# Residential Building Fire Trends (2009-2018)

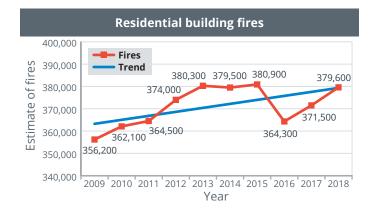
Fire estimate summaries present basic data on the size and status of the fire problem in the United States as depicted through data reported to the U.S. Fire Administration's (USFA's) National Fire Incident Reporting System. Each Fire Estimate Summary addresses the size of the specific fire or fire-related issue and highlights important trends in the data. Note: Fire estimate summaries are based on the USFA's "National Estimates Methodology for Building Fires and Losses" (https://www.usfa.fema.gov/downloads/pdf/ statistics/national\_estimate\_methodology.pdf). The USFA is committed to providing the best and most current information on the U.S. fire problem and, as a result, continually examines its data and methodology. Because of this commitment, changes to data collection strategies and estimate methodologies occur, causing estimates to change slightly over time. Previous estimates on specific issues (or similar issues) may have been a result of different methodologies or data definitions used and may not be directly comparable to current estimates.

National estimates for residential building fires and losses in 2018, the most recent year for which data are available, are as follows:

- Fires: 379,600.
- Deaths: 2,790.
- Injuries: 11,525.
- Dollar loss: \$8,194,500,000.

Overall trends for residential building fires and losses for the 10-year period of 2009 to 2018 show the following:

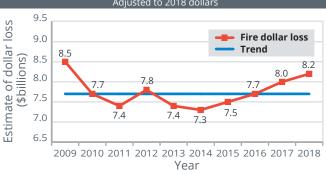
- A 4% increase in fires.
- A 13% increase in deaths.
- A 19% decrease in injuries.
- A 0.04% decrease in dollar loss. (Note: This overall constant dollar-loss trend takes inflation into account by adjusting each year's dollar loss to its equivalent 2018 value.)





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**Residential building fire deaths** 3,000 **Fire deaths** 2,900 Estimate of deaths Trend 2,775 2,790 2,755 2,765 2,800 2,700 2,695 2,555 2,600 2,500 2,565 2.480 2,400 2.450 2.385 2,300 2,200 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 Year



Residential building fire dollar loss Adjusted to 2018 dollars

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## Residential Building Fire Causes (2009-2018)

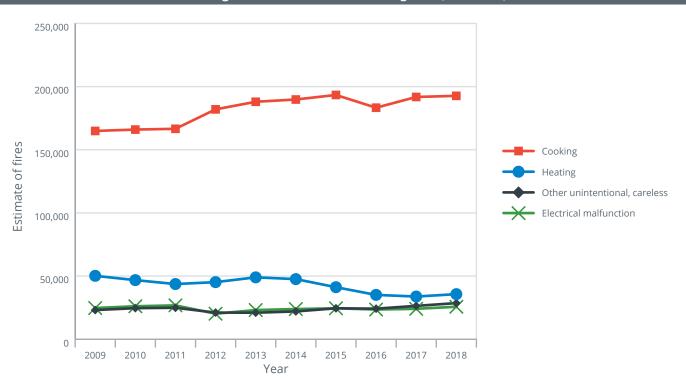
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National estimates for the leading causes of fires in residential buildings for 2018, the most recent year for which data are available, are as follows:

- 1. Cooking: 192,700 fires.
- 2. Heating: 35,700 fires.
- 3. Other unintentional, careless: 28,600 fires.
- 4. Electrical malfunction: 25,700 fires.

Overall trends in the leading fire causes for the 10-year period of 2009 to 2018 show the following:

- Cooking as the leading cause of residential building fires for the 10-year period.
- An 18% increase in residential cooking fires. (This is likely due to an NFIRS coding edit implemented in 2012.)
- A 30% decrease in residential heating fires.
- A 17% increase in residential other unintentionally or carelessly set fires.
- A 2% decrease in residential electrical malfunction fires.











#### Residential Building Fire Death Causes (2009-2018)

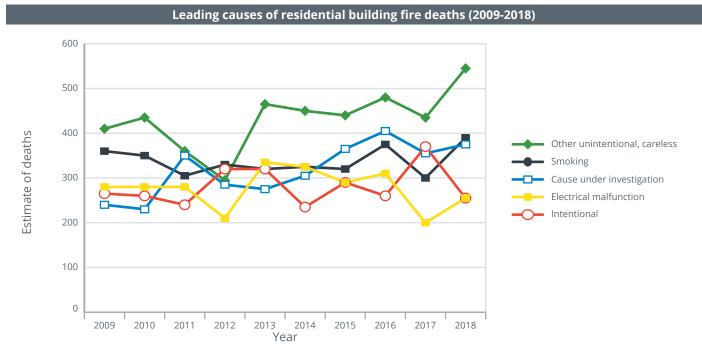
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National estimates for the leading causes of residential building fire deaths for 2018, the most recent year for which data are available, are as follows:

- 1. Other unintentional, careless: 545 deaths.
- 2. Smoking: 390 deaths.
- 3. Cause under investigation: 375 deaths.

Overall trends in the leading fire death causes for the 10-year period of 2009 to 2018 show the following:

- Other unintentional, careless was the leading cause of residential fire deaths in nine years out of the 10-year period, and there was a 33% increase in residential other unintentionally or carelessly set fire deaths. In 2018, 16 reported multifatality fire incidents (resulting in two, four or five deaths each) may have contributed to the increase in the estimate of fire deaths.
- Smoking was the second leading cause of residential fire deaths in 2018, and there was a 4% increase in residential smoking fire deaths. In 2018, seven reported multifatality fire incidents (including one resulting in six deaths) may have contributed to the increase in the estimate of fire deaths.
- A 58% increase in residential cause-under-investigation fire deaths.









## Residential Building Fire Injury Causes (2009-2018)

Fire estimate summaries present basic data on the size and status of the fire problem in the United States as depicted through data reported to the U.S. Fire Administration's (USFA's) National Fire Incident Reporting System. Each Fire Estimate Summary addresses the size of the specific fire or fire-related issue and highlights important trends in the data. Note: Fire estimate summaries are based on the USFA's "National Estimates Methodology for Building Fires and Losses" (https://www.usfa.fema.gov/downloads/pdf/ statistics/national\_estimate\_methodology.pdf). The USFA is committed to providing the best and most current information on the U.S. fire problem and, as a result, continually examines its data and methodology. Because of this commitment, changes to data collection strategies and estimate methodologies occur, causing estimates to change slightly over time. Previous estimates on specific issues (or similar issues) may have been a result of different methodologies or data definitions used and may not be directly comparable to current estimates.

National estimates for the leading causes of residential building fire injuries for 2018, the most recent year for which data are available, are as follows:

- 1. Cooking: 3,100 injuries.
- 2. Other unintentional, careless: 1,450 injuries.
- 3. Open flame: 975 injuries.
- 4. Electrical malfunction: 825 injuries.

Overall trends in the leading fire injury causes for the 10-year period of 2009 to 2018 show the following:

- Cooking was the leading cause of residential building fire injuries for the 10-year period.
- A 12% decrease in residential cooking fire injuries.
- An 11% decrease in residential other unintentionally or carelessly set fire injuries.
- A 24% decrease in residential open-flame fire injuries.
- A 34% decrease in residential electrical malfunction fire injuries.



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#### Residential Building Fire Dollar-Loss Causes (2009-2018)

Fire estimate summaries present basic data on the size and status of the fire problem in the United States as depicted through data reported to the U.S. Fire Administration's (USFA's) National Fire Incident Reporting System. Each Fire Estimate Summary addresses the size of the specific fire or fire-related issue and highlights important trends in the data. Note: Fire estimate summaries are based on the USFA's "National Estimates Methodology for Building Fires and Losses" (https://www.usfa.fema.gov/downloads/ pdf/statistics/national\_estimate\_methodology. pdf). The USFA is committed to providing the best and most current information on the U.S. fire problem and, as a result, continually examines its data and methodology. Because of this commitment, changes to data collection strategies and estimate methodologies occur, causing estimates to change slightly over time. Previous estimates on specific issues (or similar issues) may have been a result of different methodologies or data definitions used and may not be directly comparable to current estimates.

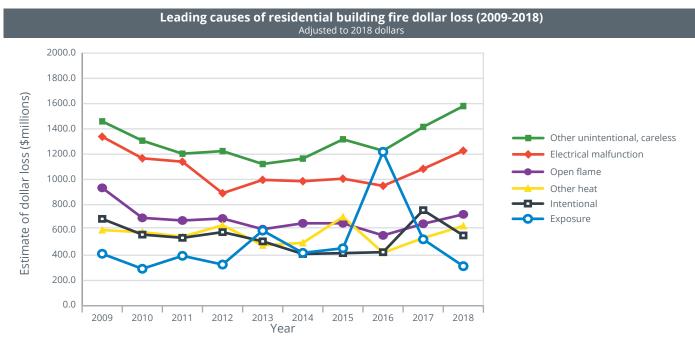
National estimates for the leading causes of residential building fire dollar loss for 2018, the most recent year for which data are available, are as follows:

- 1. Other unintentional, careless: \$1,580,500,000.
- 2. Electrical malfunction: \$1,227,400,000.
- 3. Open flame: \$723,400,000.

Overall trends in the leading causes of fire dollar loss for the 10-year period of 2009 to 2018 show the following:

- Other unintentional, careless was the leading cause of residential fire dollar loss for the 10-year period, and there was a 10% increase in residential other unintentionally or carelessly set fire dollar loss. There were 33 incidents with a reported dollar loss of \$1,000,000 or more which may have contributed to the continued increase in the estimate of fire dollar loss in 2018.
- An 11% decrease in residential electrical malfunction fire dollar loss. There were 32 incidents with a reported dollar loss of \$1,000,000 or more which may have contributed to the continued increase in the estimate of fire dollar loss in 2018.
- A 21% decrease in residential open flame fire dollar loss.
- The spike in the 2016 residential exposure fire dollar loss is attributed in part to the Gatlinburg, Tennessee, wildfires.

Note: The overall constant dollar-loss trends take inflation into account by adjusting each year's dollar loss to its equivalent 2018 value.









## Residential Building Other Unintentional, Careless Fire Trends (2009-2018)

Fire estimate summaries present basic data on the size and status of the fire problem in the United States as depicted through data reported to the U.S. Fire Administration's (USFA's) National Fire Incident Reporting System. Each Fire Estimate Summary addresses the size of the specific fire or fire-related issue and highlights important trends in the data. Note: Fire estimate summaries are based on the USFA's "National Estimates Methodology for Building Fires and Losses" (https://www.usfa.fema. gov/downloads/pdf/statistics/national\_estimate\_ methodology.pdf). The USFA is committed to providing the best and most current information on the U.S. fire problem and, as a result, continually examines its data and methodology. Because of this commitment, changes to data collection strategies and estimate methodologies occur, causing estimates to change slightly over time. Previous estimates on specific issues (or similar issues) may have been a result of different methodologies or data definitions used and may not be directly comparable to current estimates.

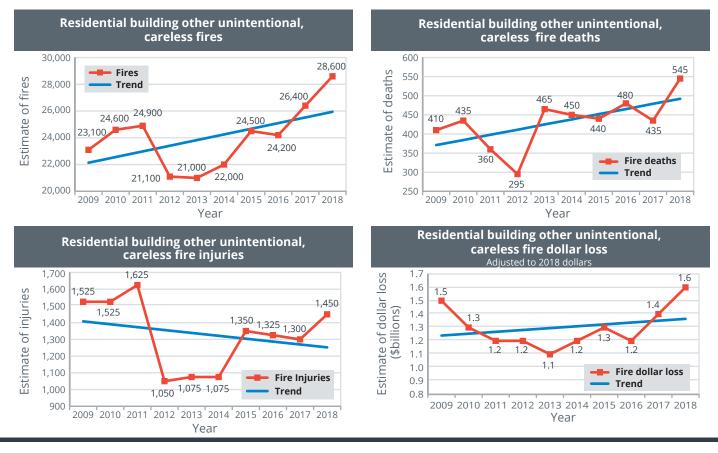
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National estimates for residential building other unintentional, careless fires and losses for 2018, the most recent year for which data are available, are as follows:

- Fires: 28,600.
- Deaths: 545.
- Injuries: 1,450.
- Dollar loss: \$1,580,500,000.

Overall trends for residential building other unintentional, careless fires and losses for the 10-year period of 2009 to 2018 show the following:

- A 17% increase in fires.
- A 33% increase in deaths. In 2018, 16 reported multifatality fire incidents (resulting in two, four or five deaths each) may have contributed to the increase in the estimate of fire deaths.
- An 11% decrease in injuries.
- A 10% increase in dollar loss. There were 33 incidents with a reported dollar loss of \$1,000,000 or more which may have contributed to the continued increase in the estimate of fire dollar loss in 2018. (Note: This overall constant dollar-loss trend takes inflation into account by adjusting each year's dollar loss to its equivalent 2018 value.)





## **Residential Building Cooking Fire** Trends (2009-2018)

Fire estimate summaries present basic data on the size and status of the fire problem in the United States as depicted through data reported to the U.S. Fire Administration's (USFA's) National Fire Incident Reporting System (NFIRS). Each Fire Estimate Summary addresses the size of the specific fire or fire-related issue and highlights important trends in the data. Note: Fire estimate summaries are based on the USFA's "National Estimates Methodology for Building Fires and Losses" (https://www.usfa.fema.gov/downloads/pdf/ statistics/national\_estimate\_methodology.pdf). The USFA is committed to providing the best and most current information on the U.S. fire problem and, as a result, continually examines its data and methodology. Because of this commitment, changes to data collection strategies and estimate methodologies occur, causing estimates to change slightly over time. Previous estimates on specific issues (or similar issues) may have been a result of different methodologies or data definitions used and may not be directly comparable to current estimates.

National estimates for residential building cooking fires and losses for 2018, the most recent year for which data are available, are as follows:

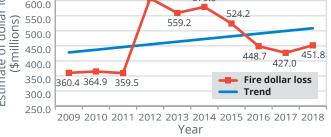
- Fires: 192,700. Ð
- Deaths: 170. Ø
- Injuries: 3,100. Ø
- Dollar loss: \$451,800,000. Ø

Overall trends for residential building cooking fires and losses for the 10-year period of 2009 to 2018 show the following:

- An 18% increase in fires. Ø
- Ø A 41% increase in deaths.
- A 12% decrease in injuries. Ø
- A 19% increase in dollar loss. (Note: This overall constant dollar-loss trend takes inflation into account by adjusting each year's dollar loss to its equivalent 2018 value.)

The increases in some of these trends may be due to an NFIRS coding edit implemented in 2012.







2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 Year

3,675

3,600

3,400

3,200

3,000

2.800

3,350



3,300

3 100

3.475

## **Residential Building Intentional Fire** Trends (2009-2018)

Fire estimate summaries present basic data on the size and status of the fire problem in the United States as depicted through data reported to the U.S. Fire Administration's (USFA's) National Fire Incident Reporting System. Each Fire Estimate Summary addresses the size of the specific fire or fire-related issue and highlights important trends in the data. Note: Fire estimate summaries are based on the USFA's "National Estimates Methodology for Building Fires and Losses" (https://www.usfa.fema.gov/downloads/ pdf/statistics/national\_estimate\_methodology. pdf). The USFA is committed to providing the best and most current information on the U.S. fire problem and, as a result, continually examines its data and methodology. Because of this commitment, changes to data collection strategies and estimate methodologies occur, causing estimates to change slightly over time. Previous estimates on specific issues (or similar issues) may have been a result of different methodologies or data definitions used and may not be directly comparable to current estimates. National estimates for residential building intentional fires and losses for 2018, the most recent year for which data are available, are as follows:

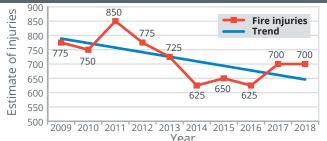
- Fires: 15,900. Ø
- Deaths: 255. Ø
- Injuries: 700. Ø
- Dollar loss: \$556,500,000. Ø

Overall trends for residential building intentional fires and losses for the 10-year period of 2009 to 2018 show the following:

- A 9% decrease in fires. Ø
- Ø A 12% increase in deaths. In 2017, 12 multifatality fire incidents (resulting in two or three deaths each) may have contributed to the increase in the estimate of fire deaths.
- An 18% decrease in injuries. Ø
  - A 9% decrease in dollar loss. A \$110,000,000 under-construction apartment complex fire in Waltham, Massachusetts, contributed to the 2017 dollar-loss peak. (Note: This overall constant dollar-loss trend takes inflation into account by adjusting each year's dollar loss to its equivalent 2018 value.)

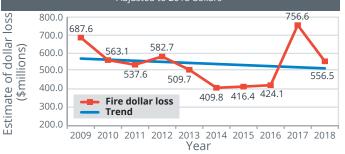


**Residential building intentional fire injuries** 

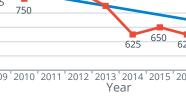




Residential building intentional fire dollar loss Adjusted to 2018 dollars







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## Residential Building Electrical Malfunction Fire Trends (2009-2018)

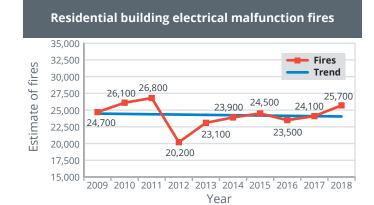
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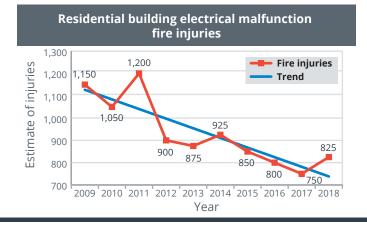
National estimates for residential building electrical malfunction fires and losses for 2018, the most recent year for which data are available, are as follows:

- Fires: 25,700.
- Deaths: 255.
- Injuries: 825.
- Dollar loss: \$1,227,400,000.

Overall trends for residential building electrical malfunction fires and losses for the 10-year period of 2009 to 2018 show the following:

- A 2% decrease in fires.
- An 8% decrease in deaths.
- A 34% decrease in injuries.
- An 11% decrease in dollar loss. There were 32 incidents with a reported dollar loss of \$1,000,000 or more which may have contributed to the continued increase in the estimate of fire dollar loss in 2018. (Note: This overall constant dollar-loss trend takes inflation into account by adjusting each year's dollar loss to its equivalent 2018 value.)





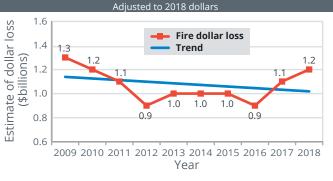
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**Residential building electrical malfunction** fire deaths 400 Estimate of deaths 335 350 325 310 290 280 280 280 300 250 255 200 210 200 **Fire deaths** 150 Trend 100 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 Year





# Residential Building Heating Fire Trends (2009-2018)

Fire estimate summaries present basic data on the size and status of the fire problem in the United States as depicted through data reported to the U.S. Fire Administration's (USFA's) National Fire Incident Reporting System. Each Fire Estimate Summary addresses the size of the specific fire or fire-related issue and highlights important trends in the data. Note: Fire estimate summaries are based on the USFA's "National Estimates Methodology for Building Fires and Losses" (https://www.usfa.fema.gov/downloads/pdf/ statistics/national\_estimate\_methodology.pdf). The USFA is committed to providing the best and most current information on the U.S. fire problem and, as a result, continually examines its data and methodology. Because of this commitment, changes to data collection strategies and estimate methodologies occur, causing estimates to change slightly over time. Previous estimates on specific issues (or similar issues) may have been a result of different methodologies or data definitions used and may not be directly comparable to current estimates.

National estimates for residential building heating fires and losses for 2018, the most recent year for which data are available, are as follows:

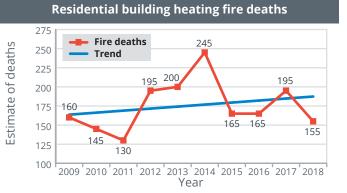
- Fires: 35,700.
- Deaths: 155.
- Injuries: 575.
- Dollar loss: \$410,400,000.

Overall trends for residential building heating fires and losses for the 10-year period of 2009 to 2018 show the following:

- A 30% decrease in fires.
- A 15% increase in deaths. In 2014, there were 11 reported multifatality heating fires that contributed to the spike in fire deaths.
- A 4% decrease in injuries.
- A 5% increase in dollar loss. (Note: This overall constant dollar-loss trend takes inflation into account by adjusting each year's dollar loss to its equivalent 2018 value.)



**Residential building heating fire injuries** 900 850 Fire injuries 850 Estimate of injuries Trend 775 800 750 700 725 650 600 550 575 575 575 575 550 550 500 500 450 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 Year











## Residential Building Cause Under Investigation Fire Trends (2009-2018)

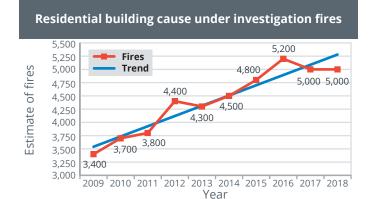
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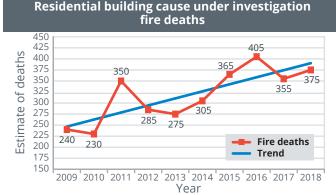
National estimates for residential building cause under investigation fires and losses for 2018, the most recent year for which data are available, are as follows:

- Fires: 5,000.
- Deaths: 375.
- Injuries: 550.
- Dollar loss: \$480,100,000.

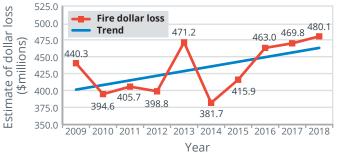
Overall trends for reported residential building cause under investigation fires and losses for the 10-year period of 2009 to 2018 show the following:

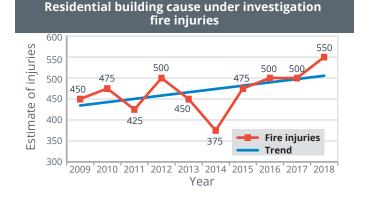
- A 49% increase in fires.
- A 58% increase in deaths.
- A 16% increase in injuries.
- A 15% increase in dollar loss. (Note: This overall constant dollar-loss trend takes inflation into account by adjusting each year's dollar loss to its equivalent 2018 value.)













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## Residential Building Open Flame Fire Trends (2009-2018)

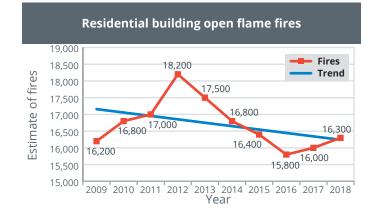
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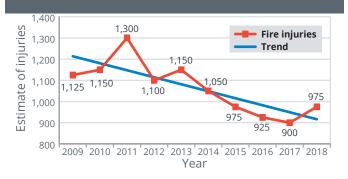
National estimates for residential building open-flame fires and losses for 2018, the most recent year for which data are available, are as follows:

- Fires: 16,300.
- Deaths: 140.
- Injuries: 975.
- Dollar loss: \$723,400,000.

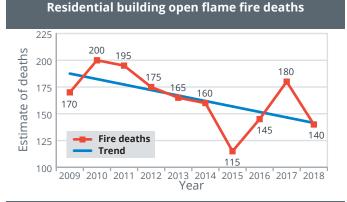
Overall trends for residential building open flame fires and losses for the 10-year period of 2009 to 2018 show the following:

- A 5% decrease in fires.
- A 25% decrease in deaths.
- A 24% decrease in injuries.
- A 21% decrease in dollar loss. (Note: This overall constant dollar-loss trend takes inflation into account by adjusting each year's dollar loss to its equivalent 2018 value.)

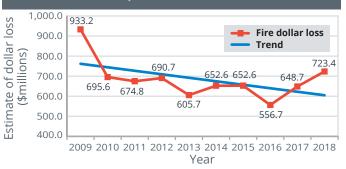




Residential building open flame fire injuries



Residential building open flame fire dollar loss Adjusted to 2018 dollars







# Residential Building Smoking Fire Trends (2009-2018)

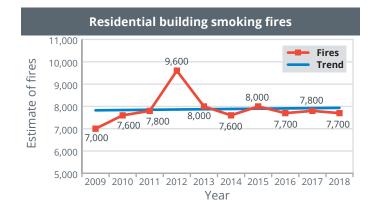
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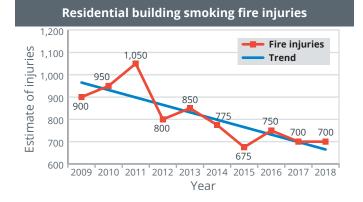
National estimates for residential building smoking fires and losses for 2018, the most recent year for which data are available, are as follows:

- Fires: 7,700.
- Deaths: 390.
- Injuries: 700.
- Dollar loss: \$318,900,000.

Overall trends for residential building smoking fires and losses for the 10-year period of 2009 to 2018 show the following:

- A 1% increase in fires.
- A 4% increase in deaths. In 2018, seven reported multifatality fire incidents (including one resulting in six deaths) may have contributed to the increase in the estimate of fire deaths.
- A 31% decrease in injuries.
- A 23% decrease in dollar loss. (Note: This overall constant dollar-loss trend takes inflation into account by adjusting each year's dollar loss to its equivalent 2018 value.)

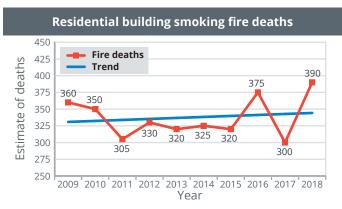




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Residential building smoking fire dollar loss Adjusted to 2018 dollars

