Kansas in Crisis
Update on the Coronavirus

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IPSR: Social Science & Policy Research for the State of Kansas
Caveats

• These slides were completed on April 6, 2020

• Things will have changed by the time you see this presentation.

• This presentation is based on my readings and data from sources noted throughout.
Overview

• Update on the Coronavirus in Kansas and the United States
  • We have not yet bent the curve
  • How bad are we undercounting cases?

• What’s happened to the economy so far?
  • Stock Market
  • Unemployment Claims

• Policy responses
  • Mask Wearing Advisory
The US and Kansas have a Pandemic (data through April 5, 2020 4:00 PM)

In both Kansas and the US, cases have doubled in the past week.
Financial Times shows that US cases are continuing to increase.

Source: https://www.ft.com/coronavirus-latest
Testing has been uneven across the country

- We used data from the COVID Tracking project to calculate the number of tests per 1,000 people in each state
  - Kansas has performed only 2.82 tests per 1,000 people.
  - Missouri has surpassed Kansas.

Source: Institute for Policy & Social Research, The University of Kansas; data from The COVID Tracking Project (https://covidtracking.com/).
Testing Results are also Uneven

• We used data from the COVID Tracking project to calculate the share of positive tests.
  • 10% of Kansas are positive.
• 30% of tests return a false negative.
  • This also contributes to the undercount.
Shelter-in-place Orders are being imposed

- As of April 6th, these are the locations where shelter-in-place orders have been issued.
- Kansas is surrounded by states that have no orders or were late to impose them (e.g. Missouri)

Source: By Minh Nguyen - Own work
Data: https://commons.wikimedia.org/w/index.php?curid=88465988
Shelter-in-place Orders are Being Ignored in Some Places

- Red indicates that people are traveling more than 2 miles as of March 26th. This is a measure of not sheltering in place.
- Green indicates sheltering in place started by March 16th.

New Policy Recommendation—Wear a Mask

• Masks help prevent the spread of COVID-19
• Shortage of masks across the country
• Make your own!

How to make your own face mask

Source:
We’re Undercounting Cases in the US

- The following website uses estimates from the Lancet to extrapolate the number of true cases in the U.S.
- Given that there are 9,647 deaths as of today (April 6th) and the case fatality rate is 0.7%
  - Assume that those 9,647 were infected 23 days ago
  - This gives us 1.4 million US cases 23 days ago
  - Extrapolating forward, 4.5 million actual cases in the US today
  - We’re only observing 7.5% of US cases

- Source: https://observablehq.com/@danyx/estimating-sars-cov-2-infections
We’re Undercounting Cases in Kansas

• The following website uses estimates from the Lancet to extrapolate the number of true case in the U.S.

• Given that there are 23 deaths as of today (April 6\textsuperscript{th}) and the case fatality rate is 0.7%
  • Assume that those 23 were infected 23 days ago
  • This gives 3,286 Kansas cases 23 days ago (March 13\textsuperscript{th})
  • Extrapolating forward, 13,070 actual cases in Kansas today
  • We only observe 5.8% of total Kansas cases

• Source: https://observablehq.com/@danyx/estimating-sars-cov-2-infections
We’re Undercounting Deaths

• We haven’t tested enough.
• Until recently, states did not have guidance on how to attribute cause of death to COVID-19

Official Counts Understate the U.S. Coronavirus Death Toll

Inconsistent protocols, limited resources and a patchwork of decision-making has led to an undercounting of people with the coronavirus who have died, health experts say.

By Sarah Kliff and Julie Bosman

April 5, 2020, 12:36 p.m. ET

COVID-19 and the US & Kansas Economies

It’s not good.
The Stock Market: January 1 – April 3, 2020

The Dow Jones Industrial Average peaked at 29,348 on February 12th.
- It bottomed out on March 23rd, and recovered to 21,052 on April 3rd.
- Down about 27% since the peak

Nasdaq has followed a similar pattern.

Source: FRED https://fred.stlouisfed.org/series/DJIA
Unemployment Claims Set Another Historic Record

- US Initial Unemployment Claims set another record 6.6 million for the week of March 21st
  - Double the number of the week before
  - Over 10 million unemployed in two weeks.
- The March Unemployment rate of 4.4% was based on data from the week of March 12th.
  - It is an undercount.

Source: https://www.dol.gov/ui/data.pdf
Kansas Initial Unemployment Claims by Industry as a Share of Total Employment

<table>
<thead>
<tr>
<th>Industry</th>
<th>Share of Total Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining</td>
<td>5.99%***</td>
</tr>
<tr>
<td>Utilities</td>
<td>0.00%</td>
</tr>
<tr>
<td>Construction</td>
<td>4.96%***</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>1.68%</td>
</tr>
<tr>
<td>Information</td>
<td>4.24%</td>
</tr>
<tr>
<td>Finance and Insurance</td>
<td>0.66%</td>
</tr>
<tr>
<td>Real Estate and Rental and Leasing</td>
<td>5.19%***</td>
</tr>
<tr>
<td>Professional, Scientific, and Tech Ser.</td>
<td>2.19%</td>
</tr>
<tr>
<td>Management of Companies</td>
<td>0.28%</td>
</tr>
<tr>
<td>Administrative and Waste Services</td>
<td>4.19%</td>
</tr>
<tr>
<td>Educational Services</td>
<td>8.93%***</td>
</tr>
<tr>
<td>Health Care and Social Assistance</td>
<td>4.19%</td>
</tr>
<tr>
<td>Arts, Entertainment and Recreation</td>
<td>19.07%***</td>
</tr>
<tr>
<td>Accommodation and Food Services</td>
<td>14.33%***</td>
</tr>
<tr>
<td>Other Services (except Government)</td>
<td>10.01%***</td>
</tr>
<tr>
<td>Government</td>
<td>0.14%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>11.76%***</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>4.09%</td>
</tr>
<tr>
<td>Transportation and Warehousing</td>
<td>3.99%</td>
</tr>
</tbody>
</table>

- I calculated the share of initial unemployment claims for all of March over total employment by industry in February, 2020.
  - The service sector is and will continue to be hammered.
  - Manufacturing, Entertainment, Other Services have double-digit unemployment.
• Dingel & Nieman (2020) estimate that only 34% of jobs can be done at home.
  • Source: https://www.nber.org/papers/w26948

• Alon et al (2020) argue that women will be more affected by this recession because women are more likely to be employed in the service sector.
  • Source: https://www.nber.org/papers/w26947

• Berger, Herkenhoff & Mongey (2020) argue that more testing along with targeted quarantines could reduce the economic impact of the virus.
  • Source: https://www.nber.org/papers/w26901
This is Just the Tip of the Iceberg: The US Economy is Rapidly Closing Down

• Stock Market is Volatile

• Unemployment Claims hit Historic Highs
  • Service Sector is hurting

• What Does the Future Hold?
  • Some economic forecasts predict double-digit declines in 2\textsuperscript{nd} Quarter GDP.
The Policy Response

Still Needing CARE
Coronavirus Aid, Relief and Economic Security (CARES) Act

• Passed last week—provides $2 Trillion to support all aspects of the US economy.

• Something for everyone

Source: MS Magazine
Still Needing CARE—Health Insurance

- Health Coverage for the Uninsured
  - 27.9 million uninsured
  - 10 million people unemployed will be needing health insurance in coming months
  - Additional funds for the unemployed to purchase health insurance on the marketplaces
  - Expand Medicaid in Kansas and other non-expansion states
Still Needing CARE—SNAP

- SNAP—Supplemental Nutrition Assistance Program
  - Provides $1.40 per person per meal of food assistance
- CARES Act Expanded SNAP benefits
  - A bit less than $100 per month per family
  - States can expand SNAP during the public health crisis
  - What about during a slow recovery?

- Food Assistance is a pressing issue.
Still Needing CARE—Food Assistance

Just Food, county food pantries see spike in demand amid pandemic; donations needed

- Across the country, food pantries are seeing huge increases in clients
- Mass unemployment is creating a huge need for basic necessities
- CARE Act Unemployment payments and checks haven’t yet arrived.
Still Needing CARE—TANF

- TANF—Temporary Assistance for Needy Families
  - Provides cash welfare to needy families
- During the Great Recession a TANF Emergency Fund was created to help families and children during the economic downturn.
  - Time limits on benefits could be waived until the economy recovers.
  - This was not part of the CARES Act
    - Read more at: https://www.cbpp.org/research/economy/cares-act-includes-essential-measures-to-respond-to-public-health-economic-crises
By putting the economy in a coma, state tax revenues will drop precipitously.

Sales taxes are less cyclical than income taxes but will still drop.

This will mean budget cuts unless the Federal Government steps in.
The Economy is Closed for Business

Until Further Notice
U.S. Is Nowhere Close to Reopening the Economy, Experts Say

Here's what economists say the United States needs to start returning to normal amid the coronavirus outbreak — and how the economy can survive in the meantime.

By Jim Tankersley

April 9, 2020  Updated 3:00 p.m. ET

“Essentially, economists say, there won’t be a fully functioning economy again until people are confident that they can go about their business without a high risk of catching the virus.”

The Economy is Closed for Business

• We have not bent the curve of COVID-19 cases.
• To determine when to restart activity, said R. Glenn Hubbard, a former top economist under President George W. Bush, “we need more information.”
  • We don’t know what we don’t know because of the lack of testing.
  • Without better testing, we can’t restart the economy
In each state needs to be able to:

- Have hospitals that can safely treat all patients without crisis standards of care
- Test everyone who has symptoms
- Monitor confirmed cases and their contacts (e.g. contact tracing)
- Have a sustained reduction in cases for at least 14 days

It All Comes Down to Testing

• We need reliable testing
  • For COVID-19
  • For COVID-19 Antibodies

• Without testing we’re in economic purgatory.
In future lectures we will continue to monitor the economic fallout from the COVID-19 epidemic.

We will also monitor the policy responses.

I hope that you all stay healthy!
Thank You!
Resources

- http://www.igmchicago.org/igm-economic-experts-panel/