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

• These slides were completed on June 8, 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.
IPSR Goals for COVID-19 Crisis

- Synthesize the data on the Coronavirus in Kansas
- Report economic indicators
- Inform the public and policymakers on these issues on a bi-weekly basis.
- Data and briefings available at http://ipsr.ku.edu/covid19/
- Thanks to Xan Wedel, Thomas Becker & Lindsay Jorgenson who helped with the data, visualizations & slides.
Overview

• Update on the Coronavirus in Kansas and the United States
  • Status of cases and deaths.
  • Testing Updates

• What’s happened to the economy so far?
  • GDP, Unemployment

• What do the new data tell us about the future economy?
  • This is going to take much longer than we would prefer.
In Kansas cases grew by 7% in the past week, but deaths were 11.5% higher. Cases have slowed from the previous week, and so have deaths. In the US cases grew by 8.5% and deaths were 5.9% higher in the past week. Both rates were slower than the previously.
Growth in COVID-19 Cases Has Varied by County

• In the six largest counties, growth rates have varied significantly.
  • Douglas and Shawnee counties have flattened the curve.
  • Johnson & Sedgwick growing at a slower rate.
  • Wyandotte has accelerating cases.

Counties with Meatpacking Have Steep Increases

• In counties with meatpacking plants cases are growing at a slower rate and we may have bent the curve.
  • Especially true in Seward and Lyon counties.
What is the Net Contribution to Overall Kansas Cases?

- Red line—Total Cases
- Orange line—remove meatpacking & prisons
- Blue line—remove meatpacking, prisons & Wyandotte County
- Over two-thirds of cases are in meatpacking & prisons
  - Slowing growth in rest of the state.
Good News: Kansas Daily Cases are Falling

- The 7-day moving average of new cases had been trending downwards between May 9 and June 6th.
- However, the trend has become flatter in the last two weeks.
  - We’ll know more in about 10 days whether people’s changed behavior will increase cases.
Case Rates by County

- Darker colors indicate that these counties have higher case rates:
  - Ford, Seward, and Finney Counties have case rates that are > 40 per 1,000
  - Sedgwick & Johnson Counties ~1 per 1,000
  - Leavenworth & Wyandotte Counties have case rates 8-14 per 1,000

Source: New York Times & US Census Bureau

COVID-19 Cases per 1,000 People in Kansas, by County as of June 6, 2020

Social Distancing by County

- Darker colors indicate that these counties have higher social distancing.
  - Ford County has higher distancing than Seward or Finney.
  - Johnson has the highest social distancing rate of the most populous counties.
  - Leavenworth, Wyandotte have lower social distancing despite higher case rates.

Source: University of Maryland Covid 19 Impact Platform
Testing Has Been Uneven Across the Country

- Using data from the COVID Tracking project, we calculated the number of tests per 1,000 people in each state.
  - Kansas has performed only 39 tests per 1,000 people.
  - The US average is 63.5 tests per 1,000.

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

- Calculated the share of positive tests.
  - 9.1% of Kansas tests are positive.
  - 9% of US tests are positive.
  - This is being driven by the meatpacking outbreak.

Source: Institute for Policy & Social Research, The University of Kansas; data from The COVID Tracking Project (https://covidtracking.com).
COVID-19 and the US & Kansas Economies

Massive Unemployment
The Stock Market: January 1 – June 4th

- The Dow Jones Industrial Average peaked at 29,348 on February 12th.
  - It bottomed out on March 23rd, and recovered to 26,281.82 on June 4th.
  - Down about 11% since the peak
- Nasdaq has tracked the Dow.

Source: FRED https://fred.stlouisfed.org/series/DJIA

Source: NASDAQ OMX Group, S&P Dow Jones Indices LLC, fred.stlouisfed.org
The S&P 500 erases its losses for the year as Wall Street’s rally continues.

- The S&P 500 has erased all of its losses for the year.
- According to the New York Times:
  - The S&P 500 rose more than 1 percent on Monday, adding to a weekslong rebound that has been fueled by hopes for a quick economic recovery, significant intervention by the Federal Reserve and a disregard for the serious risks that businesses and consumers still face.

Lewis, Mertens & Stock have developed a Weekly Economic Activity Index that is scaled to 4th Quarter 2019 GDP growth.

- The index has dropped to -10%
- This indicates that GDP for this quarter is forecast to be 10% lower for Q2.

Unemployment Rate Facts

• The monthly jobs report is based on two surveys:
  • Establishment Survey that reports total employment
  • Household Survey that reports total unemployment

• The Unemployment Rate is defined as the share of people looking for work divided by the labor force (employed + unemployed) (U-3 rate).

• The Unemployment rate does not count people who are discouraged workers and working part-time for economic reasons (U-6 rate).
  • Total unemployed, plus all persons marginally attached to the labor force, plus total employed part time for economic reasons, as a percent of the civilian labor force plus all persons marginally attached to the labor force.
Employment rose by 1.6% in May,
Service Employment rose by 1.6%

Unemployment Rate is lower than last month but still highest levels since the Great Depression at 13.3%

Source: https://fred.stlouisfed.org/
Unemployment Rate Surprises in May

- US Economy added 2.5 million jobs between April and May
  - Coincides with the economy opening back up
  - 10% of the employment increase was in dental offices!

- However, the US still has 19.6 million fewer jobs than in February, 2020

- Unemployment rate also fell from 14.7% in April to 13.3% in May

- Problems were reported with how the unemployment rate was calculated in April and May.
• Bureau of Labor Statistics misclassified people who were “temporarily unemployed” as “employed but absent for other reasons.”
  • April Unemployment rate was closer to 19.7%
  • May Unemployment rate is closer to 16%
U-3 and U-6 Show Continued Slack in Labor Market

- U-6 rate is a broader measure of unemployment
  - 21.2% in May and 22.8% in April.
  - U-6 is also understated by this misclassification
- U-6 indicates that over one fifth of the workforce is experiencing hardship.

### A Tale of Two Downturns: This Time is Different

<table>
<thead>
<tr>
<th>Unemployment by Characteristic</th>
<th>May, 2010</th>
<th>May, 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>9.7%</td>
<td>13.3%</td>
</tr>
<tr>
<td>Men, Age 20+</td>
<td>9.8%</td>
<td>11.6%</td>
</tr>
<tr>
<td>Women, Age 20+</td>
<td>8.1%</td>
<td>13.9%</td>
</tr>
<tr>
<td>Age 25+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than High School</td>
<td>15.0%</td>
<td>19.9%</td>
</tr>
<tr>
<td>High School</td>
<td>10.9%</td>
<td>15.3%</td>
</tr>
<tr>
<td>Some College</td>
<td>8.3%</td>
<td>13.3%</td>
</tr>
<tr>
<td>Bachelor’s Degree +</td>
<td>4.7%</td>
<td>7.4%</td>
</tr>
<tr>
<td>Temporary Layoff</td>
<td>8.3%</td>
<td>73.3%</td>
</tr>
<tr>
<td>U-6</td>
<td>16.1%</td>
<td>21.2%</td>
</tr>
</tbody>
</table>

- Women are more likely to be unemployed than men.
  - Since 1980 we’ve had “Mancessions”
- Only Bachelor’s degree or higher have lower rates.
- Temporary Layoffs are higher.
  - Temporary Layoffs have dropped between April (79%) and May (73%)

Initial Unemployment Claims Continue to Grow

- US Initial Unemployment Claims are still at historic highs
  - Over 42 million unemployed since March.
  - The majority of these workers have lost employer-backed health insurance.

Source: https://www.dol.gov/ui/data.pdf
Unemployment Claims in Kansas and Missouri

• Since March 14th a total of 262,170 workers have filed initial unemployment claims in Kansas.

• Based on March Labor Force projections the Ratio of initial claims to labor force is approximately 18%.
  • Data from March 14th – May 30th

Source: Calculations using KS and MO Department of Labor Data
Kansas Initial Unemployment Claims by Industry as a Share of Total Employment—Data as of April 25th

<table>
<thead>
<tr>
<th>Industry</th>
<th>Unemployment Within Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government</td>
<td>1.29%</td>
</tr>
<tr>
<td>Health</td>
<td>16.15%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>38.79%</td>
</tr>
<tr>
<td>Retail</td>
<td>19.14%</td>
</tr>
<tr>
<td>Food</td>
<td>36.43%</td>
</tr>
<tr>
<td>Professional</td>
<td>10.47%</td>
</tr>
<tr>
<td>Administrative</td>
<td>21.40%</td>
</tr>
<tr>
<td>Construction</td>
<td>16.90%</td>
</tr>
<tr>
<td>Finance</td>
<td>3.89%</td>
</tr>
<tr>
<td>Transportation</td>
<td>15.72%</td>
</tr>
<tr>
<td>Wholesale</td>
<td>9.76%</td>
</tr>
<tr>
<td>Other</td>
<td>34.92%</td>
</tr>
<tr>
<td>Management</td>
<td>1.29%</td>
</tr>
<tr>
<td>Education</td>
<td>42.62%</td>
</tr>
<tr>
<td>Information</td>
<td>15.93%</td>
</tr>
<tr>
<td>Real Estate</td>
<td>25.14%</td>
</tr>
<tr>
<td>Entertainment</td>
<td>53.63%</td>
</tr>
<tr>
<td>Mining</td>
<td>22.86%</td>
</tr>
<tr>
<td>Utilities</td>
<td>1.35%</td>
</tr>
</tbody>
</table>

- I calculated the share of initial unemployment claims for all of March – May over total employment by industry in March, 2020.
- Industries are ranked by share of total employment.
- Government, health care, manufacturing and retail trade are 53% of total employment in the state.
Cumulative Initial Unemployment Claims by Industry

- Industries hardest hit include:
  - Manufacturing: 65,250
  - Accommodation & Food Services: 39,711
  - Health care & Social assistance: 29,814
  - Other Services: 17,986

- These five industries account for 68% of people who have lost their jobs.

Source: Calculations using KS and MO Department of Labor Data
Share of Workers in Vulnerable Sectors

- Sectors hardest hit include:
  - Restaurants & Bars
  - Travel & Transportation
  - Entertainment
  - Personal Services
  - Retail
  - Manufacturing

- Wichita, Lawrence & the KC Metro have over 20% employment in these vulnerable sectors.

Source: Calculations using BLS Occupational Employment Statistics
Cumulative Unemployment Claims by County

• Top 5 Counties by Cumulative Initial Claims:
  - Sedgwick 79,151
  - Johnson 46,388
  - Shawnee 16,105
  - Wyandotte 13,903
  - Douglas 12,982

Data calculated March 21st – May 30th

Source: IPSR calculations using Kansas Department of Labor Data
Aggregate Initial Claims as a Share of Labor Force

Top 5 counties by unemployment rate:
- Wilson 30.3%
- Sedgwick 29.4%
- Sumner 28.1%
- Butler 23.6%
- Montgomery 23.3%

Aggregate Unemployed Claims as a share of the total labor force is 18% in Kansas.

Source: IPSR calculations using Kansas Department of Labor Data
Projected Unemployment Compared to Peak, 1976-2018

- Unemployment is this many times higher than previous maximum unemployment
  - Sedgwick 3.34
  - Douglas 3.29
  - Shawnee 2.52
  - Wyandotte 1.57
  - Johnson 2.13

Source: IPSR calculations using Kansas Department of Labor Data
Historically Bad Economic Numbers

- GDP = Consumption (68%) + Investment (17%) + Government (18%) + Net Exports (-2.9%)

- GDP fell -4.8% in Q1 2020
  - Consumption fell -5.6%

- Unemployment rate remains high at 13.3% in May
  - This is undercounting actual unemployment

- Industrial Production fell -11.2% in April

- Retail Sales fell -15.8% in April
Unemployment Claims Relative to Gross State Product

Sectors that contribute most to Kansas growth with above average unemployment:

- Manufacturing 39% UE & 16% of GSP
- Health Services 16% UE & 7.5% of GSP
- Retail 19% UE & 6.4% of GSP

Source: Author’s calculations.
Now for the Good News

Kansas is doing better than other states
Paycheck Protection Program Benefited Kansas

- Total of $4.9 billion in loans in Kansas.
  - 49,375 Loans made
  - Average loan $99,822
- The need is great:
  - 55,682 Small Businesses
  - 201,268 Nonemployer Establishments.
- Only 19% of Kansas firms were funded (14% in US)

Source: IPSR calculations using 2017 Statistics of US Businesses
Small Business Pulse: https://portal.census.gov/pulse/data/
Paycheck Protection Program Benefited Kansas

- Kansas ranks fifth in the US in terms of Percent of Businesses covered.
- Kansas ranks fourth in share of payroll covered by Payroll Protection Program (PPP) as of May 30.
Kansas Small Businesses Have Received more Support

Kansas small businesses were more likely to receive PPP funding
Kansas small businesses were more likely to receive some kind of federal assistance

Source: IPSR calculations using Small Business Pulse: https://portal.census.gov/pulse/data/
Kansas Small Businesses are Suffering Less than the US

- Kansas small businesses are more likely to report a moderate negative effect or little or no effect compared with the US.

Source: IPSR calculations using Small Business Pulse: https://portal.census.gov/pulse/data/
Kansas Households are Suffering Less than the US

- 48% of US households report loss of employment income compared with 40% of Kansas households
- 10% of US households report food scarcity compared to 8% of Kansas households
- Kansans report lower rates of delayed medical care and housing insecurity.

Source: IPSR calculations using Household Pulse: https://portal.census.gov/pulse/data/
Kansas Households are Suffering Less than the US

- Compared to the US Average and all other states, Kansas ranks in the bottom quartile of employment income lost since March 13th.
  - ~38% of Missouri households report employment income loss
  - ~40% of Kansas households

Source: IPSR calculations using Household Pulse: https://portal.census.gov/pulse/data/
A Look at the Largest Counties
Compare Unemployment, Share of County Product

• Data are from 2018 Bureau of Economic Analysis
  • Since the gross product and employment data are from 2018, this analysis is more suggestive.

• As such, these are approximations, but provide useful information on the overall impact on the county level.

• Move from the relatively good (Johnson, Shawnee), the bad (Douglas, Wyandotte) and the ugly (Sedgwick).
Unemployment Relative to Gross Product – Johnson County

- Johnson County is well-positioned to weather this crisis.
- Major sectors as a share of economic product including finance, professional, wholesale, and real estate have low unemployment.
- Health care, retail, manufacturing, and information are struggling.

Source: Author’s calculations.
Shawnee County is also doing relatively well.

- Major sectors as a share of economic product including wholesale, professional, finance, and government have low unemployment.
- Health care, retail, and manufacturing are struggling.

Source: Author’s calculations.
Unemployment Relative to Gross Product – Wyandotte County

- Wyandotte County is having problems.
- Major sectors as a share of economic product including health, retail, construction manufacturing and real estate are struggling.
- Government, transportation and wholesale are doing well.

Source: Author’s calculations.
Douglas County is having problems.

- Major sectors as a share of economic product including professional, real estate, and government have low unemployment.
- Health care, retail, manufacturing and food services are struggling.

Source: Author’s calculations.
Unemployment Relative to Gross Product – Sedgwick County

- The Sedgwick County scale has changed. Things are dire.
  - Manufacturing has 68% unemployment and makes up 28% of economic product.
  - One third of the Sedgwick County economy is shut down.
  - Only government and real estate are OK.
  - Health & Retail are also in trouble.

Source: Author’s calculations.
Air Travel has been Grounded

- In 2019 over 2.6 million people traveled by air per day in the US.
- On June 7, only 441,255 people traveled by air.
  - This is a 83% decrease in air travel from the same day in 2019.
  - Less air travel means less demand for aircraft.
  - Southwest CEO Gary Kelly: "We don't need the Max right now. We don't need all the airplanes that we have"

Source: https://www.tsa.gov/coronavirus/passenger-throughput
It’s Officially a Recession
The Fed Warns Against Inaction
We are Definitely in a Recession

- **Sahm Rule Recession Indicator** signals the start of a recession when the three-month moving average of the national unemployment rate (U3) rises by 0.50 percentage points or more relative to its low during the previous 12 months.
- Highest rate ever recorded.

Source: https://fred.stlouisfed.org/
The NBER Made it Official

• Recession started in February, 2020
  • “The unprecedented magnitude of the decline in employment and production, and its broad reach across the entire economy, warrants the designation of this episode as a recession, even if it turns out to be briefer than earlier contractions,” the bureau said in a statement.

• According to Robert Gordon, Northwestern University:
  • “There’s no way you can observe that happening and not call it a recession,” he said, while acknowledging that it was a very unusual one. “Nothing like it has ever happened.”
• Given the improvement in the unemployment rate, some economists have indicated that the worst is over.

• According to the New York Times:
  • Economists in a Bloomberg survey expect growth to contract by 9.7 percent in the second quarter compared with the same period last year, followed by a 6.8 percent contraction in the third quarter relative to the third quarter of 2019.
  • “It’s going to take longer to recover the level of activity, even though the growth rate is strong,” Mr. Luzzetti said.

We Continue to Face Significant Uncertainty

Don’t Lose the Thread. The Economy Is Experiencing an Epic Collapse of Demand.

A rip in the fabric of the economy won’t be healed easily, and denial of the severity of the crisis won’t solve it.

By Neil Irwin

Published June 6, 2020  Updated June 7, 2020

The US economy still has a net loss of 19.5 million jobs. Uncertainty about coronavirus infections remains.

• The protests may have re-started the pandemic.
• We will be posting weekly updates on data.
• We are moving to update these briefings every two weeks.
• Data and briefings are featured on the IPSR website: http://ipsr.ku.edu/covid19/
• We will also monitor the policy responses.
• I hope that you all stay healthy!