6,900	3,000	3,300	3,100	2,700	2,800
Other or Unknown	1,800	1,300	1,400	1,300	1,200	1,100
<b>Electric</b>	<b>15,400</b>	<b>10,700</b>	<b>11,300</b>	<b>10,800</b>	<b>10,700</b>	<b>10,900</b>
Fixed Heater	4,600	2,700	2,700	2,700	2,600	2,300
Portable Heater	3,000	2,400	2,400	2,400	2,300	2,500
Water Heater	1,100	1,400	1,600	1,600	1,600	1,800
Central Furnace	5,200	3,200	3,400	3,000	3,000	3,100
Other or Unknown	1,400	1,000	1,100	1,100	1,200	1,200
<b>Liquid Fuel</b>	<b>9,400</b>	<b>5,600</b>	<b>5,500</b>	<b>5,100</b>	<b>4,700</b>	<b>4,800</b>
Fixed Heater	1,700	800	800	700	700	700
Portable Heater	600	1,100	1,200	1,200	1,100	1,100
Water Heater	900	400	400	300	400	400
Central Furnace	4,800	2,800	2,600	2,500	2,200	2,200
Chimney or Connector	1,000	200	200	200	200	100
Other or Unknown	400	200	300	200	200	300
<b>All Other, Unknown Fuel</b>	<b>46,600</b>	<b>15,600</b>	<b>15,700</b>	<b>13,900</b>	<b>13,200</b>	<b>13,300</b>
Fixed Heater	7,000	2,700	2,400	2,300	2,000	2,200
Portable Heater	1,100	800	1,000	1,000	1,000	1,100
Fireplace	10,700	2,900	2,800	2,300	2,200	2,300
Water Heater	2,200	1,200	1,400	1,300	1,300	1,300
Central Furnace	3,900	1,900	1,800	1,600	1,800	1,800
Chimney	17,300	3,300	3,600	2,900	2,500	2,300
Chimney Connector	2,800	1,000	1,100	900	900	800
Other or Unknown	1,700	1,800	1,600	1,600	1,600	1,500

Source: U.S. Consumer Product Safety Commission / EHHA, from data obtained from the U.S. Fire Administration and NFPA.  
Note: Detail may not add to total due to rounding. Estimates less than 10 are denoted by an asterisk (\*).

**TABLE 9**  
**ESTIMATED RESIDENTIAL STRUCTURE FIRES**  
**ELECTRICAL EQUIPMENT, 1992-1996**

<b>Heating Equipment</b>	<b>1990</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>
<b>Total Residential</b>	<b>467,000</b>	<b>472,000</b>	<b>470,000</b>	<b>451,000</b>	<b>425,500</b>	<b>428,000</b>
<b>Total Electrical Equipment</b>	<b>152,500</b>	<b>156,300</b>	<b>160,900</b>	<b>155,100</b>	<b>152,500</b>	<b>149,500</b>
<b>Heating Equipment</b>	<b>10,100</b>	<b>10,700</b>	<b>11,300</b>	<b>10,800</b>	<b>10,700</b>	<b>10,900</b>
Central Heating	3,000	3,200	3,400	3,000	3,000	3,100
Fixed Heater	2,600	2,700	2,700	2,700	2,600	2,300
Portable Heater	2,300	2,400	2,400	2,400	2,300	2,500
Water Heater	1,300	1,400	1,600	1,600	1,600	1,800
Other or Unknown	900	1,000	1,100	1,100	1,200	1,200
<b>Cooking Equipment</b>	<b>56,900</b>	<b>61,800</b>	<b>61,500</b>	<b>58,900</b>	<b>58,400</b>	<b>55,200</b>
Range/Oven	50,100	53,800	53,400	51,000	50,700	47,300
Toaster/Toaster Oven	2,500	3,000	3,200	3,200	3,100	3,300
Microwave Oven	1,200	1,200	1,200	1,600	1,500	1,600
Range/Oven Hood	800	1,000	1,000	800	700	800
Coffee Maker, Teapot	700	900	700	500	600	500
Deep Fat Fryer	400	300	300	300	300	200
Hot Plate	300	400	300	300	300	200
Other or Unknown	900	1,200	1,400	1,200	1,200	1,300
<b>Electric Distribution</b>	<b>4,200</b>	<b>41,000</b>	<b>43,300</b>	<b>42,900</b>	<b>42,100</b>	<b>41,600</b>
Installed Wiring	15,100	14,600	15,200	15,200	14,600	14,300
Light Fixture	5,100	4,800	5,200	5,300	5,200	5,400
Receptacle	3,900	3,700	4,000	4,100	3,800	3,600
Extension Cord	3,300	3,100	3,300	3,200	3,700	2,500
Other Electrical Cord	2,100	3,100	3,300	3,200	3,200	4,100
Lamp, Light Bulb	2,800	3,000	3,200	3,400	3,500	3,600
Circuit Breaker	1,600	1,800	2,000	2,400	2,200	2,300
Switch	700	1,100	1,200	1,200	1,300	1,600
Meter	700	800	800	900	800	900
Fuse	700	600	700	800	900	800
Transformer	400	400	400	500	500	400
Other or Unknown	5,600	4,000	4,000	2,700	2,400	2,100
<b>Electrical Appliances</b>	<b>20,800</b>	<b>21,300</b>	<b>22,400</b>	<b>22,700</b>	<b>20,000</b>	<b>19,200</b>
Clothes Dryer	7,500	8,000	8,400	8,800	9,000	8,600
Fan	2,800	3,500	3,300	3,100	2,600	2,700
Washing Machine	1,900	1,800	1,700	1,600	1,400	1,400
Heat Tape	2,000	1,200	1,400	1,300	1,100	1,300
Television	1,400	1,400	1,300	1,300	1,000	1,000
Iron	500	700	500	600	500	400
Dishwasher	400	900	1,000	1,300	1,000	1,000
Radio, Cassette Player	700	600	700	1,100	800	800
Hair Dryer, Curling Iron	700	700	700	500	600	800
Electric Blanket	900	500	600	500	300	400
Other or Unknown	2,000	2,000	2,800	2,600	1,700	800
<b>Cooling Equipment</b>	<b>4,500</b>	<b>4,100</b>	<b>4,300</b>	<b>3,800</b>	<b>4,000</b>	<b>3,500</b>
Refrigerator, Freezer	1,500	1,300	1,300	1,200	1,100	1,000
Central Air Conditioning	900	1,000	1,000	900	900	900
Fixed Room Air Conditioning	900	600	700	600	700	600
Portable Air Conditioning	600	500	600	600	800	600
Other or Unknown	600	700	700	500	600	500

Source: U.S. Consumer Product Safety Commission / EHHA, from data obtained from the U.S. Fire Administration and NFPA.

Note: Detail may not add to total due to rounding. Estimates less than 10 are denoted by an asterisk (\*).

**TABLE 10**  
**ESTIMATED RESIDENTIAL STRUCTURE FIRE DEATHS**  
**SELECTED EQUIPMENT, 1992-1996**

<b>Equipment</b>	<b>1980</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>
<b>Total Residential</b>	<b>5,500</b>	<b>3,765</b>	<b>3,825</b>	<b>3,465</b>	<b>3,695</b>	<b>4,080</b>
<b>Total Heating Equipment</b>	<b>850</b>	<b>500</b>	<b>560</b>	<b>490</b>	<b>440</b>	<b>630</b>
Fixed Heater	300	130	220	150	140	140
Portable Heater	90	160	170	170	150	280
Central Furnace	90	50	50	70	80	40
Fireplace	100	30	10	10	10	60
Chimney or Connector	100	30	10	10	10	40
Water Heater	90	60	50	30	20	50
Other or Unknown	50	30	40	40	30	20
<b>Total Cooking Equipment</b>	<b>420</b>	<b>270</b>	<b>340</b>	<b>300</b>	<b>280</b>	<b>370</b>
Range/Oven	320	220	260	210	220	300
Gas	200	90	90	90	130	140
Electric	70	90	120	70	70	100
Other or Unknown	50	40	40	50	20	60
All Other Cooking	100	40	90	90	60	70
Gas	10	*	40	30	10	10
Electric	30	10	30	30	30	50
Other or Unknown	60	30	20	20	20	20
<b>Total Electric Distribution</b>	<b>470</b>	<b>320</b>	<b>330</b>	<b>370</b>	<b>380</b>	<b>370</b>
Installed Wiring	180	130	70	140	160	120
Cord, Plug	150	110	130	100	90	120
Switch, Outlet	20	10	20	40	40	30
Lamp, Light Fixture	30	30	70	50	50	60
Other or Unknown	90	40	40	30	40	30
<b>Total Appliances (Except Above)</b>	<b>260</b>	<b>80</b>	<b>90</b>	<b>80</b>	<b>130</b>	<b>140</b>
TV, Radio, Phono	150	30	30	10	40	20
Dryer	--	10	10	10	10	20
Washing Machine	--	--	--	--	10	--
Heat-Producing Appliance	40	10	30	40	40	60
Other or Unknown	70	30	10	20	30	40
<b>Total Cooling, Air Conditioning</b>	<b>30</b>	<b>10</b>	<b>10</b>	<b>60</b>	<b>20</b>	<b>*</b>

Source: U.S. Consumer Product Safety Commission / EHHA, from data obtained from the U.S. Fire Administration and NFPA.

Note: Detail may not add to total due to rounding. Estimates less than 10 are denoted by an asterisk (\*).

**TABLE 11**  
**ESTIMATED RESIDENTIAL STRUCTURE FIRE DEATHS**  
**SELECTED PRODUCTS, 1992-1996**

Product	1980	1992	1993	1994	1995	1996
<b>Total Residential</b>	<b>5,500</b>	<b>3,765</b>	<b>3,825</b>	<b>3,465</b>	<b>3,695</b>	<b>4,080</b>
<b>By Form of Heat of Ignition</b>						
<b>Cigarette, Other Tobacco Prod.</b>	1,980	1,040	1,010	880	1,070	1,140
<b>Match</b>	510	320	340	260	280	200
Child Play	190	120	160	140	100	80
Other, Unknown	320	200	180	220	180	120
<b>Lighter</b>	340	240	250	300	230	210
Child Play	240	200	170	230	180	130
Other, Unknown	100	40	80	70	50	90
<b>Candle</b>	20	100	80	80	80	120
<b>By Form of Material First Ignited</b>						
<b>Upholstered Furniture</b>	1,400	640	670	680	670	650
Smoking Material Ignition	1,150	490	450	410	500	470
Open Flame Ignition	200	80	110	160	90	90
Other	50	70	110	110	80	90
<b>Mattress, Bedding</b>	980	650	610	490	540	700
Smoking Material Ignition	570	320	340	220	270	330
Open Flame Ignition	260	190	190	200	160	130
Other	160	140	80	70	110	240
<b>Other Materials</b>						
Electric Cable Insulation	170	110	180	170	160	160
Interior Wall Covering	520	240	260	160	220	190
Wearing Apparel-Worn	150	130	110	130	150	120
Wearing Apparel-Not Worn	120	80	100	110	120	110
Floor Covering	230	150	140	90	130	110
Curtains, Drapes	20	20	40	60	20	20
Magazine, Newspaper	70	60	60	70	40	70
Thermal Insulation	10	30	*	10	10	--
Cabinet, Desk	70	30	60	50	50	70
Toy, Game	--	*	*	*	--	20

Source: U.S. Consumer Product Safety Commission / EHHA, from data obtained from the U.S. Fire Administration and NFPA.

Note: Detail may not add to total due to rounding. Estimates less than 10 are denoted by an asterisk (\*).

**TABLE 12**  
**ESTIMATED RESIDENTIAL STRUCTURE FIRE DEATHS**  
**HEATING EQUIPMENT, 1992-1996**

<b>Heating Equipment</b>	<b>1980</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>
<b>Total Residential</b>	<b>5,500</b>	<b>3,765</b>	<b>3,825</b>	<b>3,465</b>	<b>3,695</b>	<b>4,080</b>
<b>Total Heating Equipment</b>	<b>850</b>	<b>500</b>	<b>560</b>	<b>490</b>	<b>440</b>	<b>630</b>
<b>Solid Fuel</b>	<b>350</b>	<b>90</b>	<b>150</b>	<b>70</b>	<b>90</b>	<b>130</b>
Fixed Heater	120	60	120	40	40	60
Portable Heater	10	10	*	10	*	*
Fireplace	90	10	10	10	10	40
Central Furnace	30	*	--	10	10	--
Chimney	60	10	10	10	10	10
Chimney Connector	30	*	*	--	--	10
Other or Unknown	10	*	10	--	10	10
<b>Gas-Fired</b>	<b>150</b>	<b>130</b>	<b>110</b>	<b>160</b>	<b>80</b>	<b>160</b>
Fixed Heater	30	20	40	50	30	30
Portable Heater	10	30	10	30	10	40
Water Heater	70	50	30	20	10	50
Central Furnace	40	30	30	50	40	10
Other or Unknown	--	*	10	--	--	20
<b>Electric</b>	<b>70</b>	<b>110</b>	<b>110</b>	<b>110</b>	<b>100</b>	<b>150</b>
Fixed Heater	20	20	30	30	30	10
Portable Heater	50	70	70	60	70	130
Water Heater	--	*	*	10	--	--
Central Heating	--	10	10	--	--	10
Other or Unknown	--	10	10	10	--	--
<b>Liquid Fuel</b>	<b>120</b>	<b>50</b>	<b>40</b>	<b>50</b>	<b>60</b>	<b>70</b>
Fixed Heater	70	10	10*		10	10
Portable Heater	20	30	30	30	30	40
Water Heater	--	*	*	--	*	--
Central Furnace	30	10	--	10	10	10
Chimney or Connector	--	10	--	--	--	--
Other or Unknown	--	--	--	10	--	*
<b>All Other, Unknown Fuel</b>	<b>160</b>	<b>120</b>	<b>140</b>	<b>100</b>	<b>110</b>	<b>130</b>
Fixed Heater	60	30	30	20	30	30
Portable Heater	10	30	50	40	40	60
Fireplace	30	20	--	10	--	10
Water Heater	10	10	20	*	10	*
Central Furnace	--	10	20	10	20	10
Chimney	10	10	--	10	--	*
Chimney Connector	--	--	--	*	--	10
Other or Unknown	40	20	20	20	10	10

Source: U.S. Consumer Product Safety Commission / EHHA, from data obtained from the U.S. Fire Administration and NFPA.

Note: Detail may not add to total due to rounding. Estimates less than 10 are denoted by an asterisk (\*).

**TABLE 13**  
**ESTIMATED RESIDENTIAL STRUCTURE FIRE DEATHS**  
**ELECTRICAL EQUIPMENT, 1992-1996**

<b>Electrical Equipment</b>	<b>1990</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>
<b>Total Residential</b>	<b>4120</b>	<b>3,765</b>	<b>3,825</b>	<b>3465</b>	<b>3,695</b>	<b>4,080</b>
<b>Total Electrical</b>	<b>770</b>	<b>700</b>	<b>800</b>	<b>750</b>	<b>790</b>	<b>870</b>
<b>Heating Equipment</b>	<b>110</b>	<b>110</b>	<b>110</b>	<b>110</b>	<b>100</b>	<b>150</b>
Central Heating	*	10	10	--	--	10
Fixed Heater	10	20	30	30	30	10
Portable Heater	100	70	70	60	70	130
Water Heater	*	*	*	10	--	--
Other or Unknown	*	10	10	10	--	--
<b>Cooking Equipment</b>	<b>140</b>	<b>100</b>	<b>150</b>	<b>100</b>	<b>110</b>	<b>140</b>
Range/Oven	120	90	120	70	70	90
Toaster/Toaster Oven	10	*	20	20	20	20
Microwave Oven	*	*	10	10	10	10
Range/Oven Hood	*	*	*	--	--	--
Coffee Maker, Teapot	*	*	*	*	*	--
Deep Fat Fryer	*	*	*	--	--	--
Hot Plate	*	*	*	*	*	--
Other or Unknown	*	10	*	--	10	20
<b>Electric Distribution</b>	<b>340</b>	<b>320</b>	<b>330</b>	<b>370</b>	<b>380</b>	<b>370</b>
Installed Wiring	80	130	70	140	160	120
Light Fixture	30	10	50	40	30	30
Receptacle	30	10	20	30	30	20
Extension Cord	20	50	60	40	40	40
Other Electrical Cord	40	40	50	50	40	60
Lamp, Light Bulb	40	10	20	20	20	30
Circuit Breaker	*	10	10	10	10	10
Switch	*	*	10	10	10	10
Meter	*	*	*	*	--	--
Fuse	*	*	*	*	*	--
Transformer	*	*	*	--	--	10
Other or Unknown	100	60	40	30	40	40
<b>Electrical Appliances</b>	<b>80</b>	<b>80</b>	<b>90</b>	<b>60</b>	<b>110</b>	<b>110</b>
Clothes Dryer	10	10	*	*	*	10
Fan	10	10	20	10	10	10
Washing Machine	*	*	*	--	10	--
Heat Tape	10	10	10	10	10	10
Television	20	20	20	10	20	10
Iron	*	*	*	*	10	10
Dishwasher	*	10	10	*	10	10
Radio, Cassette Player	10	10	10	10	20	10
Hair Dryer, Curling Iron	10	*	*	*	10	10
Electric Blanket	10	*	*	*	*	10
Other or Unknown	*	10	20	20	20	20
<b>Cooling Equipment</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>40</b>	<b>20</b>	<b>*</b>
Refrigerator, Freezer	10	*	10	10	20	--
Central Air Conditioning	*	*	*	--	--	--
Fixed Room Air Conditioning	*	*	*	20	--	--
Portable Air Conditioning	*	*	*	*	*	*
Other or Unknown	*	*	*	10	--	--

Source: U.S. Consumer Product Safety Commission / EHHA, from data obtained from the U.S. Fire Administration and NFPA.

Note: Detail may not add to total due to rounding. Estimates less than 10 are denoted by an asterisk (\*).



**TABLE 14**  
**ESTIMATED RESIDENTIAL STRUCTURE FIRE INJURIES**  
**SELECTED EQUIPMENT, 1992-1996**

<b>Equipment</b>	<b>1980</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>
<b>Total Residential</b>	<b>21,100</b>	<b>21,600</b>	<b>22,600</b>	<b>20,025</b>	<b>19,125</b>	<b>19,300</b>
<b>Total Heating Equipment</b>	<b>3,180</b>	<b>2,200</b>	<b>2,530</b>	<b>1,970</b>	<b>1,850</b>	<b>1,810</b>
Fixed Heater	760	550	570	380	370	380
Portable Heater	320	530	760	550	490	490
Central Furnace	450	300	270	260	260	260
Fireplace	450	150	150	140	130	130
Chimney or Connector	170	100	100	50	80	70
Water Heater	950	480	510	430	400	400
Other or Unknown	90	100	170	150	110	80
<b>Total Cooking Equipment</b>	<b>4,680</b>	<b>5,310</b>	<b>5,840</b>	<b>4,860</b>	<b>4,790</b>	<b>4,870</b>
Range/Oven	4,100	4,670	5,190	4,200	4,110	4,170
Gas	1,210	1,190	1,200	1,020	870	950
Electric	2,160	2,780	3,240	2,660	2,670	2,640
Other or Unknown	730	700	760	530	570	580
All Other Cooking	580	630	650	650	680	700
Gas	50	110	100	100	110	110
Electric	230	330	340	310	340	300
Other or Unknown	290	190	210	240	230	280
<b>Total Electrical Distribution</b>	<b>1,600</b>	<b>1,630</b>	<b>1,720</b>	<b>1,440</b>	<b>1,510</b>	<b>1,430</b>
Installed Wiring	390	410	430	380	400	340
Cord, Plug	450	530	610	470	480	460
Switch, Outlet	110	190	150	130	160	130
Lamp, Light Fixture	390	320	330	300	300	320
Other or Unknown	260	180	190	160	170	170
<b>Total Appliances (Except Above)</b>	<b>1,090</b>	<b>1,060</b>	<b>1,110</b>	<b>1,030</b>	<b>830</b>	<b>960</b>
TV, Radio, Phono	310	180	170	150	90	150
Dryer	240	330	360	330	290	320
Washing Machine	40	20	20	20	20	20
Heat-Producing Appliance	210	240	240	250	160	180
Other or Unknown	300	220	210	280	260	290
<b>Total Cooling, Air Conditioning</b>	<b>160</b>	<b>140</b>	<b>150</b>	<b>150</b>	<b>140</b>	<b>90</b>

Source: U.S. Consumer Product Safety Commission / EHHA, from data obtained from the U.S. Fire Administration and NFPA.

Note: Detail may not add to total due to rounding. Estimates less than 10 are denoted by an asterisk (\*).

**TABLE 15**  
**ESTIMATED RESIDENTIAL STRUCTURE FIRE INJURIES**  
**SELECTED PRODUCTS, 1992-1996**

<b>Product</b>	<b>1990</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>
<b>Total Residential</b>	<b>20,650</b>	<b>21,600</b>	<b>22,600</b>	<b>20,025</b>	<b>19,125</b>	<b>19,300</b>
<b>By Form of Heat of Ignition</b>						
<b>Cigarette, Other Tobacco Prod.</b>	<b>3,110</b>	<b>2,870</b>	<b>3,010</b>	<b>2,540</b>	<b>2,370</b>	<b>2,570</b>
<b>Match</b>	<b>1,740</b>	<b>1,690</b>	<b>1,640</b>	<b>1,470</b>	<b>1,340</b>	<b>1,180</b>
Child Play	880	870	780	750	690	620
Other, Unknown	860	820	860	720	640	550
<b>Lighter</b>	<b>1,440</b>	<b>1,900</b>	<b>2,030</b>	<b>2,070</b>	<b>1,610</b>	<b>1,510</b>
Child Play	1,100	1,530	1,600	1,560	1,220	1,090
Other, Unknown	340	370	430	510	380	420
<b>Candle</b>	<b>560</b>	<b>610</b>	<b>670</b>	<b>870</b>	<b>990</b>	<b>1,150</b>
<b>By Form of Material Ignited</b>						
<b>Upholstered Furniture</b>	<b>2,100</b>	<b>1,740</b>	<b>1,970</b>	<b>1,780</b>	<b>1,710</b>	<b>1,640</b>
Smoking Material Ignition	1,260	880	1,060	960	880	940
Open Flame Ignition	530	490	490	540	490	410
Other	310	370	420	280	340	290
<b>Mattress, Bedding</b>	<b>3,100</b>	<b>3,580</b>	<b>3,540</b>	<b>3,160</b>	<b>2,780</b>	<b>2,660</b>
Smoking Material Ignition	1,200	1,250	1,120	850	780	830
Open Flame Ignition	1,270	1,550	1,580	1,630	1,370	1,270
Other	630	780	840	670	630	560
<b>Other Materials</b>						
Electric Cable Insulation	720	760	940	770	860	730
Interior Wall Covering	750	760	760	540	590	550
Wearing Apparel-Worn	180	240	230	200	200	210
Wearing Apparel-Not Worn	800	880	900	970	720	860
Floor Covering	550	520	560	460	530	480
Curtains, Drapes	370	310	370	310	270	430
Magazine, Newspaper	270	330	320	260	310	300
Thermal Insulation	70	80	70	110	120	60
Cabinet, Desk	390	380	480	330	390	540
Toy, Game	80	60	60	70	80	80

Source: U.S. Consumer Product Safety Commission / EHHA, from data obtained from the U.S. Fire Administration and NFPA.

Note: Detail may not add to total due to rounding. Estimates less than 10 are denoted by an asterisk (\*).

**TABLE 16**  
**ESTIMATED RESIDENTIAL STRUCTURE FIRE INJURIES**  
**HEATING EQUIPMENT, 1992-1996**

<b>Heating Equipment</b>	<b>1980</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>
<b>Total Residential</b>	<b>21,100</b>	<b>21,600</b>	<b>22,600</b>	<b>20,025</b>	<b>19,125</b>	<b>19,300</b>
<b>Total Heating Equipment</b>	<b>3,180</b>	<b>2,210</b>	<b>2,530</b>	<b>1,970</b>	<b>1,850</b>	<b>1,810</b>
<b>Solid Fuel</b>	<b>630</b>	<b>290</b>	<b>310</b>	<b>220</b>	<b>280</b>	<b>230</b>
Fixed Heater	180	120	140	80	100	80
Portable Heater	*	10	--	10	10	*
Fireplace	280	70	100	70	70	80
Central Furnace	40	20	*	10	20	*
Chimney	60	40	50	20	60	20
Chimney Connector	60	10	20	10	10	20
Other or Unknown	*	20	*	10	10	20
<b>Gas-Fired</b>	<b>1,360</b>	<b>830</b>	<b>800</b>	<b>680</b>	<b>660</b>	<b>620</b>
Fixed Heater	270	180	180	100	120	130
Portable Heater	10	80	60	60	60	60
Water Heater	790	410	360	310	330	290
Central Furnace	230	130	150	140	110	110
Other or Unknown	50	30	40	80	30	20
<b>Electric</b>	<b>440</b>	<b>380</b>	<b>610</b>	<b>390</b>	<b>370</b>	<b>420</b>
Fixed Heater	160	100	120	110	70	100
Portable Heater	200	200	420	210	230	200
Water Heater	20	20	30	20	10	30
Central Furnace	40	40	30	20	40	50
Other or Unknown	10	20	20	30	20	40
<b>Liquid Fuel</b>	<b>170</b>	<b>280</b>	<b>270</b>	<b>240</b>	<b>150</b>	<b>210</b>
Fixed Heater	20	30	30	20	10	20
Portable Heater	30	160	150	140	90	140
Water Heater	40	10	40	10	10	10
Central Furnace	40	60	40	40	40	40
Chimney or Connector	10	*	*	10	--	*
Other or Unknown	20	10	10	20	*	--
<b>All Other, Unknown Fuel</b>	<b>590</b>	<b>440</b>	<b>540</b>	<b>440</b>	<b>380</b>	<b>330</b>
Fixed Heater	120	110	110	60	60	50
Portable Heater	60	80	140	130	100	90
Fireplace	120	70	50	60	60	40
Water Heater	90	50	90	80	50	60
Central Furnace	100	50	50	50	50	50
Chimney	10	30	20	20	10	10
Chimney Connector	10	10	10	--	10	10
Other or Unknown	70	40	80	30	40	20

Source: U.S. Consumer Product Safety Commission / EHHA, from data obtained from the U.S. Fire Administration and NFPA.

Note: Detail may not add to total due to rounding. Estimates less than 10 are denoted by an asterisk (\*).

**TABLE 17**  
**ESTIMATED RESIDENTIAL STRUCTURE FIRE INJURIES**  
**ELECTRICAL EQUIPMENT, 1992-1996**

<b>Electrical Equipment</b>	<b>1990</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>
<b>Total Residential</b>	<b>20,650</b>	<b>21,600</b>	<b>22,600</b>	<b>20,025</b>	<b>19,125</b>	<b>19,300</b>
<b>Total Electrical Equipment</b>	<b>6,390</b>	<b>6,790</b>	<b>7,660</b>	<b>6,320</b>	<b>6,250</b>	<b>6,350</b>
<b>Heating Equipment</b>	<b>440</b>	<b>380</b>	<b>610</b>	<b>390</b>	<b>380</b>	<b>420</b>
Central Furnace	40	40	30	20	40	50
Fixed Heater	130	100	120	110	70	100
Portable Heater	230	200	420	210	230	200
Water Heater	30	20	30	20	10	30
Other or Unknown	10	20	20	30	20	40
<b>Cooking Equipment</b>	<b>3,080</b>	<b>3,110</b>	<b>3,580</b>	<b>2,970</b>	<b>3,010</b>	<b>2,940</b>
Range/Oven	2,860	2,780	3,240	2,660	2,670	2,640
Toasters/Toaster Oven	80	120	100	130	120	110
Microwave Oven	40	50	60	60	80	60
Range/Oven Hood	10	30	40	20	30	10
Coffee Maker, Teapot	20	40	30	20	30	20
Deep Fat Fryer	40	30	40	10	20	20
Hot Plate	10	10	10	10	20	10
Other or Unknown	20	50	60	60	40	70
<b>Electric Distribution</b>	<b>1,370</b>	<b>1,630</b>	<b>1,720</b>	<b>1,440</b>	<b>1,510</b>	<b>1,430</b>
Installed Wiring	340	410	430	380	400	340
Light Fixture	100	140	120	140	150	140
Receptacle	120	150	120	110	130	110
Extension Cord	220	220	250	200	240	150
Other Electrical Cord	140	210	260	200	200	260
Lamp, Light Bulb	150	180	210	160	160	190
Circuit Breaker	30	60	40	60	60	60
Switch	20	40	40	30	50	50
Meter	10	*	10	10	*	10
Fuse	20	20	20	20	30	20
Transformer	*	10	20	20	10	10
Other or Unknown	220	190	200	110	80	90
<b>Electrical Appliances</b>	<b>740</b>	<b>760</b>	<b>870</b>	<b>780</b>	<b>560</b>	<b>670</b>
Clothes Dryer	130	170	150	130	160	170
Fan	130	130	170	130	110	110
Washing Machine	30	20	20	20	10	10
Heat Tape	100	70	90	80	60	50
Television	70	120	100	80	50	80
Iron	30	40	30	40	30	20
Dishwasher	20	30	30	50	40	40
Radio, Cassette Player	30	50	60	70	40	60
Hair Dryer, Curling Iron	40	40	40	30	30	40
Electric Blanket	50	20	40	30	20	30
Other or Unknown	110	70	140	120	10	60
<b>Cooling Equipment</b>	<b>110</b>	<b>110</b>	<b>130</b>	<b>120</b>	<b>140</b>	<b>80</b>
Refrigerator, Freezer	60	30	60	50	50	20
Central Air Conditioning	*	20	20	10	20	*
Fixed Room Air Conditioning	20	30	20	30	20	20
Portable Air Conditioning	20	20	30	20	40	10
Other or Unknown	10	10	*	10	10	10

Source: U.S. Consumer Product Safety Commission / EHHA, from data obtained from the U.S. Fire Administration and NFPA.

Note: Detail may not add to total due to rounding. Estimates less than 10 are denoted by an asterisk (\*).

## Methodology

This report is based on the U.S. Fire Administration's National Fire Incident Reporting System (NFIRS) data and the National Fire Protection Association's (NFPA) annual survey of fire departments. The NFIRS system is a compilation of fire reports completed by U.S. fire departments. In 1996, the NFIRS contained reports of 191,729 residential structure fires that resulted in 1,503 civilian deaths, 9,401 civilian injuries, and over \$2.110 billion in property loss from 40 states. Even though the system is not a random sample, the NFIRS contains data on roughly 1 out of every 2.2 estimated residential structure fires in the U.S., 1 of every 2.7 deaths, and 1 of every 2.1 injuries. It is believed that the distribution of participating fire departments is reasonably representative of all fire departments in the U.S. The NFPA survey is based on a stratified random sample of fire departments in the U.S. The sample is stratified by the size of community protected by the department. The NFPA makes national projections by weighting sample results according to the proportion of total U.S. population accounted for by communities of each size.

Estimates were derived by computing percentages in NFIRS and multiplying them by the total number of U.S. fires, deaths, injuries, or dollar loss estimated from the NFPA annual survey. For example, the national estimate for the number of residential cooking equipment fires was computed by taking the percentage of NFIRS residential fires (with known equipment) that were attributed to cooking equipment and multiplying it by the estimated total number of residential structure fires from the NFPA survey. The distribution of the unknowns is assumed to follow the distribution of the knowns. The Hall and Harwood article gives a detailed description of this methodology<sup>3</sup>.

The estimates for products listed below<sup>4</sup> were derived from a review of fire reports that included product identification/specification beyond that identified in current NFIRS codes. For example, electric heat tapes, irons, portable hand-held hair dryers, curling irons, and electric blankets are typically found in two or three of the NFIRS codes, such as the equipment code "portable appliance designed to produce heat" and "appliances, not specified or unknown". For each product, the known proportions were multiplied by the estimated total number of residential structure fires from the NFPA survey and then summed across the NFIRS codes in which they appeared to provide the estimated number of fires associated with that product. The estimation methodology for deaths, injuries and property loss involving these products assumed that they occurred in the same proportion as fires.

These data capture only fires attended by fire departments. It should be noted that product-specific death and injury estimates fluctuate year-to-year and that a small increase or decrease in any one year is not sufficient to denote a trend.

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<sup>3</sup> John R. Hall, Jr. and Beatrice Harwood, "The National Estimates Approach to U.S. Fire Statistics", *Fire Technology*, May 1989, Volume 25, Number 2, pp. 99-113.

<sup>4</sup> Toasters and toaster ovens, microwave ovens, coffee makers and teapots, hotplates, receptacles, extension cords, other electrical cords, circuit breakers, switches, fuses, fans, heat tapes, televisions, irons, dishwashers, radios and cassette players, hair dryers and curling irons, and electric blankets.