



# ANNUAL MEETING

November 9-12, 2020 • Online Event



# Job Losses and the Pandemic— What We Know and What's Next

CAS Annual Meeting—November 2020

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**Donna Glenn, FCAS, MAAA**

Chief Actuary

NCCI

**Leonard F. Herk, PhD**

Executive Director & Senior Economist

NCCI

# Key Takeaways

## Analyze Employment and Job Losses

Driven by concepts of proximity & essentiality

Big variation among states

Virus stats appear to be delinked from employment

## Explore Recovery Scenarios

Permanent layoffs rising

Job recovery is slowing

## Understand COVID-19 Impacts on WC

Declining WC premium

Shifting claim frequency & severity



# Analyze Employment and Job Losses

# US Private Job Losses

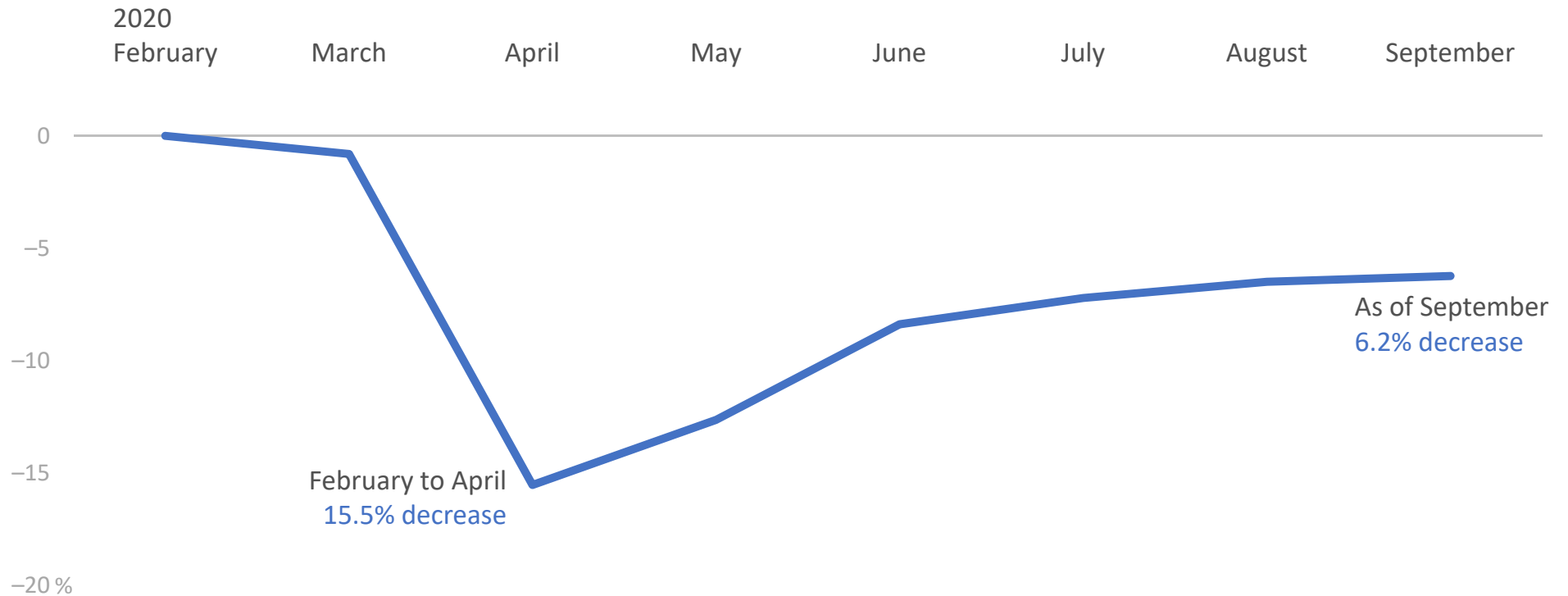


Employment levels are not adjusted for seasonality  
Source: US Bureau of Labor Statistics

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# US Private Job Losses

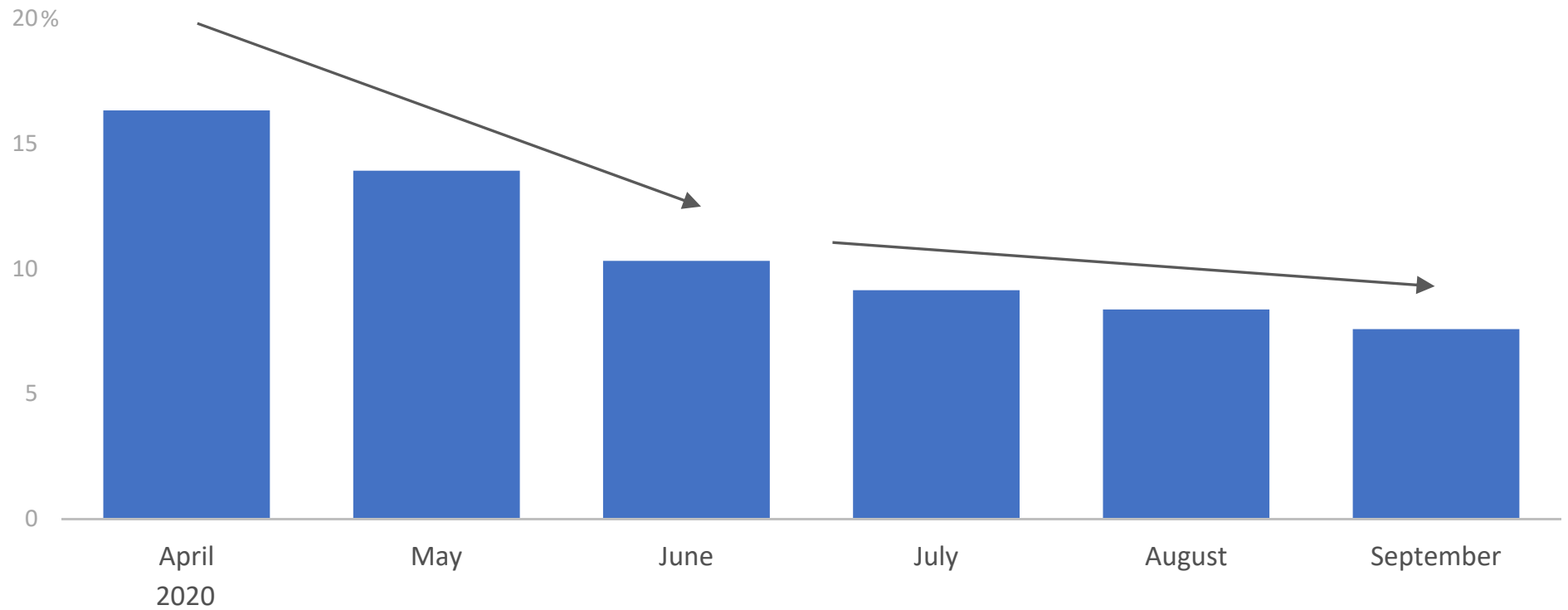


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# US Private Employment Gap

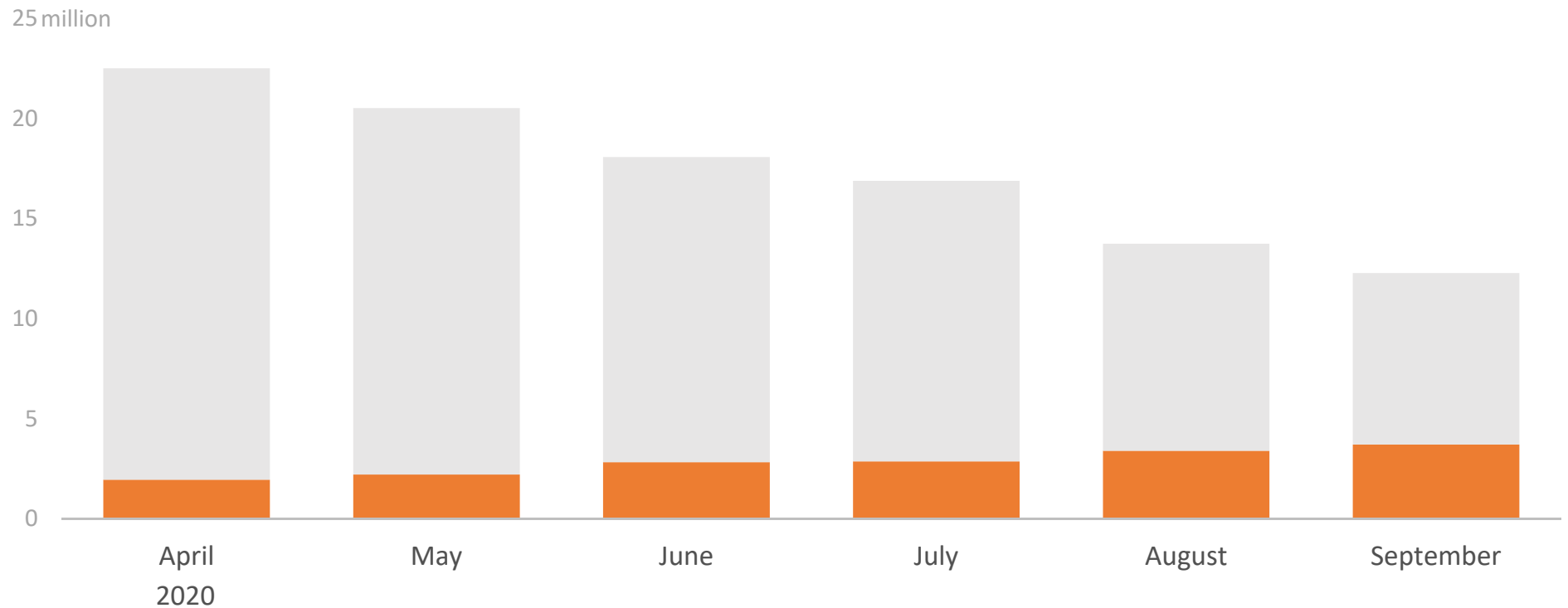


Employment levels are not adjusted for seasonality  
Source: US Bureau of Labor Statistics

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## US Unemployment: Permanent Job Losses



Unemployment levels are not adjusted for seasonality  
Source: US Bureau of Labor Statistics

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# COVID-19 and Employment

## Leisure, Hospitality, and Travel



Many **shut down** by government mandate or saw **traffic drop to near zero**

## Durable and Discretionary Goods

**Cancelled or deferred orders** have impacted a wide range of products



## Professional Services

**Telecommuting** may help to **maintain current employment** with a reduced risk of COVID-19 exposure



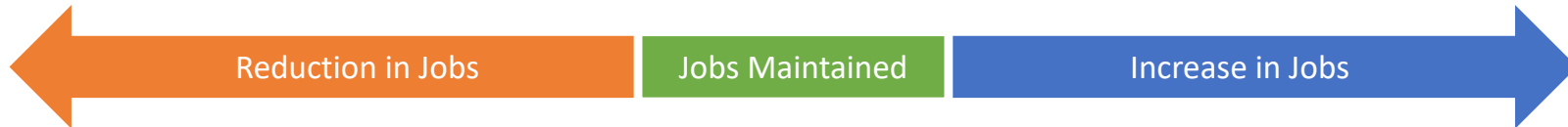
## Healthcare for Urgent Needs



**Demand surged** for urgent medical service and supplies

## Groceries and Direct Delivery

**Demand and online sales skyrocketed**, resulting in temporary **new hires**



# US Private Employment Levels and Gaps

April 2020

	Actual	Expected	Gap, %	Contrib, %
Leisure and Hospitality	8,485	16,764	-49.4	39.2
Retail Trade	13,175	15,515	-15.1	11.1
Prof/Busn/Other Services	23,779	27,431	-13.3	17.3
Education and Health Services	21,972	24,750	-11.2	13.2
<b>Big Four service sectors</b>	<b>67,411</b>	<b>84,457</b>	<b>-20.2</b>	<b>80.8</b>
Construction	6,465	7,545	-14.3	5.1
Manufacturing	11,432	12,798	-10.7	6.5
Transport/Warehousing/Utilities	5,558	6,149	-9.6	2.8
Mining and Logging	643	705	-8.8	0.3
All Other	16,650	17,601	-5.4	4.5
<b>Total Private</b>	<b>108,159</b>	<b>129,255</b>	<b>-16.3</b>	<b>100.0</b>

Employment levels are not adjusted for seasonality

Prof/Busn/Other Services combines Professional and Business Services, Other Services

All Other combines Wholesale Trade, Financial Activities, Information

Source: US Bureau of Labor Statistics (BLS); Current Employment Statistics (CES)

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- Employment gap—the difference between actual and seasonally expected employment—has recovered from its April low of -16.3% but remains depressed at -7.6% in September
- 81% of the employment gap is accounted for by Leisure and Hospitality; Retail Trade; Professional, Business, and Other Services; and Education and Health Services
- Construction and Manufacturing are not major contributors to the employment gap nationally



# US Private Employment Levels and Gaps

September 2020

	Actual	Expected	Gap, %	Contrib, %
Leisure and Hospitality	13,124	16,997	-22.8	39.3
Retail Trade	15,061	15,536	-3.1	4.8
Prof/Busn/Other Services	25,672	27,555	-6.8	19.1
Education and Health Services	23,125	24,519	-5.7	14.1
<b>Big Four service sectors</b>	<b>76,982</b>	<b>84,607</b>	<b>-9.0</b>	<b>77.3</b>
Construction	7,415	7,818	-5.2	4.1
Manufacturing	12,224	12,881	-5.1	6.7
Transport/Warehousing/Utilities	5,910	6,225	-5.1	3.2
Mining and Logging	619	721	-14.1	1.0
All Other	16,909	17,669	-4.3	7.7
<b>Total Private</b>	<b>120,059</b>	<b>129,919</b>	<b>-7.6</b>	<b>100.0</b>

Employment levels are not adjusted for seasonality

Prof/Busn/Other Services combines Professional and Business Services, Other Services

All Other combines Wholesale Trade, Financial Activities, Information

Source: US Bureau of Labor Statistics (BLS); Current Employment Statistics (CES)

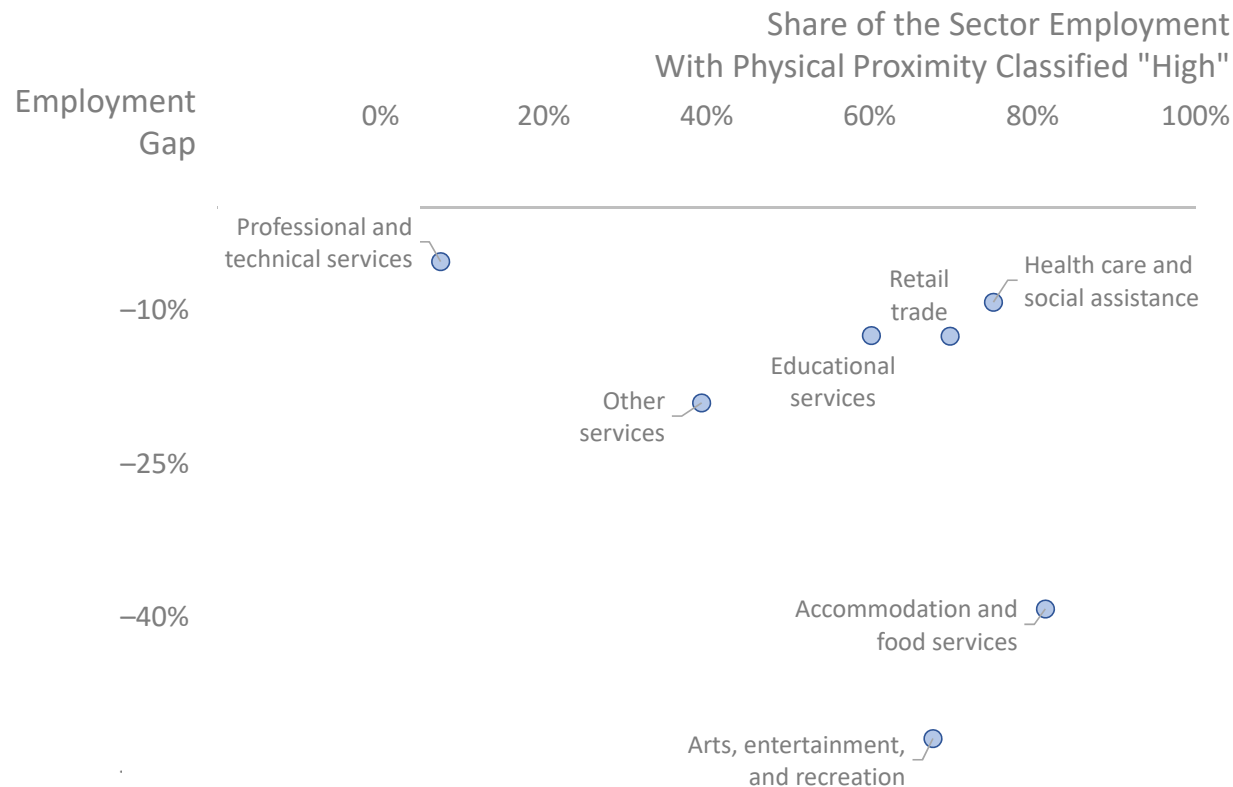
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- Employment gap—the difference between actual and seasonally expected employment—has recovered from its April low of -16.3% but remains depressed at -7.6% in September
- 77% of the employment gap is accounted for by Leisure and Hospitality; Retail Trade; Professional, Business, and Other Services; and Education and Health Services
- Construction and Manufacturing are not major contributors to the employment gap nationally



# Physical Proximity and Employment Gap

May 2020



Employment levels are not adjusted for seasonality  
Source: US Bureau of Labor Statistics

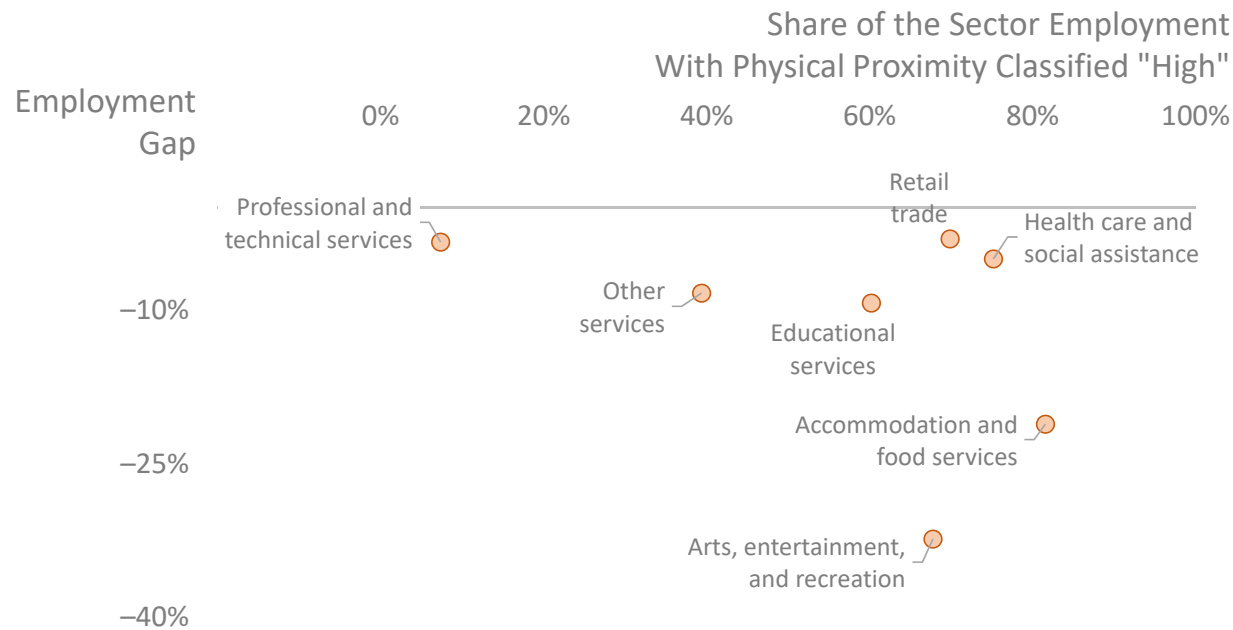
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- May job losses tended to be higher for activities with higher physical proximity and lower essentiality
- The two subsectors with highest job losses included restaurants and hotels; also casinos, theme parks, gyms, and sporting events
- Health Care includes hospital visits as well as medical checkups and physical therapy



# Physical Proximity and Employment Gap

September 2020



- All sectors recovered employment by September, but job losses still tended to be higher for activities with higher physical proximity and lower essentiality

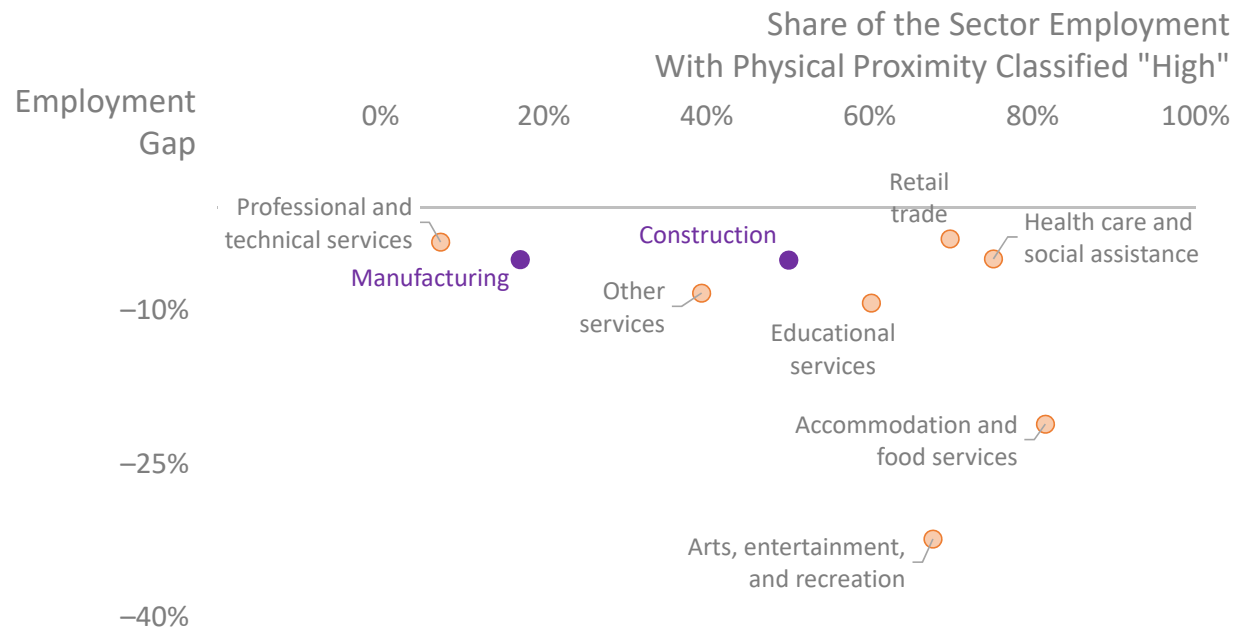
Employment levels are not adjusted for seasonality  
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# Physical Proximity and Employment Gap

September 2020



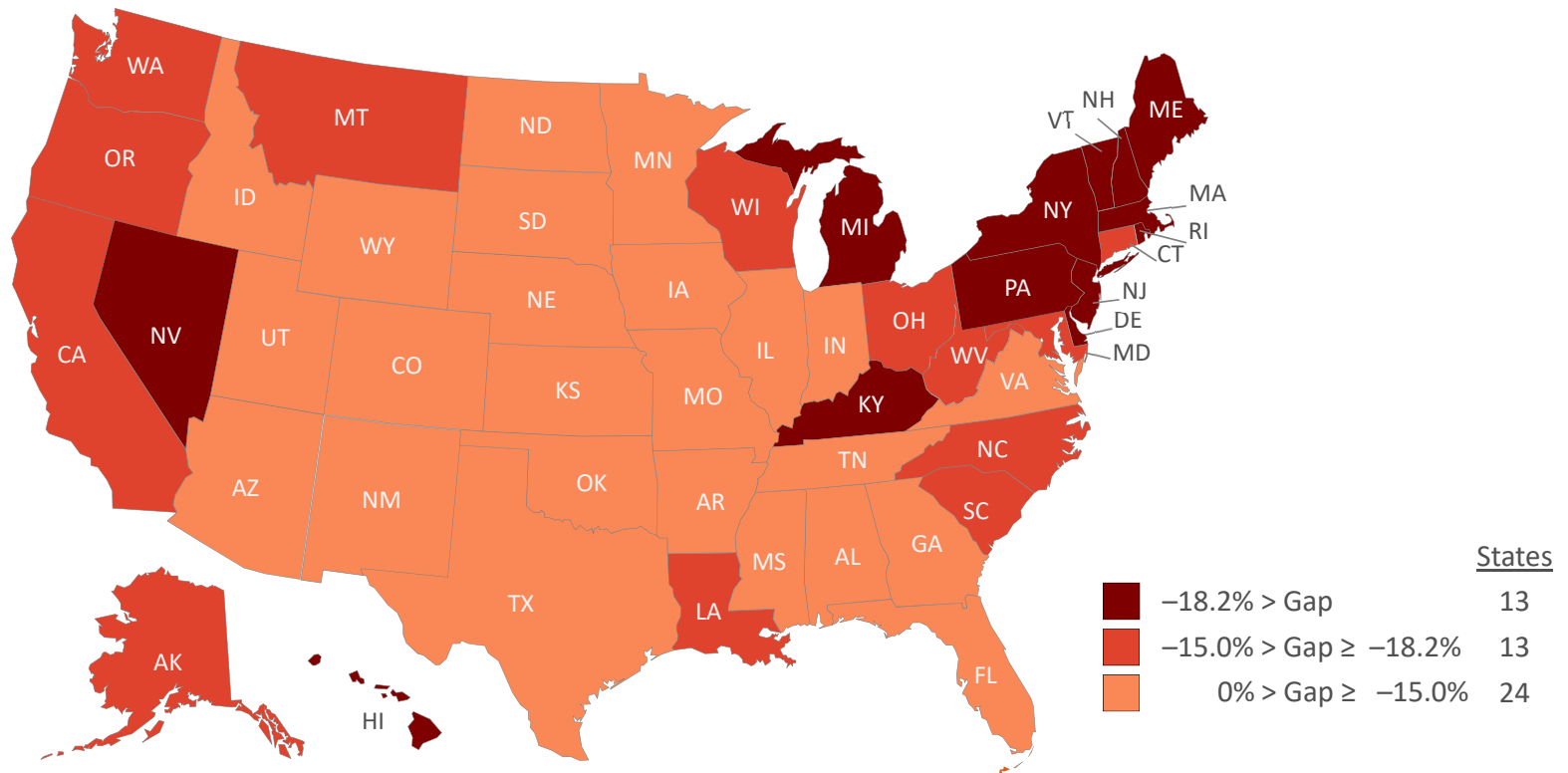
- All sectors recovered employment by September, but job losses still tended to be higher for activities with higher physical proximity and lower essentiality
- Construction and Manufacturing involve lower physical proximity

Employment levels are not adjusted for seasonality  
Source: US Bureau of Labor Statistics

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April 2020

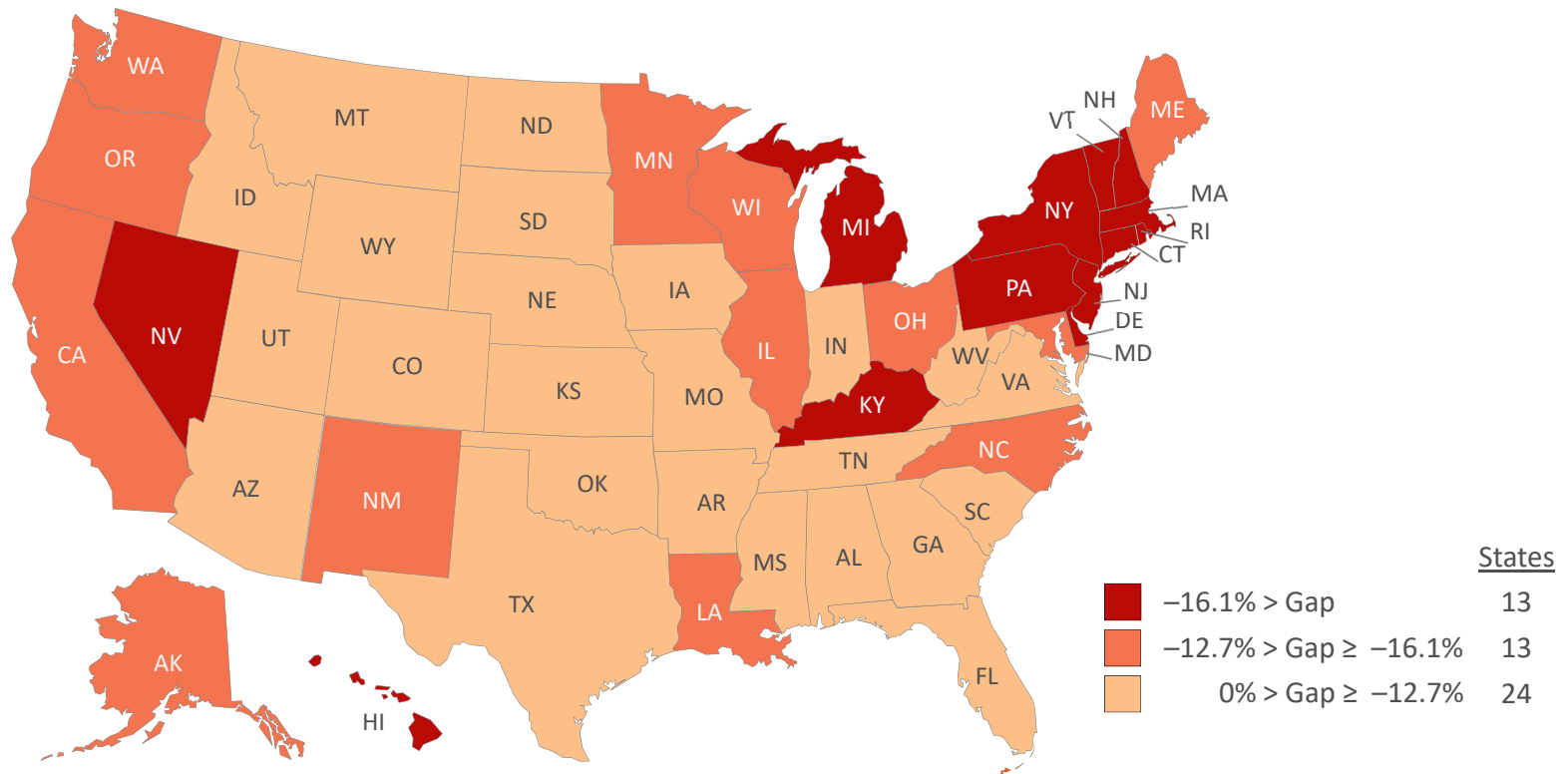


Employment levels are not adjusted for seasonality  
Source: US Bureau of Labor Statistics

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May 2020



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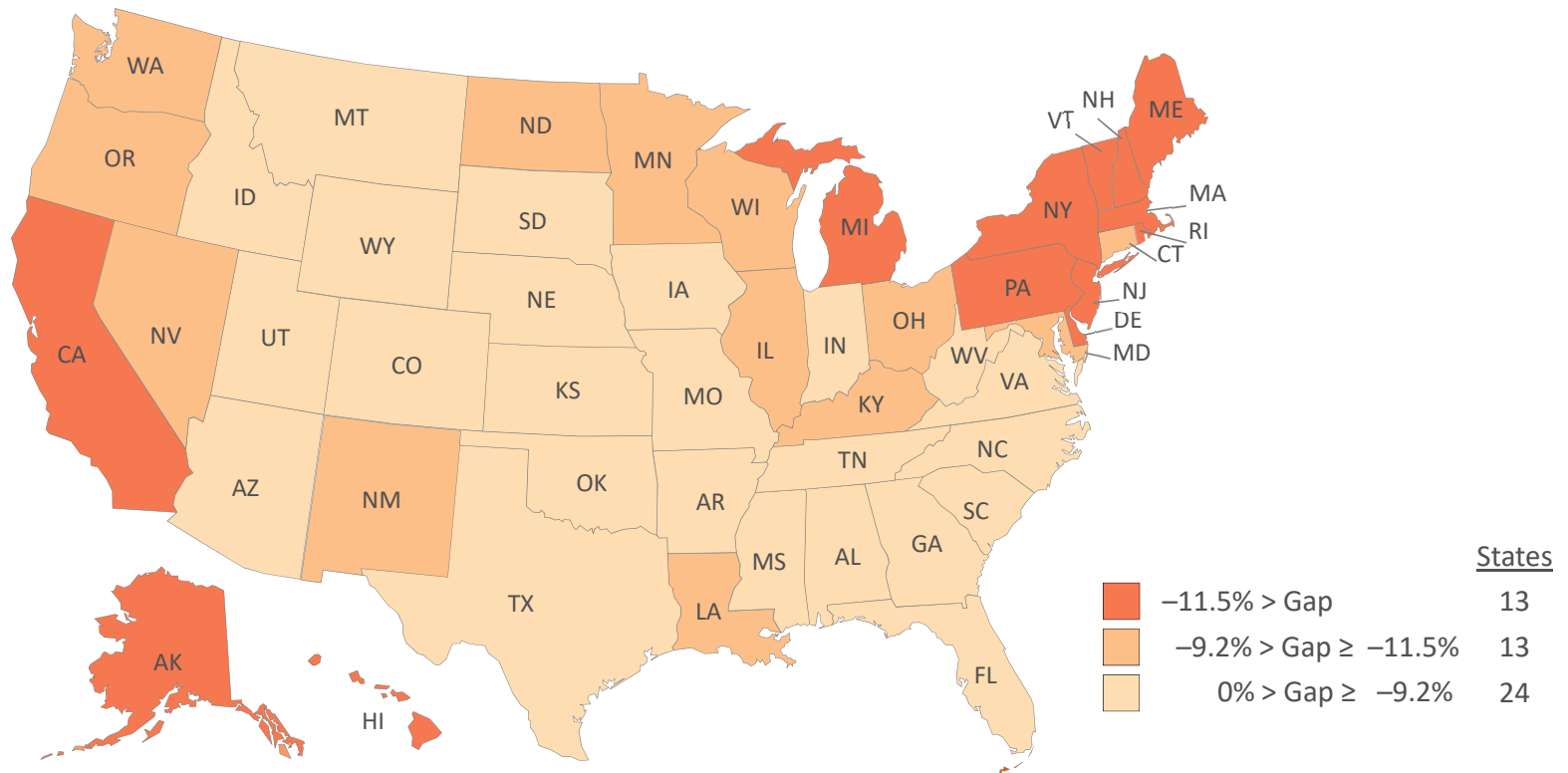
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## Employment Gaps by State

June 2020



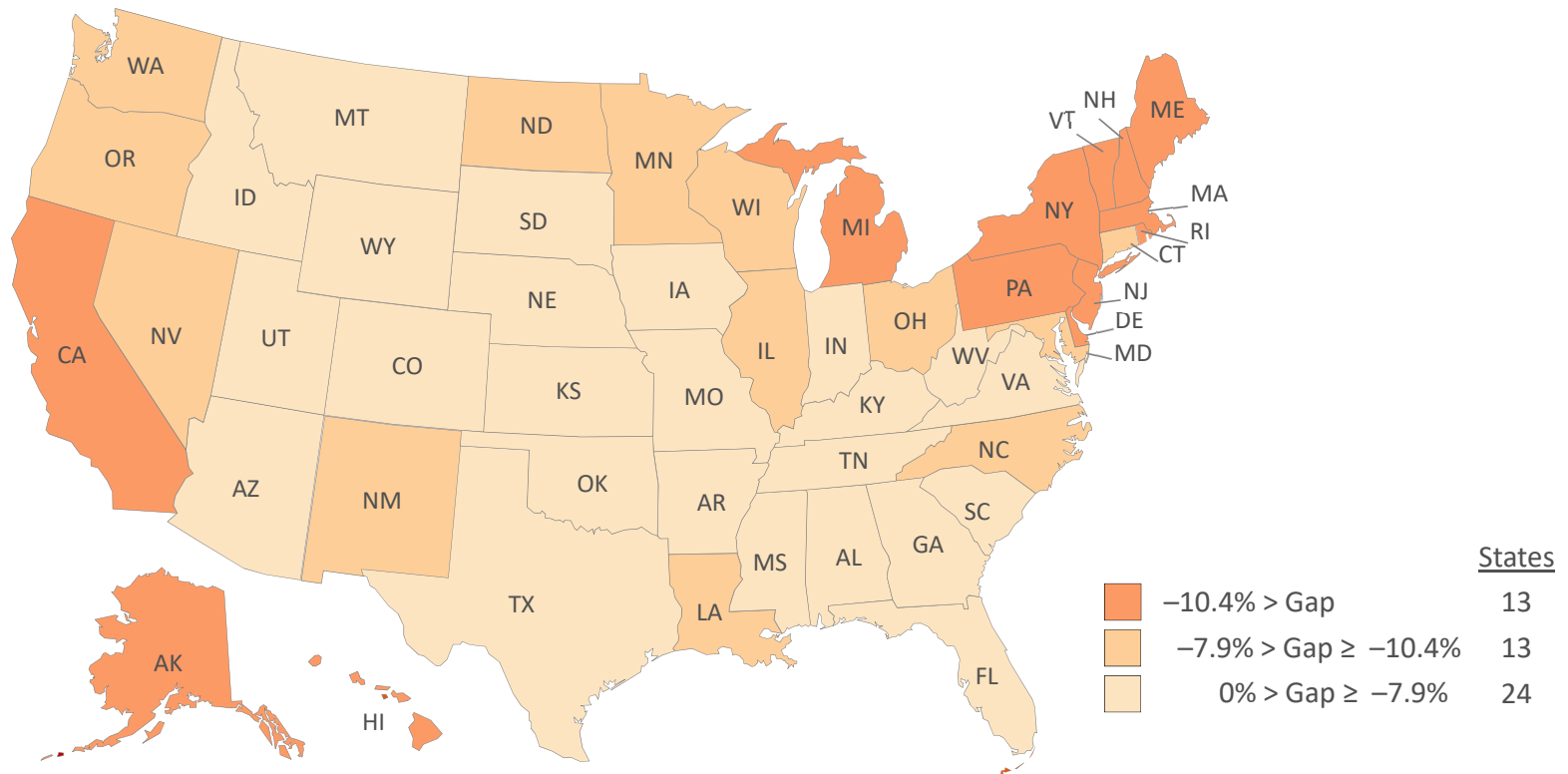
Employment levels are not adjusted for seasonality  
Source: US Bureau of Labor Statistics

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# Employment Gaps by State

July 2020



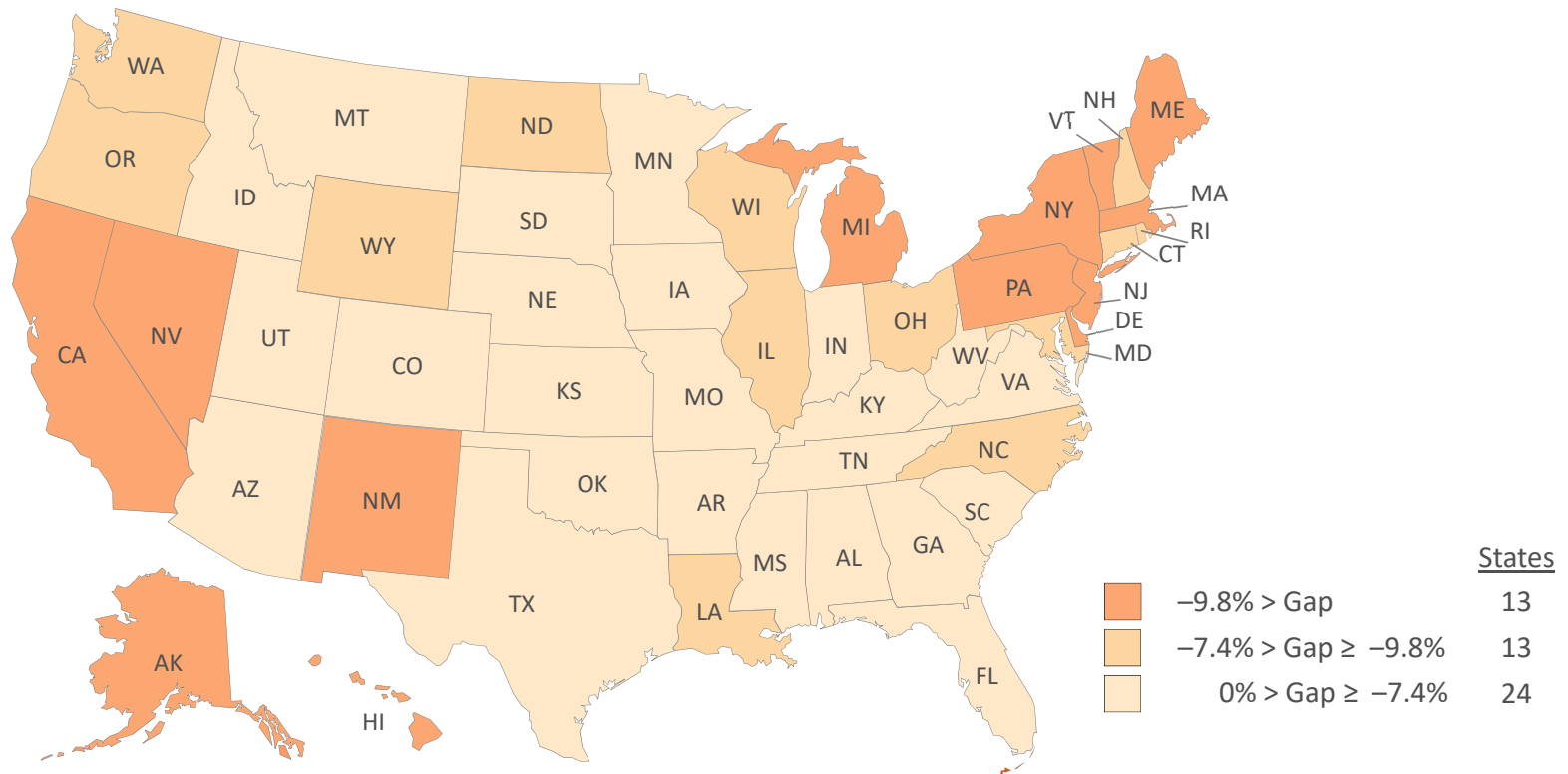
Employment levels are not adjusted for seasonality  
Source: US Bureau of Labor Statistics

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## Employment Gaps by State

August 2020



Employment levels are not adjusted for seasonality  
Source: US Bureau of Labor Statistics

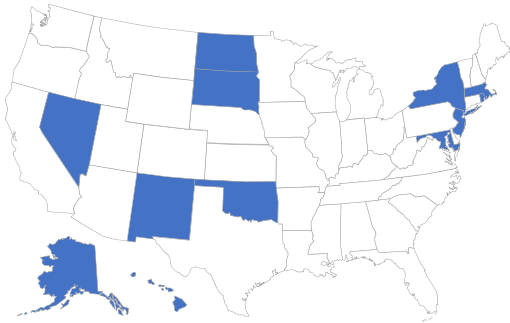
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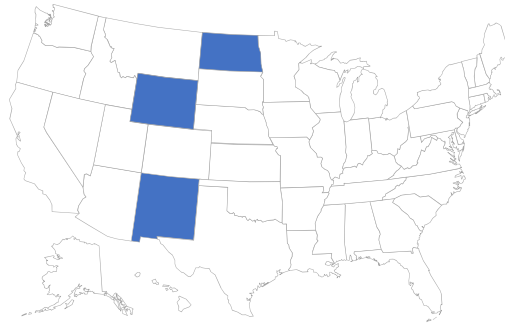
# Employment Gaps by State in Selected Sectors

August 2020

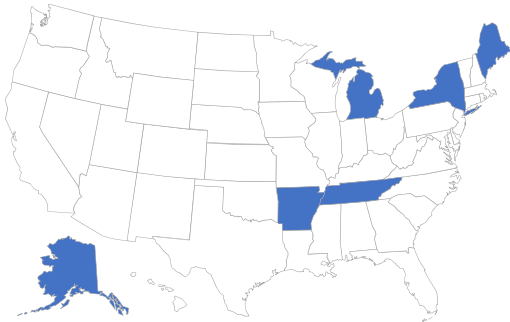
Transportation, Warehousing,  
and Utilities



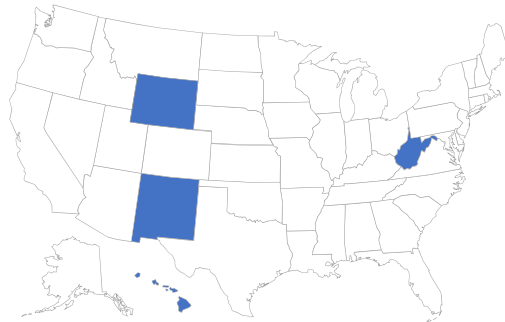
Mining and Logging



Manufacturing



All Other



- Transportation, Warehousing, and Utilities in Northeastern states hit hard by coronavirus, plus several others
- Manufacturing is likewise high in the Northeast; Michigan and Tennessee have auto exposure
- Mining and Logging job losses are concentrated in oil patch states
- All Other includes Wholesale Trade, Financial Services, and Information

Employment levels are not adjusted for seasonality

Shading indicates states with job gap 50% or more above the national sector average and the sector share of total private sector employment is at least 50% of the national share

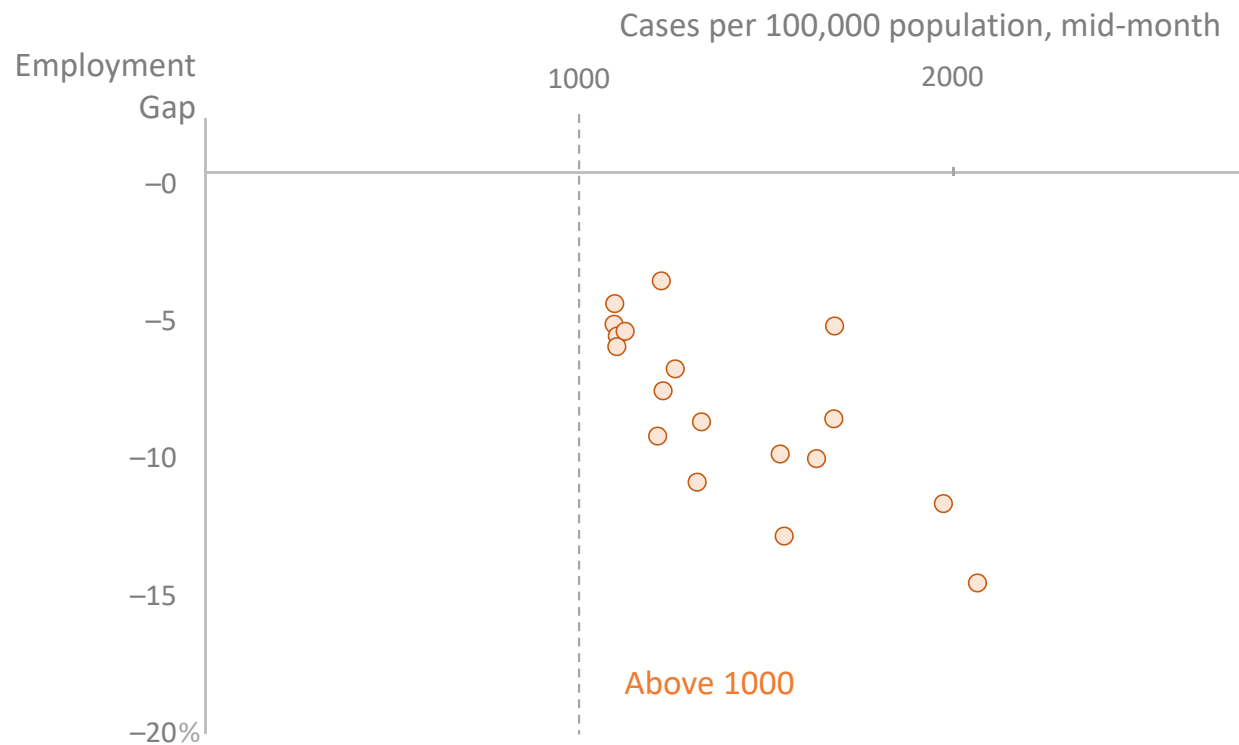
Source: US Bureau of Labor Statistics

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# Employment Gaps and Pandemic Severity by State

July 2020



■ **Above 1000:** pandemic severity is associated with higher job losses

Employment levels are not adjusted for seasonality  
Source: US Bureau of Labor Statistics

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# Employment Gaps and Pandemic Severity by State

July 2020



- **Above 1000:** pandemic severity is associated with higher job losses
- **Below 1000:** relation between pandemic severity and job losses is not clear

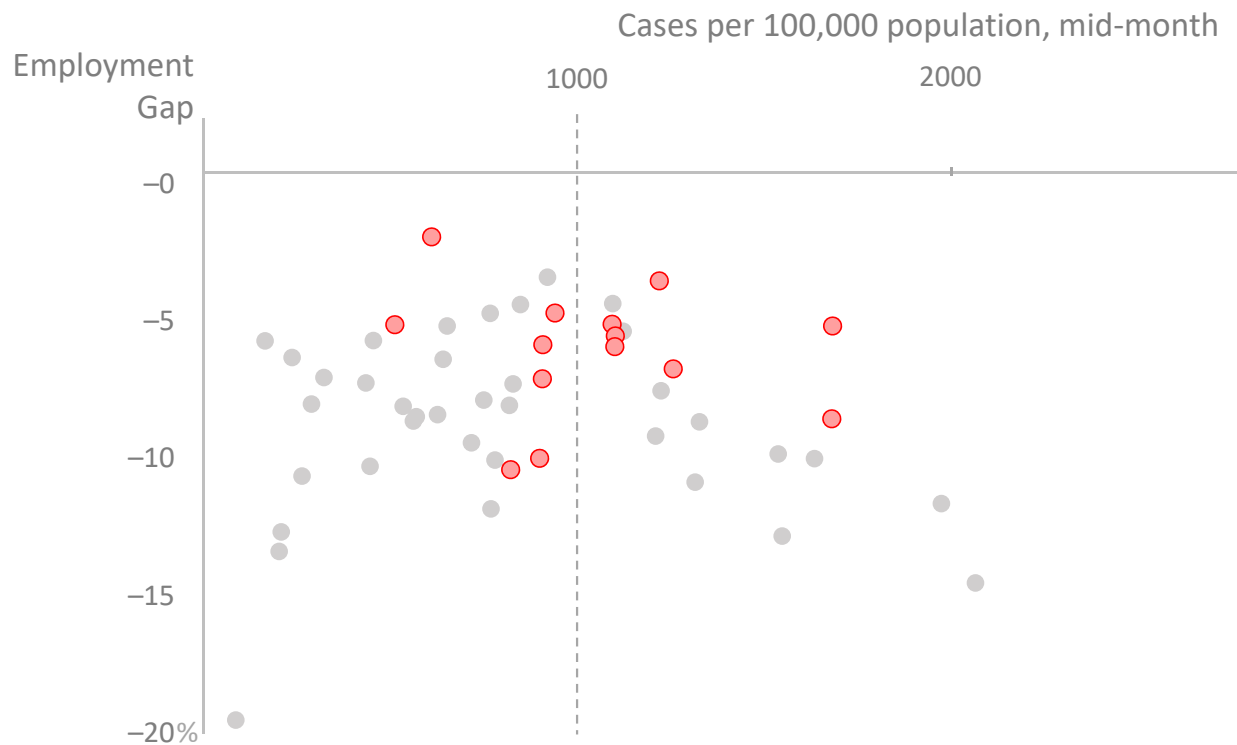
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# Employment Gaps and Pandemic Severity by State

July 2020



- Above 1000: pandemic severity is associated with higher job losses
- Below 1000: relation between pandemic severity and job losses is not clear
- **Red dots** indicate states where case rates surged from July to August

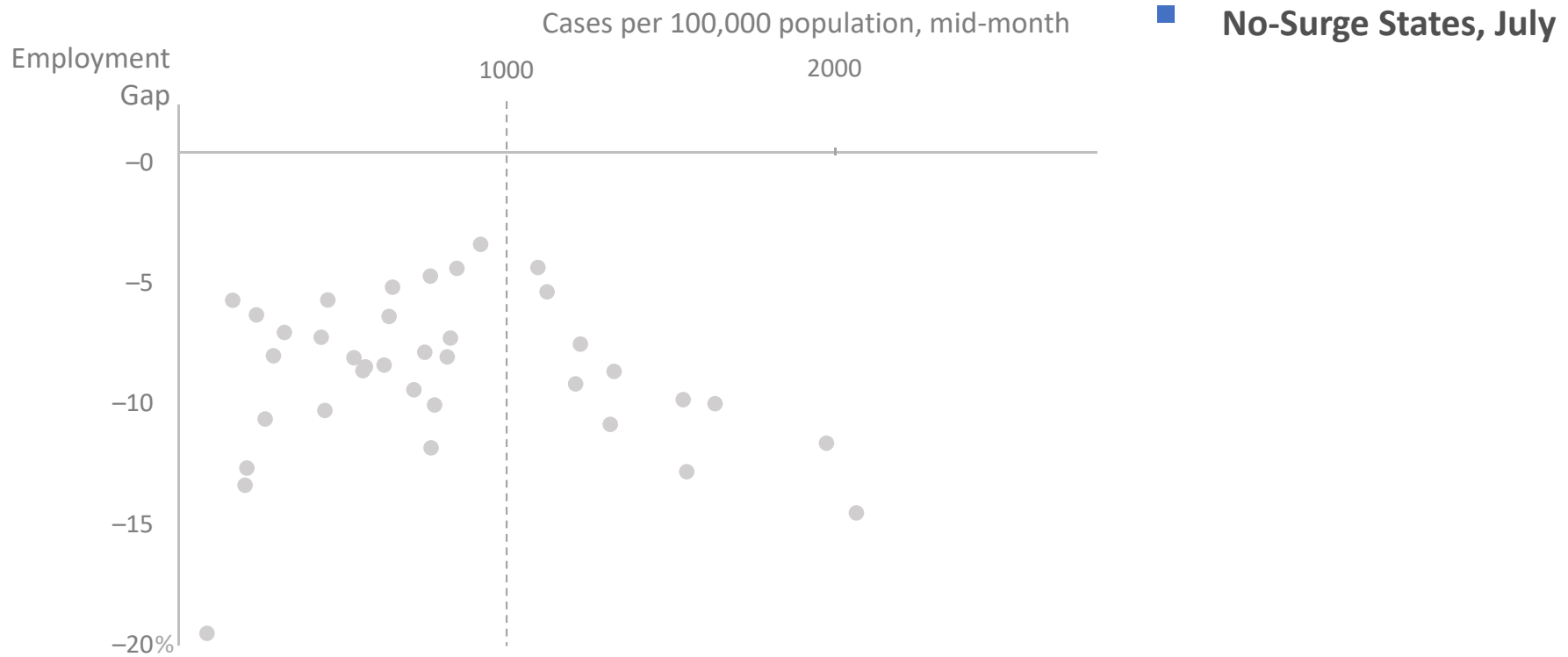
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Source: US Bureau of Labor Statistics

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# Employment Gaps and Pandemic Severity by State

July 2020



Employment levels are not adjusted for seasonality  
Source: US Bureau of Labor Statistics

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# Employment Gaps and Pandemic Severity by State

August 2020



- **No-Surge States, August**
- High pandemic severity is still associated with higher job losses
- Job gaps are recovering for these states

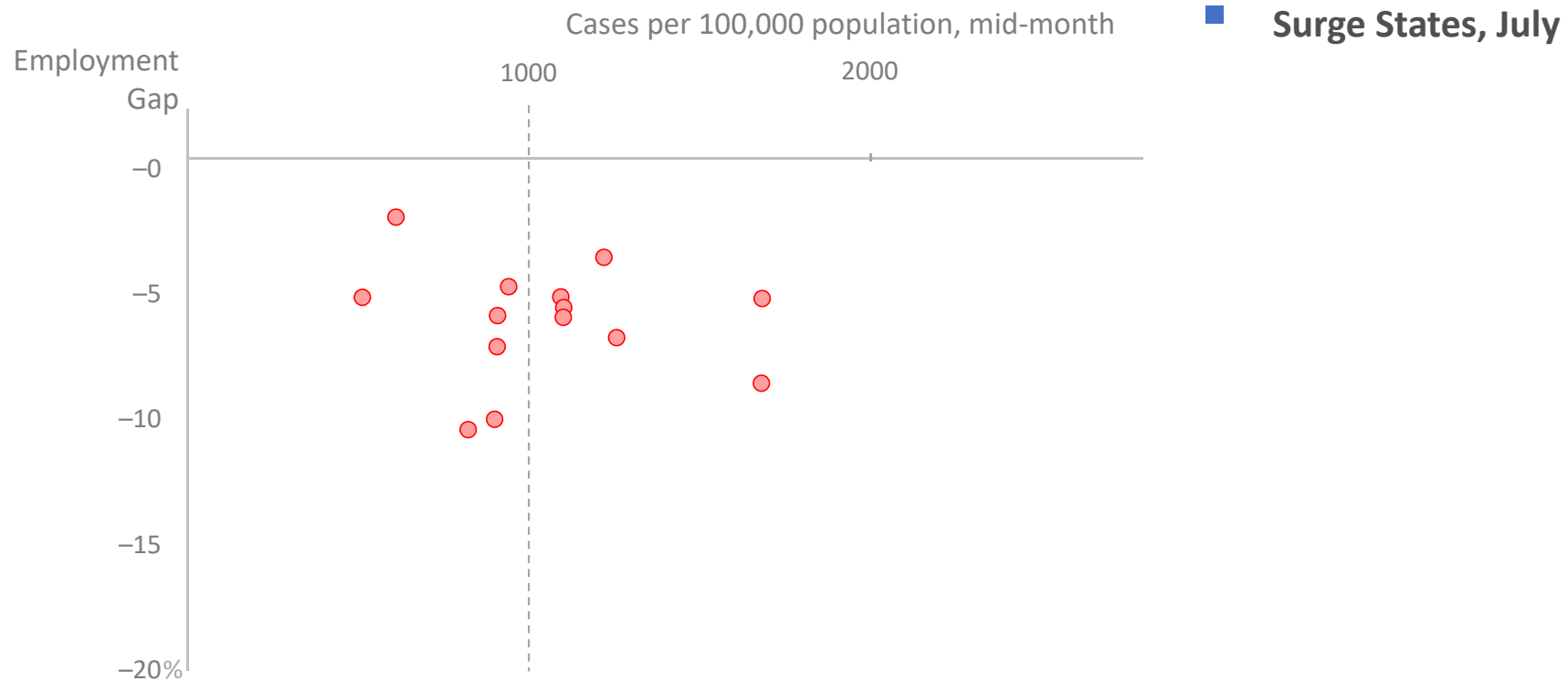
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# Employment Gaps and Pandemic Severity by State

July 2020



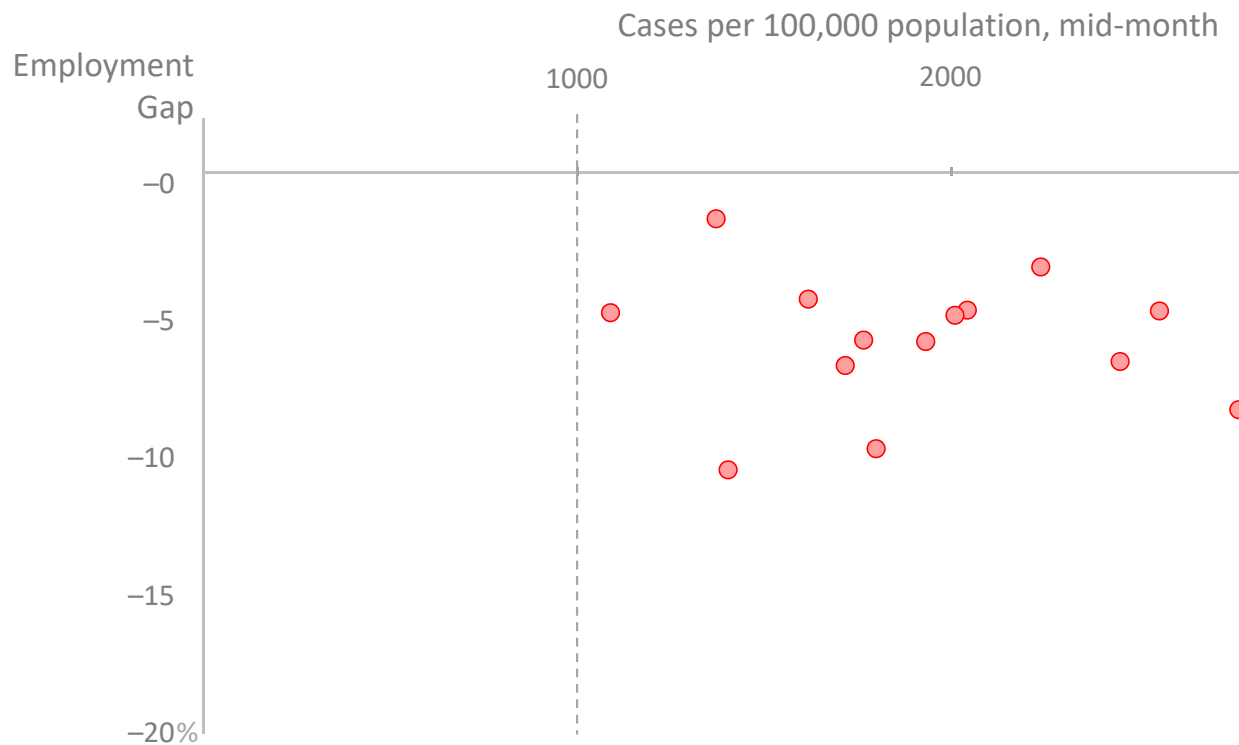
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Source: US Bureau of Labor Statistics

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# Employment Gaps and Pandemic Severity by State

August 2020



- **Surge States, August**
- High pandemic severity is not associated with higher job losses
- Job gaps are recovering for these states, too

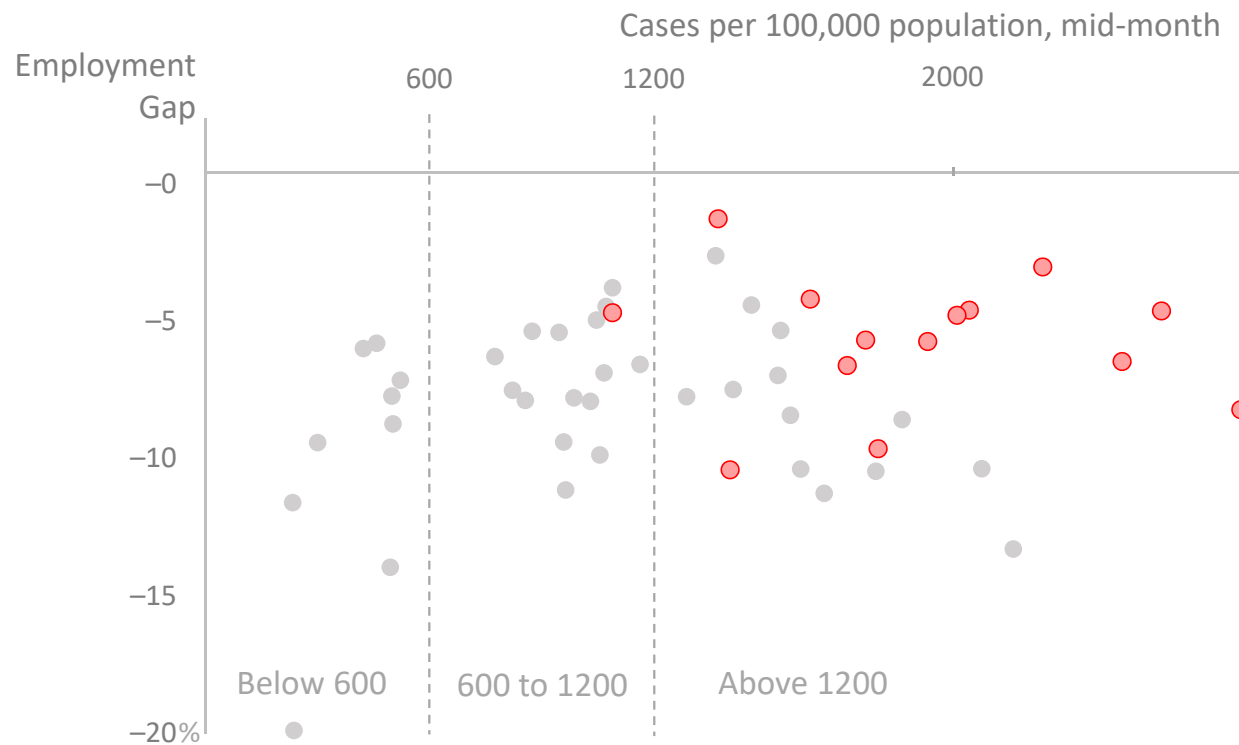
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# Employment Gaps and Pandemic Severity by State

August 2020



## ■ All States, August

- All states—including those that experienced case rate surges from July to August—recovered job losses
- August coronavirus case rates and state employment gaps are uncorrelated, or “delinked”

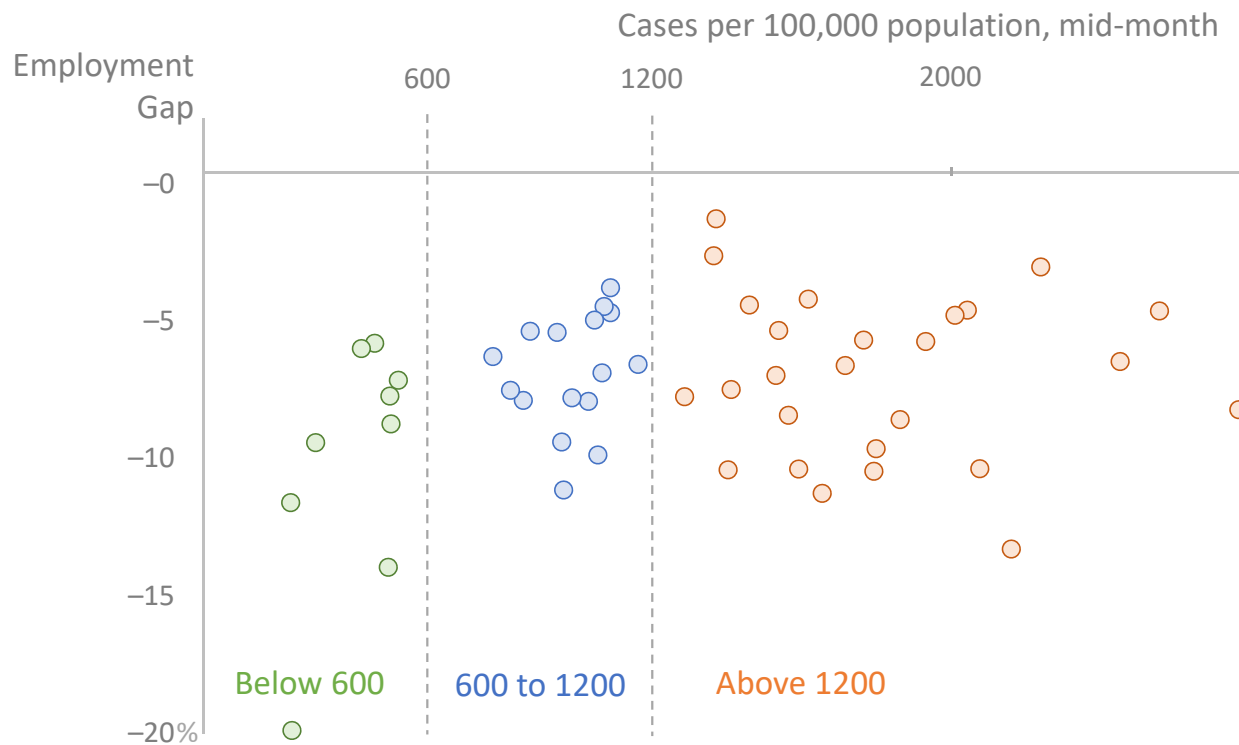
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# Employment Gaps and Pandemic Severity by State

August 2020



- **All States, August**
- All states—including those that experienced case rate surges from July to August—recovered job losses
- As of August, coronavirus case rates and state employment gaps are uncorrelated, or “delinked”

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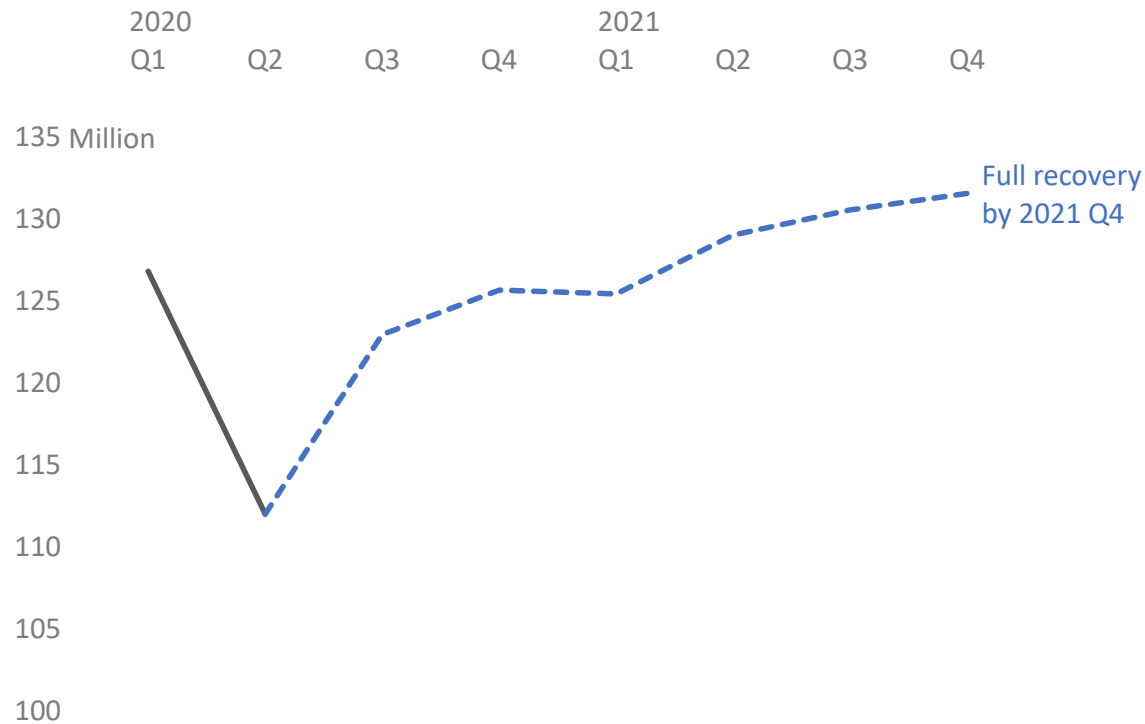
# Explore Recovery Scenarios

# What Will Recovery Look Like?

- Six months in, from March to September, a great deal of uncertainty remains:
  - Coronavirus resurgences in June and July
  - School reopenings in August and September
  - Expiration (and renewal?) of federal fiscal stimulus
  - When will an effective vaccine become available?
- Despite uncertainty, the imperative to find a new normal is strong
  - Economic vs. health trade-offs, gradual accommodation, and pandemic fatigue
  - “The trends suggest that even as the virus continues to spread, people are less likely to stay home,” *The New York Times*, August 19, 2020<sup>1</sup>
- What a recovery may look like will depend on the speed of job recovery and what jobs do not come back at all

<sup>1</sup> “Virus Alters Where People Open Their Wallets, Hinting at a Halting Recovery,” *The New York Times*, August 19, 2020

# Scenarios for US Private Employment



## Scenarios

- **Full recovery** assumes that jobs lost during the coronavirus pandemic come back by the end of 2021

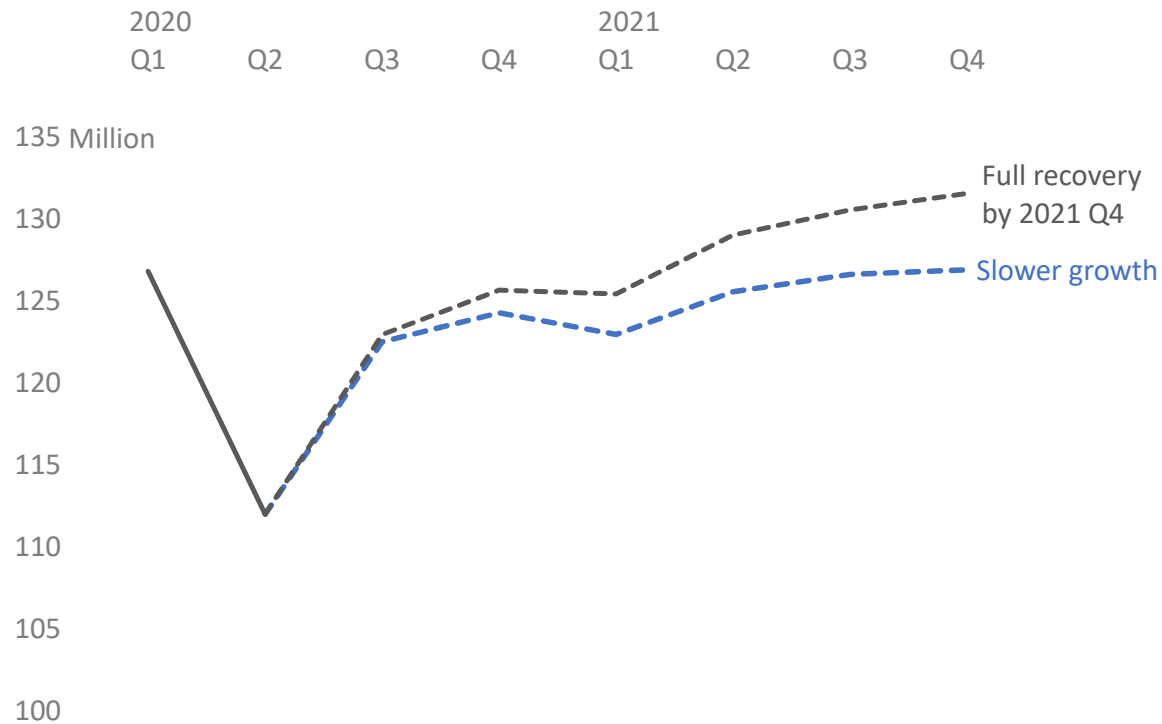
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# Scenarios for US Private Employment



## Scenarios

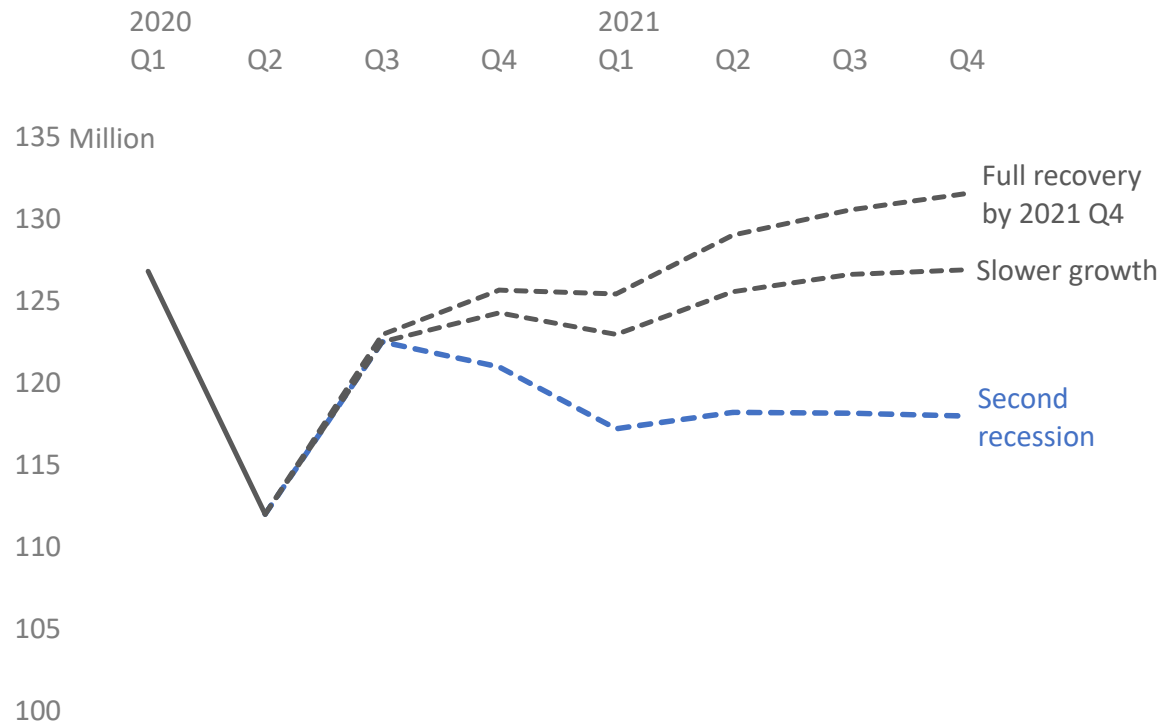
- Full recovery assumes that jobs lost during the coronavirus pandemic come back by the end of 2021
- **Slower growth** is calibrated to the Congressional Budget Office's scenario for expected employment growth

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# Scenarios for US Private Employment



## Scenarios

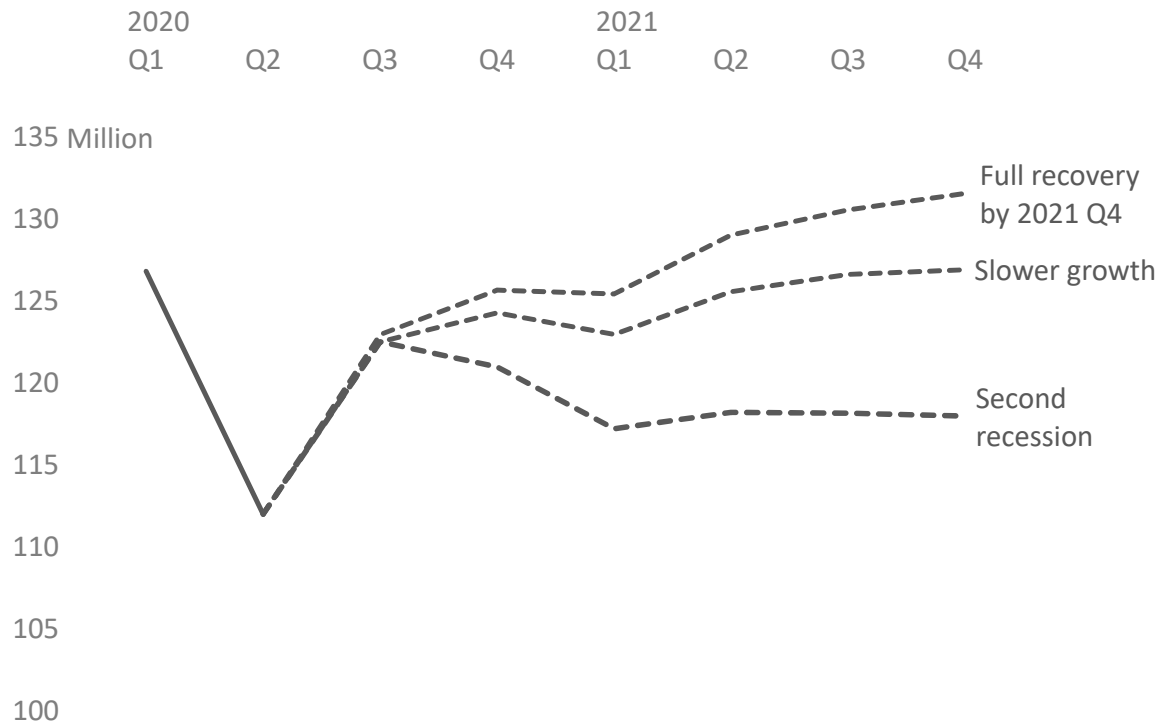
- Full recovery assumes that jobs lost during the coronavirus pandemic come back by the end of 2021
- Slower growth is calibrated to the Congressional Budget Office's scenario for expected employment growth
- **Second recession** assumes that job recovery through September partially reverses

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# Scenarios for US Private Employment



## Scenarios

- Full recovery assumes that jobs lost during the coronavirus pandemic come back by the end of 2021
- Slower growth is calibrated to the Congressional Budget Office's scenario for expected employment growth
- Second recession assumes that job recovery through September partially reverses

Scenarios above are illustrative: they show that recovery paths may differ substantially

Employment levels are not adjusted for seasonality  
Source: US Bureau of Labor Statistics

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# What Jobs Might Not Come Back?

As temporary layoffs become permanent, impacted sectors include:

- Leisure and entertainment activities, especially those depending on crowds:
  - Bars, restaurants, fitness centers, theme parks, sporting events
  - Accommodation services: hotels, cruise lines
  - Travel: airlines, ground transportation
- Retail trade: shops, big box stores, shopping malls
- Small businesses are especially vulnerable
  - Slim operating margins and limited cash buffers
  - Consumer-oriented businesses; but also B2B
  - Small business closings happen quietly, most without bankruptcy



# Understand COVID-19 Impacts on WC

# The WC system is well positioned to face further uncertainty

## 2019 Year-End Observations

Favorable combined ratios continue

Strong reserve position

Average loss costs and rates declined for the seventh consecutive year

Frequency declined, consistent with the long-term average

Indemnity and medical severity moderately increased

# The WC system is well positioned to face further uncertainty

## 2019 Year-End Observations

Favorable combined ratios continue

Strong reserve position

Average loss costs and rates declined for the seventh consecutive year

Frequency declined, consistent with the long-term average

Indemnity and medical severity moderately increased

## 2020 Impacts

Employment changes drive payroll exposure which, in turn, drives premium with a sharp unprecedented decline

Further frequency declines, exacerbated by COVID lockdowns and employment challenges

Indemnity and medical severity trends remain moderate, but expect 2020 to have anomalies

# COVID-19 and Premium

## Exposure Decline

Recent changes in **unemployment** and **fewer hours** worked have **reduced payroll**



**Small businesses** may be especially impacted



## Audit vs. Mid-Term Adjustments



**Mid-term endorsement** activity capturing changes in exposure is likely to **impact premium** in the **short term**

Otherwise, **negative audits** after policy expiration are **expected**



## Timing Flexibility

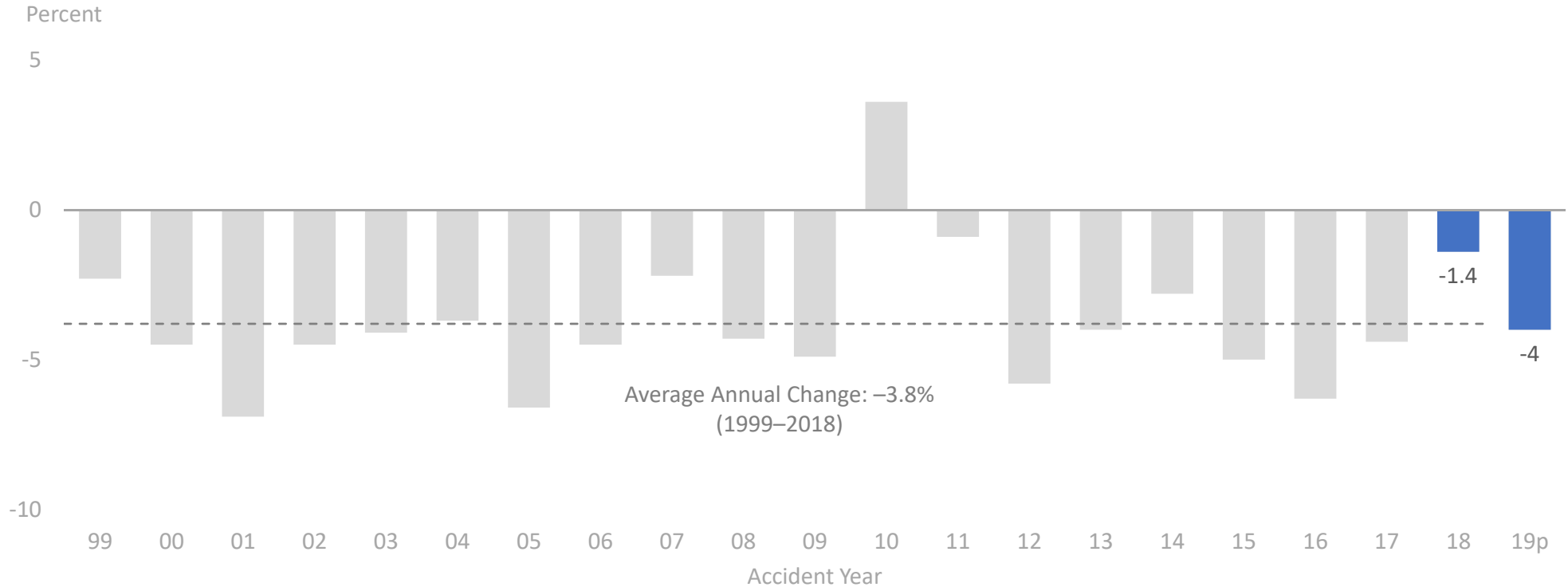
Some carriers have **suspended** the **cancellation of policies** and **penalties** for late premium payments





# WC Lost-Time Claim Frequency

Change in Claims per \$1M Pure Premium, Private Carriers and State Funds—NCCI States



2010 and 2011 adjusted primarily for significant changes in audit activity

p Preliminary, based on data valued as of 12/31/2019

Source: NCCI's Financial Call data, developed to ultimate, premium adjusted to current wage and voluntary pure premium level, excludes high-deductible policies; based on data through 12/31/2018

Includes all states where NCCI provides ratemaking services; NV is excluded prior to 2002, TX is excluded prior to 2007, and WV is excluded prior to 2012

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# COVID-19 and Claim Frequency

## Claim Reporting

Possible **deferral of claim reporting** may result in **reduced** injury frequency



## Elevated Unemployment

In addition to those who have lost their jobs, **employed individuals** may be **reluctant to file** claims



## Changes in Exposure

**Increased telecommuting** reduces driving and may result in **fewer motor vehicle accidents**



However, **remote working environments** may increase **ergonomic injuries**



## Occupational Disease

Recent legislation clarifies coverage for **first responders** and **healthcare workers**



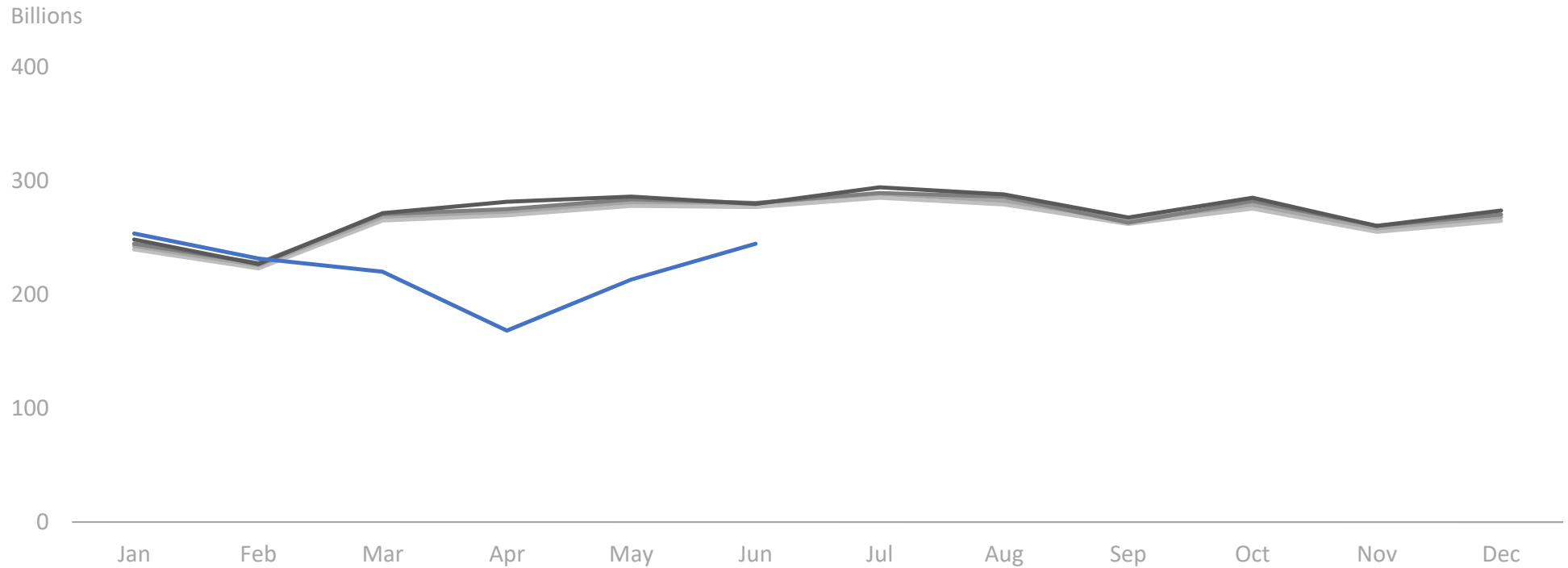
## Compensability Expansion

Potential for employees in other **“essential”** occupations



# COVID-19 Disrupts Trends in Miles Driven Per Month

2020 vs. 2016–2019



Source: Traffic Volume Trends, US Department of Transportation, Federal Highway Administration's Office of Highway Policy Information

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# What Could a COVID-19 Claim Look Like?

## — Indemnity —

Minimal time away from work      Significant time away from work



## — Medical —

Mild symptoms with low medical costs

Long-term hospital stay

Short-term hospital stay

Need for rehabilitation



## — Mental-Mental —

OTC/Rx Medication

Require therapy session(s)

Long-term impairment



# COVID-19 Hypothetical Scenarios Tool—Illustrative Example

Choose a Jurisdiction: All NCCI States

Choose a Workforce: Healthcare-Related

**Intended Use:** The calculations presented here model the potential direct impact to expected losses for the associated jurisdiction and workforce under the scenario framework described in NCCI's Research Briefs: [COVID-19 and Workers Compensation: Modeling Potential Impacts](#) and [COVID-19 and Workers Compensation: Permanent Disability](#).

Frequency Inputs	Scenario Assumption	
(1) Infection Rate	10%	
(2) Report Rate	50%	
(3) Hospitalization Rate	10%	
(4) Critical Care Rate	15%	
(a) Permanent Partial Rate	40%	
(b) Permanent Total Rate	3%	
(5) Fatal Rate	0.5%	
(6) Compensability Rate	100%	

Double-click to reset.

Severity and Benefit Inputs	Relativity	Scenario Assumption
(7) Wage Replacement <sup>1</sup>	\$927 x 1.00	= \$927
(8) Fatal <sup>2</sup>	\$386,404 x 0.75	= \$289,803
(9) Permanent Partial <sup>2</sup>		
(a) Moderate	\$30,259 x 0.90	= \$27,233
(b) Severe	\$30,259 x 1.50	= \$45,389
(10) Permanent Total <sup>2</sup>	\$743,969 x 0.95	= \$706,771
(11) Medical <sup>1</sup>		
(a) Mild	\$1,000 x 1.00	= \$1,000
(b) Moderate	\$22,300 x 1.00	= \$22,300
(c) Severe	\$67,000 x 1.00	= \$67,000

Scenario Assumptions	(i) Frequency	(ii) Wage Replacement	(iii) Permanent Disability	(iv) Medical	(v) Total
(12) Mild	4.500%	\$812	\$0	\$1,000	\$1,812
(13) Moderate	0.425%	\$1,656	\$5,447	\$22,300	\$29,403
(14) Severe	0.075%	\$3,712	\$39,359	\$67,000	\$110,071
(15) Overall	5.000%	\$927	\$1,053	\$3,801	\$5,781

Scenario Impacts	Estimate
(16) Average Salary <sup>3</sup>	\$59,350
(17) Pure Premium Factor <sup>4</sup>	0.36
(18) Workforce (Healthcare-Related)	8,490,310
(19) Expected Payroll	\$503,900M = (16) x (18)
(20) COVID-19 Total Severity	\$7,230 = (15v) + (5) x (8)
(21) COVID-19 Expected Losses <sup>5</sup>	\$3,069.3M = (20) x (18) x (15i) x (6)
(22) Expected Losses Without COVID-19 <sup>5</sup>	\$1,814.0M = (19) / 100 x (17)
(23) Scenario Expected Losses With COVID-19 <sup>5</sup>	\$4,883.3M = (21) + (22)
(24) All NCCI States—Scenario Workforce Impact <sup>5</sup>	+169% = (23) / (22) - 1.0

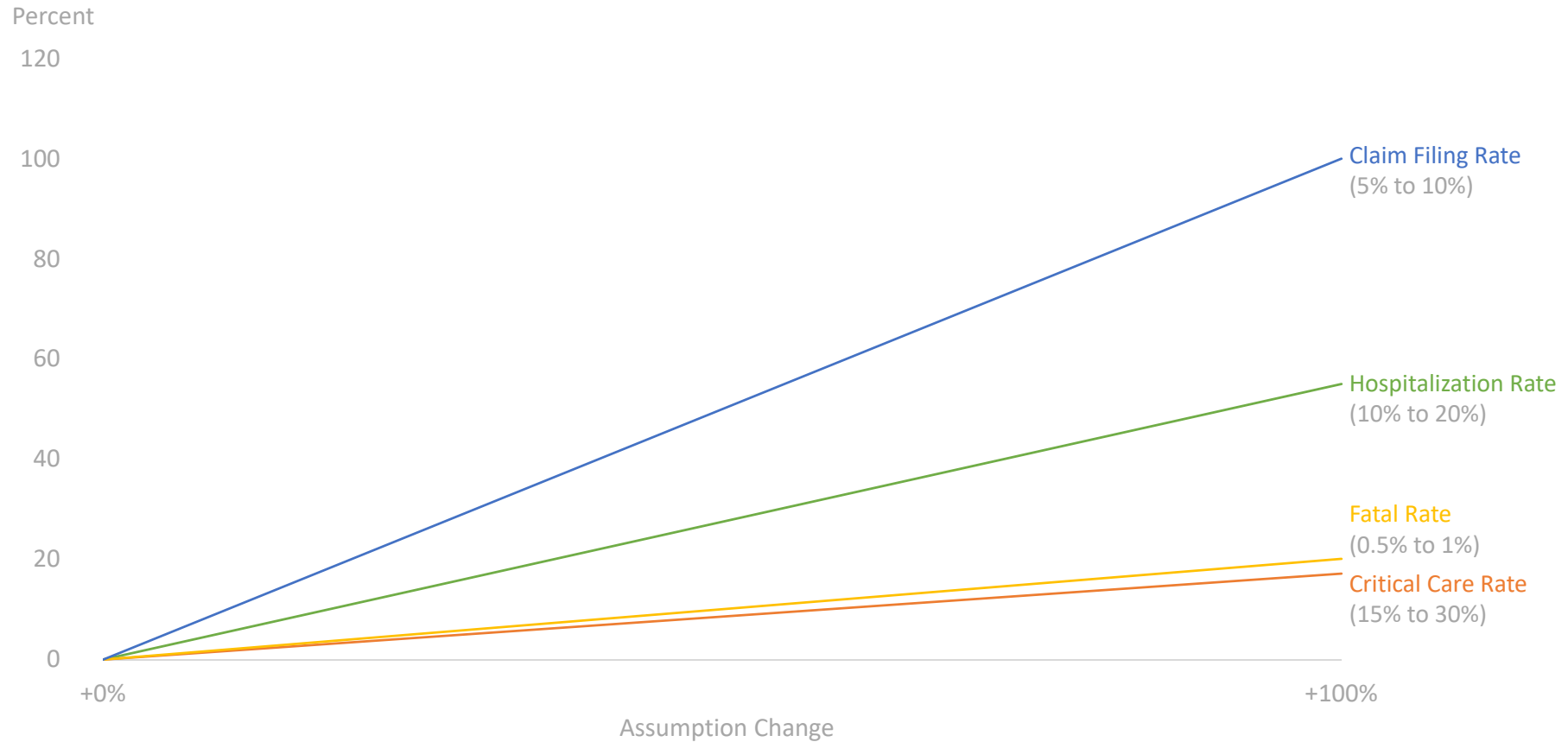
**NOTE:** The model scenario may not include consideration for all potential benefit costs such as mental illness or employers liability. Displayed values not shown to full precision. Amounts shown in Rows (16), (18), (19), (21), (22), (23) reflect all private and public employers regardless of how work-related injury costs are funded (e.g., privately insured, self-insured, and employers exempted from WC requirements including Non-Subscribers in Texas)

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# COVID-19 Scenario Impact—Sensitivity Testing

Change to Overall Impact on Healthcare-Related Workforce by Varying Assumptions



Claim Filing Rate = Infection Rate \* Report Rate

Source: COVID-19 Hypothetical Scenarios Tool

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# Florida's 2020 COVID-19 Indemnity Claims

According to the Florida Division of Workers' Compensation as of September 30, 2020

More than **21,000** COVID-19 indemnity claims filed

To date, the  
average payment  
is approximately  
**\$1,450**

Almost **45%**  
have been at least  
partially denied

Approximately **65%**  
were reported as closed

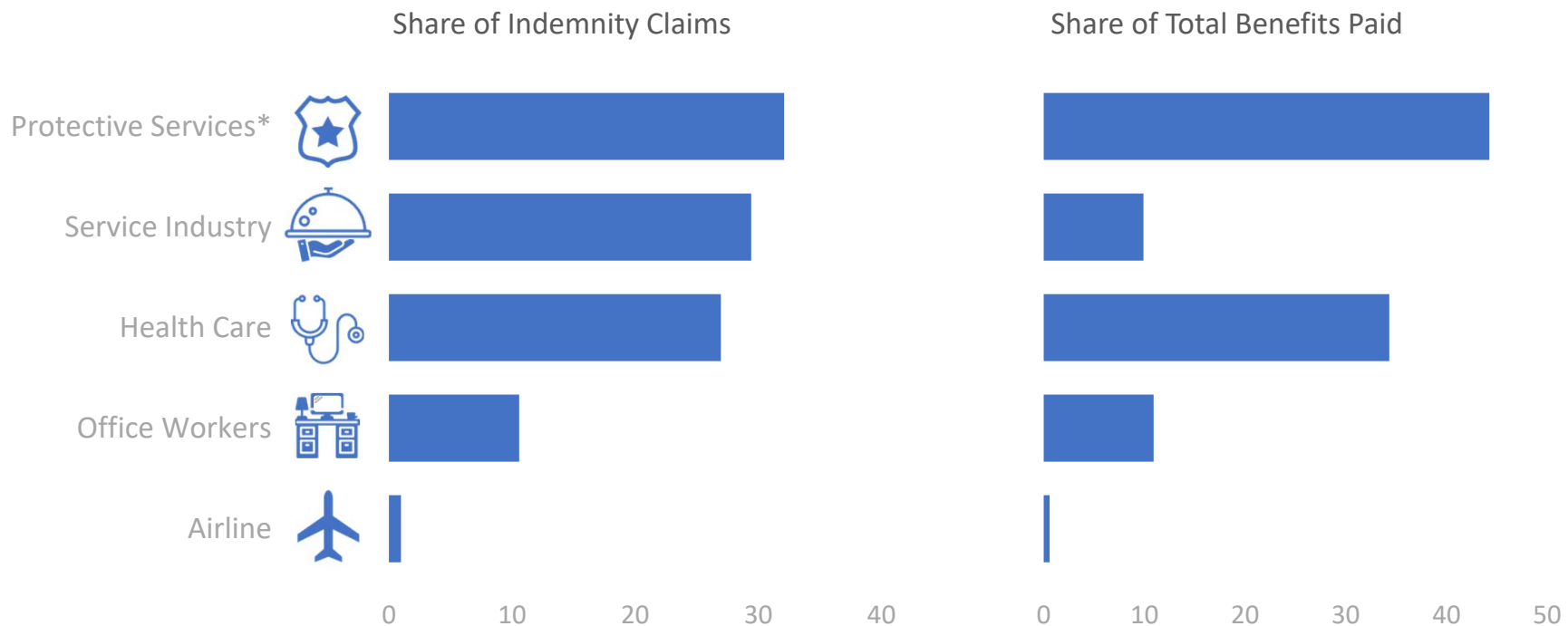
These make up over **30%**  
of all reported AY 2020  
indemnity claims  
and approximately **7%**  
of total paid benefits

Source: Florida Division of Workers' Compensation, 2020 COVID-19 Report, Data Summary as of September 30, 2020

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# Distribution of Florida's COVID-19 Claims by Occupation



\*Protective Services includes first responders

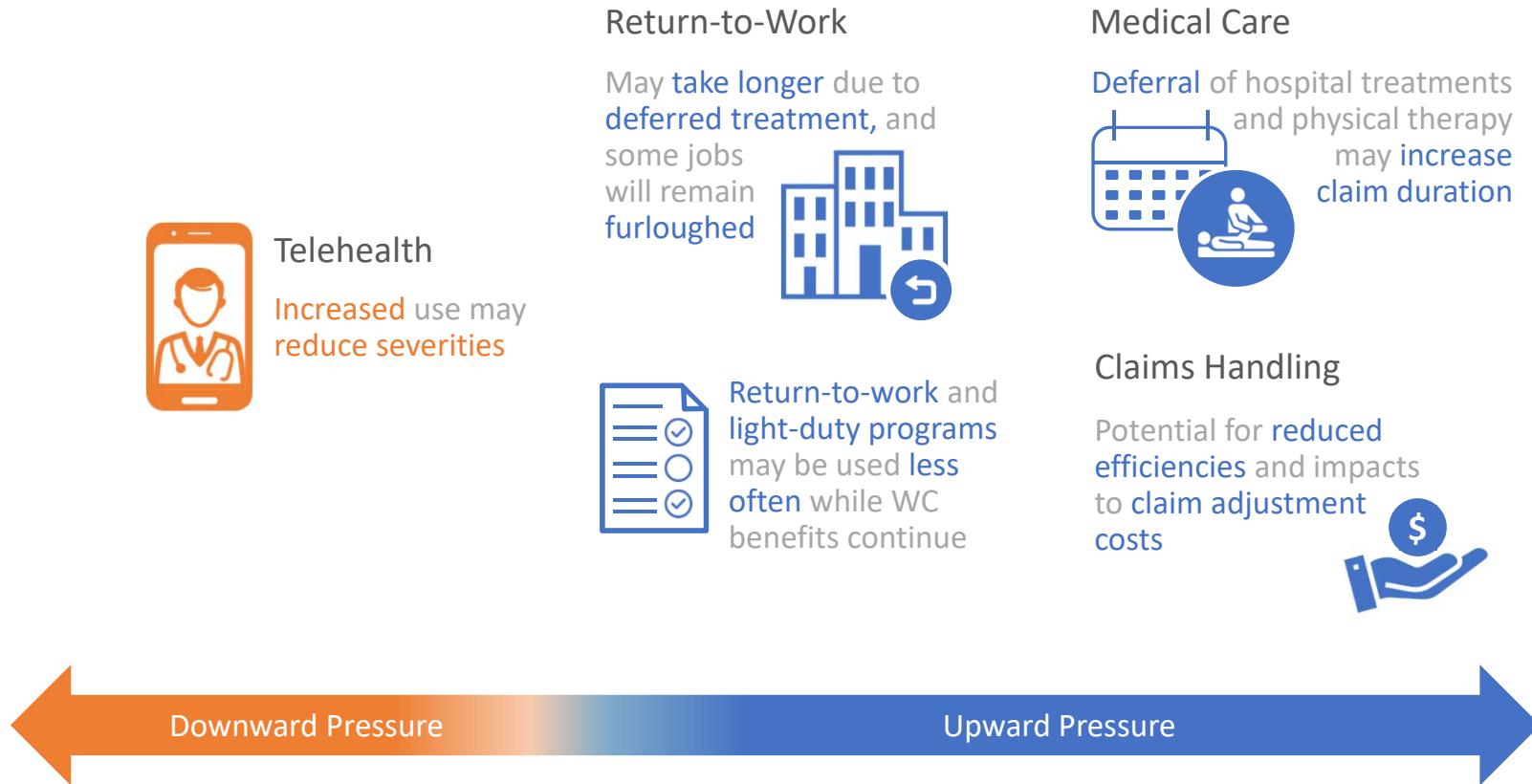
Source: Florida Division of Workers' Compensation, 2020 COVID-19 Report, Data Summary as of September 30, 2020

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# COVID-19 and Claim Severity



# Key Takeaways

## Analyze Employment and Job Losses

Driven by concepts of proximity & essentiality

Big variation among states

Virus stats appear to be delinked from employment

## Explore Recovery Scenarios

Permanent layoffs rising

Job recovery is slowing

## Understand COVID-19 Impacts on WC

Declining WC premium

Shifting claim frequency & severity



## Resources on **ncci.com**

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*Quarterly Economics Briefing*

State of the Line Report

*State of the Line Guide*

COVID-19 Resource Center

COVID-19 and Workers Compensation: Modeling Potential Impacts

COVID-19 Hypothetical Scenarios Tool



# Question and Answer