



## The Economic Impact of Covid-19 on Illinois Counties

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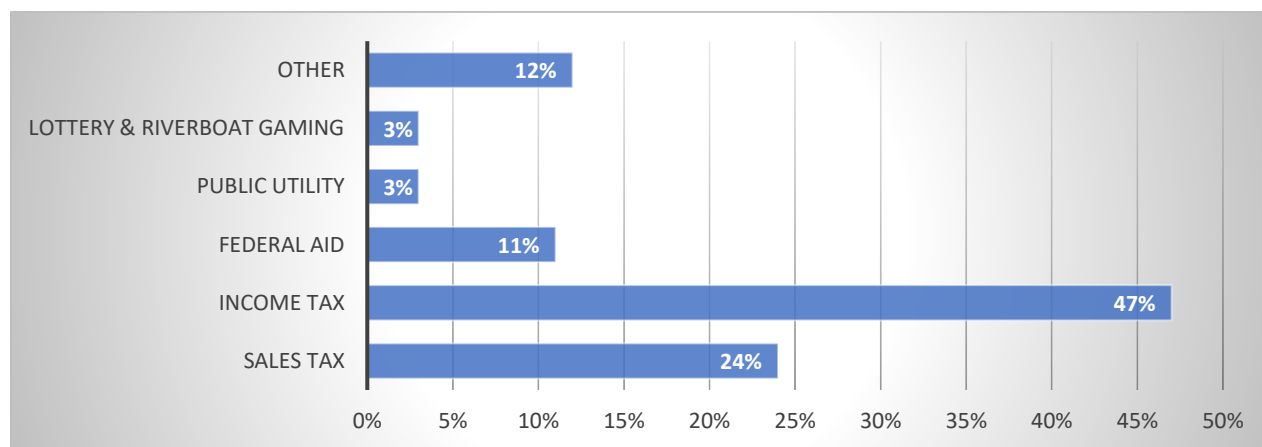
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The economic impact of Covid-19 is being felt by Illinoisans in a variety of ways, from layoffs and furloughs to price hikes in essentials such as grocery products.<sup>2</sup> It has also changed the fiscal outlooks of state and local governments, low revenues and increased spending will be the norm for this year and probably next fiscal year. People are staying home; it means low sales tax revenue, and 2019 income tax filings have been delayed until July 15, 2020, another ‘topline’<sup>3</sup> revenue loss for the state budget. About one-half of the state revenue comes from income tax (Figure 1), but with unemployment insurance claims increasing at the rate of 2.64% per day since April 4, 2020,<sup>4</sup> this source of income is sure to be much lower than the expected \$19.74B<sup>5</sup>.

Figure 1: Revenue Sources for Illinois



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<sup>2</sup> Households paid an average 13% extra for groceries purchased online during the period March 13, 2020 to April 19, 2020; see IRI (2020). *The changing shape of the CPG demand curve*.

<sup>3</sup> The term topline is used to denote gross revenue in the management literature.

<sup>4</sup> Growth rate calculated by the author using advance state claims data, not seasonally adjusted, published by the Department of Labor for the period April 4 to April 18, 2020.

<sup>5</sup> Total expected revenue is \$42B; source: <https://www2.illinois.gov/sites/budget/Documents/April-2020-GOMB-Revenue-Forecast-Revision.pdf>

The state isn't imposing budget cuts yet, but Governor Pritzker recognizes that the budget proposal is no longer valid;<sup>6</sup> one estimate places budget cuts to be around \$8B or 20% of the total budget<sup>7</sup>. According to Moody's analytics, Illinois is unprepared even for a moderate recession; tax revenue shortfall, and Medicaid spending increases are expected to result in a fiscal shock of at least -16.8%<sup>8</sup>. In general, the worse off the state, the slower the economic recovery; Moody's analytics place Illinois in the "worst" cluster of states.

A majority of Illinoisans, 54%, believe that the virus will cause a recession<sup>9</sup>. How bad the downturn is going to be depends predominantly on the status of the workforce. How do unemployment claims differ by industry? What kind of economic recovery scenario could emerge under the pandemic, and do they differ between metro and nonmetro regions? Which industries are vulnerable and pressured, and which ones are healthier? This paper addresses these and other similar questions.

## 2.0. Unemployment Claims

Employees in the accommodation and food services top the list of claimants, followed by employees in the arts, entertainment, and recreational industries. Educational services are least affected (Table 1). The low number of claims from retail employees for unemployment insurance (3%) suggests that the bulk of employment in the sector is in food and grocery businesses.

**Table 1: Unemployment Claims by Industry**

Industry	% Claims
Accommodation and Food Services	40%
Arts, Entertainment, and Recreation	20%
Manufacturing	13%
Healthcare and Social Assistance	6%
Transportation and Warehousing	5%
Educational Services	3%
Retail Trade	3%
Other	10%
Total, N = 655, 498	100%

**Note:** Estimated by the author using WARN, and DOL data, March 2020 and April 2020 data.

<sup>6</sup> See [https://herald-review.com/news/local/govt-and-politics/covid-19-illinois-senate-house-cancel-next-week-s-session/article\\_e8528579-c6de-53a0-853d-9ed3ce67cd87.html](https://herald-review.com/news/local/govt-and-politics/covid-19-illinois-senate-house-cancel-next-week-s-session/article_e8528579-c6de-53a0-853d-9ed3ce67cd87.html)

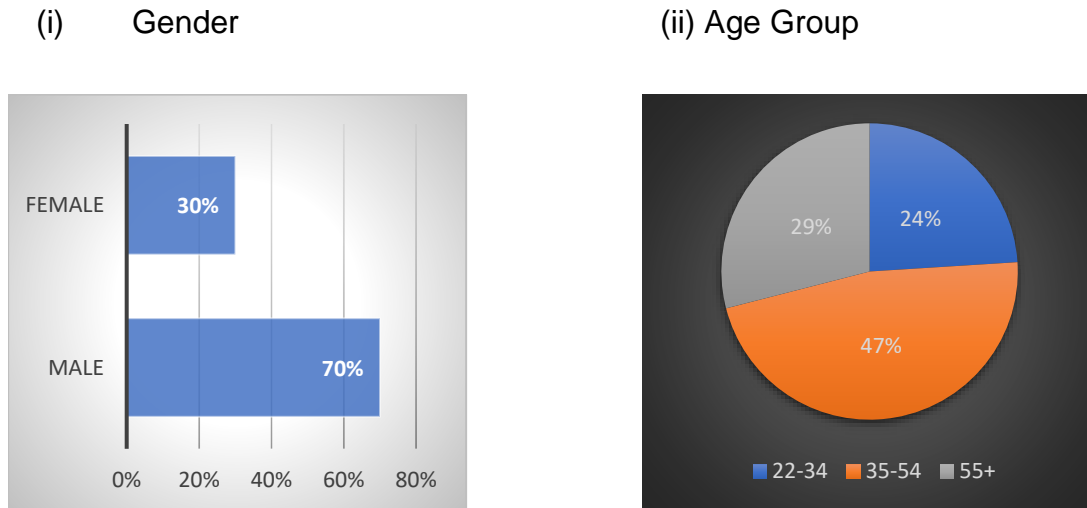
<sup>7</sup> <https://www.centralillinoisproud.com/news/local-news/state-budget-to-be-cut-by-up-to-8-billion-due-to-covid-19-outbreak/>

<sup>8</sup> Crane, S., and Seitz, C. (2019). *Stress Testing States 2019*. Moody's Analytics, October 2019.

<sup>9</sup> <http://www.iira.org/wp-content/uploads/2020/04/Illinoisans%E2%80%99-Perceptions-about-their-State-Government-Economy-and-Healthcare-During-the-Covid-19-Pandemic.pdf>

The majority of unemployment-insurance claimants were male (70%), white (62%), and predominantly in the 35-54 age group (Figure 1).

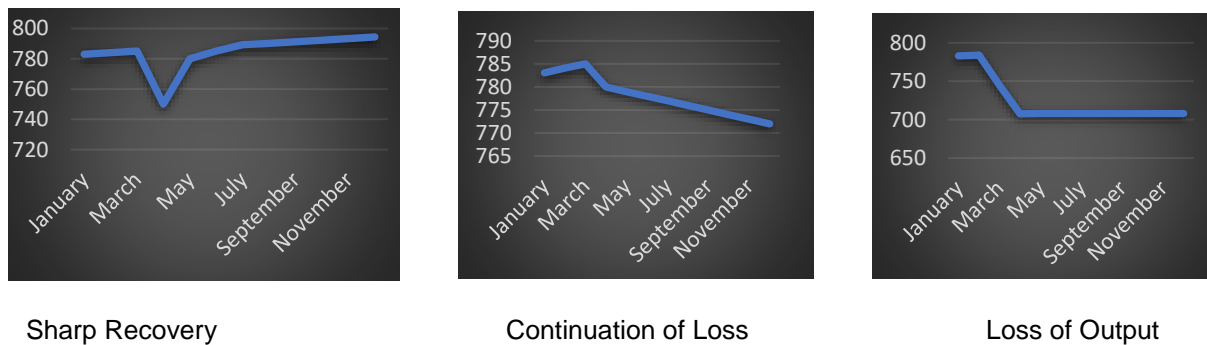
**Figure 1: Demographics of Claimants of Unemployment Insurance**



### 3.0. Recovery Scenarios

The determinants of economic recovery from Covid-19 include: the growth rate or spread of the virus, and societal actions or adherence to mitigation practices such as social distancing. Past experience with economic shocks, for example, the great recession, suggests three scenarios<sup>10</sup> (Figure 2).

**Figure 2: Probable Scenarios for Economic Recovery from Covid-19**

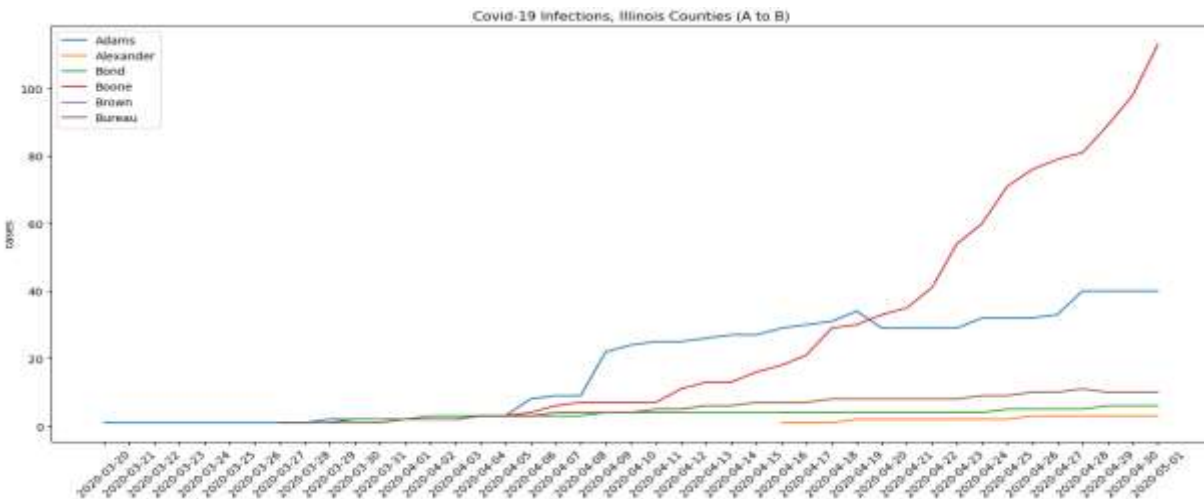


<sup>10</sup> Adapted from IRI's research on Covid-19; see IRI (2020). *The changing shape of the CPG demand curve.*

In scenario 1, the left most chart in Figure 2, there is a sharp recovery, “V” curve; in the middle of Figure 2 is shown the continuation of losses, and a large loss in output is depicted in scenario 3, the chart on the far right in Figure 2.

To gain insights into the likely occurrences of the scenarios, we make use of the daily growth rates of Covid-19 in Illinois counties, and mobility scores for the counties provided by Google<sup>11</sup>. For example, in Figure 3, Bond County has controlled the infection or flattened the curve, whereas Adams and Boone have increasing numbers of Covid-19 infections. A cursory examination of the counties’ mobility scores suggests that compared to Adams County, residents of Bond County travel less and refrain from retail and recreational activities (Table 2). In other words, societal actions in mitigating the spread of Covid-19 promise a sharp economic recovery in Bond County, and probably prolonged recession for Adams and Boone. Appendix 1 provides Covid-19 growth rates and mobility scores for all Illinois counties.

**Figure 3: Covid-19 Cases: Illinois Counties Adams to Bureau**



**Table 2: Mobility Scores, as at April 26, 2020**

County	Retail and Recreation	Grocery and Pharmacy	Transit Stations	Workplace	Residential
Adams	-0.25	-0.02	-0.17	-0.27	0.16
Bond	-0.39	0.02	-0.2	-0.21	Not Available

Figure 4 shows a 2 x 2 grid, with Covid-19 growth rate (low and high values) cross-classified with low and high mobility scores; a sample of metro and nonmetro counties

<sup>11</sup> Data on “popular times” for places in Google maps are used to derive change data for the five activities listed in Table 2 and Appendix 1. The basis for comparison is the median value for the activity during the period January 3 to February 6, 2020. See: <https://www.google.com/covid19/mobility/>

that occupy the “low-low” and “high-high” cells are shown. In all, 27.5% of the metro counties, and 28.07% of the nonmetro counties show signs of sharp economic recovery. Appendix 2 classifies all the Illinois counties on the two facets or determinants of economic recovery.

**Figure 4: Model of Economic Recovery for Illinois Counties: A Grid Analysis**

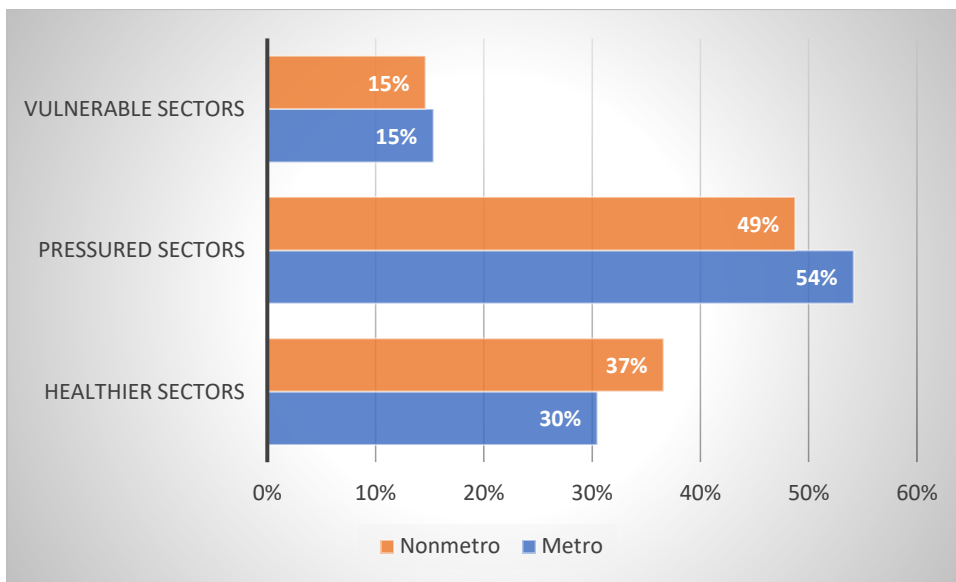
		Mobility Scores	
		Low	High
Covid-19 Growth	High		<p>High probability of protracted recession.</p> <p>Metro Counties: Henry, Macoupin, McLean, and Monroe.</p> <p>Nonmetro: Christian, Jasper, Montgomery, and Pulaski.</p>
	Low	<p>High probability of sharp economic recovery.</p> <p>Metro Counties: Alexander, Ford, Marshall, and Menard.</p> <p>Nonmetro: Fulton, Greene, Hamilton, and Jo Davies.</p>	

**4.0. Sectors in Decline**

An empirical analysis of industrial sectors as at April 2, 2020, performed by S&P Capital IQ and BCG Henderson Institute, highlights the impact of Covid-19 on three industry groups: *vulnerable* sectors such as hospitality, durable goods, and retailing, averaging -41% “total shareholder returns” (TSR); *pressured* industries such as professional services, and transport, with a -27% median TSR, and *healthier* sectors including food &

beverage, household products, and pharma with a median TSR of -13%. Appendix 3 shows the author’s classification or assignment of industries into the three TSR clusters. Figure 6 shows employment numbers in the three industry sectors in the metro and the nonmetro regions, and Table 3 provides estimates of employment losses from Covid-19 (see Appendix 4 for county-wise employment losses); in all, Illinois is expected to lose 387,000 jobs worth \$280.4mil in wages per week<sup>12</sup>.

**Figure 6: Employment Distribution in Vulnerable, Pressured, and Healthier Sectors: Metro and Nonmetro Regions**



**Note:** Total number of private-sector employees in the metro = 4,459,206, and nonmetro = 292,197; data are from the BLS, 2019, 3<sup>rd</sup> quarter.

<sup>12</sup> Three-digit NAICS codes of industries were used to collate county-level employment data from the BLS; data are 2019, 3<sup>rd</sup> quarter numbers. Reduction in employment numbers was computed using layoff and plant closings figures for Illinois published in the WARN report, as at March 2020; see Research Brief, Short Paper: Vol. 2 No. 4 (2020 April 4). For example, if the WARN report states that the manufacturing sector accounts for 40% of the layoffs in March 2020, then that proportion is applied to the employment numbers in manufacturing to arrive at the estimated number of job losses in manufacturing. The dollar value of the reduction in employment was calculated using average weekly wages for the relevant NAICS.

**Table 3: Covid-19: Impacts on Metro and Nonmetro Workforce**

	Employment Losses, Numbers and (\$)	
	Metro	Nonmetro
Healthier Sectors	24,772 (\$26.01mil)	1,254 (\$0.82mil)
Pressured Sectors	102,387 (\$121.55mil)	6,701 (\$6.43mil)
Vulnerable Sectors	232,950 (\$119.67mil)	18,971 (\$5.91mil)
Total	360,109 (\$267.24mil)	26,927 (\$13.16mil)

## 5.0. Summary and Conclusion

The IIRA has continued to monitor the spread of Covid-19 and the resulting labor market impacts using both real-time data from social media and published data from various local, state and federal government sources<sup>13</sup>. This paper addresses questions related to Illinois workforce. Specifically, it is shown that Covid-19 has resulted in job losses; around 387,000 jobs were lost in March 2020, mostly in accommodation, food services, and entertainment industries. The monetary equivalent of workforce reduction is \$1.12B for March 2020.

It is not all doom-and-gloom for Illinois economy because of Covid-19; sharp economic recovery is expected in approximately 30% of the counties both in the metro and the nonmetro region. However, since most Illinoisans work for “pressured sectors” such as manufacturing, it is essential that governments at all levels help businesses to weather this pandemic.

The CARES act<sup>14</sup> provides \$150B to state and local governments, but the funds cannot be used for purposes other than combatting Covid-19. The Federal Reserve has agreed to buy municipal bonds, place \$500B as short-term loans for cities and counties, but a Brookings Institution study contends that the eligibility criteria for the loan qualify only 10 cities and 15 counties for the loan program<sup>15</sup>.

On April 24, 2020, President Trump signed the “Paycheck Protection Program and Healthcare Enhancement Act”; it provides \$60B for small businesses, \$321B for paycheck protection program, \$75B for hospitals, and \$25B for Covid-19 testing. These are steps in the right direction; to stimulate the economy and employment, employment retention measures, and health access for all are necessary.

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<sup>13</sup> see the *Research Briefs* on the topic, online at <http://www.iira.org/2020-2021-publications/>.

<sup>14</sup> US Coronavirus Aid, Relief, and Economic Security Act was signed into law on March 27, 2020 and includes \$2.2 trillion in supplemental appropriations to respond to the virus outbreak.

<sup>15</sup> <https://www.brookings.edu/research/a-chance-to-improve-the-equity-impact-of-the-feds-municipal-lending-facility/>

**Appendix 1: Covid-19 Growth Rates and Mobility Scores for Illinois Counties**

Metro County	No. of Covid-19 Cases	Daily Growth Rate	Mobility Scores					
			Retail and Recreation	Grocery and Pharmacy	Parks	Transit Stations	Workplace	Home
Calhoun	1	0%						
Stark	1	0%					-0.29	
Marshall	4	4%	-0.64				-0.33	
DeWitt	3	4%	-0.37	-0.23			-0.25	
Bond	6	5%	-0.39	0.02		-0.2	-0.21	
Woodford	14	5%	-0.32	0.1			-0.27	0.17
Menard	9	7%	-0.61				-0.4	
Piatt	7	7%	-0.48				-0.19	
Mercer	8	7%	-0.31				-0.15	
Alexander	3	7%					-0.21	
Ford	10	7%	-0.51	-0.11			-0.23	
Williamson	32	8%	-0.21	-0.05	-0.45	-0.11	-0.27	0.15
Jersey	12	9%	-0.47	-0.24			-0.18	
Vermilion	17	9%	-0.13	0		-0.18	-0.24	0.08
Grundy	37	10%	-0.12	-0.03		-0.12	-0.21	0.18
Peoria	93	10%	-0.36	-0.05	0.81	-0.18	-0.31	0.07
Clinton	110	10%	-0.11	-0.02			-0.25	0.15
Tazewell	45	11%	-0.22	0.03	-0.25		-0.27	0.07
Cook	38668	11%	-0.46	-0.15	0.44	-0.54	-0.4	0.12
Jackson	120	11%	-0.39	-0.18	0.33		-0.35	0.16
McLean	97	11%	-0.34	-0.1	-0.46	-0.27	-0.36	0.09
Monroe	71	11%	-0.23	-0.31			-0.28	0.16
Sangamon	195	11%	-0.29	-0.01	0.89	-0.24	-0.3	0.07
Henry	49	11%	-0.35	0.02		-0.47	-0.29	0.17
DeKalb	105	11%	-0.31	-0.04		-0.54	-0.31	0.09
Macoupin	31	12%	-0.45	0.07			-0.3	0.14
Champaign	143	12%	-0.42	-0.18	0.82	-0.32	-0.34	0.11
McHenry	666	13%	-0.31	-0.09	1.75	-0.27	-0.32	0.09
Kendall	281	13%	-0.2	-0.16	-0.36		-0.32	0.1
St. Clair	492	13%	-0.33	-0.05	0.55	-0.19	-0.32	0.08
Winnebago	485	13%	-0.29	-0.11	1.26	-0.29	-0.33	0.07
Madison	335	13%	-0.27	-0.01	0.92	0.01	-0.3	0.08
Kankakee	350	13%	-0.29	0.01		0.06	-0.25	0.07
Macon	109	14%	-0.22	-0.04		-0.07	-0.28	0.07
Kane	1677	14%	-0.39	-0.12	1.96	-0.18	-0.35	0.1
Rock Island	389	15%	-0.34	0.13	0.04	-0.22	-0.3	0.06



Lake	3766	16%	-0.4	-0.13	1.25	-0.32	-0.35	0.1
DuPage	3256	17%	-0.48	-0.13	1.06	-0.47	-0.39	0.11
Will	2617	17%	-0.35	-0.1	1.04	-0.12	-0.33	0.1
Boone	113	18%	-0.17	-0.07		-0.47	-0.35	0.2
<b>MEDIAN</b>	95	11%	-0.34	-0.05	0.815	-0.22	-0.3	0.1

**Nonmetro**

Rural County	No. of Covid-19 Cases	Daily Growth Rate	Mobility Scores					
			Retail and Recreation	Grocery and Pharmacy	Parks	Transit Stations	Workplace	Home
Hardin	1	0%						
Pike	1	0%	-0.23	-0.06			-0.23	
Cumberland	3	2%	-0.62			-0.16	-0.34	
Gallatin	2	3%					-0.39	
Wabash	2	3%	-0.5	-0.19			-0.44	
Schuylar	2	3%	-0.55				-0.28	
Saline	3	3%	-0.13	0.02			-0.19	
Clay	2	4%	-0.33				-0.28	
Lawrence	3	5%	-0.25				-0.16	
Richland	3	5%	-0.4	-0.02			-0.15	
Massac	4	5%	-0.46	-0.1			-0.29	
Wayne	2	5%	-0.38	0.09			-0.23	
Clark	5	5%	-0.35			-0.25	-0.31	
Fulton	3	5%	-0.36	-0.08			-0.25	0.15
Greene	3	5%	-0.6	0.02			-0.2	
Washington	10	5%	-0.62	-0.06			-0.46	
Logan	7	5%	-0.43	-0.21			-0.27	0.06
Hamilton	2	5%	-0.44				-0.34	
Moultrie	5	6%	-0.56				-0.31	
Franklin	8	6%	-0.22	0.01		-0.28	-0.19	0.13
White	2	6%	-0.42	-0.07			-0.27	
Effingham	6	6%	-0.3	0.03		-0.28	-0.33	0.12
Jo Davies	13	6%	-0.46	-0.02			-0.34	
Carroll	9	6%	-0.52	0.14			-0.24	
Bureau	11	7%	-0.36	0.14			-0.19	0.03
Crawford	10	7%	-0.36	0.22			-0.28	
Livingston	20	7%	-0.31	0.22			-0.22	0.15
Douglas	16	7%	-0.55	0.14			-0.27	
Johnson	4	8%	-0.54		0.13		-0.35	
Hancock	6	8%	-0.37	0.17			-0.13	

Mason	12	8%	-0.15	0.35			-0.19	
Christian	30	8%	-0.34	-0.2			-0.31	0.09
Fayette	16	8%	-0.31	-0.1			-0.16	
Morgan	24	9%	-0.19	0.07		-0.09	-0.27	0.06
Adams	40	9%	-0.25	-0.02		-0.17	-0.27	0.16
LaSalle	54	9%	-0.25	0.2	0.08	-0.1	-0.25	0.06
Whiteside	87	10%	-0.25	0.08			-0.22	0.16
Stephenson	45	10%	-0.15	-0.1			-0.22	0.16
Shelby	10	10%	-0.26				-0.32	
Iroquois	31	10%	-0.31	0.16		-0.32	-0.21	0.03
Montgomery	26	10%	-0.43	-0.06			-0.28	
Marion	34	11%	-0.35	0.05		-0.44	-0.28	0.13
Henderson	5	11%					-0.22	
Knox	47	12%	-0.23	0.11		-0.08	-0.27	0.16
Lee	24	12%	-0.25	0.23			-0.22	0.15
Coles	22	13%	-0.25	0.17		-0.46	-0.29	0.16
Pulaski	20	14%					-0.36	
Jasper	44	14%	-0.54				-0.25	
McDonough	18	14%	-0.31	-0.09			-0.25	
Ogle	122	15%	-0.29	-0.06			-0.22	0.17
Perry	24	16%	-0.45	-0.05			-0.35	
Randolph	164	16%	-0.28	0.04			-0.23	0.1
Jefferson	85	18%	-0.2	-0.13		-0.17	-0.38	0.15
Union	19	18%	-0.24	-0.1			-0.13	
Warren	70	21%	-0.19	0.1			-0.24	
Cass	34	32%	-0.17	0.1			-0.19	
Brown	1							
<b>MEDIAN</b>	10	8%	-0.335	0.02	0.105	-0.21	-0.27	0.14

**Note:** A negative mobility score indicates that the activity has declined from the baseline measure; a positive mobility score for “Home” indicates that staying at home has increased.

**Appendix 2: Model of Economic Recovery for Illinois Counties**

(i) **Counties that are likely to achieve sharp economic recovery**

<b>Metro County</b>	<b>Nonmetro County</b>
Alexander; Calhoun; DeWitt; Ford; Jersey; Marshall; Menard; Mercer; Peoria; Piatt; Stark; Williamson.	Clark; Clay; Cumberland; Douglas; Effingham; Fulton; Gallatin; Greene; Hamilton; Jo Davies; Lawrence; Logan; Massac; Moultrie; Schuyler; Wabash; Washington; White.

(ii) **Counties that may suffer protracted recession**

<b>Metro County</b>	<b>Nonmetro County</b>
Boone; Champaign; DuPage; Kankakee; Lake; Madison; Macon; McHenry; Rock Island; St. Clair; Will; Winnebago.	Adams; Christian, Cass; Coles; Iroquois; Knox; Lee; LaSalle; McDonough; Morgan; Ogle; Randolph; Stephenson; Warren; Union; Whiteside.

**Note:** Counties that are not categorized bridge these two classifications; in other words, they have median growth rate of Covid-19 (11% for metro and 8% for nonmetro) and most of these counties score above the median in mobility ratings. The metro counties that lag behind others in mobility scores, that is, metro counties that do not take actions in mitigating the virus as much as their counterparts in other metro counties are: Jackson County, and Sangamon County. Similarly, nonmetro counties that need to take actions in mitigating the spread of the virus include: Fayette, Hancock, Mason, and Morgan.

### Appendix 3: Vulnerable, Pressured, and Healthier Sectors and their Constituent Industries

Healthier sectors	NAICS 311 Food manufacturing
Healthier sectors	NAICS 312 Beverage and tobacco product manufacturing
Healthier sectors	NAICS 424 Merchant wholesalers, nondurable goods
Healthier sectors	NAICS 445 Food and beverage stores
Healthier sectors	NAICS 446 Health and personal care stores
Healthier sectors	NAICS 452 General merchandise stores
Healthier sectors	NAICS 454 Non-store retailers
Healthier sectors	NAICS 491 Postal service
Healthier sectors	NAICS 492 Couriers and messengers
Healthier sectors	NAICS 515 Broadcasting, except internet
Healthier sectors	NAICS 517 Telecommunications
Healthier sectors	NAICS 518 Data processing, hosting and related services
Healthier sectors	NAICS 519 Other information services
Healthier sectors	NAICS 562 Waste management and remediation services
Healthier sectors	NAICS 622 Hospitals
Pressured Sectors	NAICS 111 Crop production
Pressured Sectors	NAICS 112 Animal production and aquaculture
Pressured Sectors	NAICS 113 Forestry and logging
Pressured Sectors	NAICS 114 Fishing, hunting and trapping
Pressured Sectors	NAICS 115 Agriculture and forestry support activities
Pressured Sectors	NAICS 221 Utilities
Pressured Sectors	NAICS 236 Construction of buildings
Pressured Sectors	NAICS 237 Heavy and civil engineering construction
Pressured Sectors	NAICS 238 Specialty trade contractors
Pressured Sectors	NAICS 313 Textile mills
Pressured Sectors	NAICS 314 Textile product mills
Pressured Sectors	NAICS 315 Apparel manufacturing
Pressured Sectors	NAICS 316 Leather and allied product manufacturing
Pressured Sectors	NAICS 321 Wood product manufacturing
Pressured Sectors	NAICS 322 Paper manufacturing
Pressured Sectors	NAICS 324 Petroleum and coal products manufacturing
Pressured Sectors	NAICS 325 Chemical manufacturing
Pressured Sectors	NAICS 326 Plastics and rubber products manufacturing
Pressured Sectors	NAICS 327 Nonmetallic mineral product manufacturing
Pressured Sectors	NAICS 331 Primary metal manufacturing
Pressured Sectors	NAICS 332 Fabricated metal product manufacturing
Pressured Sectors	NAICS 333 Machinery manufacturing
Pressured Sectors	NAICS 334 Computer and electronic product manufacturing
Pressured Sectors	NAICS 335 Electrical equipment and appliance mfg.
Pressured Sectors	NAICS 336 Transportation equipment manufacturing
Pressured Sectors	NAICS 337 Furniture and related product manufacturing
Pressured Sectors	NAICS 339 Miscellaneous manufacturing
Pressured Sectors	NAICS 423 Merchant wholesalers, durable goods
Pressured Sectors	NAICS 425 Electronic markets and agents and brokers
Pressured Sectors	NAICS 442 Furniture and home furnishings stores
Pressured Sectors	NAICS 443 Electronics and appliance stores

Pressured Sectors	NAICS 444 Building material and garden supply stores
Pressured Sectors	NAICS 483 Water transportation
Pressured Sectors	NAICS 484 Truck transportation
Pressured Sectors	NAICS 485 Transit and ground passenger transportation
Pressured Sectors	NAICS 486 Pipeline transportation
Pressured Sectors	NAICS 488 Support activities for transportation
Pressured Sectors	NAICS 493 Warehousing and storage
Pressured Sectors	NAICS 522 Credit intermediation and related activities
Pressured Sectors	NAICS 523 Securities, commodity contracts, investments
Pressured Sectors	NAICS 524 Insurance carriers and related activities
Pressured Sectors	NAICS 525 Funds, trusts, and other financial vehicles
Pressured Sectors	NAICS 541 Professional and technical services
Pressured Sectors	NAICS 551 Management of companies and enterprises
Pressured Sectors	NAICS 561 Administrative and support services
Pressured Sectors	NAICS 621 Ambulatory health care services
Pressured Sectors	NAICS 624 Social assistance
Pressured Sectors	NAICS 811 Repair and maintenance
Pressured Sectors	NAICS 813 Membership associations and organizations
Vulnerable Sectors	NAICS 211 Oil and gas extraction
Vulnerable Sectors	NAICS 212 Mining, except oil and gas
Vulnerable Sectors	NAICS 213 Support activities for mining
Vulnerable Sectors	NAICS 323 Printing and related support activities
Vulnerable Sectors	NAICS 441 Motor vehicle and parts dealers
Vulnerable Sectors	NAICS 447 Gasoline stations
Vulnerable Sectors	NAICS 448 Clothing and clothing accessories stores
Vulnerable Sectors	NAICS 451 Sports, hobby, music instrument, book stores
Vulnerable Sectors	NAICS 453 Miscellaneous store retailers
Vulnerable Sectors	NAICS 481 Air transportation
Vulnerable Sectors	NAICS 482 Rail transportation
Vulnerable Sectors	NAICS 487 Scenic and sightseeing transportation
Vulnerable Sectors	NAICS 511 Publishing industries, except internet
Vulnerable Sectors	NAICS 512 Motion picture and sound recording industries
Vulnerable Sectors	NAICS 521 Monetary authorities - central bank
Vulnerable Sectors	NAICS 531 Real estate
Vulnerable Sectors	NAICS 532 Rental and leasing services
Vulnerable Sectors	NAICS 533 Lessors of nonfinancial intangible assets
Vulnerable Sectors	NAICS 611 Educational services
Vulnerable Sectors	NAICS 623 Nursing and residential care facilities
Vulnerable Sectors	NAICS 711 Performing arts and spectator sports
Vulnerable Sectors	NAICS 712 Museums, historical sites, zoos, and parks
Vulnerable Sectors	NAICS 713 Amusements, gambling, and recreation
Vulnerable Sectors	NAICS 721 Accommodation
Vulnerable Sectors	NAICS 722 Food services and drinking places
Vulnerable Sectors	NAICS 812 Personal and laundry services
Vulnerable Sectors	NAICS 814 Private households

#### Appendix 4: Impact of Covid-19 on Workforce

##### (i) Expected Number of Job Loss by County

Metro County	Healthier sectors	Pressured Sectors	Vulnerable Sectors	All
Alexander	1	0	43	44
Bond	11	18	142	171
Boone	28	966	463	1,457
Calhoun	1	1	45	47
Champaign	499	1,342	4,657	6,497
Clinton	31	134	536	701
Cook	13,260	45,709	121,138	180,108
De Witt	4	13	185	203
DeKalb	129	538	1,428	2,095
DuPage	2,407	13,733	21,856	37,996
Ford	6	18	99	123
Grundy	60	348	809	1,216
Henry	29	185	499	713
Jackson	55	147	1,139	1,341
Jersey	16	17	323	356
Kane	839	5,356	9,037	15,232
Kankakee	318	898	1,841	3,057
Kendall	97	501	1,519	2,117
Lake	1,383	9,315	13,387	24,085
Macon	84	462	1,973	2,520
Macoupin	21	82	69	171
Madison	493	2,319	5,350	8,162
Marshall	3	35	28	65
McHenry	245	2,461	4,371	7,077
McLean	152	675	4,200	5,027
Menard	0	5	12	17
Mercer	4	17	109	130
Monroe	20	59	633	711
Peoria	831	1,579	3,688	6,098
Piatt	4	11	212	227
Rock Island	156	1,153	2,619	3,928
Sangamon	727	1,145	4,240	6,111
St. Clair	461	1,405	4,871	6,737
Stark	1	5	13	20
Tazewell	140	1,066	2,772	3,978
Vermilion	137	502	917	1,556
Will	1,119	5,672	10,644	17,435
Williamson	68	260	1,243	1,570
Winnebago	914	4,044	5,396	10,353
Woodford	16	192	446	654
<b>SUM</b>	<b>24,772</b>	<b>102,387</b>	<b>232,950</b>	<b>360,109</b>

<b>Rural County</b>	<b>Healthier sectors</b>	<b>Pressured Sectors</b>	<b>Vulnerable Sectors</b>	<b>All</b>
Adams	94	576	1,338	2,008
Brown	0	51	32	83
Bureau	22	251	309	582
Carroll	7	46	128	181
Cass	5	13	80	98
Christian	27	77	284	389
Clark	4	39	166	209
Clay	14	221	18	253
Coles	48	272	902	1,221
Crawford	13	43	34	90
Cumberland	3	19	6	28
Douglas	10	230	340	580
Edgar	12	94	158	263
Edwards	2	8	11	20
Effingham	49	450	1,294	1,793
Fayette	16	37	285	338
Franklin	20	107	448	575
Fulton	24	56	291	370
Gallatin	1	1	1	3
Greene	5	8	93	105
Hamilton	1	5	64	71
Hancock	6	20	144	170
Hardin	0	1	8	9
Henderson	3	1	1	6
Iroquois	13	50	284	346
Jasper	1	4	52	57
Jefferson	127	163	791	1,081
Jo Daviess	22	51	616	689
Johnson	2	11	55	68
Knox	96	113	995	1,204
LaSalle	172	977	1,945	3,094
Lawrence	1	9	123	133
Lee	20	255	348	623
Livingston	30	114	385	529
Logan	21	50	370	441
Marion	21	147	523	691
Mason	6	21	15	42
Massac	4	9	139	153
McDonough	27	206	464	696
Montgomery	20	107	429	556
Morgan	32	80	827	938
Moultrie	6	200	129	334
Ogle	27	312	606	945
Perry	12	37	138	187
Pike	15	21	156	191
Pope	0	0	0	0
Pulaski	1	4	1	6

Putnam	2	3	6	11
Randolph	19	102	378	498
Richland	13	61	227	301
Saline	22	58	335	416
Schuyler	1	1	1	3
Scott	0	1	0	1
Shelby	4	21	228	253
Stephenson	30	168	614	812
Union	24	38	238	300
Wabash	5	20	10	35
Warren	10	26	20	55
Washington	13	28	158	199
Wayne	5	46	7	58
White	9	16	37	62
Whiteside	39	545	891	1,476
SUM	1,254	6,701	18,971	26,927

**(ii) Monetary Loss Associated with Job Loss, per Week Estimates**

Metro County	Healthier sectors	Pressured Sectors	Vulnerable Sectors	All
Alexander	\$ 459	\$ 138	\$ 12,241	\$ 12,837
Bond	\$ 7,335	\$ 13,038	\$ 35,974	\$ 56,347
Boone	\$ 15,354	\$ 921,708	\$ 142,980	\$ 1,080,042
Calhoun	\$ 260	\$ 411	\$ 7,820	\$ 8,491
Champaign	\$ 312,087	\$ 1,581,872	\$ 1,650,134	\$ 3,544,092
Clinton	\$ 17,980	\$ 117,574	\$ 155,301	\$ 290,855
Cook	\$ 15,124,728	\$ 52,030,460	\$ 74,981,477	\$ 142,136,665
De Witt	\$ 1,935	\$ 12,202	\$ 58,238	\$ 72,375
DeKalb	\$ 83,795	\$ 586,142	\$ 458,180	\$ 1,128,118
DuPage	\$ 2,565,815	\$ 17,503,055	\$ 11,026,107	\$ 31,094,977
Ford	\$ 2,856	\$ 12,236	\$ 27,645	\$ 42,738
Grundy	\$ 42,587	\$ 470,065	\$ 245,991	\$ 758,644
Henry	\$ 17,186	\$ 166,749	\$ 134,385	\$ 318,320
Jackson	\$ 22,973	\$ 215,079	\$ 345,516	\$ 583,568
Jersey	\$ 7,829	\$ 14,410	\$ 96,561	\$ 118,801
Kane	\$ 808,849	\$ 5,772,682	\$ 3,996,958	\$ 10,578,489
Kankakee	\$ 320,000	\$ 1,109,995	\$ 596,506	\$ 2,026,500
Kendall	\$ 50,482	\$ 429,908	\$ 505,262	\$ 985,652
Lake	\$ 1,696,112	\$ 15,722,896	\$ 6,137,276	\$ 23,556,283
Macon	\$ 48,074	\$ 465,225	\$ 705,460	\$ 1,218,759
Macoupin	\$ 9,996	\$ 60,009	\$ 40,712	\$ 110,718
Madison	\$ 390,559	\$ 2,536,770	\$ 1,736,572	\$ 4,663,901
Marshall	\$ 2,080	\$ 46,884	\$ 14,176	\$ 63,141
McHenry	\$ 135,442	\$ 2,621,490	\$ 1,593,459	\$ 4,350,391
McLean	\$ 87,626	\$ 693,442	\$ 1,521,546	\$ 2,302,614



Menard	\$ -	\$ 3,211	\$ 3,753	\$ 6,964
Mercer	\$ 2,225	\$ 13,644	\$ 26,471	\$ 42,339
Monroe	\$ 9,492	\$ 43,184	\$ 183,265	\$ 235,942
Peoria	\$ 867,966	\$ 1,671,359	\$ 1,352,481	\$ 3,891,807
Piatt	\$ 4,272	\$ 11,297	\$ 58,874	\$ 74,443
Rock Island	\$ 91,062	\$ 1,273,305	\$ 899,150	\$ 2,263,516
Sangamon	\$ 700,139	\$ 1,251,062	\$ 1,508,691	\$ 3,459,891
St. Clair	\$ 354,614	\$ 1,334,370	\$ 1,755,511	\$ 3,444,495
Stark	\$ 1,505	\$ 5,008	\$ 2,547	\$ 9,061
Tazewell	\$ 83,099	\$ 1,198,237	\$ 953,207	\$ 2,234,542
Vermilion	\$ 128,475	\$ 489,135	\$ 267,778	\$ 885,388
Will	\$ 1,039,539	\$ 6,142,612	\$ 3,991,225	\$ 11,173,376
Williamson	\$ 41,656	\$ 216,135	\$ 419,463	\$ 677,254
Winnebago	\$ 902,422	\$ 4,622,034	\$ 1,894,232	\$ 7,418,687
Woodford	\$ 13,219	\$ 172,893	\$ 131,549	\$ 317,660
<b>Total</b>	\$ 26,012,083	\$ 121,551,928	\$ 119,674,671	\$ 267,238,682

<b>Nonmetro County</b>	<b>Healthier sectors</b>	<b>Pressured Sectors</b>	<b>Vulnerable Sectors</b>	<b>All</b>
Adams	\$ 56,644	\$ 605,477	\$ 447,361	\$ 1,109,482
Brown	\$ -	\$ 63,169	\$ 10,031	\$ 73,200
Bureau	\$ 13,779	\$ 247,611	\$ 73,765	\$ 335,155
Carroll	\$ 4,008	\$ 38,053	\$ 34,928	\$ 76,989
Cass	\$ 3,924	\$ 8,781	\$ 23,181	\$ 35,885
Christian	\$ 16,090	\$ 49,862	\$ 84,261	\$ 150,213
Clark	\$ 2,272	\$ 36,774	\$ 44,899	\$ 83,946
Clay	\$ 7,489	\$ 180,293	\$ 7,456	\$ 195,238
Coles	\$ 23,596	\$ 242,991	\$ 269,718	\$ 536,305
Crawford	\$ 5,854	\$ 42,679	\$ 15,776	\$ 64,309
Cumberland	\$ 1,425	\$ 10,357	\$ 1,459	\$ 13,241
Douglas	\$ 6,288	\$ 253,942	\$ 96,303	\$ 356,533
Edgar	\$ 6,649	\$ 78,844	\$ 44,946	\$ 130,438
Edwards	\$ 1,973	\$ 4,387	\$ 1,836	\$ 8,196
Effingham	\$ 27,576	\$ 427,031	\$ 508,007	\$ 962,614
Fayette	\$ 8,330	\$ 23,190	\$ 81,820	\$ 113,340
Franklin	\$ 9,440	\$ 102,311	\$ 121,800	\$ 233,552
Fulton	\$ 13,800	\$ 44,282	\$ 80,976	\$ 139,057
Gallatin	\$ 904	\$ 474	\$ 853	\$ 2,231
Greene	\$ 3,103	\$ 4,543	\$ 18,135	\$ 25,780
Hamilton	\$ 401	\$ 2,864	\$ 15,547	\$ 18,812
Hancock	\$ 3,647	\$ 14,420	\$ 41,288	\$ 59,354
Hardin	\$ -	\$ 670	\$ 1,464	\$ 2,134
Henderson	\$ 2,194	\$ 864	\$ 439	\$ 3,496
Iroquois	\$ 9,049	\$ 39,705	\$ 86,596	\$ 135,350
Jasper	\$ 553	\$ 2,586	\$ 13,945	\$ 17,084
Jefferson	\$ 118,334	\$ 170,183	\$ 272,640	\$ 561,157
Jo Daviess	\$ 10,958	\$ 32,816	\$ 220,697	\$ 264,471

Johnson	\$ 1,511	\$ 11,579	\$ 11,750	\$ 24,840
Knox	\$ 78,210	\$ 100,850	\$ 295,548	\$ 474,608
LaSalle	\$ 134,909	\$ 1,223,504	\$ 622,835	\$ 1,981,248
Lawrence	\$ 222	\$ 8,177	\$ 33,040	\$ 41,439
Lee	\$ 9,367	\$ 243,459	\$ 113,243	\$ 366,068
Livingston	\$ 19,525	\$ 105,239	\$ 118,244	\$ 243,008
Logan	\$ 17,258	\$ 49,307	\$ 119,057	\$ 185,621
Marion	\$ 11,320	\$ 136,750	\$ 158,388	\$ 306,458
Mason	\$ 3,842	\$ 15,642	\$ 6,358	\$ 25,842
Massac	\$ 1,971	\$ 8,140	\$ 41,614	\$ 51,725
McDonough	\$ 13,753	\$ 140,789	\$ 131,849	\$ 286,390
Montgomery	\$ 9,752	\$ 91,772	\$ 136,275	\$ 237,799
Morgan	\$ 18,840	\$ 58,260	\$ 271,390	\$ 348,490
Moultrie	\$ 2,937	\$ 165,632	\$ 41,627	\$ 210,197
Ogle	\$ 14,064	\$ 303,179	\$ 191,331	\$ 508,574
Perry	\$ 6,445	\$ 21,753	\$ 37,917	\$ 66,116
Pike	\$ 8,489	\$ 14,457	\$ 44,823	\$ 67,769
Pope	\$ -	\$ -	\$ -	\$ -
Pulaski	\$ 255	\$ 2,813	\$ 220	\$ 3,288
Putnam	\$ 1,565	\$ 2,543	\$ 1,908	\$ 6,017
Randolph	\$ 8,560	\$ 101,436	\$ 102,742	\$ 212,738
Richland	\$ 6,156	\$ 51,071	\$ 61,865	\$ 119,092
Saline	\$ 11,545	\$ 35,951	\$ 93,871	\$ 141,367
Schuyler	\$ 1,732	\$ 668	\$ 252	\$ 2,652
Scott	\$ -	\$ 359	\$ -	\$ 359
Shelby	\$ 1,329	\$ 16,676	\$ 52,638	\$ 70,643
Stephenson	\$ 16,571	\$ 158,384	\$ 192,545	\$ 367,499
Union	\$ 9,078	\$ 27,156	\$ 69,585	\$ 105,819
Wabash	\$ 2,054	\$ 11,763	\$ 4,070	\$ 17,887
Warren	\$ 5,625	\$ 12,679	\$ 9,009	\$ 27,313
Washington	\$ 9,929	\$ 17,078	\$ 48,371	\$ 75,377
Wayne	\$ 3,541	\$ 25,562	\$ 2,390	\$ 31,493
White	\$ 6,429	\$ 12,796	\$ 16,719	\$ 35,943
Whiteside	\$ 21,222	\$ 530,590	\$ 262,120	\$ 813,933
<b>Total</b>	\$ 816,286	\$ 6,435,171	\$ 5,913,722	\$ 13,165,179