

# Wisconsin's Recovery from the COVID Contraction

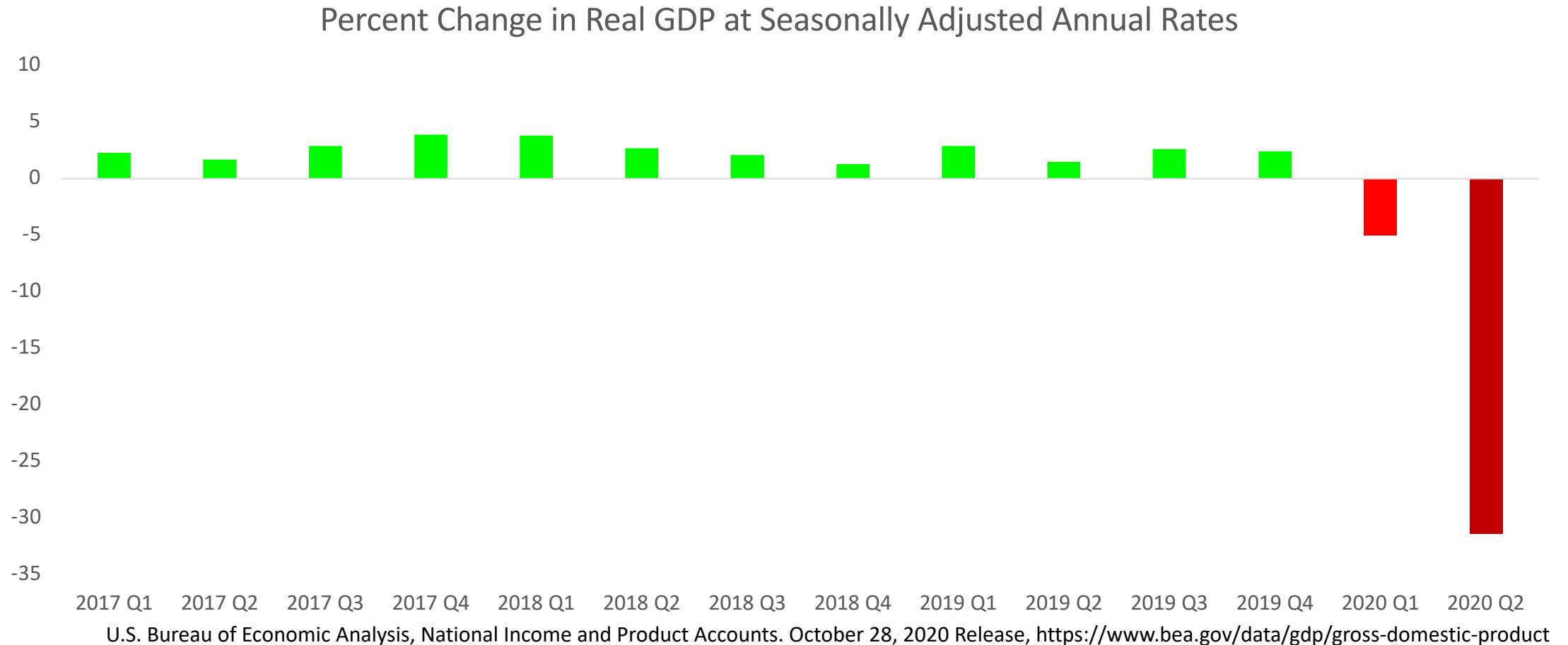
An International Focus

January 12, 2021

# Today's Discussion

1. Recap the 2020 COVID Contraction
2. Illustrate the significant divides in the rebuilding economy
3. Consider Wisconsin's outlook for 2021
4. Consider Wisconsin's International Trade Position

# Stunning Drop in Real GDP in First Half of 2020



*Then This Happened*

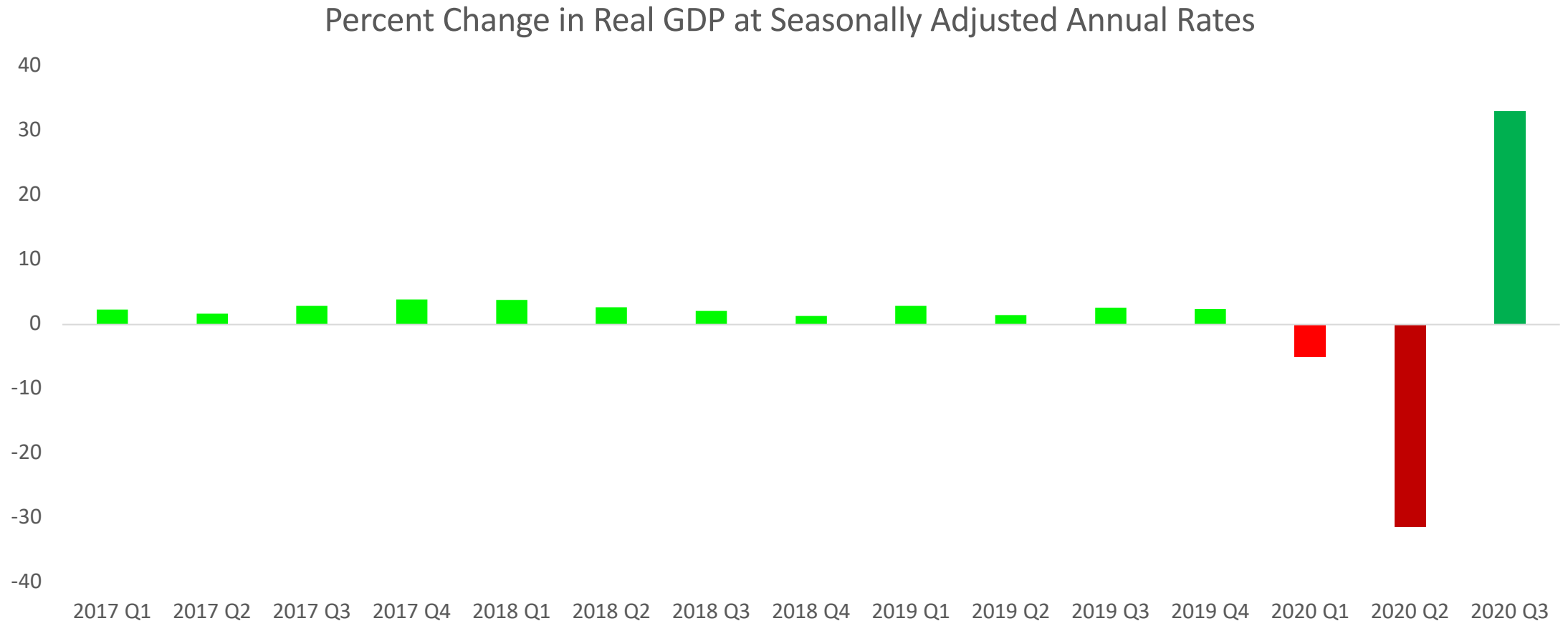
# The COVID Contraction: Largest One-Quarter Economic Decline in U.S. History



U.S. Bureau of Economic Analysis, National Income and Product Accounts. October 28, 2020 Release, <https://www.bea.gov/data/gdp/gross-domestic-product>

# Sharp Rebound in Real GDP in 2020 Q3

After record drop, a record rebound



U.S. Bureau of Economic Analysis, National Income and Product Accounts, <https://www.bea.gov/data/gdp/gross-domestic-product>

# Reviewing Macroeconomic Fundamentals

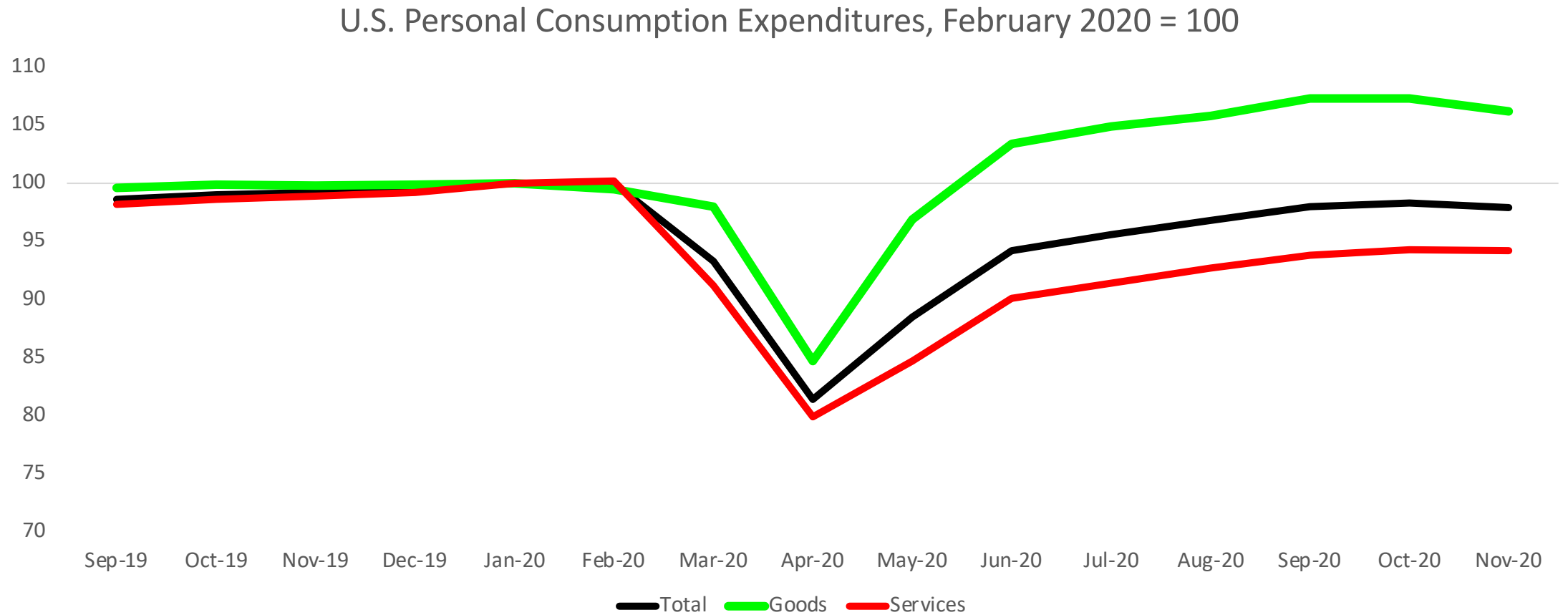
## Drilling Down Into the Details

Second Quarter 2020 Compared to Third Quarter 2020

Contributions to Real GDP Growth

|              | <u>2<sup>nd</sup> Qtr</u> | <u>3<sup>rd</sup> Qtr</u> |               | <u>2<sup>nd</sup> Qtr</u> | <u>3<sup>rd</sup> Qtr</u> |
|--------------|---------------------------|---------------------------|---------------|---------------------------|---------------------------|
| Total GDP    | <b>-31.40%</b>            | <b>+33.10%</b>            |               |                           |                           |
| Consumption: | <b>-24.01%</b>            | <b>+25.27%</b>            | Trade:        | <b>+0.62%</b>             | <b>-3.09%</b>             |
| Goods        | <b>-2.06%</b>             | <b>+9.24%</b>             | Exports       | <b>-9.51%</b>             | <b>+4.90%</b>             |
| Services     | <b>-21.95%</b>            | <b>+16.04%</b>            | Imports       | <b>+10.13%</b>            | <b>-7.99%</b>             |
| Investment:  | <b>-8.77%</b>             | <b>+11.58%</b>            | Government:   | <b>+0.77%</b>             | <b>-0.68%</b>             |
| Business     | <b>-3.67%</b>             | <b>+2.88%</b>             | Defense       | <b>0.18%</b>              | <b>+0.17%</b>             |
| Residential  | <b>-1.60%</b>             | <b>+2.09%</b>             | Nondefense    | <b>0.98%</b>              | <b>-0.55%</b>             |
| Inventory    | <b>-3.50%</b>             | <b>+6.62%</b>             | State & Local | <b>-0.40%</b>             | <b>-0.30%</b>             |

# The Economy's Fault Line Lies Between Goods and Services



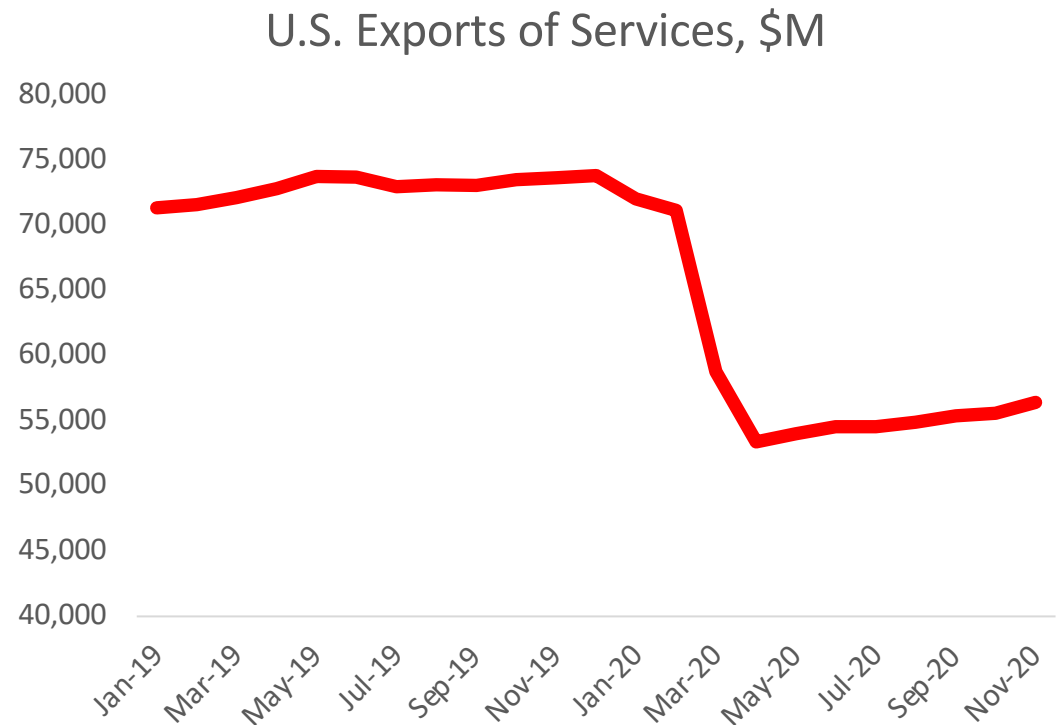
Source: U.S. Bureau of Economic Analysis, National Income & Product Accounts, Table 2.8.5

# U.S. Exports Reflect the Same Goods-Service Divide

## Goods Exports Reviving



## Service Exports Still Challenged





# *The Cross-Currents and Rip Tides*

## The COVID Recovery Is A Tale of Three Economies

Wide Variance in Recovery Status by Industry  
Depending on Continuing COVID Related Restrictions or Personal Response to COVID Risks

**REVIVED**  
**Immediate Bounce**  
**Back Industries**

**Retail Sales**  
**Auto Production**  
**Housing**

**REBOUNDING**  
**Gradual**  
**Recovery Industries**

**Health Care**  
**Personal Services**  
**Industrial Production**

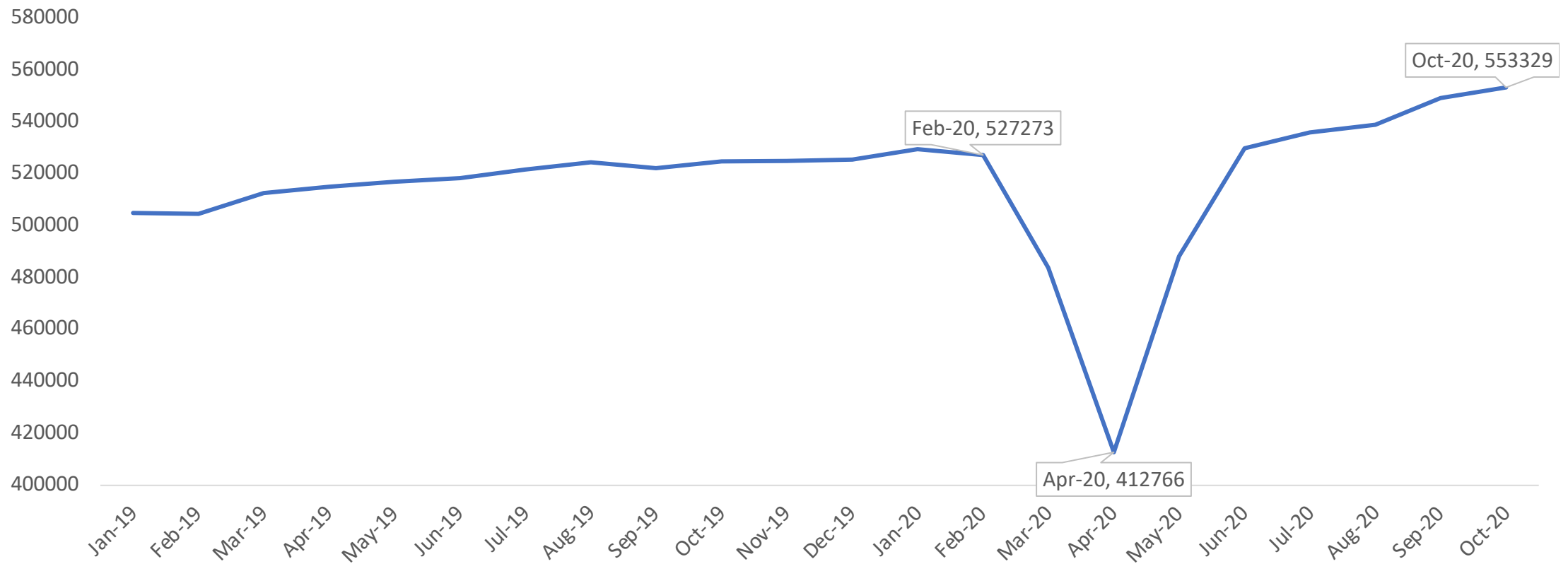
**RECESSIONARY**  
**Deeply Challenged**  
**Industries**

**Air Travel**  
**Airplane Production**  
**Destination Travel**  
**Mass Entertainment**  
**Education**

# *Revived:* Total U.S. Retail Sales Rebound

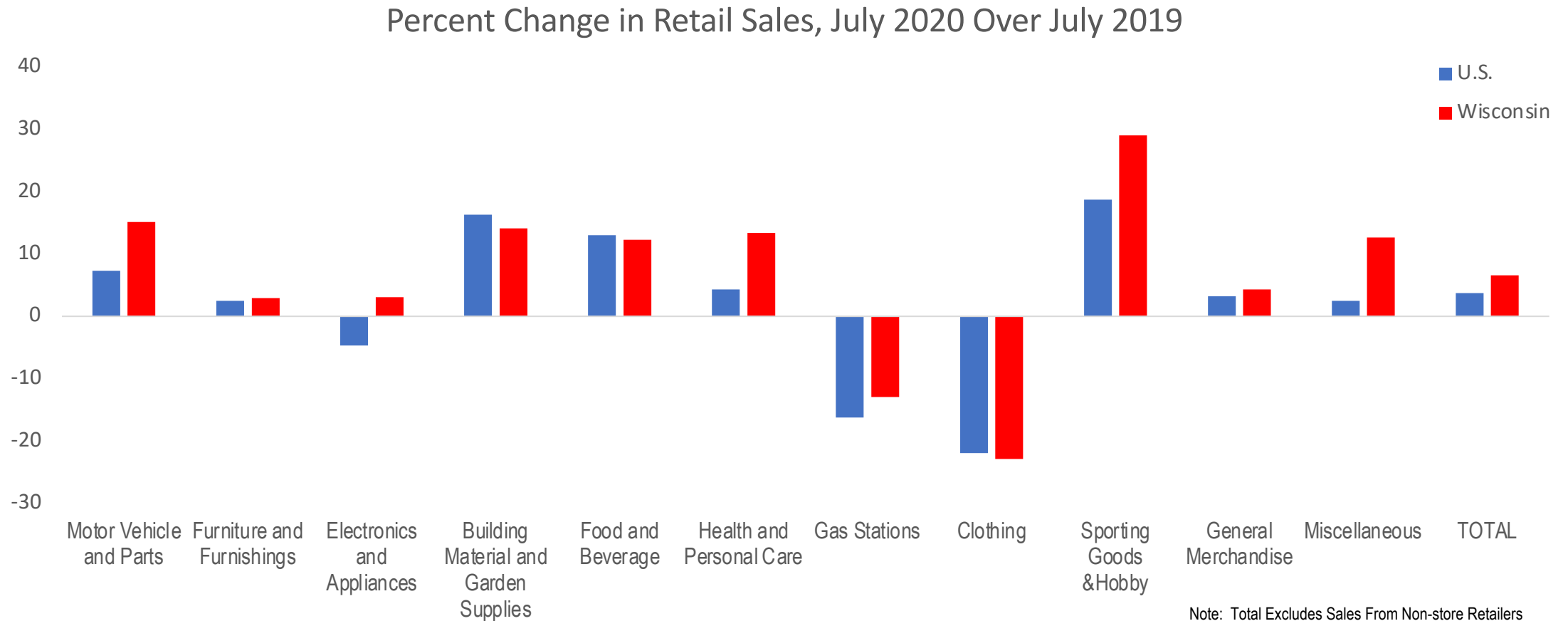
October Retail Sales Up 4.8% Over Pre-Recession Levels and 5.6% over Year Ago

Total U.S. Retail Sales \$B Seasonally Adjusted at Annual Rates



Source: U.S. Bureau of the Census, Advance Retail Sales, Release Date November 17,, 2020

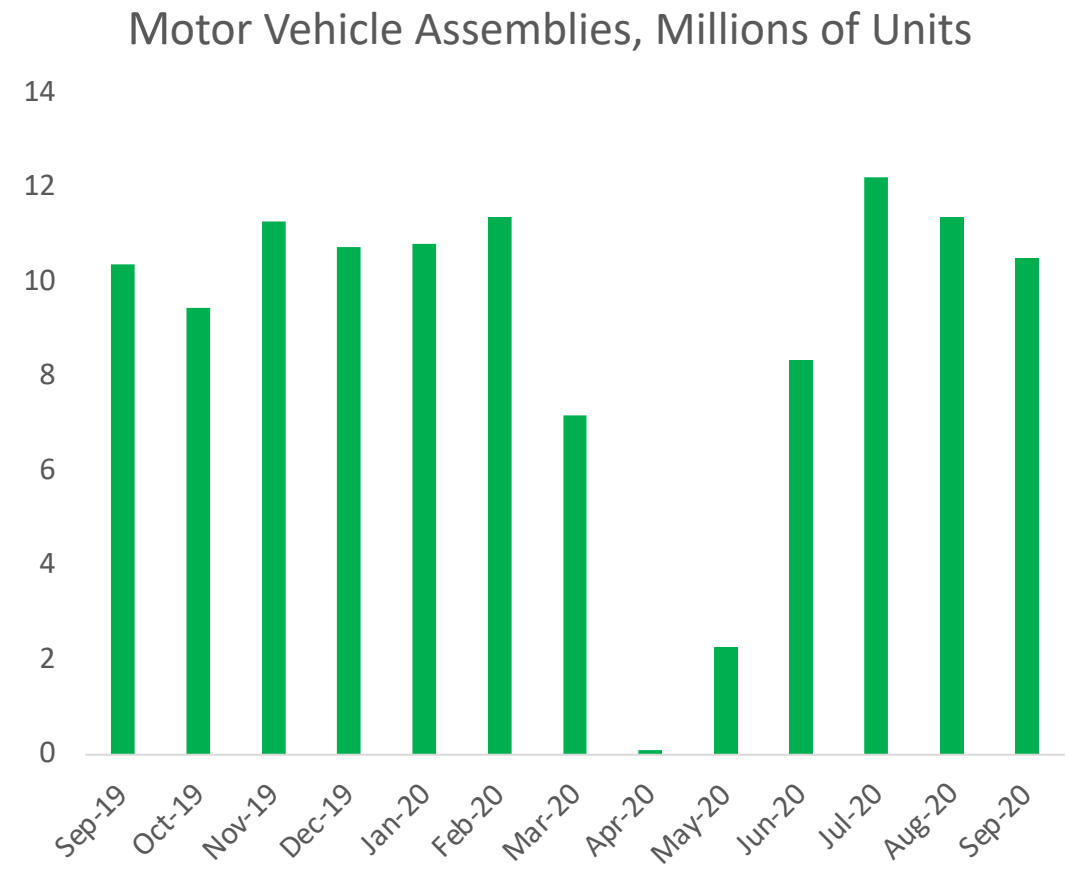
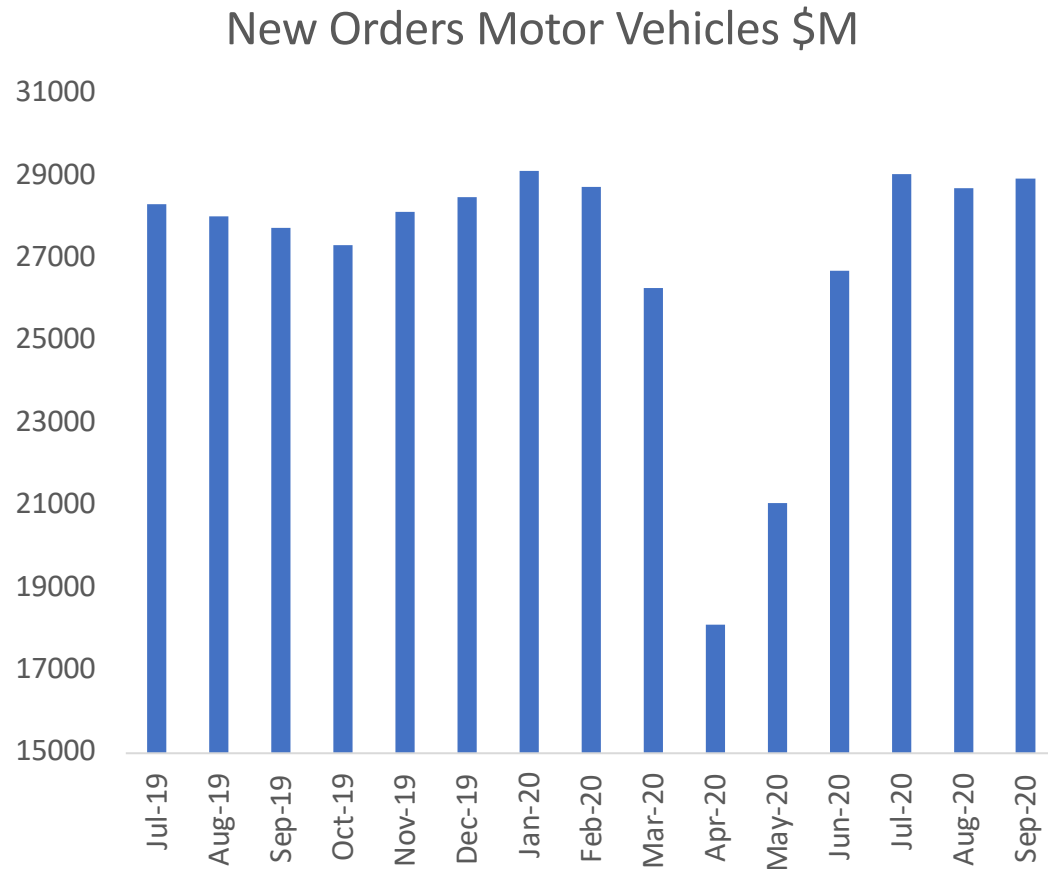
# Revived: Wisconsin Retail Sales Outpacing U.S. In Most Retail Sales Categories



Source: U.S. Bureau of the Census, [https://www.census.gov/retail/state\\_retail\\_sales.html](https://www.census.gov/retail/state_retail_sales.html)

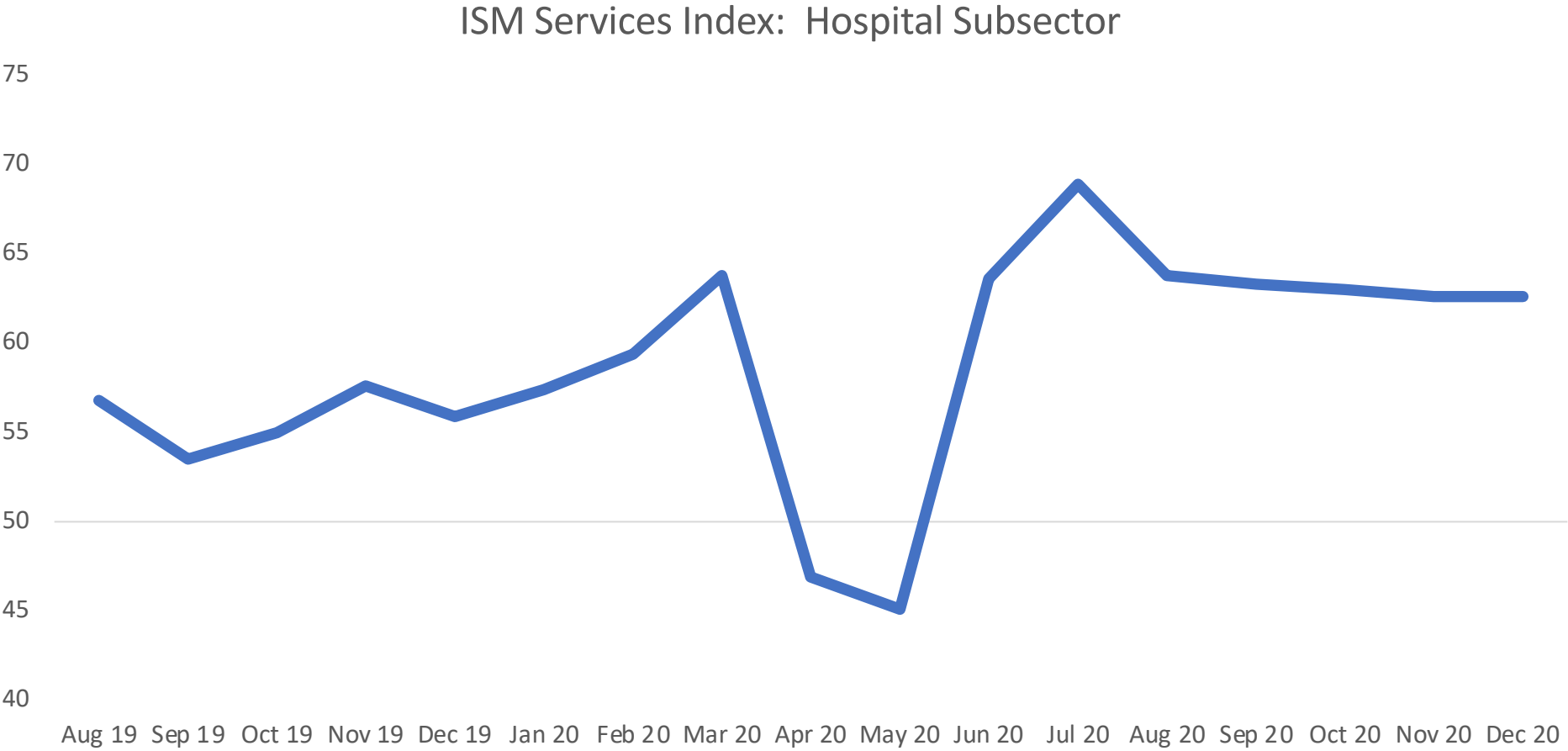
# *Revived:* Motor Vehicles

## New Orders Recovers, Production Follows



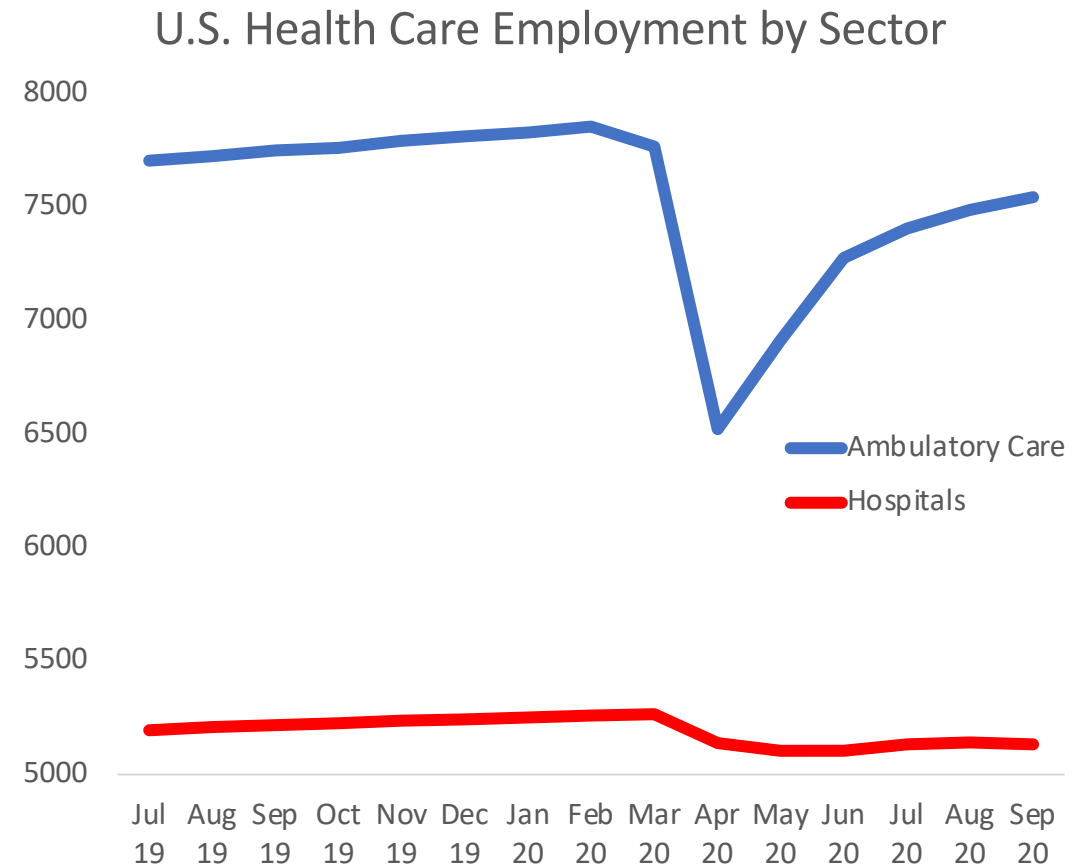
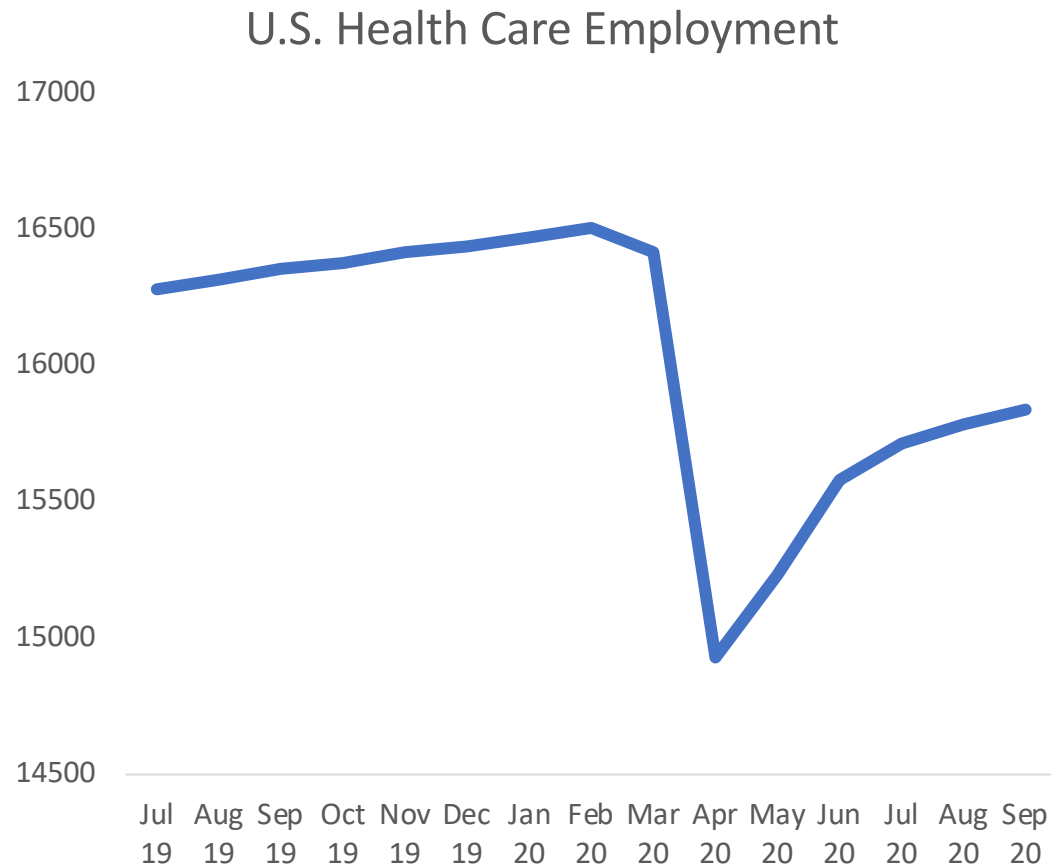
U.S. Bureau of the Census, New Orders for Manufactured Goods, Release Date, November 3, 2020; Federal Reserve Board of Governors, Industrial Production Release, November 17, 2020

# *Rebounding:* Hospital Sector Back Sharply



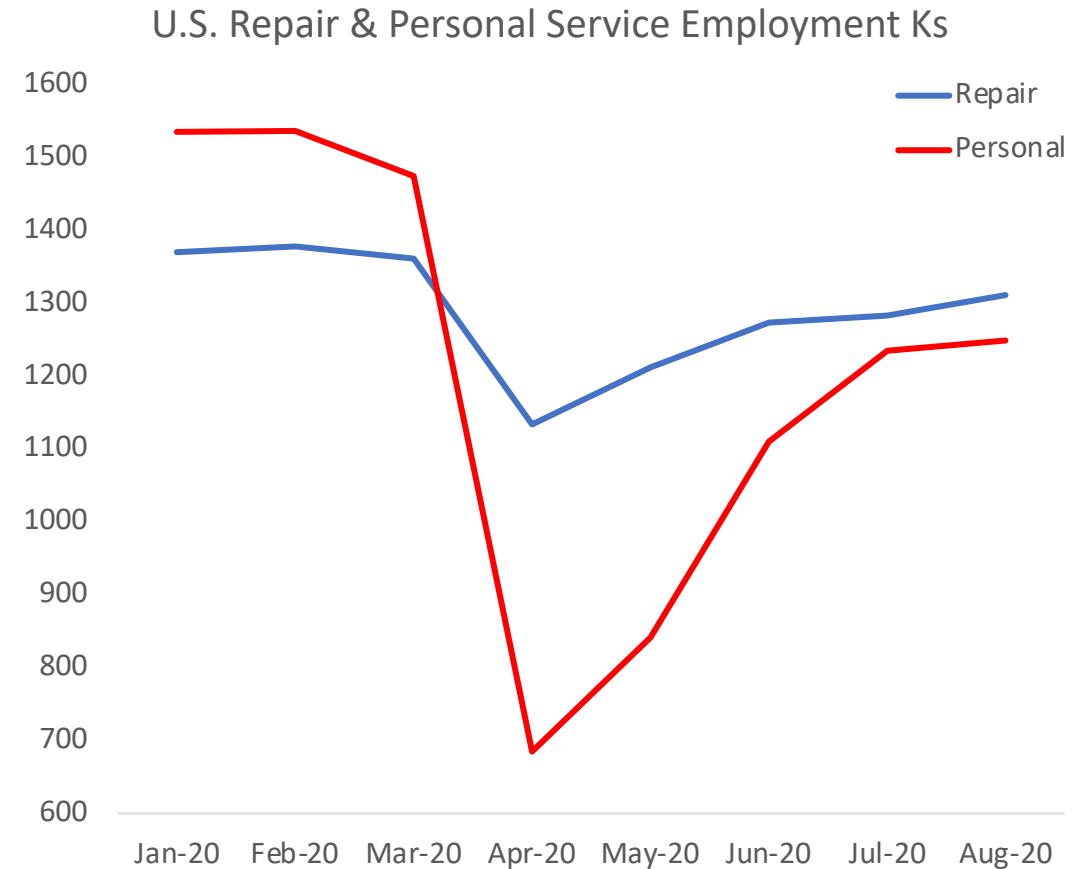
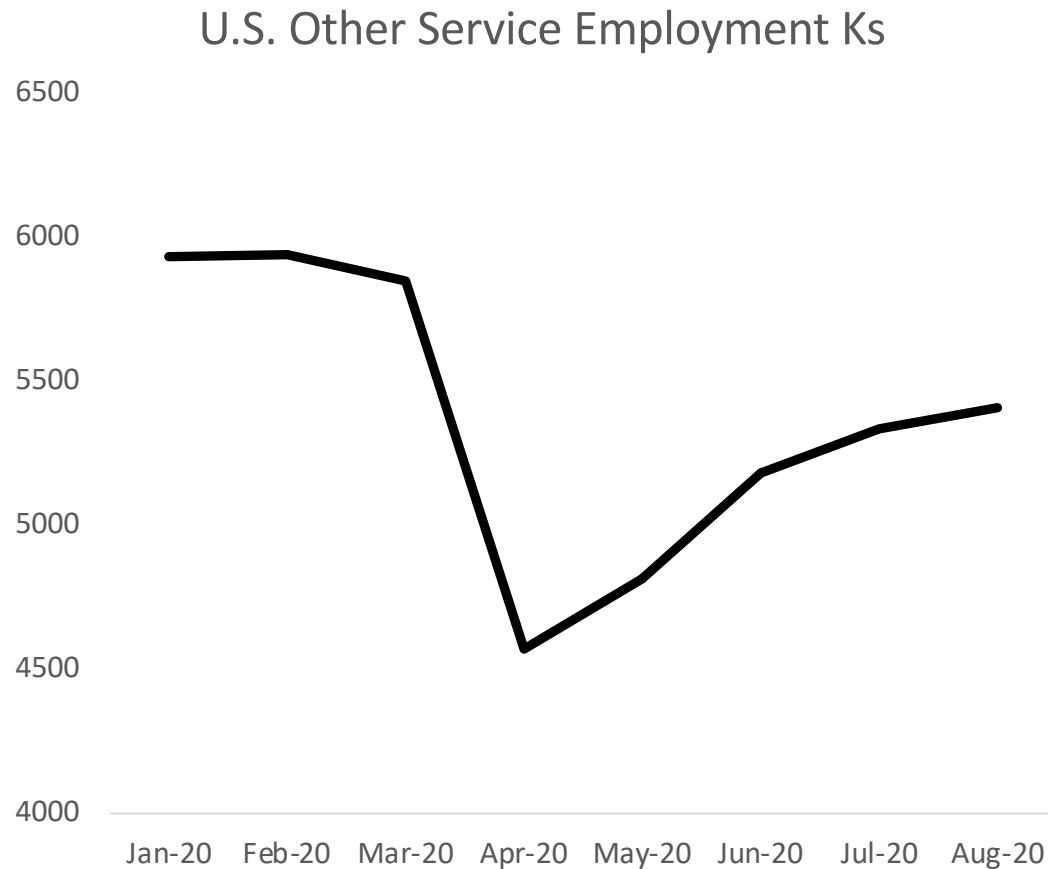
Source: Institute for Supply Management, Hospital ISM Report on Business, November 6, 2020

# *Rebounding:* Health Care Employment Recovering Led by Recovery in Ambulatory Care



Source: U.S. Department of Labor Statistics, Current Employment Statistics, Data Released November 6,, 2020; <https://www.bls.gov/news.release/empst.nr0.htm>

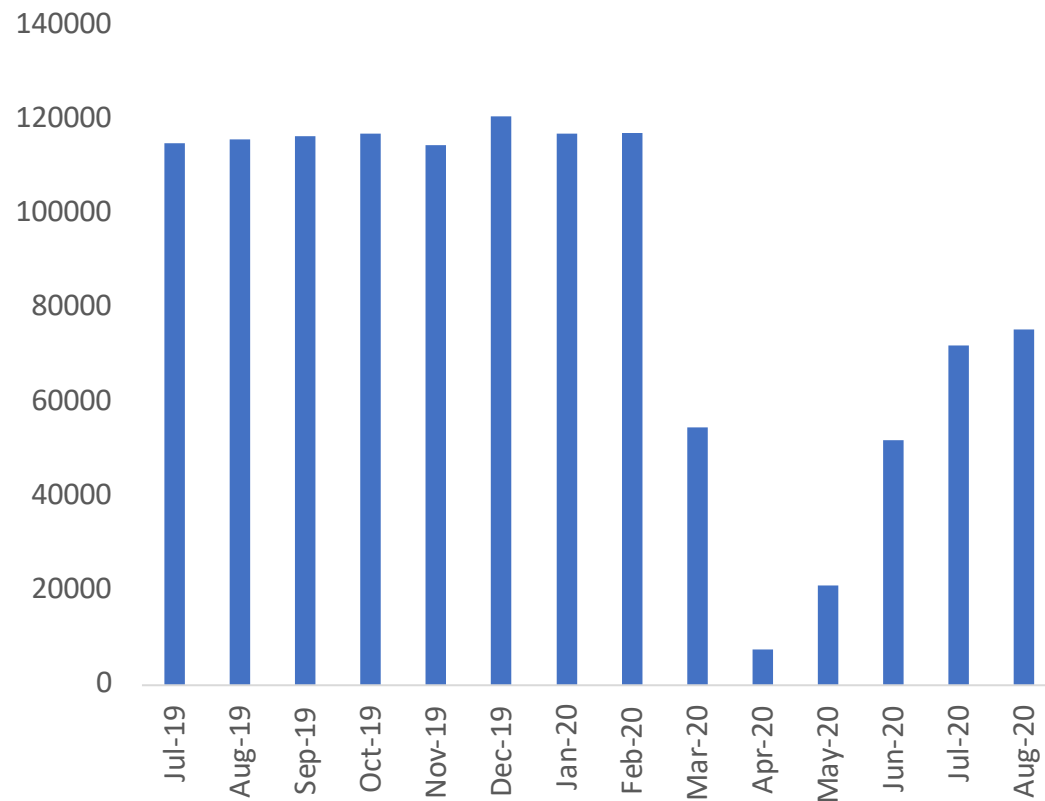
# Other Service Employment Rebounding Led by Repair & Personal Services



Source: U.S. Department of Labor Statistics, Current Employment Statistics, Data Released November 6,, 2020; <https://www.bls.gov/news.release/empsit.nr0.htm>

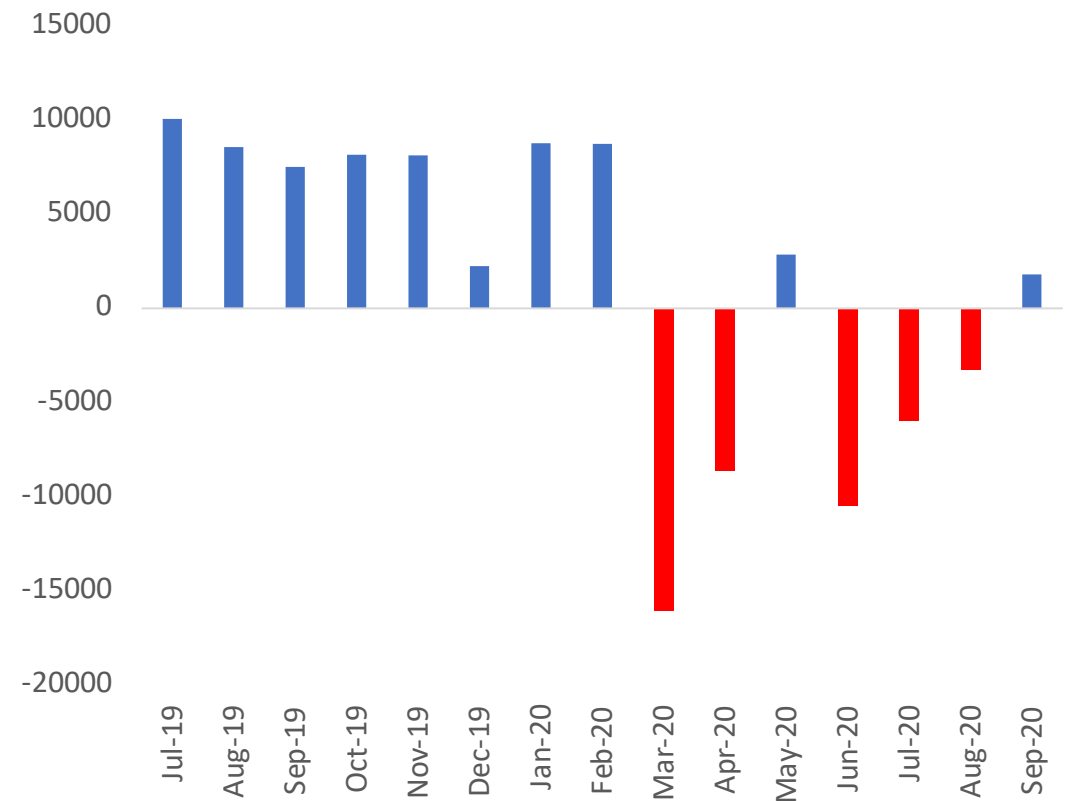
# *Recessionary:* Air Travel Down, Aircraft Orders Canceled

Consumer Spending on Air Transportation



Source: U.S. Bureau of Economic Analysis, Consumer Spending Detailed Tables

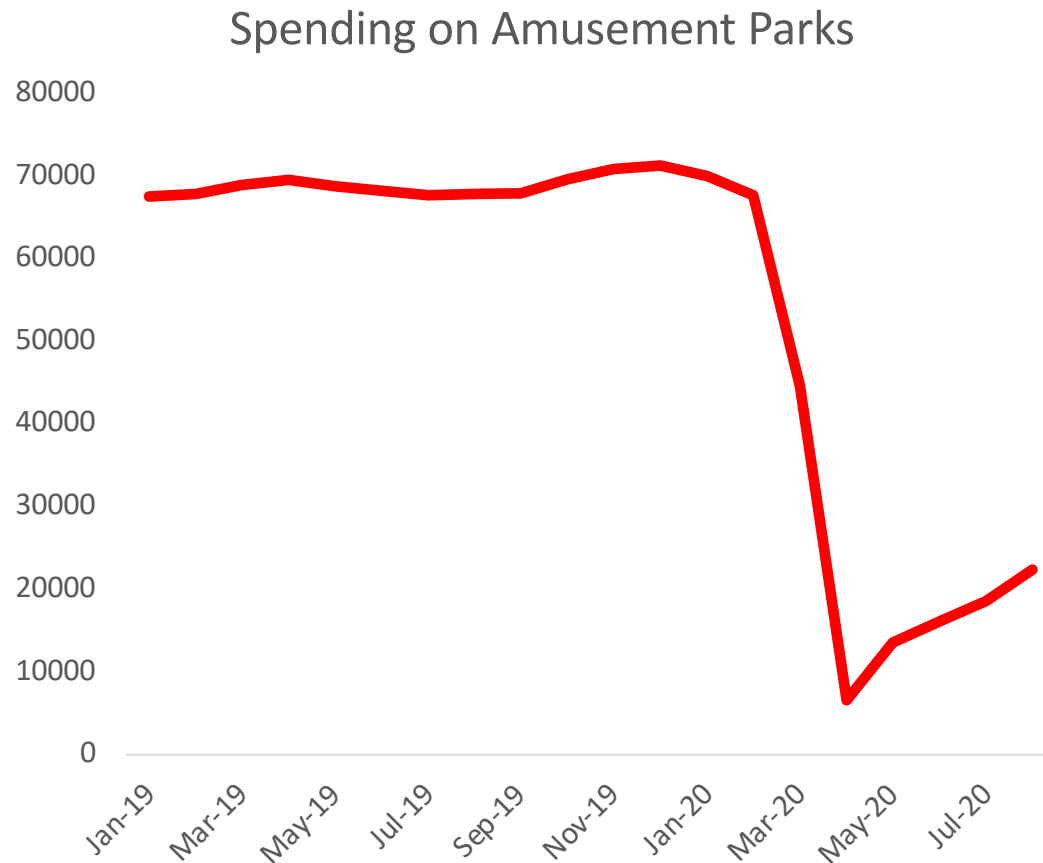
New Orders Civilian Aircraft \$M



U.S. Bureau of the Census, New Orders for Manufactured Goods, Release Date, October, 2020

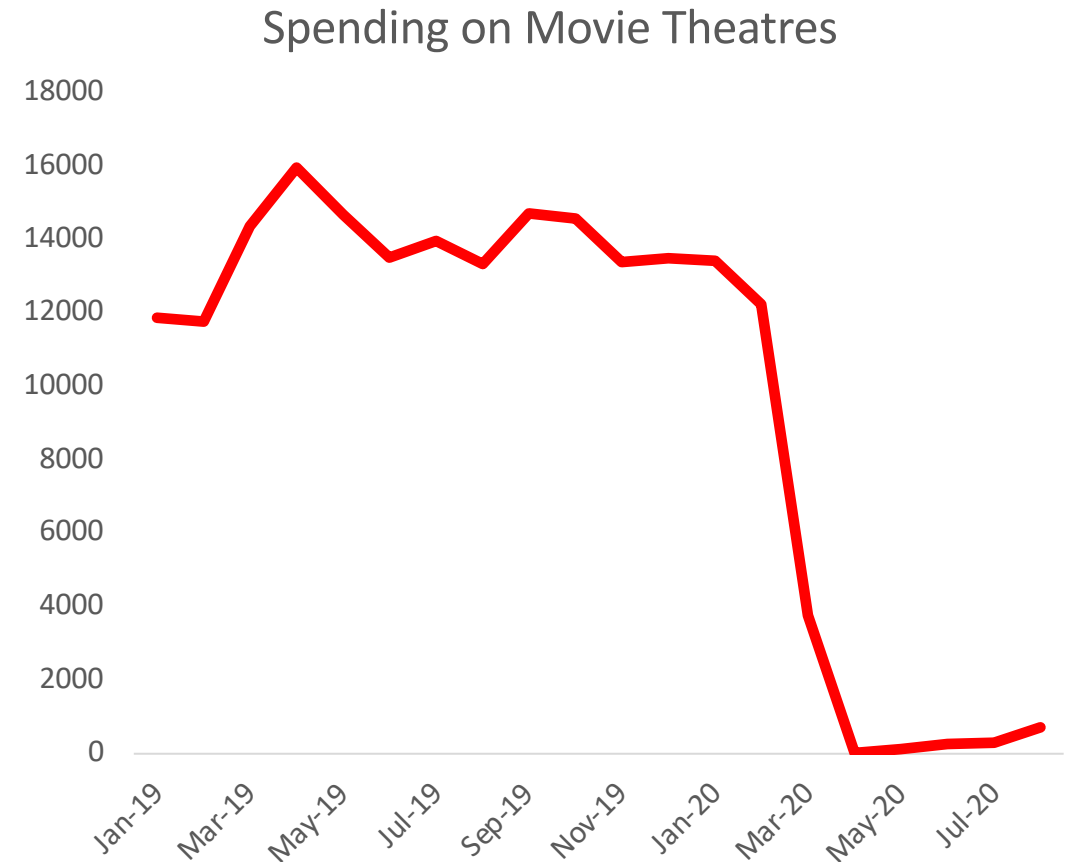
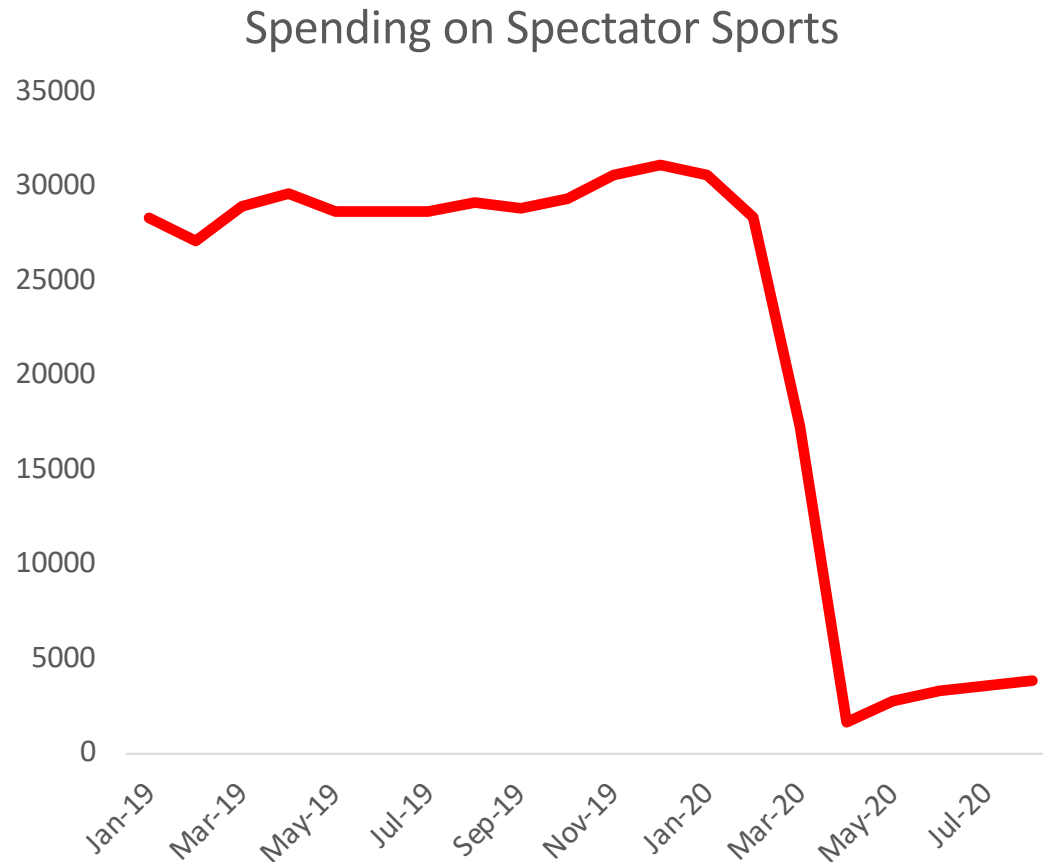


# *Recessionary:* Destination Travel Still In Major Contraction



Source: U.S. Bureau of Economic Analysis, Consumer Spending Detailed Tables

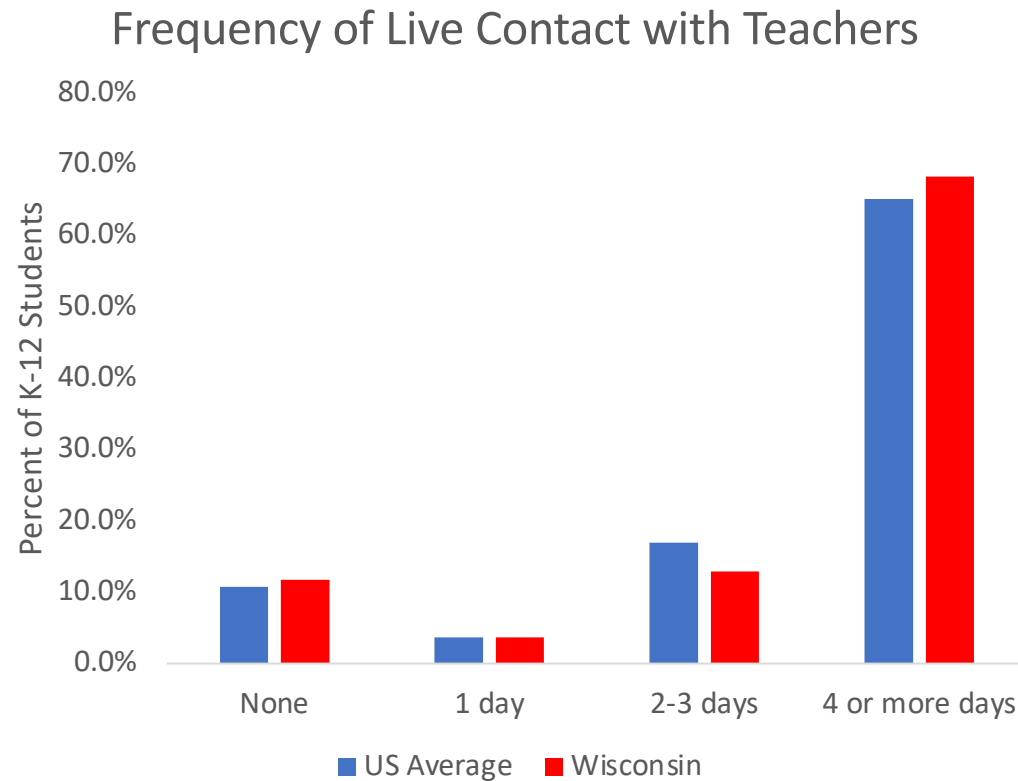
# *Recessionary:* Mass Entertainment Closer to Zero than Last Year's Levels



Source: U.S. Bureau of Economic Analysis, Consumer Spending Detailed Tables, <https://apps.bea.gov/iTable/iTable.cfm?ReqID=19&step=2#reqid=19&step=2&isuri=1&1921=underlying>

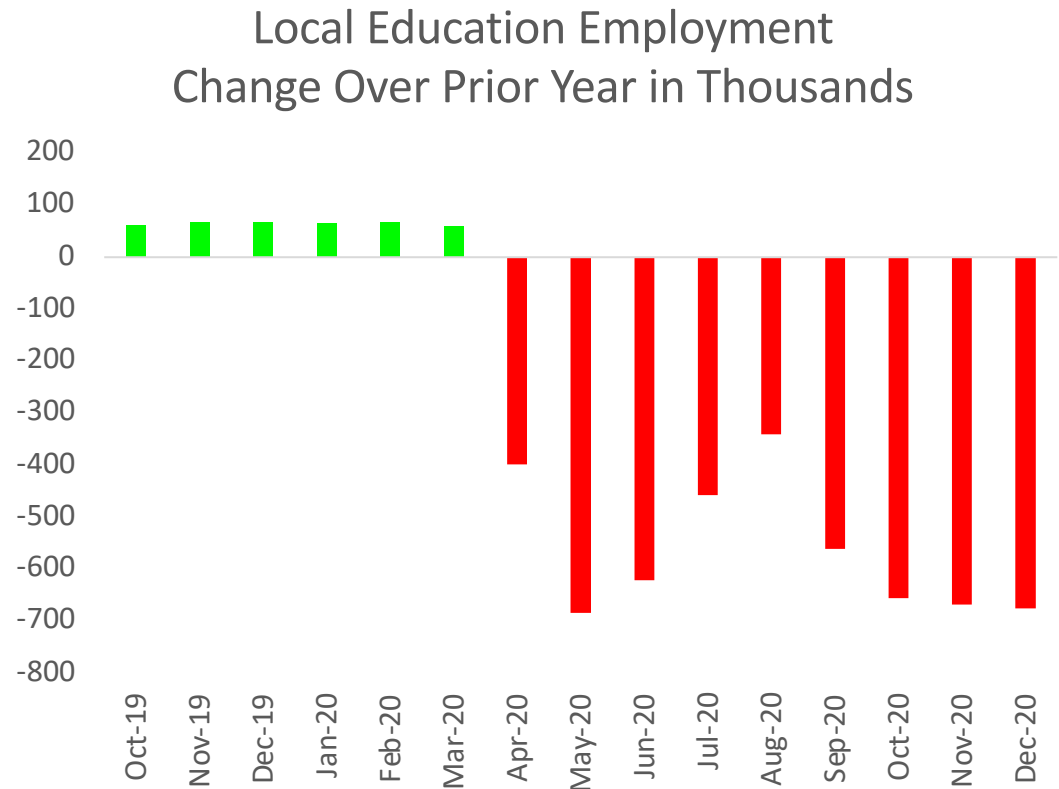
# *Recessionary:* K-12 Education: The Virtual Lockdown in Local Schools

## One-Third of K-12 Students Not In Full Session



U.S. Bureau of the Census, Household Pulse Survey

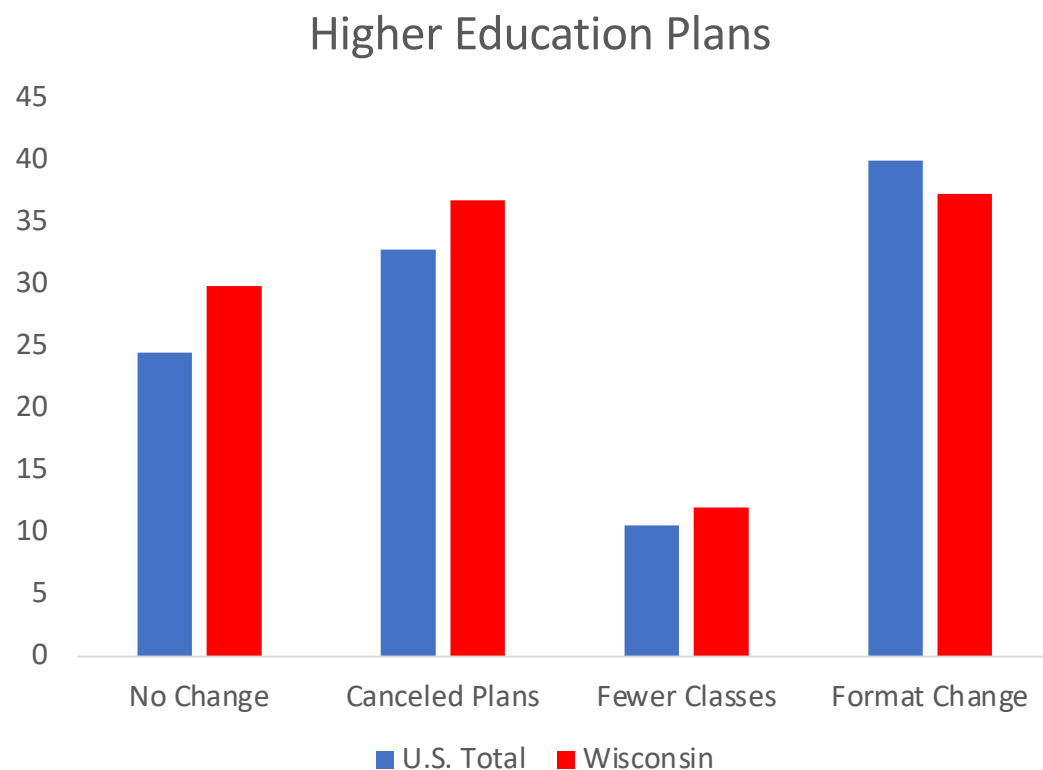
## Local Public Education Unprecedented Jobs Loss



U.S. Bureau of Labor Statistics, Current Employment Statistics

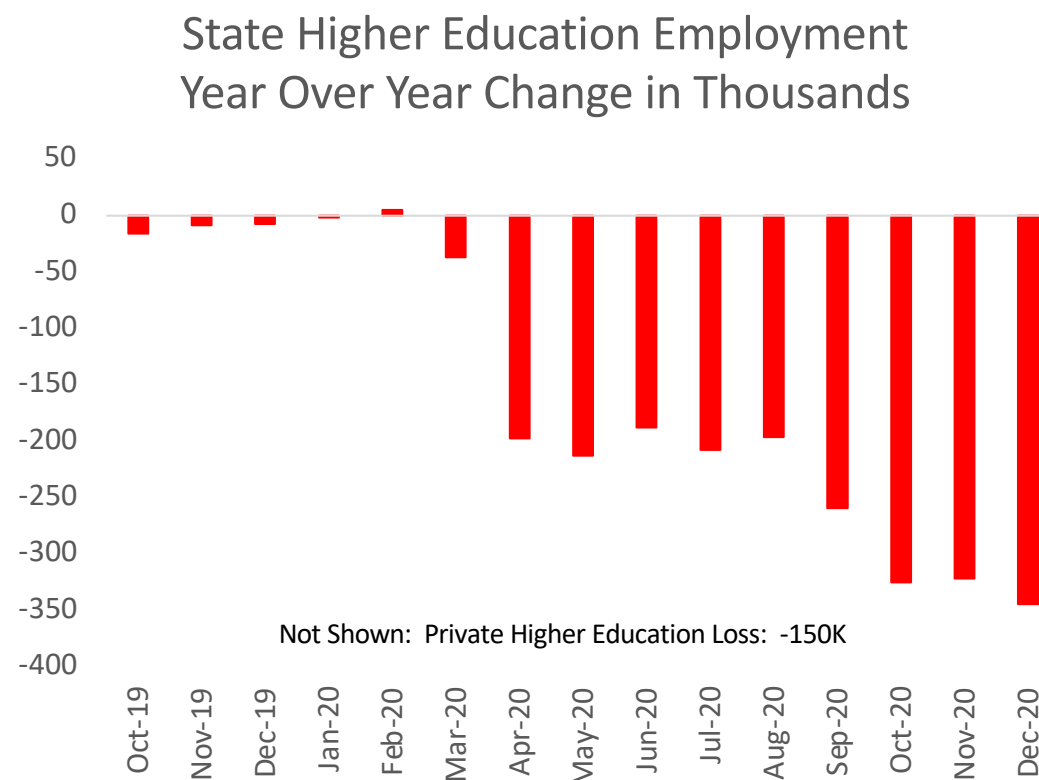
# *Recessionary:* Higher Education Enrollment Shrinks. Job Losses Follow

## Over 30% of Post-Secondary Students Cancelled Plans To Attend This Fall



Source: U.S. Bureau of Census, Household Pulse Survey

## State Higher Education Job Loses Widening

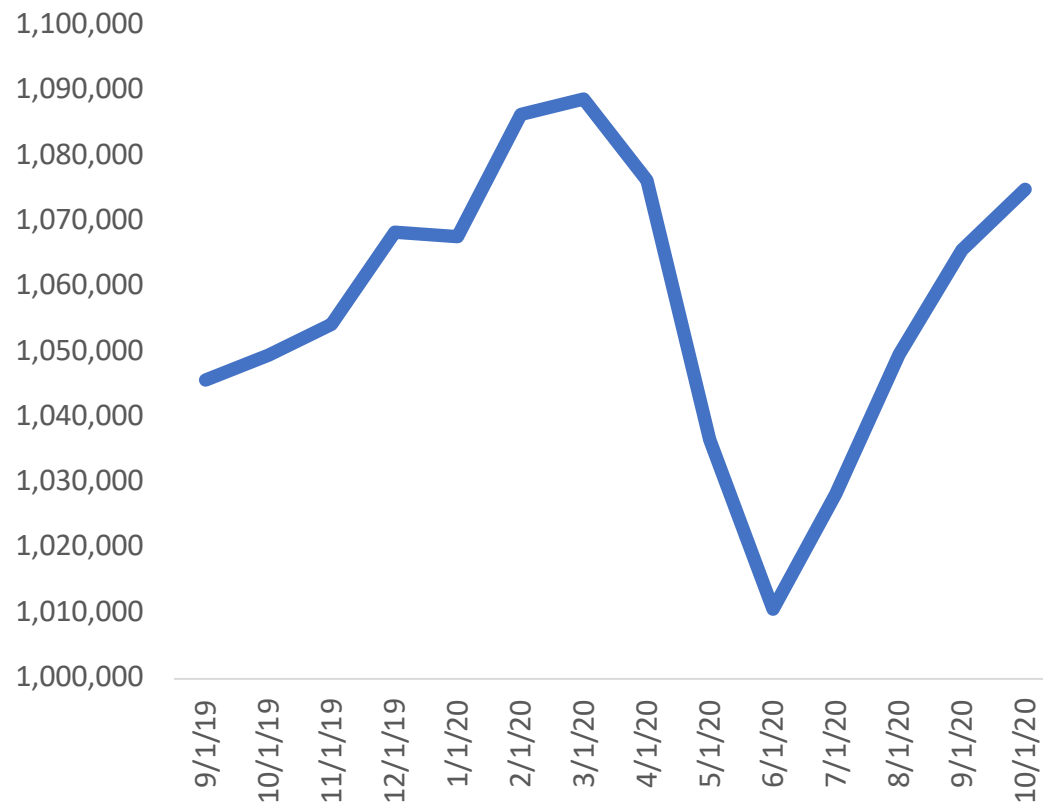


Source: U.S. Bureau of Labor Statistics, Current Employment Survey

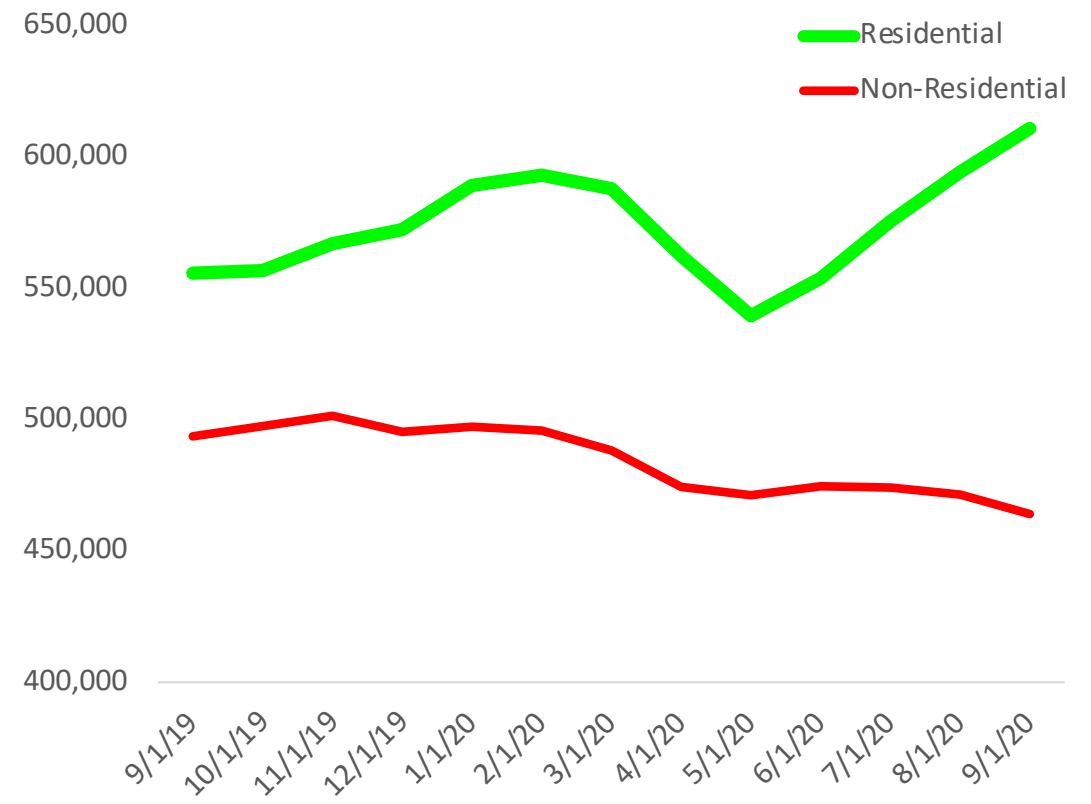
# Cross-Currents Occur Even Within Industries

# Construction Rebound Led by Residential Construction

Total Value of Construction Put In Place

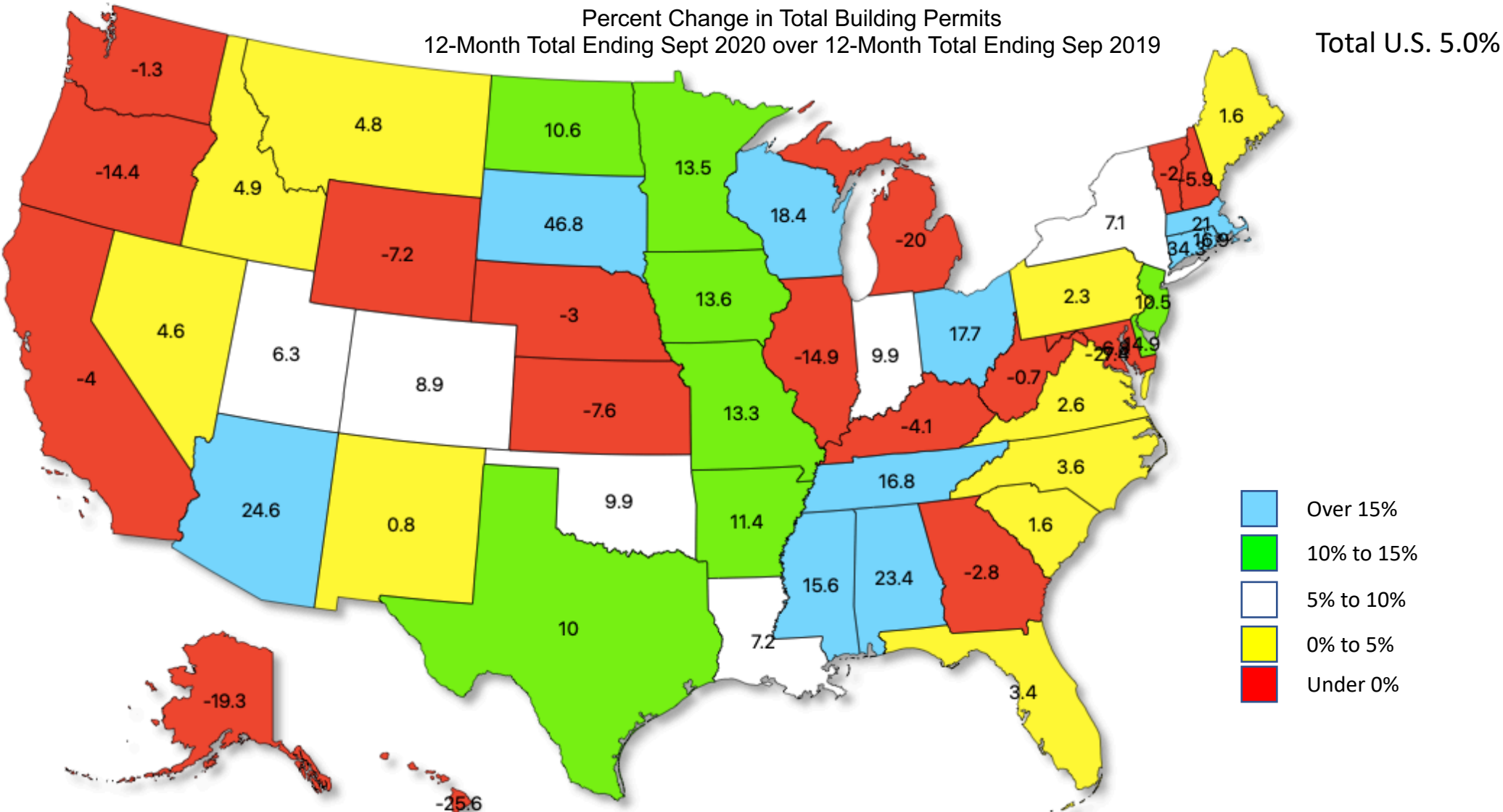


Value of Residential Construction



U.S. Census Bureau, Value of Construction Spending, November 2, 2020; <https://www.census.gov/construction/c30/pdf/release.pdf>

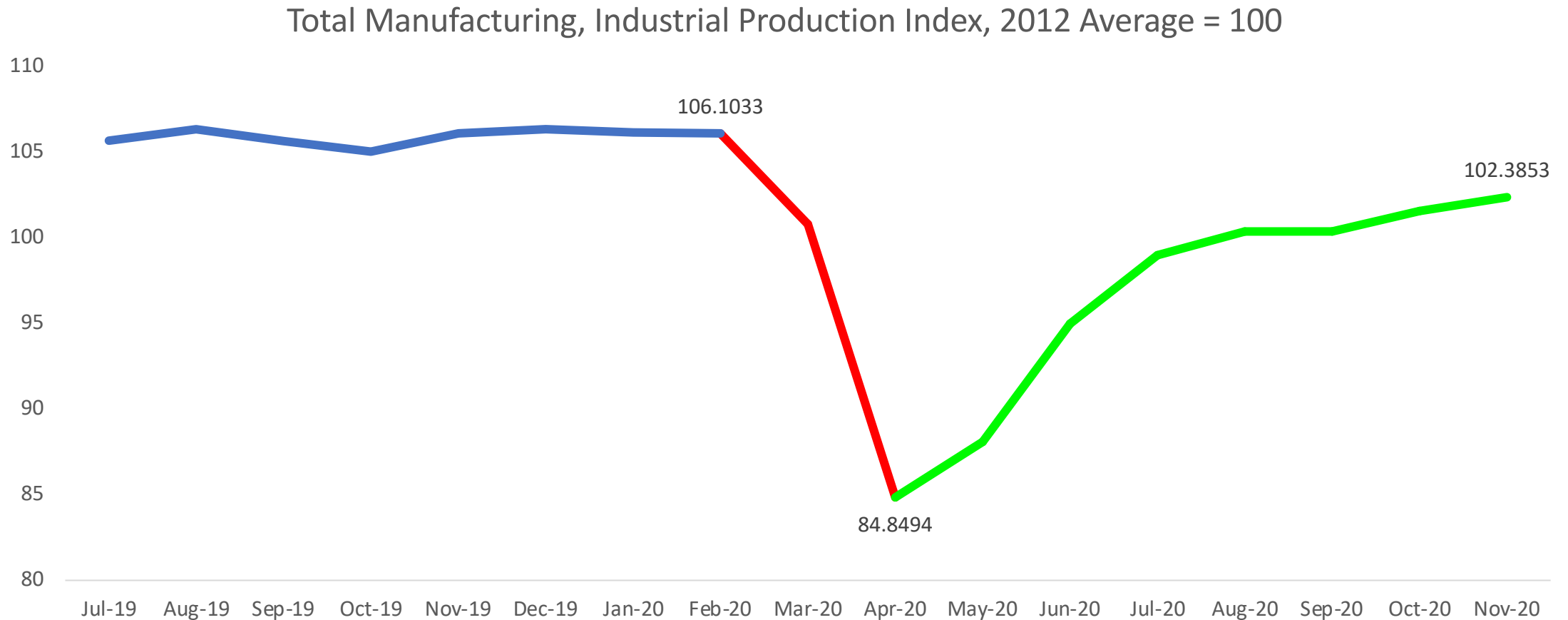
# Housing Construction Pace in Wisconsin Faster Than Most States



Source: U.S. Bureau of the Census, Building Permits Survey, Released October 20,, 2020. Author Tabulation

# Manufacturing Rebuilding

Manufacturing Dropped 20% from February to April  
Gained 21% April to November



Source: Federal Reserve Board of Governor's, Industrial Production Index, <https://www.federalreserve.gov/releases/g17/Current/default.htm>



# Outside of Aircraft, Durable Goods Orders Rebound

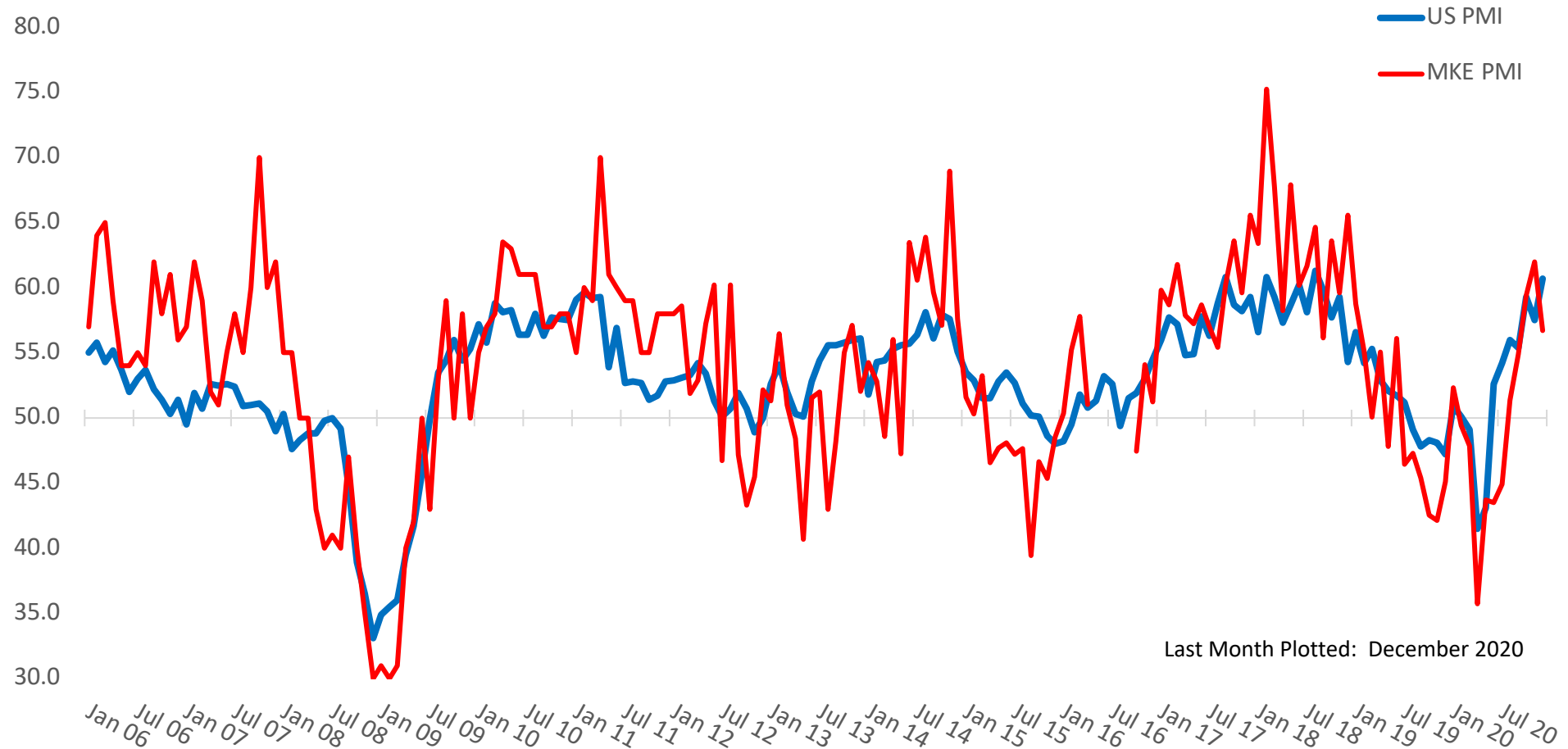
Manufacturers Durable Goods Orders Excluding Aircraft and Parts



# After April Collapse

## Wisconsin Manufacturing Moves Back to Expansion

Purchasing Manufacturers' Index--Manufacturing

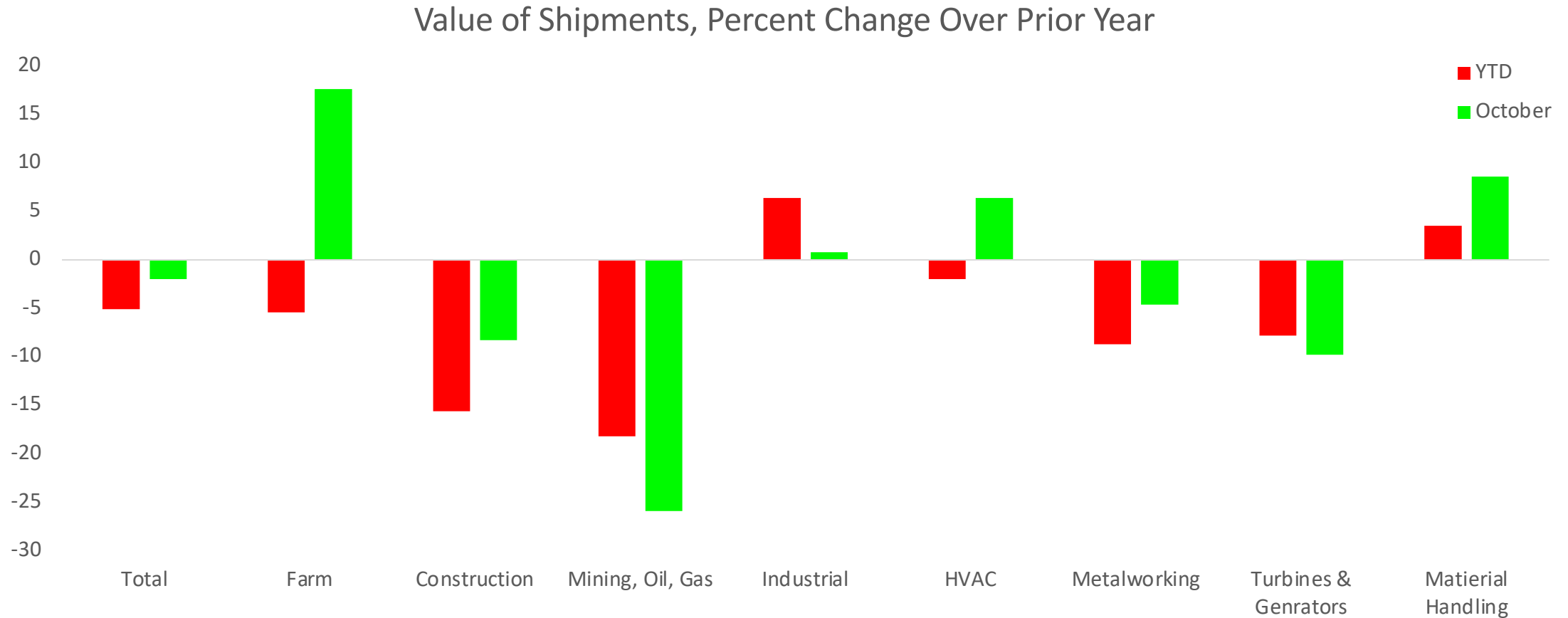


Last Month Plotted: December 2020

Source: Institute for Supply Management; Marquette University Center for Supply Management

# Different Results Even Within an Industry Reflect the Cross-Currents

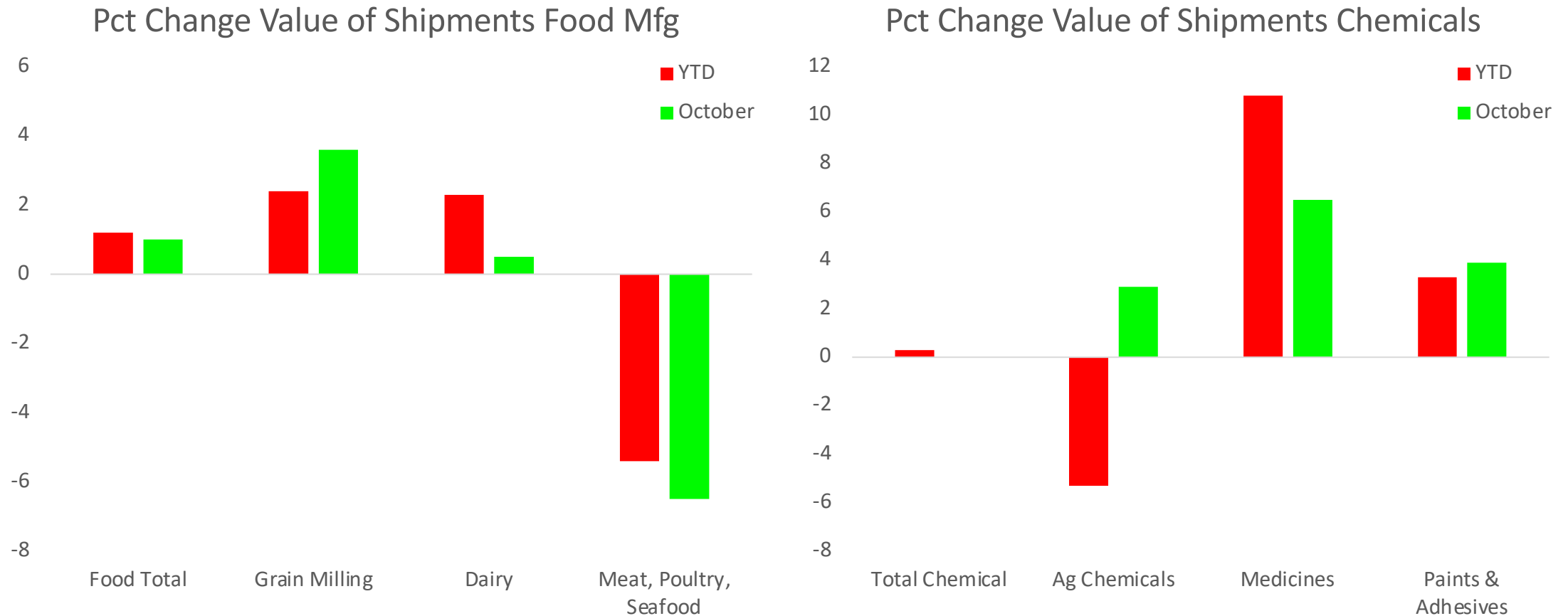
## The Case of Machinery Manufacturing



U.S. Bureau of the Census, MONTHLY FULL REPORT ON MANUFACTURERS' SHIPMENTS, INVENTORIES AND ORDERS OCTOBER 2020, Released December 4, 2020

# Different Results Within an Industry Reflect the Cross-Currents

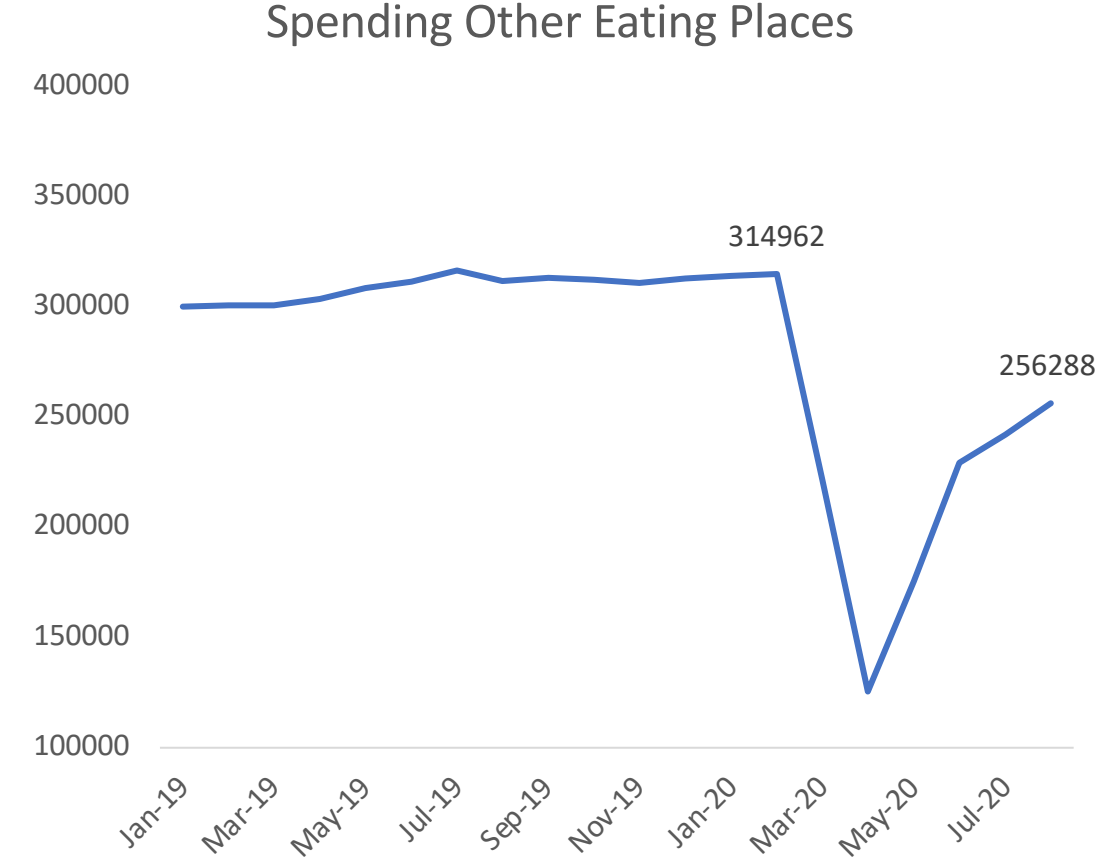
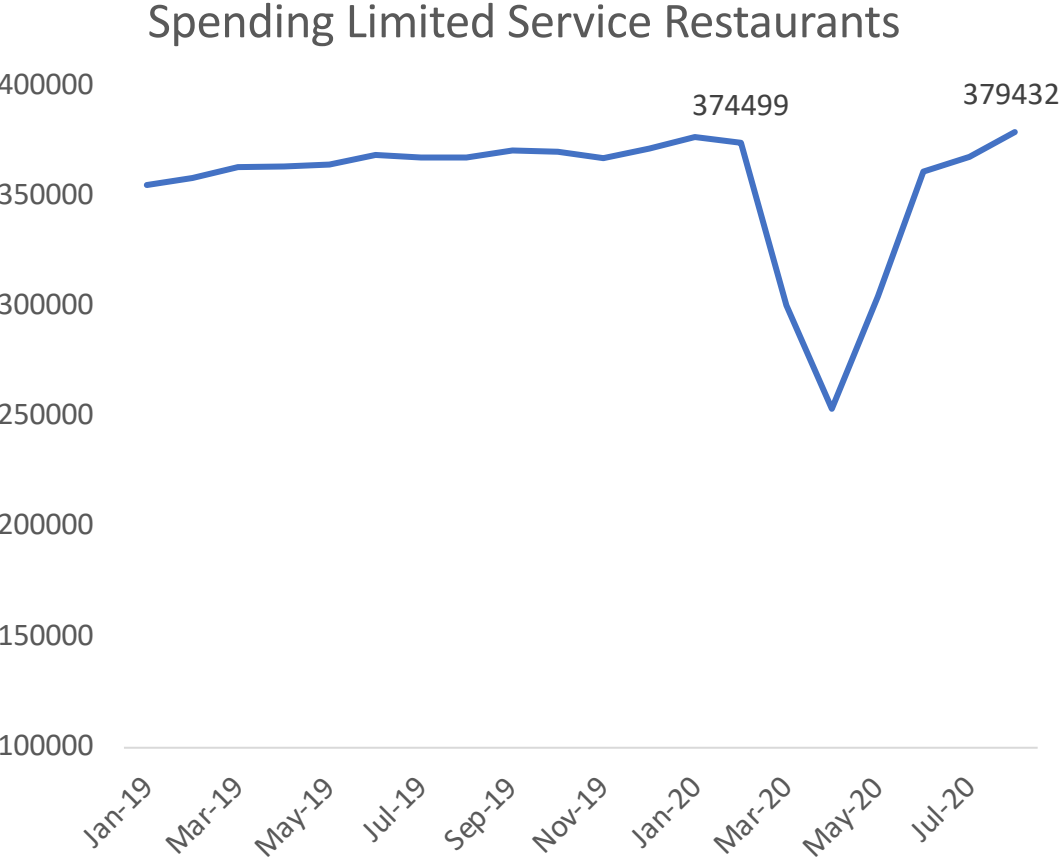
## The Cases of Food Manufacturing & Chemical Manufacturing



U.S. Bureau of the Census, MONTHLY FULL REPORT ON MANUFACTURERS' SHIPMENTS, INVENTORIES AND ORDERS OCTOBER 2020, Released December 4, 2020

# Restaurant Trade Rebuilding

## Fast Food Rebounds. Dine-In Still Behind

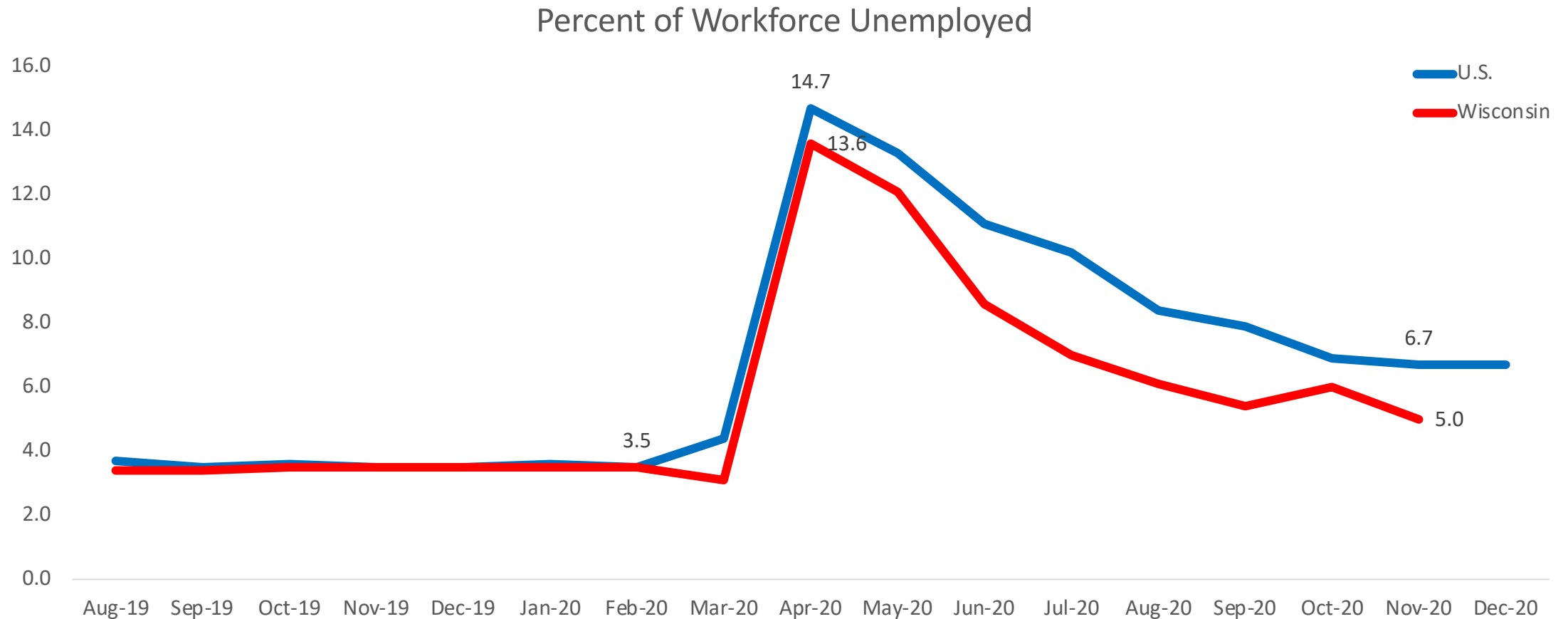


Source: U.S. Bureau of Economic Analysis, Consumer Spending Detailed Tables, <https://apps.bea.gov/iTable/iTable.cfm?ReqID=19&step=2#reqid=19&step=2&isuri=1&1921=underlying>

# Labor Markets

# U.S. and Wisconsin Unemployment Rates Down Sharply from April Peak

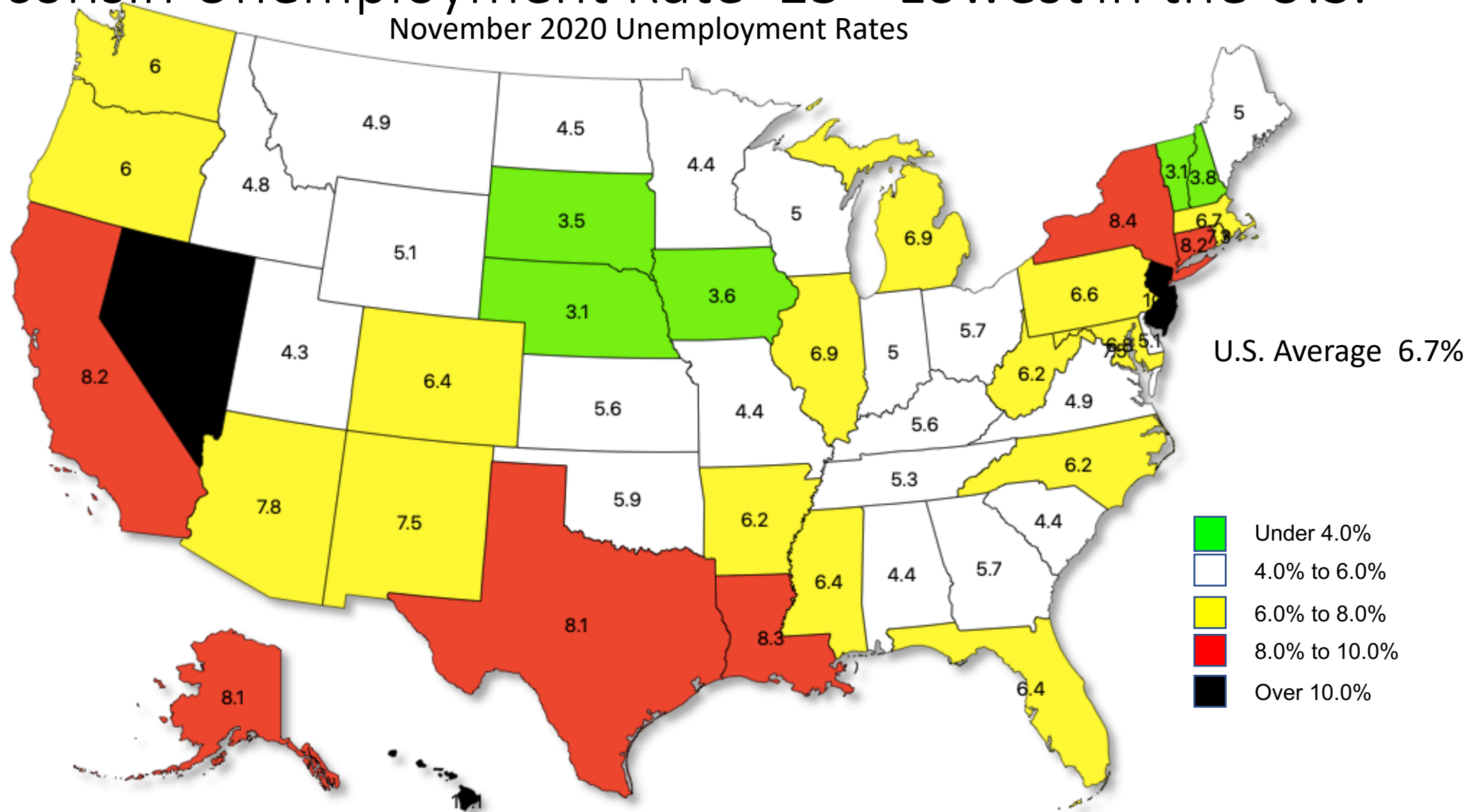
Wisconsin's Unemployment Rate 2.7 Points Below U.S. Average



Source: U.S. Bureau of Labor Statistics, Current Population Survey, Release January 3, 2021  
and Local Area Unemployment Statistics, Release December 18, 2020

Wisconsin Unemployment Rate 15<sup>th</sup> Lowest in the U.S.

## November 2020 Unemployment Rates

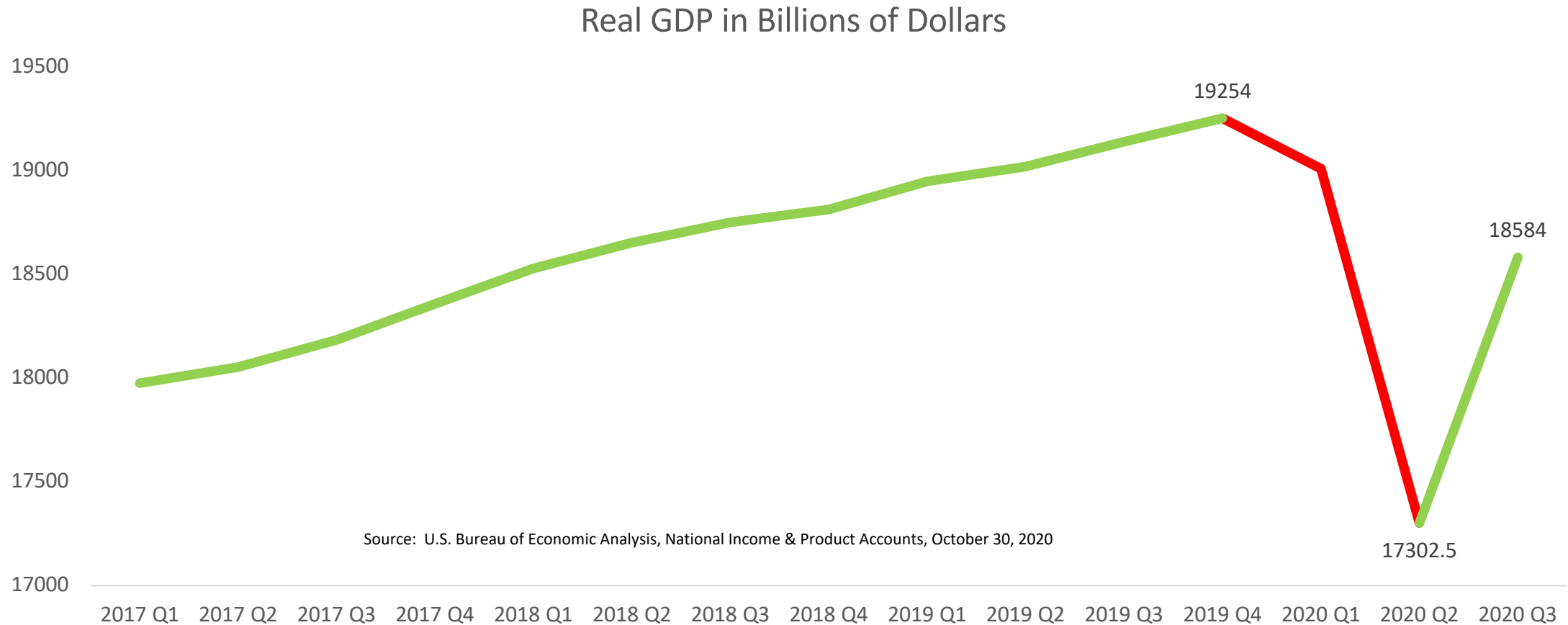


Source: U.S. Bureau of Labor Statistics, Local Area Unemployment Statistics, Release December 18, 2020

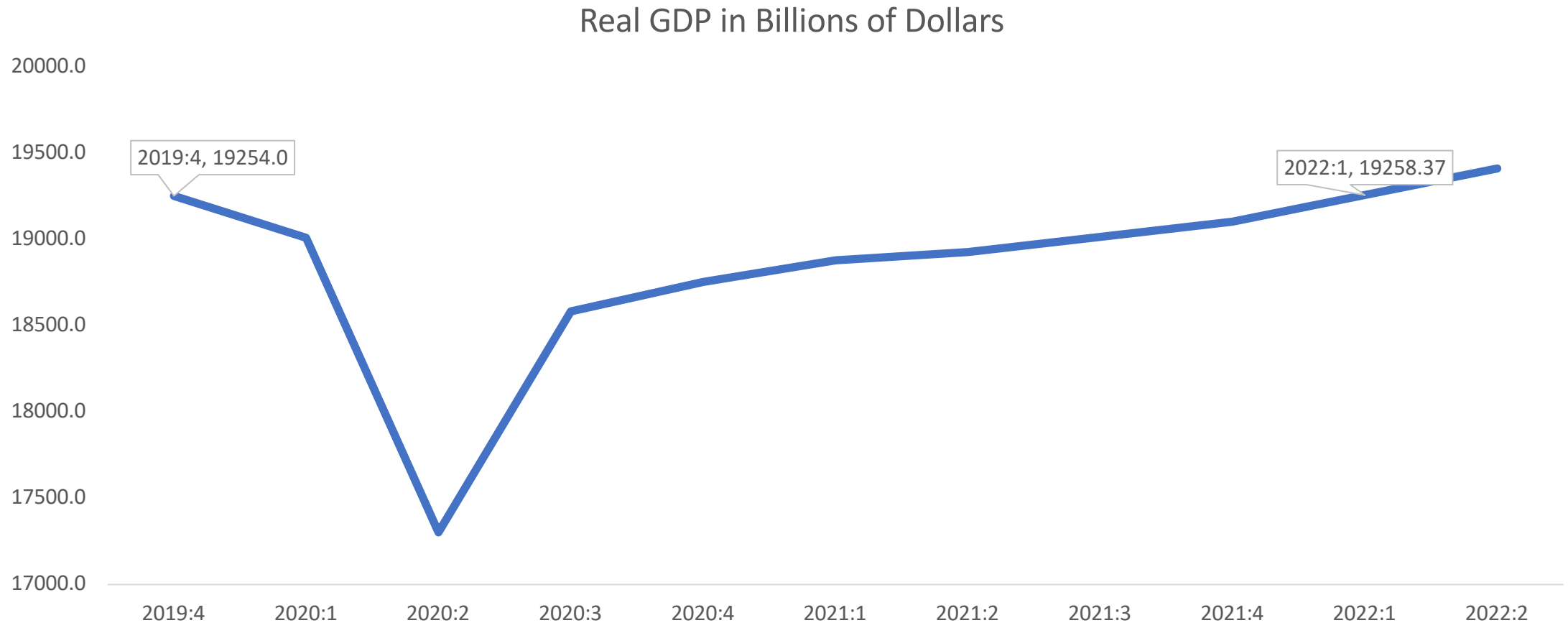


# 2021 Outlook

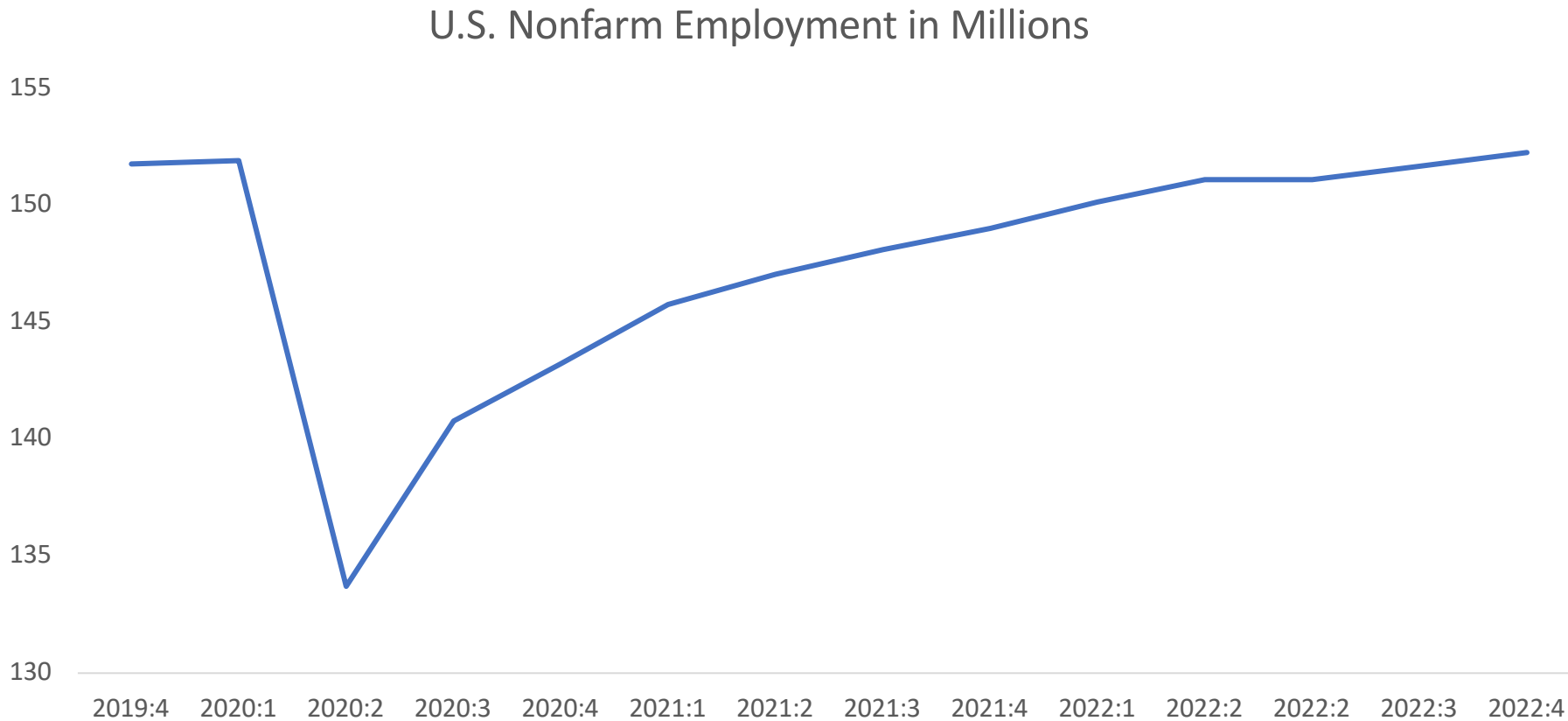
# Real GDP Still 3.5% Below 2019 Q4 Peak



# Real GDP Reaches Full Recovery By 2022 Q1 Expansion Thereafter



# Full Recovery for Employment by 2022 Q4



# Federal Reserve Open Market Committee Guidance on Outlook for 2021 & 2022

Federal Reserve will support the recovery

| Federal Reserve FOMC Outlook, September 2020 |                                    |      |      |
|--|------------------------------------|------|------|
| Economic Indicator                           | Median Forecasts<br>Annual Average |      |      |
|  | 2020                               | 2021 | 2022 |
| Real GDP, Percent Change                     | -3.7                               | 4.0  | 3.0  |
| Unemployment Rate                            | 7.6                                | 5.5  | 4.6  |
| Inflation Rate                               | 1.5                                | 1.7  | 1.8  |
| Federal Funds Rate                           | 0.1                                | 0.1  | 0.1  |

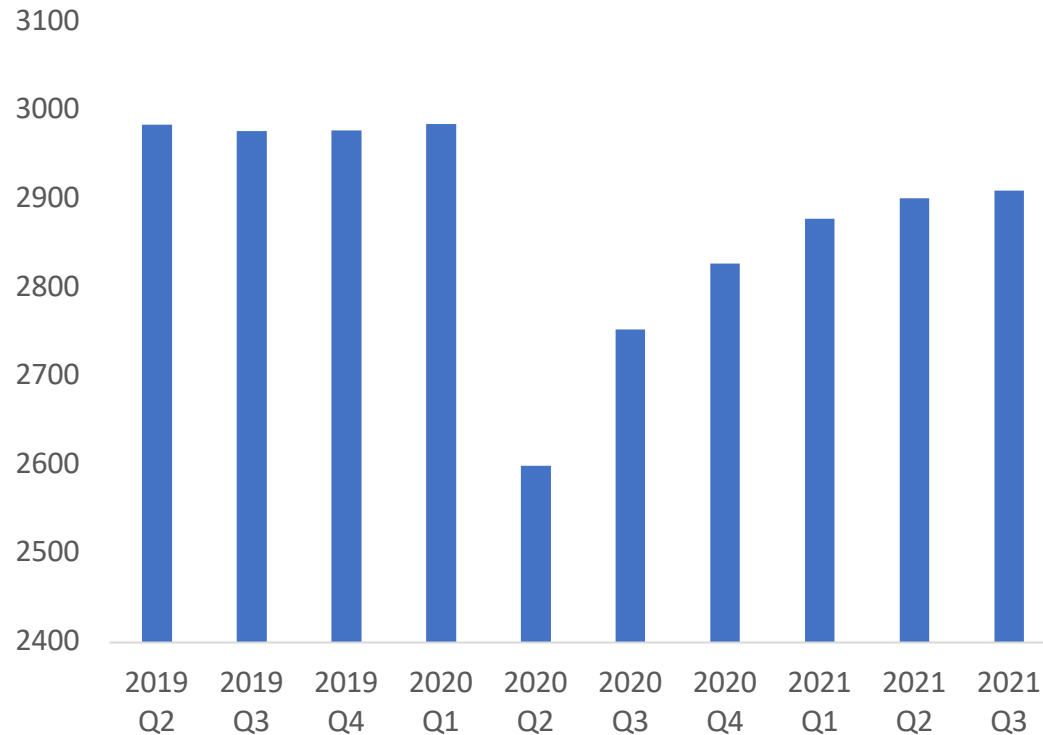
Source: Federal Reserve Board of Governors, <https://www.federalreserve.gov/monetarypolicy.htm>

# Wisconsin's Economic Outlook: Unemployment Rate Declines Starting 3rd Qtr. 2020, Reaches Full Employment in 2023

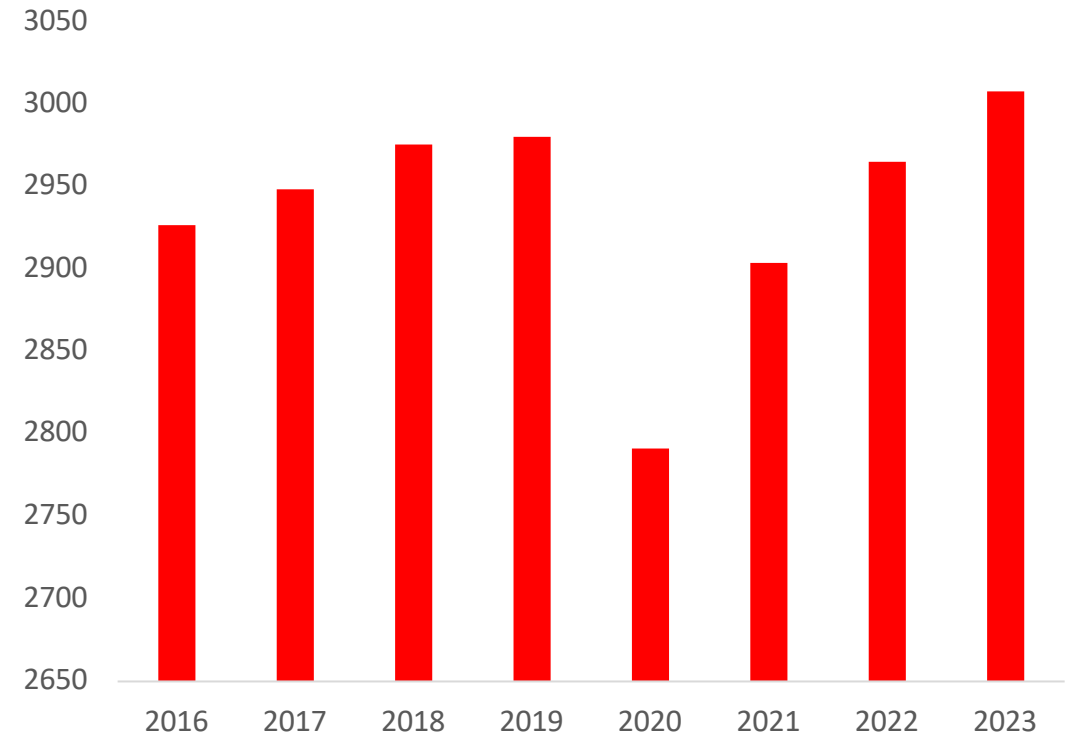


# Wisconsin Employment Rebounding Recovered by Late 2022

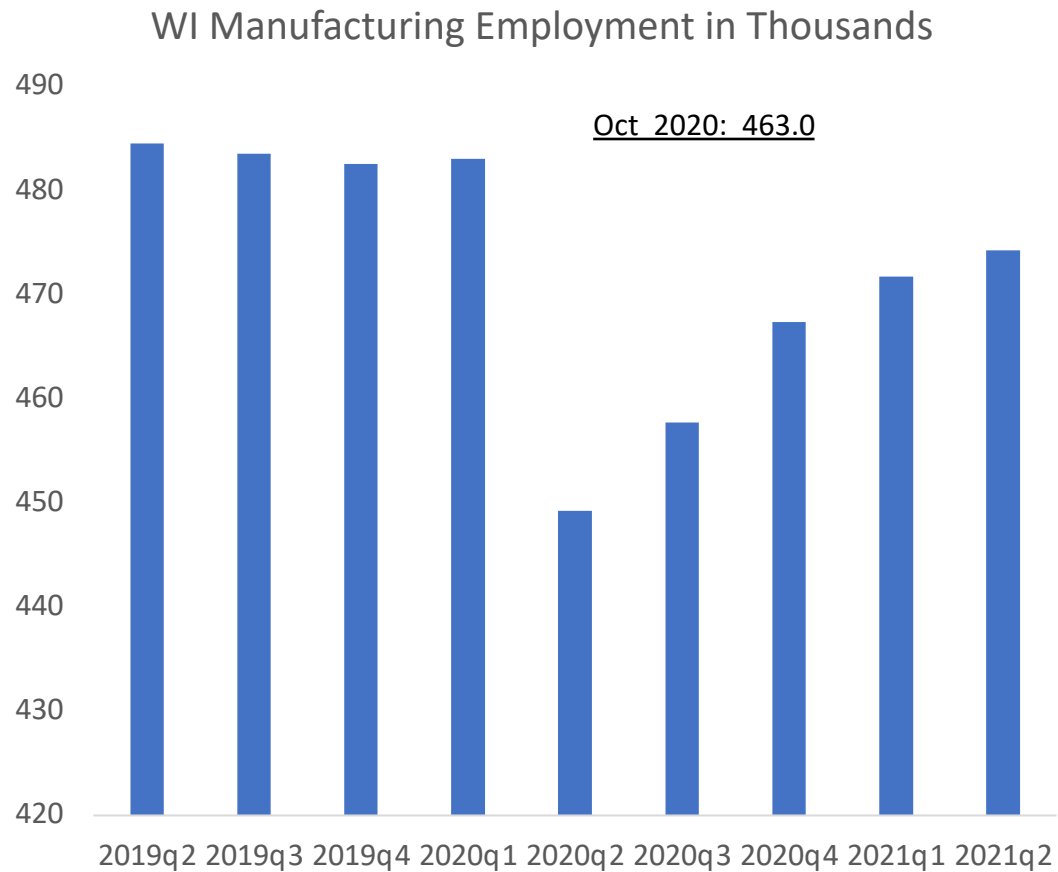
Wisconsin Non-Farm Employment  
by Quarter



Wisconsin Nonfarm Employment  
Annual Average



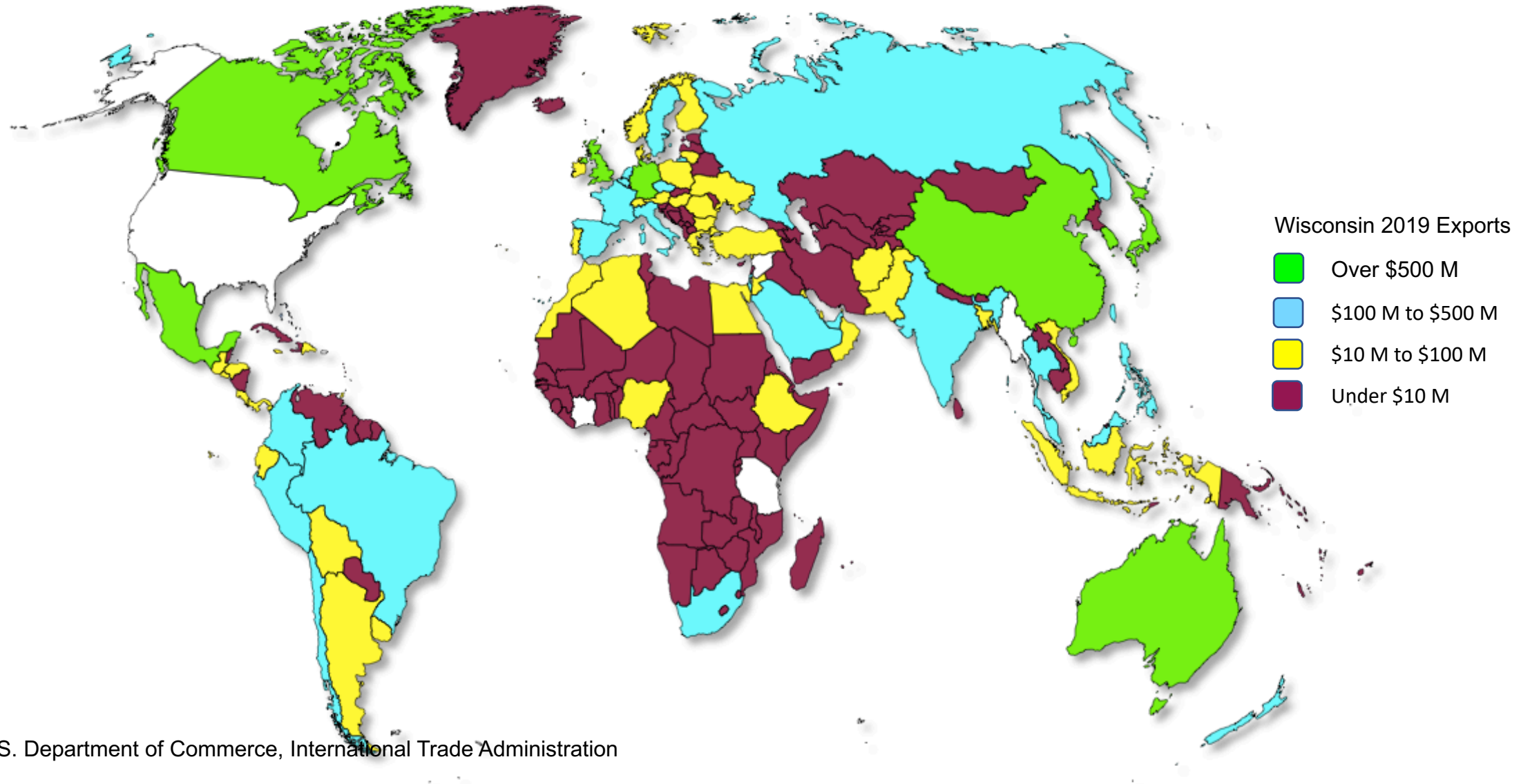
# Wisconsin Manufacturing Employment Turnaround Started In Third Quarter





# Wisconsin's International Trade

# Wisconsin Exports to Over 200 Countries World-Wide



Source: U.S. Department of Commerce, International Trade Administration

# Wisconsin's 25 Largest Export Markets:

## Over Half of Exports to 3 Countries: Canada, Mexico, and China

**Wisconsin Exports 2019 Total by Destination Country**

| WI Rank | Country         | Amount \$M | Country Share | Cumulative Share | WI Rank | Country              | Amount \$M | Country Share | Cumulative Share |
|---------|-----------------|------------|---------------|------------------|---------|----------------------|------------|---------------|------------------|
| .       | WI Export Total | 21,668.5   |               |                  |         |                      |            |               |                  |
| 1       | Canada          | 6,753.9    | 31.2%         | 31.2%            | 11      | Belgium              | 418.6      | 1.9%          | 74.3%            |
| 2       | Mexico          | 3,281.8    | 15.1%         | 46.3%            | 12      | Thailand             | 328.2      | 1.5%          | 75.8%            |
| 3       | China           | 1,373.2    | 6.3%          | 52.7%            | 13      | Italy                | 312.3      | 1.4%          | 77.3%            |
| 4       | United Kingdom  | 804.6      | 3.7%          | 56.4%            | 14      | Brazil               | 299.4      | 1.4%          | 78.7%            |
| 5       | Germany         | 760.0      | 3.5%          | 59.9%            | 15      | India                | 289.1      | 1.3%          | 80.0%            |
| 6       | Japan           | 704.4      | 3.3%          | 63.1%            | 16      | Singapore            | 235.2      | 1.1%          | 81.1%            |
| 7       | Australia       | 576.2      | 2.7%          | 65.8%            | 17      | Chile                | 229.0      | 1.1%          | 82.1%            |
| 8       | Korea, South    | 544.6      | 2.5%          | 68.3%            | 18      | Taiwan               | 226.6      | 1.0%          | 83.2%            |
| 9       | Netherlands     | 451.8      | 2.1%          | 70.4%            | 19      | Hong Kong            | 212.4      | 1.0%          | 84.2%            |
| 10      | France          | 434.9      | 2.0%          | 72.4%            | 20      | Saudi Arabia         | 156.3      | 0.7%          | 84.9%            |
|         | Top 10 Total    | 15,685.4   |               | 72.4%            | 21      | Malaysia             | 153.9      | 0.7%          | 85.6%            |
|         |                 |            |               |                  | 22      | Czech Republic       | 144.4      | 0.7%          | 86.3%            |
|         |                 |            |               |                  | 23      | Spain                | 137.6      | 0.6%          | 86.9%            |
|         |                 |            |               |                  | 24      | Peru                 | 136.8      | 0.6%          | 87.5%            |
|         |                 |            |               |                  | 25      | United Arab Emirates | 136.6      | 0.6%          | 88.2%            |
|         |                 |            |               |                  |         | Top 25 Total         | 19,101.7   |               | 88.2%            |
|         |                 |            |               |                  |         | Rest of the World    | 2,566.7    |               | 11.8%            |

# North American and Asia are Primary Destinations for Wisconsin Exports

Wisconsin Exports 2019 Total by Destination Region

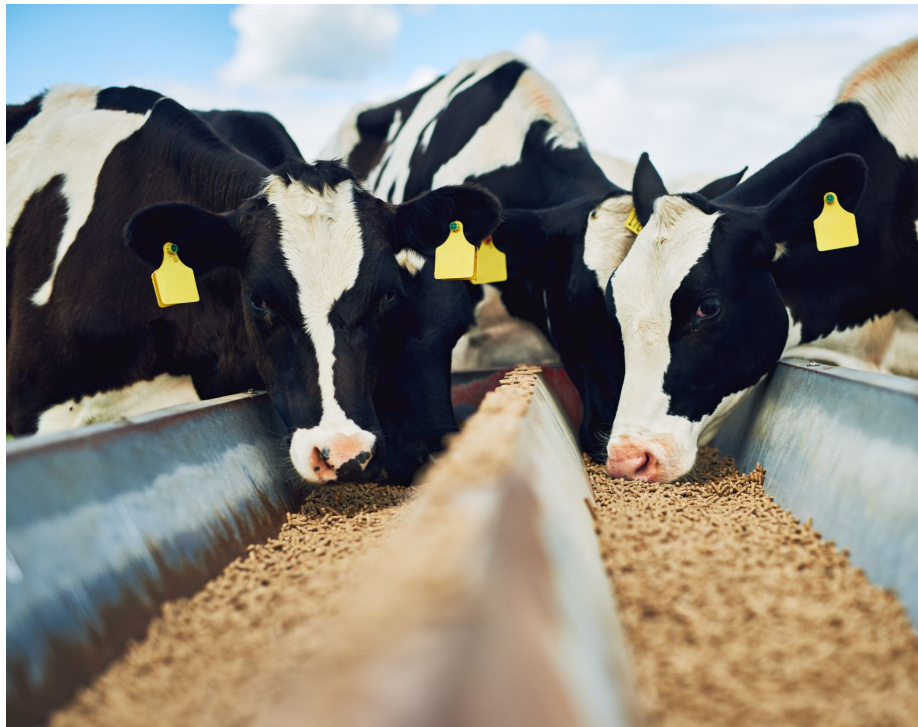
| WI Rank              | Country                | Amount \$M      | Share        | WI Rank              | Country          | Amount \$M     | Share        |
|----------------------|------------------------|-----------------|--------------|----------------------|------------------|----------------|--------------|
| .                    | <b>WI Export Total</b> | <b>21,668.5</b> |              |                      |                  |                |              |
| <b>NORTH AMERICA</b> |                        | <b>10,035.7</b> | <b>46.3%</b> | <b>EUROPE</b>        |                  | <b>3,464.1</b> | <b>16.0%</b> |
| 1                    | Canada                 | 6,753.9         | 31.2%        | 4                    | United Kingdom   | 804.6          | 3.7%         |
| 2                    | Mexico                 | 3,281.8         | 15.1%        | 5                    | Germany          | 760.0          | 3.5%         |
|                      |                        |                 |              | 9                    | Netherlands      | 451.8          | 2.1%         |
|                      |                        |                 |              | 10                   | France           | 434.9          | 2.0%         |
| <b>ASIA</b>          |                        | <b>4,223.8</b>  | <b>19.5%</b> | 11                   | Belgium          | 418.6          | 1.9%         |
| 3                    | China                  | 1,373.2         | 6.3%         | 13                   | Italy            | 312.3          | 1.4%         |
| 6                    | Japan                  | 704.4           | 3.3%         | 22                   | Czech Republic   | 144.4          | 0.7%         |
| 8                    | Korea, South           | 544.6           | 2.5%         | 23                   | Spain            | 137.6          | 0.6%         |
| 12                   | Thailand               | 328.2           | 1.5%         |                      |                  |                |              |
| 15                   | India                  | 289.1           | 1.3%         | <b>SOUTH AMERICA</b> |                  | <b>665.2</b>   | <b>3.1%</b>  |
| 16                   | Singapore              | 235.2           | 1.1%         | 14                   | Brazil           | 299.4          | 1.4%         |
| 18                   | Taiwan                 | 226.6           | 1.0%         | 17                   | Chile            | 229.0          | 1.1%         |
| 19                   | Hong Kong              | 212.4           | 1.0%         | 24                   | Peru             | 136.8          | 0.6%         |
| 20                   | Saudi Arabia           | 156.3           | 0.7%         |                      |                  |                |              |
| 21                   | Malaysia               | 153.9           | 0.7%         | <b>OCEANIA</b>       |                  | <b>576.2</b>   | <b>2.7%</b>  |
| 25                   | United Arab Emirates   | 136.6           | 0.6%         | <b>7</b>             | <b>Australia</b> | <b>576.2</b>   | <b>2.7%</b>  |

# Top Markets for Wisconsin's Principal Export Industries

| Wisconsin Industries with Exports Over \$500 Million |                  |                           |         |                |
|--|------------------|---------------------------|---------|----------------|
| Industry   | 2019 Exports \$M | Top 3 Destination Markets |         |                |
| Machinery  | 4,529.3          | Canada                    | Mexico  | Australia      |
| Computers & Electronics                              | 2,611.2          | China                     | Canada  | Mexico         |
| Transportation Equipment                             | 2,200.0          | Mexico                    | Canada  | United Kingdom |
| Food   | 1,994.9          | Canada                    | Mexico  | South Korea    |
| Chemicals  | 1,986.3          | Canada                    | Germany | Mexico         |
| Electrical Equipment                                 | 1,718.8          | Canada                    | Mexico  | China          |
| Fabricated Metals                                    | 1,059.3          | Mexico                    | Canada  | China          |
| Plastics & Rubber                                    | 1,002.6          | Canada                    | Mexico  | Germany        |
| Paper  | 946.6            | Canada                    | Mexico  | China          |
| Miscellaneous Manufacturing                          | 674.6            | Canada                    | Mexico  | Germany        |
| Agricultural Products                                | 604.0            | Italy                     | Canada  | China          |

# WI Agricultural Exports Led by Dairy Products

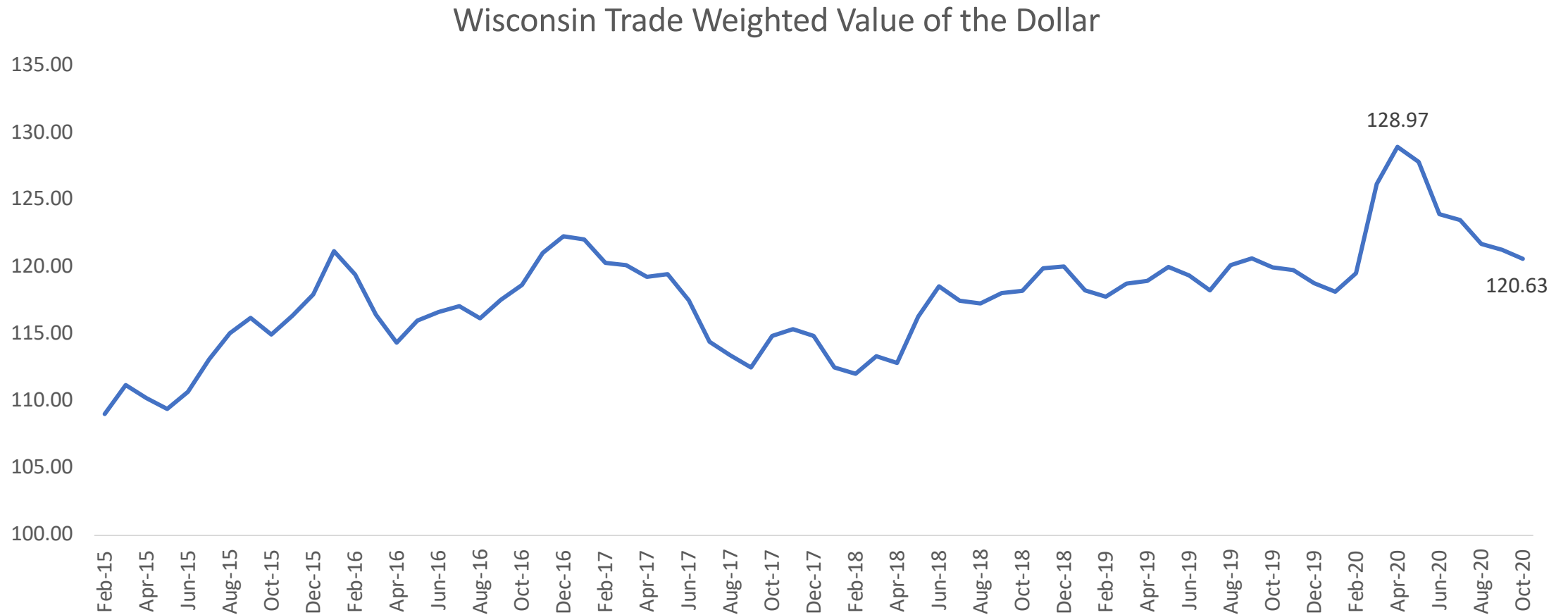
Agricultural Exports Here Include Food Manufacturing



|                                   | <u>2019 Amount \$M</u> |
|-----------------------------------|------------------------|
| Dairy products                    | 834.5                  |
| Soybeans                          | 399.5                  |
| Feeds and other feed grains       | 218.0                  |
| Corn                              | 214.9                  |
| Beef and veal                     | 203.1                  |
| Vegetables, processed             | 111.1                  |
| <b>Total agricultural exports</b> | <b>2,841.4</b>         |

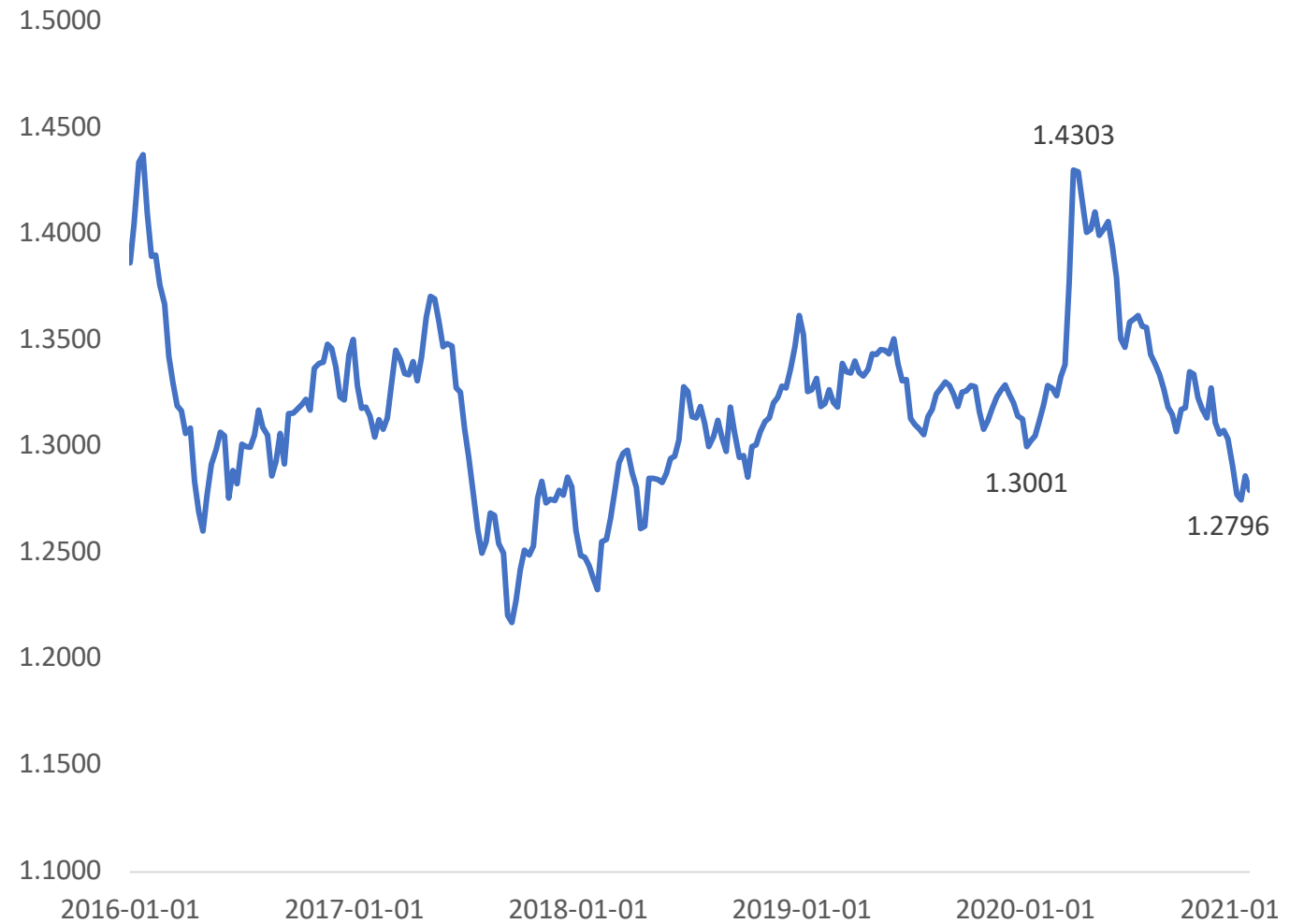
Source: U.S. Department of Agriculture, Economic Research Service

# Wisconsin Trade Weighted Value of the Dollar Declining After the Spring Spike



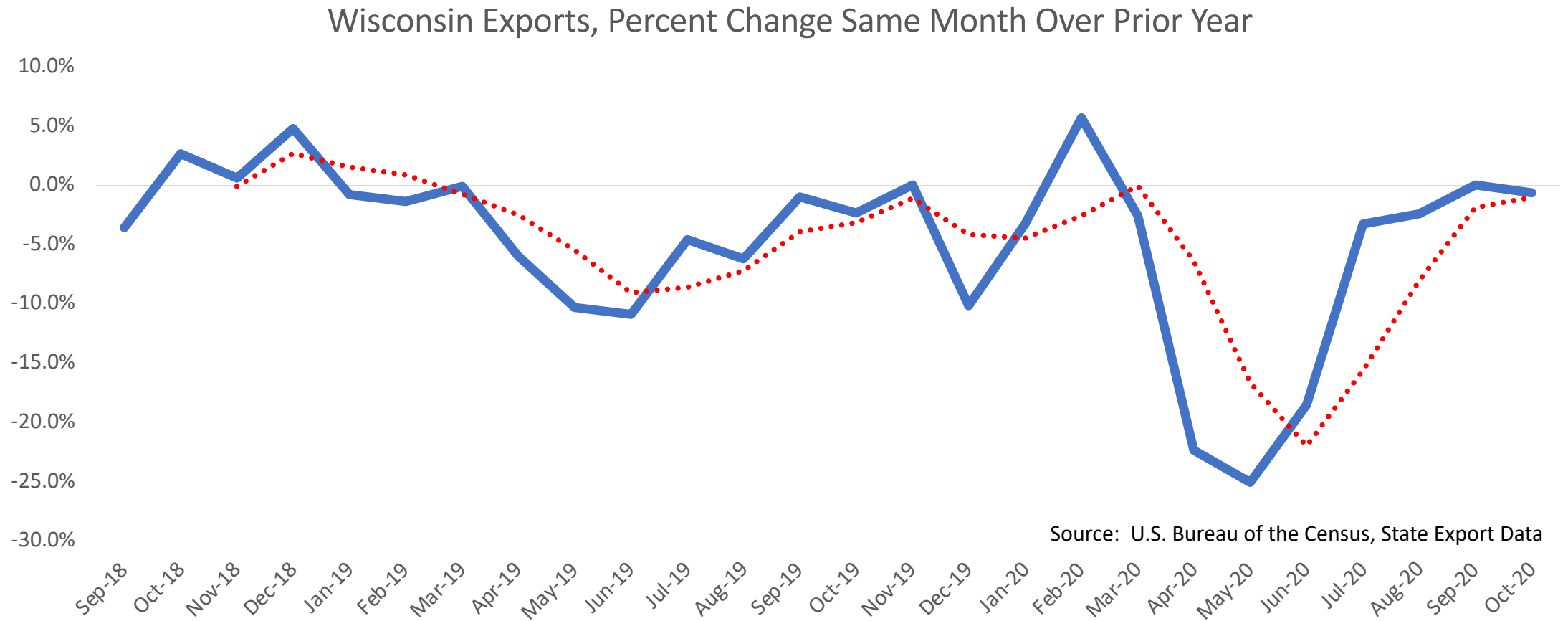
# Wisconsin Industries More Sensitive the U.S.-Canada Exchange Rate

Exchange Rate: C\$ / US\$

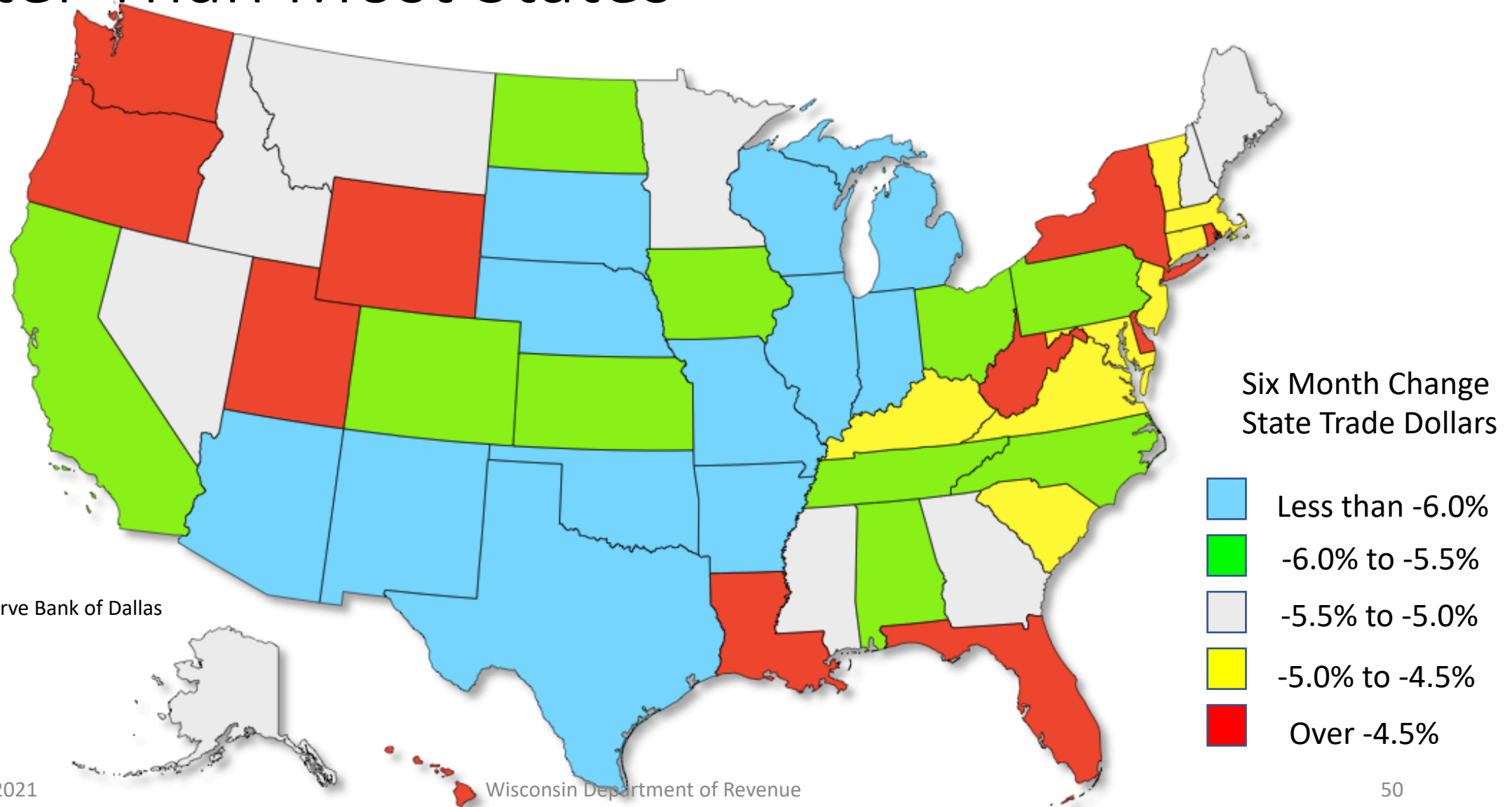




# Wisconsin Exports Recovering from Spring COVID Contraction



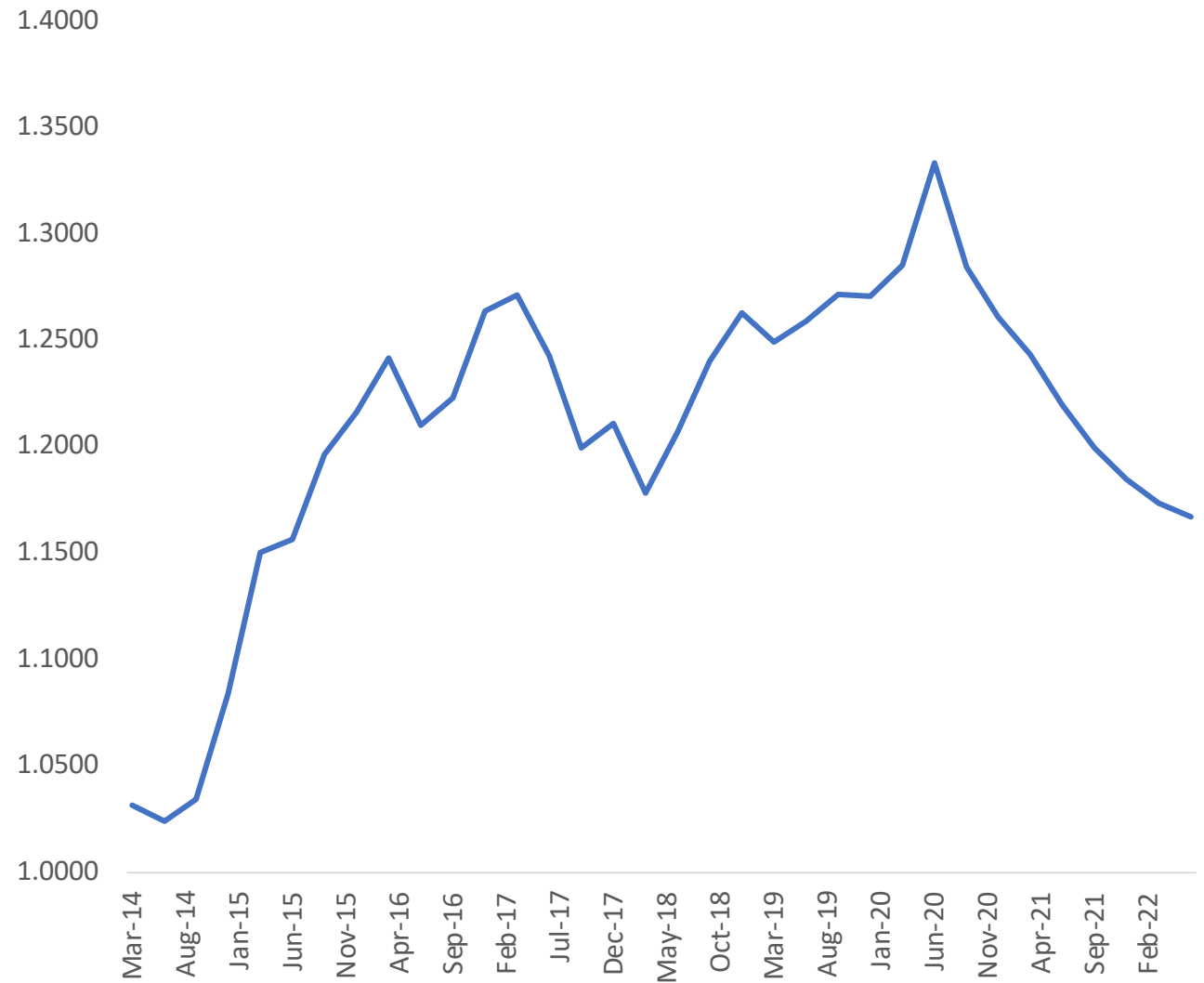
# Wisconsin Trade Weighted Dollar Falling Faster Than Most States



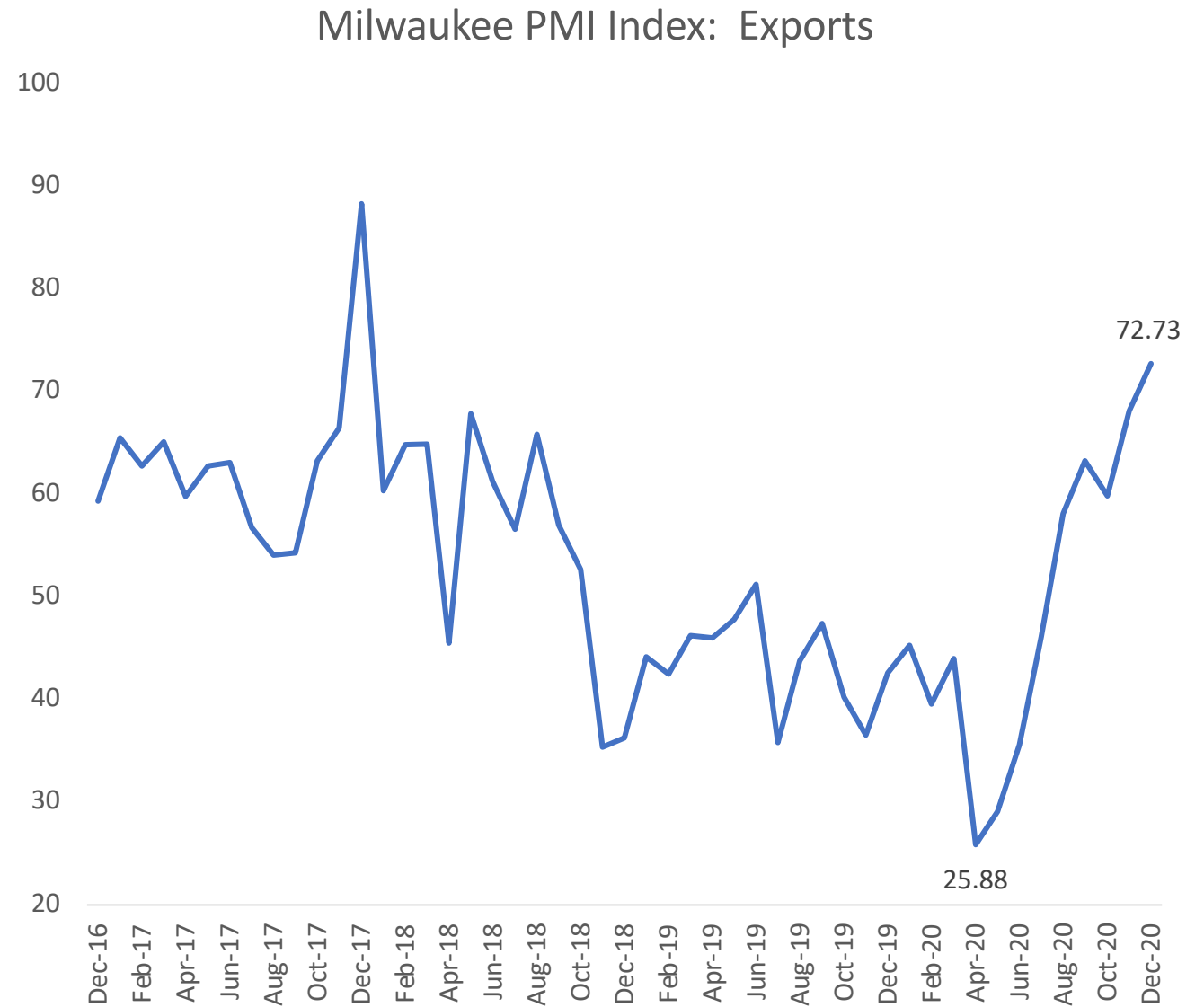
Continuing  
Decline in the  
Trade Value  
of the U.S  
Dollar Should  
Sustain  
Stronger  
Exports

January 12, 2021

Broad Trade Weighted Value of U.S. Dollar



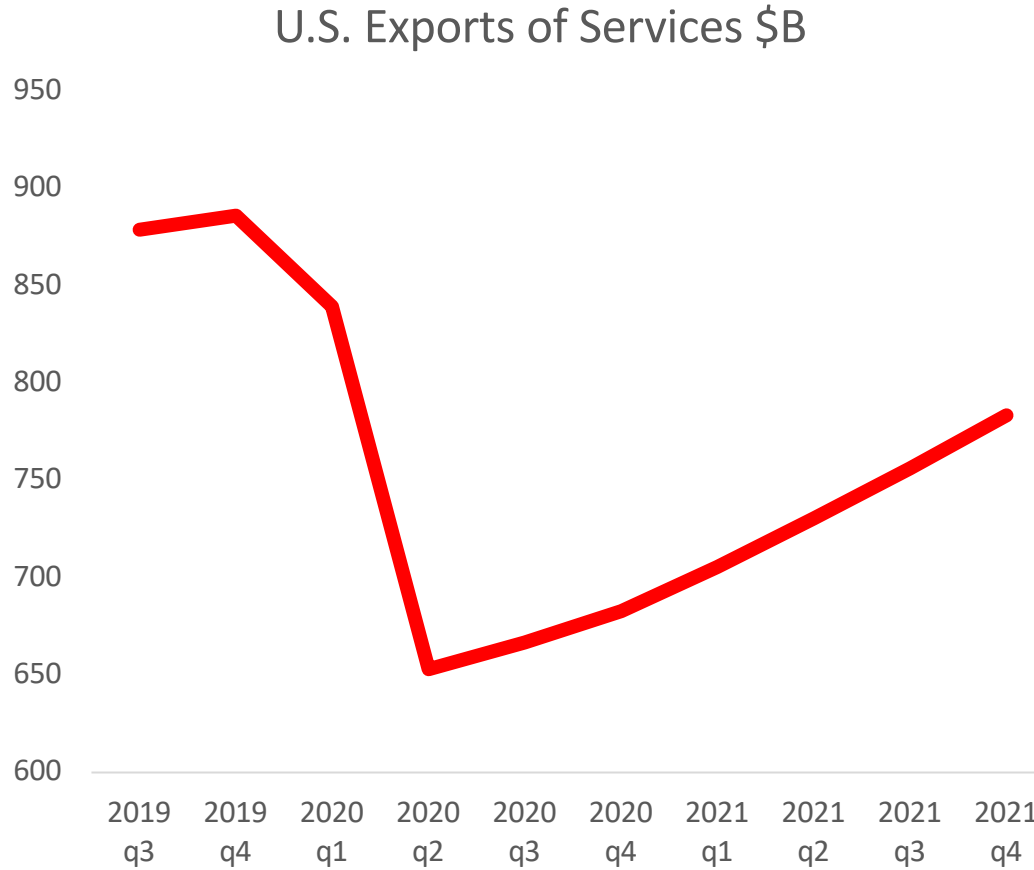
Export  
Prospects  
Improving:  
Milwaukee PMI  
Exports: Strong  
Positive  
Highest  
Reading Since  
December  
2017



Source: Marquette ISM Manufacturing Index, Export Subcomponent

# Exports of Goods Recovers in Mid-2021

## Exports of Services Recovery Delayed to 2022



# An Invitation to Partner with DOR

## 1. Participate in a roundtable discussion

- Business Development and Government Relations Unit provides business and government outreach
- <https://www.revenue.wi.gov/Pages/Businesses/bdgr.aspx>

## 2. Stay Informed with DOR research

- Quarterly reports on the Wisconsin Economy
  - <https://www.revenue.wi.gov/Pages/Report/WI-Economic-Outlook.aspx>
- Data Visualizations on Wisconsin's Exports
  - <https://www.revenue.wi.gov/Pages/RA/Wisconsin-Exports.aspx> .