COVID-19 Webinar Series
COVID-19 -- Data-Driven Insights on Job Site Activity

For Technical Difficulties:

💬 Chat with host, Jessica Bunting

✉️ or email jbunting@cpwr.com

If you have trouble hearing through your computer, call in via phone:

📞 415-655-0003
Access code: 127 732 2718

Presented by:

G. Scott Earnest, Ph.D., P.E., C.S.P., Associate Director for Construction, the Office of Construction Safety and Health, NIOSH

Chris Cain, CIH, CPWR Executive Director

Kristopher Lengieza, Senior Director, Business Development at Procore

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SARS-CoV-2 and Construction Workers
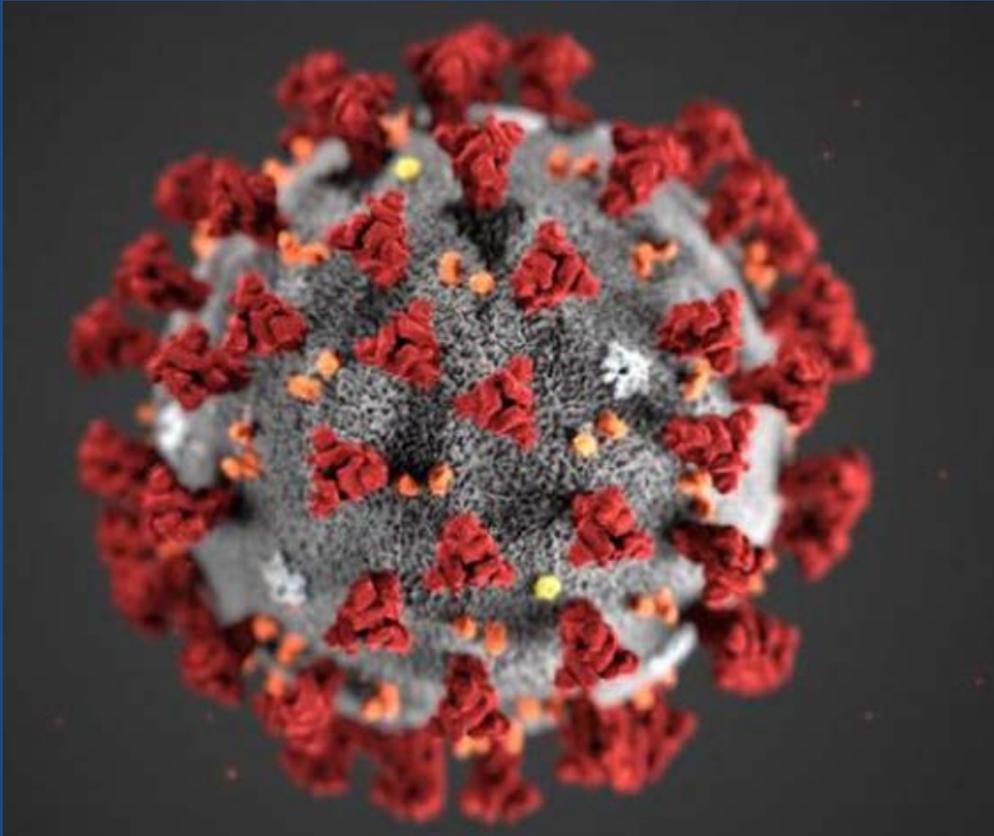
G. Scott Earnest, Ph.D.
National Institute for Occupational Safety and Health
Centers for Disease Control and Prevention
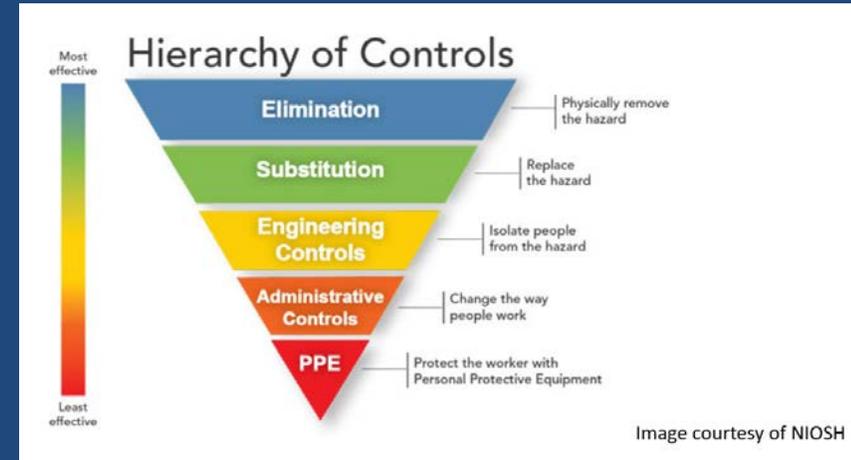U.S. Department of Health and Human Services

03 June 2020

Disclaimer: The information contained in this presentation was accurate on the date it was presented.

Key Issues

- COVID-19 Basics
  - Symptoms, transmission, etc.
- COVID-19 Construction Guidance
  - Sources, hierarchy of controls, mitigation
- NORA Construction Sector Council
  - COVID-19 Workgroup, COVID-19 Clearinghouse
- For More Information

Hierarchy of Controls

Most effective → Least effective

- Elimination — Physically remove the hazard
- Substitution — Replace the hazard
- Engineering Controls — Isolate people from the hazard
- Administrative Controls — Change the way people work
- PPE — Protect the worker with Personal Protective Equipment

Image courtesy of NIOSH

COVID-19 Basics

- COVID-19 is a respiratory disease.

- Primary presenting symptoms
  - Fever, cough, and trouble breathing.

- Average incubation period = is 5.2 days
  - 99% of individuals exhibiting symptoms within 12.5 days to 14 days.

- There are people who get COVID-19, but do not require hospitalization for respiratory distress.

- Persons may become infected with SARS-CoV-2, yet not feel sick.
  - Pre-symptomatic or asymptomatic.

Transmission

- *Droplets*
  - Transmission from person to person occurs primarily between people in close contact with each other (about 6 feet).

  - Respiratory droplets carrying the virus transmit infection when they travel directly *from* the respiratory tract of the infected individual *to* the mucosal surfaces—the eyes, nose and mouth of the uninfected person.

  - Droplets are produced when infected person coughs, sneezes or speaks forcibly.

- *Contact*
  - Contact between an uninfected person and surface or object, which has been recently (within hours) contaminated with SARS-CoV-2, can occur.

  - When a person touches a contaminated surface or object with their hands, and then touches their hands to their mouth, nose, or eyes, contact transmission occurs.

Transcription by Aerosols

- Transmission by small particles—called aerosols—which remain airborne for a longer time and over a longer distance than droplets—may occur.

- **Close Contact Aerosols**
  - Airborne spread can occur especially in a relatively closed environment, involving high concentrations of aerosols over a prolonged period, and where the uninfected person is *close* to the source. This is especially true in healthcare settings.

Mitigation Strategies

- **3 Major Categories**
  - Physically separate and distance
    - Stay at home if sick, screen workers, min. distance of 6 feet, eliminate common areas
  - Personal protective measures
    - Cough etiquette, frequent hand washing, face coverings
  - Decontamination of environmental surfaces

What Construction Workers Need to Know about COVID-19

Other Languages ▾   Print Page

Coronavirus disease 2019 (COVID-19) is a respiratory illness caused by a virus called SARS-CoV-2. Our understanding of how the virus spreads is evolving as we learn more about it, so check the CDC website for the latest information and current list of symptoms. The virus is thought to spread mainly from person to person:

- Between people who are in close contact with one another (within about 6 feet).
- Through respiratory droplets produced when an infected person coughs, sneezes, or talks.

Construction—How to Protect Myself?

- Notify your supervisor and stay home if you are having <u>symptoms</u> (fever, cough, or shortness of breath).

- Follow <u>CDC-recommended steps</u> if you are sick. You should not return to work until the criteria to <u>discontinue home isolation</u> are met, in consultation with healthcare providers and state and local health departments.

- Follow <u>CDC recommended precautions</u> and notify your supervisor if you are well but have a sick family member at home with COVID-19.

- Limit close contact with others by maintaining social distancing, when possible.

- CDC recommends wearing cloth face coverings in public settings where other social distancing measures are difficult to maintain, especially in areas of significant community-based transmission
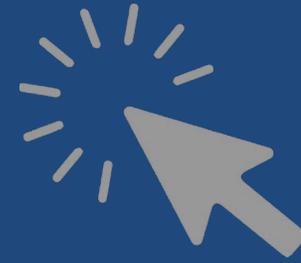
Construction Guidance

- **What steps should my employer take?**
  - Provide accurate information
  - Reduce transmission among workers
  - Minimize face to face contact
  - Promote hand hygiene, soap, clean running water
- **Maintain a healthy work environment**
  - Modify work schedules
  - Minimize number of workers in confined areas
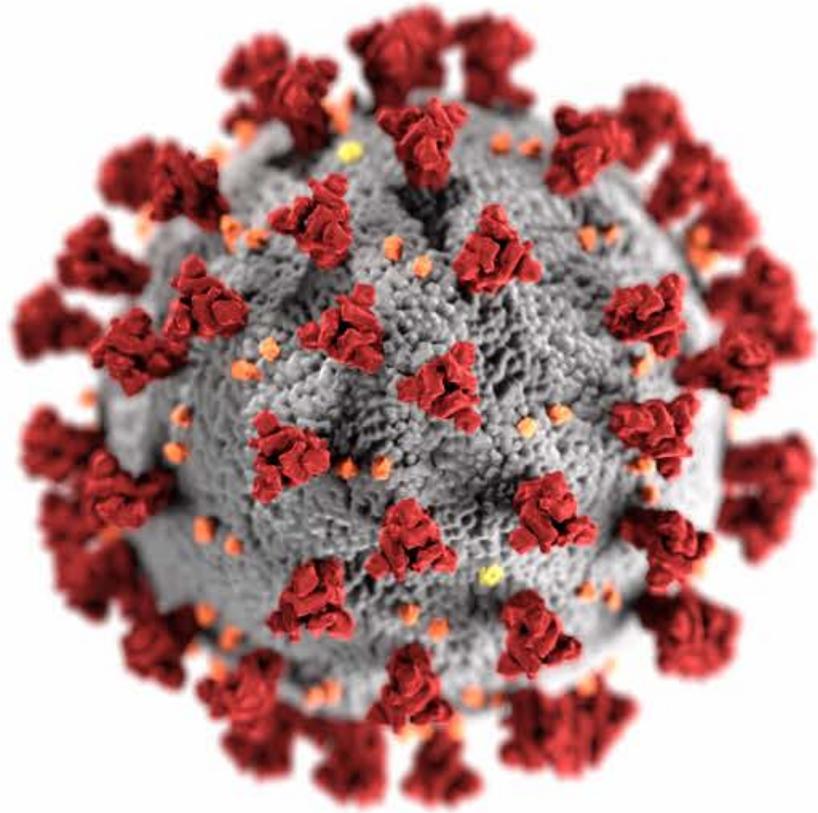 - Conduct hazard assessments
  - Maintain social distancing

Construction—Healthy Business Ops

- Designate a safety officer or someone else to be responsible for responding to COVID-19 concerns at every jobsite. Workers should know who this person is and how to contact them.

- Implement flexible sick leave and supportive policies and practices. Consider drafting non-punitive emergency sick leave policies if sick leave is not offered to some or all employees.

- Provide information on who to contact if employees become sick. If an employee is confirmed to have COVID-19 infection, employers should inform fellow employees of their possible exposure to COVID-19 in the workplace but maintain confidentiality under the Americans with Disabilities Act.

- Reach out to local public health officials to establish ongoing communications to facilitate access to relevant information before and during a local outbreak.

For More Information

- CPWR COVID-19 Clearinghouse http://covid.elcosh.org/

- CDC COVID-19 Construction: https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/construction-workers.html

- CDC Interim Guidance for Businesses and Employers to Plan and Respond to Coronavirus Disease 2019 website: www.cdc.gov/coronavirus/2019-ncov/community/guidance-business-response.html

- CDC Prepare your Small Business and Workers for the Effects of COVID-19 website: www.cdc.gov/coronavirus/2019-ncov/community/guidance-small-business.html

- NIOSH Directory of Construction Resources https://www.cdc.gov/niosh/construction/default.html

- OSHA COVID-19 website: www.osha.gov/SLTC/covid-19/controlprevention.html

- CDCINFO: 1-800-CDC-INFO (1-800-232-4636) | TTY: 1-888-232-6348 | website: www.cdc.gov/info

1. **Guidance on Workplace Practices:** procedures or recommendations for how to protect workers and prevent the spread on construction sites, such as hand washing, distancing, and other protocols/

2. **Safety in Action:** examples of ways safe practices are being implemented on job sites(e.g., providing hand washing facilities, maintaining distancing at choke points)

3. **Training Resources:** videos, presentations, toolbox talks, etc.

4. **Employer Recommendations & Requirements:** formal requirements and/or recommendations, such as the *NABTU and CPWR COVID-19 Standards for U.S. Construction Sites*, bargaining language, etc.

5. **State and Local Requirements:** state and local government COVID-19 policies that impact the construction industry

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7. **Research Findings:** studies, reports, and data on the spread, impact, or prevention of COVID-19

8. **Personal Protective Equipment:** information on use of respirators and other PPE to protect against COVID-19

9. **Mental Health Resources:** resources to help address the risk for suicide, opioid use, etc. due to COVID-19

10. **Webinars, Podcasts & Social Media:** focused on COVID-19

Please include:

1. **In the subject line** – a short description/title of the material

2. **In the body of the email** – the material's source, date, related documentation of permission to post (if from a 3rd party) or a note indicating the organization that needs to be contacted for permission*

3. **In the body of the email –** the section of the site the item falls under (Resource Category or Categories, News & Related Information)

* NOTE: CPWR can link to items available online without obtaining permission. However, materials posted directly on the site, such as peer-reviewed articles, photos, etc. require permission from the publication, owner of the photo, etc.

COVID-19 & Construction Activity

Data Driven Findings and Actionable Insights

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COVID-19 Shelter in Place Timing

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"Shelter in Place" (SIP) Ordinances Across Four Cohorts

Week of Statewide Shelter In-place Order

- 3/15/20
- 3/22/20
- 3/29/20
- 4/5/20
- No/Minimal Statewide Order

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Source: *See* Appendix A

21
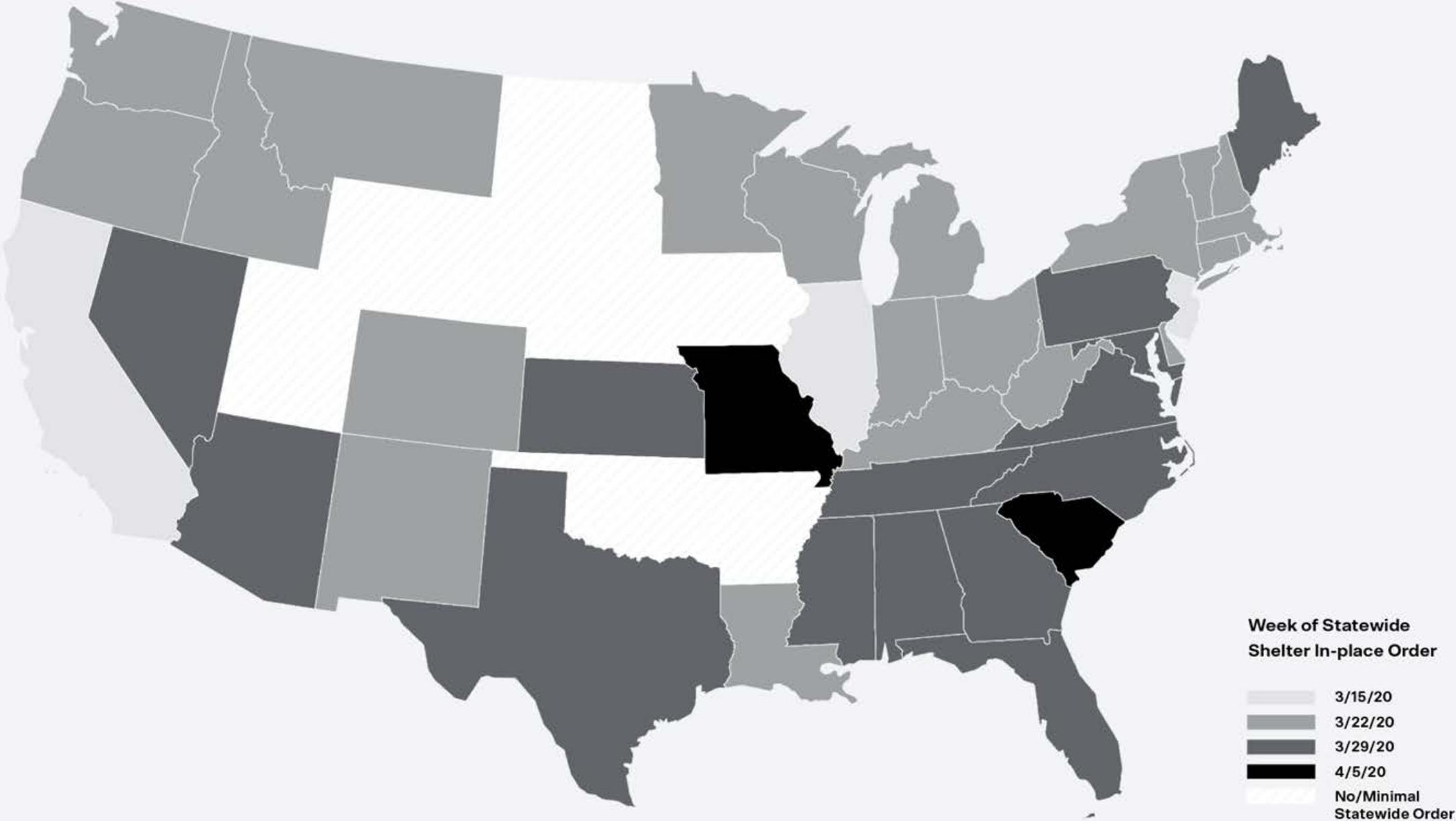
Construction Workers Hours

PROCORE

Worker Hours Decreased 4% Since the Week of March 1st; Held Flat Since Last SIP Ordinances

(-4%)

WORKER HOURS

	2-FEB	9-FEB	16-FEB	23-FEB	1-MAR	8-MAR	15-MAR	22-MAR	29-MAR	5-APR	12-APR	19-APR	26-APR	3-MAY	10-MAY
Value	13.1M	13.0M	13.2M	13.7M	14.5M	13.7M	13.0M	12.4M	12.2M	11.5M	12.0M	12.7M	13.0M	13.6M	13.9M
% Change WoW	-3%	-1%	2%	4%	2%	-2%	-5%	-5%	-1%	-6%	4%	2%	2%	4%	2%
% Change vs. 1-MAR						-2%	-7%	-11%	-12%	-17%	-14%	-12%	-10%	-6 %	-4 %

SIP markers: 1ST SIP (15-MAR), 2ND SIP (22-MAR), 3RD SIP (29-MAR), 4TH SIP (5-APR)

% Change WoW   % Change vs. 1-MAR
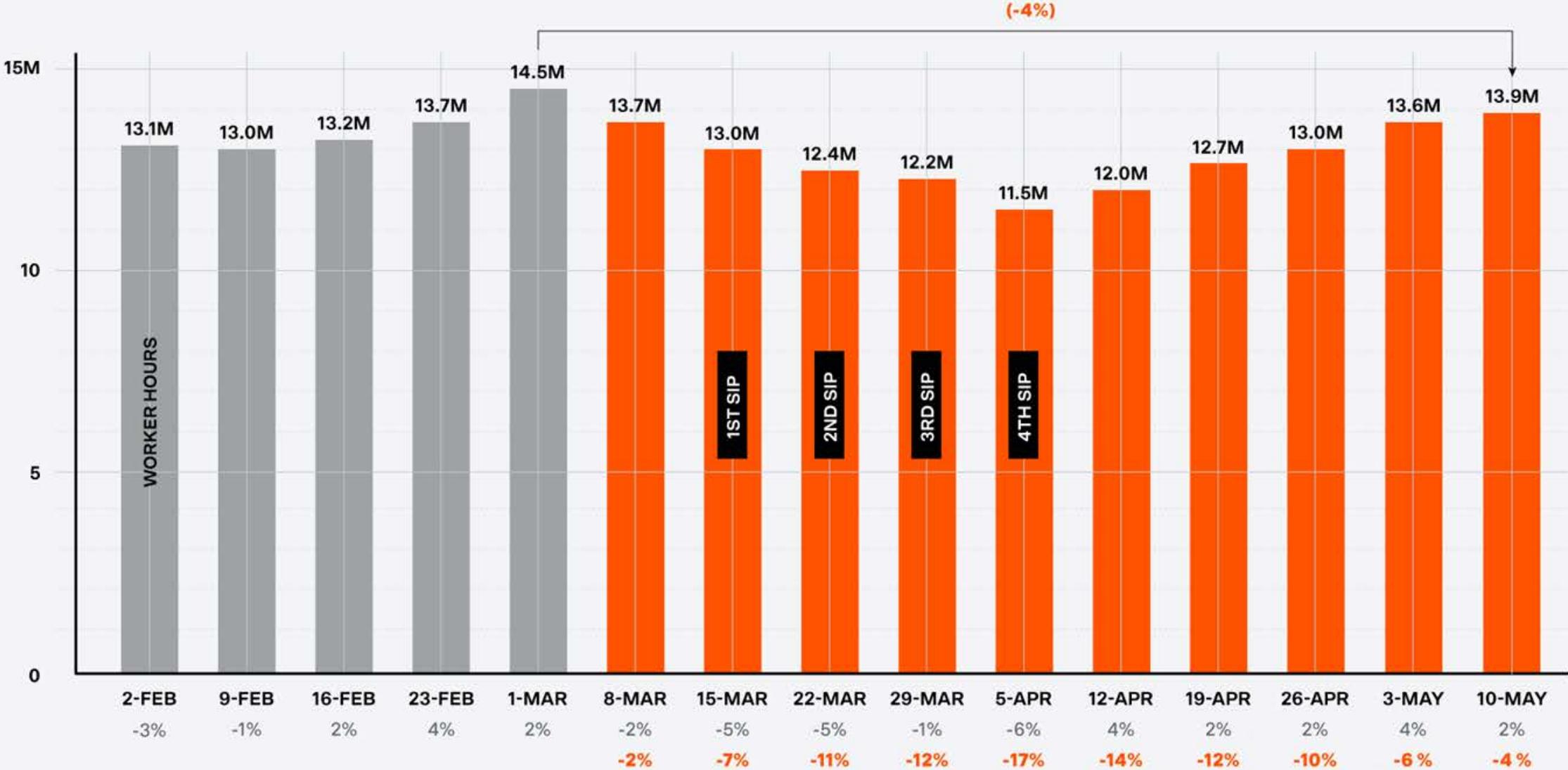
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Construction Workers Hours by State

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Worker Hour Change: Week of March 8th vs. Week of March 1st
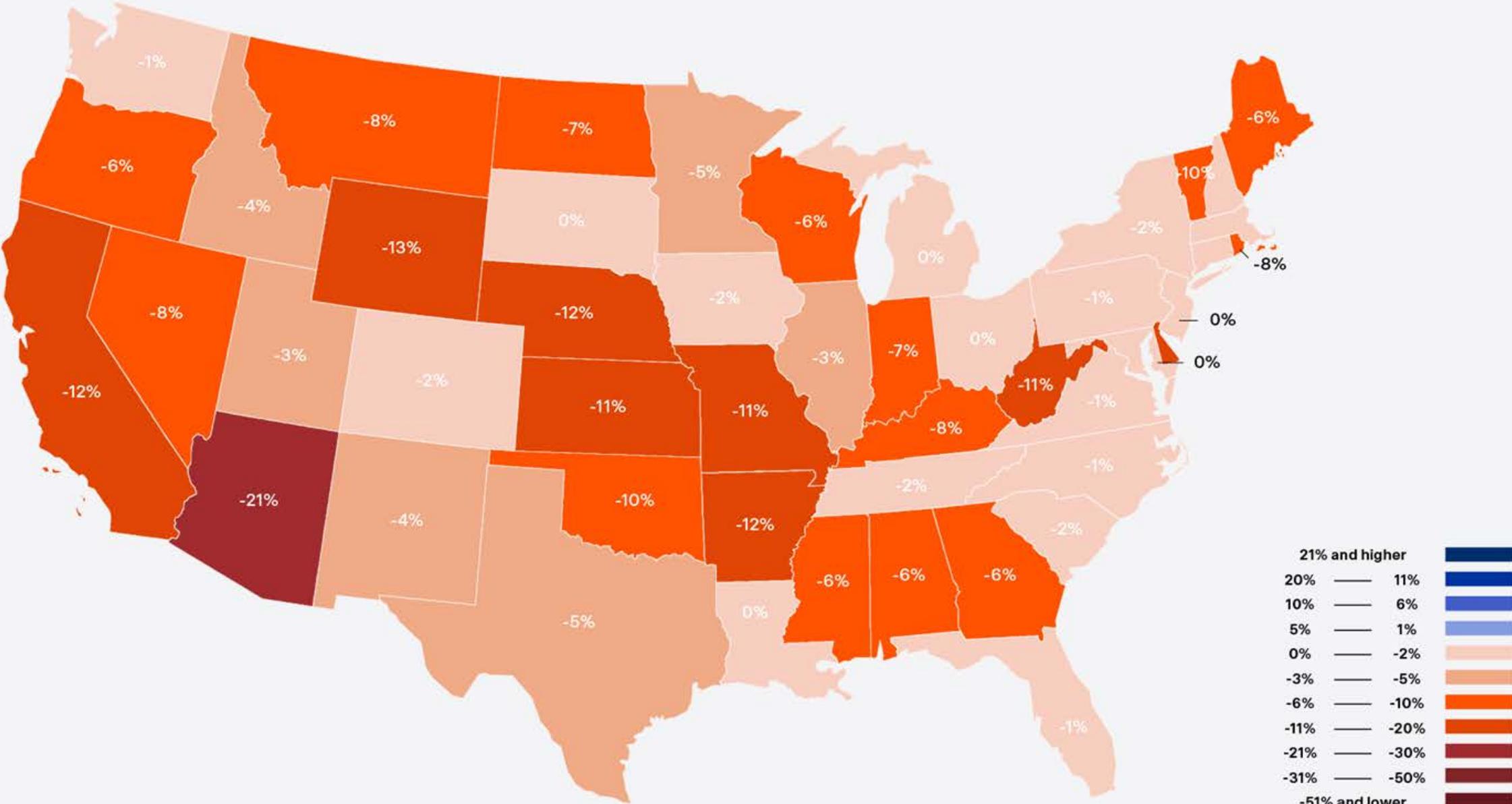
Legend:

21% and higher	
20% — 11%	
10% — 6%	
5% — 1%	
0% — -2%	
-3% — -5%	
-6% — -10%	
-11% — -20%	
-21% — -30%	
-31% — -50%	
-51% and lower	

Worker Hour Change: Week of March 15th vs. Week of March 1st
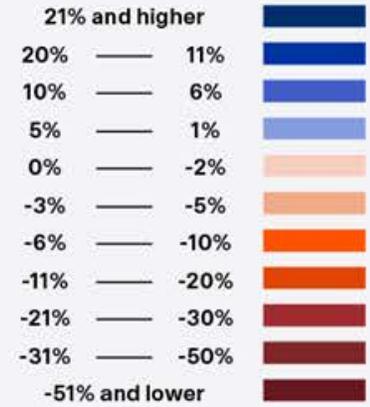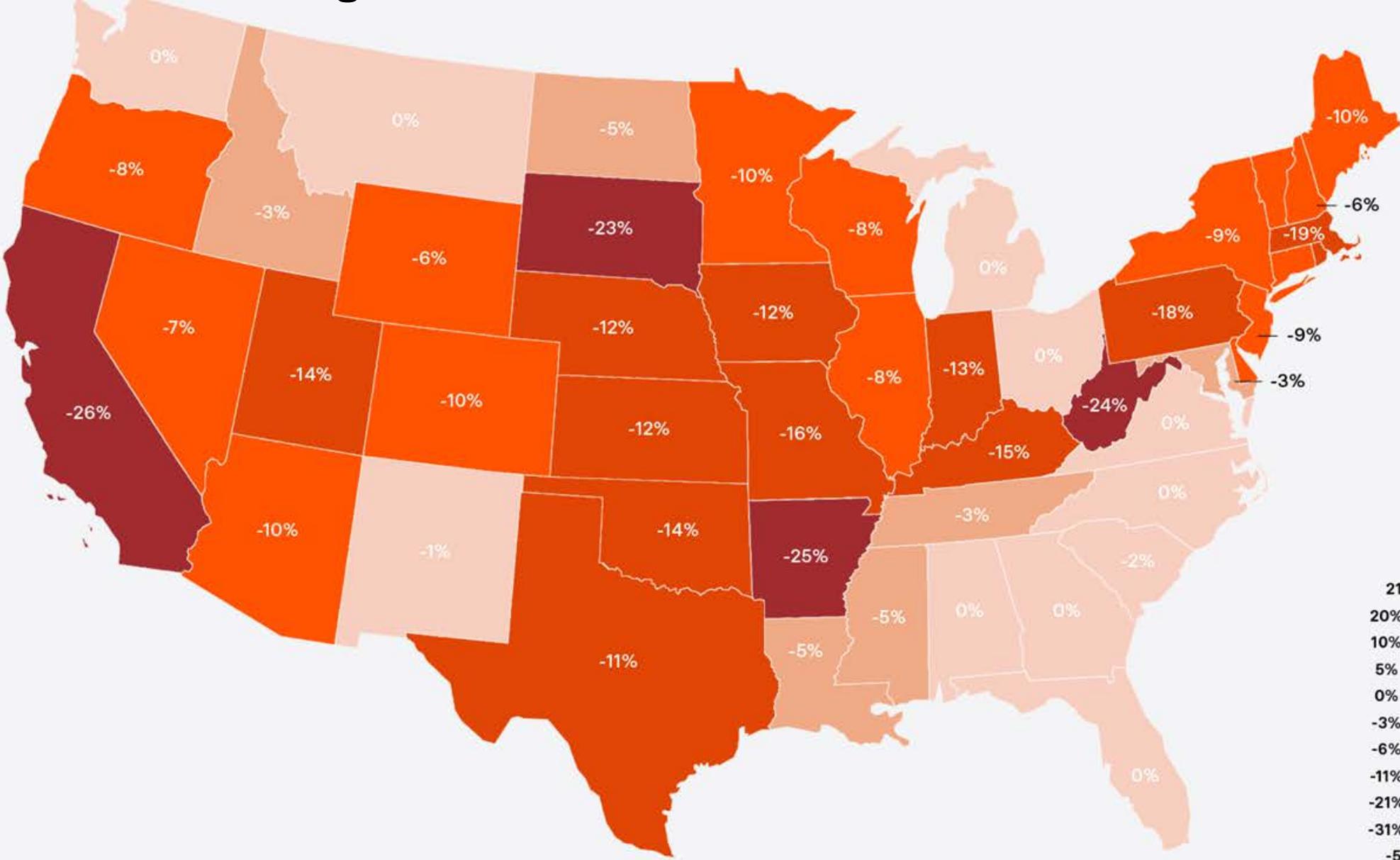
Legend:
- 21% and higher
- 20% — 11%
- 10% — 6%
- 5% — 1%
- 0% — -2%
- -3% — -5%
- -6% — -10%
- -11% — -20%
- -21% — -30%
- -31% — -50%
- -51% and lower

Worker Hour Change: Week of March 22nd vs. Week of March 1st

Legend:
- 21% and higher
- 20% — 11%
- 10% — 6%
- 5% — 1%
- 0% — -2%
- -3% — -5%
- -6% — -10%
- -11% — -20%
- -21% — -30%
- -31% — -50%
- -51% and lower

State values shown on map:
- Washington: -25%
- Oregon: -10%
- California: -19%
- Nevada: -1%
- Idaho: 0%
- Montana: -6%
- Utah: -6%
- Arizona: 0%
- Wyoming: -11%
- Colorado: 0%
- New Mexico: 0%
- North Dakota: -9%
- South Dakota: -24%
- Nebraska: 0%
- Kansas: -5%
- Oklahoma: -4%
- Texas: 0%
- Minnesota: -6%
- Iowa: -7%
- Missouri: -12%
- Arkansas: -12%
- Louisiana: -17%
- Wisconsin: -6%
- Illinois: -14%
- Indiana: -12%
- Mississippi: -6%
- Alabama: -9%
- Ohio: -8%
- Kentucky: -13%
- Tennessee: -3%
- Michigan: -66%
- Georgia: -11%
- South Carolina: -11%
- North Carolina: -5%
- West Virginia: -44%
- Virginia: -8%
- Pennsylvania: -79%
- New York: -31%
- Vermont: -55%
- Maine: -10%
- Massachusetts: -13%
- New Jersey: -24%
- Delaware/Maryland: -14%
- Florida: -1%

Source: Procore application daily log, data subject to change as customers update data

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Worker Hour Change: Week of March 29th vs. Week of March 1st

21% and higher
20% — 11%
10% — 6%
5% — 1%
0% — -2%
-3% — -5%
-6% — -10%
-11% — -20%
-21% — -30%
-31% — -50%
-51% and lower

28

Worker Hour Change: Week of April 5th vs. Week of March 1st
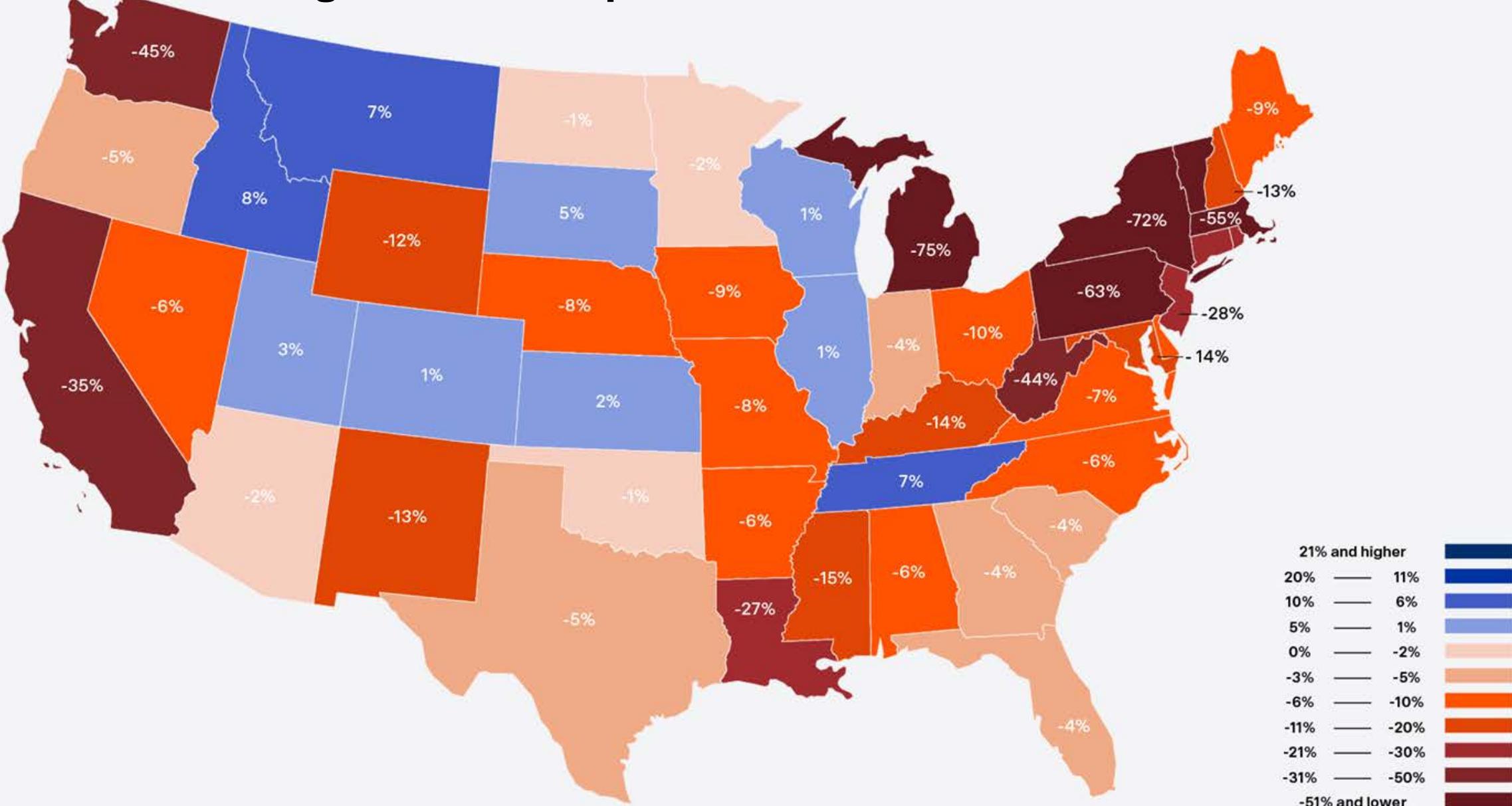
-45%
7%
-1%
-9%
-5%
-2%
8%
-12%
5%
1%
-75%
-13%
-72%
-55%
-6%
3%
1%
-8%
-9%
1%
-4%
-10%
-63%
-28%
2%
-8%
-14%
-44%
-14%
-35%
-7%
-13%
-6%
-2%
-1%
-6%
7%
-6%
-27%
-15%
-6%
-4%
-4%

21% and higher
20% — 11%
10% — 6%
5% — 1%
0% — -2%
-3% — -5%
-6% — -10%
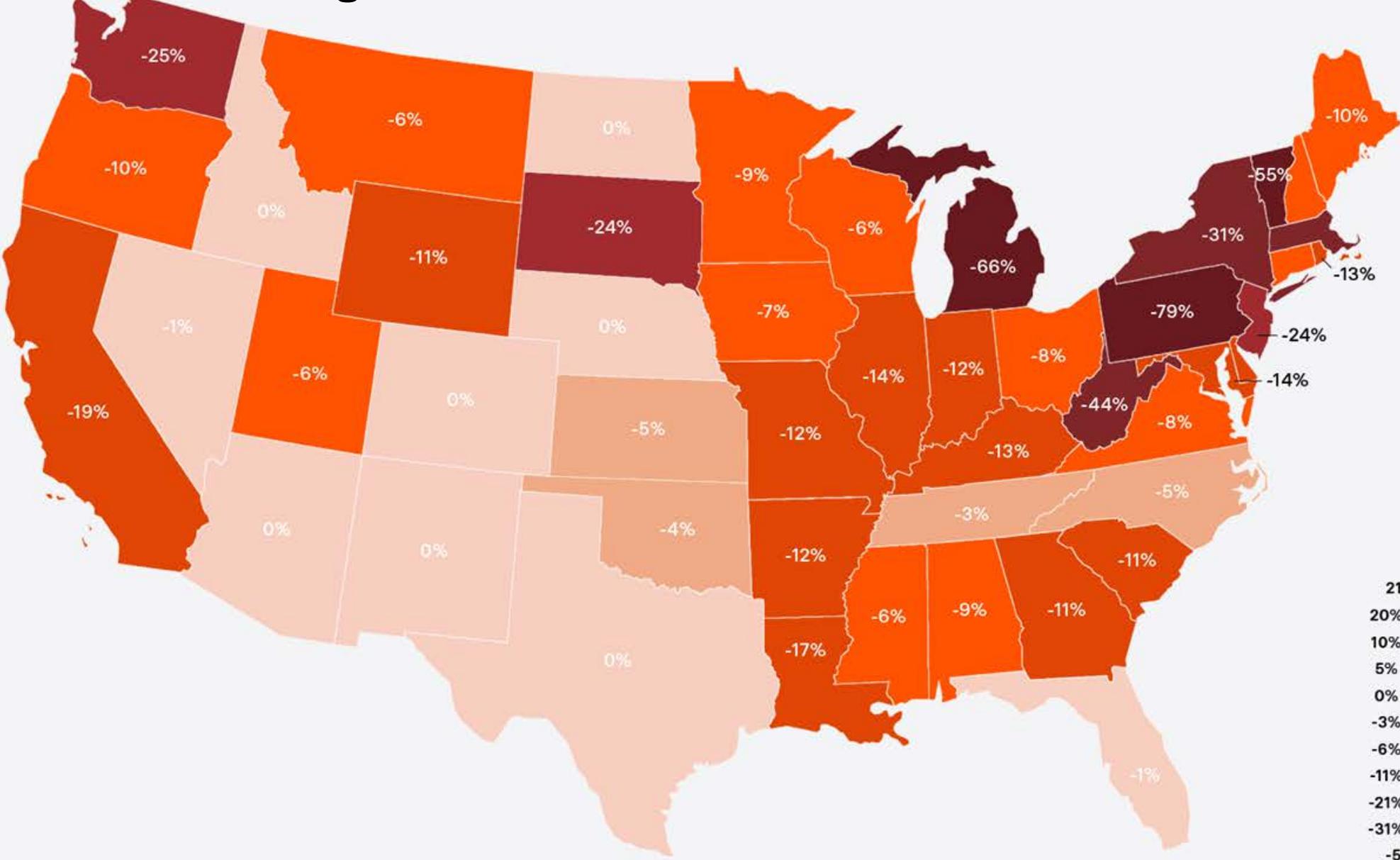-11% — -20%
-21% — -30%
-31% — -50%
-51% and lower

Source: Procore application daily log, data subject to change as customers update data

29

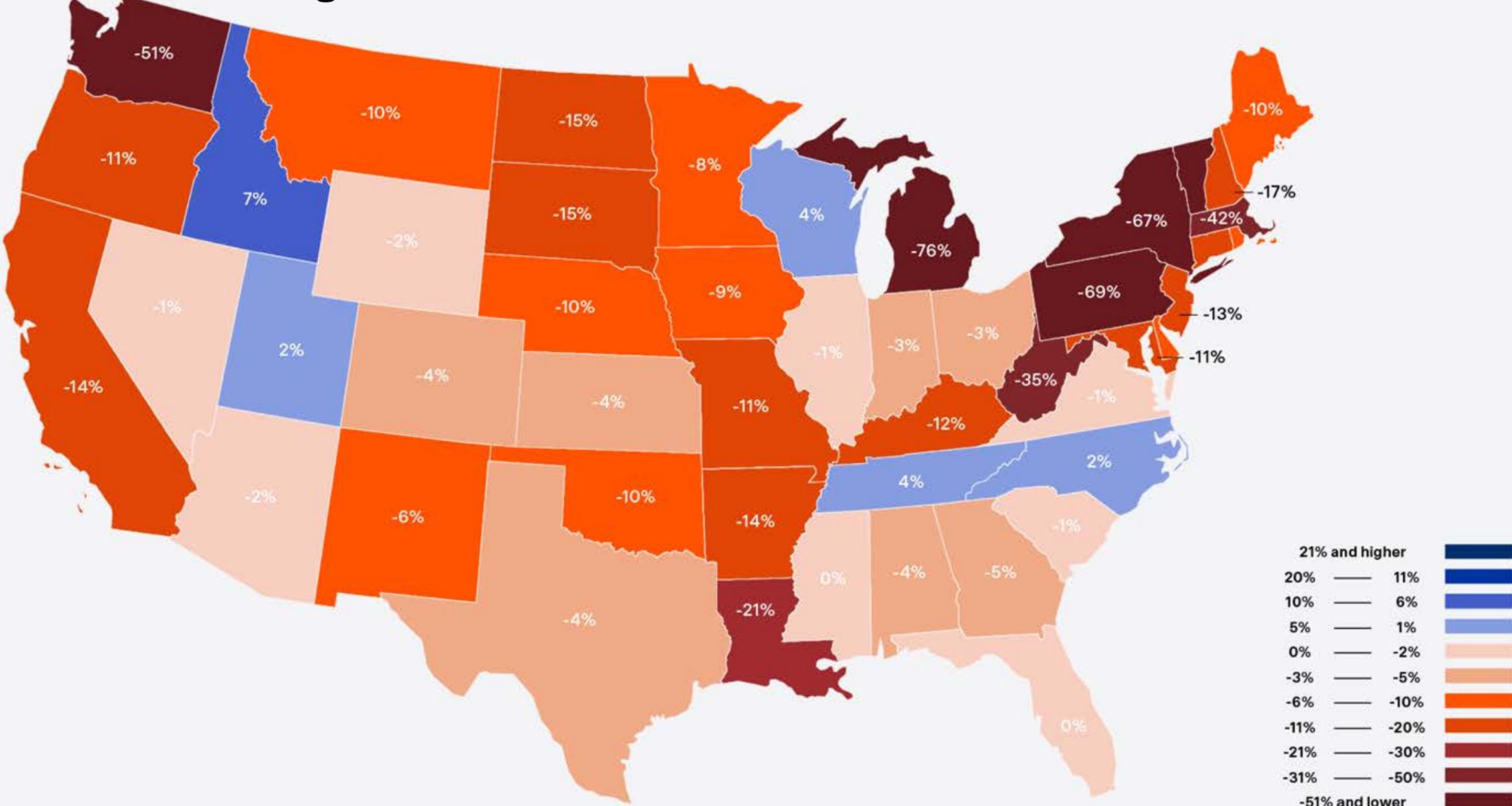# Worker Hour Change: Week of April 12th vs. Week of March 1st
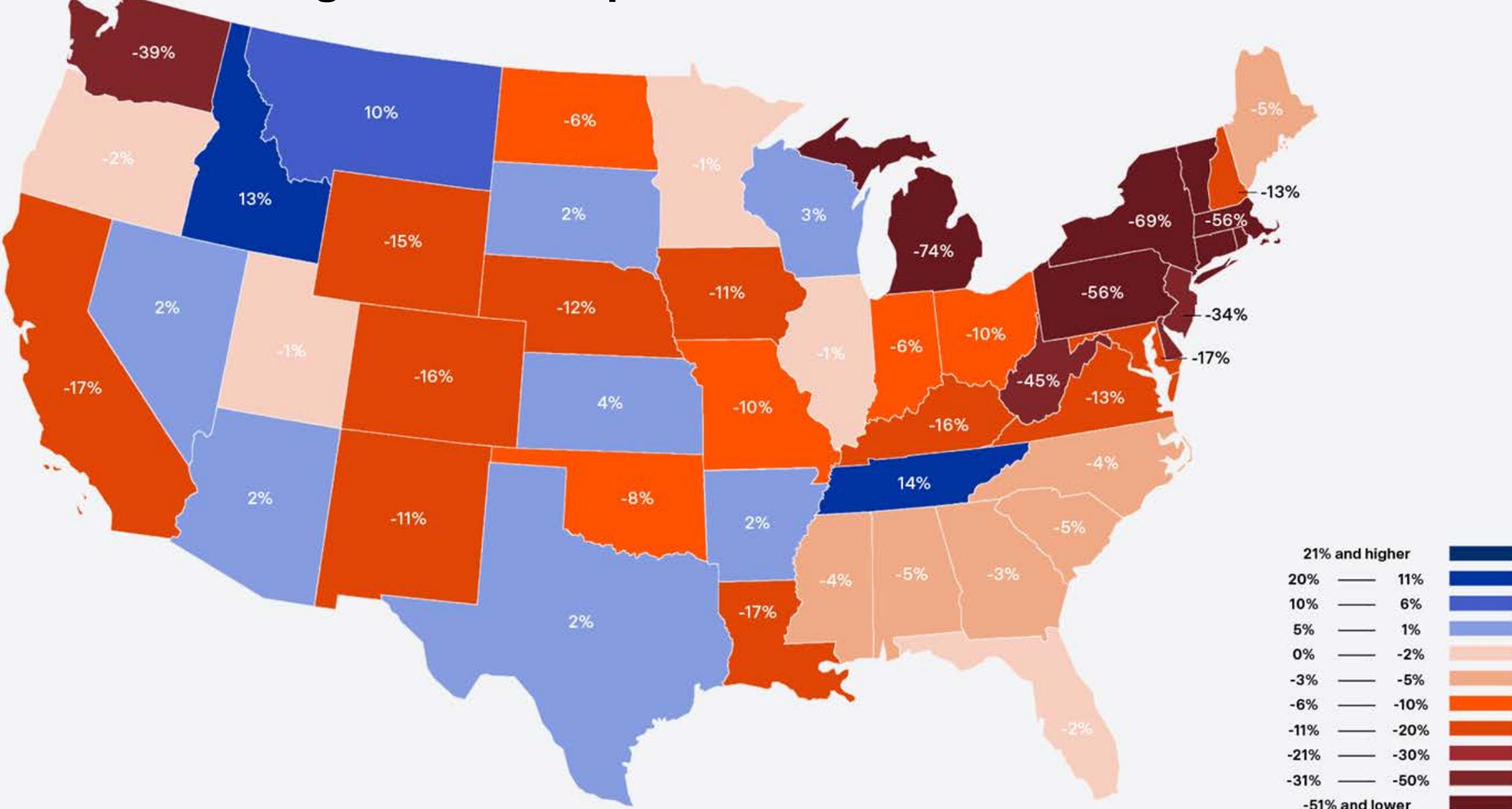
Legend:
- 21% and higher
- 20% — 11%
- 10% — 6%
- 5% — 1%
- 0% — -2%
- -3% — -5%
- -6% — -10%
- -11% — -20%
- -21% — -30%
- -31% — -50%
- -51% and lower

State values shown on map: -39%, 10%, -6%, -1%, -5%, -2%, 13%, -15%, 2%, 3%, -13%, -74%, -69%, -56%, -17%, 2%, -1%, -16%, -12%, -11%, -6%, -10%, -56%, -34%, 4%, -10%, -1%, -45%, -13%, -17%, 2%, -8%, 2%, 14%, -16%, -4%, 2%, -17%, -4%, -5%, -3%, -5%, -2%

Worker Hour Change: Week of April 19th vs. Week of March 1st
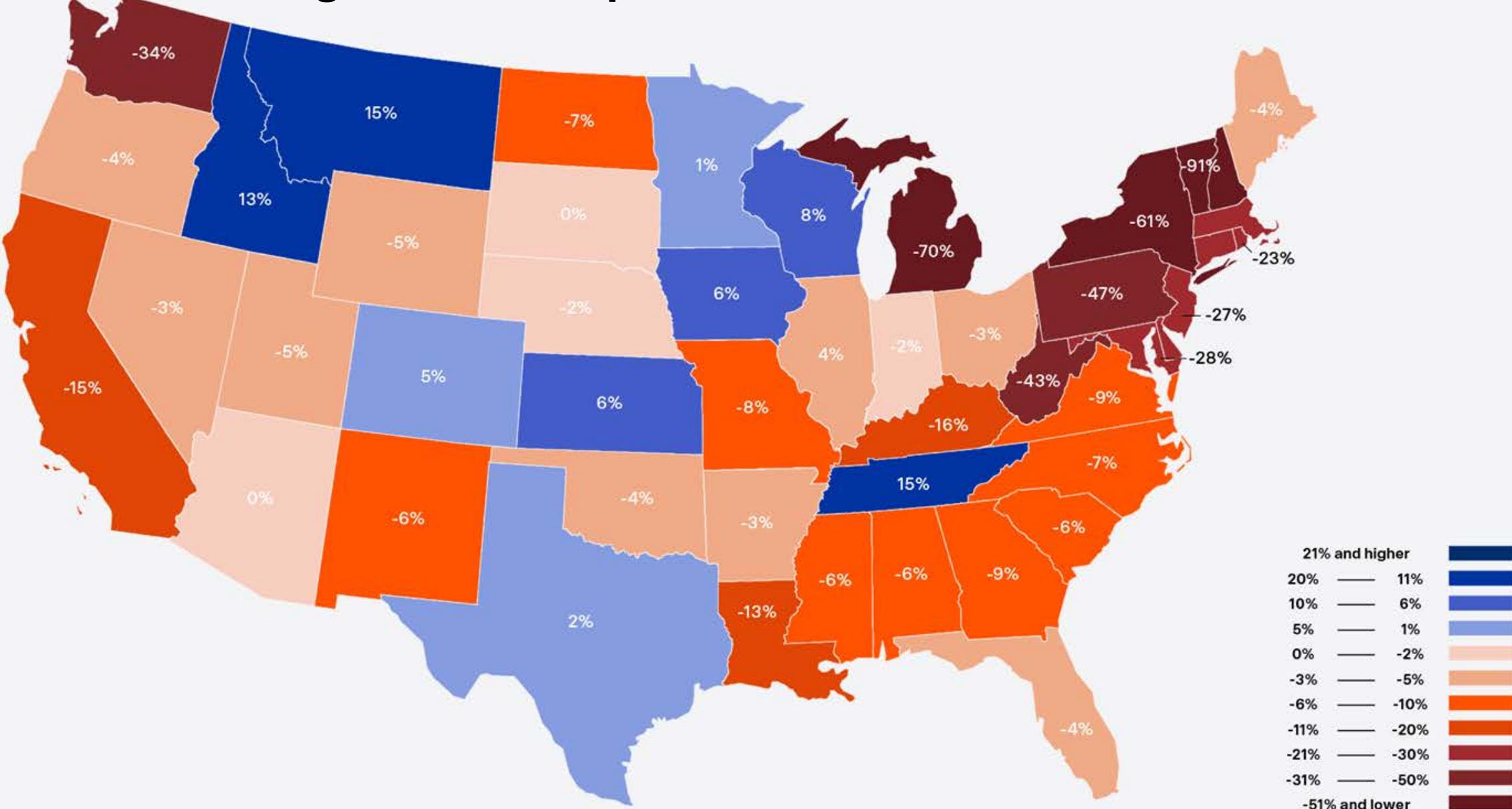
21% and higher
20% — 11%
10% — 6%
5% — 1%
0% — -2%
-3% — -5%
-6% — -10%
-11% — -20%
-21% — -30%
-31% — -50%
-51% and lower

Worker Hour Change: Week of April 26th vs. Week of March 1st

Legend:
- 21% and higher
- 20% — 11%
- 10% — 6%
- 5% — 1%
- 0% — -2%
- -3% — -5%
- -6% — -10%
- -11% — -20%
- -21% — -30%
- -31% — -50%
- -51% and lower

State values shown on map:
- Washington: -21%
- Oregon: -7%
- California: -18%
- Nevada: -7%
- Idaho: 10%
- Montana: 19%
- Wyoming: -7%
- Utah: -5%
- Colorado: 4%
- Arizona: -3%
- New Mexico: -9%
- North Dakota: -3%
- South Dakota: -9%
- Nebraska: 2%
- Kansas: 6%
- Oklahoma: -5%
- Texas: -2%
- Minnesota: -3%
- Iowa: -2%
- Missouri: -6%
- Arkansas: -9%
- Louisiana: -12%
- Wisconsin: 6%
- Illinois: -3%
- Michigan: -69%
- Indiana: -4%
- Kentucky: -16%
- Tennessee: 16%
- Mississippi: -2%
- Alabama: 7%
- Georgia: -2%
- Florida: -4%
- Ohio: -2%
- West Virginia: -40%
- Virginia: -15%
- North Carolina: 1%
- South Carolina: 2%
- Pennsylvania: -40%
- New York: -55%
- Maine: -5%
- Vermont: -48%
- New Hampshire: -20%
- Massachusetts: -26% (or -48%)
- New Jersey: -26%
- Delaware: -14%

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Worker Hour Change: Week of May 3rd vs. Week of March 1st

Legend:

21% and higher	
20% — 11%	
10% — 6%	
5% — 1%	
0% — -2%	
-3% — -5%	
-6% — -10%	
-11% — -20%	
-21% — -30%	
-31% — -50%	
-51% and lower	

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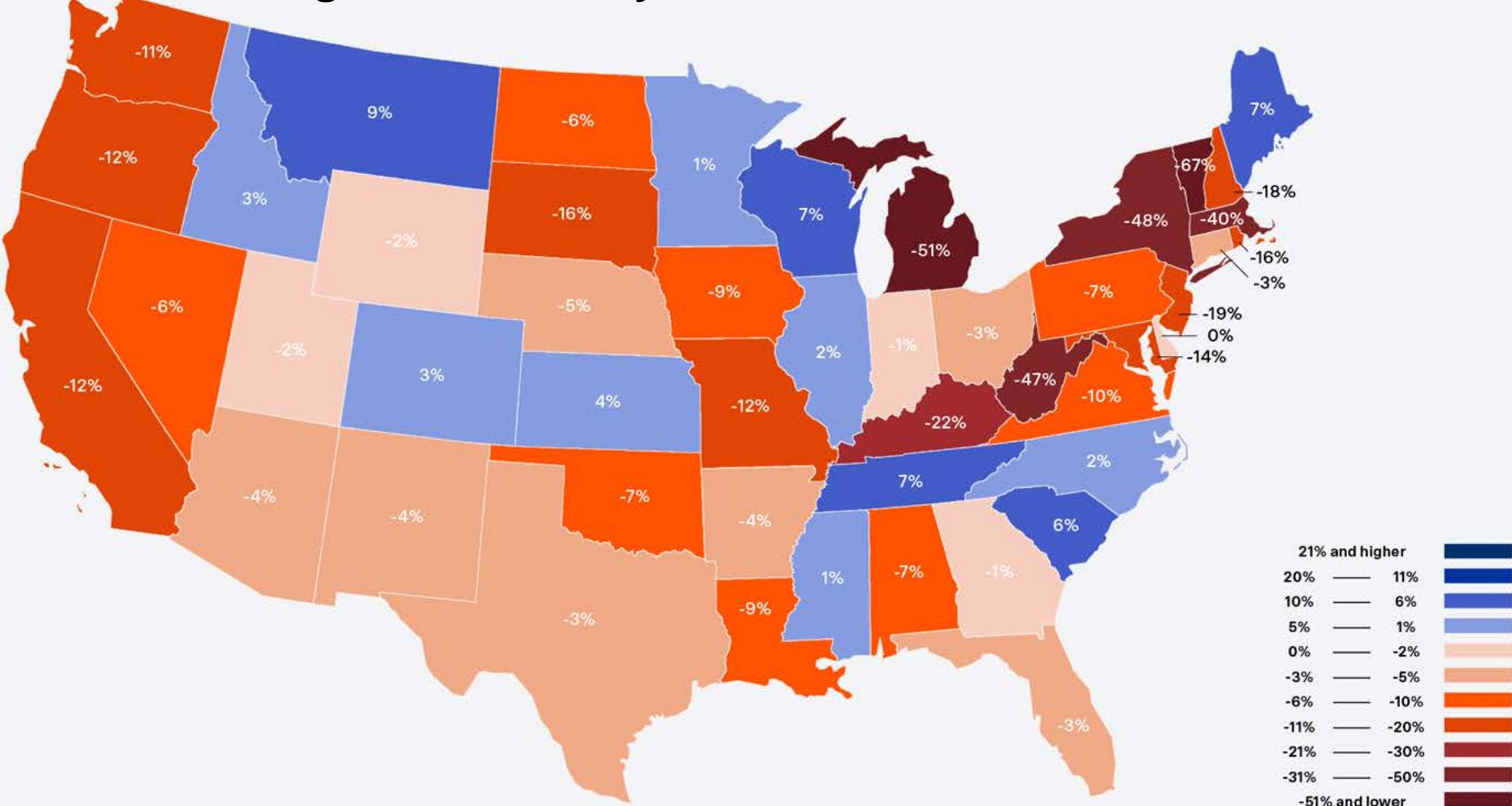
Worker Hour Change: Week of May 10th vs. Week of March 1st

Legend:
- 21% and higher
- 20% — 11%
- 10% — 6%
- 5% — 1%
- 0% — -2%
- -3% — -5%
- -6% — -10%
- -11% — -20%
- -21% — -30%
- -31% — -50%
- -51% and lower

Source: Procore application daily log, data subject to change as customers update data
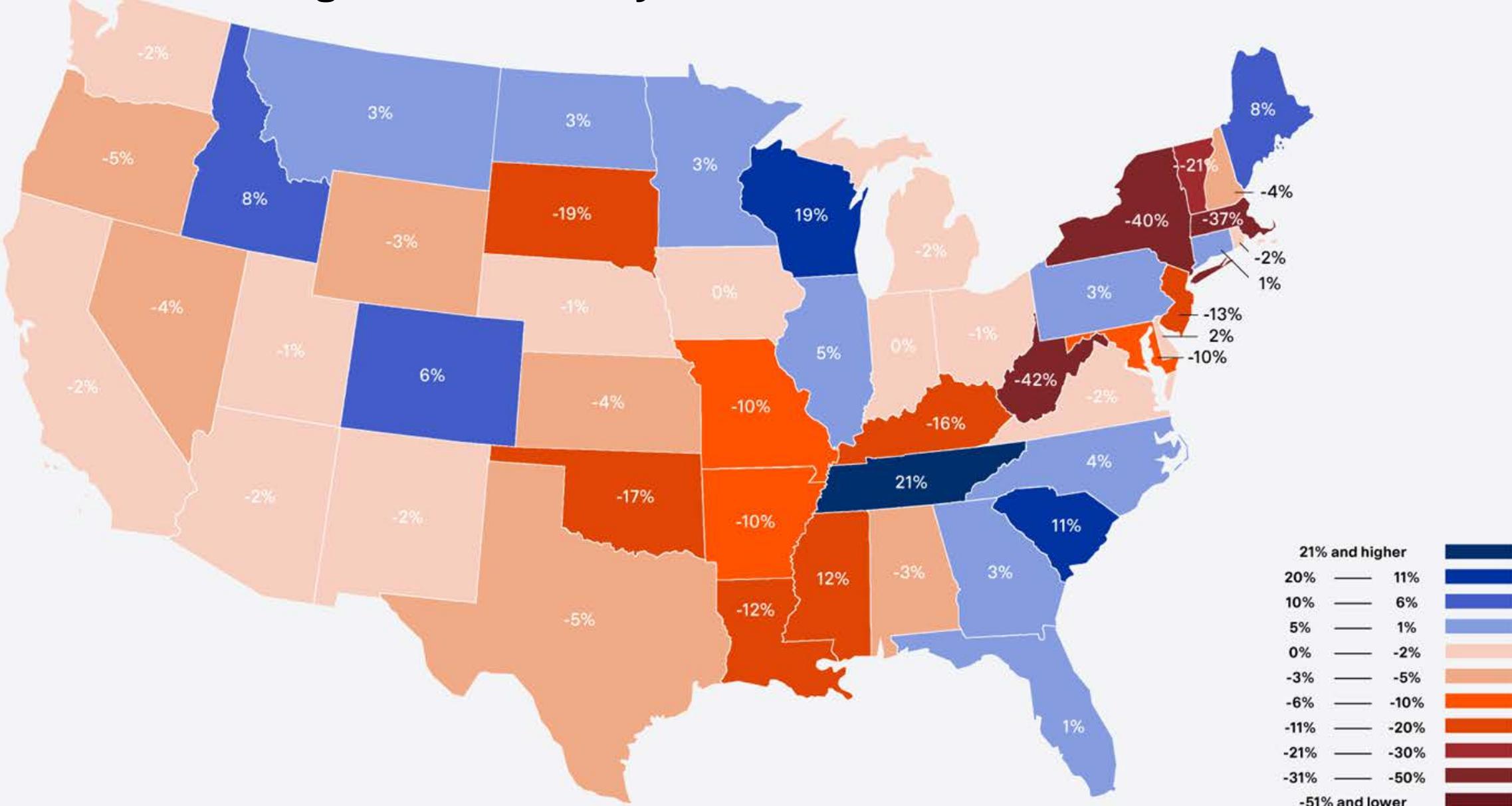
Business Size Variations

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Small Companies had the Largest Decline in Worker Hours

PERCENT CHANGE IN WORKER HOURS VS. THE WEEK OF MARCH 1ST, BY COMPANY SIZE
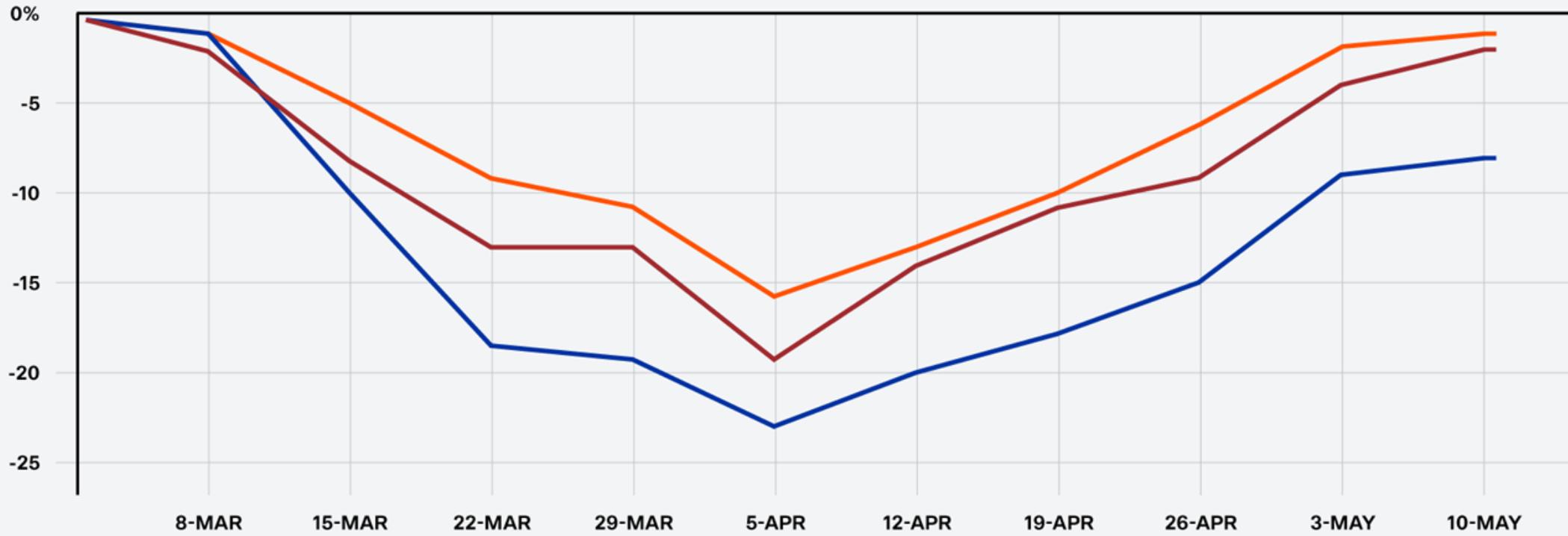
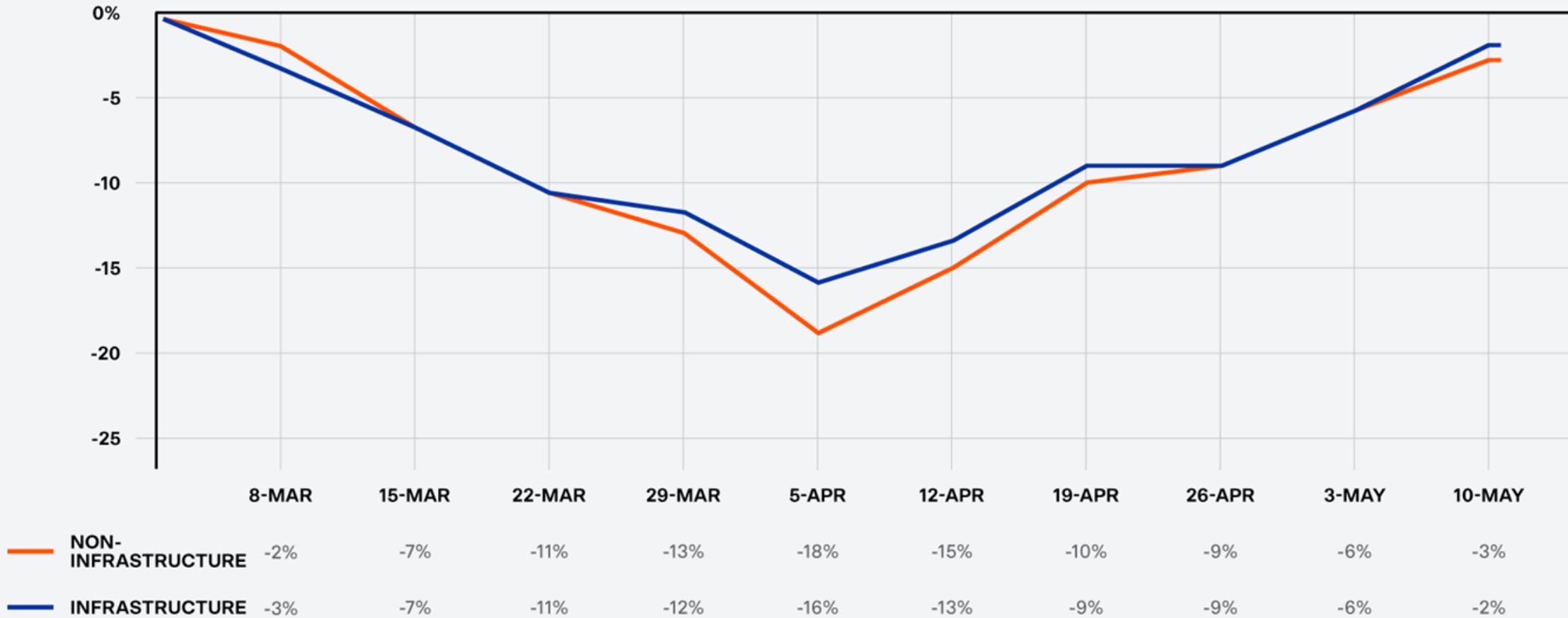|	8-MAR	15-MAR	22-MAR	29-MAR	5-APR	12-APR	19-APR	26-APR	3-MAY	10-MAY
LARGE	-1%	-5%	-9%	-11%	-16%	-13%	-10%	-6%	-2%	-1%
MEDIUM	-2%	-8%	-13%	-13%	-19%	-14%	-11%	-9%	-4%	-2%
SMALL	-1%	-10%	-18%	-19%	-23%	-20%	-17%	-15%	-9%	-8%

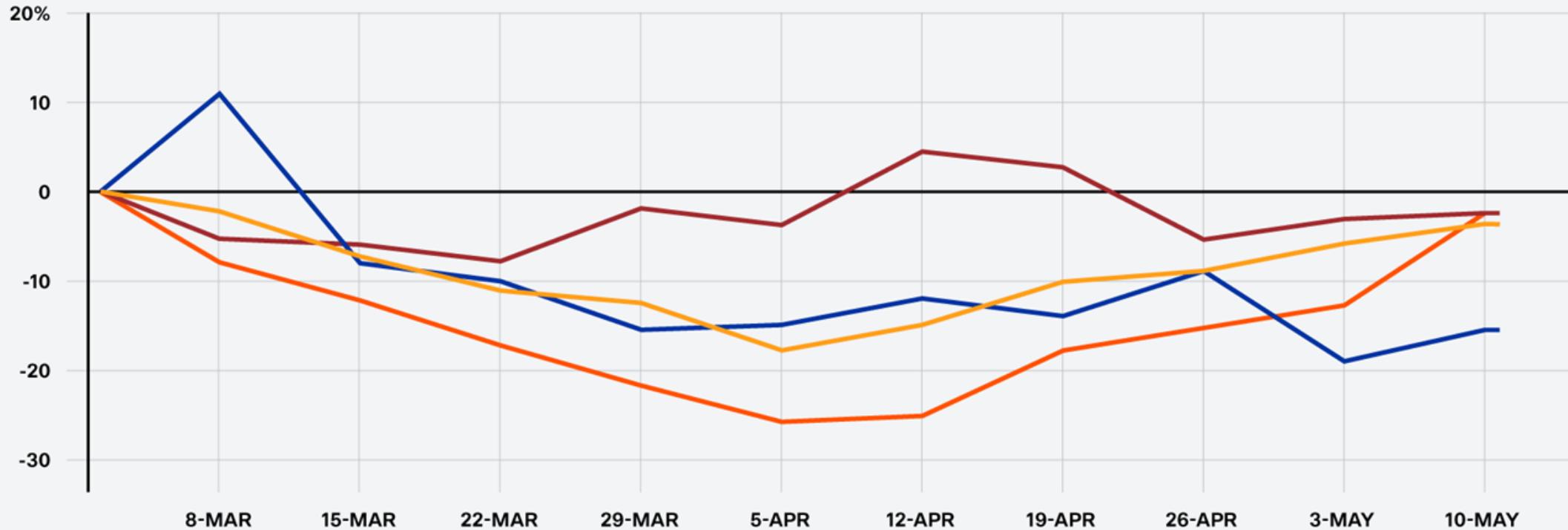PROCORE

Infrastructure

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Decline in Worker Hours is Similar Across Non-Infrastructure and Infrastructure

PERCENT CHANGE IN WORKER HOURS VS. THE WEEK OF MARCH 1ST, BY INFRASTRUCTURE & NON-INFRASTRUCTURE

	8-MAR	15-MAR	22-MAR	29-MAR	5-APR	12-APR	19-APR	26-APR	3-MAY	10-MAY
NON-INFRASTRUCTURE	-2%	-7%	-11%	-13%	-18%	-15%	-10%	-9%	-6%	-3%
INFRASTRUCTURE	-3%	-7%	-11%	-12%	-16%	-13%	-9%	-9%	-6%	-2%

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Worker Hours for Healthcare Projects
Less Impacted than Energy and Transportation

PERCENT CHANGE IN WORKER HOURS VS. THE WEEK OF MARCH 1ST, BY SECTOR

	8-MAR	15-MAR	22-MAR	29-MAR	5-APR	12-APR	19-APR	26-APR	3-MAY	10-MAY
TRANSPORTATION	-7%	-12%	-17%	-22%	-26%	-25%	-18%	-16%	-13%	-2%
HEALTHCARE	-5%	-6%	-8%	-2%	-3%	4%	2%	-5%	-3%	-2%
ENERGY	11%	-8%	-10%	-16%	-15%	-12%	-14%	-9%	-19%	-16%
NON-INFRASTRUCTURE	-2%	-7%	-11%	-12%	-18%	-14%	-10%	-9%	-6%	-3%

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Resources

procore.com/covid-insights

Procore COVID-19 Insights Page

community.procore.com

Procore Community Insights Page

press@procore.com

Questions

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Appendix

Appendix A: [The New York Times](https://www.nytimes.com/interactive/2020/us/states-reopen-map-coronavirus.html) (https://www.nytimes.com/interactive/2020/us/states-reopen-map-coronavirus.html)

COVID-19 Webinar Series
COVID-19 -- Data-Driven Insights on Job Site Activity

Presented by:

G. Scott Earnest, Ph.D., P.E., C.S.P., Associate Director for Construction, the Office of Construction Safety and Health, NIOSH

Chris Cain, CIH, CPWR Executive Director

Kristopher Lengieza, Senior Director, Business Development at Procore

QUESTIONS?