



# Economic and Revenue Review for the Vermont State Legislature

*Via Zoom*  
*December 3, 2020*

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# Two Exogenous Forces Are Driving the National and State Economies and State Revenues

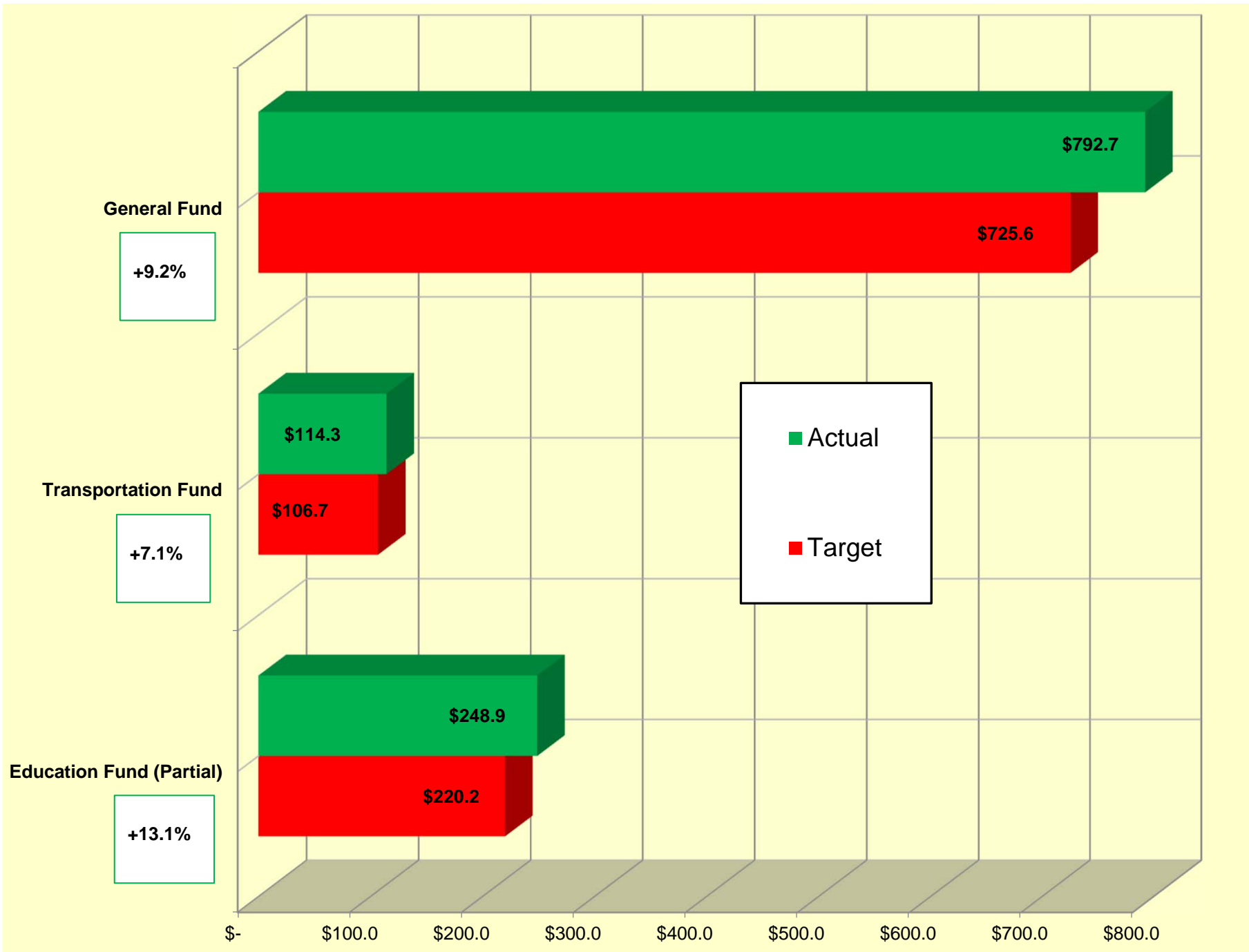
- The Epidemiological Path of the Pandemic  
and
- The Unprecedented Federal Fiscal and Monetary Response to the Pandemic

BOTH ARE STILL  
HIGHLY UNCERTAIN  
AT THIS TIME

# Year-To-Date FY21 Revenues Are Well Above Expectations, but Uncertainty Reigns

- Total Revenues through November (General, Transportation and partial Education Funds) are about 10% above targets (about \$100M on a base of more than \$1B), an exceptional lead that would normally lead to a large pre-session upward adjustment, but there is nothing normal about this year!
- As emphasized throughout the past 9 months, the epidemiological path of the pandemic and the extraordinary federal fiscal and monetary response to it are driving the economy - not underlying economic fundamentals or cyclicity. Despite the phenomenally quick development of several vaccines, there is still significant near-term economic uncertainty with the U.S. now being the global epicenter of the pandemic and control of the Senate still up in the air with the two pending Georgia senate runoff races.
- Massive federal deficit spending, which could ultimately exceed that allocated for WW2 (in inflation-adjusted dollars), has kept the economy afloat. This has created, however, enormous disparities between and within major sectors of the economy, its businesses and its people, with disparate winners and losers.
- Reflecting some of these disparities, State revenues from consumption tax segments such as e-commerce vendors, motor vehicles, consumer durable goods, building materials and home improvement items, short-term on-line vacation rentals, recreational equipment, drive through and home delivery meals vendors, and taxable grocery store items, have registered enormous gains and have driven above target performance in the Sales & Use tax (+14%), the Purchase & Use tax (+21%), and kept even the hard-hit Meals & Rooms tax revenues slightly above (+1%) targets through the first five months of the fiscal year.
- Personal Income and corporate revenues have benefitted from the enormous federal stimulus payments and strong prior growth - which could persist into the second half of FY21. High-end residential sales in resort towns has pushed property transfer tax revenues to a whopping 62% above targets through November.

**FY21 Revenues by Fund Through November 2020 (preliminary)**  
Actual Revenues (Green) vs. Targets (Red), Percent Variance by Fund in Box, Source: VT Joint Fiscal Office



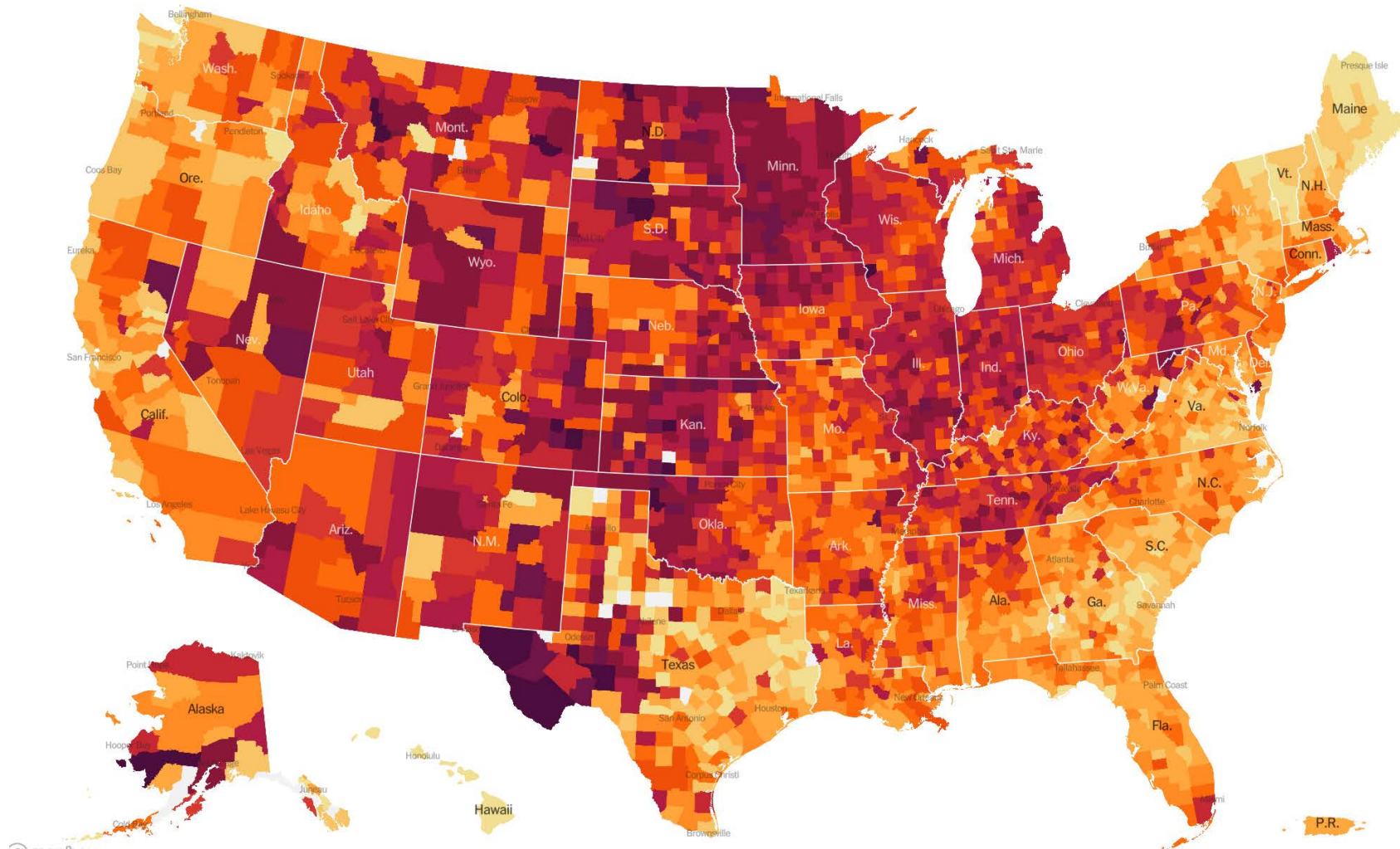


# Epidemiological Issues

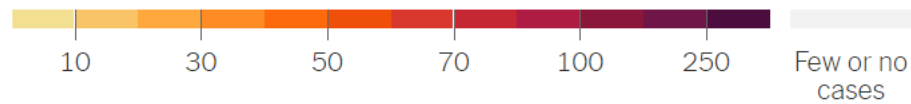
- The path of the pandemic will largely determine the path of the economy
- Three viable vaccines appear to be close to initial distribution, but timing for widespread vaccination and population uptake is still uncertain
- The “second” (or third) U.S. infectious wave is now upon us and the U.S. is currently the global epicenter of the disease
- Vermont has been a standout in managing the pandemic, with significant economic benefits deriving from this, however, it will be difficult to maintain rates of infection significantly below neighboring states with whom we have a great deal of commerce and population flows. Hence, rapidly rising regional infectious rates are of real concern
- Hospitalizations are accelerating in many parts of the country, stressing healthcare systems and personnel
- Vermont currently has manageable case loads, but this could change quickly if viral spread is not diminished
- Deaths have been lower than early in the pandemic, but are rising almost everywhere in the U.S.
- Even in the absence of government-mandated closures, people respond in ways that have comparable economic effects
- The politicization of simple public health safety measures has impeded progress in controlling viral spread

# COVID-19 Cases Surge as U.S. Becomes Global Hot Spot

(Source: NY Times – December 2, 2020)

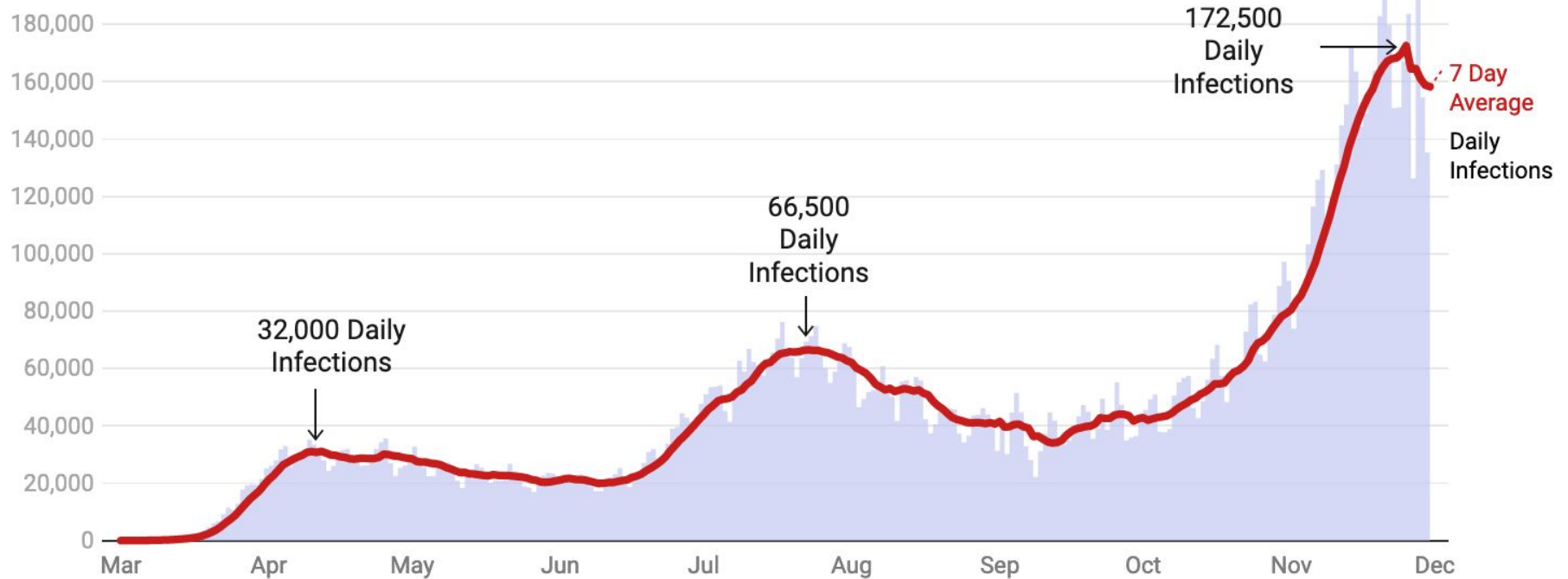


Average daily cases per 100,000 people in past week



# U.S. Case Growth

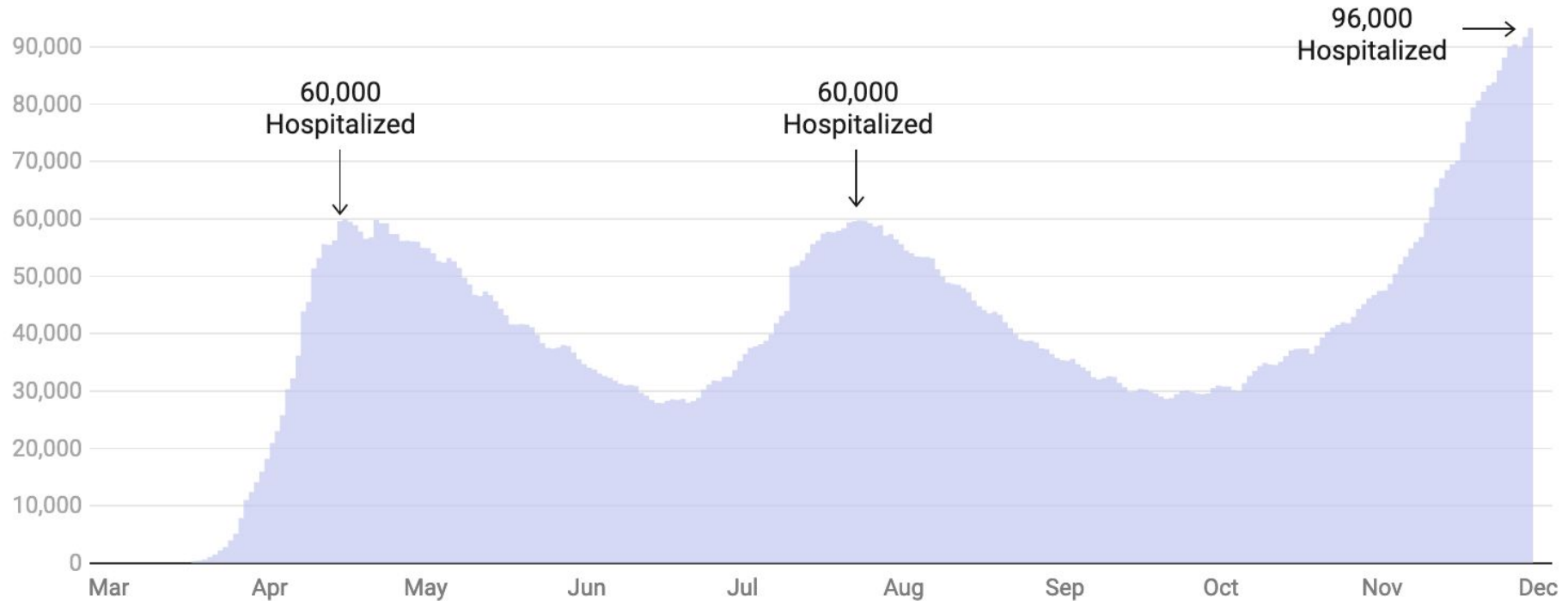
## Daily COVID-19 Infections in US





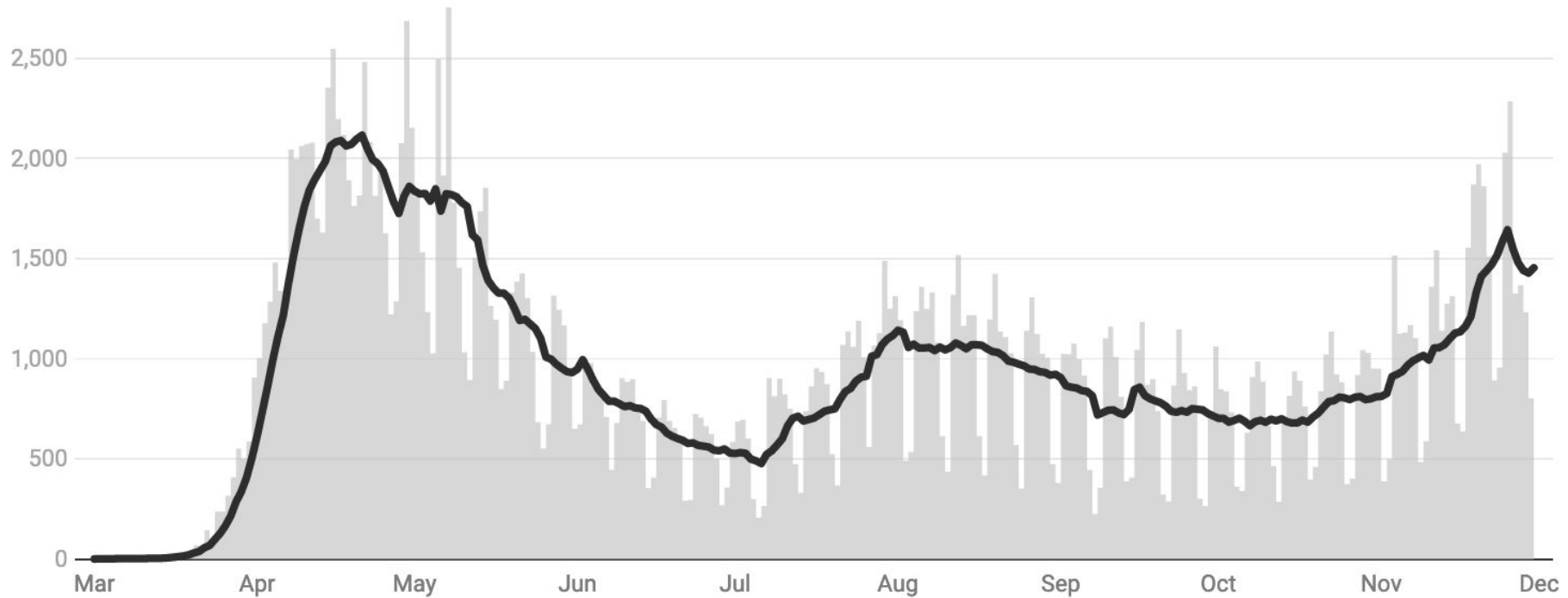
# U.S. Hospitalization Growth

## COVID-19 Hospitalizations in US

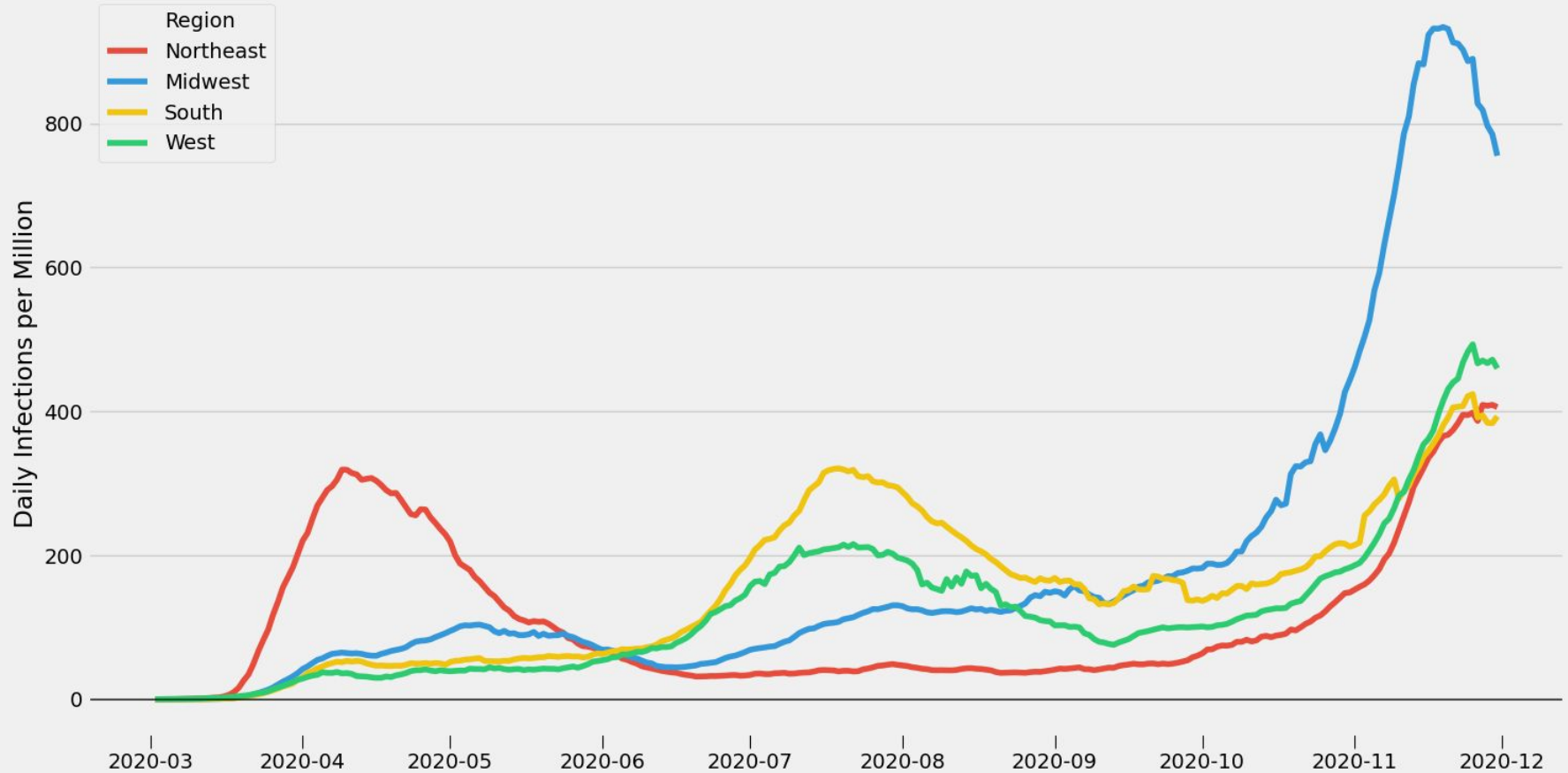


# U.S. Covid-19 Deaths

## Daily COVID-19 Deaths in US



COVID-19 Daily Infections per Million by Census Region (7-Day Moving Average)

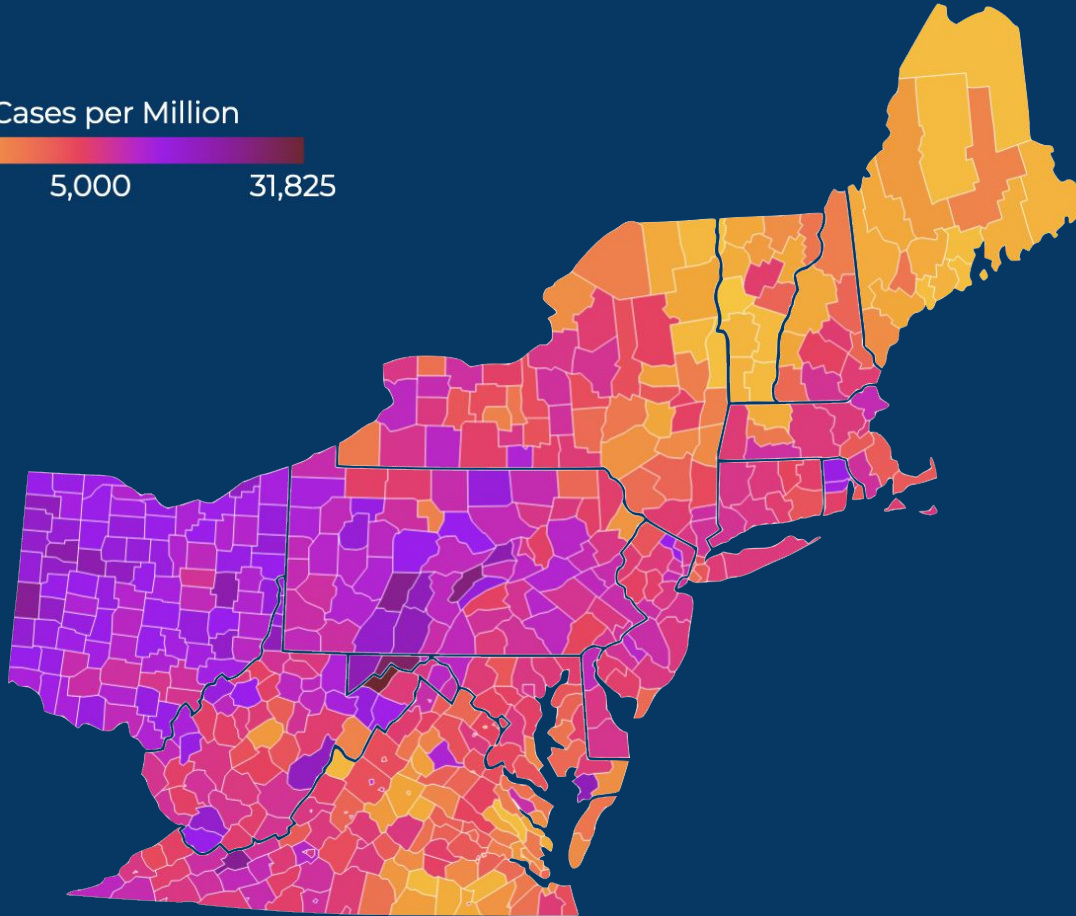


# Regional Heat Map

Active Cases per Million



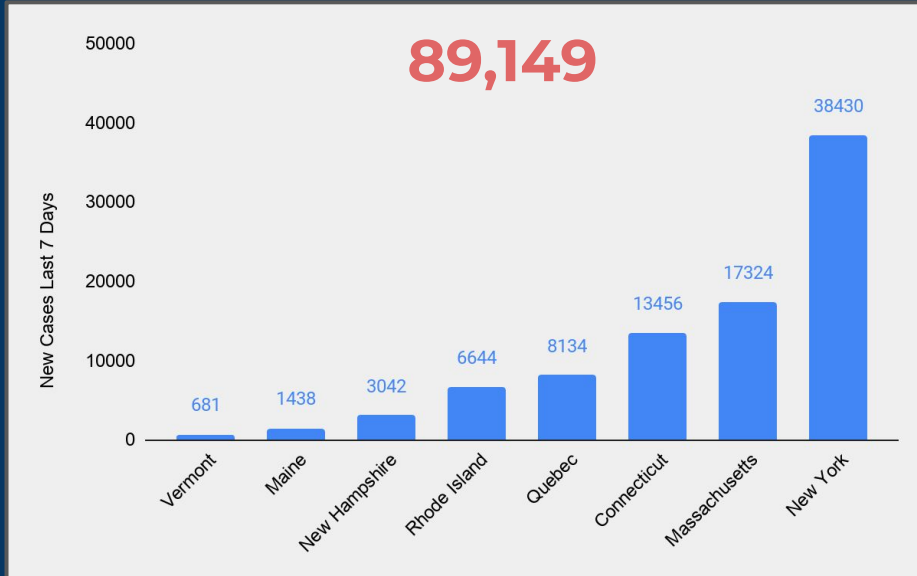
0 5,000 31,825



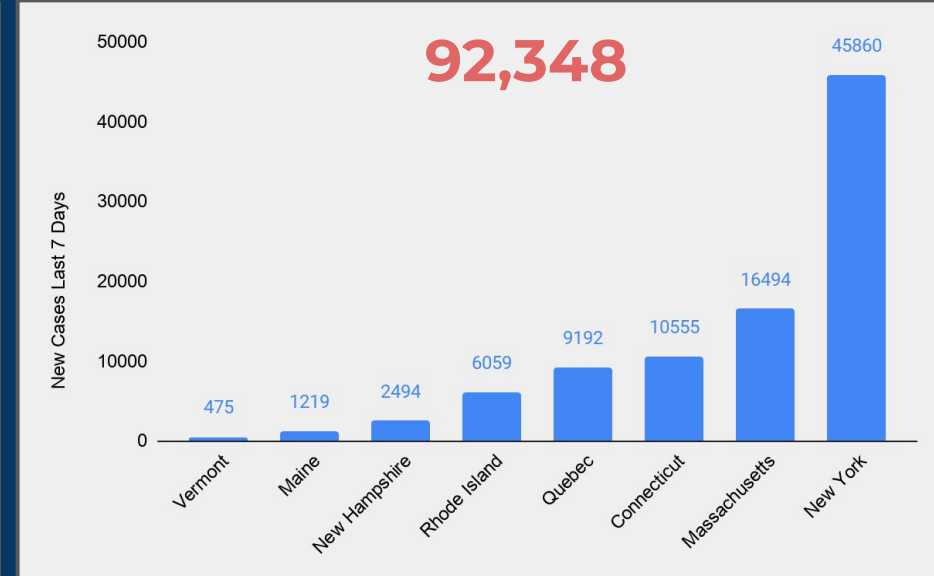
# Regional Case Growth

**3.59% Increase in New Confirmed Cases**

Positive Cases Nov. 17th to Nov. 23rd

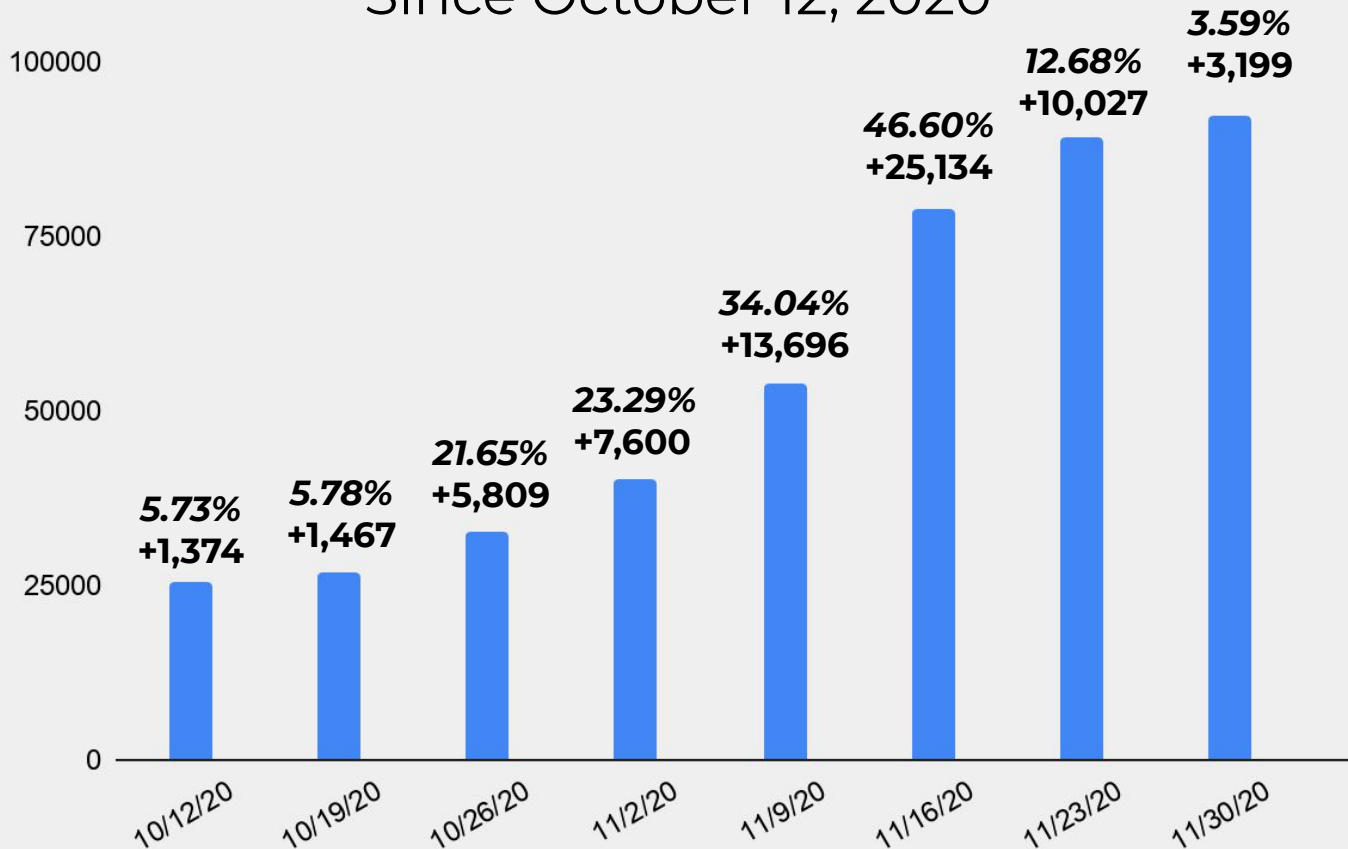


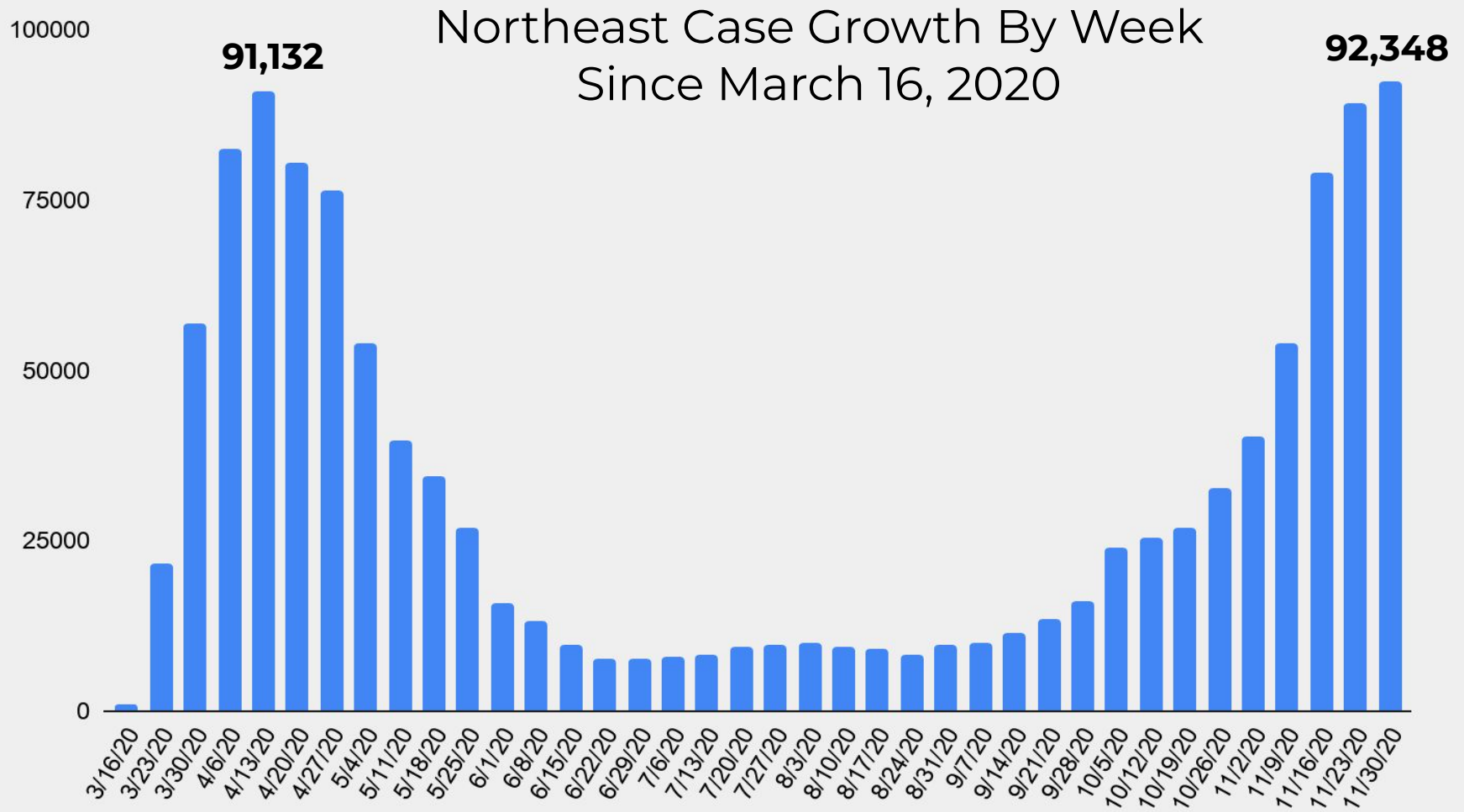
Positive Cases Nov. 24th to Nov. 30th





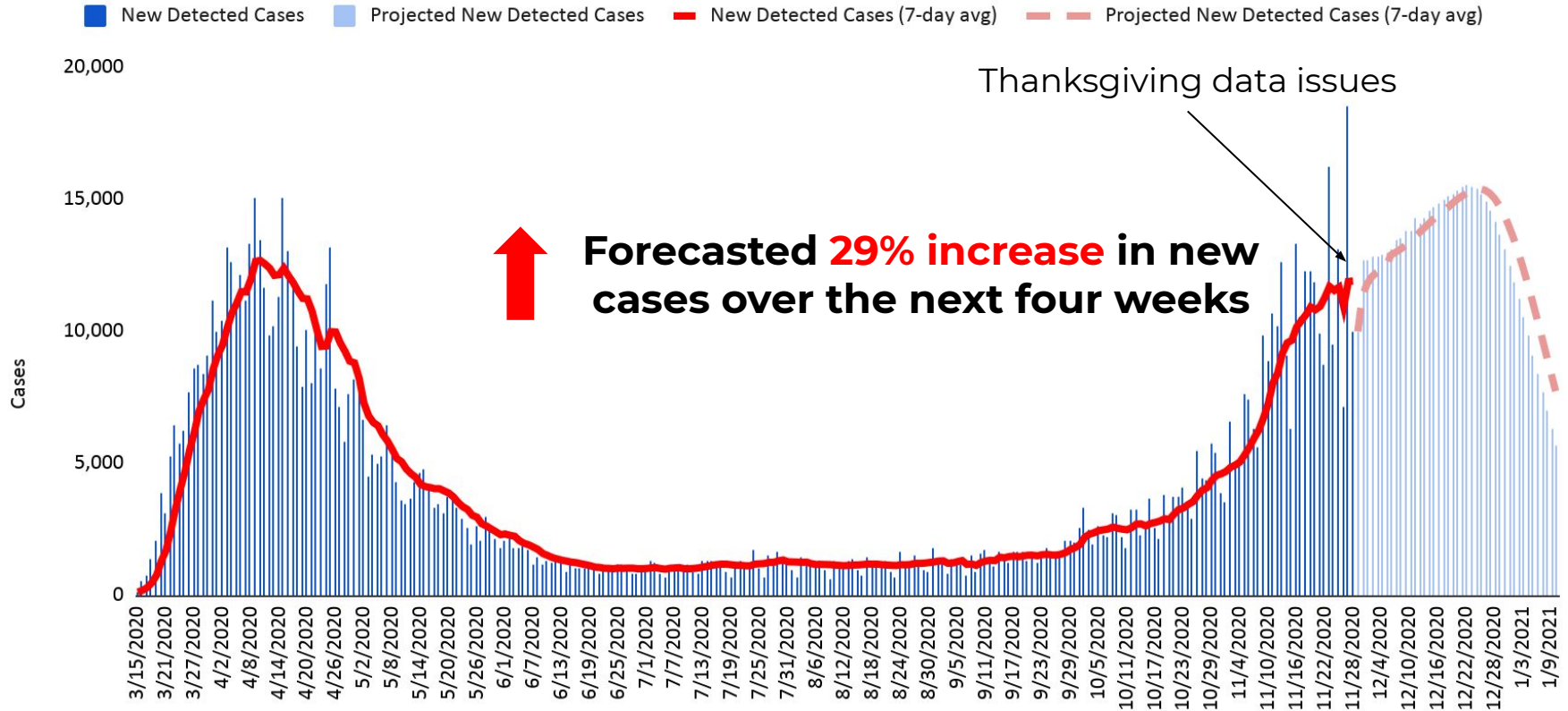
# Northeast Case Growth By Week Since October 12, 2020



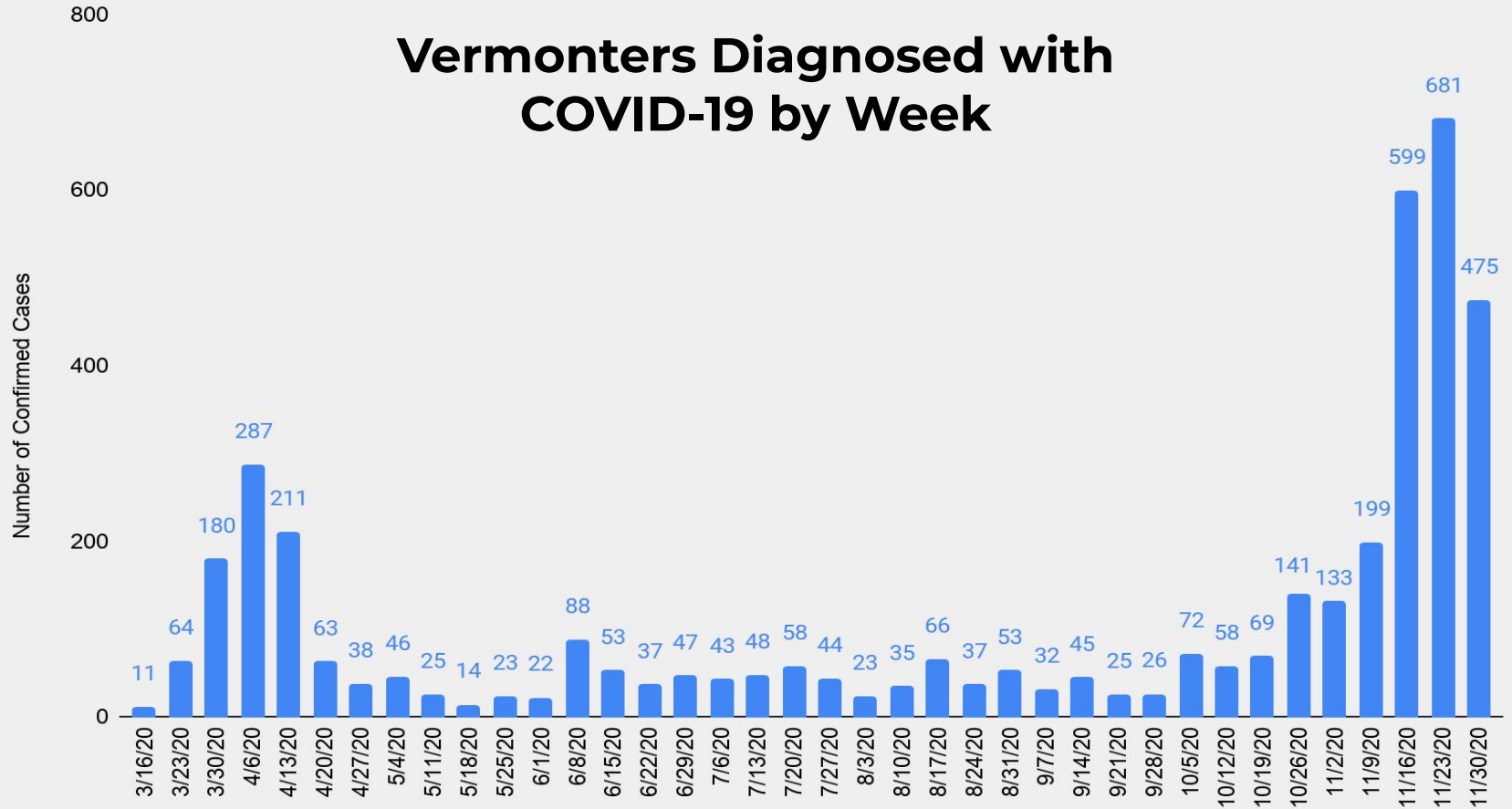


Sources: State Health Departments & CTV National News (Quebec)

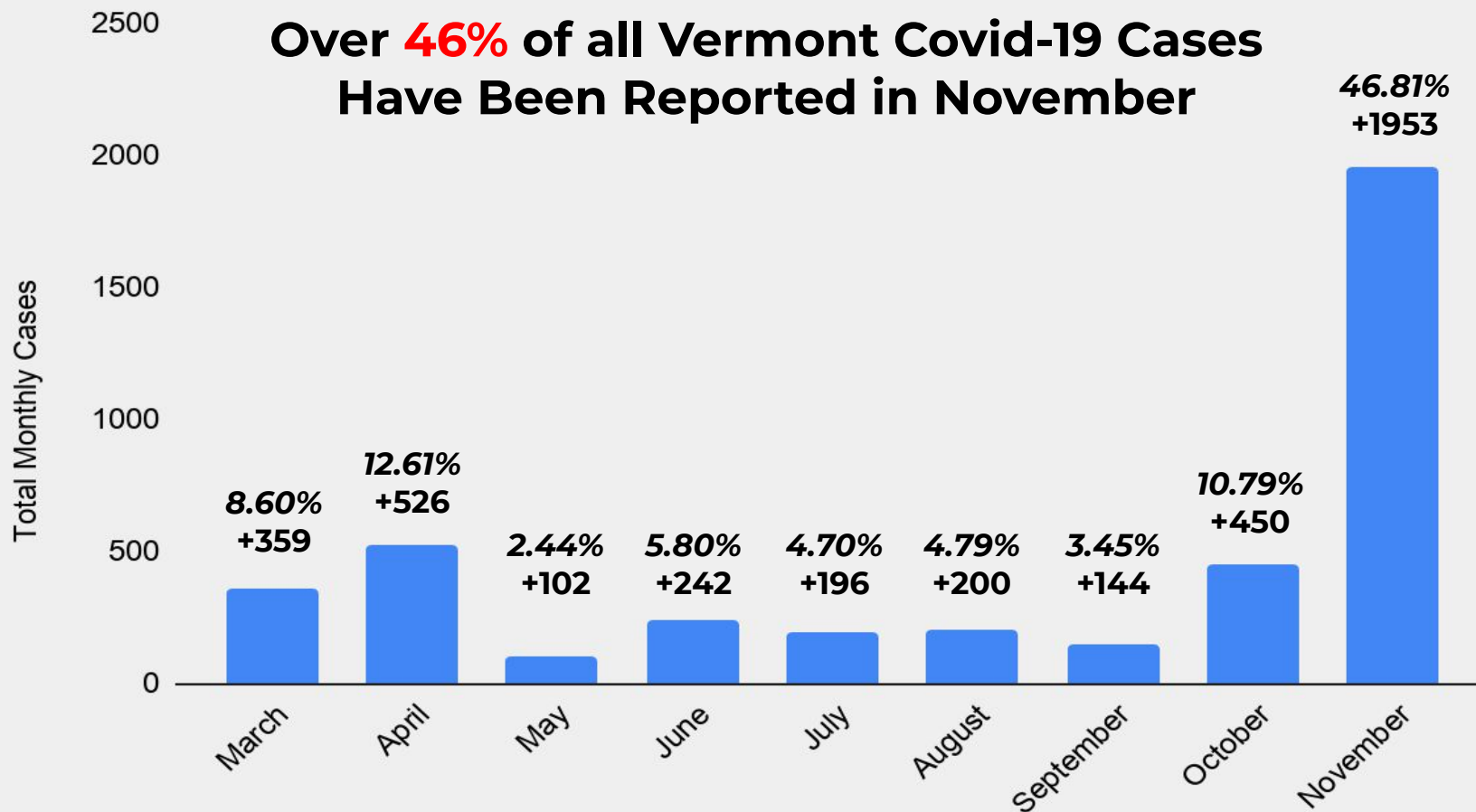
# Northeast Forecast



# Vermonters Diagnosed with COVID-19 by Week

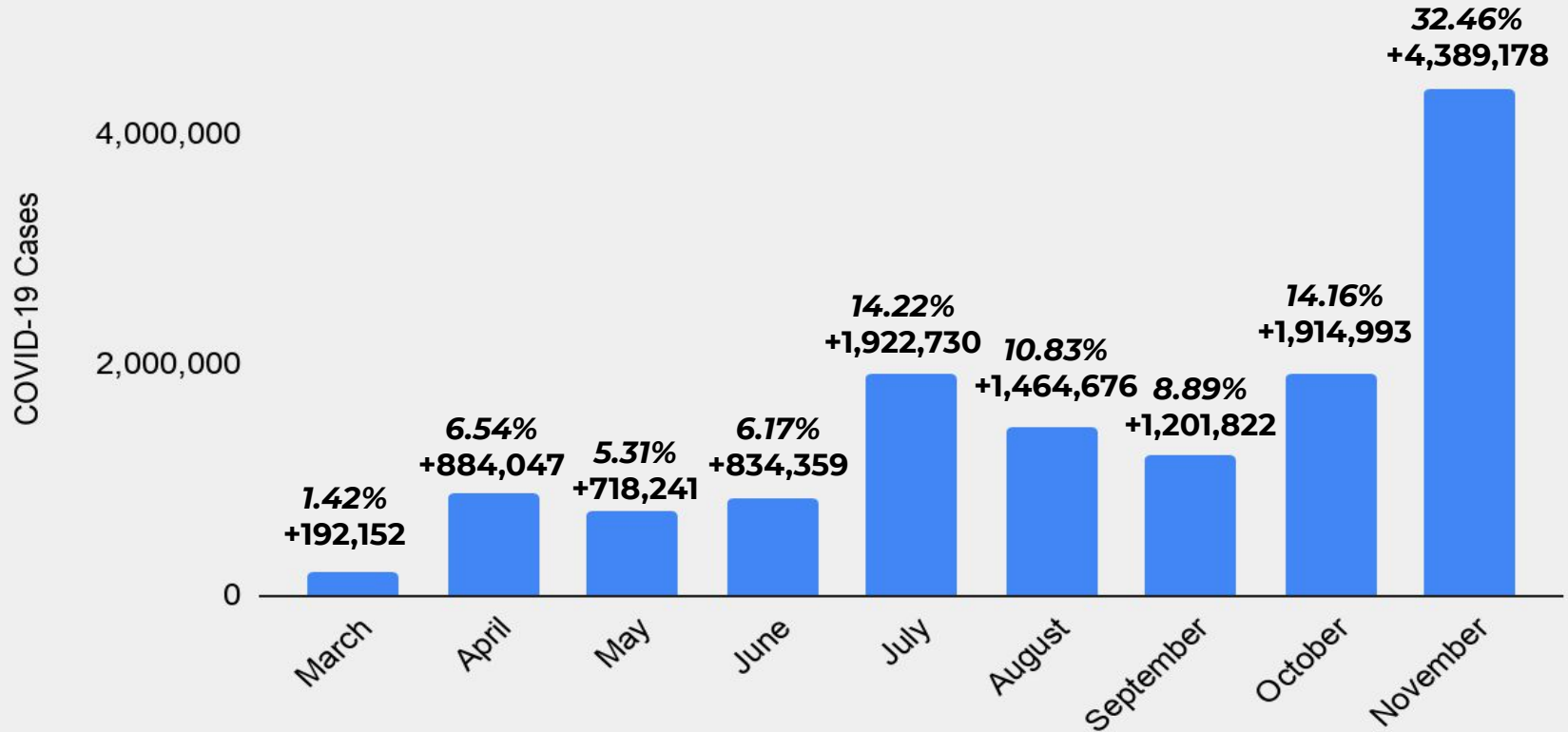


## Over **46%** of all Vermont Covid-19 Cases Have Been Reported in November

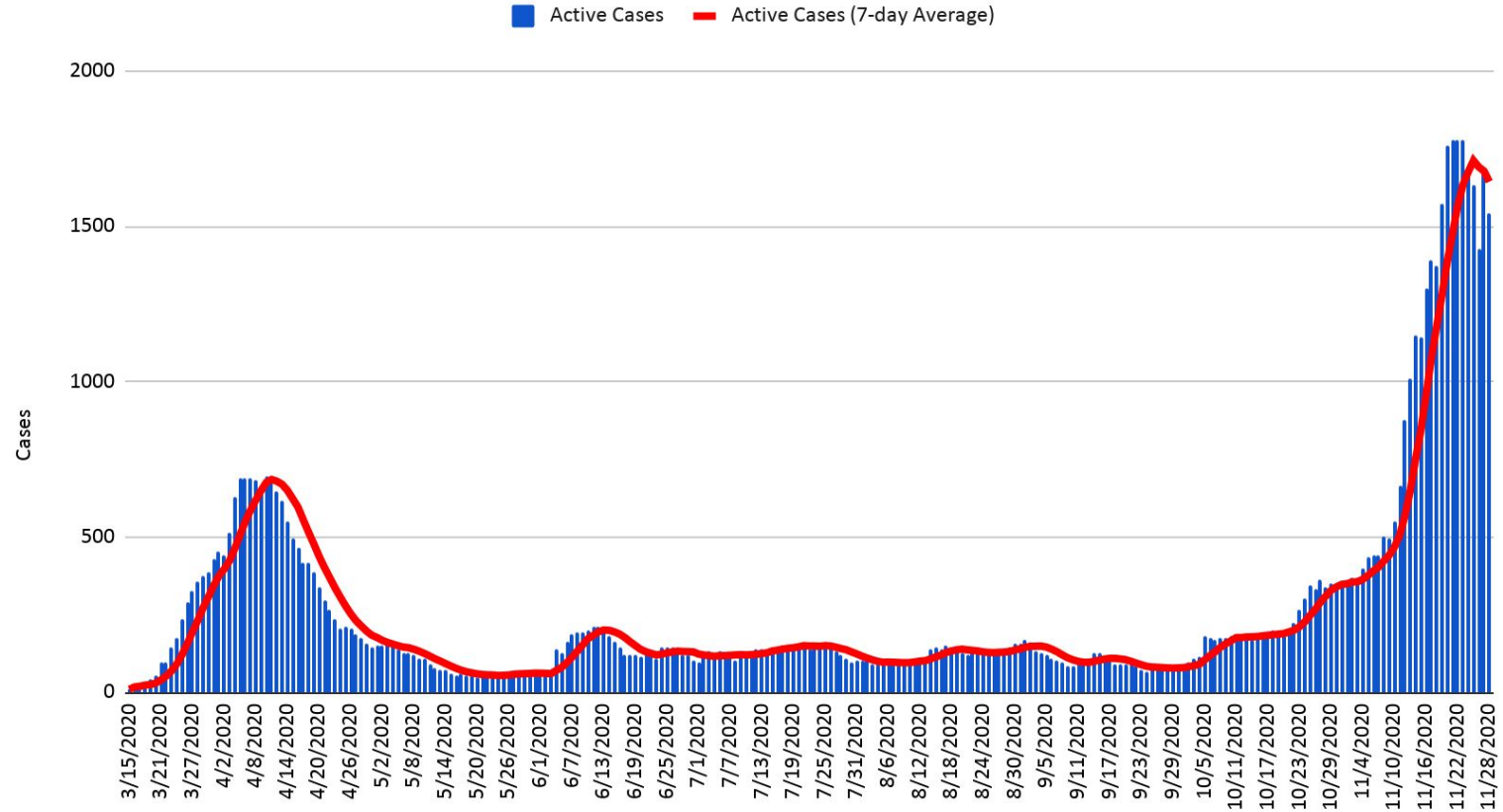




## Over **30%** of all US Covid-19 Cases Have Been Reported in November

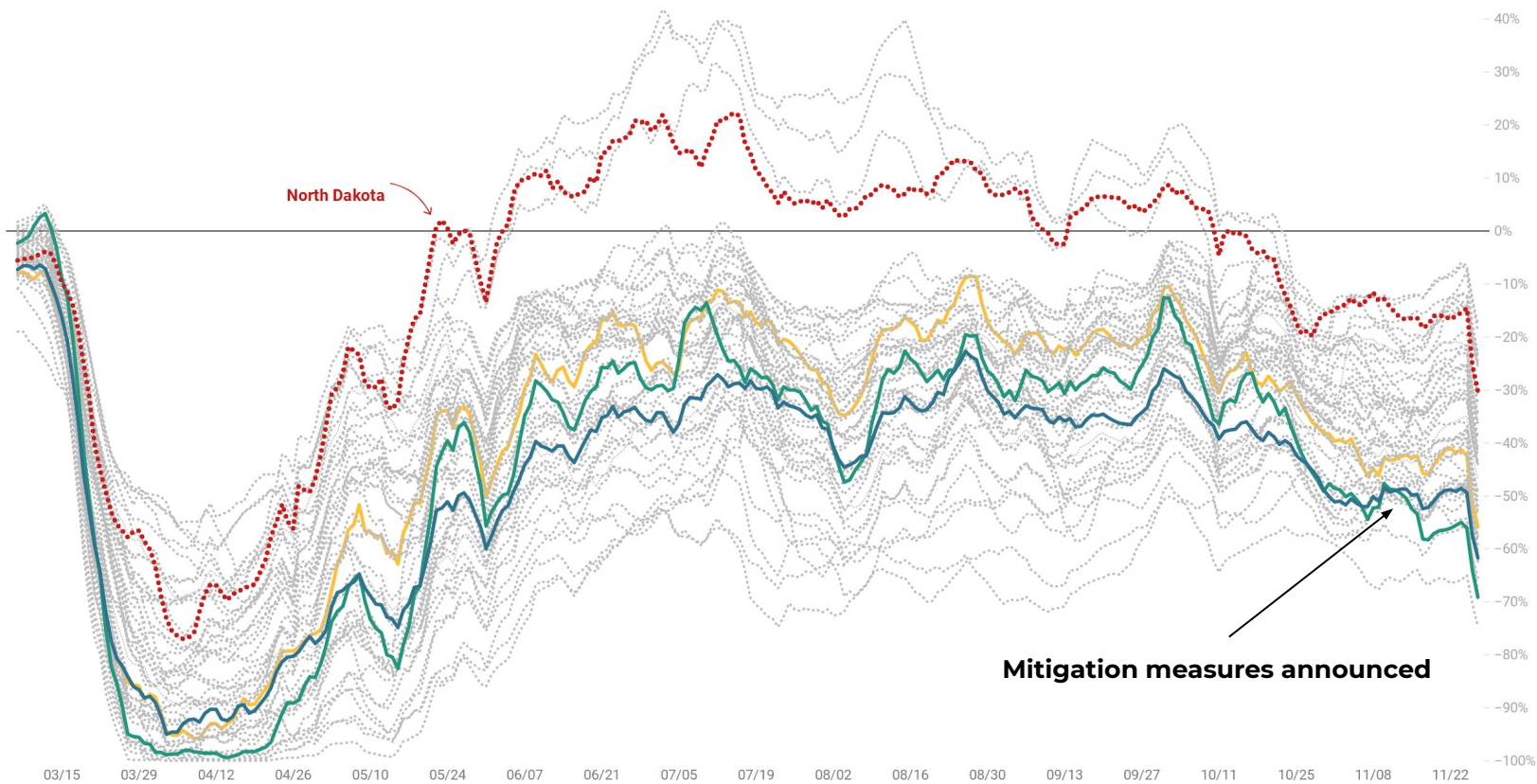


## Estimated Active Cases of COVID-19 in Vermont



## Percent Change in Median Distance Traveled by Individuals (7 Day Average)\_

Vermont New Hampshire Maine Other States



'Median distance' defined during 2020-02-17 to 2020-03-07. Values depict % change for individual with median distance traveled of sample population by state.

Chart: SOV • Source: Descartes Labs • Created with Datawrapper

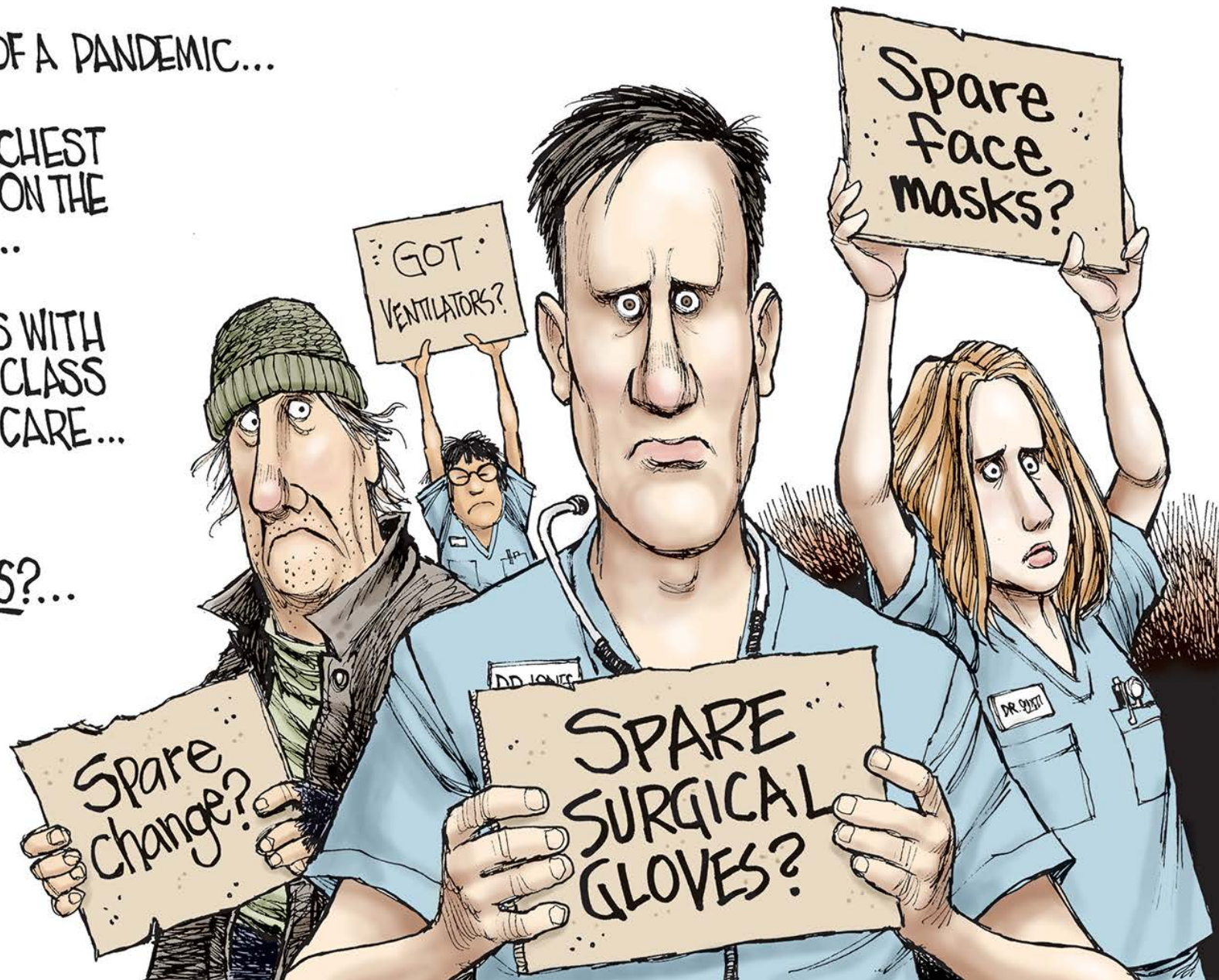


IN THE MIDST OF A PANDEMIC...

IN THE RICHEST  
COUNTRY ON THE  
PLANET...

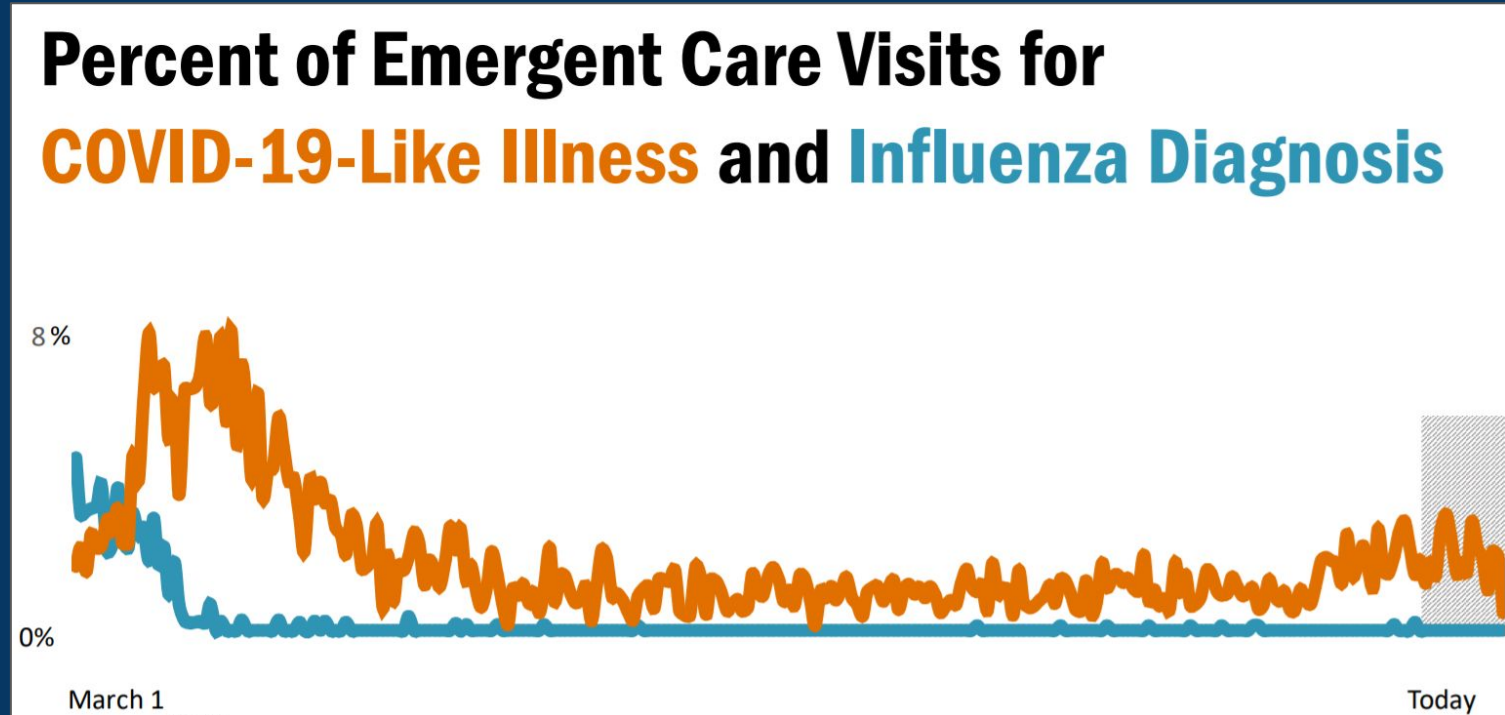
IN CITIES WITH  
WORLD-CLASS  
HEALTHCARE...

HOW DID WE  
COME TO THIS?...



## Data Point 1: Syndromic Surveillance

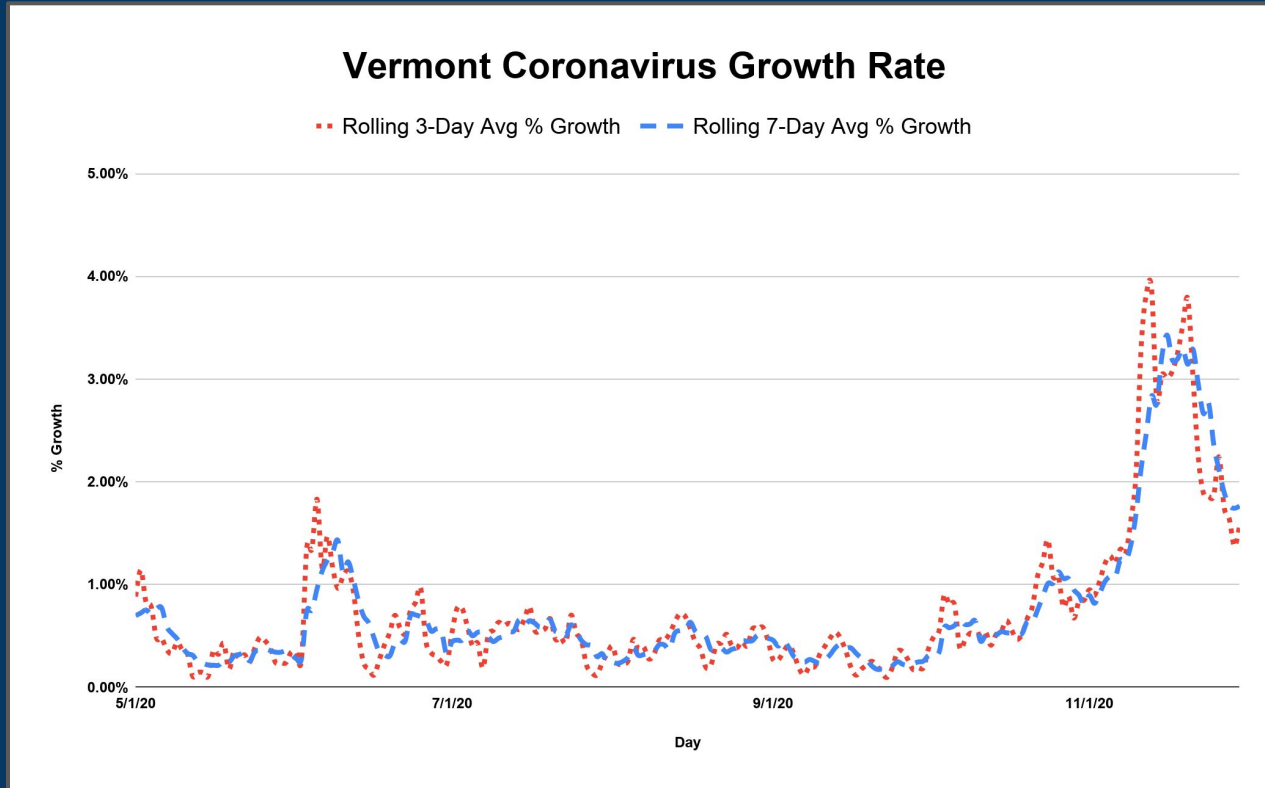
- **Summary:** Percentage of visits with COVID-19 like illness and Influenza diagnosis
- **Warning Flag:** Percentage of visits exceeding 4% for multiple consecutive days





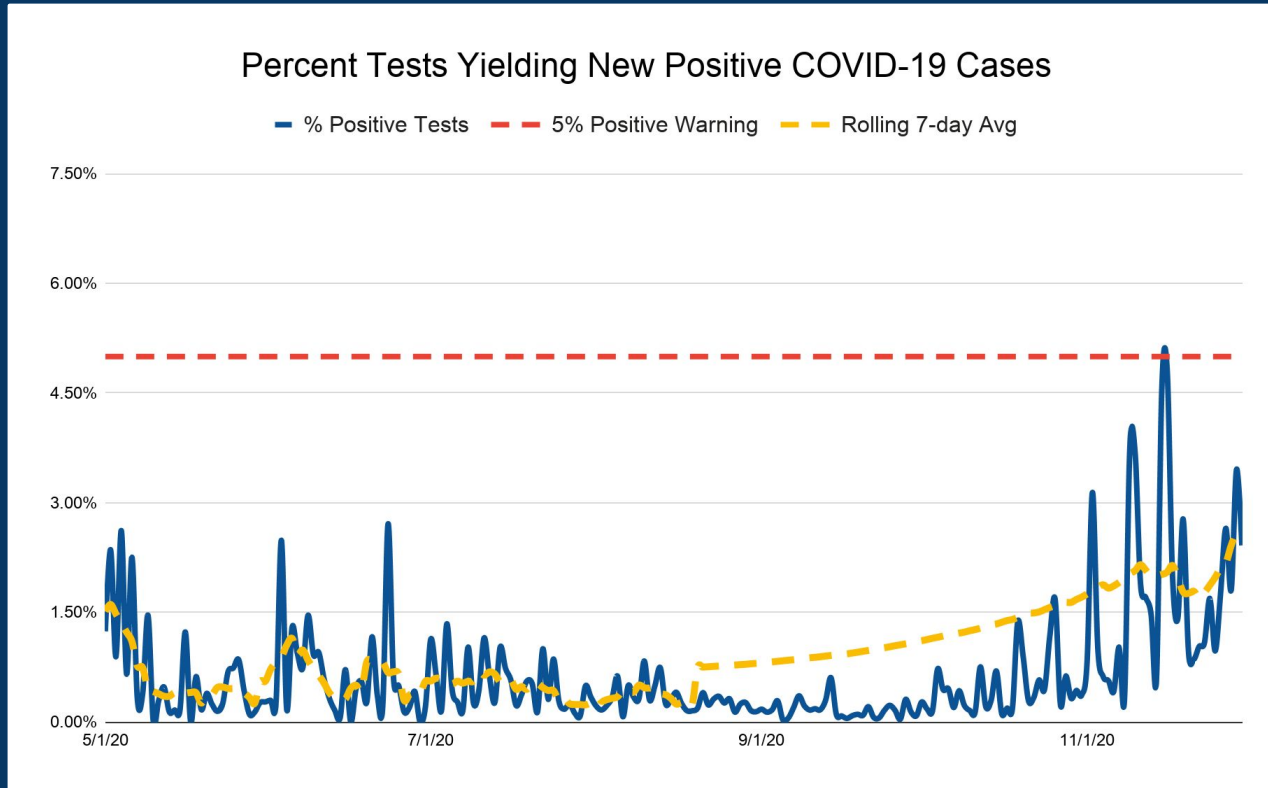
## Data Point 2: Viral Growth and Reproductive Rates

- **Summary:** Case growth measured by daily, 3-day, 7-day, and effective reproductive rate ( $R_t$ )
- **Warning Flags:** Sustained viral growth that would lead to <30% open ICU beds



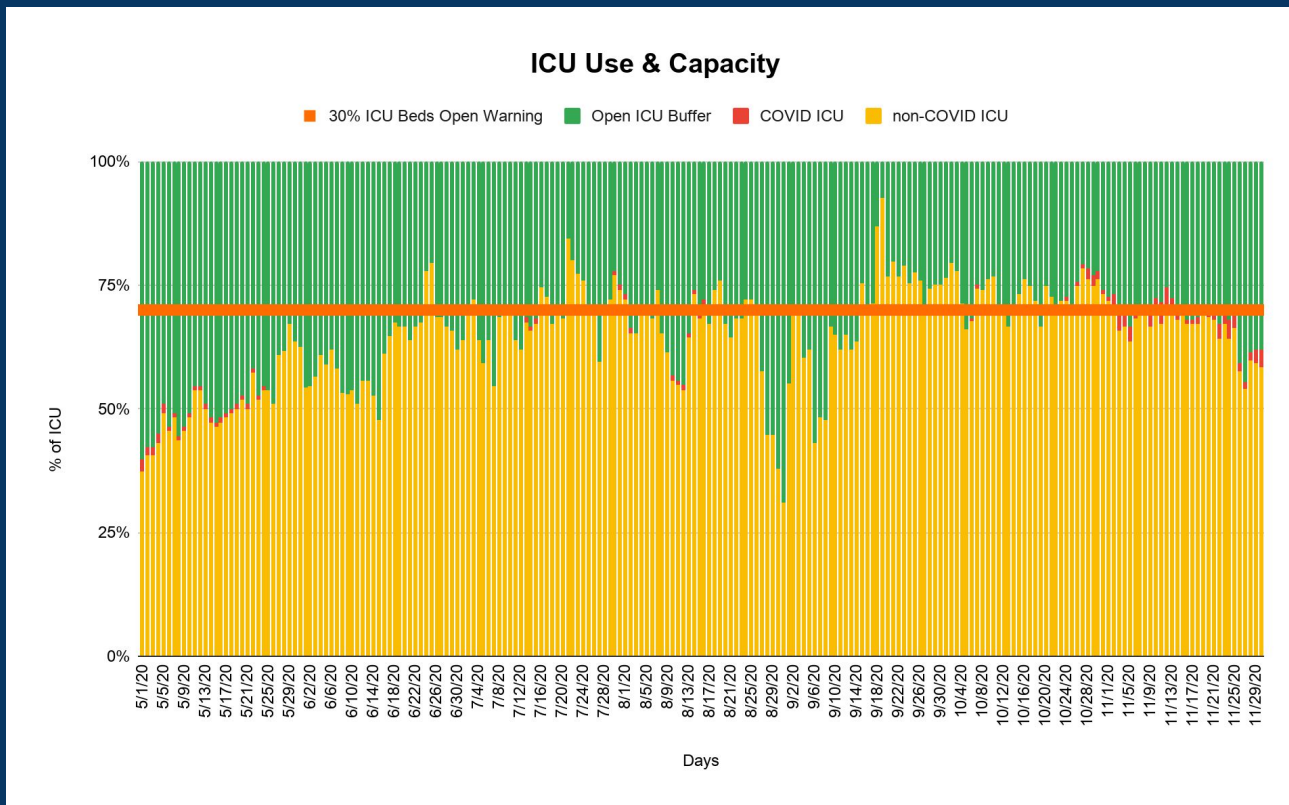
# Data Point 3: Percentage of New Positive Tests

- **Summary:** Percent of tests resulting in a new positive case
- **Warning Flags:** New positives represent >5% of daily results



# Data Point 4: Hospital & Critical Care Beds

- **Summary:** Number of occupied and unoccupied medical surgical and ICU beds
- **Warning Flags:** Reduction in ICU open beds to less than 30%



# Phenomenal Federal Deficit Spending is Showing Up Throughout the Economy, Including Tax Revenues

## Federal Pandemic Transfer Payments to Vermont = \$4.8 Billion

Economic Impact Payments:	\$575 Million
Federal Pandemic Unemployment Compensation :	\$598 Million
Pandemic Emergency Unemployment Compensation :	\$17 Million
Pandemic Unemployment Assistance :	\$91 Million
Paycheck Protection Program:	\$1201 Million
Provider Relief Fund:	\$197 Million
Coronavirus Relief Fund:	\$1250 Million
HHS COVID-19 Appropriations:	\$104 Million
FEMA Disaster Relief Fund:	\$101 Million
Educational Support:	\$36 Million
Infrastructure Grants:	\$21 Million
Emergency Injury Disaster Loan Advances:	\$36 Million
Emergency Injury Disaster Loans:	\$344 Million
Medicare Accelerated and Advance Payments:	\$185 Million

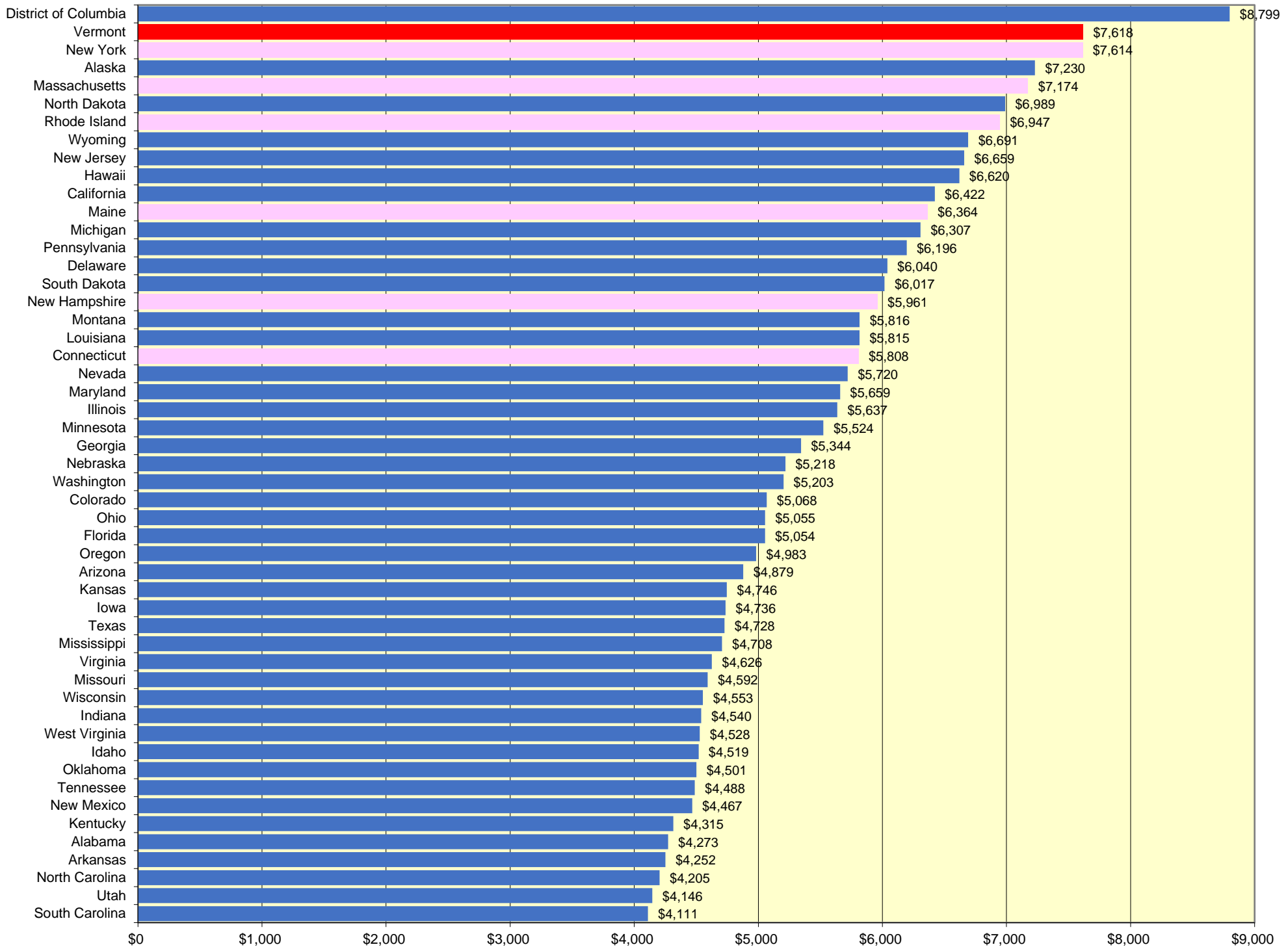
**Total Per Capita** (second highest in the nation, after Washington, DC): **\$7,618**

Source: Peter G. Peterson Foundation, estimates through October 29, 2020

Based on 14 major COVID-19 programs for which state level data exist, totaling \$1.875 trillion in Federal disbursements through October 29, 2020, representing 82% of a total \$2.281 trillion allocated

# Per Capita Pandemic-Related Federal Transfer Payments

Based on Expenditures from 14 Major COVID-19 Relief Programs Totaling \$1.9 Trillion , Through October 29, 2020, Source: Peter G. Peterson Foundation





HANG IN THERE, FOLKS!  
WE'RE STILL TALKIN'  
ABOUT THAT STIMULUS BILL.



# The Bi-Polar Economy: Winners and Losers

- Owners of stocks, bonds and other equities (Top 1% ownership = 52.4%)
  - Internet and technology companies
  - E-commerce vendors and shippers
  - Residential (esp. non-urban) real estate and construction
  - PPP recipients who only experienced “uncertainty” but little or no loss
  - Short-term vacation rentals in non-urban, low-virus regions
  - Economic Recovery Grant recipients whose costs declined with revenues
  - Workers and firms who can seamlessly work remotely
  - Restaurants with viable drive-through and home delivery options
  - People with low COVID hospitalization risks
  - And many others...
- People especially vulnerable to severe COVID hospitalization risk
  - Poorer families with no healthcare
  - Airlines, other transportation and leisure & hospitality workers and companies
  - Women (largely), who have service jobs (esp.) and dependent children at home
  - Students enrolled in schools that are closed or entirely remote
  - Anyone with slow or no internet
  - Small businesses suffering losses for whom PPP made no financial sense
  - Nonresidential (esp. urban office and retail) real estate and construction
  - Transportation fuel producers and providers
  - And many others...

# U.S. Personal Savings Rate

Source: U.S. Bureau of Economic Analysis, Percent of Disposable Personal Income



# Federal Stimulus Support Powers Equity Markets to Record Highs

(Data Through November 2020, S&P 500 Monthly Average, Source: FRED data from S&P Global)



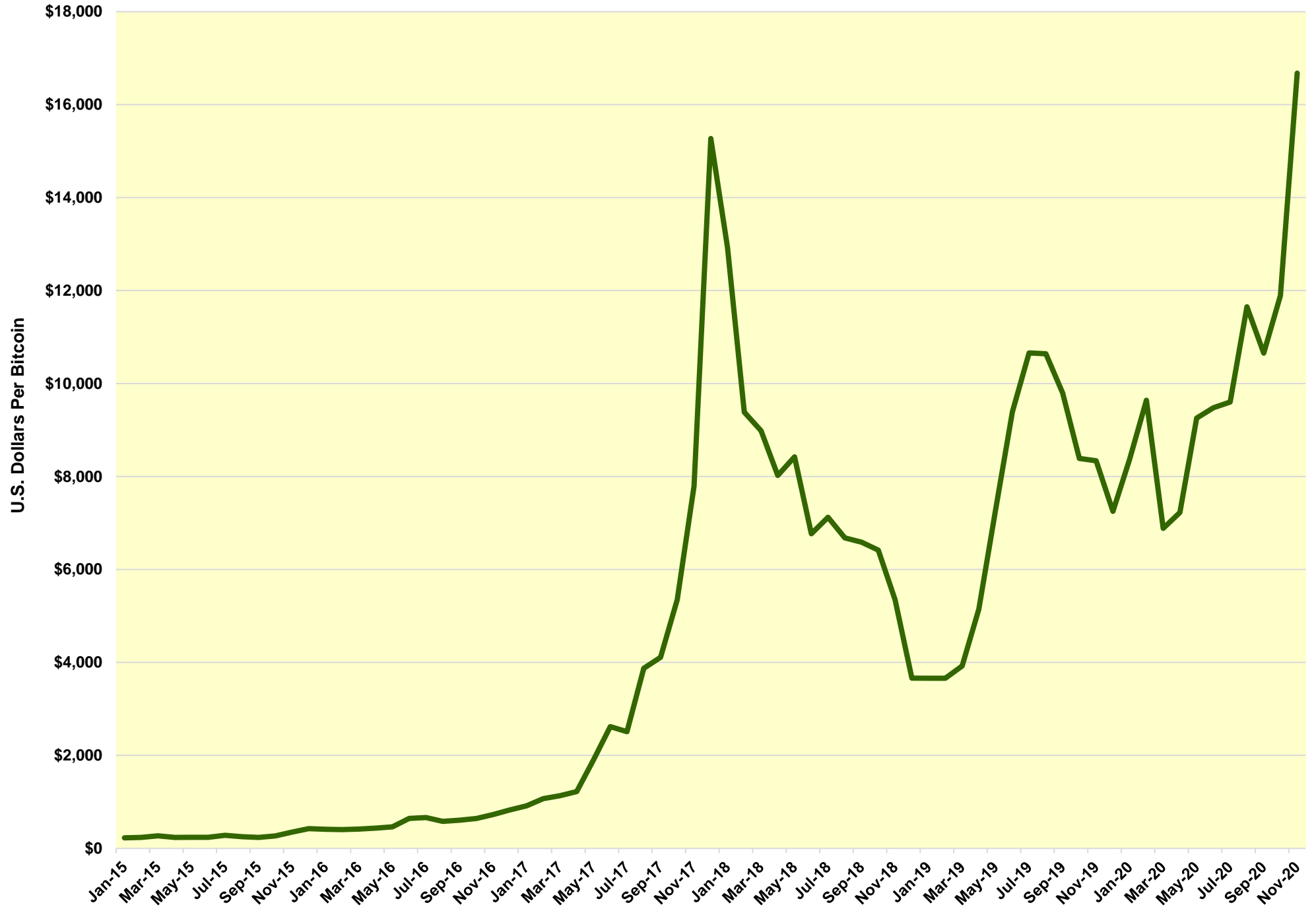
# Most in Need? Stimulus Also Funds Commodity Speculation as Gold Hits Record High

Source: FRED data, London Fixing Price 3PM, Not Seasonally Adjusted



# Most in Need? Stimulus Also Funds Speculative "Money" as Bitcoin Hits Record High

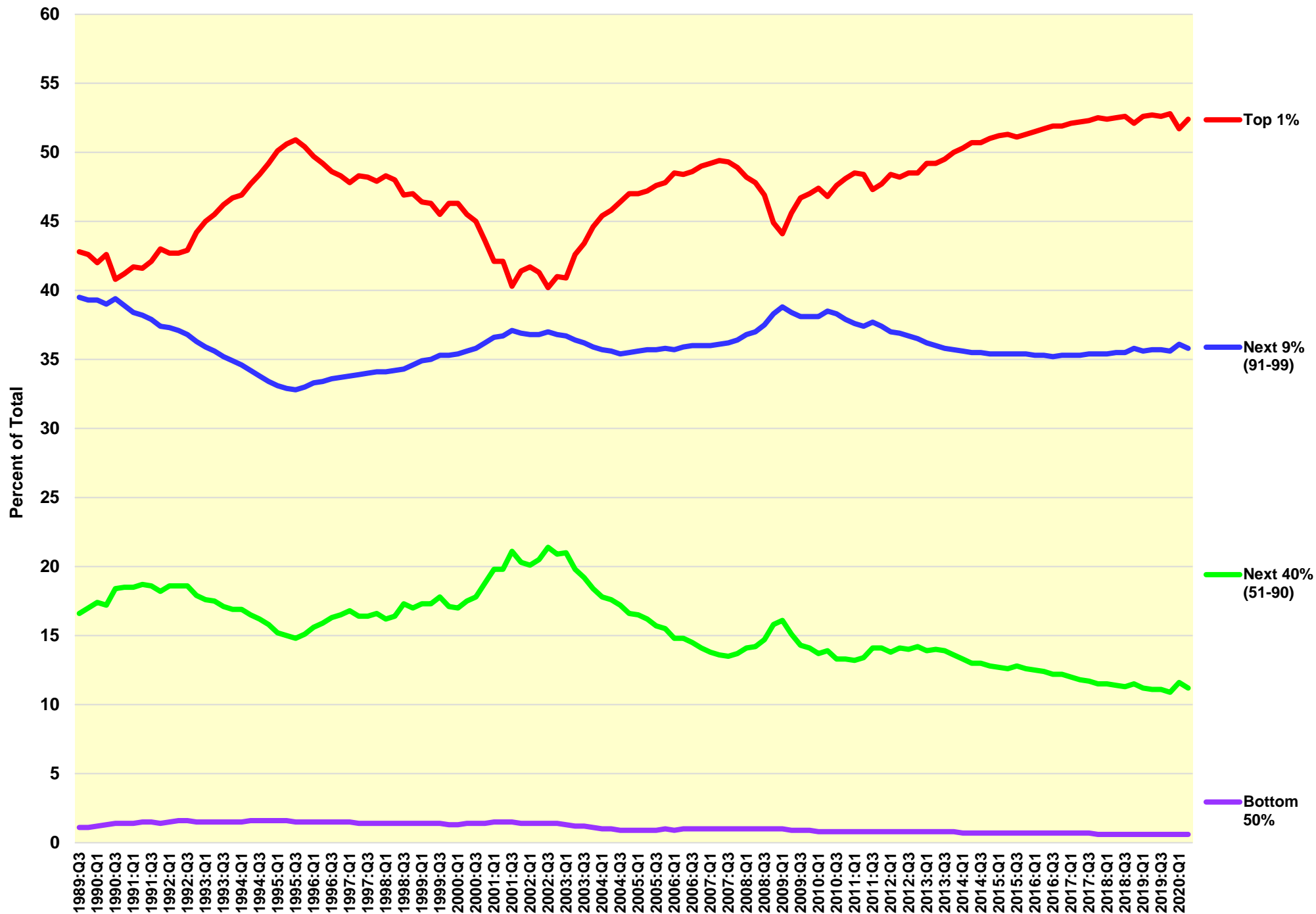
Source: Coinbase





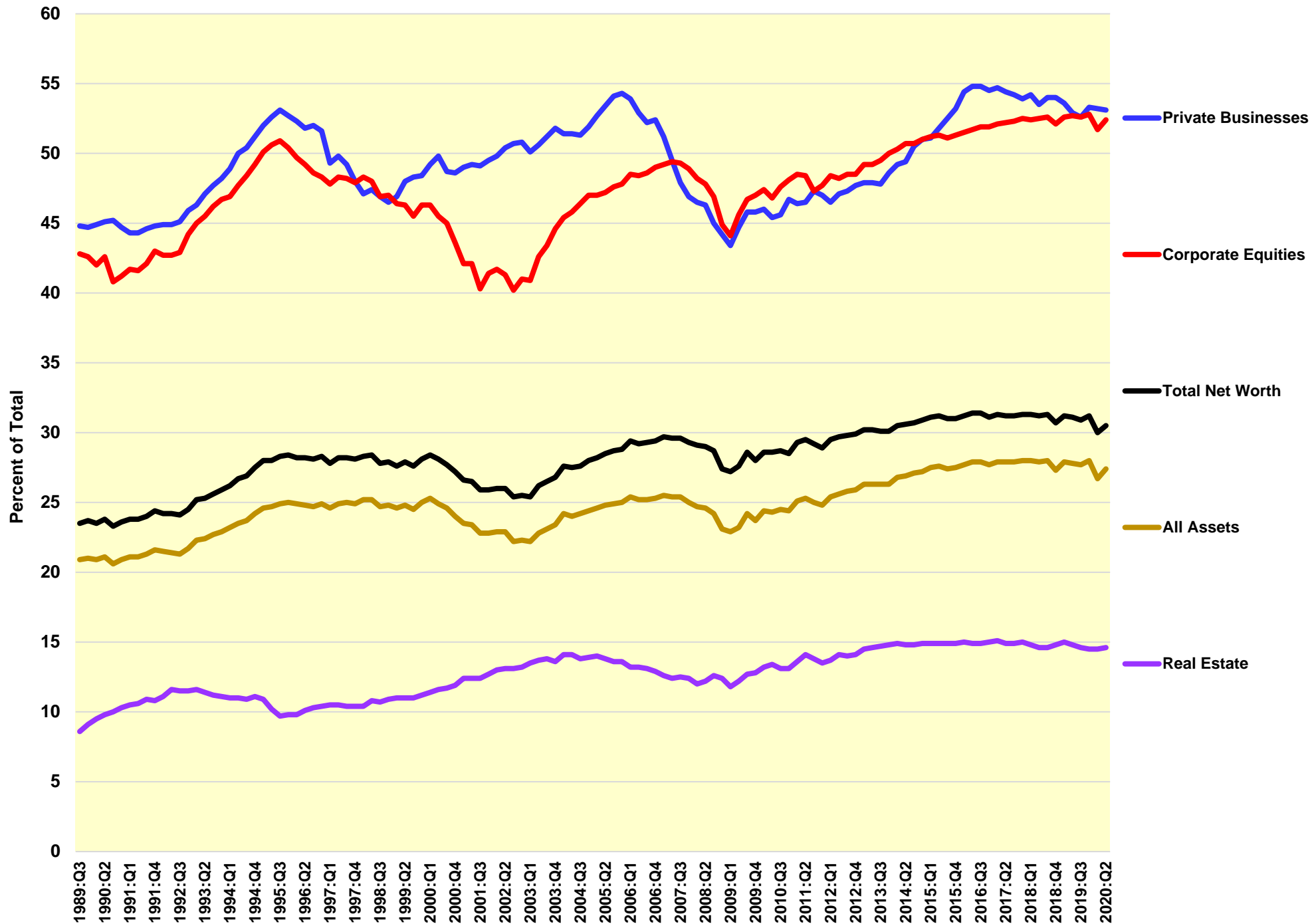
# Shares of Corporate Equities and Mutual Funds Owned by Percentiles of Household Wealth

Source: Board of Governors of the Federal Reserve System



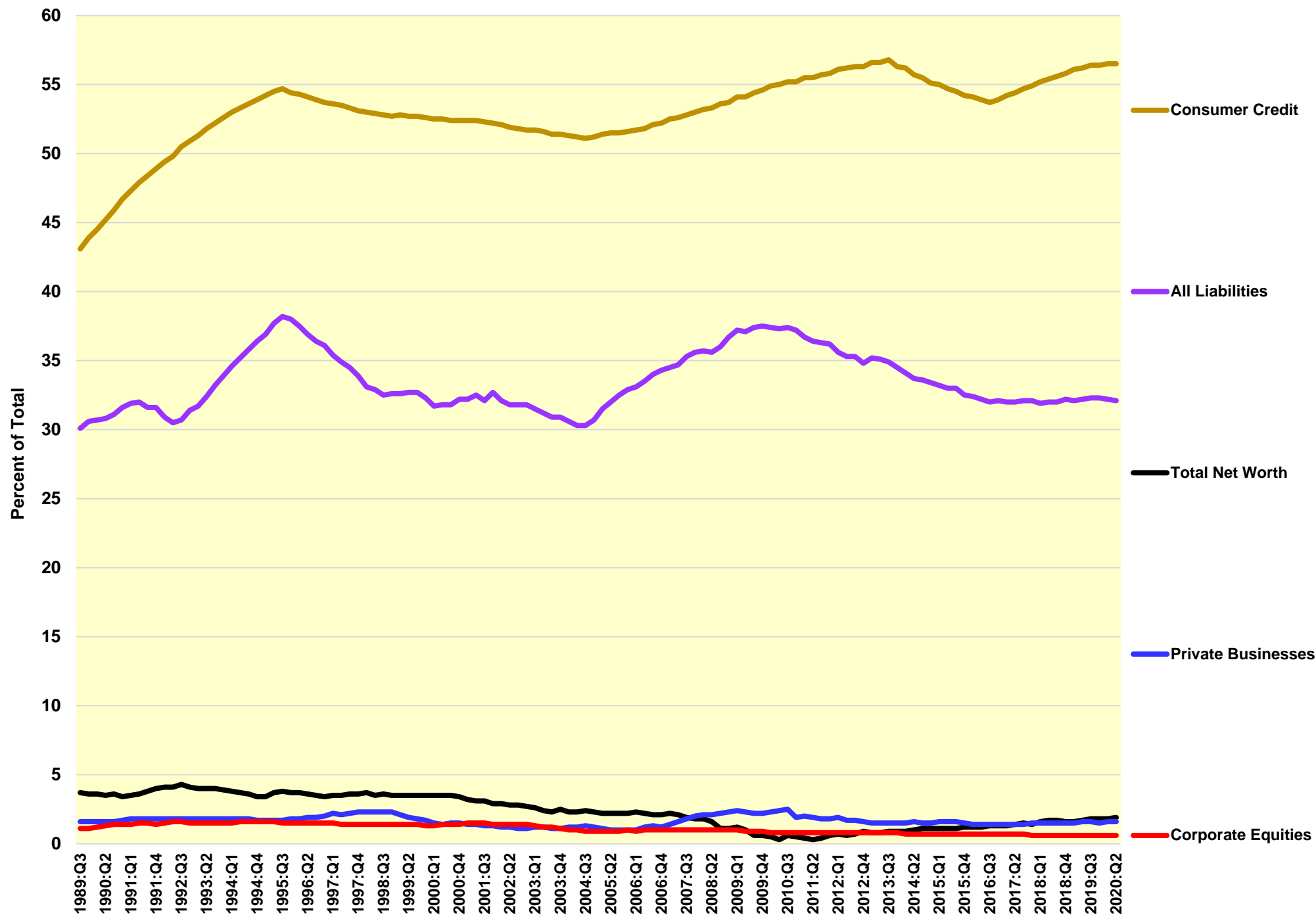
# Shares of Various Assets Owned by the Top 1% of U.S. Households by Wealth

Source: Board of Governors of the Federal Reserve System



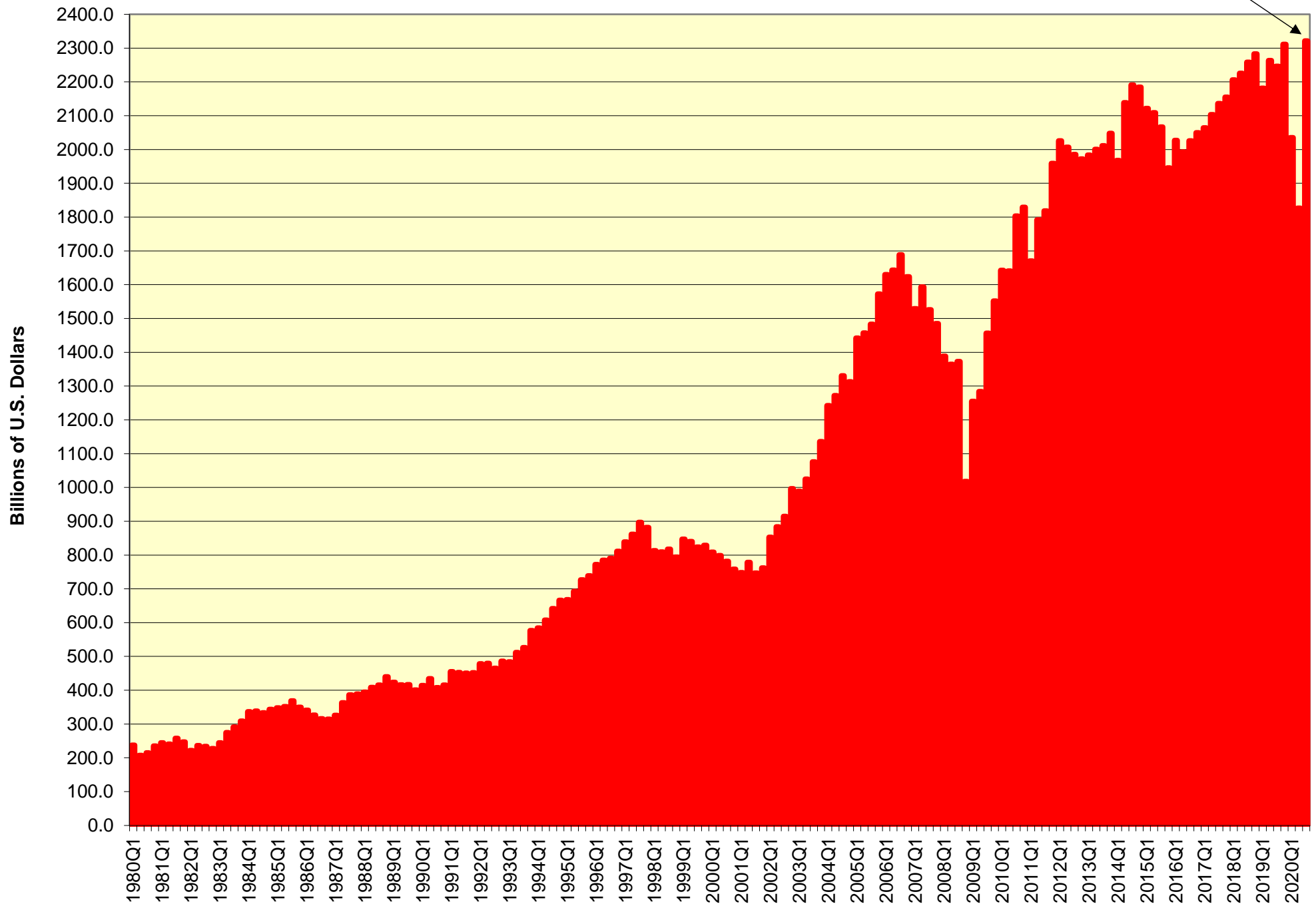
# Shares of Assets and Liabilities Owned by the Bottom 50% of U.S. Households by Wealth

Source: Board of Governors of the Federal Reserve System



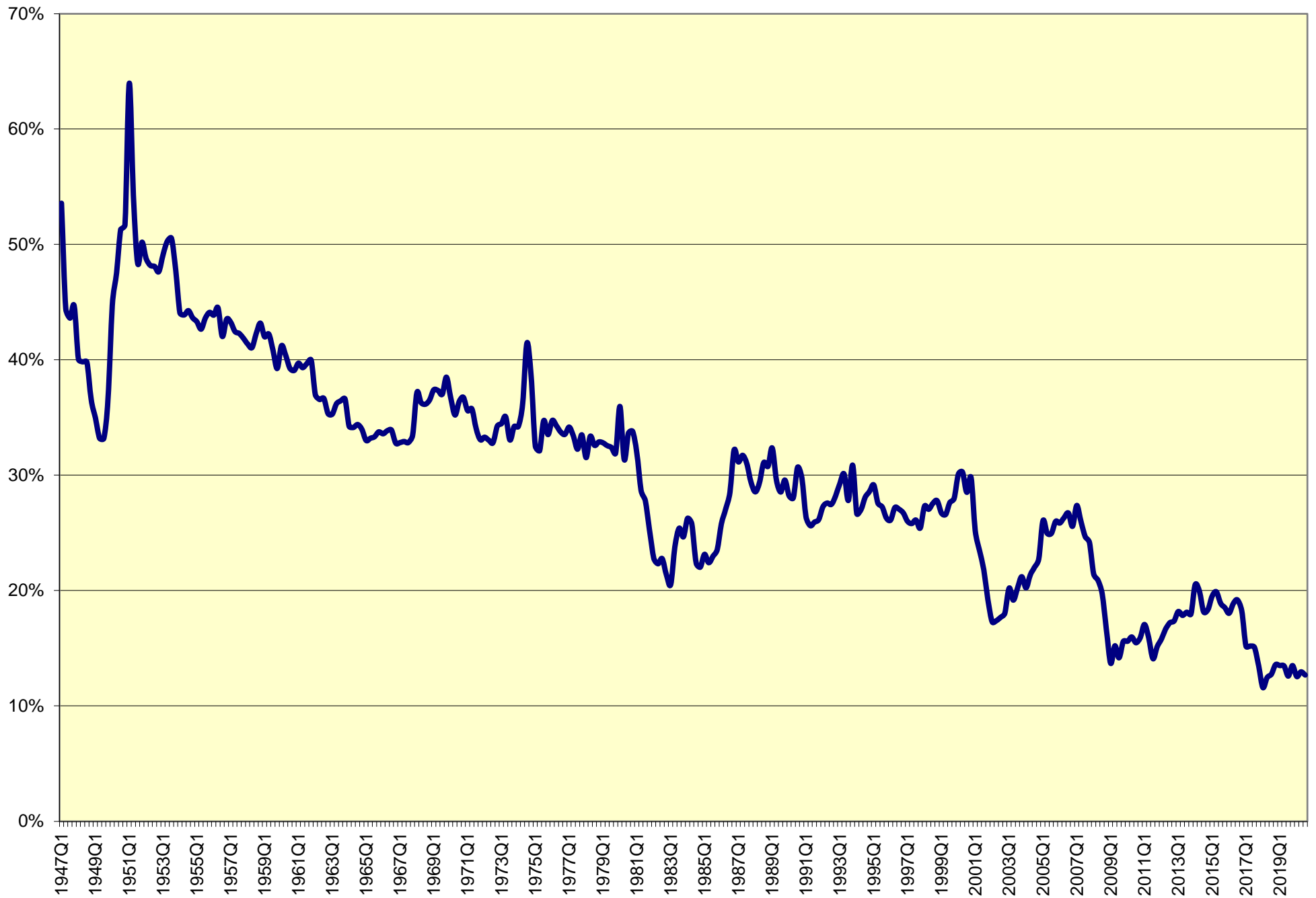
# Third Quarter U.S. Corporate Profits Are Already Above Their Pre-Pandemic Peak

(U.S. corporate profits with inventory valuation and capital consumption adjustment; Source: US BEA)

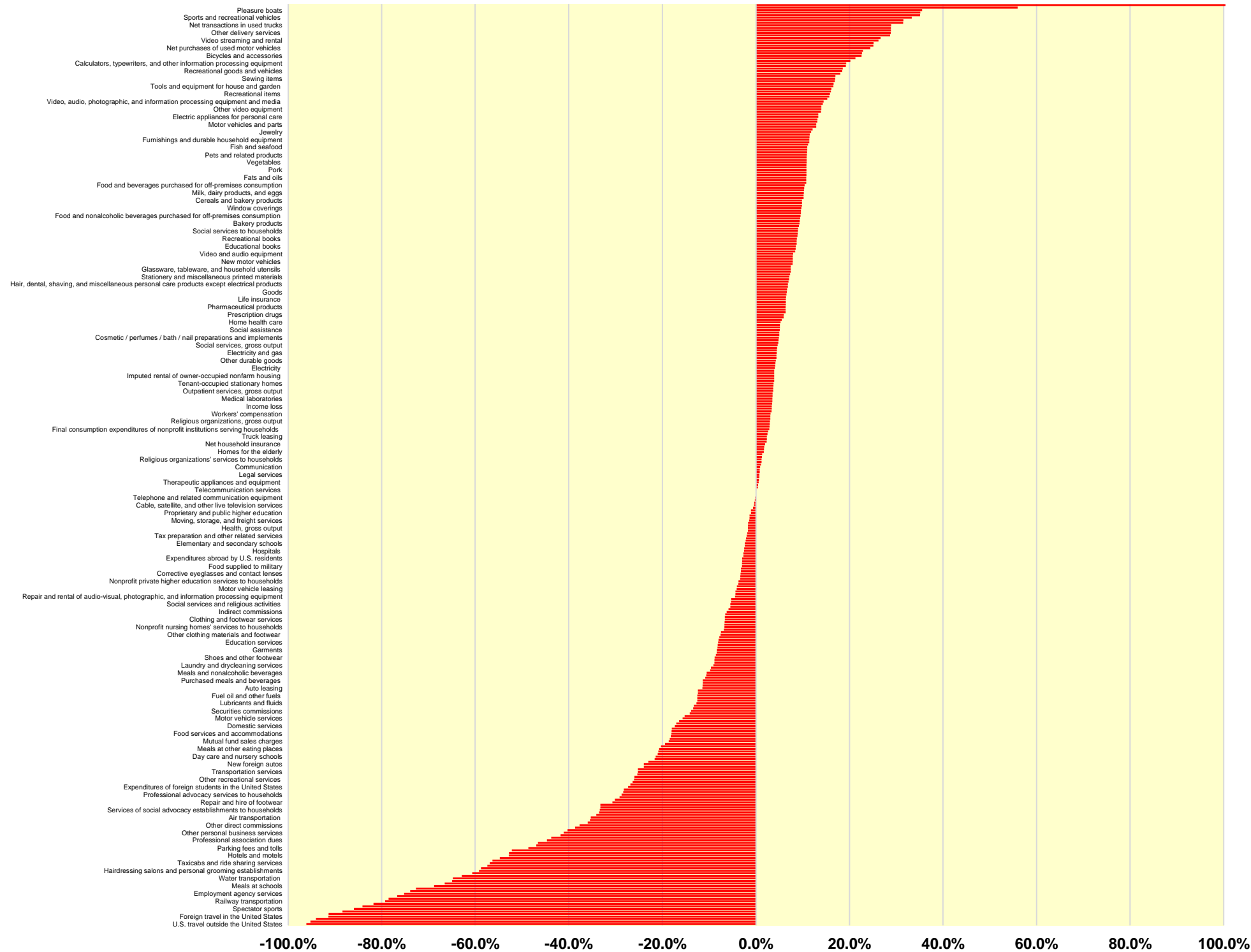


# Effective Total Corporate Tax Rate Drops to its Lowest Level Ever

Based on Before and After Tax Corporate Profits with Inventory Valuation Adjustment and Capital Consumption Adjustment  
Billions of Dollars, Quarterly, Seasonally Adjusted Annual Rate, Source: U.S. BEA

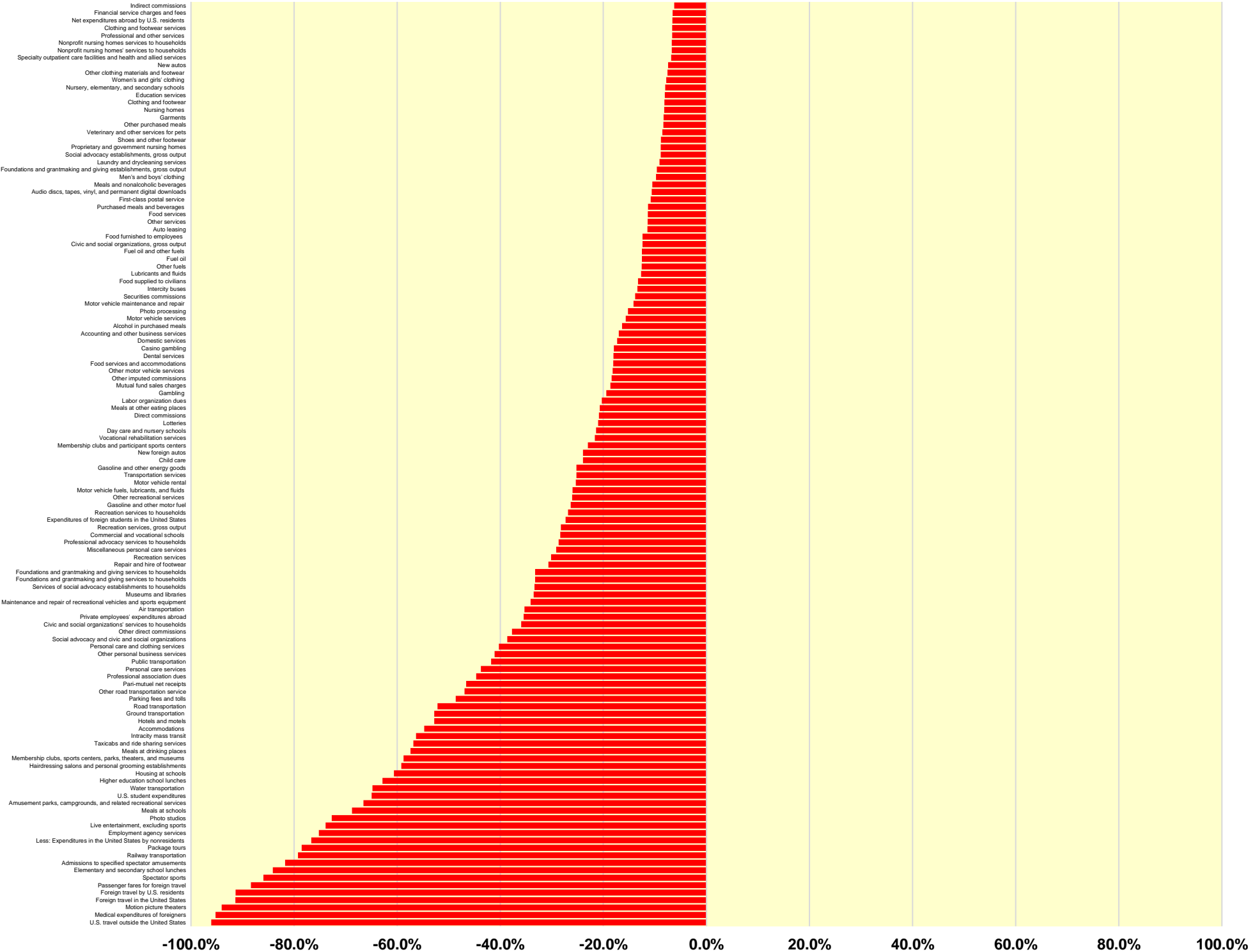


The Pandemic Winners and Losers: Change in Personal Consumption Expenditures 2020Q3 vs. 2019Q3

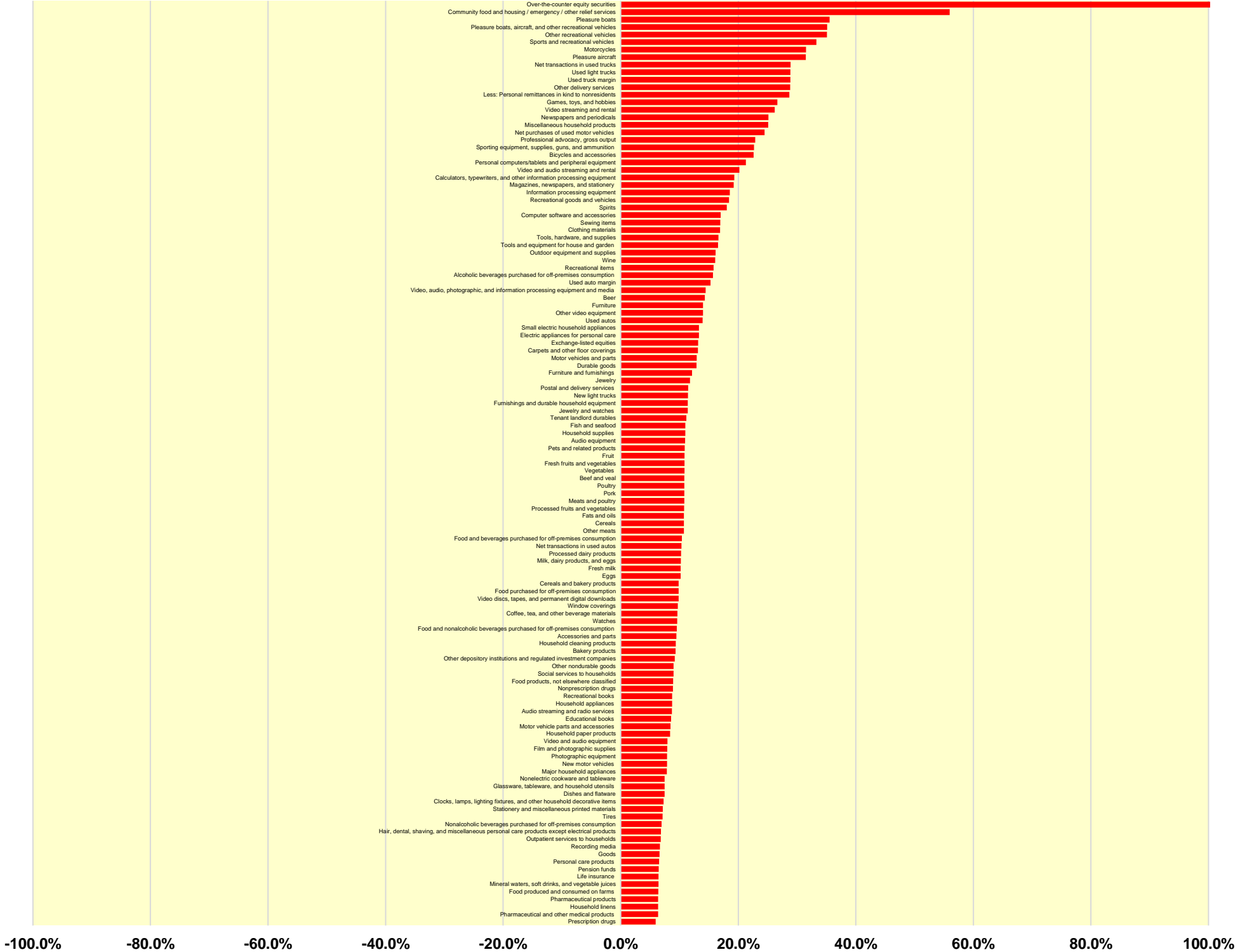




The Pandemic Losers: Change in Personal Consumption Expenditures 2020Q3 vs. 2019Q3



The Pandemic Winners: Change in Personal Consumption Expenditures 2020Q3 vs. 2019Q3

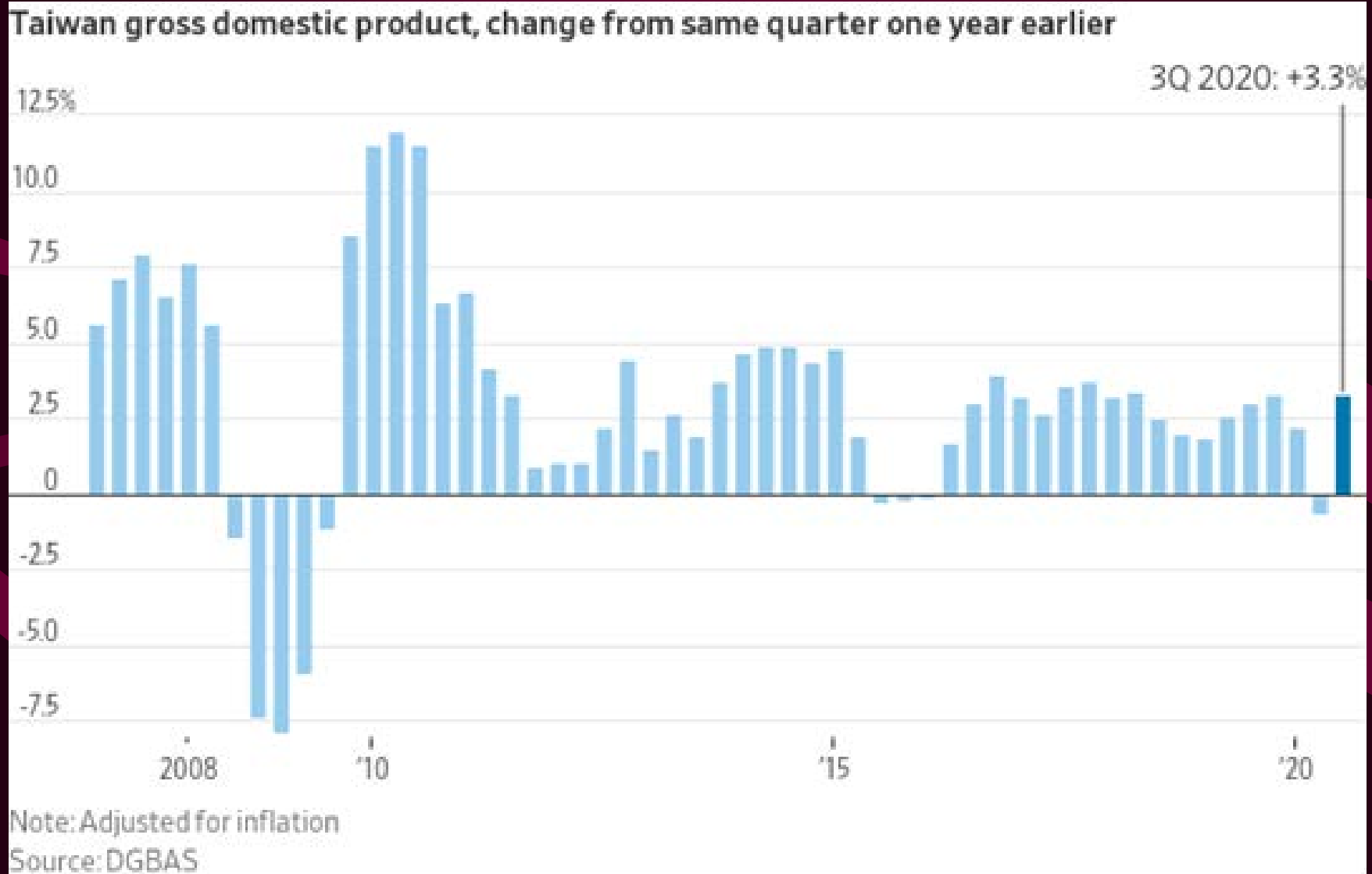


gary varvel  
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CREATORS.COM

I DON'T CARE WHAT  
THEY SAY, MOM,  
YOU'RE ESSENTIAL  
TO ME.

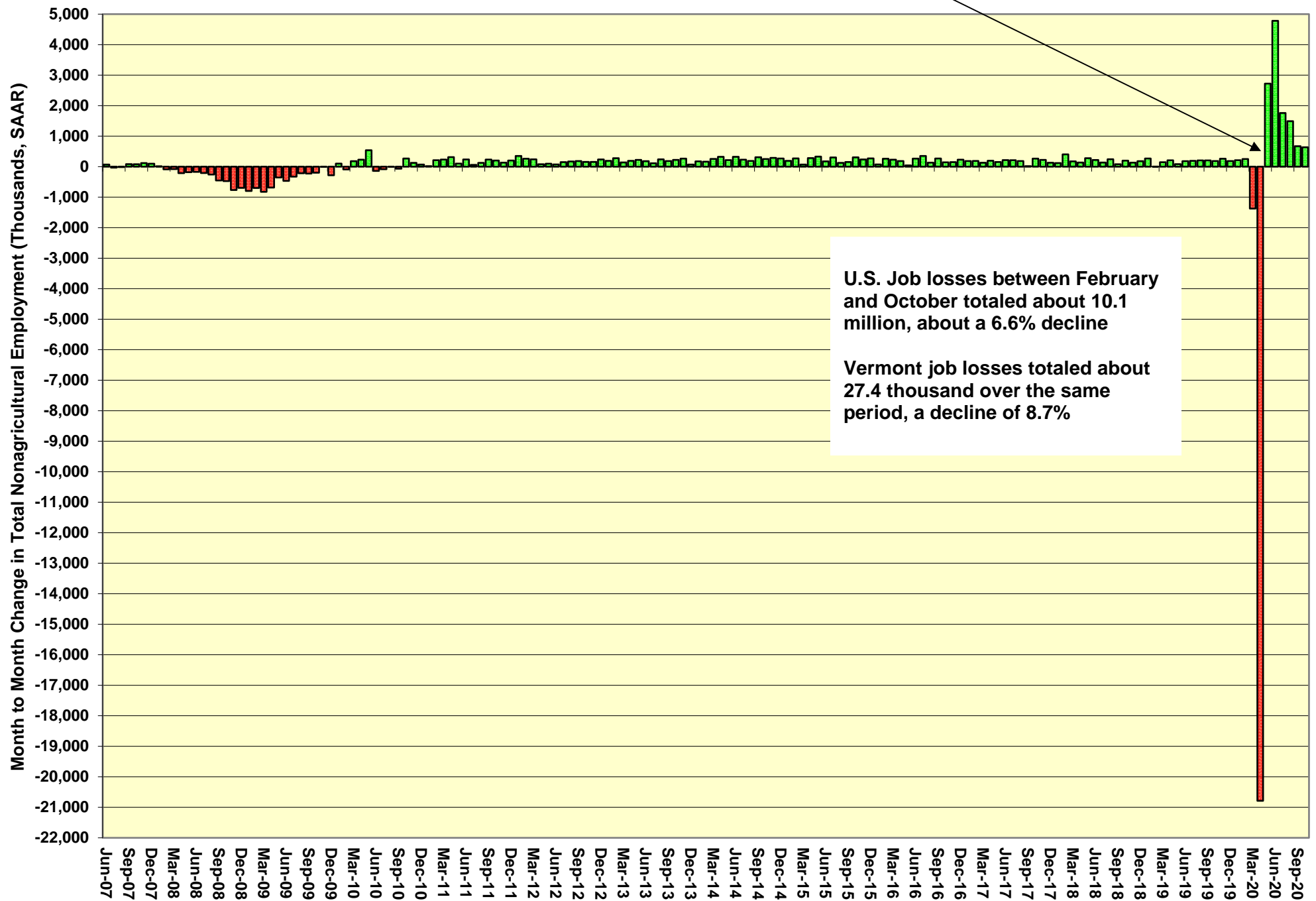
30 MILLION  
UNEMPLOYED

# Effectively Managing the Pandemic has Massive Economic Benefits...



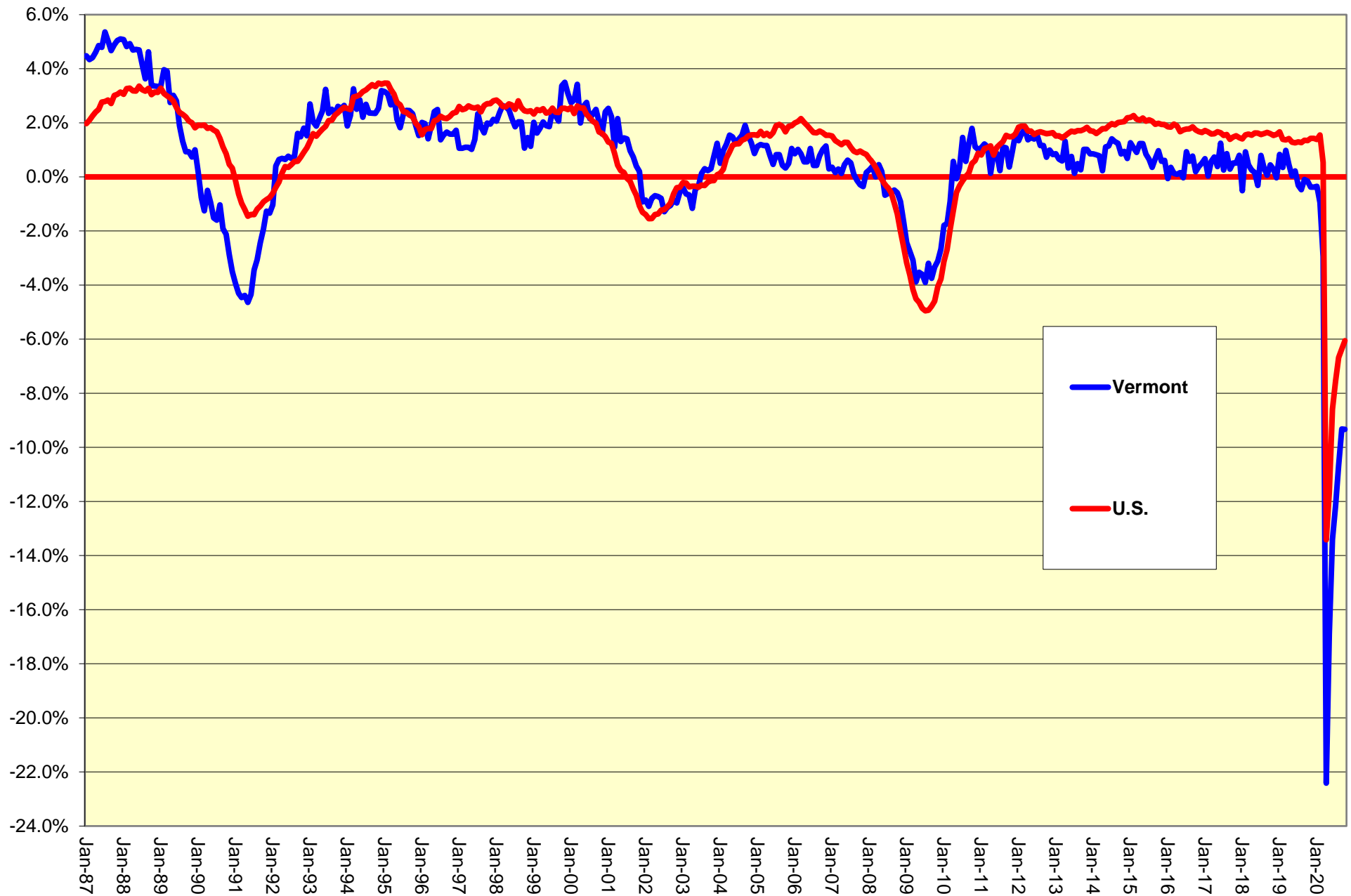
# Minus 20 Million, Plus 10 Million, Still 10 Million Jobs Below February Levels

Monthly Change in Total U.S. Payroll Employment, Seasonally-Adjusted, Source: U.S. Bureau of Labor Statistics



# Employment Growth Craters During Shutdown - With Recovery Still Uncertain

Total Nonagricultural Employment, Percent Change vs. Year Ago, Seasonally Adjusted Data

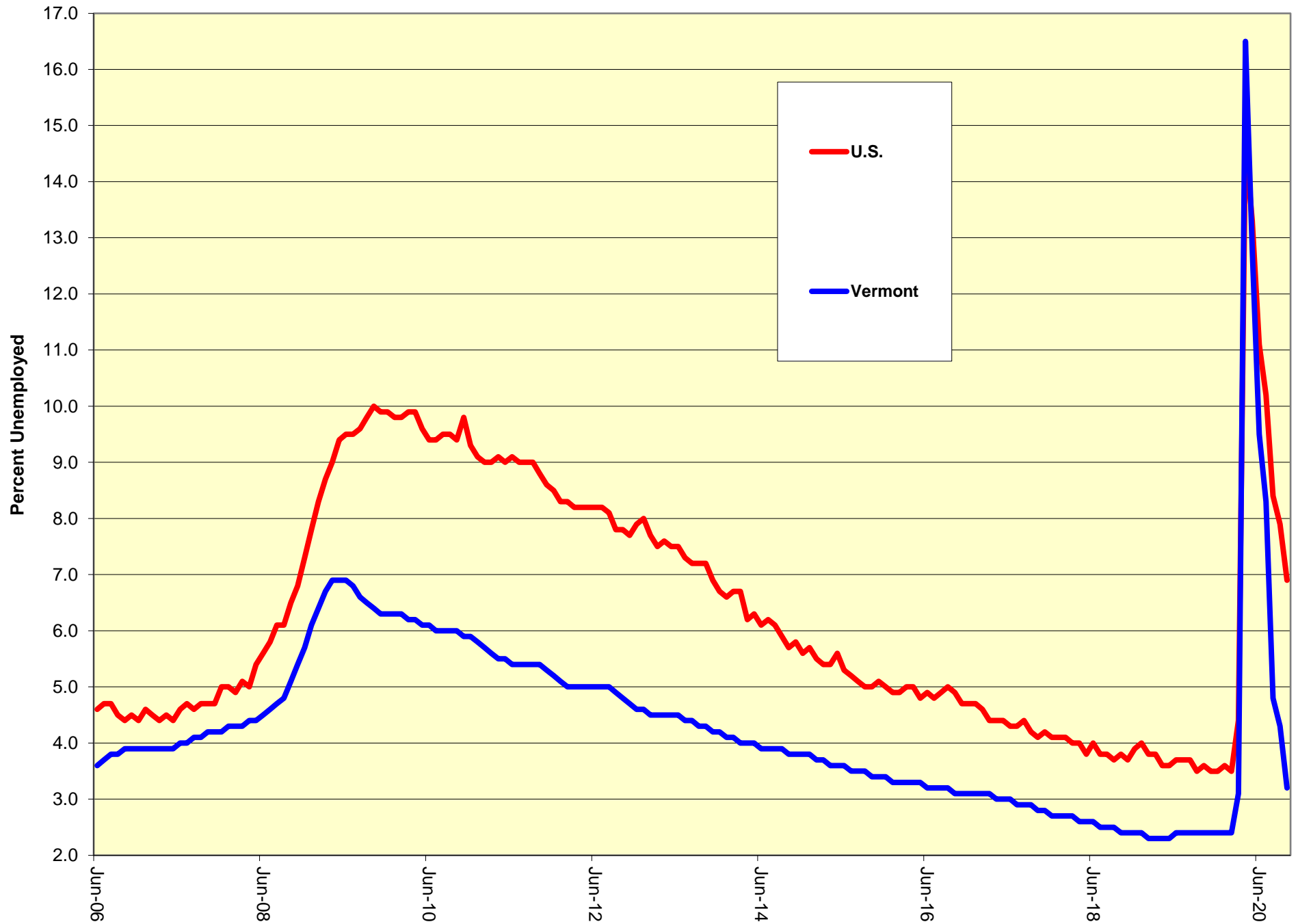


Source: Bureau of Labor Statistics, U.S. Department of Labor



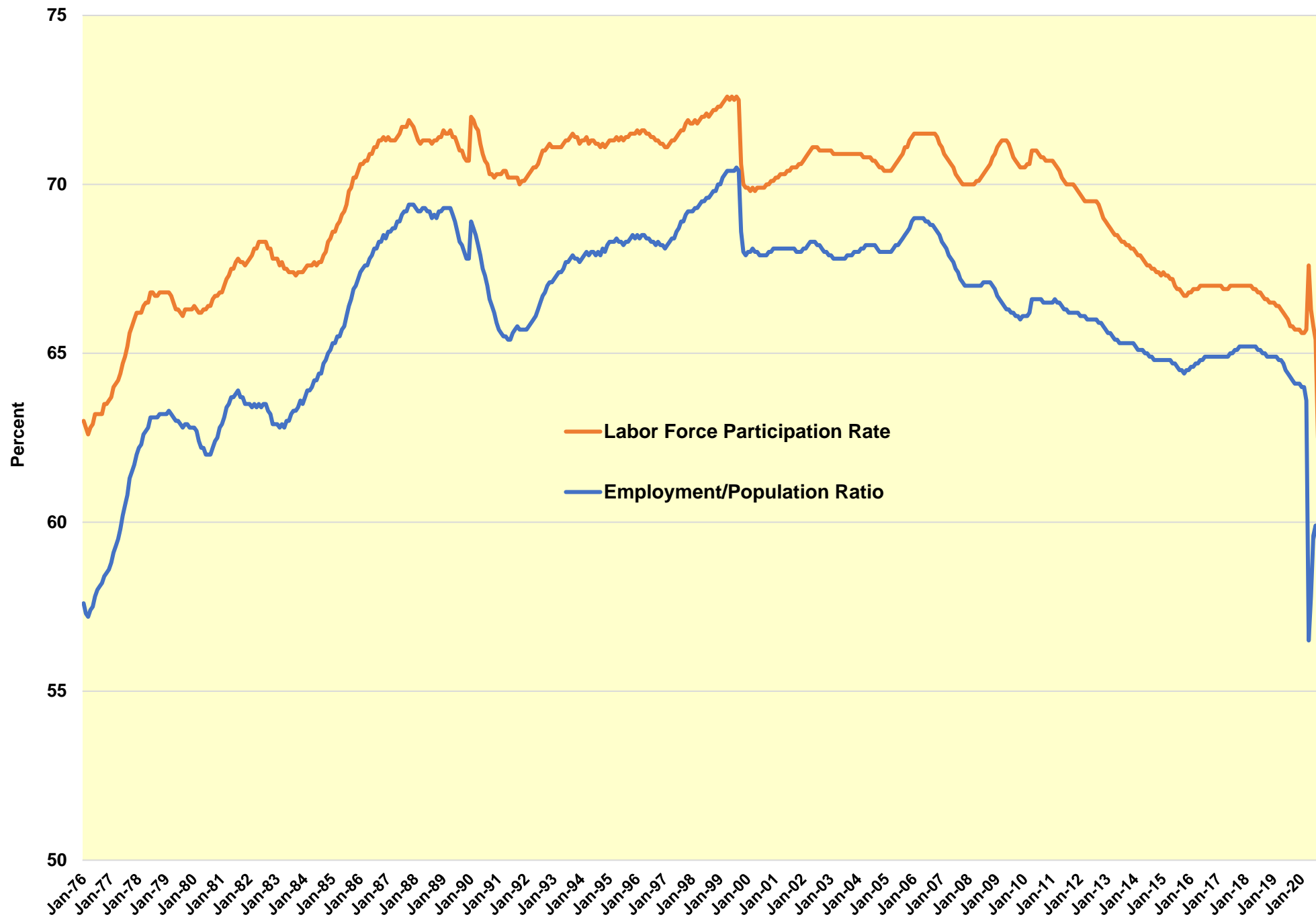
# Wild Pandemic Unemployment Swings Amidst Measurement Issues

(Seasonally adjusted data, Source: Bureau of Labor Statistics, U.S. Department of Labor)



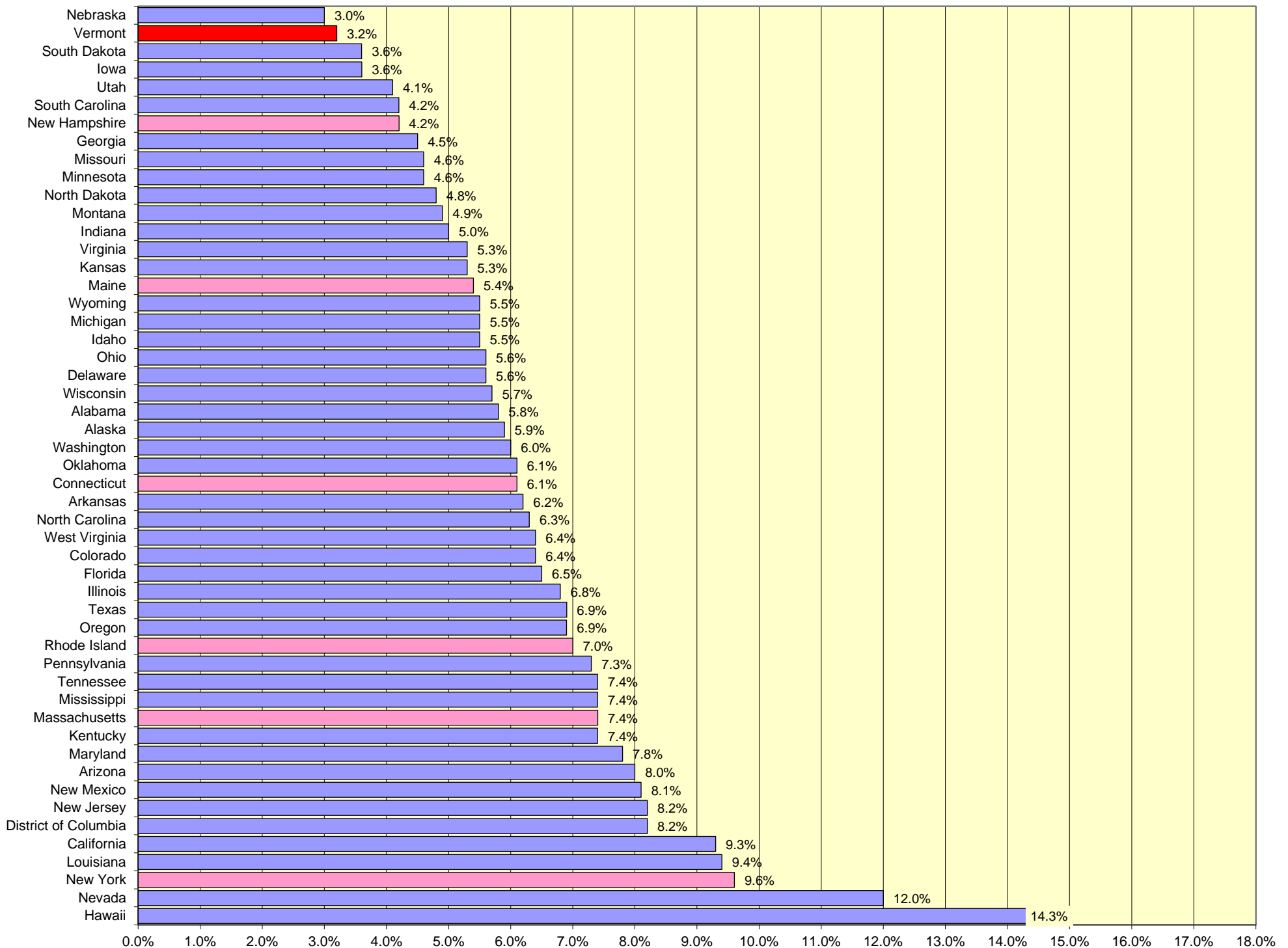
# Pandemic Skews Labor Participation Rate Measurement in Vermont

Source: U.S. Bureau of Labor Statistics



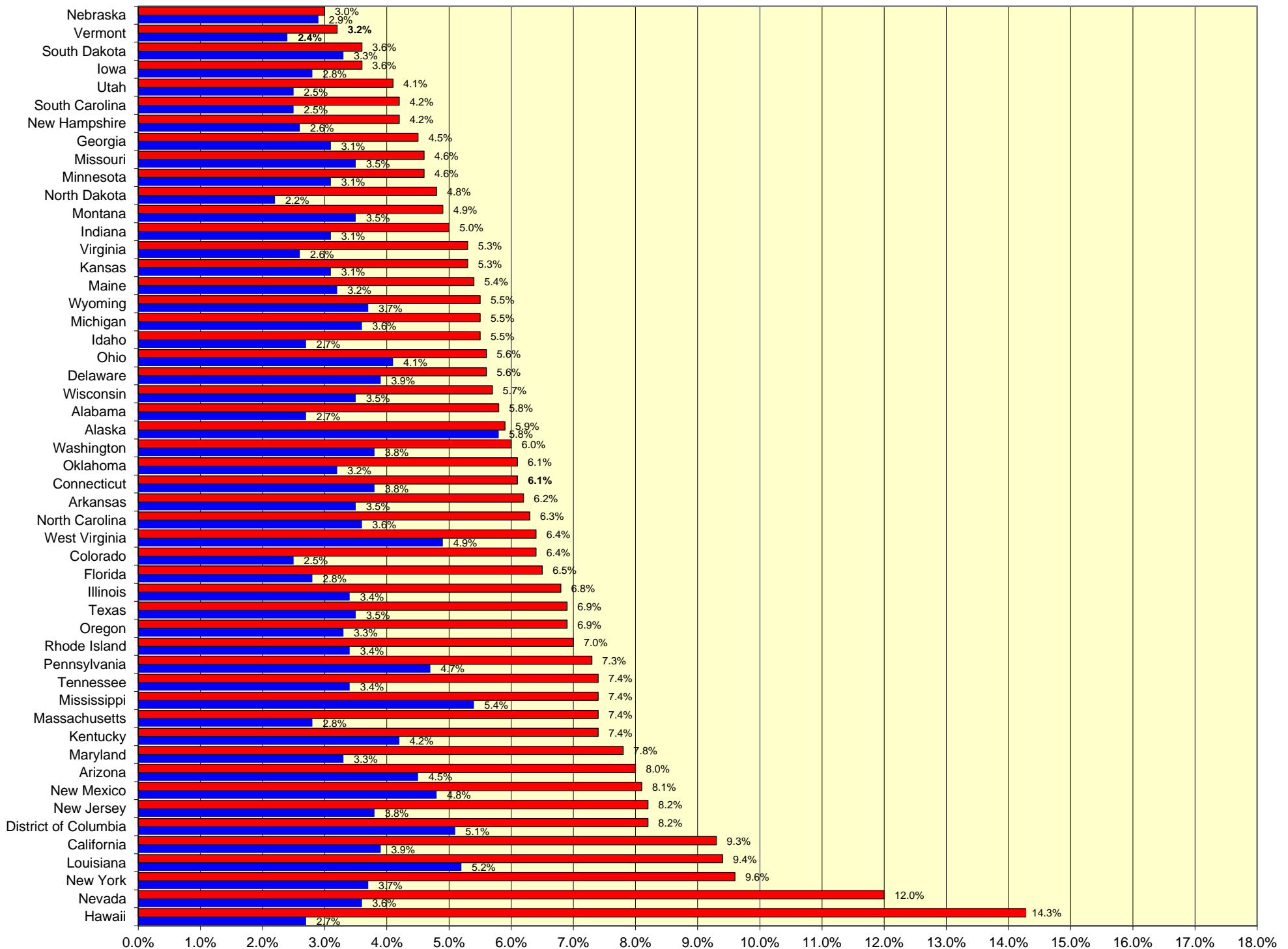
# Unemployment Rate by State - October 2020

Seasonally Adjusted Data, Source: U.S. Bureau of Labor Statistics



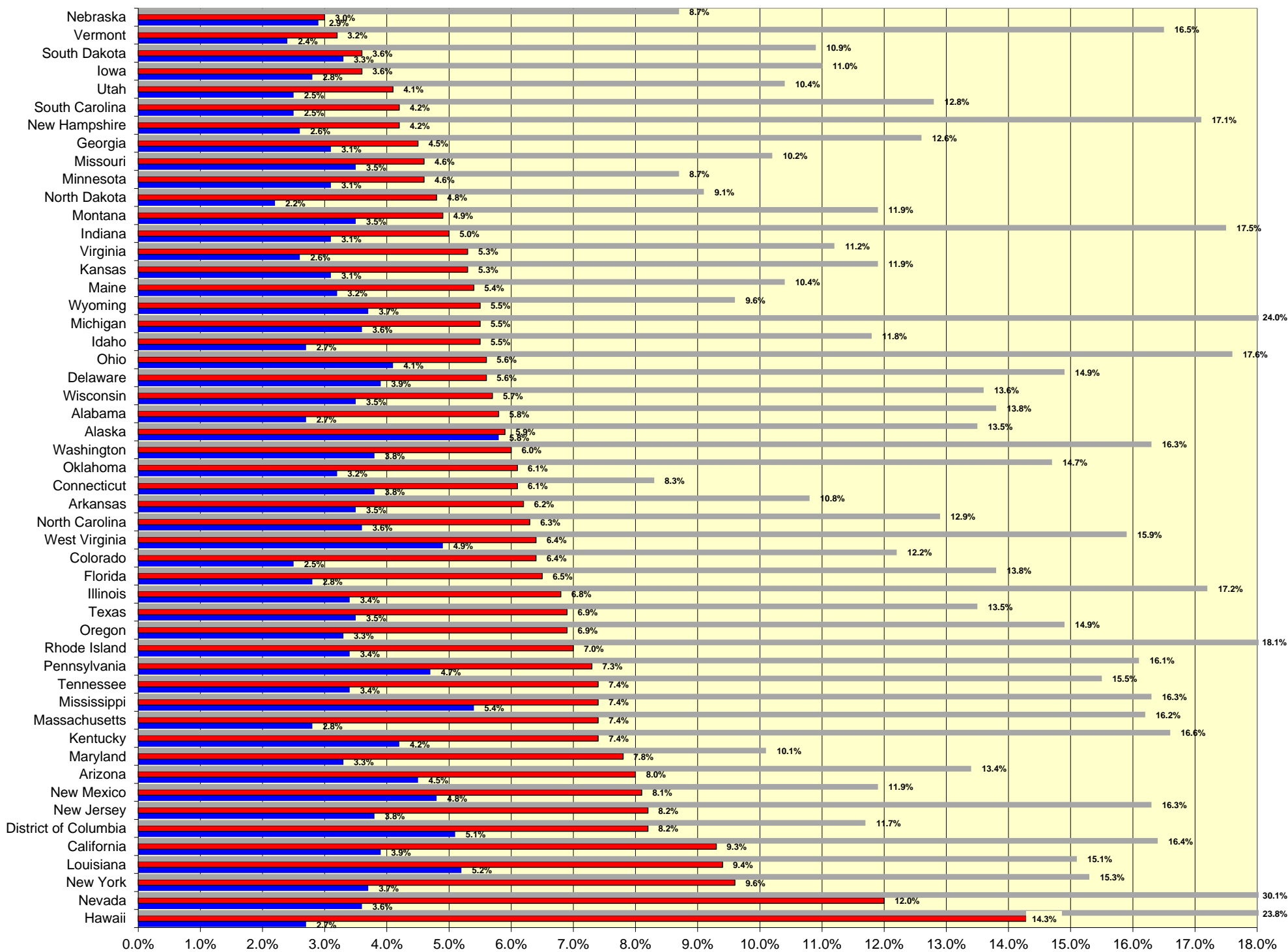
# Unemployment Rate by State - February (blue) vs. October (red) 2020

Seasonally Adjusted Data, Source: U.S. Bureau of Labor Statistics



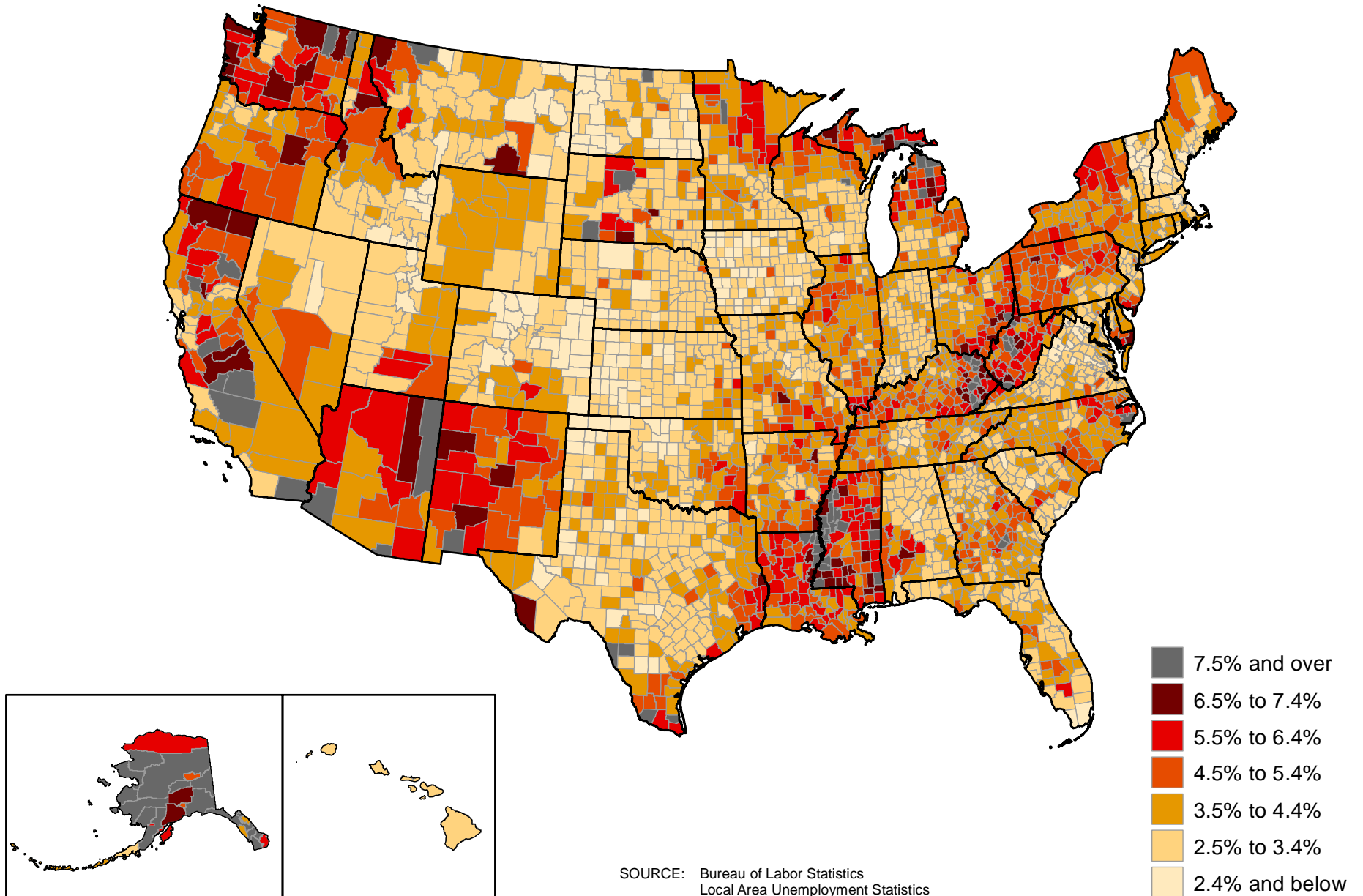
# Unemployment Rate by State - February (blue), April (grey) and October (red) 2020

Seasonally Adjusted Data, Source: U.S. Bureau of Labor Statistics



# Unemployment rates by county, 2019 annual averages

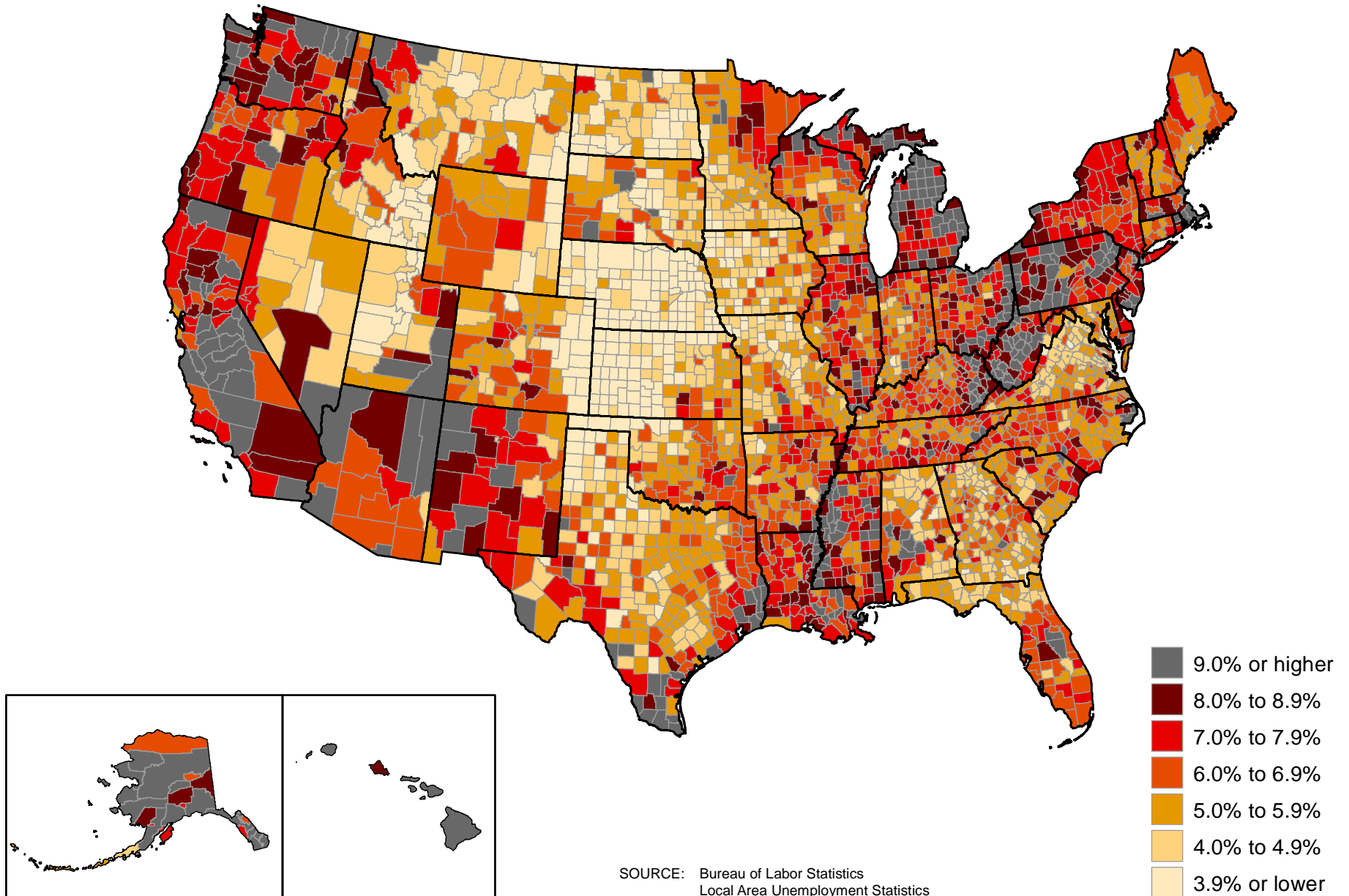
(U.S. rate = 3.7 percent)





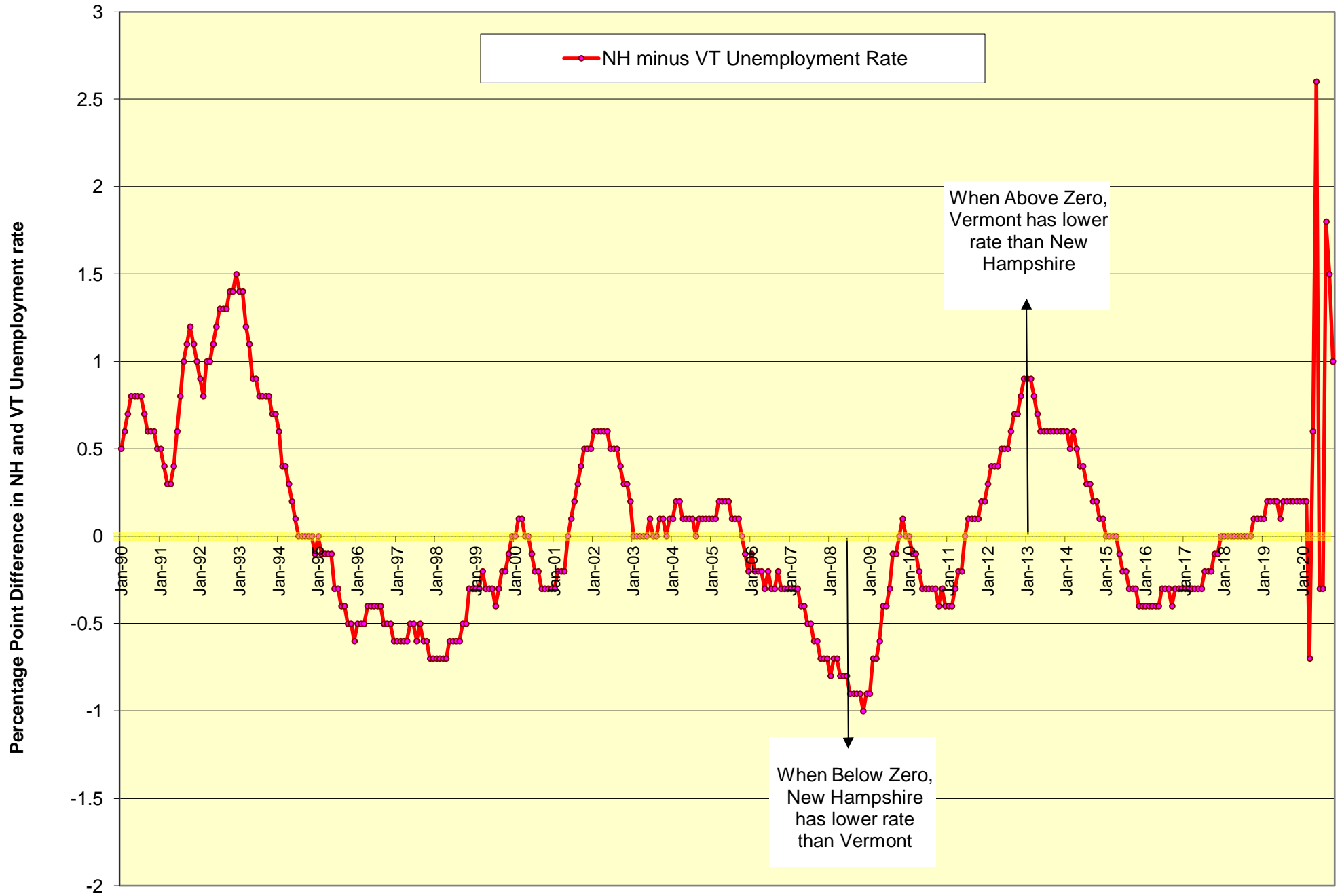
# Unemployment rates by county, October 2019-September 2020 averages

(U.S. rate = 7.2 percent)



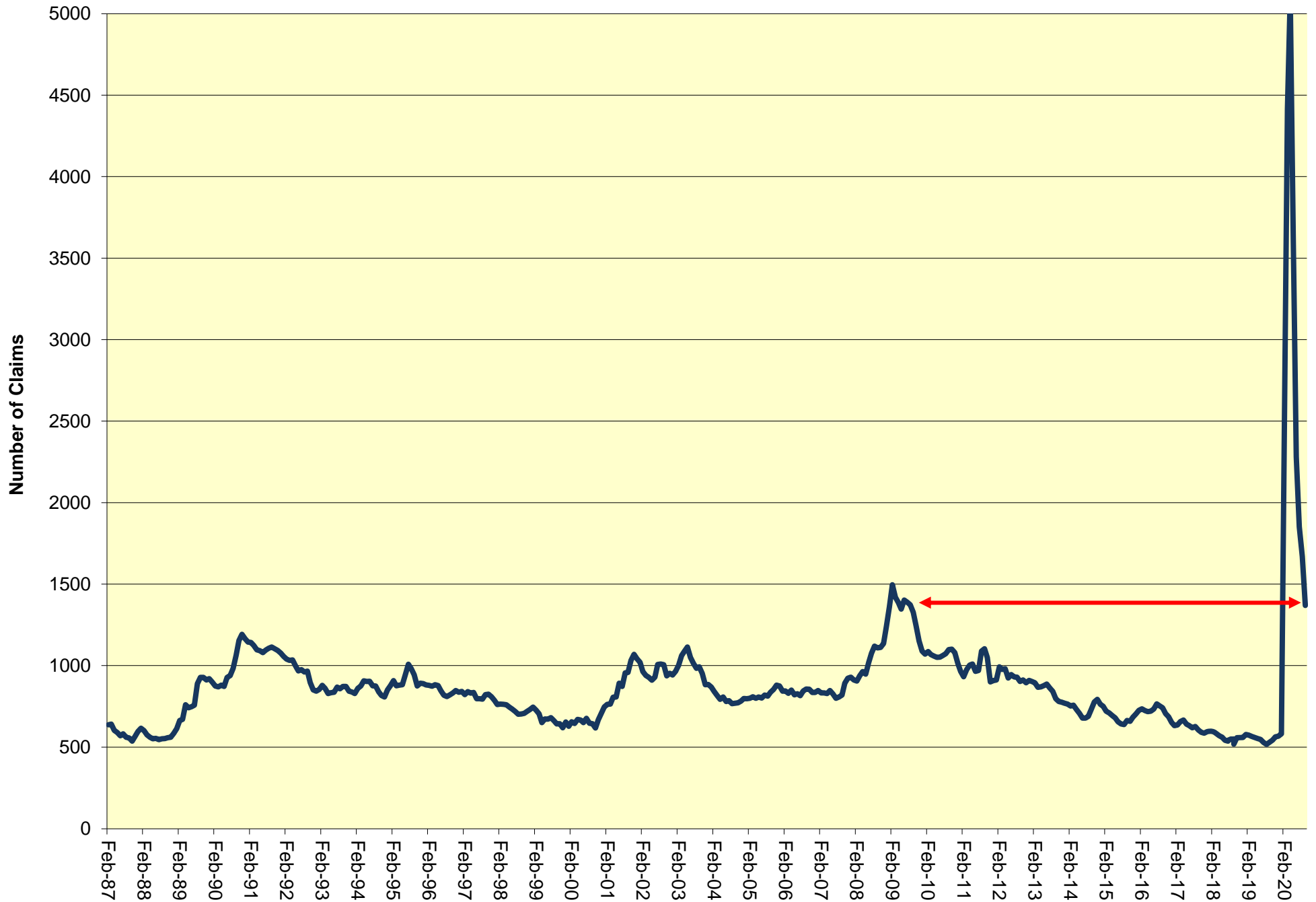
# Trading Places, Again: Vermont vs. New Hampshire Unemployment Rate

Percentage Point Difference in NH minus VT Unemployment Rate (positive = VT lower, negative = VT higher)



# Recent Vermont Initial Unemployment Insurance Claims Are Still Close to the Highest Levels Reached During the Great Recession

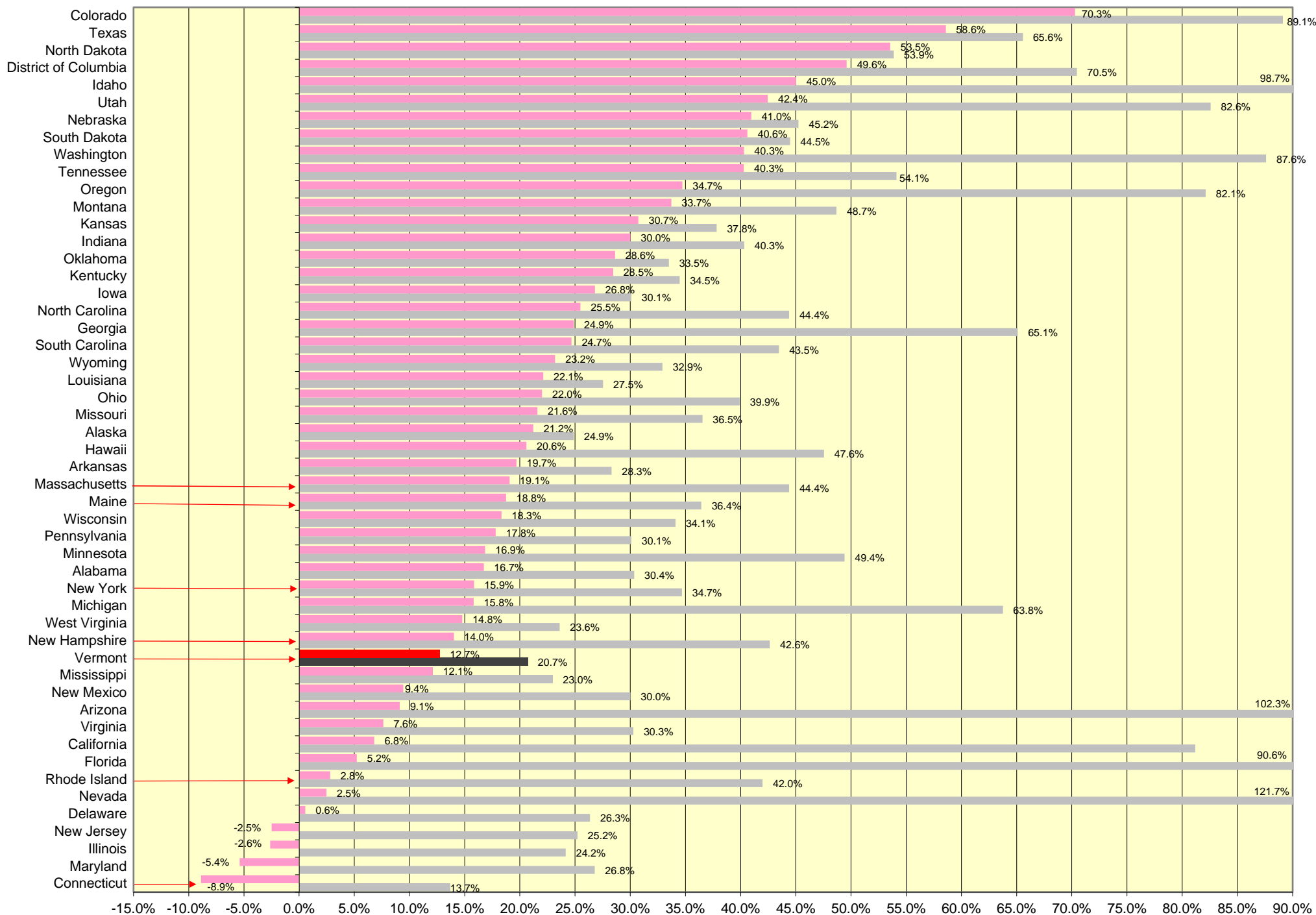
(3 Month Centered Moving Average - Seasonally Adjusted Average Weekly Initial Unemployment Claims)



# Real Estate Update: Housing Values Relative to Last Peak (pink) and Trough (grey)

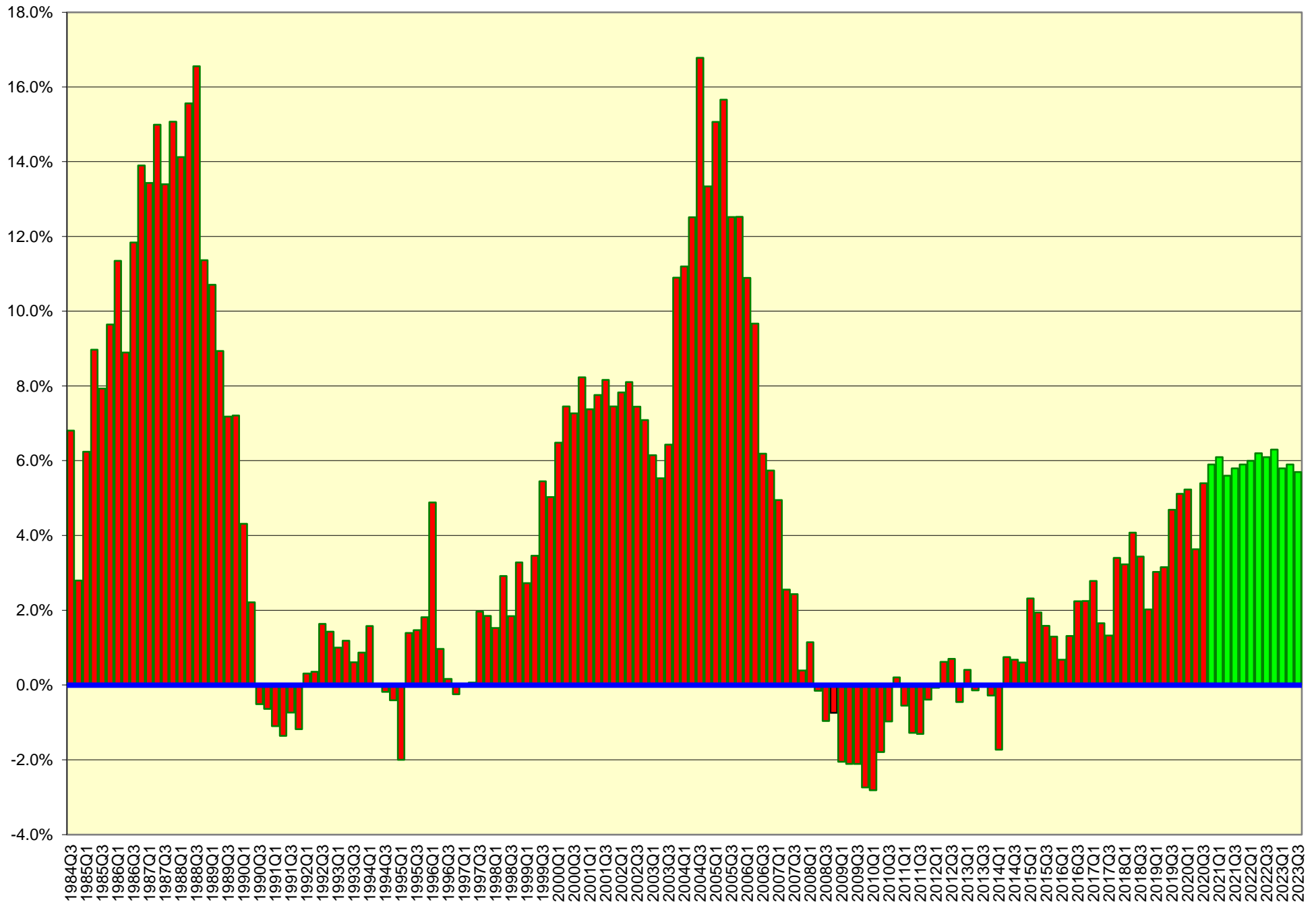
Percent Change, 2020Q3 vs. Peak Price Reached Between 2005Q3 and 2009Q3 - Pink and 2020Q3 vs. Trough Price Reached Between 2009Q3 and 2014Q1 - Grey

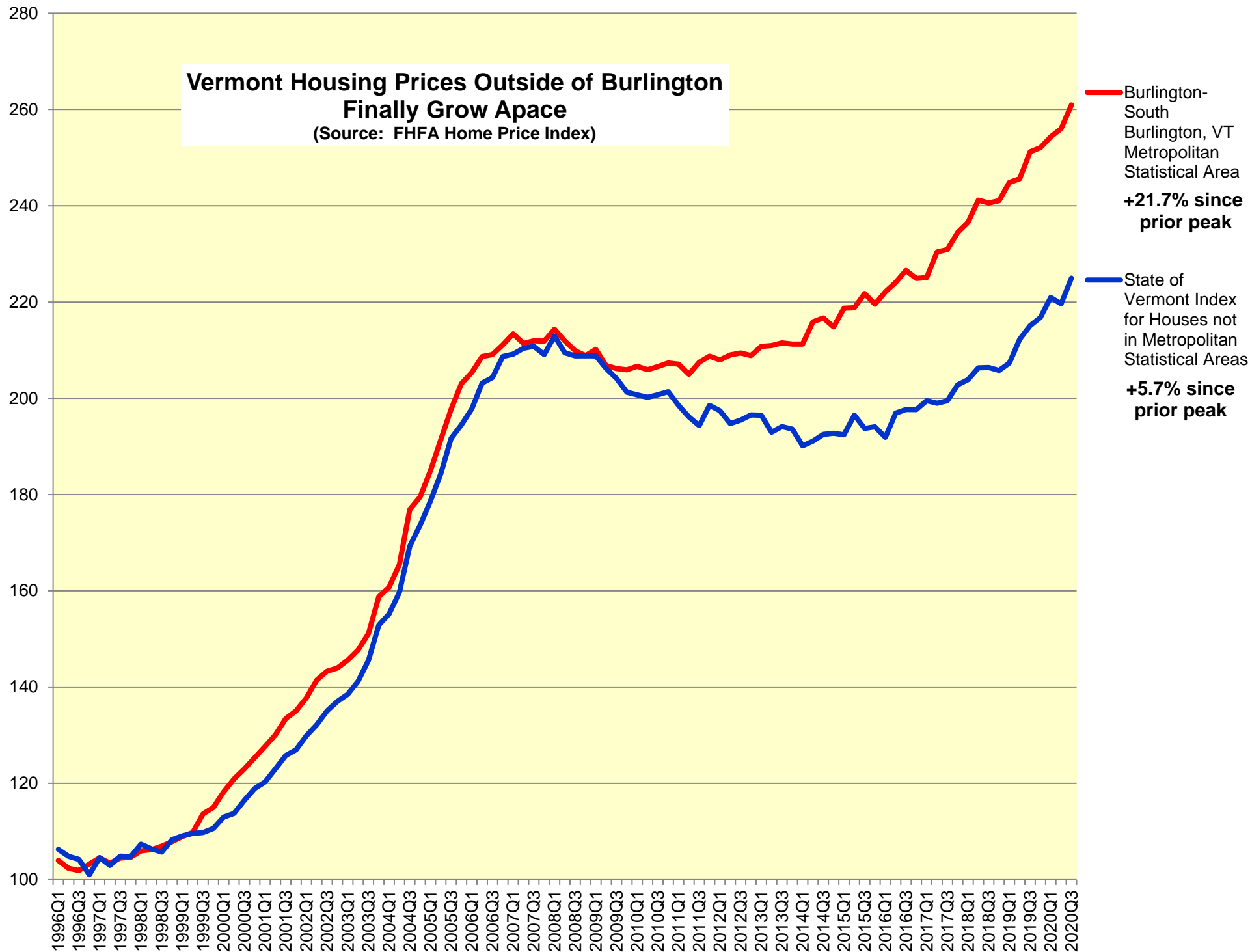
Source: FHFA All Transactions Home Price Index NSA



# VT Home Prices Begin to Accelerate and Will Significantly Exceed Inflation in Coming Years

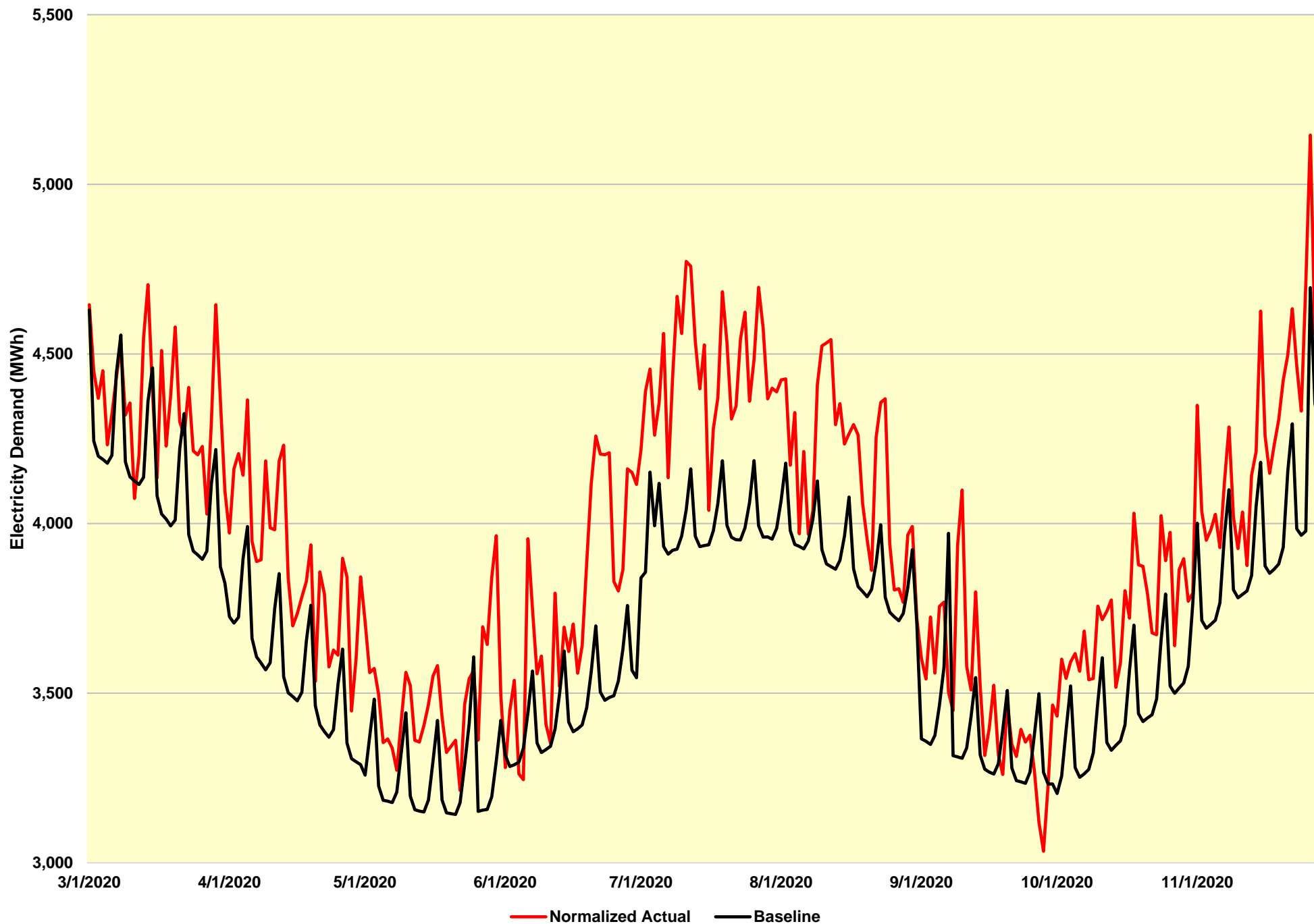
(FHFA Vermont Housing Price Index Percent Change vs. Year Ago)





# GMP Residential Electricity Sales in Vermont

(Normalized Actual vs. Baseline, Sources: Vermont Utilities, Itron, KRA)  
GMP represents approximately 77% of the total Vermont electricity load

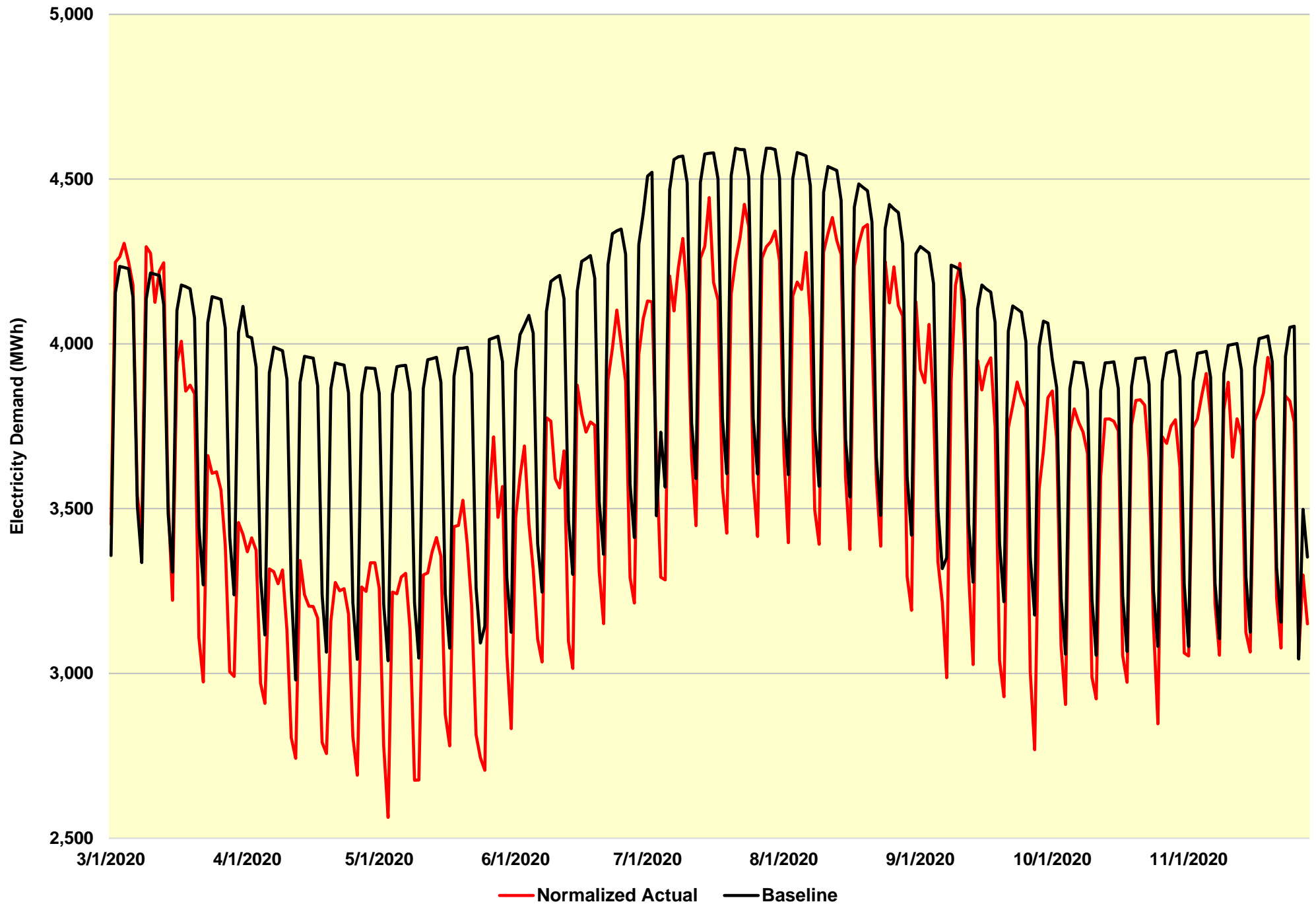




# GMP Small Commercial & Industrial Electricity Sales in Vermont

(Normalized Actual vs. Baseline, Vermont Utilities, Itron, KRA)

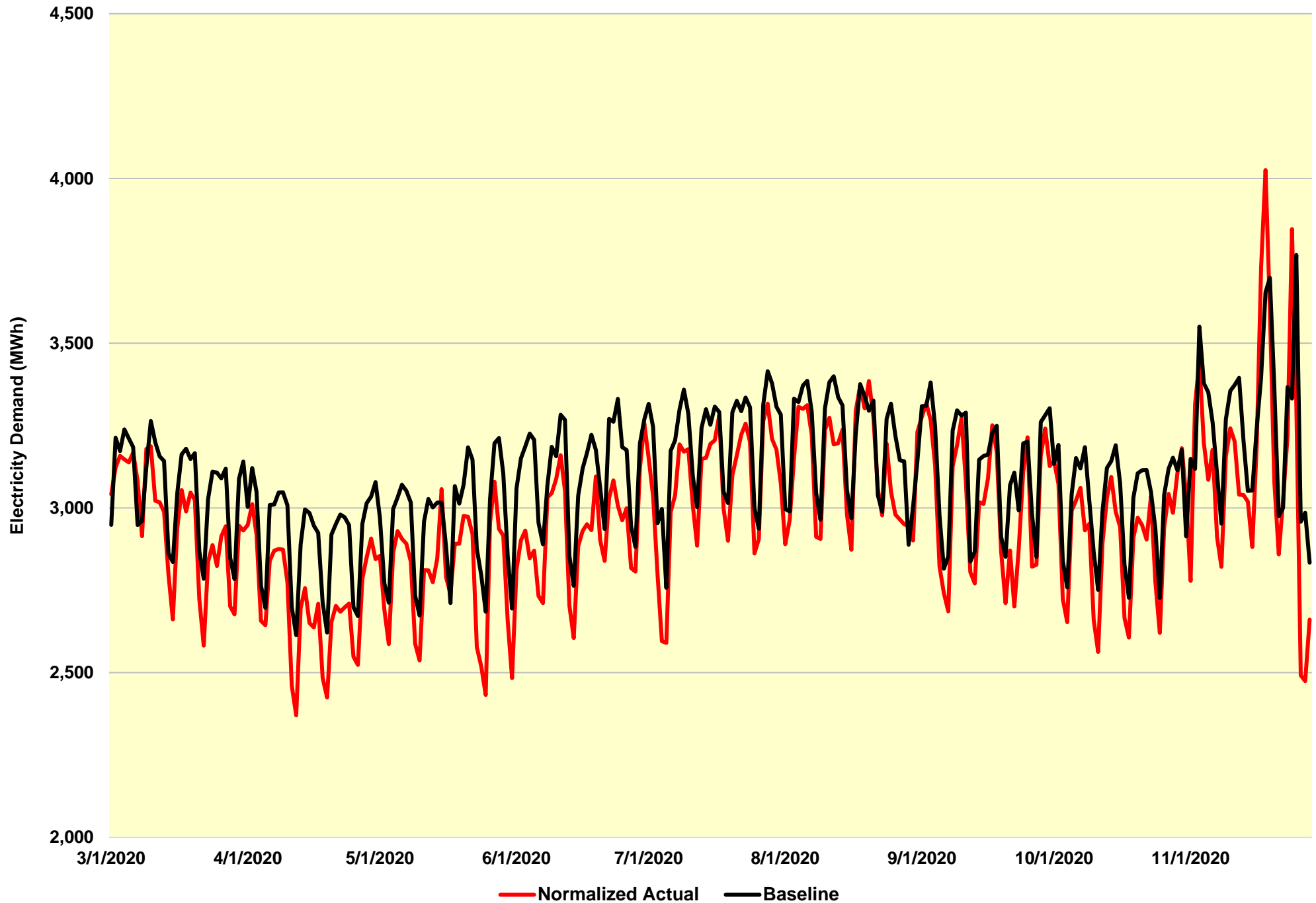
GMP represents approximately 77% of the total Vermont electricity load



# GMP Large Commercial & Industrial Electricity Sales in Vermont

(Normalized Actual vs. Baseline, Sources: Vermont Utilites, Itron, KRA)

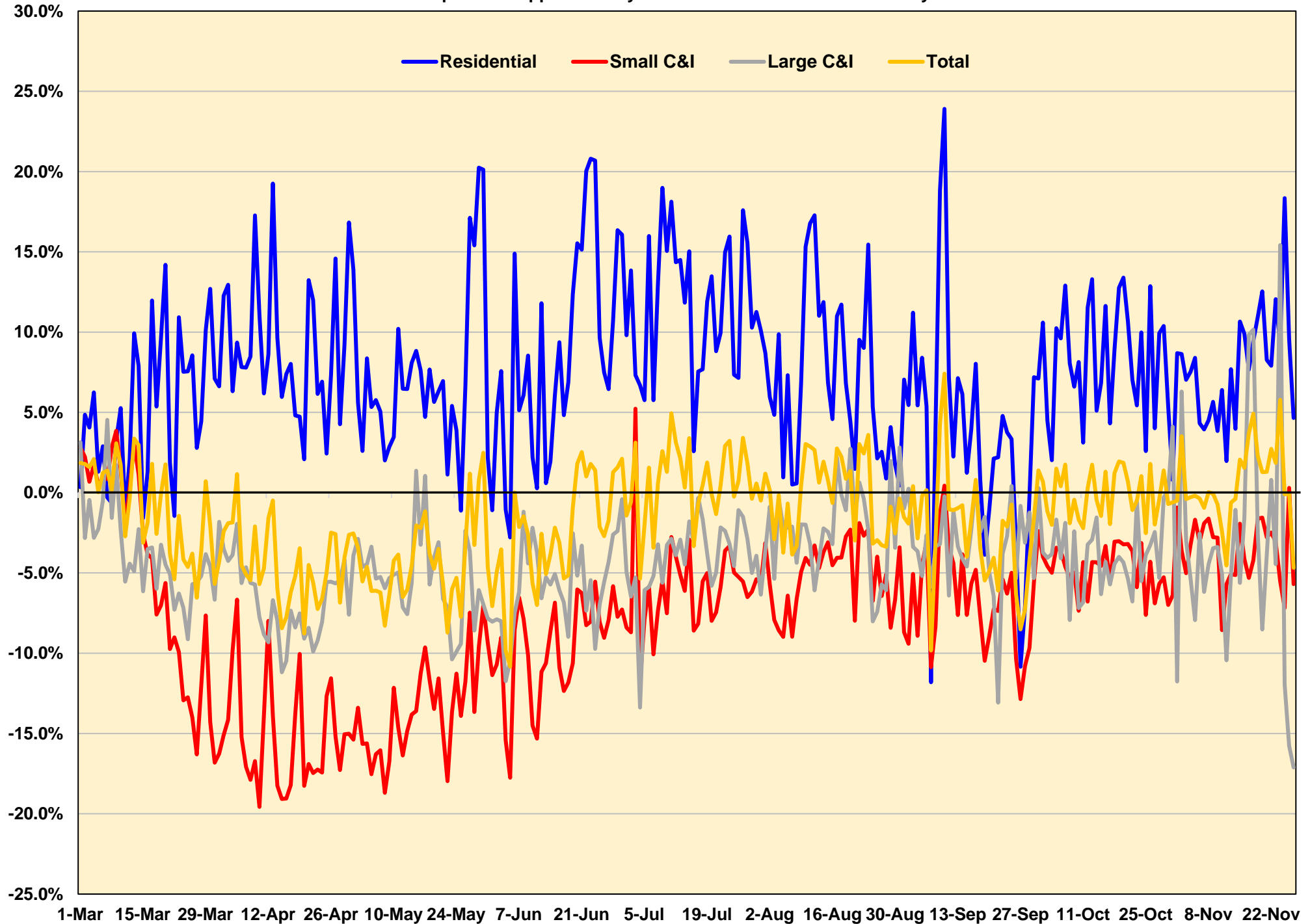
GMP represents approximately 77% of the total Vermont electricity load



# 2020 Percent Change from Baseline of GMP Electricity Sales By End-Market in Vermont

(Normalized Actual vs. Baseline, Sources: Vermont Utilities, Itron, KRA)

GMP represents approximately 77% of the total Vermont electricity load



# The Pandemic Will Continue to Demand Extraordinary Flexibility and Adaptability in Policy Planning

- Updated Consensus Economic and Revenue Forecasts Will be Developed Throughout December and Early January, Following Release of December Tax Data, and Issued in Mid-January
- Hoping Sometime in 2021, Legislative Economic and Revenue Reviews May Again be In-Person!

# For Further Information, Contact The Vermont Joint Fiscal Office or:

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Dr. Nicolas O. Rockler, CEO  
State Economist and Principal Economic Advisor  
to the Vermont State Legislature



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