COVID-19'S IMPACT ON ILLINOIS: A HEALTH ECONOMIST'S PERSPECTIVE

Julian Reif

Gies College of Business and IGPA

University of Illinois

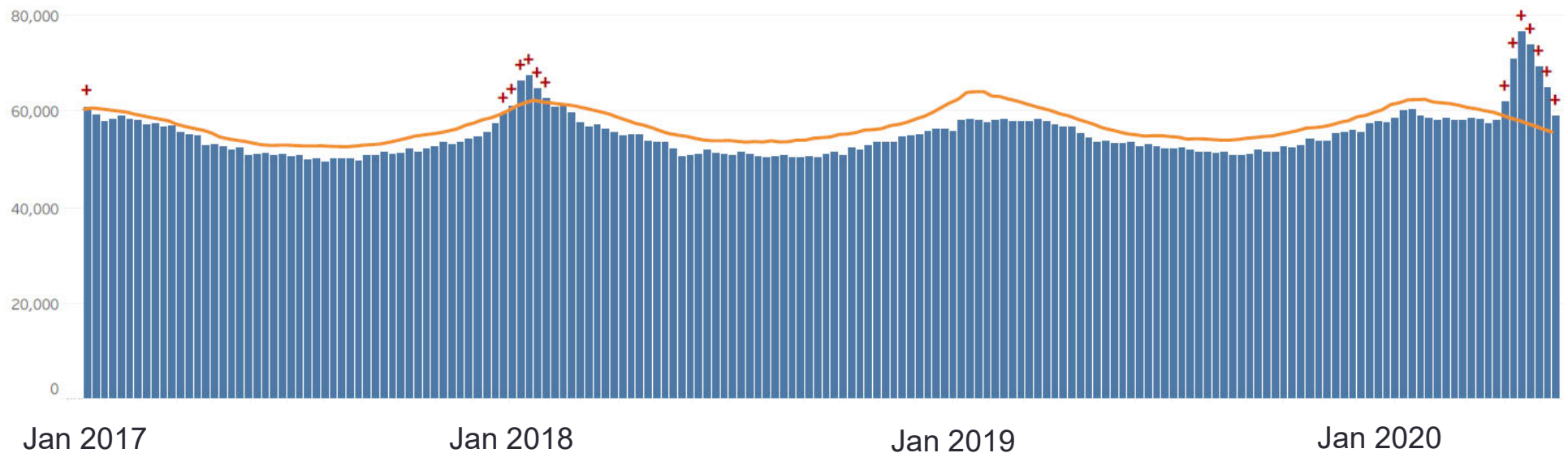**Union League Club of Chicago**

May 28, 2020

About me

- Health economist

- Research areas:
  - Health policy evaluation
  - Value of health and longevity
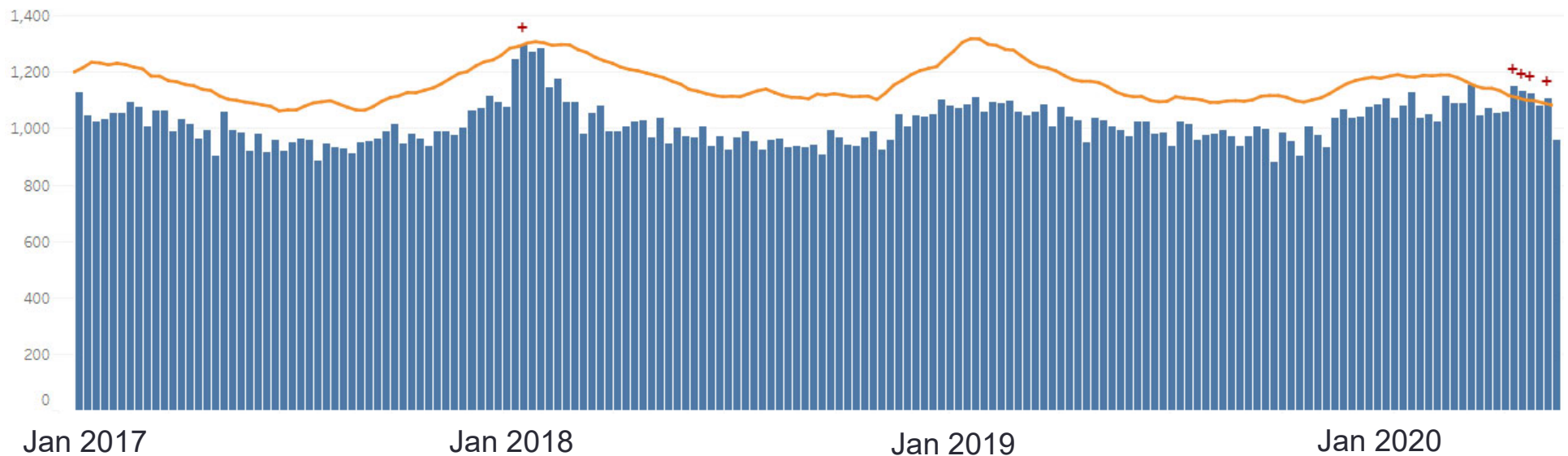

- All views expressed today are my own

Agenda

- What do we know?

- Economic framework

- Implications for Illinois
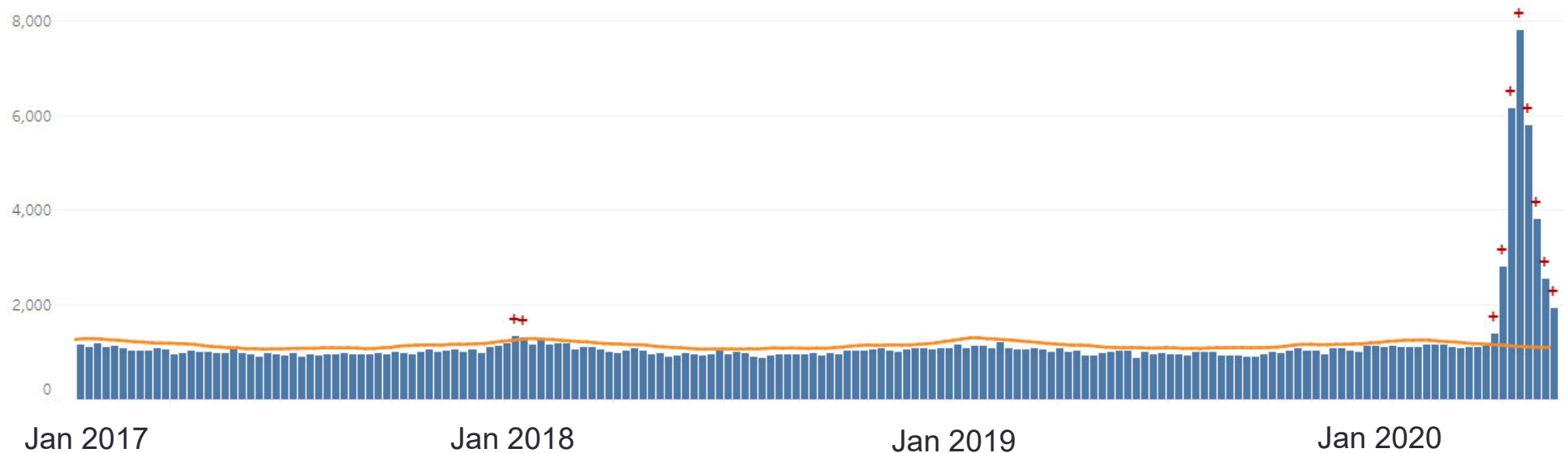
- Recommendations

Total weekly deaths - US

Total weekly deaths - Alabama

Total weekly deaths – New York City

Total weekly deaths - Illinois
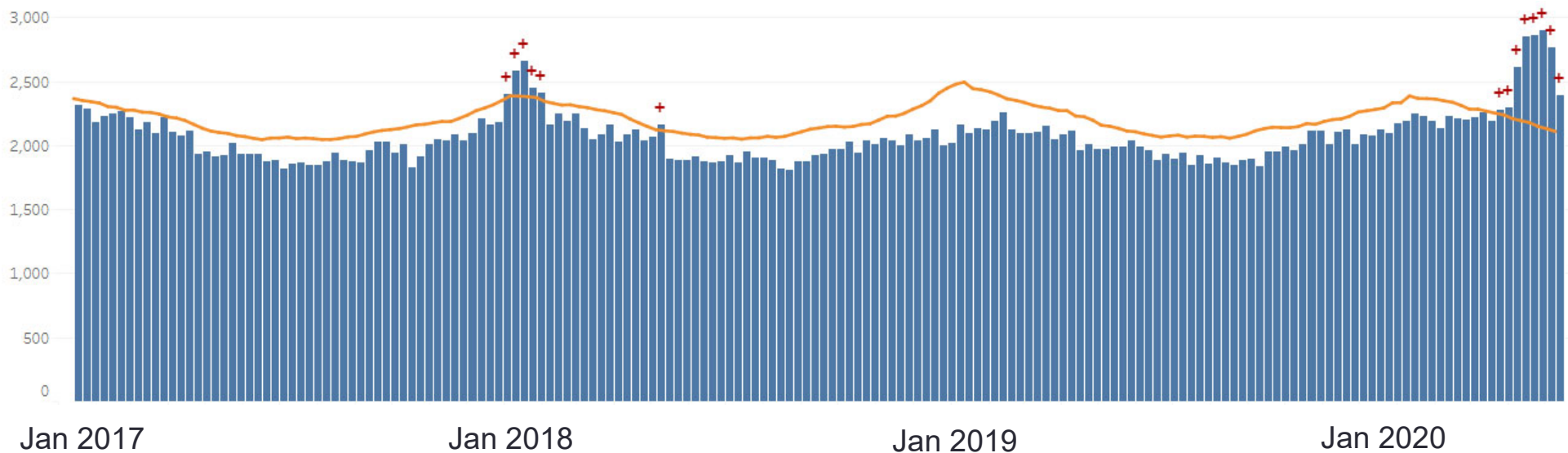
Source: https://www.cdc.gov/nchs/nvss/vsrr/covid19/excess_deaths.htm

Will there be a second wave?

1918-1919 flu-related mortality
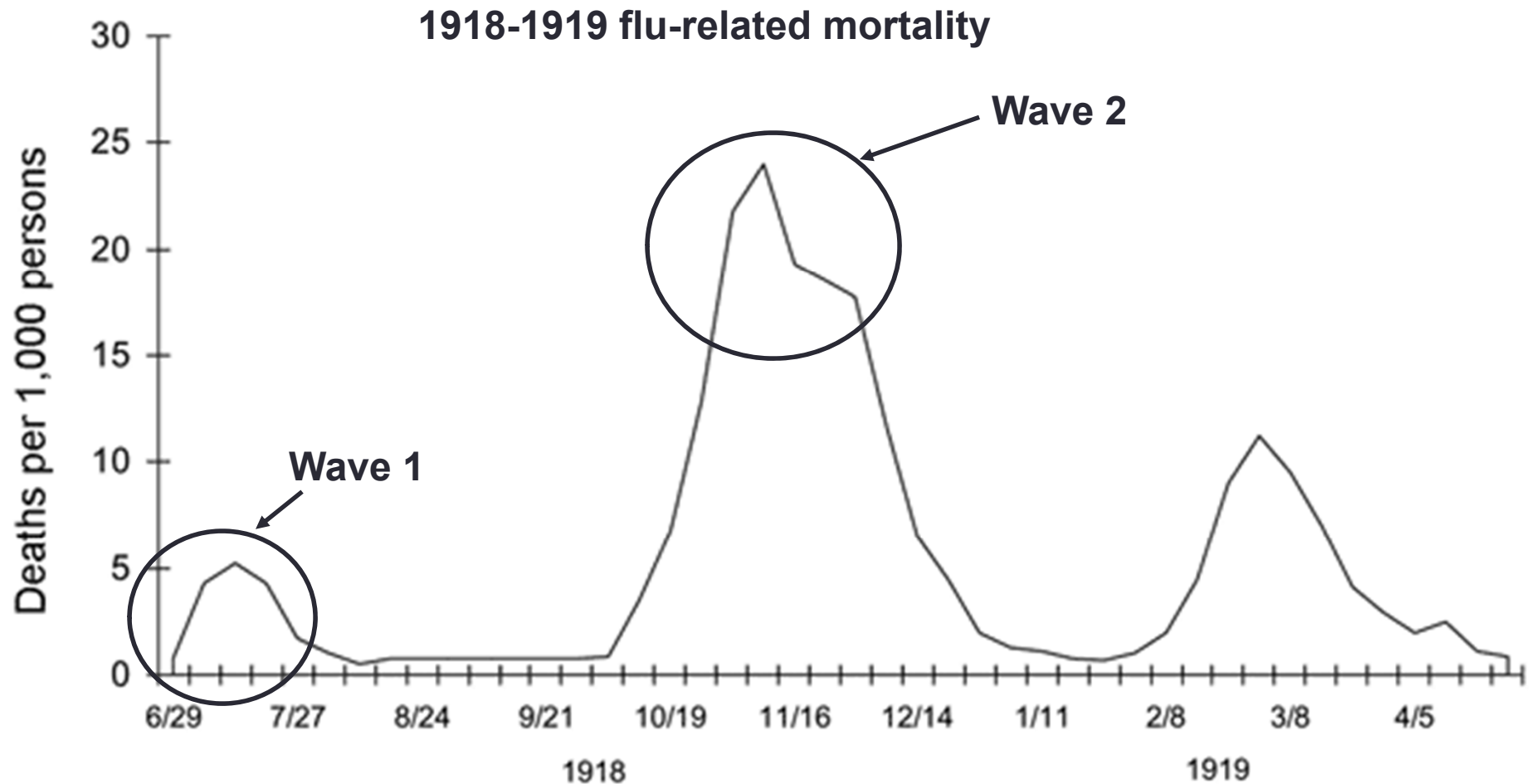
How deadly is COVID-19?

- Need to know:
  1. How many people are/will be infected
  2. Fatality rate

- Knowledge about both these values is poor

How many people have been infected?

- Estimates vary:
  - New York City: 20%
  - Boston: 10%
  - LA County: 4%
  - Boise: 2%

- These estimates may be flawed:
  - Estimates can change quickly over time
  - Is the study sample representative?
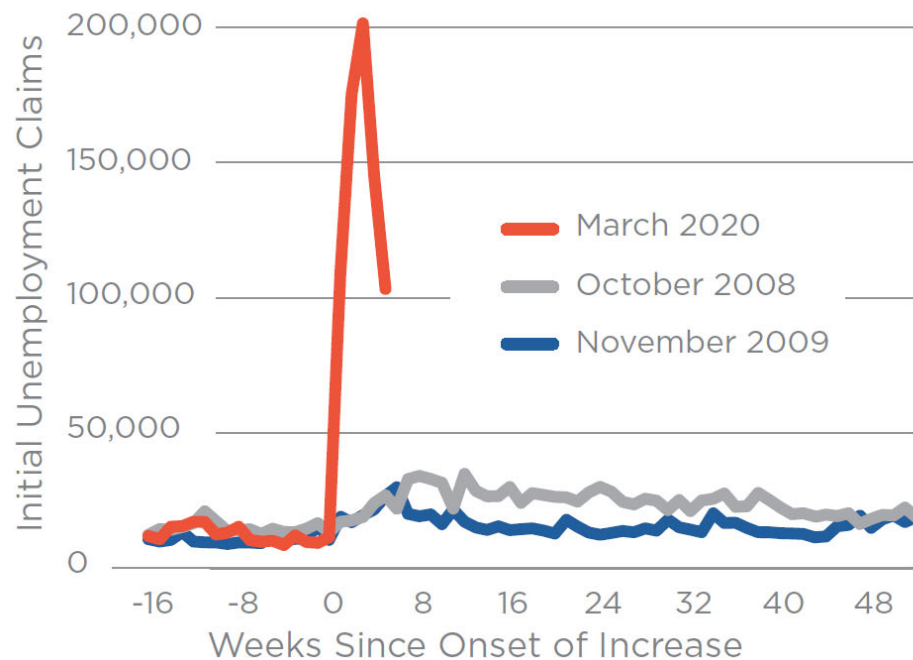 - Tests may have a false positive rate of 1-2%

What is the fatality rate of COVID-19?

- Range of estimates from 0.2% to 1%
  - Fatality rate increases with age and comorbidities
  - What fraction of deaths are attributable to nursing homes?

- Typical flu has fatality rate of 0.1%
  - But, flu vaccine limits contagion

COVID-19 still has potential to kill many more people

Economic impacts are enormous

Unemployment claims (Illinois)

Initial Unemployment Claims vs. Weeks Since Onset of Increase

- March 2020
- October 2008
- November 2009

Unemployment claims (U.S.)

Initial Unemployment Claims vs. Weeks Since Onset of Increase

- March 2020
- October 2008
- November 2009
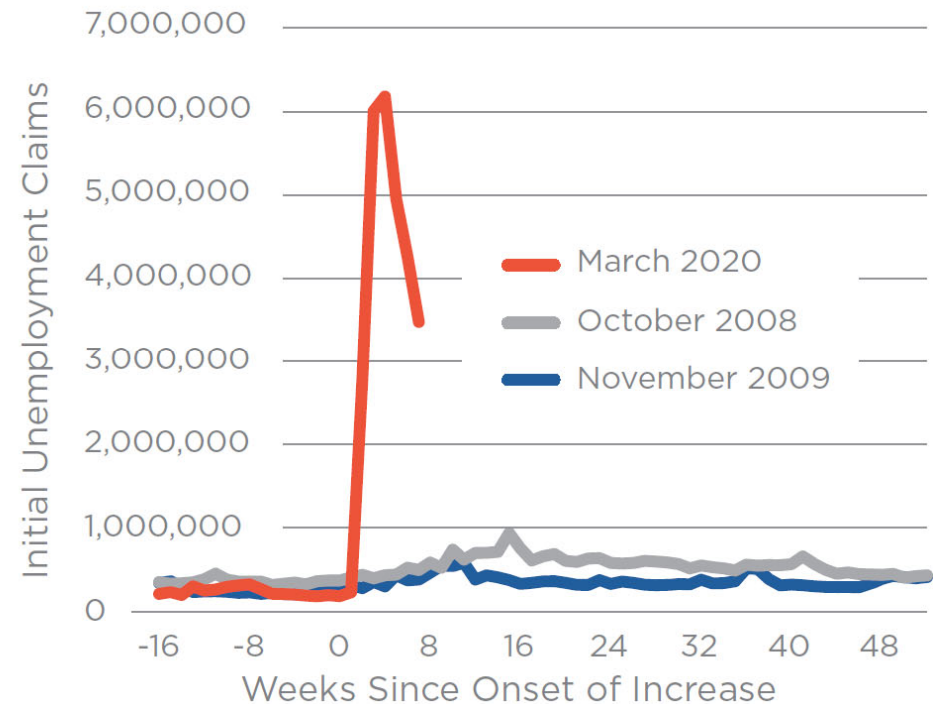
Source: Hewings et al. (IGPA 2020)

Economic impacts are enormous

Employment decline during first three months of recession

Source:
Cajner et al. (2020)
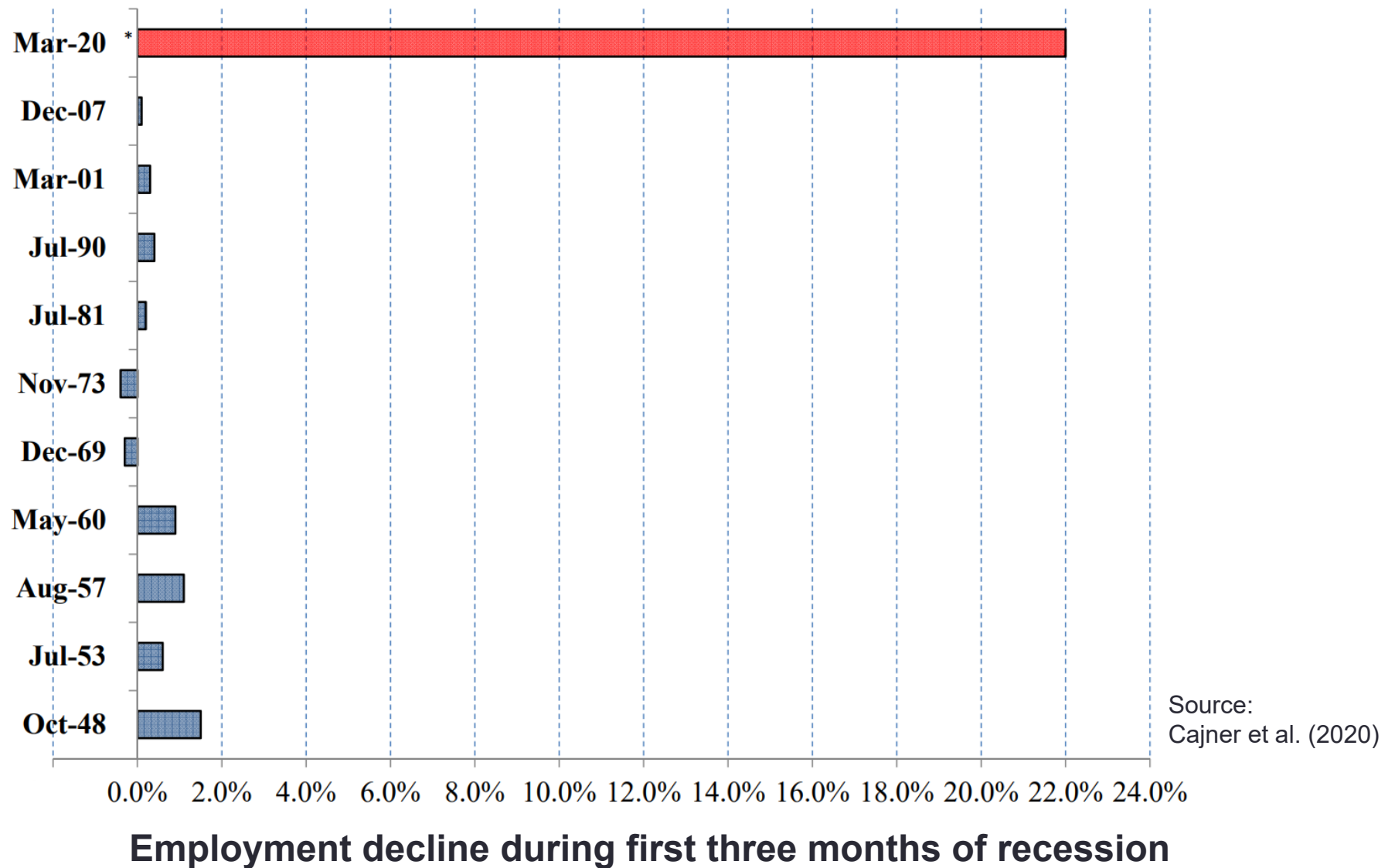
Policy framework

- Two costs of COVID-19
  1. Health and lives lost
  2. Efforts to mitigate the disease, e.g. social distancing

- Less of one cost may mean more of another cost

Costs of a shut down

- Shutting down non-essential activities:
  - Cost of **$6 trillion/year** ($20 billion/day)
  - Illinois: $670 million/day

- Long-run costs of could be larger

- For reference: US GDP is $20 trillion

Avoiding total shutdown is very valuable

Cost of lives lost

- Consider an unrestricted pandemic with:
    - 60% of population infected
    - An infection fatality rate of 0.5%

- Then:
    - Loss of 1.4 million lives
    - Under typical valuations: cost of **~$6 trillion**

    Making progress on treatment is very valuable

Fiscal consequences for Illinois

- Reduction in revenue

- Increase in spending

Reduction in state revenue

- Total state revenue is about $38 billion
  - Comes mostly from income and sales taxes

- Forecast: two-year loss of $4 to $14 billion
  - Source: igpa.uillinois.edu/page/igpa-covid-19-pandemic-task-force

Increase in state spending

- Medicaid enrollment increase

- Pension contributions
  - State pension funds are only 40% funded (2019)
  - Assets have declined in value
    - → triggers increase in required contributions

- These expenses matter more in the long run

What about local governments?

- Revenue comes from:
  - State aid
  - Local property and sales taxes

- Sales tax revenue decline will be immediate

- Property tax decline from business closures would occur over longer time period

What about federal relief?

- Illinois received $4.9 billion in aid

- Increased federal support for Medicaid

- Business loan/grant programs

These funds may not be sufficient to cover shortfall

What now?

- Illinois and other states beginning to reopen

- Challenge: maximize economic output while minimizing resurgence of disease

- Any technology that helps us achieve a successful reopening is <u>enormously valuable</u>

Policy recommendations

- Face masks, prohibitions on large crowds

- Business: careful reopenings

- Advance market commitment for vaccines

- Better data collection
  - Frequent and widespread testing, with incentives

Questions?