



# Wildfires and insurance

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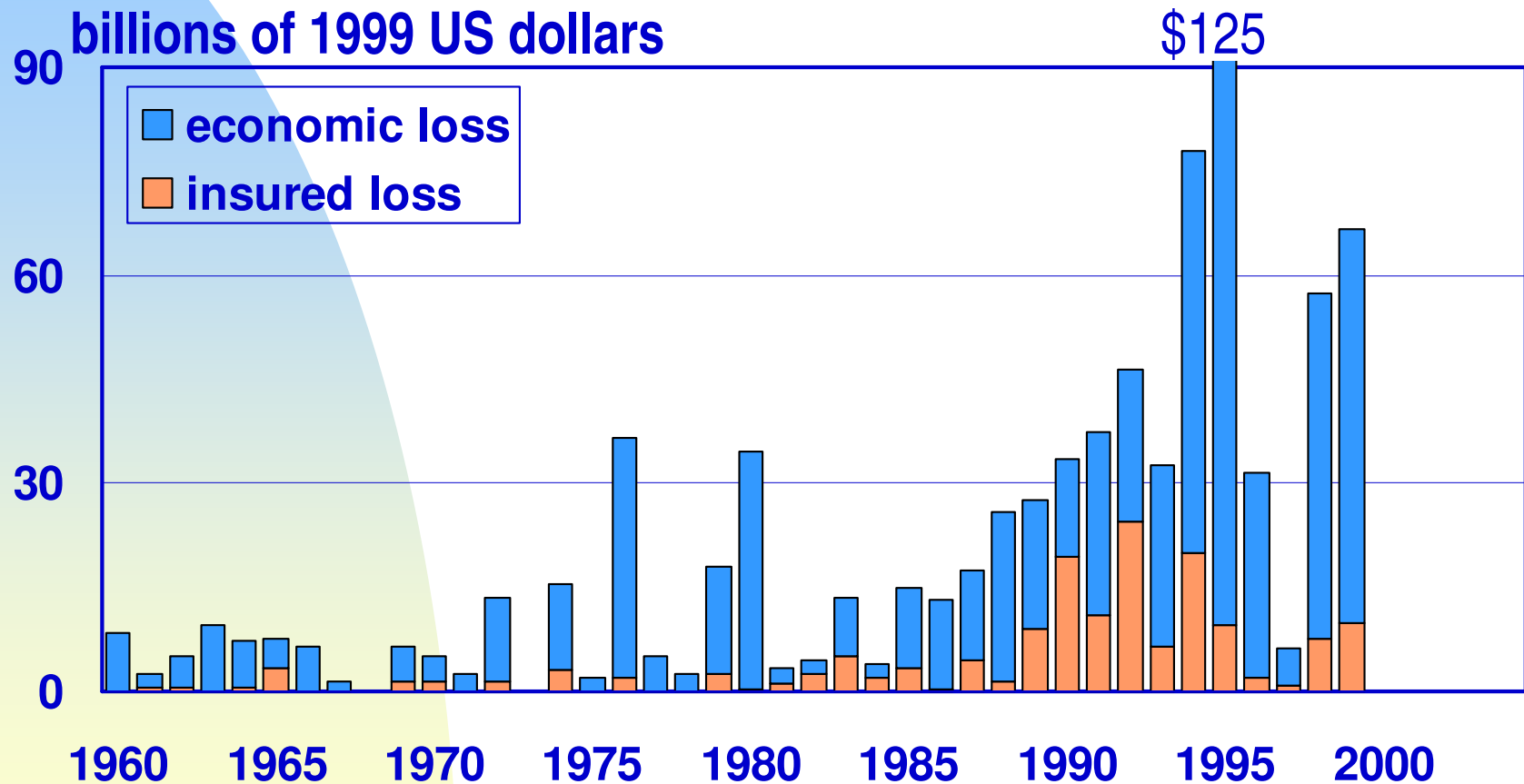
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Executive Director  
Institute for Catastrophic Loss

Senior Vice President  
Insurance Bureau of Canada

May 24, 2002

# Global natural disaster losses



Source: ICLR, based on data from Munich Re

# Wildfires and insurance

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- ***Origins of the insurance industry***
- Trends in wildfire damage
- Role of insurers in wildfire management

# Origins of the insurance industry

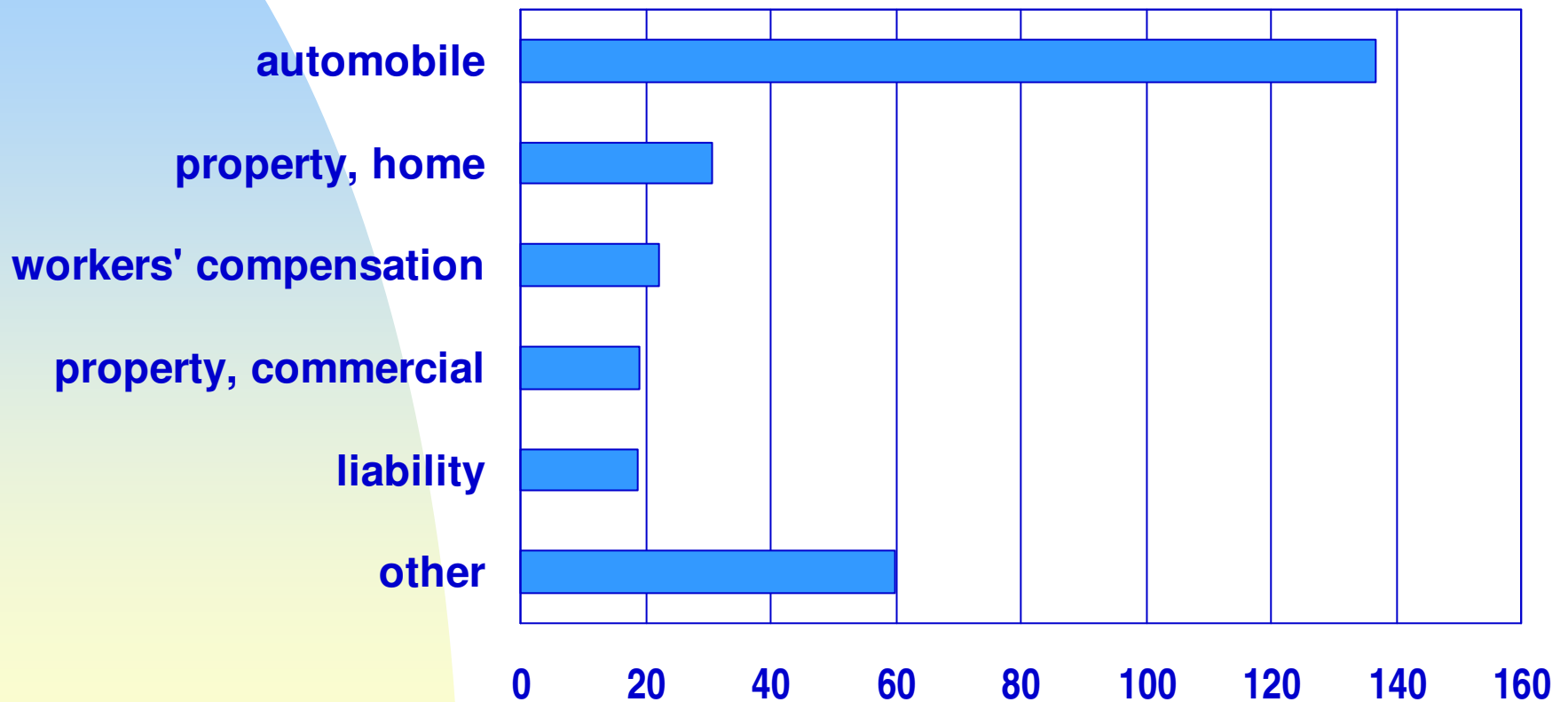
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Great fire of London (1666)



# U.S. insurance premiums

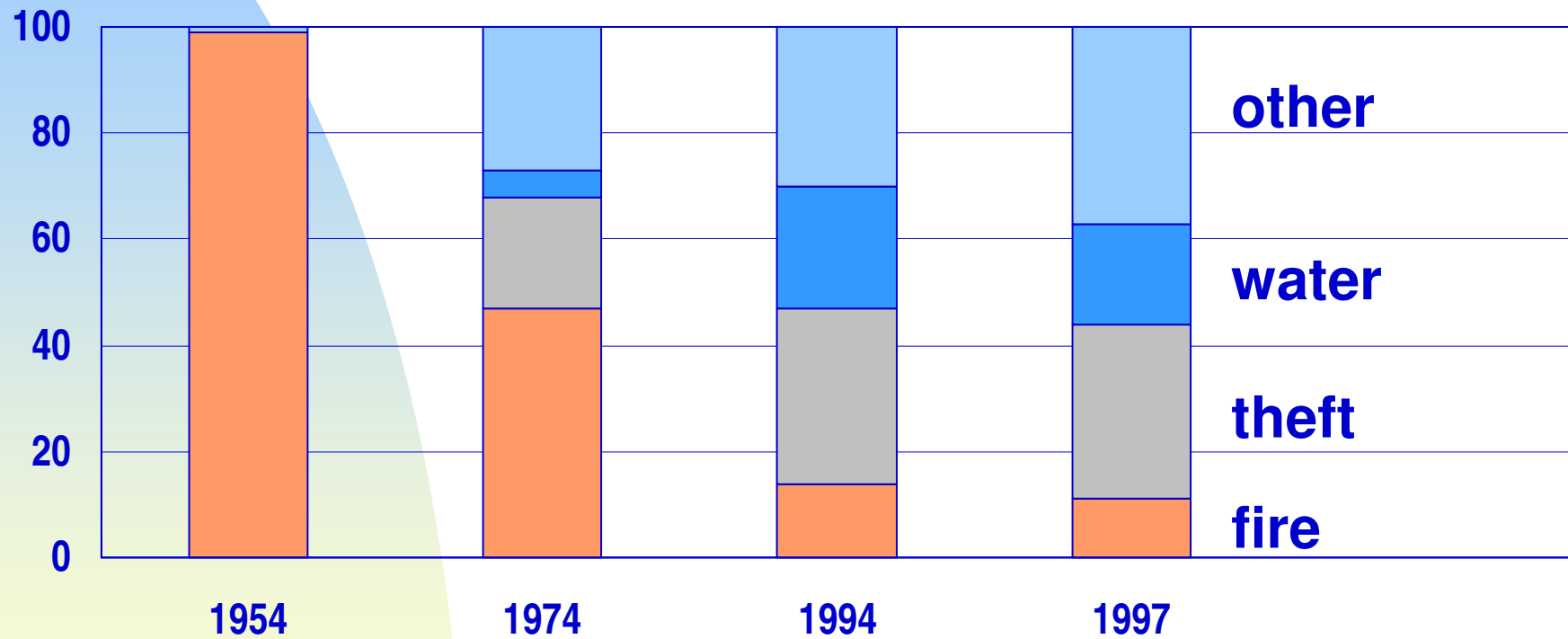
billions of dollars, 1999



Source: ICLR, with data from the Insurance Information Institute

# Fire and insurance

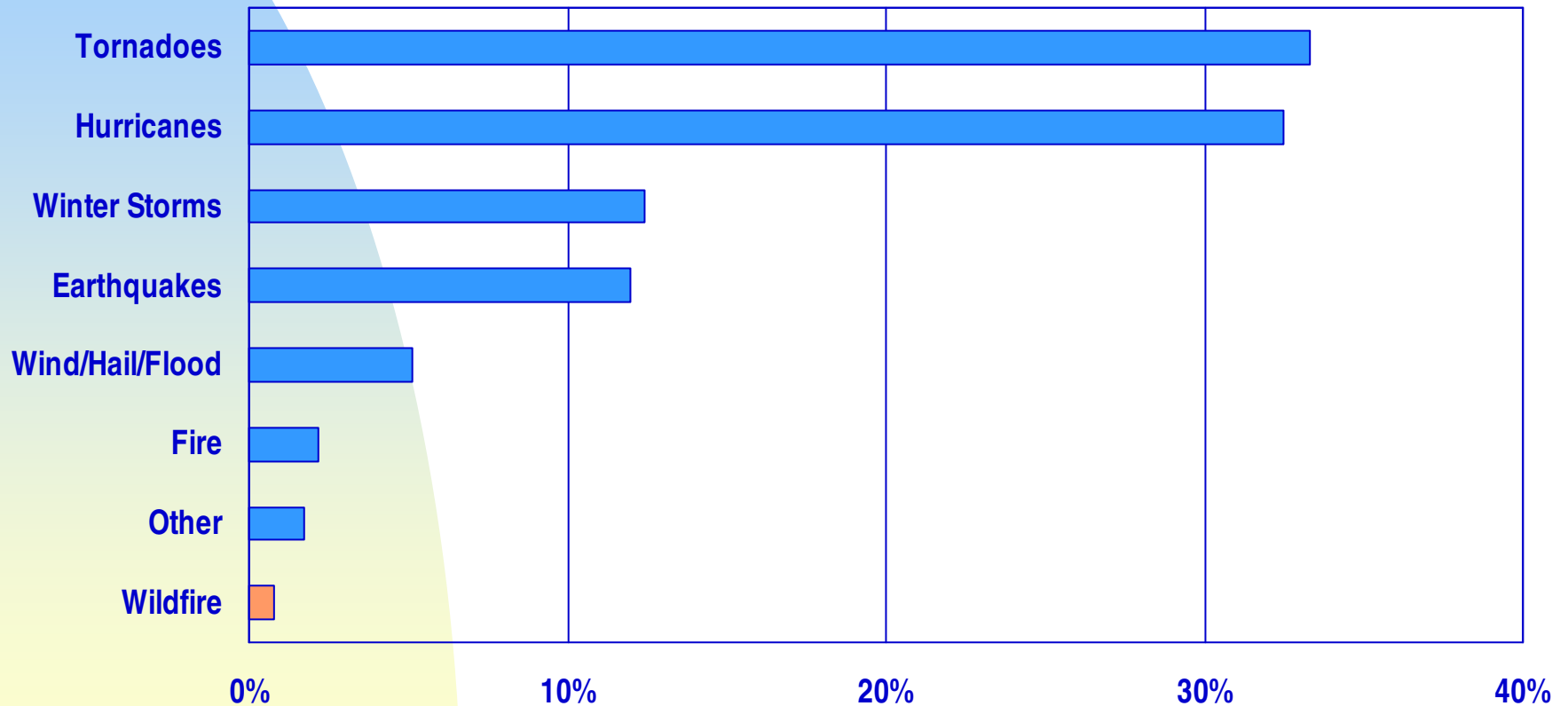
## homeowner claims paid, Canada



Source: ICLR, with data from IICC

# U.S. catastrophic losses by cause

Inflation adjusted, 1980 - 1999



Source: ICLR, with data from the Insurance Information Institute

# Wildfires and insurance

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- Origins of the insurance industry
- ***Trends in wildfire damage***
- Role of insurers in wildfire management



# Trends in wildfire damage

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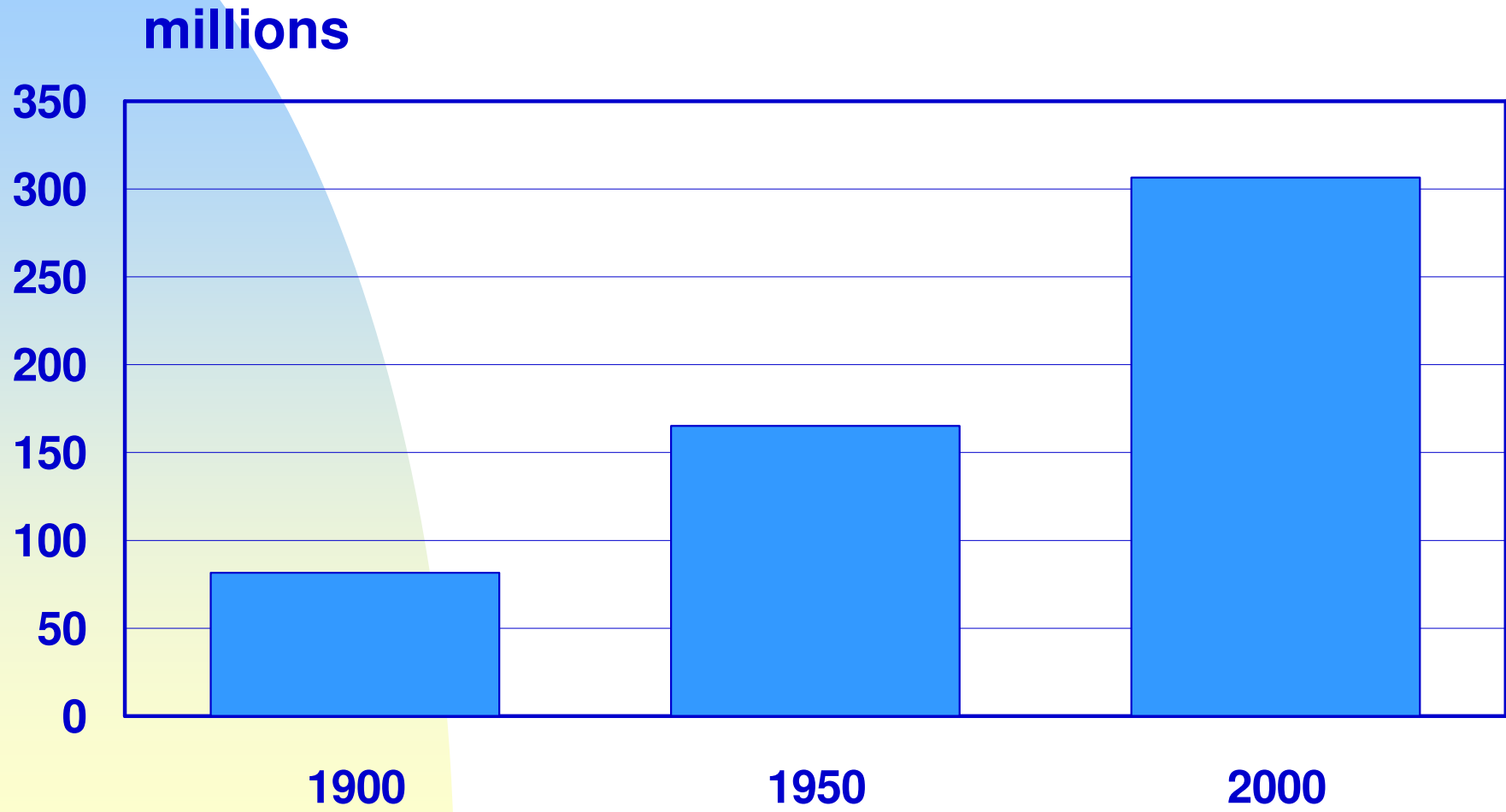


# Why losses are rising

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- **More people and property at risk**
- **The climate is changing**
- **An increase in available fuel**

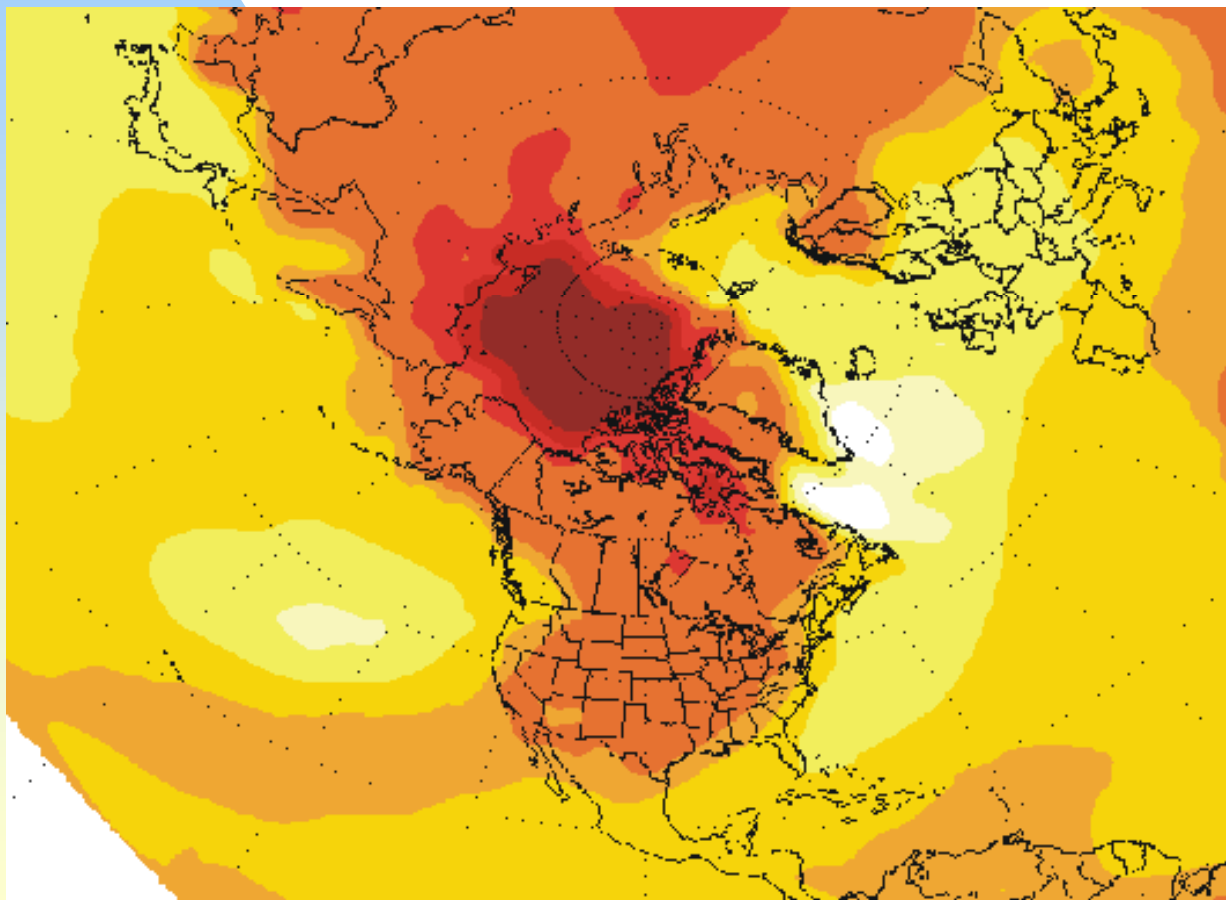
# North American population



Source: ICLR, based on data from Statistics Canada and U.S. Bureau of the Census

# Projected winter temperature change

between 1975-1995 and 2080-2100, Canadian Climate Change Model



Temp. Change °C

|              |         |
|--------------|---------|
| White        | -1 - 0  |
| Light Yellow | 0 - 1   |
| Yellow       | 1 - 2   |
| Light Orange | 2 - 3   |
| Orange       | 3 - 4   |
| Dark Orange  | 4 - 5   |
| Red-Orange   | 5 - 10  |
| Red          | 10 - 15 |
| Dark Red     | 15 - 20 |
| Dark Red     | 20 +    |

Source: Meteorological Service of Canada, Environment Canada.

# Increased available fuel

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- **Decades of effective fire suppression have increased the fuel available to burn**

# Wildfires and insurance

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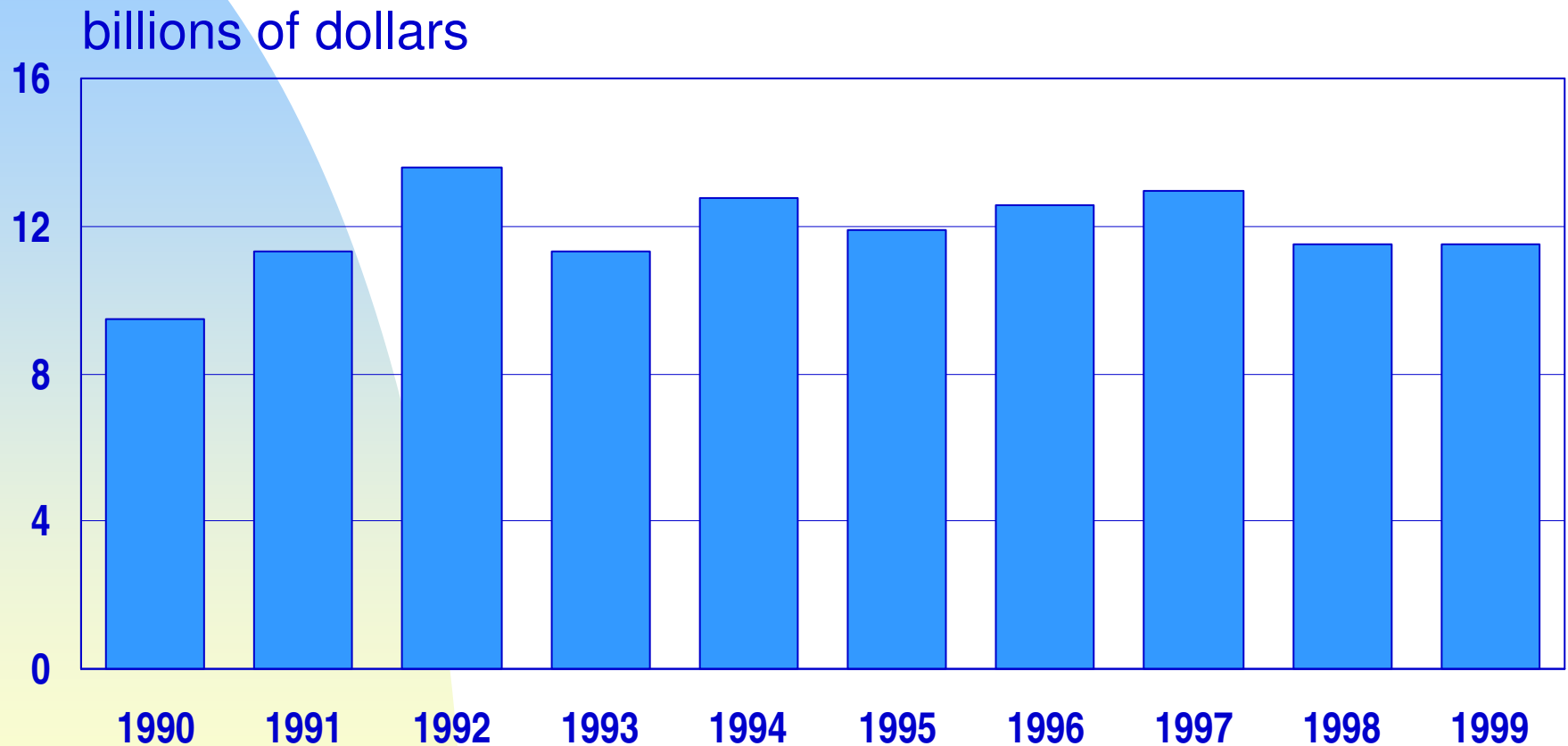
- Origins of the insurance industry
- Trends in wildfire damage
- ***Role of insurers in wildfire management***

# Role of insurers

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- **Compensation for fire loss**
- **Public education**
- **Incentives for property owners**
- **Land use planning**

# Compensation for U.S. fires



Source: ICLR, with data from the Insurance Information Institute



# Public education

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- **Consumer information**
- **Supporting research on wildfires**
- **Industry awareness**

# Insurance incentives

## Approved Roof

| Code  | Exposure Distance in Feet | Class of Protection |          |         |          |         |          |          |
|-------|---------------------------|---------------------|----------|---------|----------|---------|----------|----------|
|       |                           | 1 - 4               |          | 5 - 6   |          | 7 - 8   |          | 9 - 10   |
|       |                           | Col. A*             | Col. B** | Col. A* | Col. B** | Col. A* | Col. B** | Col. B** |
| 1     | Under 30'                 | 0.63                | 0.63     | 0.75    | 0.75     | 1.01    | 1.01     | 2.01     |
| 2     | 30'–59'                   | 0.44                | 0.57     | 0.57    | 0.75     | 0.88    | 0.88     | 2.01     |
| 3     | 60'–99'                   | 0.31                | 0.44     | 0.38    | 0.5      | 0.5     | 0.5      | 2.01     |
| 4 – 5 | 100'–199'                 | 0.13                | 0.25     | 0.19    | 0.38     | 0.38    | 0.38     | 1.76     |
| 6 – 7 | 200'–299'                 | 0                   | 0        | 0       | 0        | 0.25    | 0.25     | 1.26     |
| 8 – 9 | 300'–399'                 | 0                   | 0        | 0       | 0        | 0       | 0        | 0.75     |
| 10    | 400'                      | 0                   | 0        | 0       | 0        | 0       | 0        | 0        |

## Unapproved Roof

| Code  | Exposure Distance in Feet | Class of Protection |          |         |          |         |          |             |
|-------|---------------------------|---------------------|----------|---------|----------|---------|----------|-------------|
|       |                           | 1 - 4               |          | 5 - 6   |          | 7 - 8   |          | 9 - 10      |
|       |                           | Col. A*             | Col. B** | Col. A* | Col. B** | Col. A* | Col. B** | Col. B**    |
| 1     | Under 30'                 | 0.79                | 0.79     | 0.94    | 0.94     | 1.26    | 1.26     | <b>2.52</b> |
| 2     | 30'–59'                   | 0.55                | 0.71     | 0.71    | 0.94     | 1.1     | 1.26     | 2.25        |
| 3     | 60'–99'                   | 0.39                | 0.55     | 0.47    | 0.63     | 0.63    | 0.94     | 2.52        |
| 4 – 5 | 100'–199'                 | 0.16                | 0.31     | 0.24    | 0.47     | 0.47    | 0.63     | 2.2         |
| 6 – 7 | 200'–299'                 | 0                   | 0        | 0       | 0        | 0.31    | 0.47     | 1.57        |
| 8 – 9 | 300'–399'                 | 0                   | 0        | 0       | 0        | 0       | 0        | 0.94        |
| 10    | 400'                      | 0                   | 0        | 0       | 0        | 0       | 0        | 0           |

Source: ISO

# Land use planning

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- **Insurance advocacy**
- **Land use planning priority**
- **Need adequate fire management resources**

# Wildfires and insurance

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# Role of insurers

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- **Public education**
- **Incentives for property owners**
- **Land use planning**