University of Illinois System

Institute of Government and Public Affairs
Task Force on the Impact of the COVID-19 Pandemic

The COVID-19 pandemic and small business in Illinois: A preliminary comparison of neighboring states

Economic and Fiscal Health Impact Group

October 29, 2020

At the request of President Tim Killeen, IGPA has assembled more than four dozen interdisciplinary faculty experts from all three System universities to assess COVID-19's effects on the state. Assessments focus on three impact groups: Economic and Fiscal Health, Community and Family Resilience, and the Health Care Workforce. Each group is collaborating on a series of modeling activities, data analyses, and syntheses of impact. This report is the third from the Economic and Fiscal Health Impact Group.

Faculty Lead

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EXECUTIVE SUMMARY

In the face of growing concern about the pandemic associated with COVID-19, Illinois Gov. J.B. Pritzker issued Executive Order 2020-10, which went into effect March 21, 2020. The order required that all individuals must stay at home, with exceptions for essential activities, essential government functions, and essential businesses and operations. Gatherings of more than 10 people were prohibited.[1]

Stay-at-home orders took effect in Indiana and Michigan on March 24, just three days after Illinois' order. Wisconsin followed on March 25, Kentucky on March 26, and Missouri on April 6. Iowa has not yet issued such an order.[2]

Fear of the illness, combined with potential legal sanctions resulting from executive actions, led to massive economic disruptions in Illinois and around the country. Within weeks, the national unemployment rate soared from a historic low of 3.5% to 14.7%. Illinois followed the national pattern and saw its unemployment rate increase by 13.3%.[3]

Of course, stay-at-home orders were only one factor in the economic disruption. In fact, one recent study found that "State-ordered reopenings of economies [*e.g.*, lifting of stay-at-home orders] have little impact on local employment."[4]

There is reason to believe that the economic damage may weigh especially heavily on small business. Restaurants, bars, bookstores, day care centers, hair salons, and most other commercial establishments had their economic activities greatly restricted.[5] Even those that continued to operate had to do so in difficult conditions, under substantial new constraints. Many consumers switched to online purchases, which likely favored large businesses with sufficient resources to expand existing web-based platforms or quickly develop new ones.[6]

This report provides some preliminary evidence about how small businesses in Illinois fared in comparison to their Midwestern neighbors in Iowa, Indiana, Kentucky Michigan, Missouri, and Wisconsin.

There is little evidence that Illinois' experience was distinctive compared to its Midwestern neighbors, despite differences in the timing or intensity of states' stay-at-home orders. Instead, there are similar patterns across each of the states examined here.

Analysis of small businesses comparing Illinois border counties with their neighbors can be especially instructive since government policies change discretely along state borders, but the prevalence of COVID-19 infections generally does not. Our analyses reveal substantial heterogeneity, but overall revenue of small business in Illinois border counties was similar to revenue from businesses located in counties across the state line in adjacent states. This analysis of bordering counties also did not detect any differences in the proportions of Illinois and non-Illinois businesses that remained open.

At a time when the steps taken by government are increasingly facing pushback, there is also little evidence that the states' very different approaches to public safety were a significant driver of small business economic distress. Consumer fears, rather than governmental actions, appear to account for much of the economic disruption.

INTRODUCTION

The COVID-19 pandemic brought widespread health, social and economic hardship to households and businesses across the state, the nation, and the world. Public health experts, economists, government officials, and many others will be studying this episode for decades to come with the hope of uncovering lessons that will provide valuable guidance for future responses to public health crises.

This report provides an initial look at some early evidence regarding one element of COVID-19's economic challenges by conducting comparative analysis of small business conditions in Illinois and neighboring states.

It is fortunate that a number of novel high-frequency and relevant data sources have become available to shed insight on the economic distress of small businesses at a state and sub-state level.

The analysis in this report relies primarily on two data sources: The U.S. Census Bureau's Small Business Pulse Survey (SBPS) and Opportunity Insights Economic Tracker (Tracker Data).[7]

Each small business respondent to the SBPS is asked a series of 15 questions. This report focuses on just two of these questions.

1. Overall, how has this business been affected by the COVID-19 pandemic? A. Large negative effect, B. Moderate negative effect, C. Little or no effect, D. Moderate positive effect, E. Large positive effect

2. How would you describe the current availability of cash on hand for this business, including any financial assistance or loans? Currently, cash on hand will cover: A. 1-7 days of business operations, B. 1-2 weeks of business operations, C. 3-4 weeks of business operations, D. 1-2 months of business operations, E. 3 or more months of business operations, F. No cash available for business operations, G. Don't know.

Opportunity Insights provides data from Womply, which aggregates data from credit card processors.[8] This report uses two variables from that data:

1. **merchants_all**: Percent change in number of small businesses open, calculated as a 7-day moving average, seasonally adjusted, and indexed to Jan. 4-31, 2020; and,

2. **revenue_all:** Percent change in net revenue for small businesses, calculated as a 7-day moving average, seasonally adjusted, and indexed to Jan. 4-31, 2020.

Both data sources provide very timely data and significant geographic disaggregation. This report uses weekly state level data from SBPS and daily county-level Tracker Data to better understand comparative economic impacts on small business.

THE COMPARATIVE ECONOMIC IMPACTS OF THE PANDEMIC ON SMALL BUSINESS IN ILLINOIS

Responses to the census survey

Perhaps the simplest way to answer this question is to consider SBPS respondents' self-assessment, as summarized in Question 1 above, across several Midwest states.

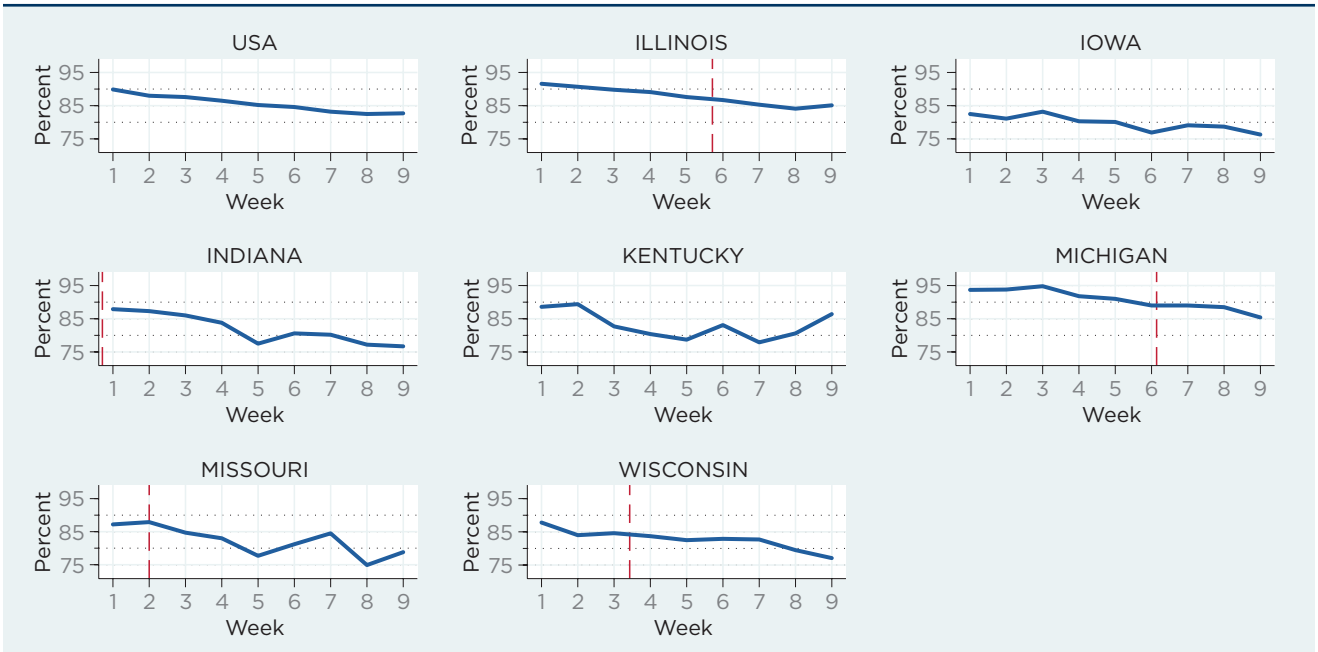
Figure 1 presents this evidence. It also depicts a dotted vertical (red) line on the date stay-at-home orders were relaxed in each state, except Iowa, which never issued a stay-at-home order, and Kentucky, which did not lift its stay-at-home order until June 29, 2020, after the SBPS data was collected. Similarly, Indiana lifted its shut-down order at the beginning of the period shown in Figure 1, on May 4.[9]

More than 90% of Week 1 Illinois respondents said that the pandemic had a moderate or large negative effect on their business. This was similar to the national (U.S.) share but somewhat higher than other states in the region with the exception of Michigan.

Over the next eight weeks, the share of Illinois respondents with such a negative response gradually declined and approximated the national average, but remained somewhat higher than other states, except Michigan. In the ninth week, which began June 21, there was a slight uptick in very negative responses in Illinois that was mirrored in Kentucky and Missouri but not nationally or in other states in the region.

While a comprehensive analysis of this question is not possible with currently available data, the answers to Question 2 (above) of the SBPS

Figure 1: Percent of businesses that reported the pandemic had a moderate or large negative effect, by state and week



Week 1 began April 26, 2020. Week 9 began June 21, 2020. Dashed vertical lines indicate the date the stay-at-home order was relaxed. All states except Iowa issued a stay-at-home order before April 26. Iowa had not issued a stay-at-home order as of Oct. 12, 2020. Kentucky did not lift its stay-at-home order until June 29, 2020. Sources: U.S. Census Bureau Small Business Pulse Survey and Ballotpedia.

survey—the amount of cash on hand—do provide one important indicator of the precariousness of a small business' long-term viability.

Figure 2 summarizes data for the same group of states. It gives the percentage of small business respondents in each state that reported having four weeks or more of cash on hand. With this question, a higher number is better than a lower number.

In Week 1 of the SBPS shown above, a slightly smaller share of Illinois respondents reported four weeks or more of cash on hand compared to the U.S. as a whole and several other states in the region. Illinois businesses more closely mirror those in Kentucky and Indiana.

Over time, the share of Illinois and national respondents with this level of cash on hand increased until Week 5 (May 31 through June 6), after which it fell slightly and then plateaued.

By Week 9, which started June 21, the 55% of Illinois respondents reporting four or more weeks of cash on hand was similar to the national average and the share in Indiana, Kentucky, Missouri, and Wisconsin. Illinois' 55% was slightly above the share in Iowa and slightly below the share in Michigan.

To summarize: The data from the SBFS survey, which reports small business' self-assessment of the pandemic's economic impact, suggest that the effect in Illinois has moderated somewhat over time and is quite similar to the impact nationally and among neighboring states.

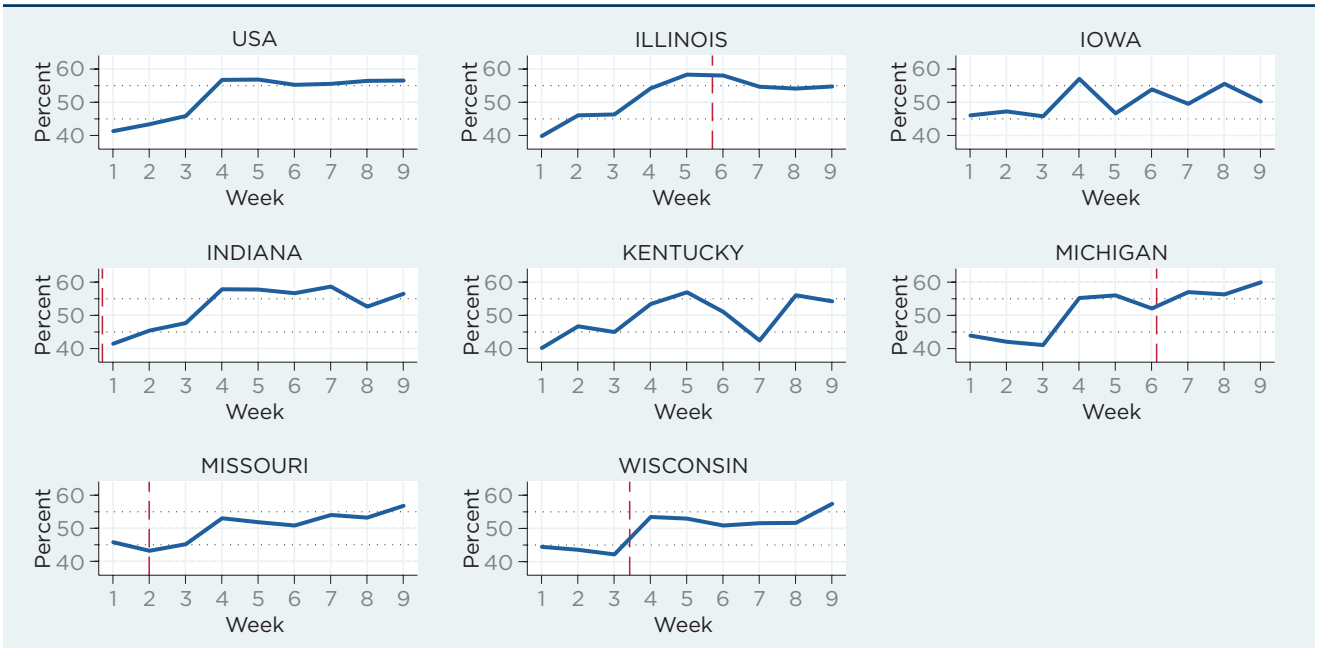
There is little evidence that variation in the dates and stringency of the stay-at-home orders had a significant effect on the pandemic's economic impact on small business.

Responses to the Opportunity Insights data

The Tracker Data from Opportunity Insights has some advantages and some disadvantages compared to the SBFS data.

It is based on data about the actual credit card revenue received by the business, which may provide a more objective measure than subjective survey responses. In addition, these data are available daily and for many U.S. counties. This level of disaggregation allows us to track sub-state time trends.

Figure 2: Percent of businesses that reported four weeks or more of cash on hand, by state and week



Week 1 began April 26, 2020. Week 9 began June 21, 2020. Dashed vertical lines indicate the date the stay-at-home order was relaxed. All states except Iowa issued a stay-at-home order before April 26. Iowa had not issued a stay-at-home order as of Oct. 12, 2020. Kentucky did not lift its stay-at-home order until June 29, 2020. Sources: U.S. Census Bureau Small Business Pulse Survey and Ballotpedia.

On the other hand, Tracker Data reflect only a narrow slice of current economic activity and may not reflect broad economic conditions and judgments the way survey responses can.[10]

This report provides two sets of data analyses using the Tracker Data. First, this report presents the effect of stay-at-home orders on small business activity. It compares the number of open small businesses and revenue in Cook County, Illinois (which includes Chicago) and collar counties to small business revenue and the number of open small businesses in Marion County, Indiana (which includes Indianapolis) and surrounding counties.

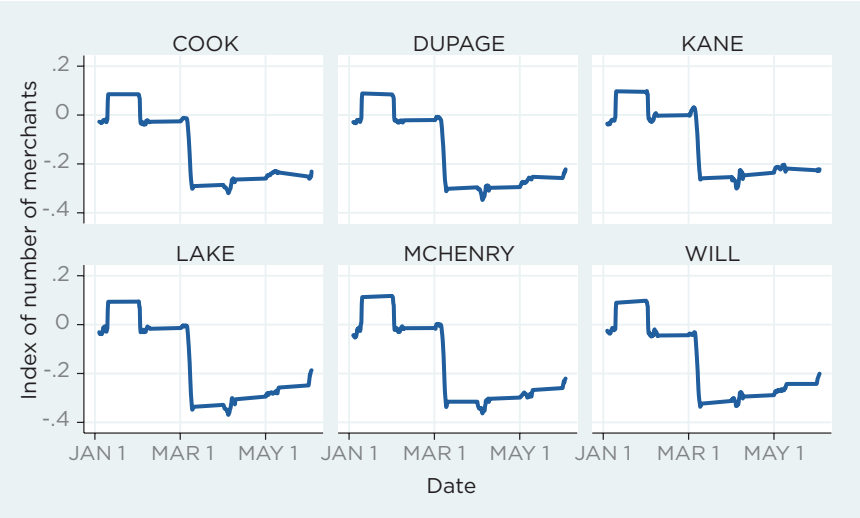
Secondly, we compare small business' status as opened or closed and revenue in 15 Illinois border counties with their adjacent counties around the state line for a number of states in the region.

Small business activity in Chicago and Indianapolis

Figure 3 presents data on the share of small businesses that were open (*i.e.*, had positive revenue) during each day of the period from Jan. 1 to early June of 2020 in Cook and Illinois counties surrounding Chicago. Figure 4 presents similar information for Marion and Indiana counties surrounding Indianapolis.

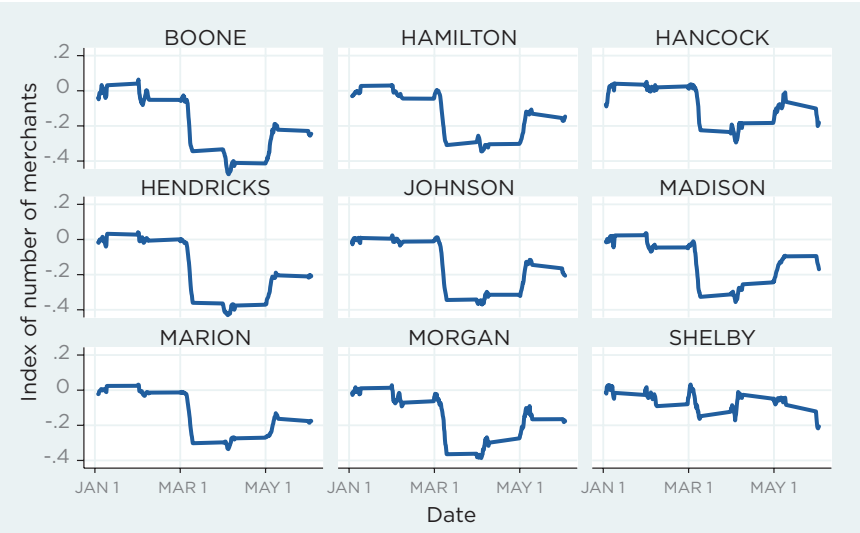
Cook and all the Illinois collar counties suffered a precipitous decline in the share of businesses that were open beginning in early March and continuing into early April, when the number of open small businesses stabilized at a much lower level. County-level daily data in this analysis demonstrate that the number of open small businesses had begun to decline significantly prior to Gov. Pritzker's stay-at-home order on March 21. Each of the counties recovered somewhat as time progressed, but all remained into early June far below their January 2020 levels.

Figure 3: Chicago-area counties - Number of open merchants



Merchants_all: Percent change in a number of small businesses open calculated as a 7-day moving average, seasonally adjusted, and indexed to Jan. 4-31, 2020. Illinois' stay-at-home order expired on May 29, 2020. Source: Chetty, et al., 2020 (see endnote 4) and Ballotpedia.

Figure 4: Indiana counties - Number of open merchants



Indiana stay-at-home order lifted May 1, 2020. Merchants_all: Percent change in a number of small businesses open calculated as a 7-day moving average, seasonally adjusted, and indexed to Jan. 4-31, 2020. Source: Chetty, et al., 2020 (see endnote 4).

Data on counties in the Indianapolis area show somewhat similar patterns, but the early March decline in the number of open small businesses is less precipitous in Indiana. The total

magnitude of the decline and the amount of recovery through early June are similar across the two states.

Figures 5 and 6 present small business revenue rather than open businesses. All Illinois county patterns are similar to one another (see Figure 5), with precipitous declines in early March.

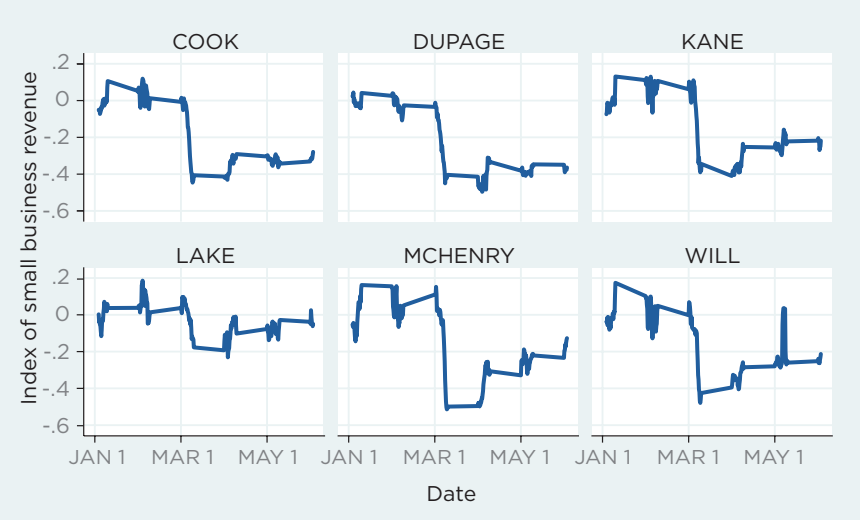
The more than 40% decline in Illinois small business revenue is even greater than the decline in the number of open merchants, and the recoveries were of a smaller magnitude.

Revenue declines in counties surrounding Indianapolis also started in early March and were also very large. In many instances, these declines were even larger than the declines in the Chicago area. There had been, at best, a modest recovery in the Indianapolis area through early June.

Small business activity in Illinois border counties

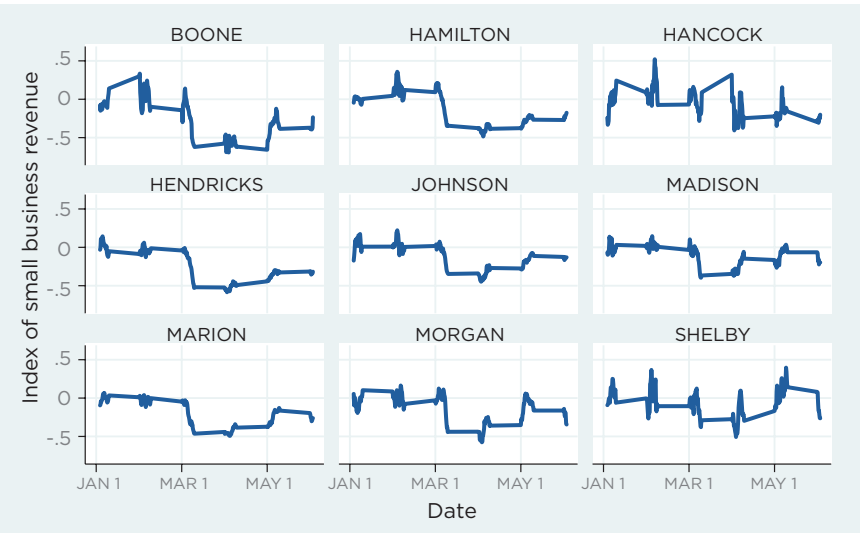
Thirty-nine Illinois counties share a border with one or more other states. To the extent that state policies influence the pandemic's economic effects on small businesses, these counties can be especially instructive. State policies may change discretely at state borders, but the prevalence of the COVID-19 infection is unlikely to change dramatically.

Figure 5: Chicago-area counties - Revenue

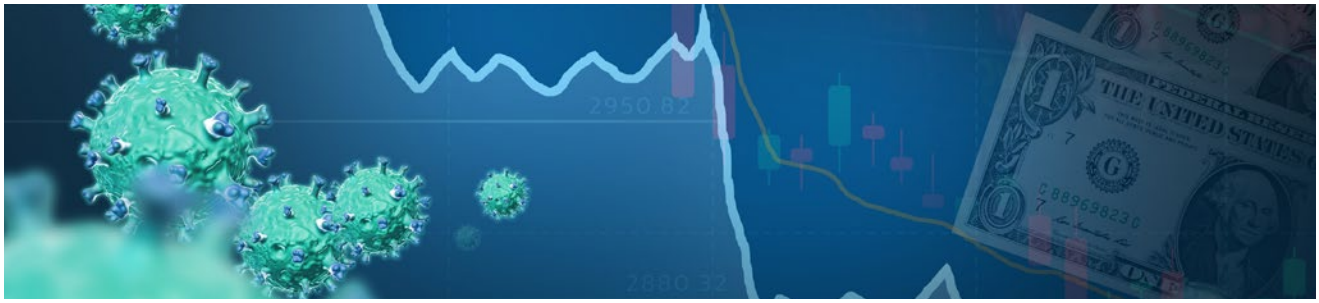


Illinois stay-at-home order relaxed May 26, 2020. Revenue_all: Percent change in net revenue for small businesses, calculated as a 7-day moving average, seasonally adjusted, and indexed to Jan. 4-31, 2020. Source: Chetty, et al., 2020 (see endnote 4).

Figure 6: Indiana counties - Revenue



Revenue_all: Percent change in net revenue for small businesses, calculated as a 7-day moving average, seasonally adjusted, and indexed to Jan. 4-31, 2020. Chetty, et al., 2020 (see endnote 4).

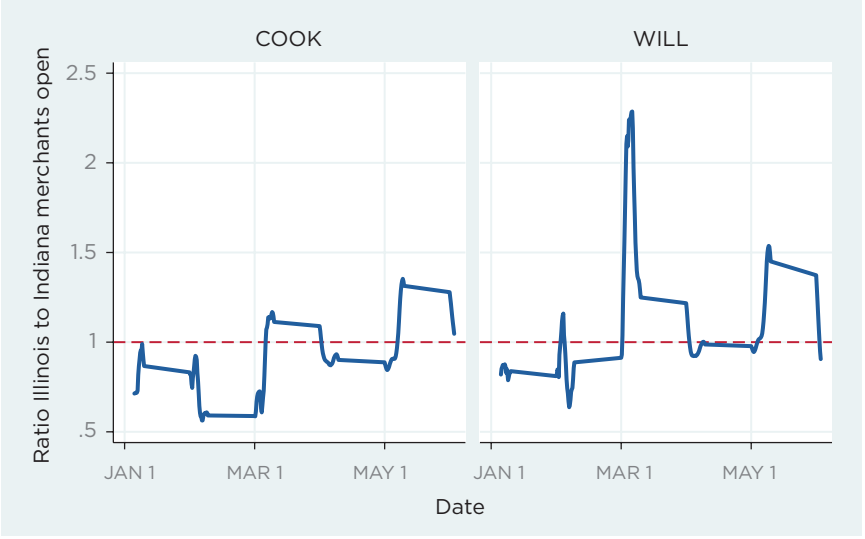


The Tracker Data provide county-level information about the number of merchants that are open and merchant revenues for counties on either side of the Illinois state line. Specifically, this report compares 15 of Illinois' border counties with the corresponding county in an adjacent state with longest border to the Illinois county.

Figures 7 through 10 display the ratio of open merchants over time in Illinois counties that border Indiana, Missouri, Iowa, and Wisconsin. There was insufficient data to study counties that border Kentucky.[11]

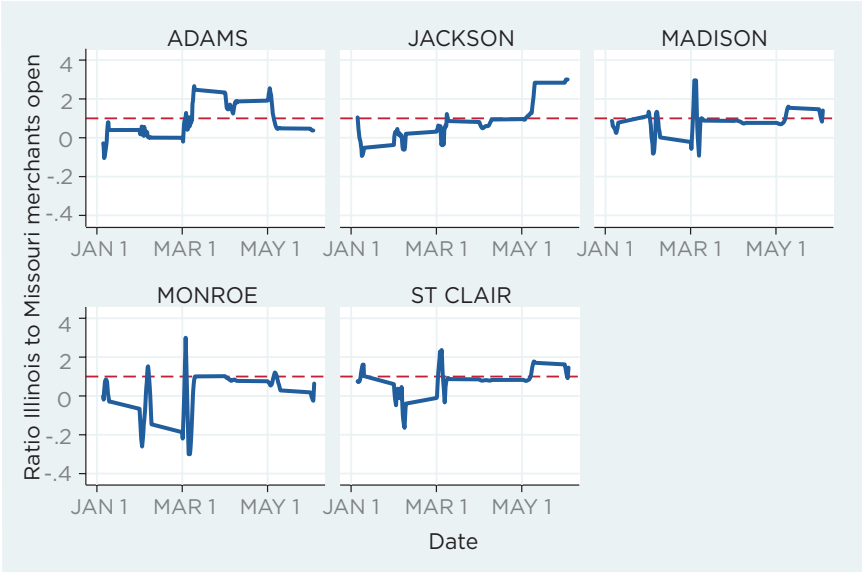
In these graphs, a value greater than one—above the dotted line—indicates that a greater share of merchants in the Illinois county were open, compared to a baseline number of businesses,[12] than in the border county. The data are volatile over time and varies across counties and states. However, the three figures show that prior to early March, Illinois border counties often had a smaller share of open merchants when compared to their bordering county. Later in the period, from about early April, most Illinois counties appeared to perform as well, or better, than their border partners. No clear state-to-state patterns emerge.

Figure 7: Illinois counties that border Indiana



Seven-day moving average of ratio of merchants_all in Illinois and border county. Values greater than 3 or less than -3 are truncated. Source: Chetty, et al., 2020 (see endnote 4).

Figure 8: Illinois counties that border Missouri

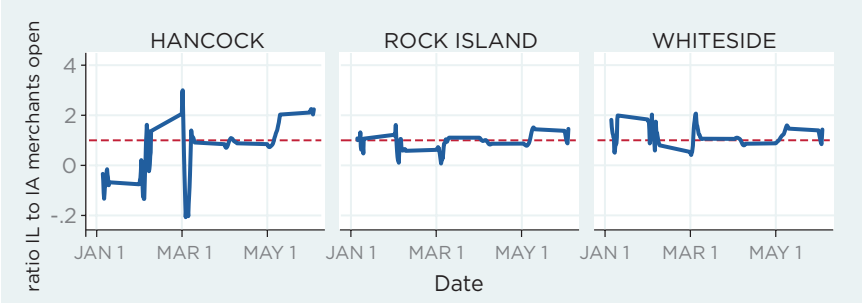


Seven-day moving average of ratio of merchants_all in Illinois and border county. Values greater than 3 or less than -3 are truncated. Source: Chetty, et al., 2020 (see endnote 4).

Figures 11 to 14 examine revenue rather than the share of open merchants and compare Illinois counties to those that border them.

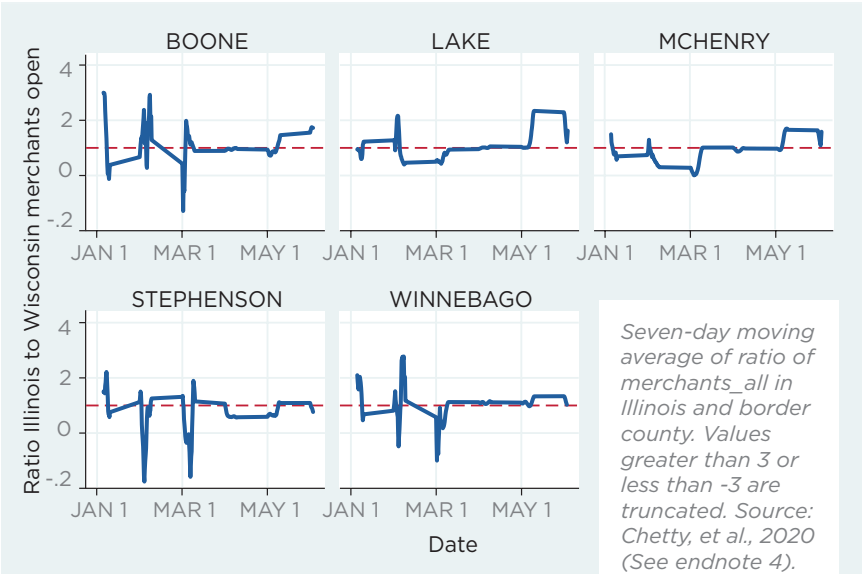
The results are generally quite similar, although Illinois counties that border Missouri (see Figure 12 for Adams, Jackson, Madison and Monroe) and two of those that border Wisconsin (see Figure 14 for Lake and Stephenson) performed less well than their border counterparts did after April. On the other hand, small

Figure 9: Illinois counties that border Iowa



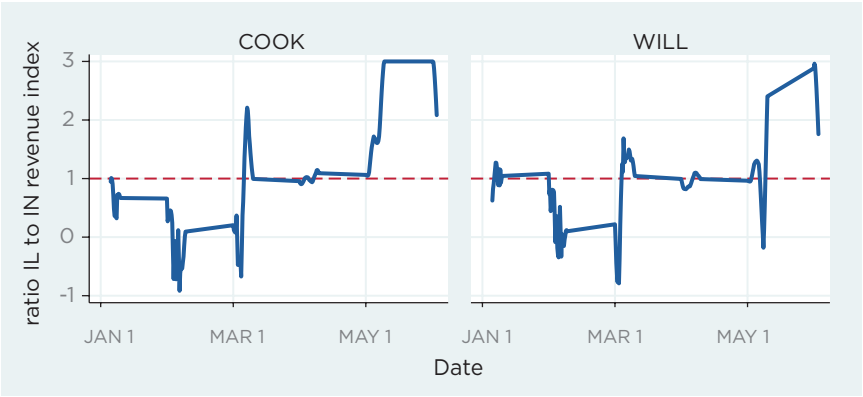
Seven-day moving average of ratio of merchants_all in Illinois and border county. Values greater than 3 or less than -3 are truncated. Source: Chetty, et al., 2020 (see endnote 4).

Figure 10: Illinois counties that border Wisconsin



Seven-day moving average of ratio of merchants_all in Illinois and border county. Values greater than 3 or less than -3 are truncated. Source: Chetty, et al., 2020 (See endnote 4).

Figure 11: Illinois counties that border Indiana



Seven-day moving average of ratio of revenue_all in Illinois and border county. Values greater than 3 or less than -3 are truncated. Source: Chetty, et al., 2020 (see endnote 4).

businesses in St. Clair County seemed to do better than their neighboring county in Missouri. Businesses in Boone and Winnebago counties seemed to do better than neighboring counties in Wisconsin at least during the end of the period. Rock Island and Whiteside county businesses also were outperforming their border counties in Iowa toward the end of the period.

CONCLUSION

Evidence presented here demonstrates that the COVID-19 pandemic had major negative impacts on small businesses in Illinois and neighboring states.

The vast majority of businesses reported a moderate or large negative impact from the pandemic. That impact moderated somewhat over time but remained severe even in late June. Many small businesses had only a few weeks of cash on hand early in the pandemic and that improved only gradually. Many small businesses were forced to close, at least temporarily, and small business revenue plummeted.

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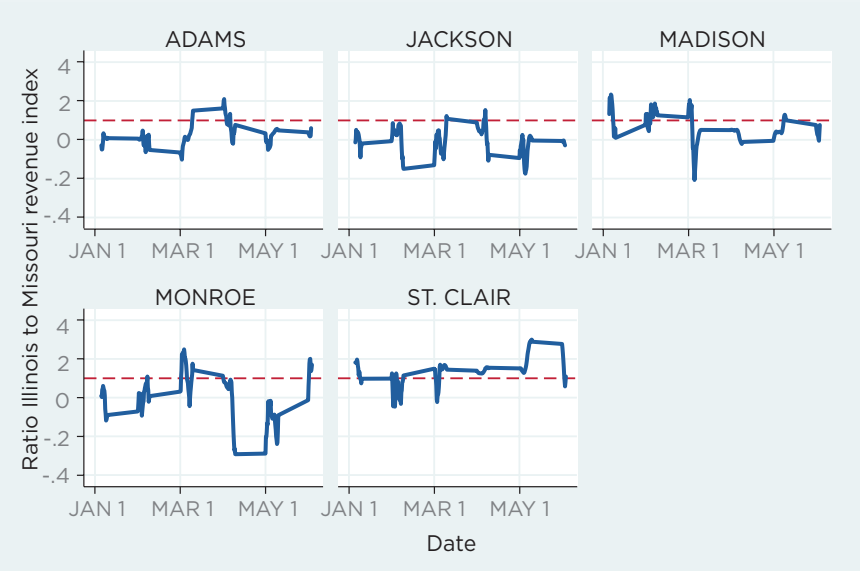
We see similar patterns between Illinois and each of its neighboring states and there is little evidence that states' stay-at-home orders were a significant predictor of the negative economic outcomes for small business.

Of course, the data currently available only provide information about short-term impacts and may not capture impacts on the full range of small businesses.

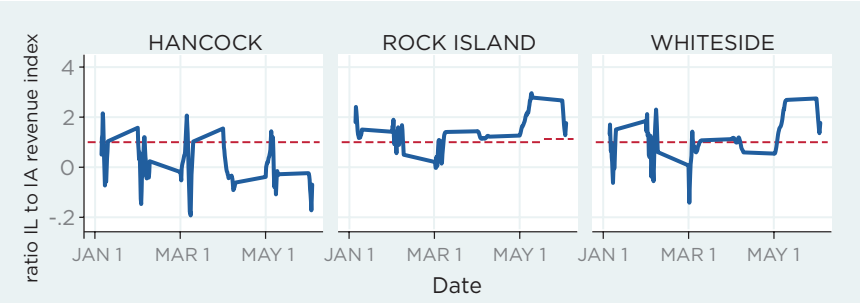
The pandemic's economic impact is driven by many factors including the incidence of the disease, pre-existing economic and structural conditions, and public policies. However, more study is needed before economic effects on small business can be attributed to any single cause.

Figure 12: Illinois counties that border Missouri



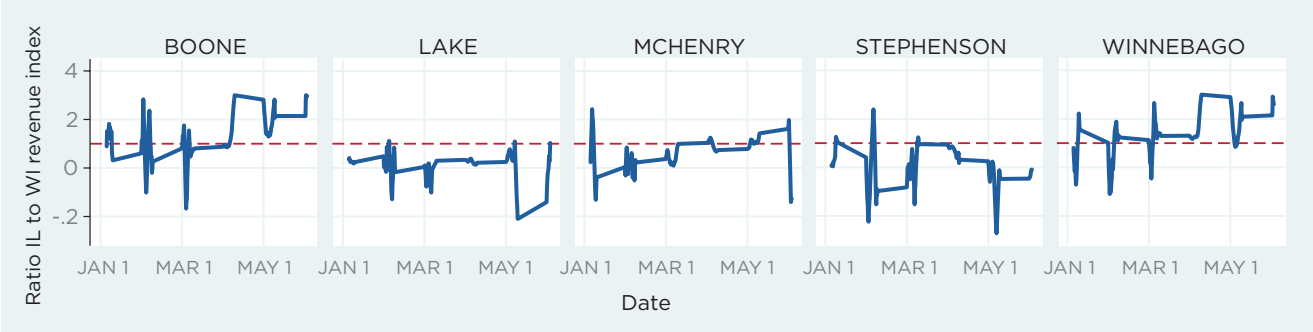
Seven-day moving average of ratio of revenue_all in Illinois and border county. Values greater than 3 or less than -3 are truncated. Source: Chetty, et al., 2020 (see endnote 4).

Figure 13: Illinois counties that border Iowa



Seven-day moving average of ratio of revenue_all in Illinois and border county. Values greater than 3 or less than -3 are truncated. Source: Chetty, et al., 2020 (see endnote 4).

Figure 14: Illinois counties that border Wisconsin



Seven-day moving average of ratio of revenue_all in Illinois and border county. Values greater than 3 or less than -3 are truncated. Source: Chetty, et al., 2020 (see endnote 4).

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We are honored to have the opportunity to harness our collective research and experience to serve our neighbors and the residents of Illinois during a time of great need.

Respectfully submitted,

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ENDNOTES

[1] "Stay at Home FAQ," Illinois Department of Public Health, https://coronavirus.illinois.gov/s/stay-at-home-faqs#a1About%20the%20Order, accessed Oct. 12, 2020.

[2] Dates of stay-at-home orders found at "Coronavirus Reopening: Map of COVID-19 Case Trends, Reopening Status and Mobility," *USA Today*, updated Oct. 12, 2020, accessed Oct. 12, 2020, https://www.usatoday.com/storytelling/coronavirus-reopening-america-map/

[3] Illinois Department of Employment Security, "Illinois and Chicago Metropolitan Area Unemployment Rates," accessed Oct. 12, 2020, https://www2.illinois.gov/ides/lmi/Local%20Area%20Unemployment%20Statistics%20LAUS/ILChicagoMetroAreaUnemploymentRates/table1.pdf.

[4] Chetty, Raj, et al, "How Did COVID-19 and Stabilization Policies Affect Spending and Employment? A New Real-Time Economic Tracker Based on Private Sector Data," opportunityinsights.org, June 2020, accessed Oct. 12, 2020, https://opportunityinsights.org/wp-content/uploads/2020/05/tracker_paper.pdf.

[5] Powers, Elizabeth T., "Child Care is Foundational to Economic Recovery," Policy Spotlight, Institute of Government and Public Affairs, University of Illinois System, June 16, 2020, https://igpa.uillinois.edu/report/policy-spotlight-child-care-capacity.

[6] Kwak, James, "The End of Small Business," *Washington Post*, July 9, 2020, accessed Oct. 12, 2020, https://perma.cc/SW7D-53L7.

[7] The U.S. Census Bureau describes the SBPS as follows: The target population is all nonfarm, single-location employer businesses with 1-499 employees and receipts of $1,000 or more in the 50 states. ... The sample for the Small Business Pulse Survey is not a probability sample, although weights were applied to ensure that each weekly panel represented the full population. ... The Small Business Pulse Survey may be subject to non-response bias, as businesses that have closed due to COVID-19 may not be receiving the invitation to participate, so are unable to respond.

[8] Chetty et. al, "COVID-19 and Stabilization Policies," p.9, describes Womply as "a company that aggregates data from several credit card processors to provide analytical insights to small businesses and other clients." Additional information about Womply can be found at https://womply.com.

[9] Indiana's stay-at-home order was relaxed on May 4 during the first week of SBFS data collection, https://chicago.cbslocal.com/2020/05/01/indiana-easing-stay-at-home-order-roadmap-back-on-track-reopening-covid-19-coronavirus/.

[10] Chetty et. al, "COVID-19 and Stabilization Policies," p.7, notes that a major disadvantage of the Tracker Data as "is that they capture information exclusively about the customers each company serves, and thus are not necessarily representative of the full population." In this report's use of the Tracker Data, it is possible that the Tracker Data may be differently representative of the full population in the geographic areas presented here. That is, as one example, the Tracker Data may be quite representative of business activity in Cook County but could be less representative in less-urban counties around the region. Thus, readers should interpret these results with appropriate caution.

[11] Michigan does not border Illinois except in Lake Michigan.

[12] Chetty et. al, "COVID-19 and Stabilization Policies," describes the exact procedures used to derive the baseline number of businesses in each county. Roughly speaking, the baseline number of open businesses is the number of open businesses in the county in mid-January 2020 adjusted for seasonality.

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Audience

IGPA Impact Reports are intended to be useful to policymakers and stakeholders, including but not limited to University of Illinois System leaders, state legislators, Gov. J.B. Pritzker's office, state agencies, news media, nonprofits, educators, volunteer organizations, and faith leaders.

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Pg. 1 - Sorry we're closed #1220064309 by Kanawa Studio

Pg. 6 - Virus/finance chart #1212761329 by Jira Pliankharom

Pg. 7 - Masked Ben Franklin #1218811591 by Feverpitched

Pg. 7 - Reopening sign #1226569534 by Leo Patrizi

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