Coronavirus Regional Briefing:
Central U.S.

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July 2020
Total Cement Consumption
Index, 2000=100

Source: USGS, PCA
IHME Projected Daily Infection Rates --Per Capita

New Daily COVID-19 Infections per Million of Population (July 7, 2020 Update)

Based on IHME’s estimated infections which include those not tested as well as asymptomatic

Source: IHME, Census, PCA
Total Cement Consumption – Central U.S.

Index, 2000=100

Source: USGS, PCA
Economic Outlook
Employment Recovery

Percent Change in Employment (March through April)

<table>
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<tr>
<th>State</th>
<th>Percent Change</th>
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<tr>
<td>MN</td>
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<td>MO</td>
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Percent of Employment Losses Recovered (May)

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<tr>
<td>WSC</td>
<td>20%</td>
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<tr>
<td>US</td>
<td>34%</td>
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Note: Based on U.S. June report, 34% of jobs have been recovered while regional figures are still pending.

Source: BLS, PCA
Manufacturing, Energy, and Agriculture Exposure

Source: PCA
Manufacturing Exposure
10% or Greater Manufacturing Share of Total Employment

Mid American Production Index

Manufacturing Employment (000s)
• Closures of schools, restaurants, corporate cafeterias...have deeply unsettled agriculture futures markets.

• Additionally, reduced demand for ethanol in light of lower gasoline consumption continues to weigh on the market.

• Meat processing plant closures have created a bottlenecks and subsequent end-market price increase which has lowered demand.
Residential Outlook
Housing Permits – Central U.S.

Seasonally adjusted, year-over-year percent change.

Source: PCA
Favorable Regional Home Affordability will Provide Support

Home Price-to-Household Income, SA

Source: NAR, BEA, BOC, Moody's
Residential Cement Consumption – Central U.S.

Index, 2000=100

Annual % Change

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<th>2020</th>
<th>2021</th>
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<tr>
<td>WNC</td>
<td>2.1%</td>
<td>0.8%</td>
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<tr>
<td>WSC</td>
<td>0.1%</td>
<td>2.2%</td>
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Source: USGS, PCA
Residential Cement Consumption – Central U.S.

Index, 2000=100

Source: USGS, PCA
Potential Shift in Homebuyer Preferences?

Metric Tons of Cement Per Housing Unit

- 21% of agents reported buyers seeking the benefits of new homes, such as office space or backyards. (Source: NAR Research Group Survey)

- Potential for intrastate moves from urban to suburban/exurban locations.

- A 10% compositional shift from multi to single family would amount to roughly 50k MTs annually in WNC and 125k MTs in the WSC.

Source: PCA, NAR
Nonresidential Outlook
U.S. Net Farm Income

Real 2019 $s, billions

Source: U.S. Department of Agriculture (USDA): Farm Income and Wealth Statistics
U.S. Farm Debt

Real 2019 $s, billions

Source: U.S. Department of Agriculture (USDA): Farm Income and Wealth Statistics
Oil & Gas Drilling a Regional Concern

Source: Baker Hughes Incorporated, EIA
Oil & Gas Drilling a Regional Concern

Average Active Rotary Rigs - Total, (#)

Percent Change Since February:
Texas -72%
North Dakota -79%
Oklahoma -80%
U.S. -65%

Source: Baker Hughes Incorporated
Oil Well Cement Consumption – Central U.S.

Metric Tons, Thousands

Source: PCA

Oil Share of Total Regional Cement Consumption: 8%

Texas: 7%
Oklahoma: 9%
North Dakota: 21%

-31% 44% 10% 2% -51% 38% 5% 6% 13% 13%
Oil Well Cement Consumption – Central U.S.
Metric Tons, Thousands

Source: PCA
Nonresidential Cement Consumption – Central U.S.

West South Central

West North Central

Source: PCA
Public Outlook
State Rainy Day Funding – FY2020

Rainy day balances as share of general fund expenditures

Current National Average: 7.6%

Prior to Great Recession: 4.5%

Kansas and Illinois effectively have $0 balances, Pennsylvania and New Jersey are roughly 1%

Oil revenue reliant states of New Mexico, North Dakota and Wyoming have respective balances of 27%, 30% and 109%

Source: NASBO Fall 2019 Fiscal Survey of the States
Reduction in Vehicle Miles Traveled Relative to COVID-19 Cases

Percent change in VMT the second week of April vs. first week of March

Source: University of California, Davis
Employees returning to Work...

Percentage change from baseline visits—**Workplace**

*Workplaces: Mobility trends for places of work*

Source: Google Mobility Report, PCA
States Have Been Increasingly Less Reliant on Federal Funds

Cents Per Gallon

Source: Federal Tax Administrators, FHWA, PCA
Consumers Once Again Showing Apprehension

Percentage change from baseline visits—Retail & Recreation

Source: Google Mobility Report, PCA
States with High Sales Tax Exposure at Risk

Sales tax as a share of total tax collections

Source: Census State Government Tax Collections Report, PCA
Public Cement Consumption – Interior U.S.

Metric Tons (000s)

West South Central

West North Central

Source: PCA
Regional Cement Trends: Through 2021
Based on change in cement consumption between 2019 to 2021

Source: PCA 2020 Summer State Forecast