Economic and Revenue Review for the Vermont State Legislature

Via Zoom
December 8, 2021

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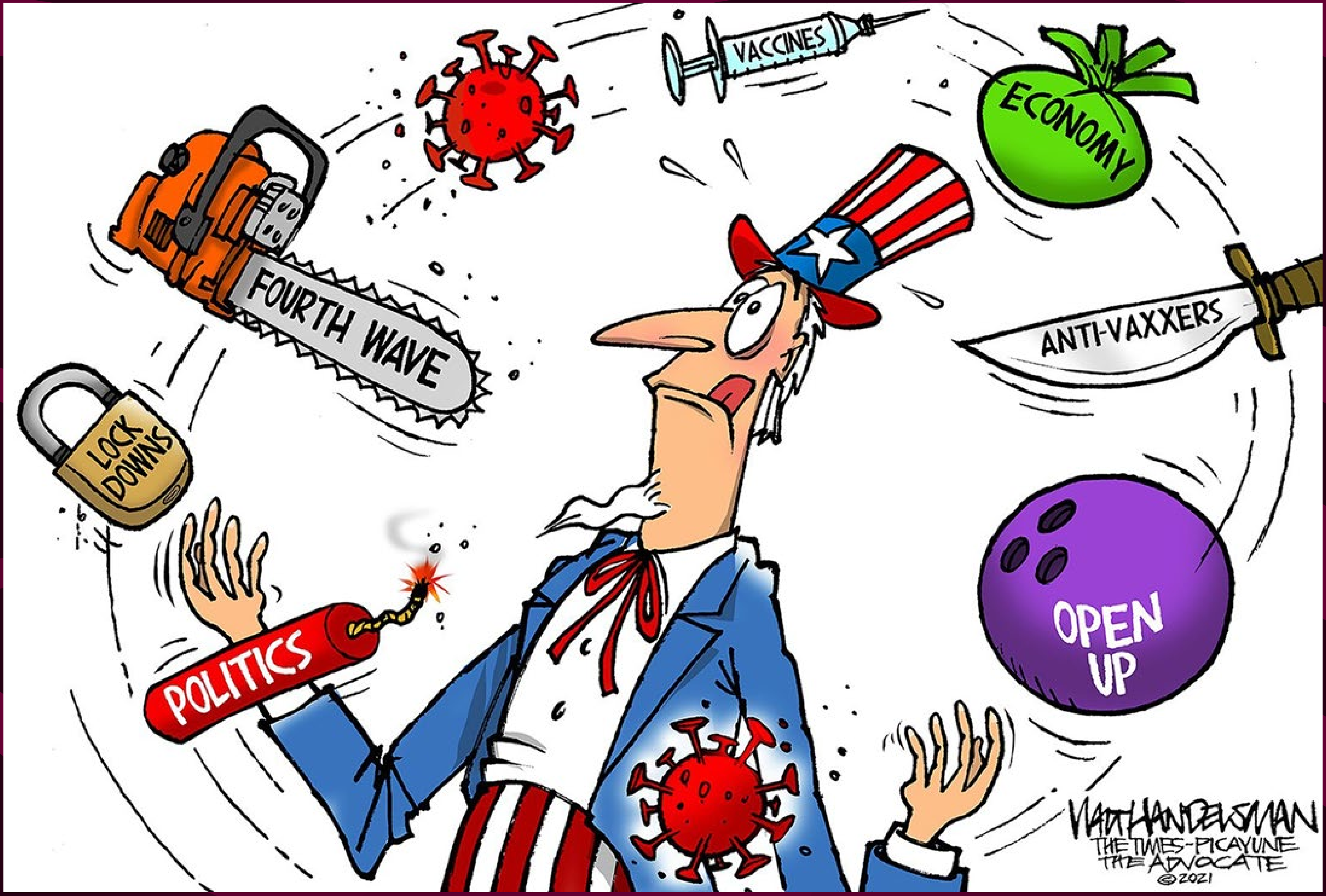
VACCINES
ECONOMY
FOURTH WAVE
ANTI-VAXXERS
LOCK DOWNS
POLITICS
OPEN UP
WALT HANDELSMAN
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THE ADVOCATE
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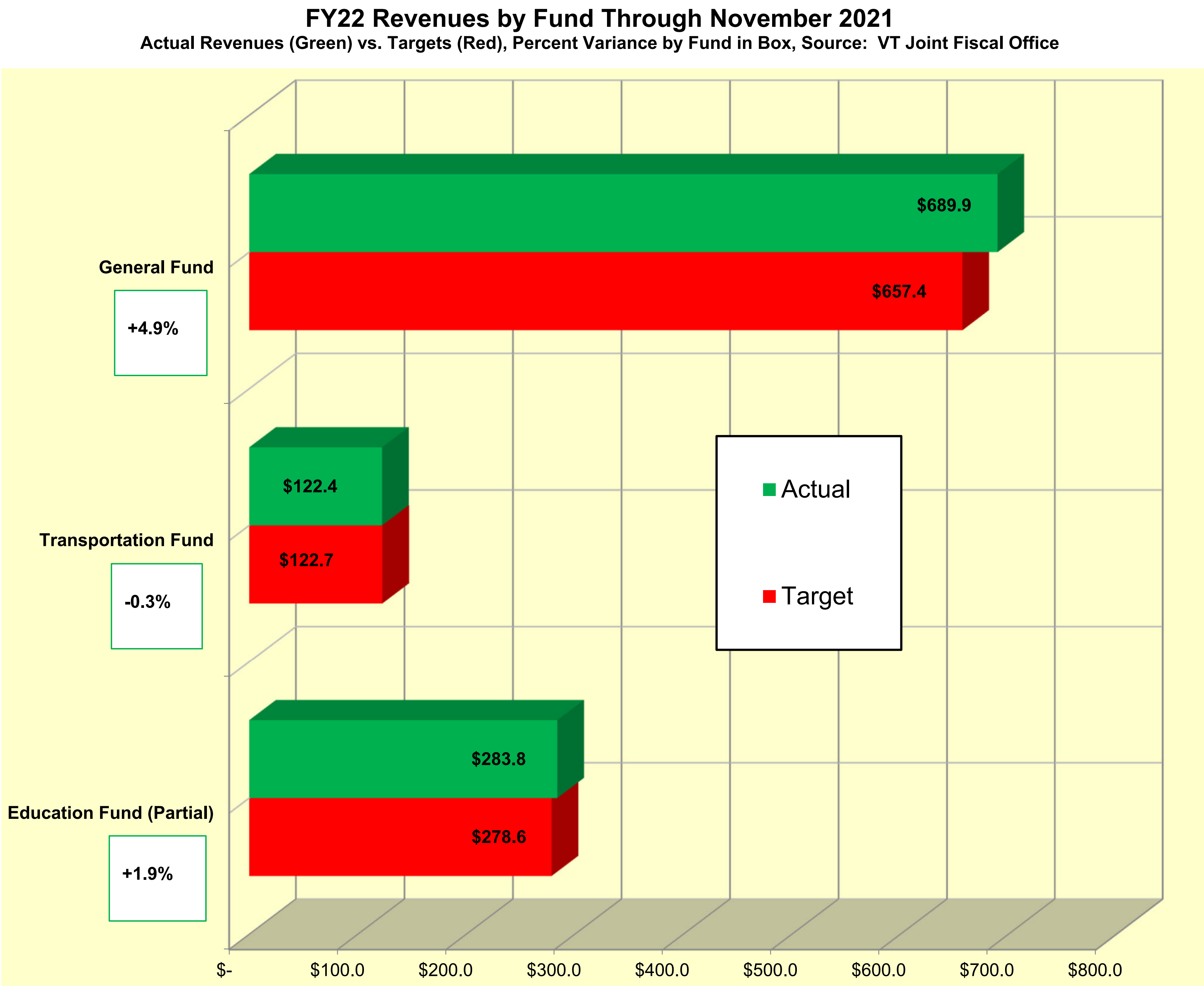
Two Exogenous Forces Are Still Driving the National and State Economies - and State Revenues

- The Epidemiological Path of the Pandemic

and

- Unprecedented Federal Fiscal and Monetary Policies Associated With the Pandemic, IIJA and "Build Back Better" Programs

High Levels of Uncertainty Continue to Characterize Both


FY22 Revenues by Fund Through November 2021
Actual Revenues (Green) vs. Targets (Red), Percent Variance by Fund in Box, Source: VT Joint Fiscal Office
General Fund
+4.9%
$689.9
$657.4
Transportation Fund
-0.3%
$122.4
$122.7
Education Fund (Partial)
+1.9%
$283.8
$278.6
Actual
Target
$-
$100.0
$200.0
$300.0
$400.0
$500.0
$600.0
$700.0
$800.0

Year-To-Date FY22 Revenues Are Solidly Above Expectations, but Uncertainty Persists

- Total Revenues through November (General, Transportation and partial Education Funds) are about 3.5% above targets (about $37M on a base of more than $1B), most of which was booked in the first quarter of the fiscal year, prior to the record infections and hospitalizations caused by the Delta variant. Still, there is solid evidence that society at large is learning to live with the risks associated with COVID and its variants without nearly as much aggregate economic loss as occurred in the earlier phases of the pandemic.

- The revenue strength in the first 5 months of the fiscal year was concentrated in Personal Income, Corporate and Meals & Rooms receipts. With corporate profits at record levels, demand strong and prices rising, income tax liabilities have risen accordingly. Tourism travel continues to be heavily tilted towards short-term rentals, such as AirBnb, but increasing numbers of visitors are venturing out and spending freely. With an aversion to air travel still evident and 50 million people within a 5 hour drive from Vermont, tourism visitation has exceeded expectations, and through the first five months of the fiscal year is 50% above the same period in FY21 and 6% above the same (pre-pandemic) period in FY20.

- Epidemiological developments, however, are still determining the course of the economy, with news of new variants shaking markets and jamming international travel and commerce. This can both retard recovery from the initial pandemic shocks (such as supply chain production and shipping bottlenecks, school openings and attendance, and labor force participation) and introduce new ones.

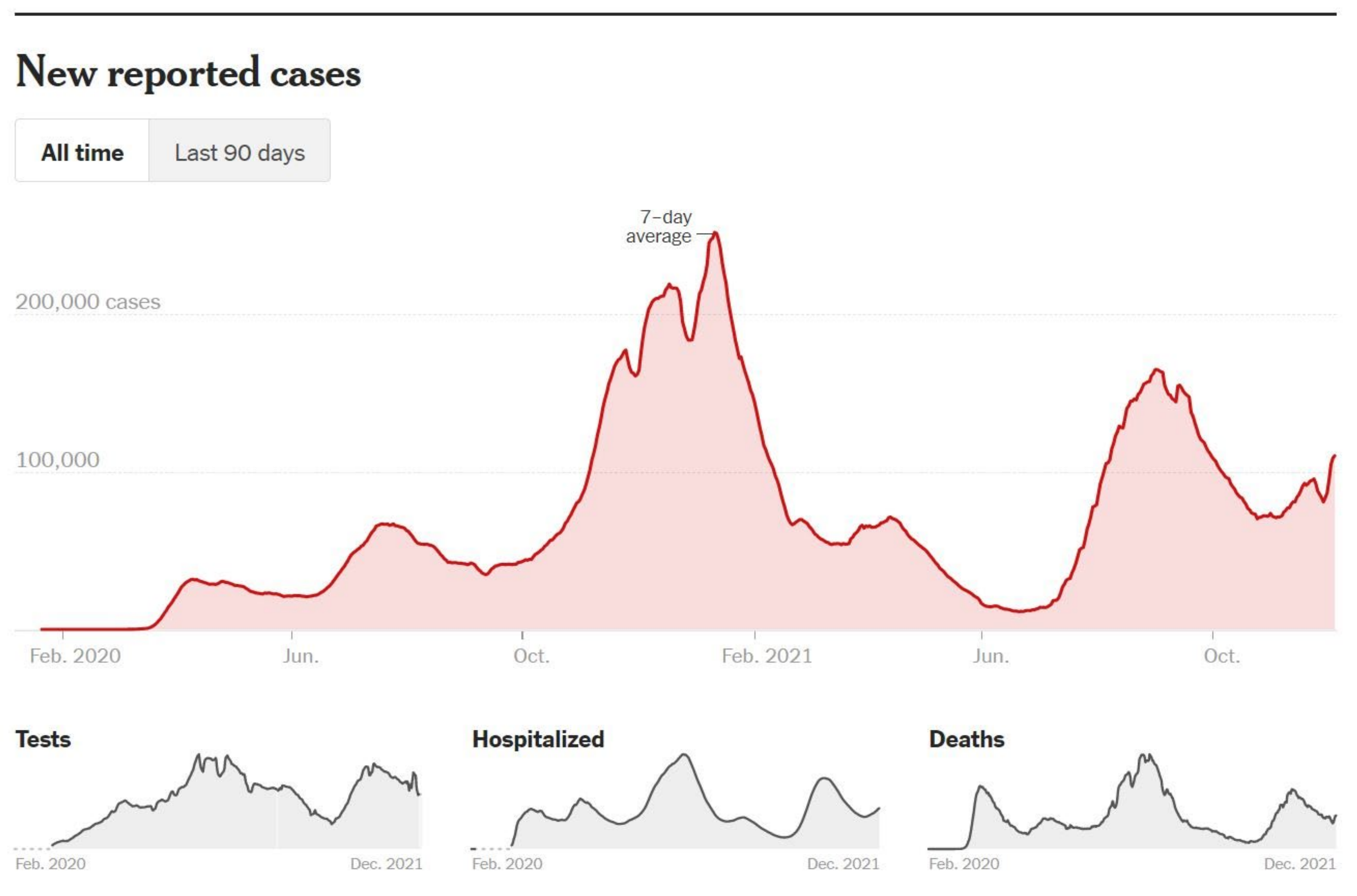
- There is evidence that some consumption taxes would be higher, but for the shortages of things to consume. Empty car lots at dealers and long delays in ordering many items has reduced taxable receipts. Inflationary price increases will generally result in higher receipts, except with taxes based on physical volumes, such as a large portion of the transportation fuel taxes.

- Both Property Transfer taxes and the Sales & Use tax are very close to targets that assumed strong sustained growth. E-commerce continues to be a significant source of Sales & Use tax growth, after accelerating during the first year of the pandemic. Real estate transactions continue to be robust, as home prices soar, especially in non-metro resort towns. As assets are repriced with plentiful money and low interest rates, we are entering the third major State and regional housing bubble in the past 40 years. Just-released FHFA home price data for the third quarter of 2021 show Vermont year-over-year growth at 17.7%, the highest statistically-valid reading on record – and with more to come.

Epidemiological Issues

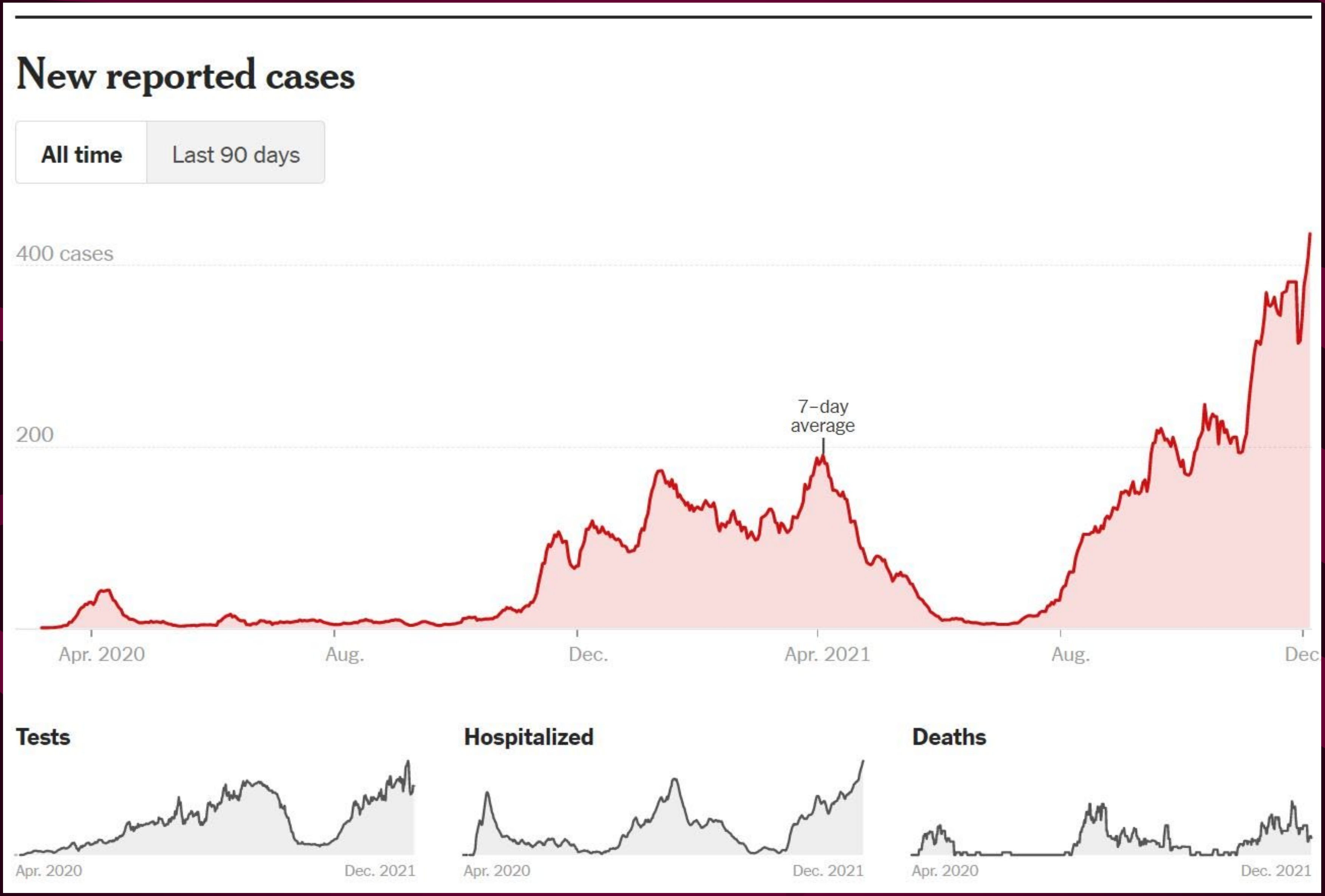
- The path of the pandemic will largely determine the path of the economy in 2022
- Despite an extraordinary vaccine development effort that made vaccination freely accessible for the entire eligible U.S. population, uptake remains subaltern with only 64% of those ages 5 and up fully vaccinated. Vermont (at 77%) and 4 of the other 5 regional New England states have the highest rates of vaccination among all U.S. states, with NH at #12, still in the upper tier.
- Per capita rates of infection are about 5 times more likely and hospitalizations and death are about 13 times more likely among those who are unvaccinated. In Vermont and most states, unvaccinated individuals represent the vast majority of hospitalized COVID patients. A Peterson-Kaiser Family Foundation study estimated preventable hospitalization costs for unvaccinated people in the U.S. totaled nearly $6 billion between June and August of 2021 – and based on these rates, could exceed $15 billion by the end of the year.
- The Delta variant became ascendant just as it appeared the pandemic was receding and could be close to ending. Both psychological and healthcare considerations affected the ensuing economic impacts from Delta, with mobility much less affected – especially among vaccinated individuals.
- Vermont had been a standout in managing the pandemic, but recent infectious rates from the Delta variant have been extremely high with the onset of colder temperatures. The biggest benefit to the high vaccination rates and other behavioral mitigation measures in the State has been much lower hospitalization and death rates. In the 7 days ending December 3rd, Vermont had the 7th highest case rate among U.S. states, but the 39th lowest hospitalization rate and the 47th lowest death rate. Over the course of the entire pandemic to date, Vermont has had the second lowest case rate (after Hawaii) and the lowest death rate of any state.
- Regional hospitalizations are now approaching capacity limits, stressing healthcare systems and personnel and threatening acute problems with any further increases from the current Delta and emerging variants.

While the Δδ Wave Has Receded in the U.S. at Large…



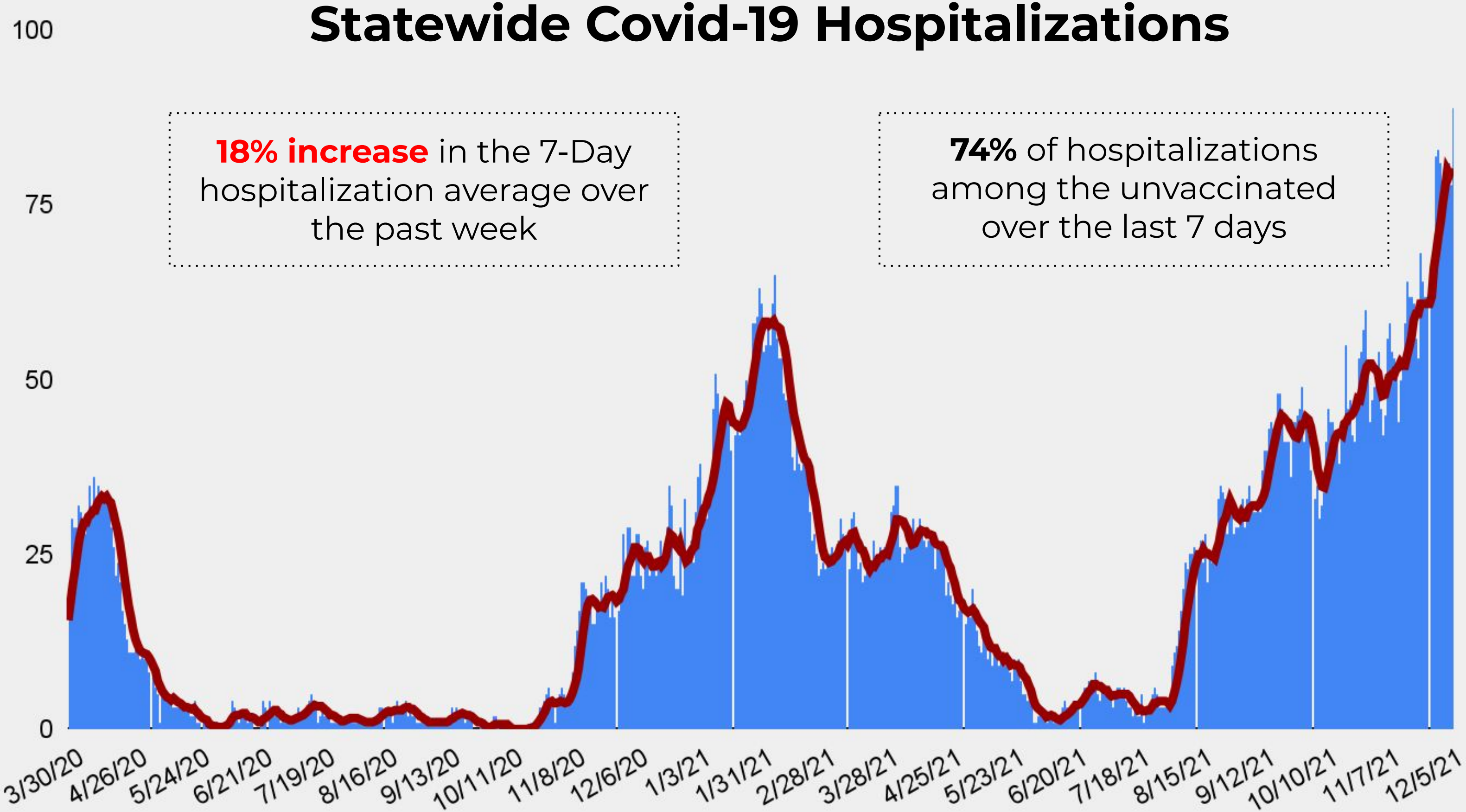
Source: NY Times December 6, 2021

It is Raging in the Northeast and Vermont…



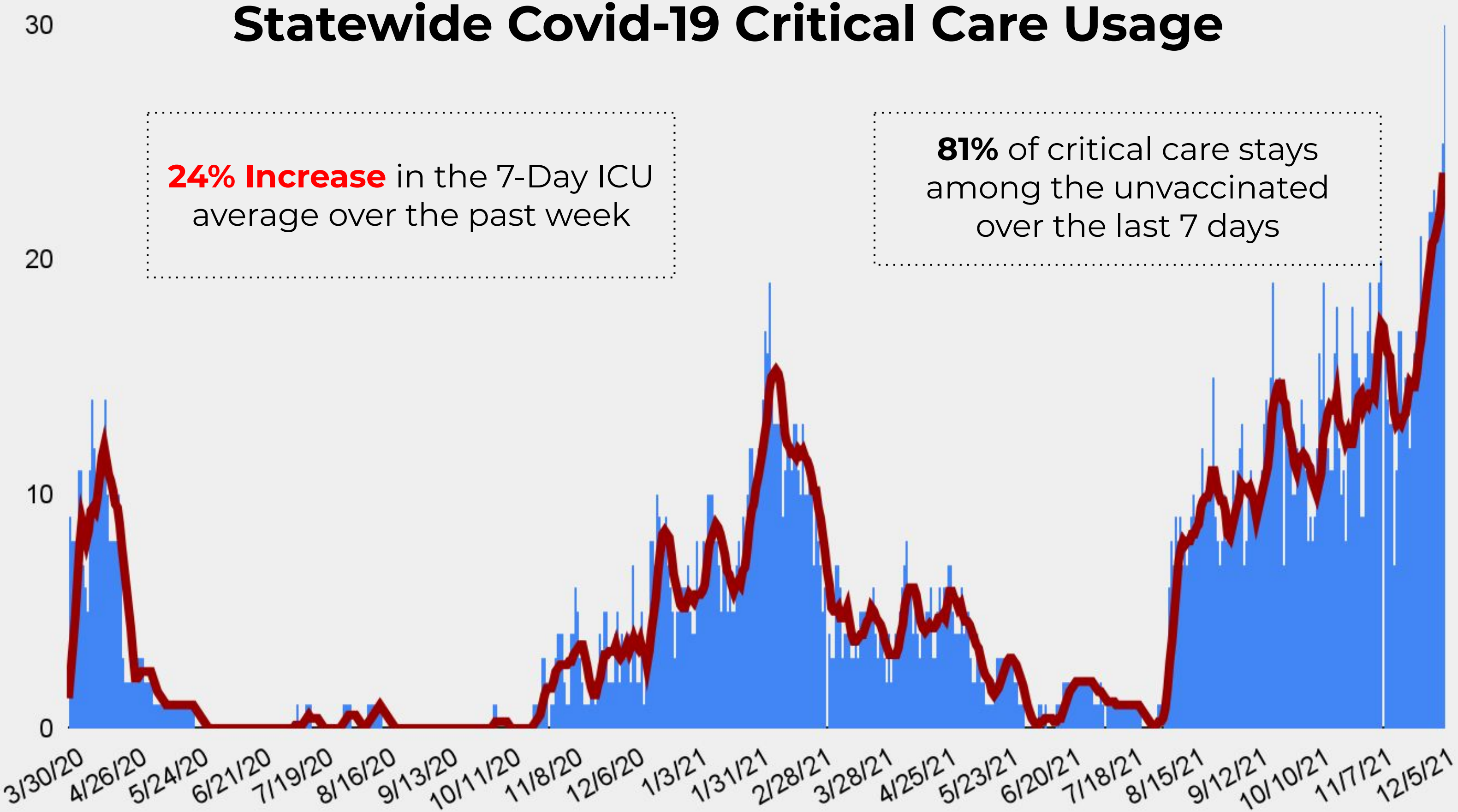
Source: NY Times December 6, 2021

Statewide Covid-19 Hospitalizations



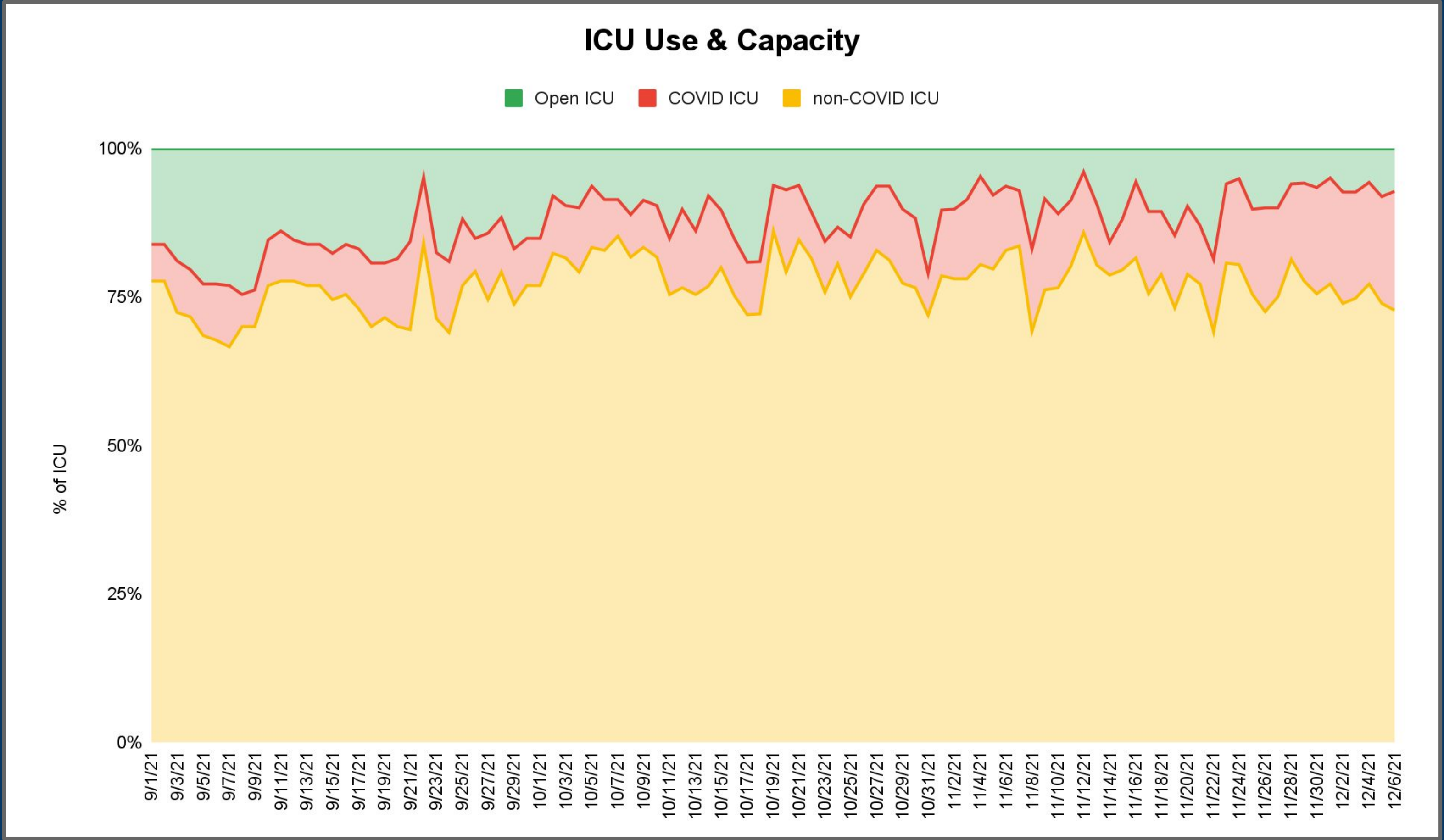
Source: Vermont Department of Health—November 30, 2021

Statewide Covid-19 Critical Care Usage



Source: Vermont Department of Health—November 30, 2021

Hospital & Critical Care Beds

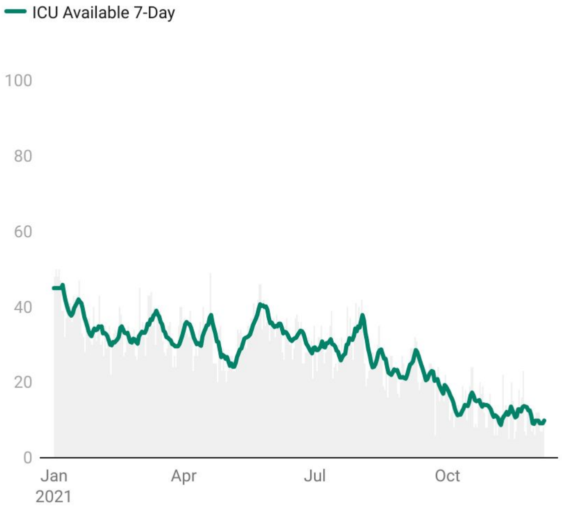


Source: Vermont Department of Health

Vermont ICU Metrics

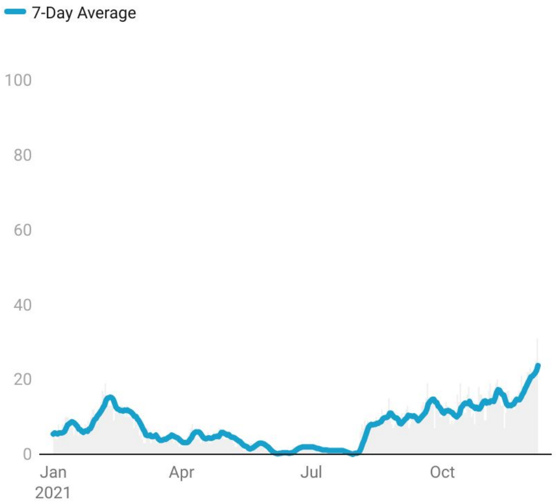
(7-Day Averages)

9% Increase
Over last 7 days



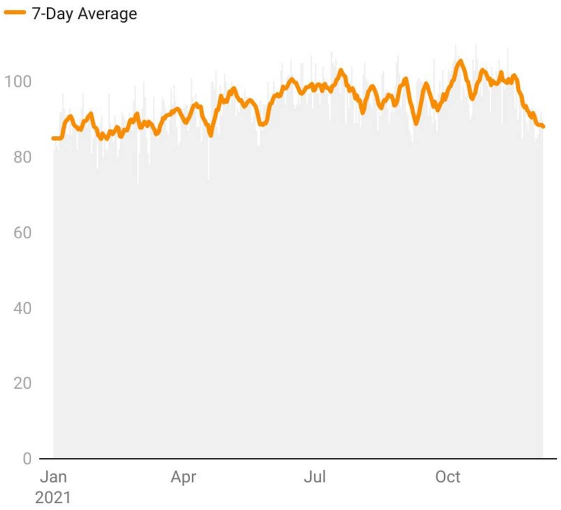
ICU Beds Available

24% Increase
Over last 7 days



COVID-19 ICU Beds Occupied

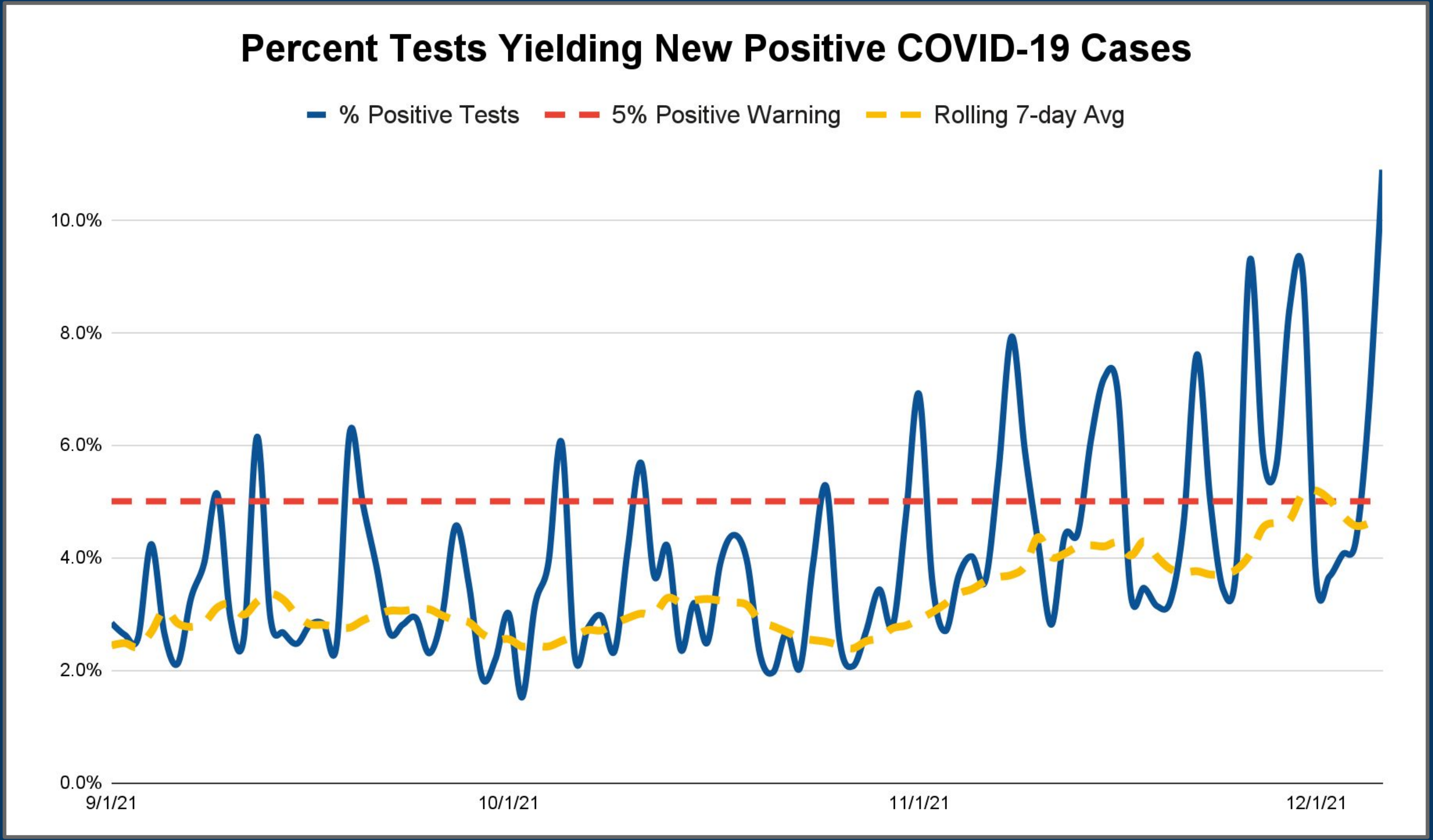
4% Decrease
Over last 7 days



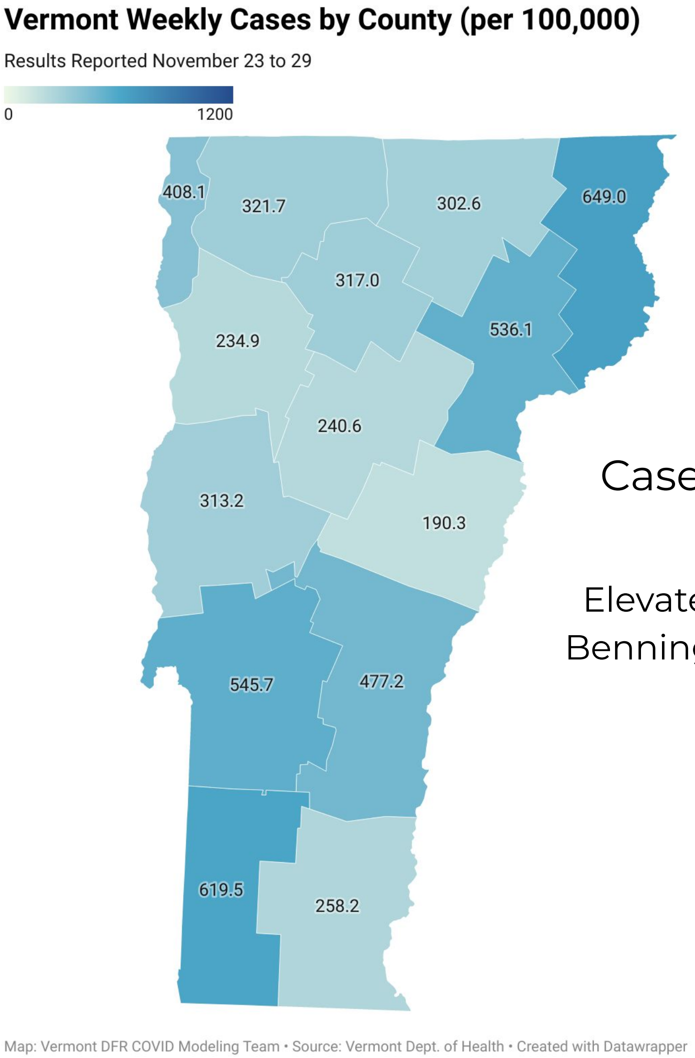
Non-COVID-19 ICU Beds Occupied

Source: Vermont Department of Health—December 7, 2021

Percentage of New Positive Tests

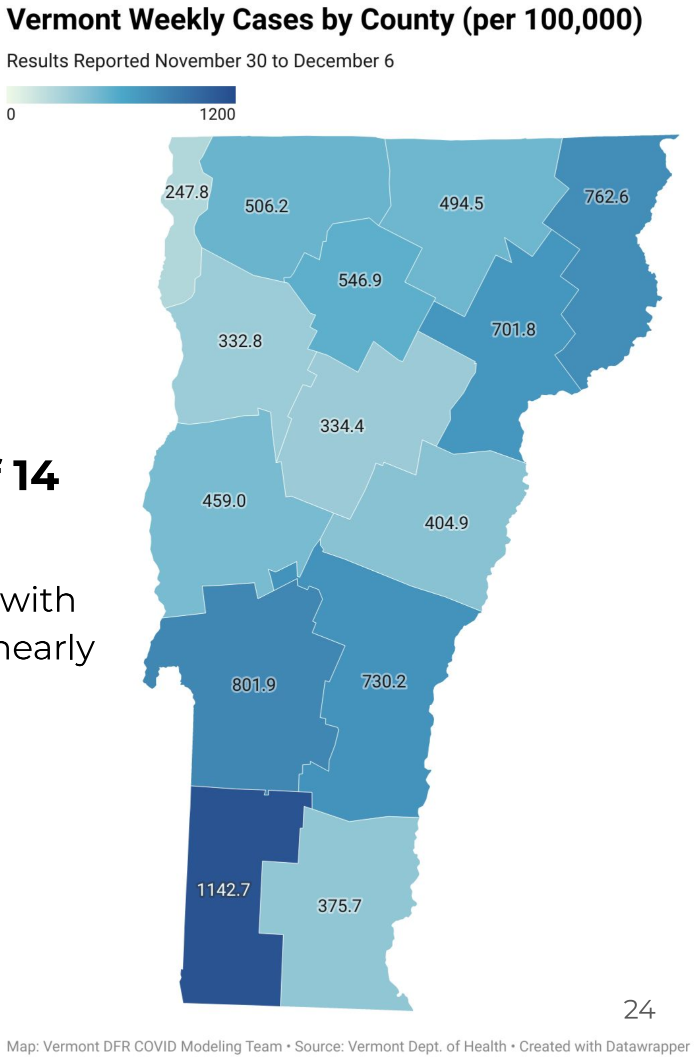


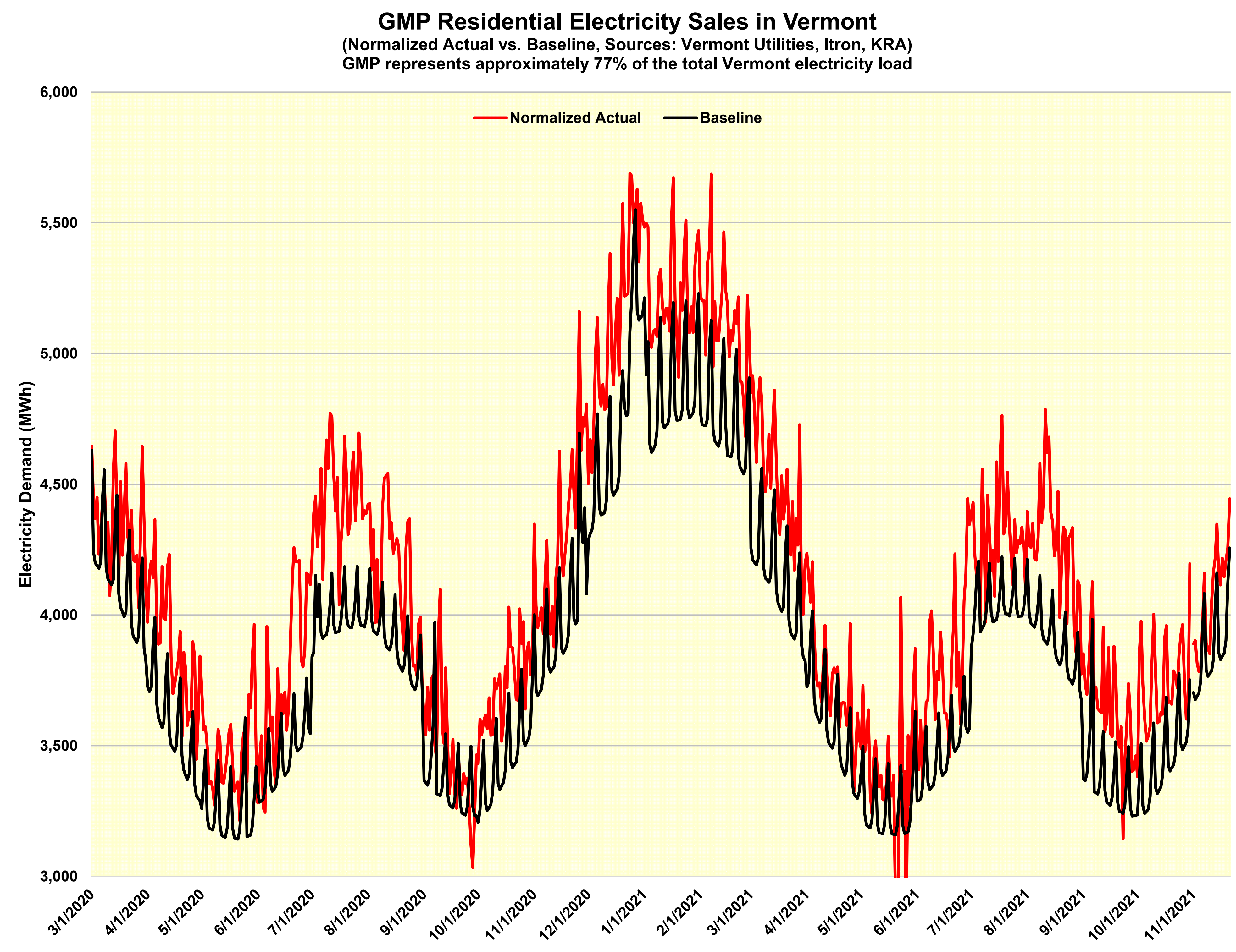
Source: Vermont Department of Health; 7-day positivity calculated as positive tests last seven days/tests last seven days



Case rates **increased in 13 of 14** counties this week

Elevated case rates across Vermont, with Bennington reporting highest rates, nearly doubling in the past week





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
Normalized Actual
Baseline
Electricity Demand (MWh)
6,000
5,500
5,000
4,500
4,000
3,500
3,000
3/1/2020
4/1/2020
5/1/2020
6/1/2020
7/1/2020
8/1/2020
9/1/2020
10/1/2020
11/1/2020
12/1/2020
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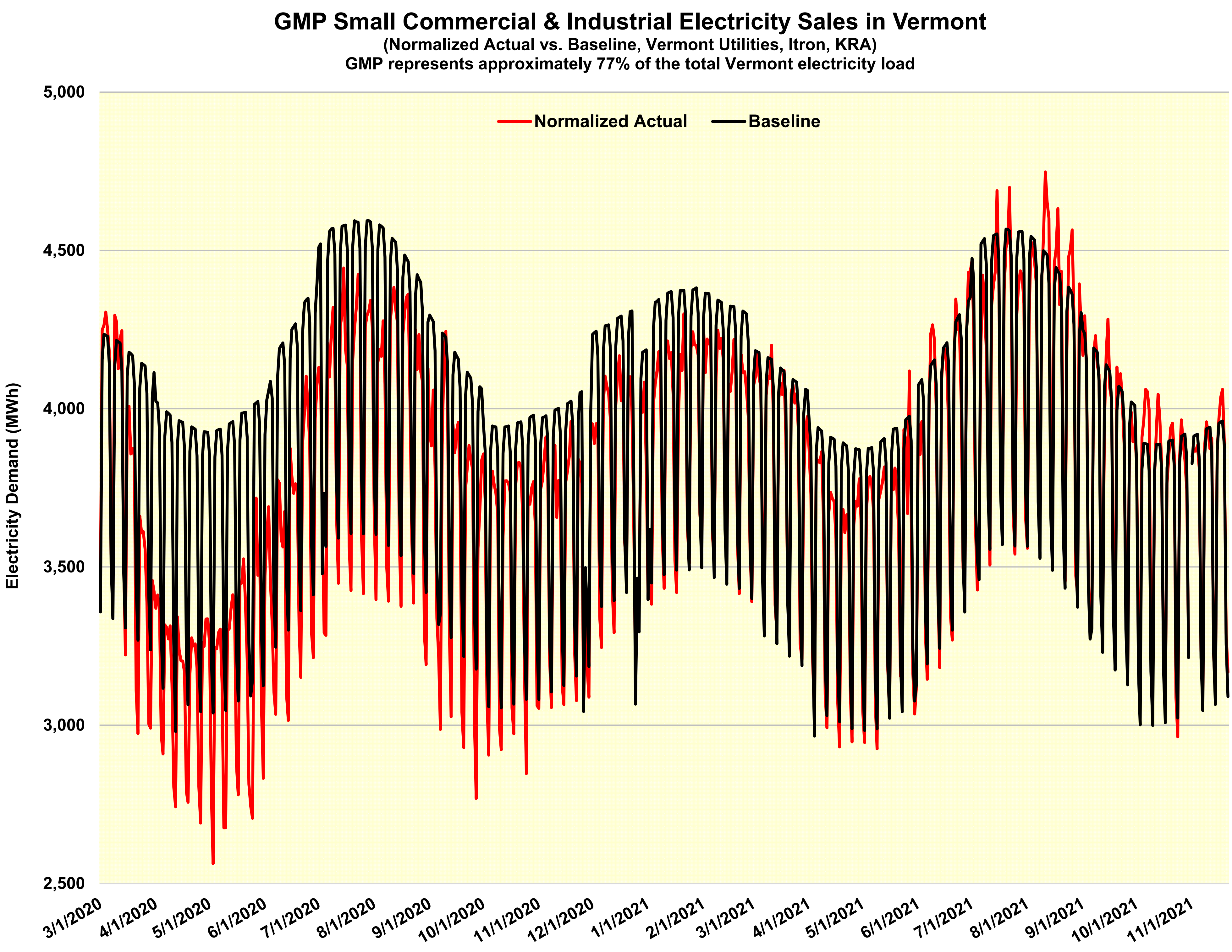
10/1/2021
11/1/2021


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
Normalized Actual
Baseline
Electricity Demand (MWh)
5,000
4,500
4,000
3,500
3,000
2,500
3/1/2020
4/1/2020
5/1/2020
6/1/2020
7/1/2020
8/1/2020
9/1/2020
10/1/2020
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12/1/2020
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4/1/2021
5/1/2021
6/1/2021
7/1/2021
8/1/2021
9/1/2021
10/1/2021
11/1/2021

Pandemic and Other Federal Fiscal and Monetary Stimulus is Coursing Through the Economy

Federal Government Fiscal & Monetary Policies - Pandemic Response

	ALLOWED	COMMITTED/DISBURSED	DEFICIT IMPACT
FISCAL POLICY			
Legislative	**$5.92 trillion**	**$4.84 trillion**	**$5.19 trillion**
Loan and Grant Programs	$1.56 trillion	$1.32 trillion	$1.05 trillion
Income Support	$906 billion	$850 billion	$872 billion
State & Local Funding	$884 billion	$723 billion	$882 billion
Direct Payments	$869 billion	$815 billion	$869 billion
Health Spending	$662 billion	$410 billion	$652 billion
Tax Policy	$580 billion	$437 billion	$430 billion
Other Spending	$465 billion	$276 billion	$439 billion
Administrative	**$861 billion**	**$714 billion**	**$125 billion**
Trump Administration	$598 billion	$477 billion	$78.5 billion
Biden Administration	$288 billion	$261 billion	$64.7 billion
MONETARY POLICY			
Federal Reserve	**$6.83 trillion**	**$3.82 trillion**	**N/A**
Asset Purchases	$3.74 trillion	$3.68 trillion	N/A
Liquidity Measures	$2.14 trillion	$328 million	N/A
Other Loan Purchase Programs	$806 billion	$90.4 billion	N/A
Lending Facilities	$141 billion	$41.8 billion	N/A
Interest Rate & Reserve Requirement Changes	cut federal funds rate to near-zero and reduced reserve requirements to zero		

Federal Government Fiscal Policies - Infrastructure/Other

	PROPOSED	APPROVED	DEFICIT IMPACT
FISCAL POLICY			(static basis)
Legislative Total	**$2.43 trillion**	**$1.2 trillion ($550b new)**	**$416 - 616 billion**
Bipartisan Infrastructure Investment & Jobs Act		$1.2 trillion ($550b new)	$256 billion
Reconcilliation "Build Back Better" (House Passed)	$2.43 trillion		$160 - $360 billion

Sources: Committee for a Responsible Federal Budget, Moody's Analytics, The White House, Congressional Budget Office

Federal Pandemic Transfer Payments to Vermont = $10.1 Billion

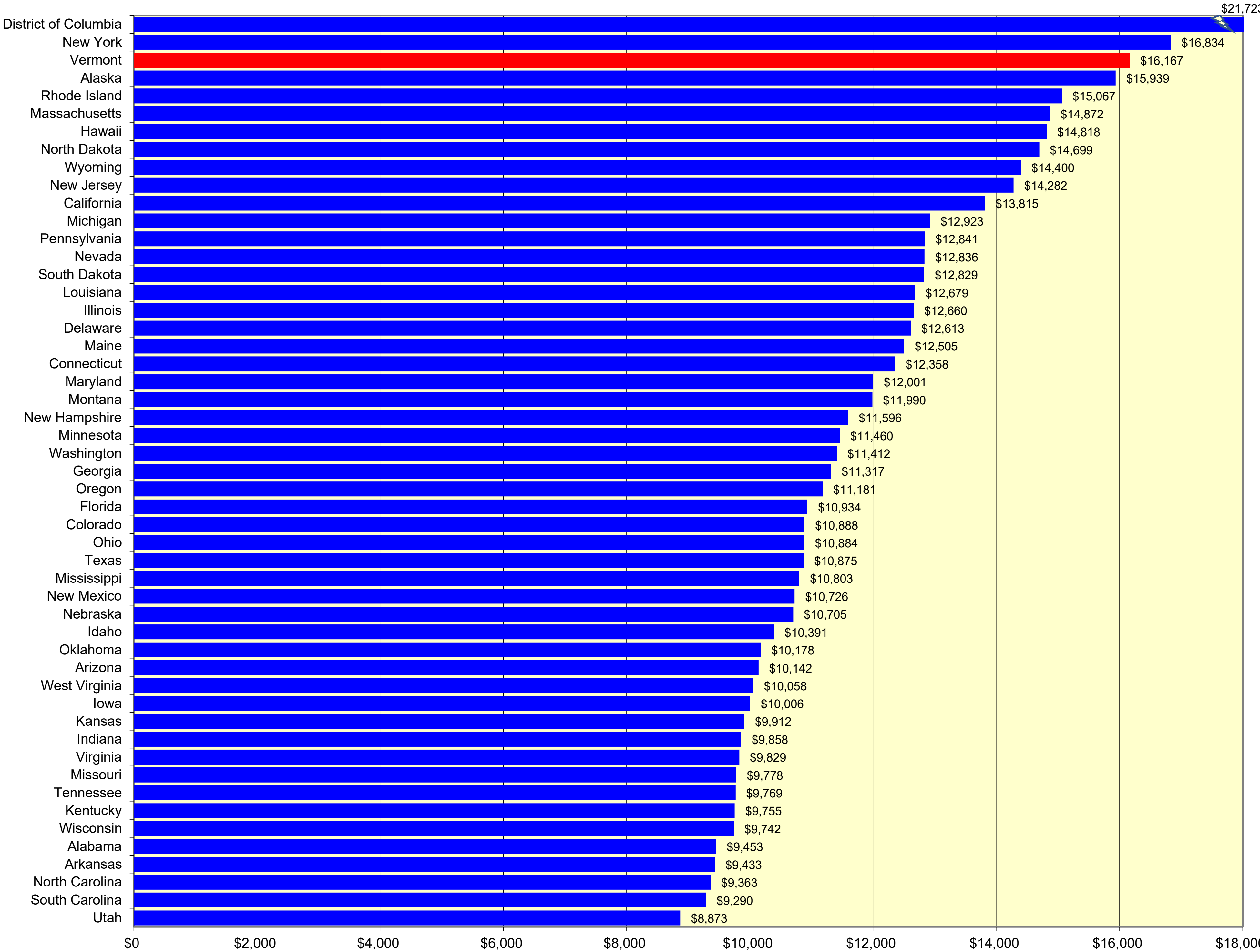
ECONOMIC IMPACT PAYMENTS	**$ 1,643**	**Million**
Economic Impact Payments	$ 1,643	Million
UNEMPLOYMENT	**$ 1,272**	**Million**
Federal Pandemic Unemployment Compensation	$ 886	Million
Pandemic Emergency Unemployment Compensation	$ 165	Million
Pandemic Unemployment Assistance	$ 191	Million
Other Emergency Unemployment Funding	$ 30	Million
SMALL BUSINESS SUPPORT	**$ 2,373**	**Million**
Paycheck Protection Program	$ 1,765	Million
Restaurant Revitalization Fund	$ 77	Million
Shuttered Venue Operators Grant	$ 28	Million
Emergency Injury Disaster Loan Advances	$ 41	Million
Emergency Injury Disaster Loans	$ 462	Million
PUBLIC HEALTH AID	**$ 864**	**Million**
Provider Relief Fund	$ 260	Million
HHS COVID-19 Appropriations	$ 419	Million
Medicare Accelerated and Advance Payments	$ 185	Million
DIRECT AID TO STATES	**$ 2,500**	**Million**
Coronavirus Relief Fund	$ 1,250	Million
Coronavirus State and Local Fiscal Recovery Fund	$ 1,250	Million
OTHER	**$ 852**	**Million**
FEMA Disaster Relief Fund	$ 385	Million
Infrastructure Grants	$ 65	Million
Rental Assistance	$ 352	Million
Homeowner Assistance Fund	$ 50	Million
EDUCATIONAL SUPPORT	**$ 584**	**Million**
Governor's Emergency Education Relief Fund	$ 17	Million
Elementary and Secondary School Emergency Relief Fund	$ 443	Million
Higher Education Emergency Relief Fund	$ 124	Million

Total Per Capita (third highest in the nation, after Washington, DC and New York)**: $16,167**

Source: Peter G. Peterson Foundation, estimates through December 2, 2021

Per Capita Pandemic-Related Federal Transfer Payments

Based on Expenditures from 22 Major COVID-19 Relief Programs Totaling $3.95 Trillion, Through December 2, 2021, Source: Peter G. Peterson Foundation



New Spending in the Bipartisan Infrastructure Investment and Jobs Act Will Add More Stimulus Over the Next 5-10 Years

Infrastructure Investment and Jobs Act — **$1.2 Trillion Total***

Breakout of New Spending Components — **$550 Billion in New Spending**

COMPONENT	TOTAL U.S.			Vermont (partial)		
Roads, Bridges and major Projects	$	110	Billion	$	1.625	Billion
Power Infrastructure	$	73	Billion			Billion
Passenger and Freight Rail	$	66	Billion			Billion
Broadband Infrastructure	$	65	Billion	$	0.100	Billion
Water Infrastructure	$	55	Billion	$	0.355	Billion
Infrastructure Resiliency to Climate Change and Cyber Attacks	$	50	Billion	$	0.180	Billion
Public Transit	$	39	Billion	$	0.077	Billion
Airports	$	25	Billion	$	0.028	Billion
Ports and Waterways	$	17	Billion			Billion
Other Infrastructure-Related Items Such as Electric Buses and Transportation Safety	$	50	Billion	$	0.021	Billion
	$	**550**	**Billion**	**$**	**2.386**	**Billion**

Total Per Capita:	**$1,659**	**$3,710**

(Vermont is estimated to be the fifth highest in the nation on a per capita basis, after Washington DC, Alaska, Wyoming and Montana)

* Includes $650 billion in reauthorized surface transportation programs; Source: The White House, as of December 2, 2021

What's In the Build Back Better Act?

(Costs)

Policy	Cost/Savings (-)
Family Benefits	**$585 billion**
Establish an affordable child care program (6 years)	$270 billion
Establish a paid family and medical leave program	$205 billion
Provide universal pre-K to all three-and four-year olds (6 years)	$110 billion
Climate & Infrastructure	**$570 billion**
Invest in clean energy & climate resilience	$235 billion
Establish or expand clean energy & electric tax credits	$190 billion
Establish or expand clean fuel & vehicle tax credits	$60 billion
Establish or expand other climate-related tax benefits	$75 billion
Enact infrastructure & related tax breaks	$10 billion
Individual Tax Credits & Cuts	**$215 billion**
Extend Child Tax Credit (CTC) increase to $3,000 ($3,600 for kids under 6) *for one year*; make CTC fully refundable permanently	$190 billion
Extend expanded Earned Income Tax Credit (EITC) *for one year*	$15 billion
Other individual tax changes	$10 billon
Health Care	**$340 billion**
Strengthen Medicaid home- and community-based services	$150 billion
Extend expanded Affordable Care Act (ACA) premium tax credits & make premium tax credits available to those in Medicaid coverage gap *through 2025*	$130 billion
Establish Medicare hearing benefit	$35 billion
Invest in the health care workforce	$25 billion
Other Spending & Tax Cuts	**$325 billion**
Build & support affordable housing	$175 billion
Increase higher education & workforce spending	$40 billion
Other spending & investments	$110 billion
Reduce or Delay TCJA Base Broadening	**$280 billion**
Increase SALT deduction cap to $80,000 through 2025	$275 billion
Delay amortization of research & experimentation expenses until 2026	$5 billion
Enact Immigration Reform	**$110 billion**
Subtotal, Build Back Better Act Spending & Tax Breaks	**$2.43 trillion**

Sources: Congressional Budget Office, Joint Committee on Taxation, and Committee for a Responsible Federal Budget.

What's In the Build Back Better Act?

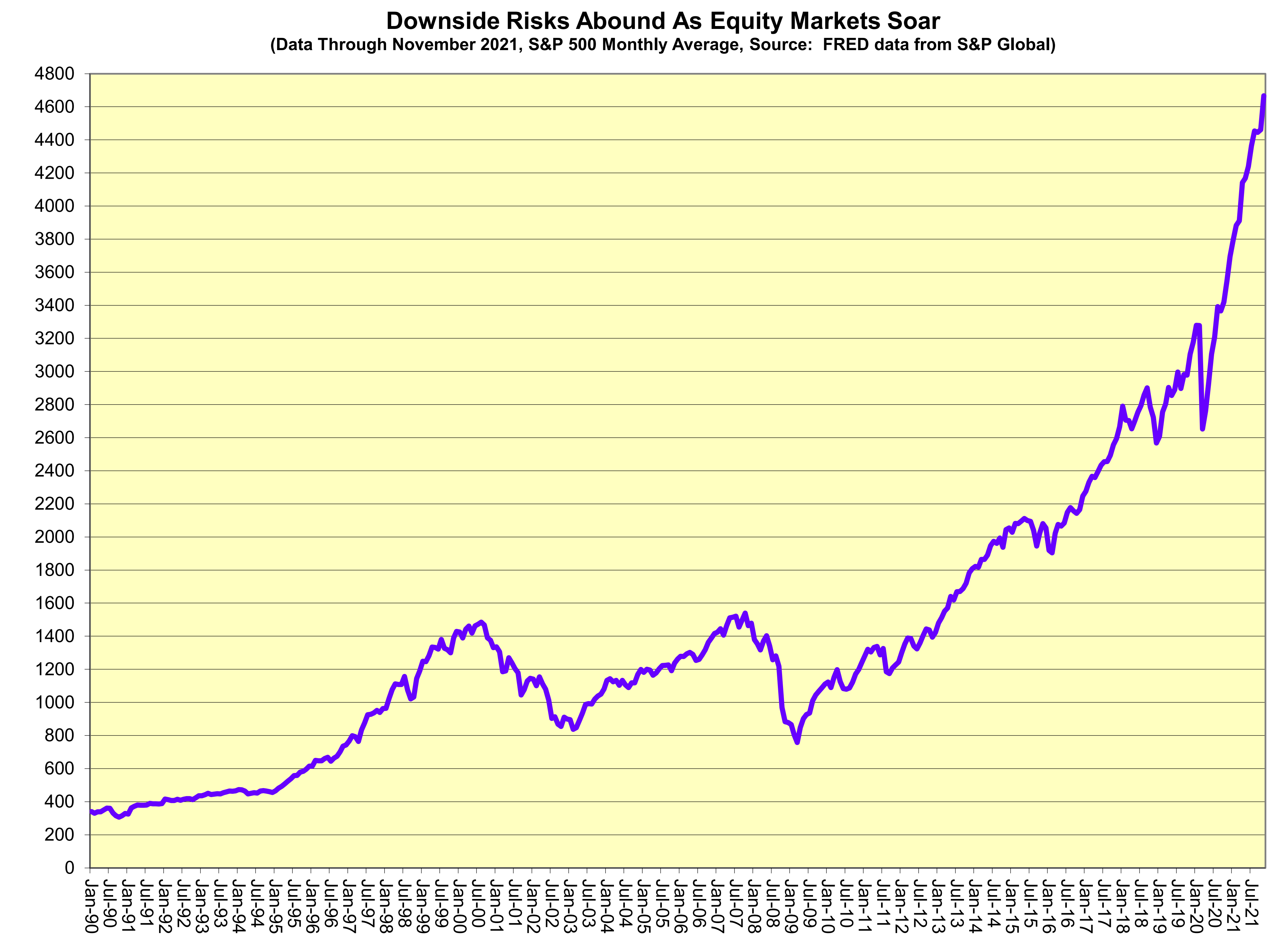
(Savings)

Policy	Cost/Savings (-)
Increase Corporate Taxes	**-$830 billion**
Impose a 15 percent domestic minimum tax on large corporations	-$320 billion
Impose a 15 percent global minimum tax & reform international taxation	-$280 billion
Impose a 1 percent surcharge on corporate stock buybacks	-$125 billion
Enact other corporate tax reforms	-$105 billion
Increase Individual Taxes on High Earners	**-$640 billion**
Expand the 3.8 percent Net Investment Income Tax	-$250 billion
Impose a 5 percent surtax on income above $10 million & an 8 percent surtax on income above $25 million	-$230 billion
Extend and expand limits on deductibility of business losses	-$160 billion
Other Revenue	**-$180 billion**
Reduce the tax gap by funding IRS & other measures	-$130 billion
Reinstate superfund taxes on oil & impose methane fee	-$20 billion
Expand nicotine taxes	-$10 billion
Reform tax treatment of retirement accounts	-$10 billion
Other receipts	-$10 billion
Health Care	**-$325 billion**
Repeal Trump Administration drug rebate rule	-$145 billion
Reform Part D formula, cap drug price growth, & allow targeted drug price negotiations	-$160 billion
Reduce DSH payments beyond 2025	-$20 billion
Establish $80,000 SALT deduction cap from 2026 through 2030 & $10,000 cap in 2031	**-$290 billion**
Subtotal, Build Back Better Act Offsets	**- $2.27 trillion**
Net Deficit Increase, House Build Back Better Act	**- $160 billion**

Sources: Congressional Budget Office, Joint Committee on Taxation, and Committee for a Responsible Federal Budget.

IF the Pandemic Recedes, the State Economy in 2022 is poised to Grow at its Fastest Rate in 30 Years

- If the pandemic recedes, extraordinary demand and improving labor markets could generate State nominal dollar GDP growth of nearly 10% - the highest since 1989.
- Expect significantly higher and more persistent inflation, with 4-5% CPI growth both this year and next. Some sectors will likely experience much higher or much lower rates, as supply chain bottlenecks develop and resolve and supply and demand extremes also emerge as consumers shift purchasing preferences.
- State real estate markets appear to be entering their third major cyclical upswing in the past 40 years, with home price gains in double digits likely throughout 2022. With interest rates low, plentiful capital, and a decade of underinvestment in new housing, all the ingredients are in place for record price growth until supply catches up or incomes falter - probably not for several years.
- Unlike any other previous state or NE regional real estate cycle, there will be several nonresidential commercial building categories that will not share in the upswing. Office, retail and, especially, hotel/motel valuations and new construction demand will be subdued by lingering pandemic effects.
- Some beneficial (for Vermont) pandemic effects are likely to persist into 2022 and possibly beyond, with positive net migration population effects from continued remote work options at many national and regional firms. Huge federal broadband investments will likely create the infrastructure necessary to sustain and possibly expand these gains.
- Some negative pandemic effects are also likely to persist, including earlier retirement ages for older workers, and its resultant reduction in the available labor force. Pandemics have had some of these effects, to greater or lesser extents, for centuries.


Downside Risks Abound As Equity Markets Soar
(Data Through November 2021, S&P 500 Monthly Average, Source: FRED data from S&P Global)
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Awash in Excess Savings, Federal Largess Also Funds "Play" Money as Bitcoin Hits Record High

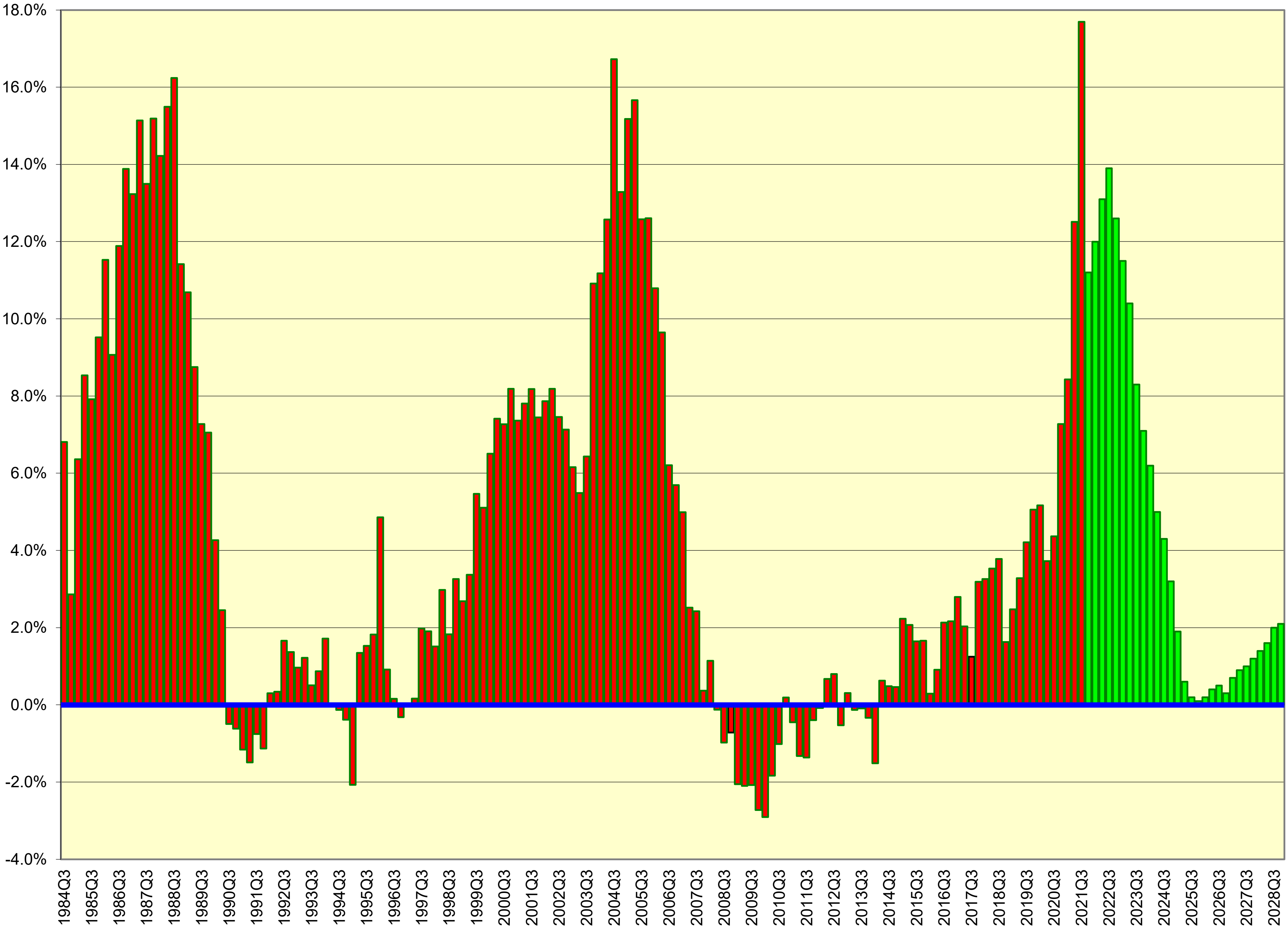
Weekly Bitcoin Value With Sunday End of Week Average Value, Source: Coinbase

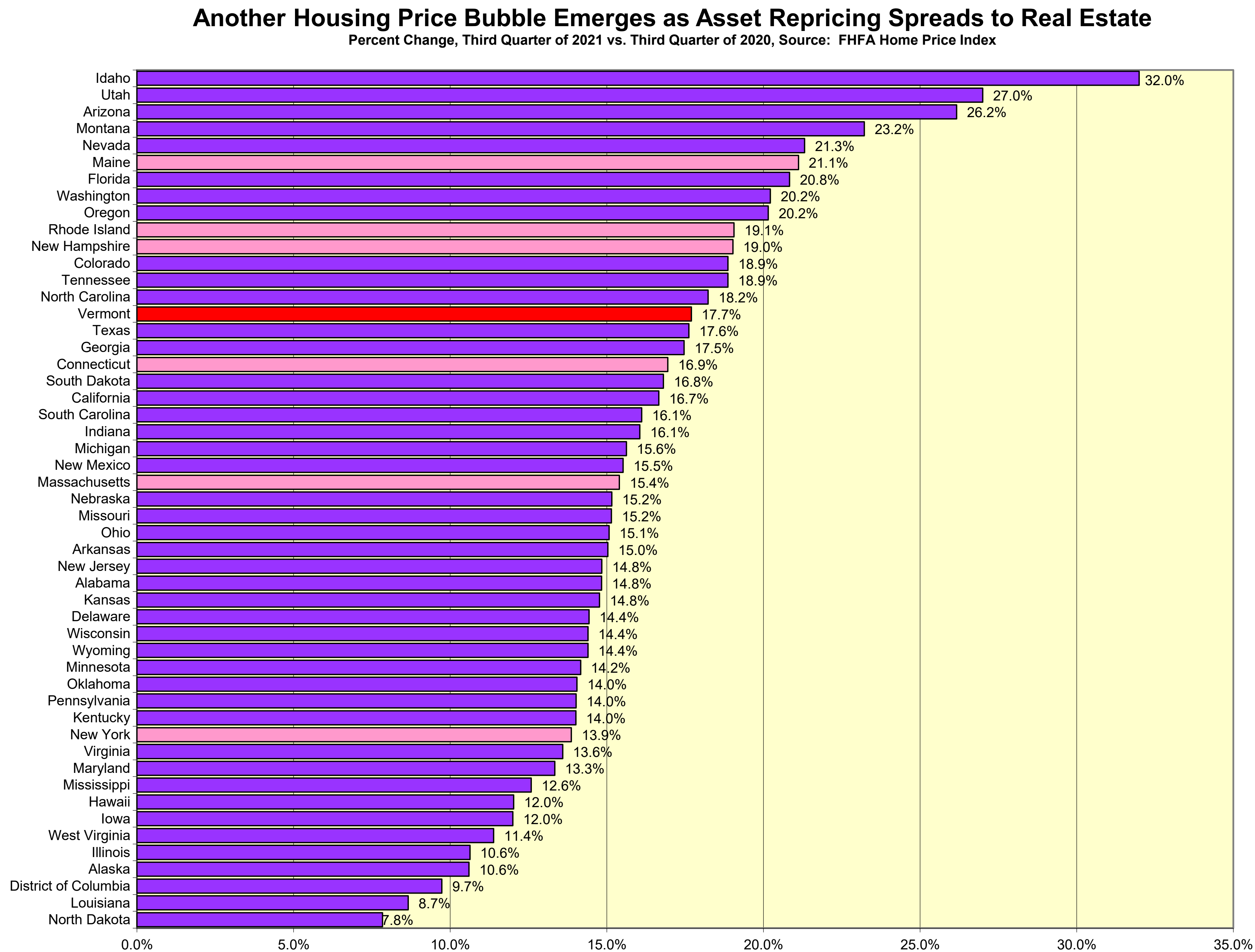
Real Estate and Construction

- Pandemic shifts in building demand: Less retail, hotel, office and multi-family residential - More single family residential (both primary residence and second homes), esp. renovation/expansion and warehouses. Regional shifts away from most densely populated urban areas to suburbs and more rural areas with good broadband and recreational amenities.
- Massive infrastructure spending means more nonbuilding construction, especially roads, highways, bridges, electric infrastructure, broadband development, airports, public transit, climate-related investments to buildings (efficiency upgrades) and electric grid.
- Price bubbles may emerge as supply/demand imbalances occur and assets are repriced – such as is now occurring with housing. Home valuations increased by double-digit rates in the most recent quarter (2021Q3) for every U.S. state except ND, LA and DC. Growth in Vermont was 17.7%, the highest in more than 30 years. This will affect Grand List valuations and E-Fund tax rates.
- As long as the pandemic is in play, these price fluctuations and supply chain disruptions will continue to make project timing and bidding challenging.
- Labor availability and cost will also be a constraint, with strong project demand and continued limitations on labor force participation, especially skilled workers.

Vermont is Now Entering Its Third Major Real Estate Cycle in the Past 40 Years

(FHFA Vermont Housing Price Index Percent Change Vs. Year Ago, Historical Data - Red, JFO Forecast Data - Green)

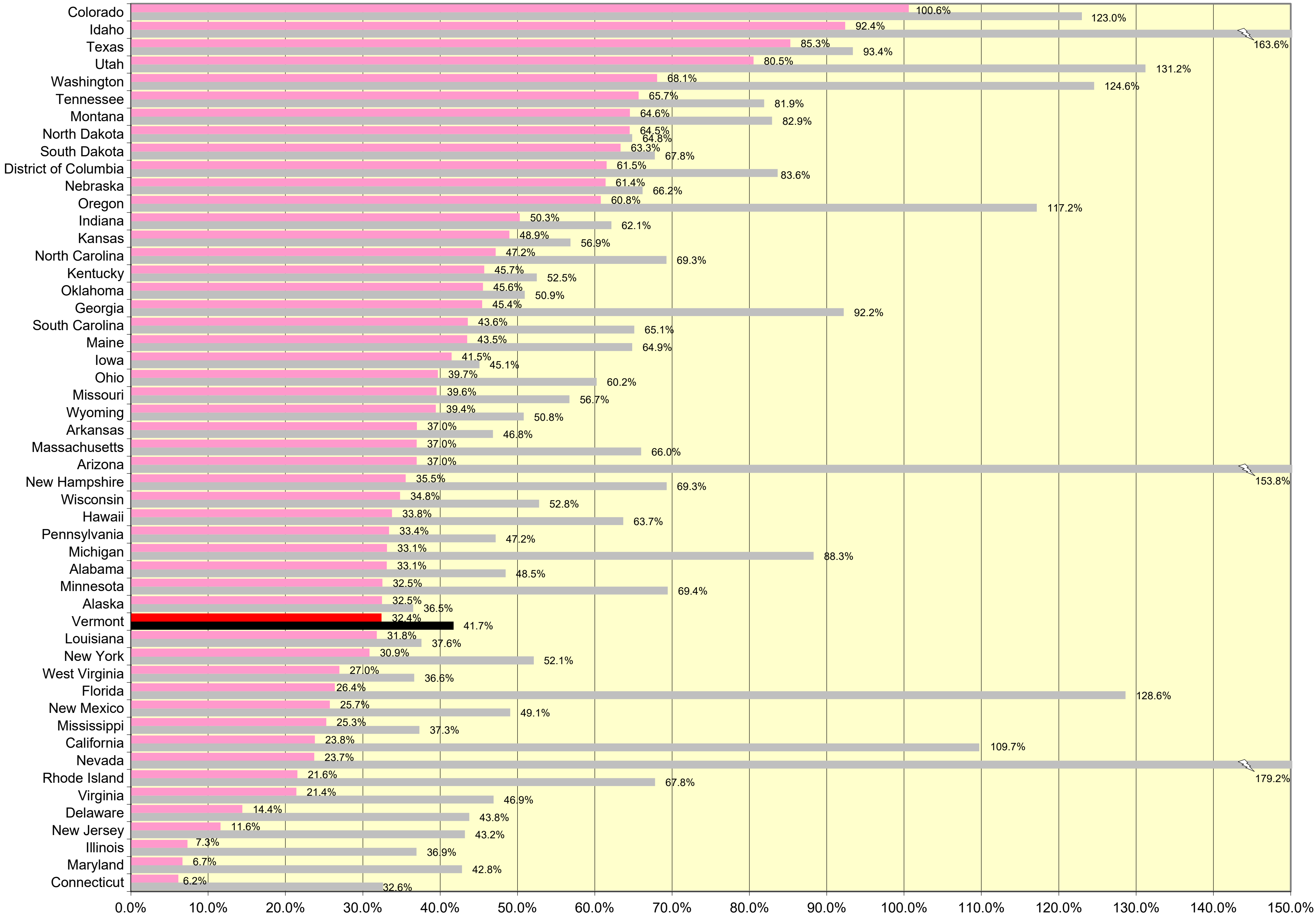


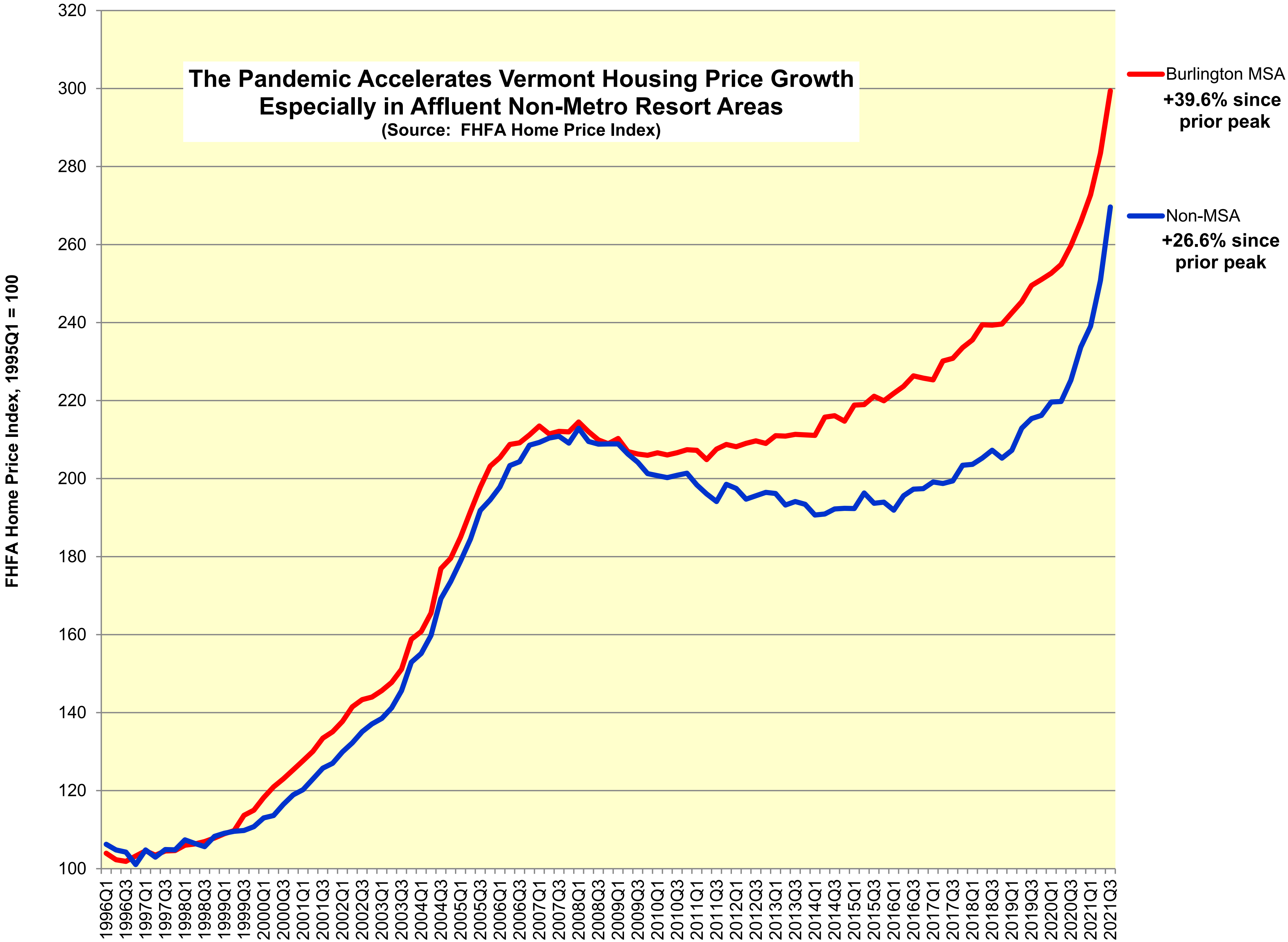

Another Housing Price Bubble Emerges as Asset Repricing Spreads to Real Estate
Percent Change, Third Quarter of 2021 vs. Third Quarter of 2020, Source: FHFA Home Price Index
Idaho 32.0%
Utah 27.0%
Arizona 26.2%
Montana 23.2%
Nevada 21.3%
Maine 21.1%
Florida 20.8%
Washington 20.2%
Oregon 20.2%
Rhode Island 19.1%
New Hampshire 19.0%
Colorado 18.9%
Tennessee 18.9%
North Carolina 18.2%
Vermont 17.7%
Texas 17.6%
Georgia 17.5%
Connecticut 16.9%
South Dakota 16.8%
California 16.7%
South Carolina 16.1%
Indiana 16.1%
Michigan 15.6%
New Mexico 15.5%
Massachusetts 15.4%
Nebraska 15.2%
Missouri 15.2%
Ohio 15.1%
Arkansas 15.0%
New Jersey 14.8%
Alabama 14.8%
Kansas 14.8%
Delaware 14.4%
Wisconsin 14.4%
Wyoming 14.4%
Minnesota 14.2%
Oklahoma 14.0%
Pennsylvania 14.0%
Kentucky 14.0%
New York 13.9%
Virginia 13.6%
Maryland 13.3%
Mississippi 12.6%
Hawaii 12.0%
Iowa 12.0%
West Virginia 11.4%
Illinois 10.6%
Alaska 10.6%
District of Columbia 9.7%
Louisiana 8.7%
North Dakota 7.8%
0.0%
5.0%
10.0%
15.0%
20.0%
25.0%
30.0%
35.0%

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

Percent Change, 2021Q3 vs. Peak Price by State Reached Between 2005Q3 and 2009Q3 - Pink and 2021Q3 vs. Trough Price Reached Between 2009Q3 and 2014Q1 - Grey

Source: FHFA Home Price Index




The Pandemic Accelerates Vermont Housing Price Growth
Especially in Affluent Non-Metro Resort Areas
(Source: FHFA Home Price Index)
FHFA Home Price Index, 1995Q1 = 100
Burlington MSA
+39.6% since prior peak
Non-MSA
+26.6% since prior peak
320
300
280
260
240
220
200
180
160
140
120
100
1996Q1
1996Q3
1997Q1
1997Q3
1998Q1
1998Q3
1999Q1
1999Q3
2000Q1
2000Q3
2001Q1
2001Q3
2002Q1
2002Q3
2003Q1
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2011Q1
2011Q3
2012Q1
2012Q3
2013Q1
2013Q3
2014Q1
2014Q3
2015Q1
2015Q3
2016Q1
2016Q3
2017Q1
2017Q3
2018Q1
2018Q3
2019Q1
2019Q3
2020Q1
2020Q3
2021Q1
2021Q3

VERMONT COMMERCIAL CONSTRUCTION STARTS IN 2020

Based on Total Square Footage of New Construction

(Sources: Kavet, Rockler & Associates, Dodge Data & Analytics)

THE BAD NEWS:

2020 Percent Change vs. Five Year Average from 2015 to 2019

Store & Restaurant	Office & Bank	Garage & Service Station	Hotel & Motel
-84.8%	**-53.5%**	**-65.6%**	**-100.0%**

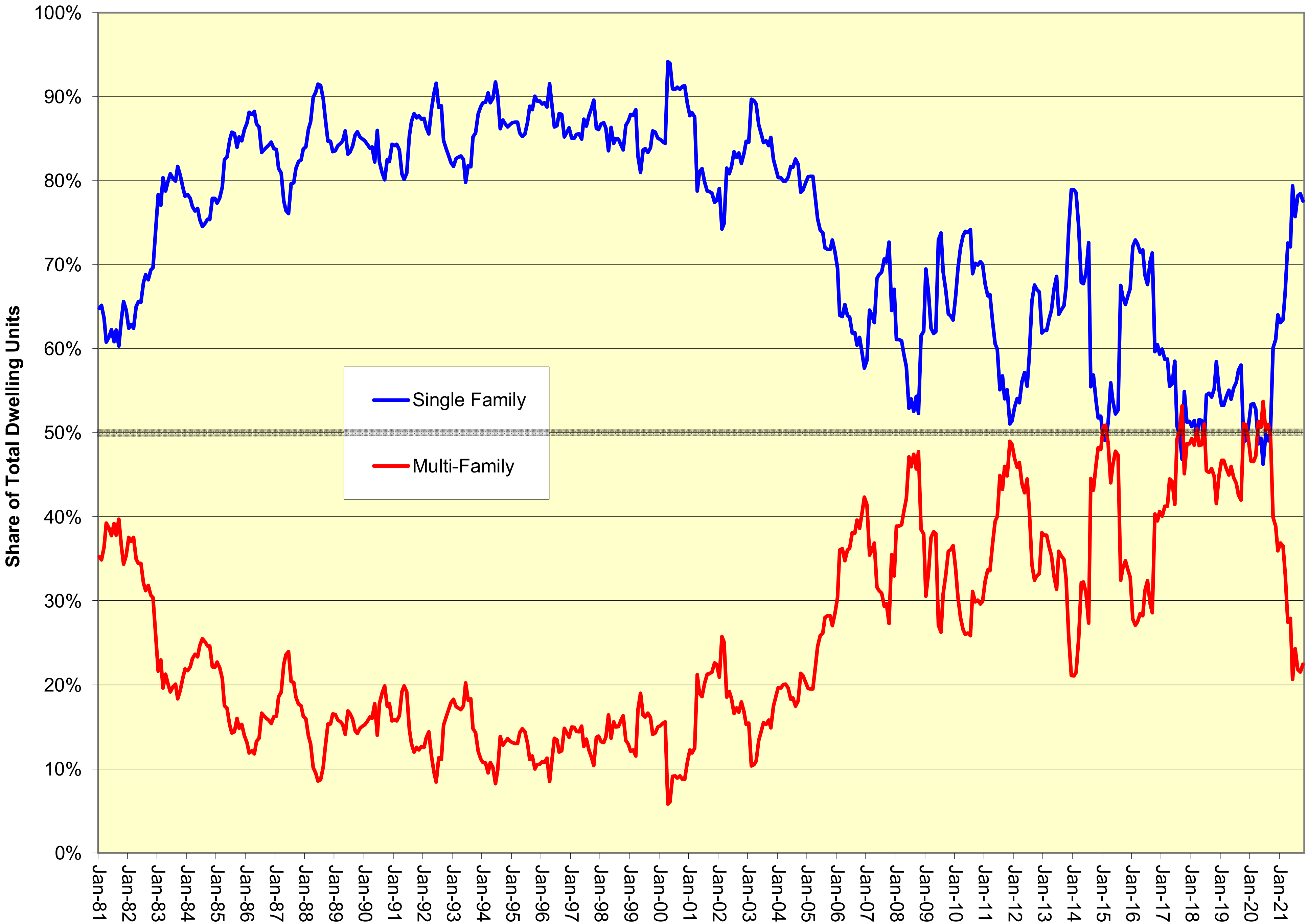
THE GOOD NEWS:

2020 Percent Change vs. Five Year Average from 2015 to 2019

Warehouse (Excl Mfg)
119.9%

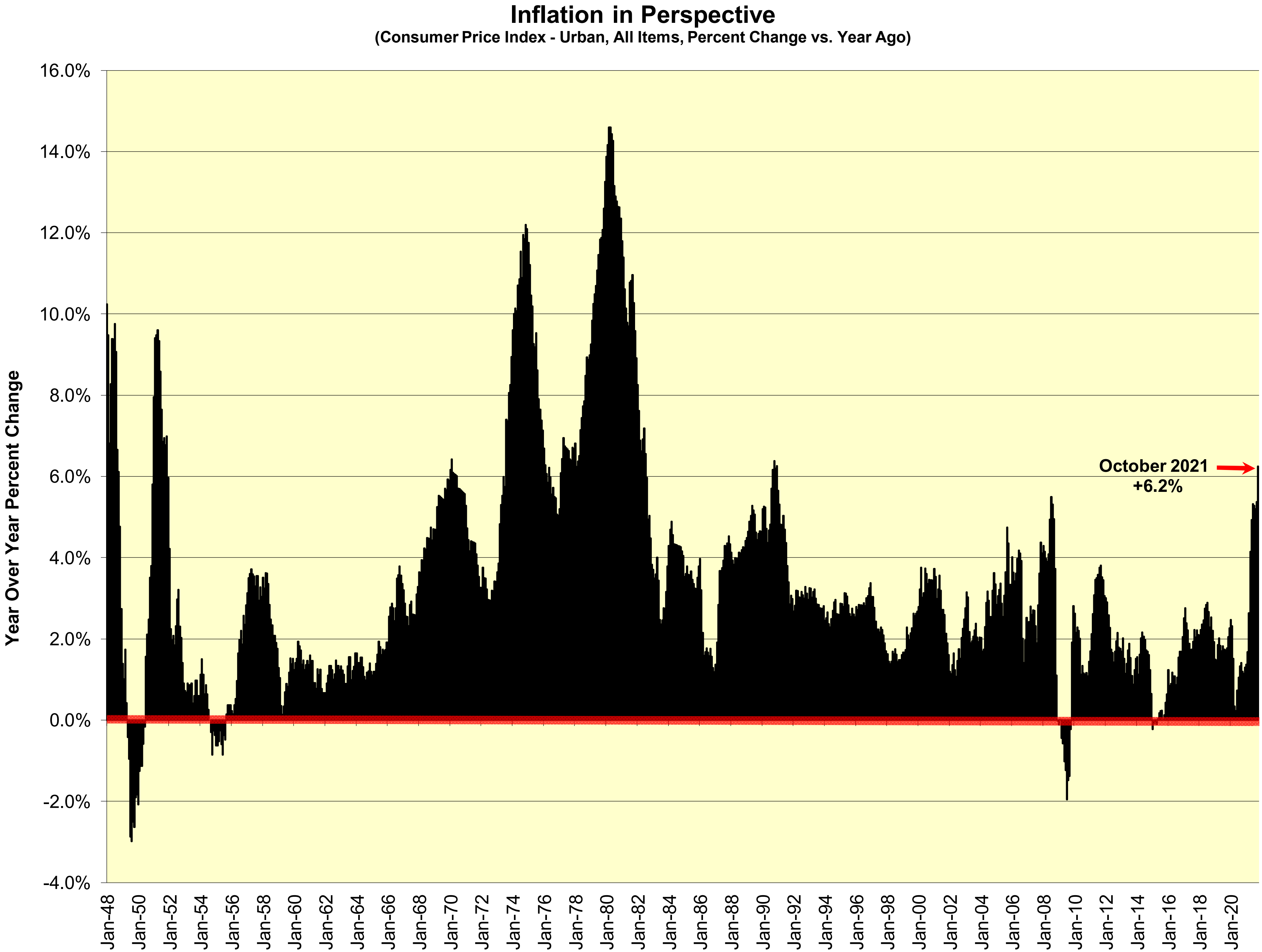
Pandemic Tilts Vermont Single Family Share of New Housing Units to Highest Levels in 16 Years

(Residential Housing Starts, Shares of Dwelling Units, 12 Month Moving Totals, Source: Dodge Data and Analytics)

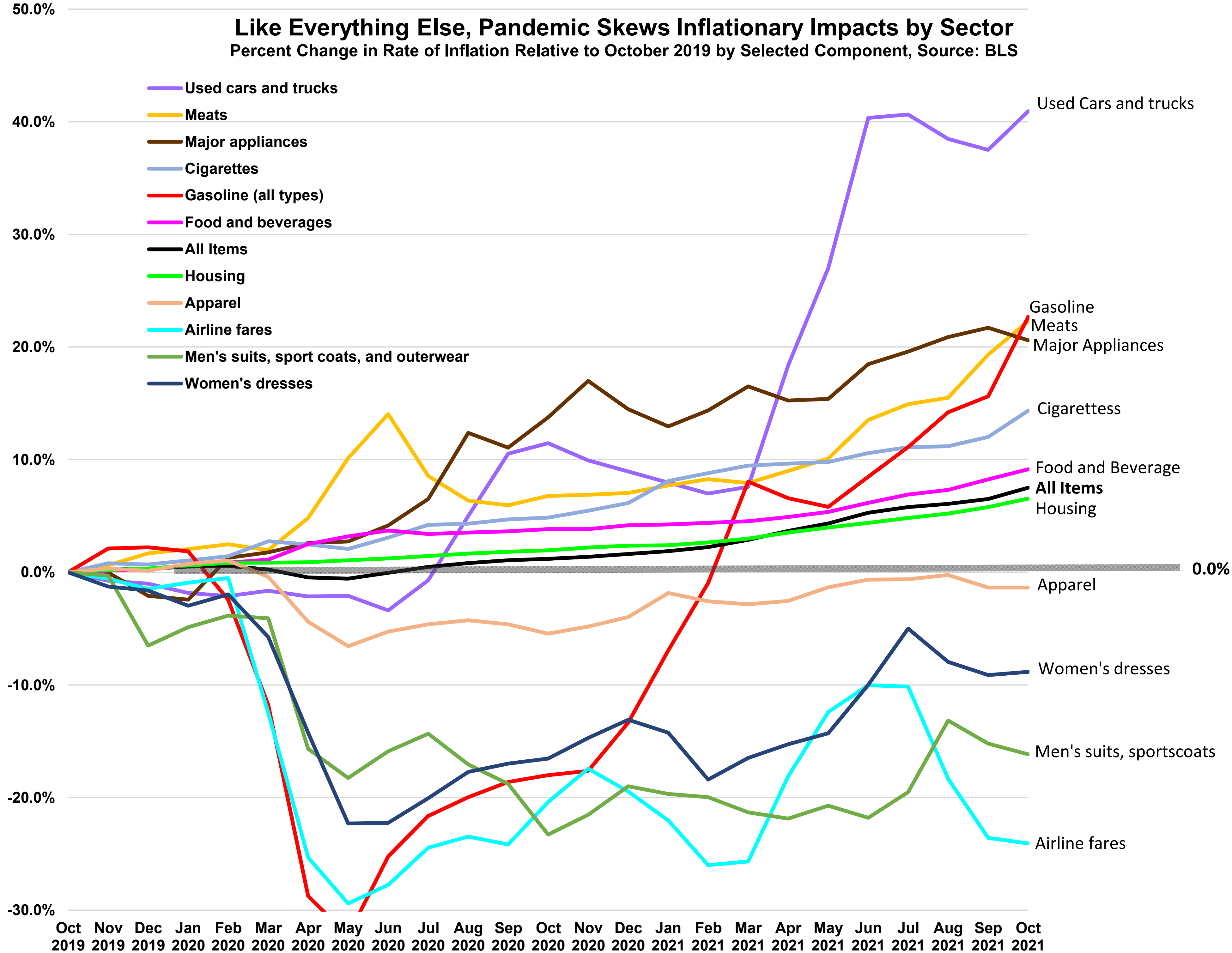


Inflation

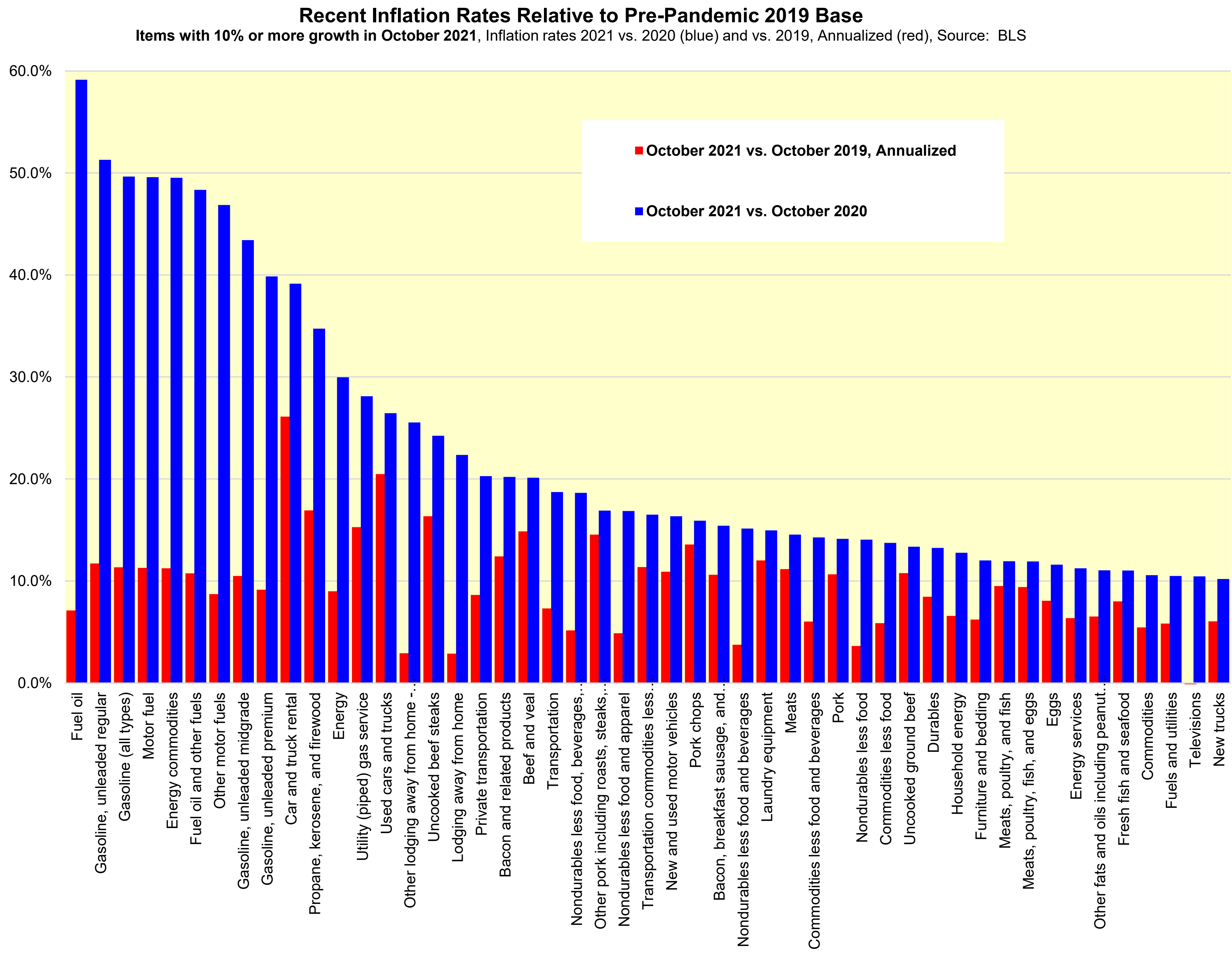
- The CPI spiked to it's highest level in 30 years in October, at 6.2% year-over year growth, and will probably top this rate in November, before receding
- Still, inflationary pressures will remain well into 2022, as the pandemic affects global manufacturing, transportation, and consumer preferences. While markets will eventually adjust – they cannot turn on a dime – and prices will reflect supply/demand imbalances.
- Some of the acceleration in price growth has been due to rapid and extreme swings in demand during various phases of the pandemic. such as during the early phase of the pandemic, when consumers reduced expenditures on many items (such as services) and shifted it to others (such as goods), creating extraordinary market disruptions. At one point in time, the sudden reduction in motor fuel demand resulted in negative future prices for crude oil. Now, prices are spiking as demand roars back.
- A great deal of what happens to rates of inflation in 2022 will also be psychological and behavioral. When people think something will be in short supply, they often turn a potential shortage into a real one by quickly elevating demand via hoarding. This happens among both households and businesses and can create wild price swings until markets can respond and behavior shifts. Some of the current port congestion has been caused by early seasonal product ordering and the absence of warehouse space to hold these goods.



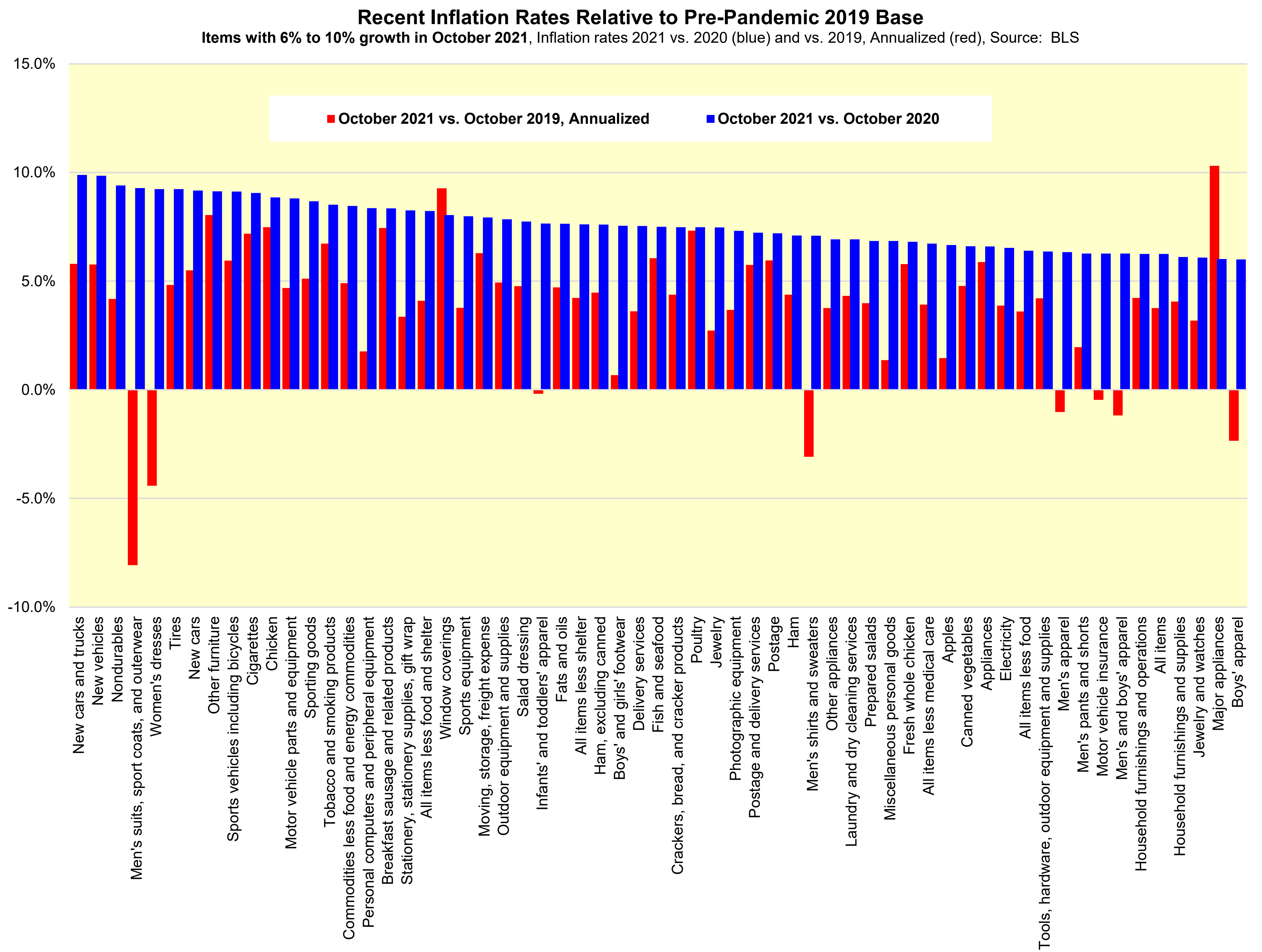
Inflation in Perspective
(Consumer Price Index - Urban, All Items, Percent Change vs. Year Ago)
Year Over Year Percent Change
16.0%
14.0%
12.0%
10.0%
8.0%
6.0%
4.0%
2.0%
0.0%
-2.0%
-4.0%
October 2021
+6.2%
Jan-48
Jan-50
Jan-52
Jan-54
Jan-56
Jan-58
Jan-60
Jan-62
Jan-64
Jan-66
Jan-68
Jan-70
Jan-72
Jan-74
Jan-76
Jan-78
Jan-80
Jan-82
Jan-84
Jan-86
Jan-88
Jan-90
Jan-92
Jan-94
Jan-96
Jan-98
Jan-00
Jan-02
Jan-04
Jan-06
Jan-08
Jan-10
Jan-12
Jan-14
Jan-16
Jan-18
Jan-20



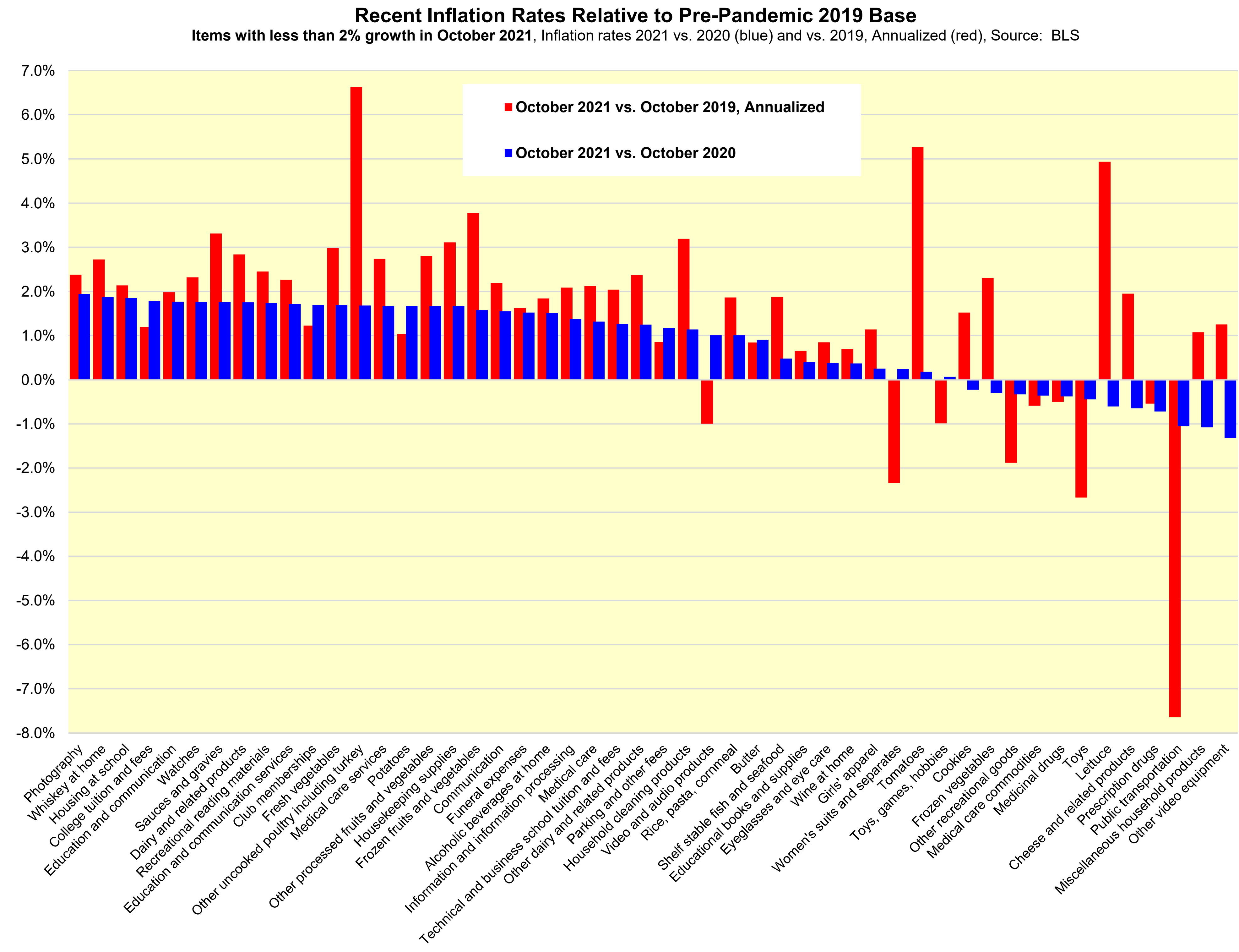
Like Everything Else, Pandemic Skews Inflationary Impacts by Sector
Percent Change in Rate of Inflation Relative to October 2019 by Selected Component, Source: BLS
Used cars and trucks
Meats
Major appliances
Cigarettes
Gasoline (all types)
Food and beverages
All Items
Housing
Apparel
Airline fares
Men's suits, sport coats, and outerwear
Women's dresses
50.0%
40.0%
30.0%
20.0%
10.0%
0.0%
-10.0%
-20.0%
-30.0%
Used Cars and trucks
Gasoline
Meats
Major Appliances
Cigarettess
Food and Beverage
All Items
Housing
0.0%
Apparel
Women's dresses
Men's suits, sportscoats
Airline fares
Oct 2019
Nov 2019
Dec 2019
Jan 2020
Feb 2020
Mar 2020
Apr 2020
May 2020
Jun 2020
Jul 2020
Aug 2020
Sep 2020
Oct 2020
Nov 2020
Dec 2020
Jan 2021
Feb 2021
Mar 2021
Apr 2021
May 2021
Jun 2021
Jul 2021
Aug 2021
Sep 2021
Oct 2021



Recent Inflation Rates Relative to Pre-Pandemic 2019 Base
Items with 10% or more growth in October 2021, Inflation rates 2021 vs. 2020 (blue) and vs. 2019, Annualized (red), Source: BLS
October 2021 vs. October 2019, Annualized
October 2021 vs. October 2020
60.0%
50.0%
40.0%
30.0%
20.0%
10.0%
0.0%
Fuel oil
Gasoline, unleaded regular
Gasoline (all types)
Motor fuel
Energy commodities
Fuel oil and other fuels
Other motor fuels
Gasoline, unleaded midgrade
Gasoline, unleaded premium
Car and truck rental
Propane, kerosene, and firewood
Energy
Utility (piped) gas service
Used cars and trucks
Other lodging away from home -...
Uncooked beef steaks
Lodging away from home
Private transportation
Bacon and related products
Beef and veal
Transportation
Nondurables less food, beverages,...
Other pork including roasts, steaks,...
Nondurables less food and apparel
Transportation commodities less...
New and used motor vehicles
Pork chops
Bacon, breakfast sausage, and...
Nondurables less food and beverages
Laundry equipment
Meats
Commodities less food and beverages
Pork
Nondurables less food
Commodities less food
Uncooked ground beef
Durables
Household energy
Furniture and bedding
Meats, poultry, and fish
Meats, poultry, fish, and eggs
Eggs
Energy services
Other fats and oils including peanut...
Fresh fish and seafood
Commodities
Fuels and utilities
Televisions
New trucks



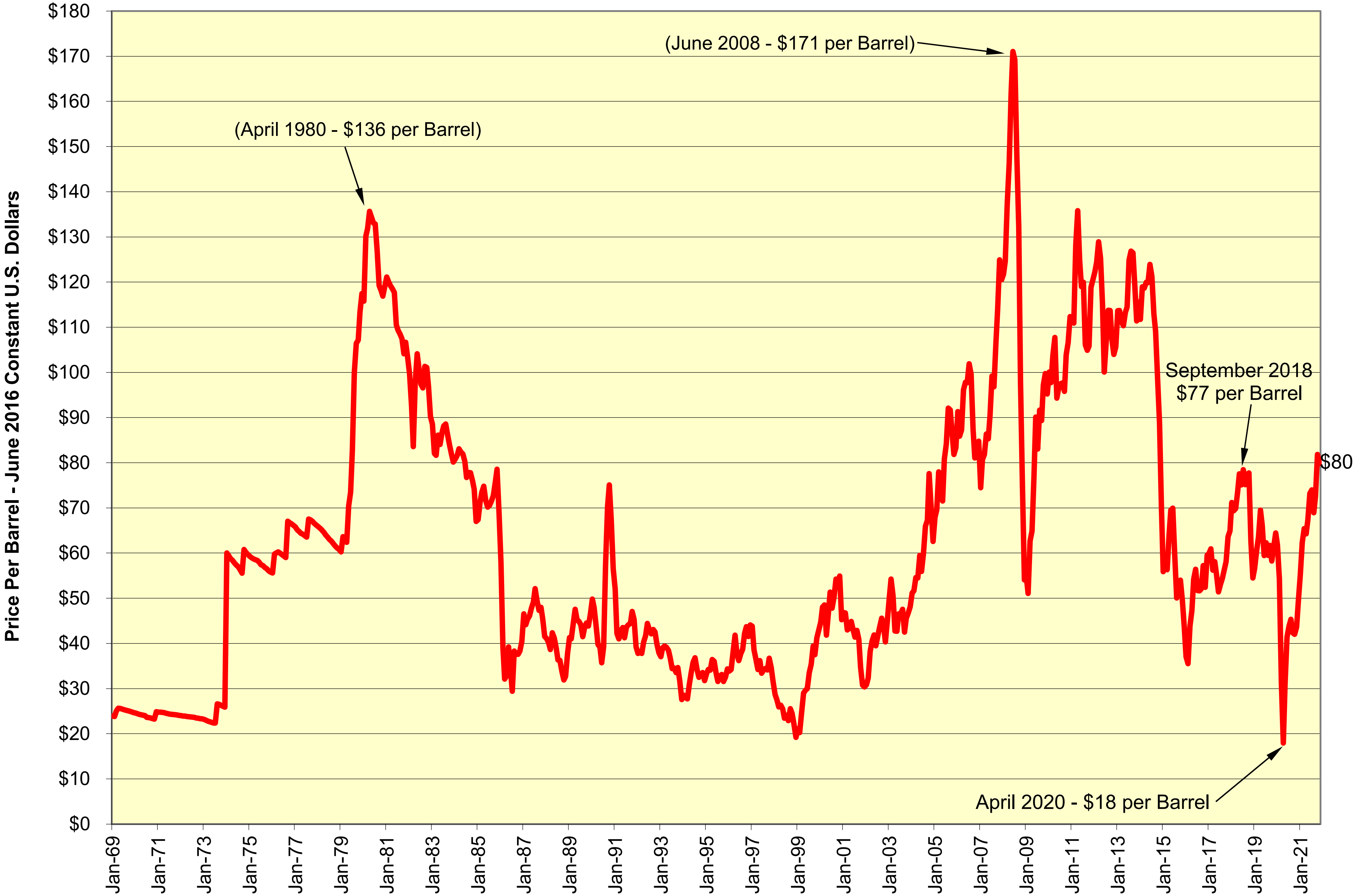
Recent Inflation Rates Relative to Pre-Pandemic 2019 Base
Items with 6% to 10% growth in October 2021, Inflation rates 2021 vs. 2020 (blue) and vs. 2019, Annualized (red), Source: BLS
October 2021 vs. October 2019, Annualized
October 2021 vs. October 2020
15.0%
10.0%
5.0%
0.0%
-5.0%
-10.0%
New cars and trucks
New vehicles
Nondurables
Men's suits, sport coats, and outerwear
Women's dresses
Tires
New cars
Other furniture
Sports vehicles including bicycles
Cigarettes
Chicken
Motor vehicle parts and equipment
Sporting goods
Tobacco and smoking products
Commodities less food and energy commodities
Personal computers and peripheral equipment
Breakfast sausage and related products
Stationery, stationery supplies, gift wrap
All items less food and shelter
Window coverings
Sports equipment
Moving, storage, freight expense
Outdoor equipment and supplies
Salad dressing
Infants' and toddlers' apparel
Fats and oils
All items less shelter
Ham, excluding canned
Boys' and girls' footwear
Delivery services
Fish and seafood
Crackers, bread, and cracker products
Poultry
Jewelry
Photographic equipment
Postage and delivery services
Postage
Ham
Men's shirts and sweaters
Other appliances
Laundry and dry cleaning services
Prepared salads
Miscellaneous personal goods
Fresh whole chicken
All items less medical care
Apples
Canned vegetables
Appliances
Electricity
All items less food
Tools, hardware, outdoor equipment and supplies
Men's apparel
Men's pants and shorts
Motor vehicle insurance
Men's and boys' apparel
Household furnishings and operations
All items
Household furnishings and supplies
Jewelry and watches
Major appliances
Boys' apparel



Recent Inflation Rates Relative to Pre-Pandemic 2019 Base
Items with less than 2% growth in October 2021, Inflation rates 2021 vs. 2020 (blue) and vs. 2019, Annualized (red), Source: BLS
October 2021 vs. October 2019, Annualized
October 2021 vs. October 2020
7.0%
6.0%
5.0%
4.0%
3.0%
2.0%
1.0%
0.0%
-1.0%
-2.0%
-3.0%
-4.0%
-5.0%
-6.0%
-7.0%
-8.0%
Photography
Whiskey at home
Housing at school
College tuition and fees
Education and communication
Watches
Sauces and gravies
Dairy and related products
Recreational reading materials
Education and communication services
Club memberships
Fresh vegetables
Other uncooked poultry including turkey
Medical care services
Potatoes
Other processed fruits and vegetables
Housekeeping supplies
Frozen fruits and vegetables
Communication
Funeral expenses
Alcoholic beverages at home
Information and information processing
Medical care
Technical and business school tuition and fees
Other dairy and related products
Parking and other fees
Household cleaning products
Video and audio products
Rice, pasta, cornmeal
Butter
Shelf stable fish and seafood
Educational books and supplies
Eyeglasses and eye care
Wine at home
Girls' apparel
Women's suits and separates
Tomatoes
Toys, games, hobbies
Cookies
Frozen vegetables
Other recreational goods
Medical care commodities
Medicinal drugs
Toys
Lettuce
Cheese and related products
Prescription drugs
Public transportation
Miscellaneous household products
Other video equipment

Real Oil Prices in Context: Up - But From All Time Record Low During Pandemic

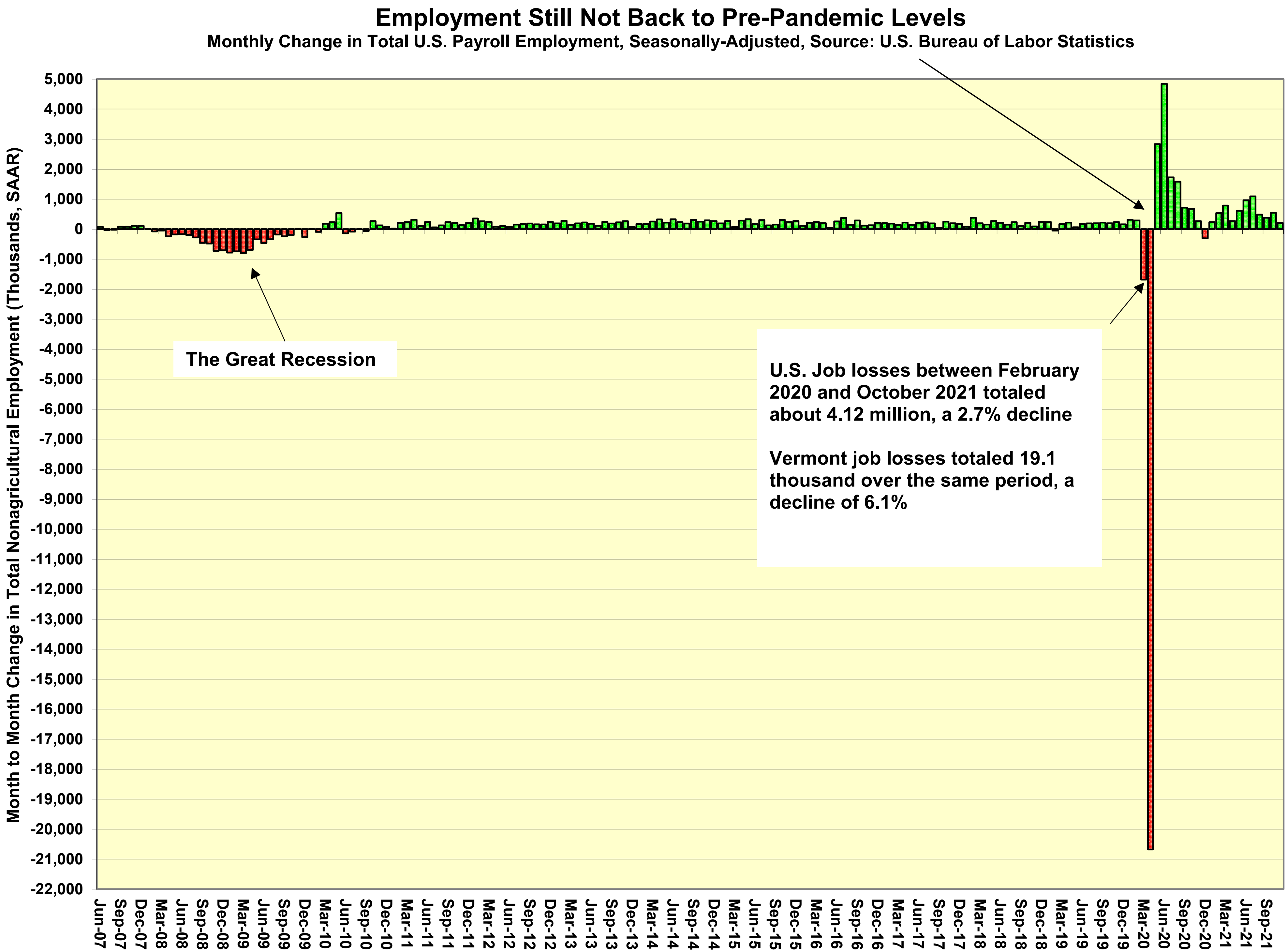
(West Texas Intermediate Crude Oil, PPB in November 2021 Constant Dollars)



Sources: St. Louis Federal Reserve, Moody's Analytics, KRA

Labor Markets

- Labor markets are gradually healing, with average U.S. monthly job growth of about 500,000 per month. At this rate, total U.S. payroll employment should regain pre-pandemic levels in late 2022.
- The latest U.S. unemployment rate dipped to 4.2% in November, with Vermont's rate steady at 2.8% in October (the latest available), the fourth lowest in the nation and lowest in New England.
- Job openings currently exceed the number of unemployed individuals, indicating both job mismatches and a large number of workers who have still not rejoined the labor force.
- The combination of strong demand for goods and services and fewer workers in the labor force has pushed wages significantly higher, driven the quit rate to record highs and dropped layoff rates to record lows.
- Many of the most severe economic impacts from the pandemic have been evident in, or caused by, labor force disruptions. Millions were out of work for extended periods, re-revaluated their jobs and places of work, and made changes. Early retirements among older workers, most vulnerable to COVID risks, may permanently reduce labor force participation rates.


Employment Still Not Back to Pre-Pandemic Levels
Monthly Change in Total U.S. Payroll Employment, Seasonally-Adjusted, Source: U.S. Bureau of Labor Statistics
Month to Month Change in Total Nonagricultural Employment (Thousands, SAAR)
5,000
4,000
3,000
2,000
1,000
0
-1,000
-2,000
-3,000
-4,000
-5,000
-6,000
-7,000
-8,000
-9,000
-10,000
-11,000
-12,000
-13,000
-14,000
-15,000
-16,000
-17,000
-18,000
-19,000
-20,000
-21,000
-22,000
The Great Recession
U.S. Job losses between February 2020 and October 2021 totaled about 4.12 million, a 2.7% decline
Vermont job losses totaled 19.1 thousand over the same period, a decline of 6.1%
Jun-07
Sep-07
Dec-07
Mar-08
Jun-08
Sep-08
Dec-08
Mar-09
Jun-09
Sep-09
Dec-09
Mar-10
Jun-10
Sep-10
Dec-10
Mar-11
Jun-11
Sep-11
Dec-11
Mar-12
Jun-12
Sep-12
Dec-12
Mar-13
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Jun-18
Sep-18
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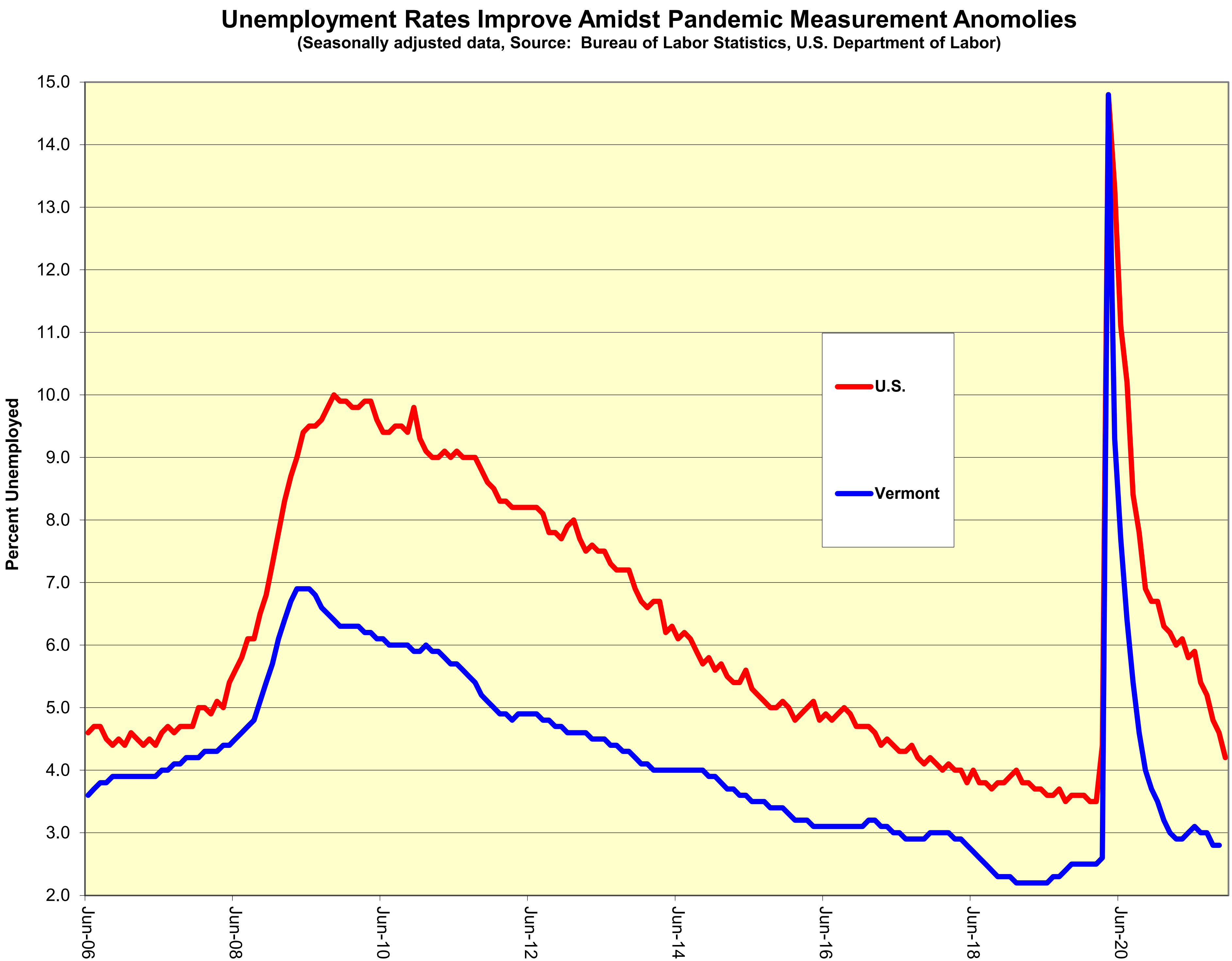
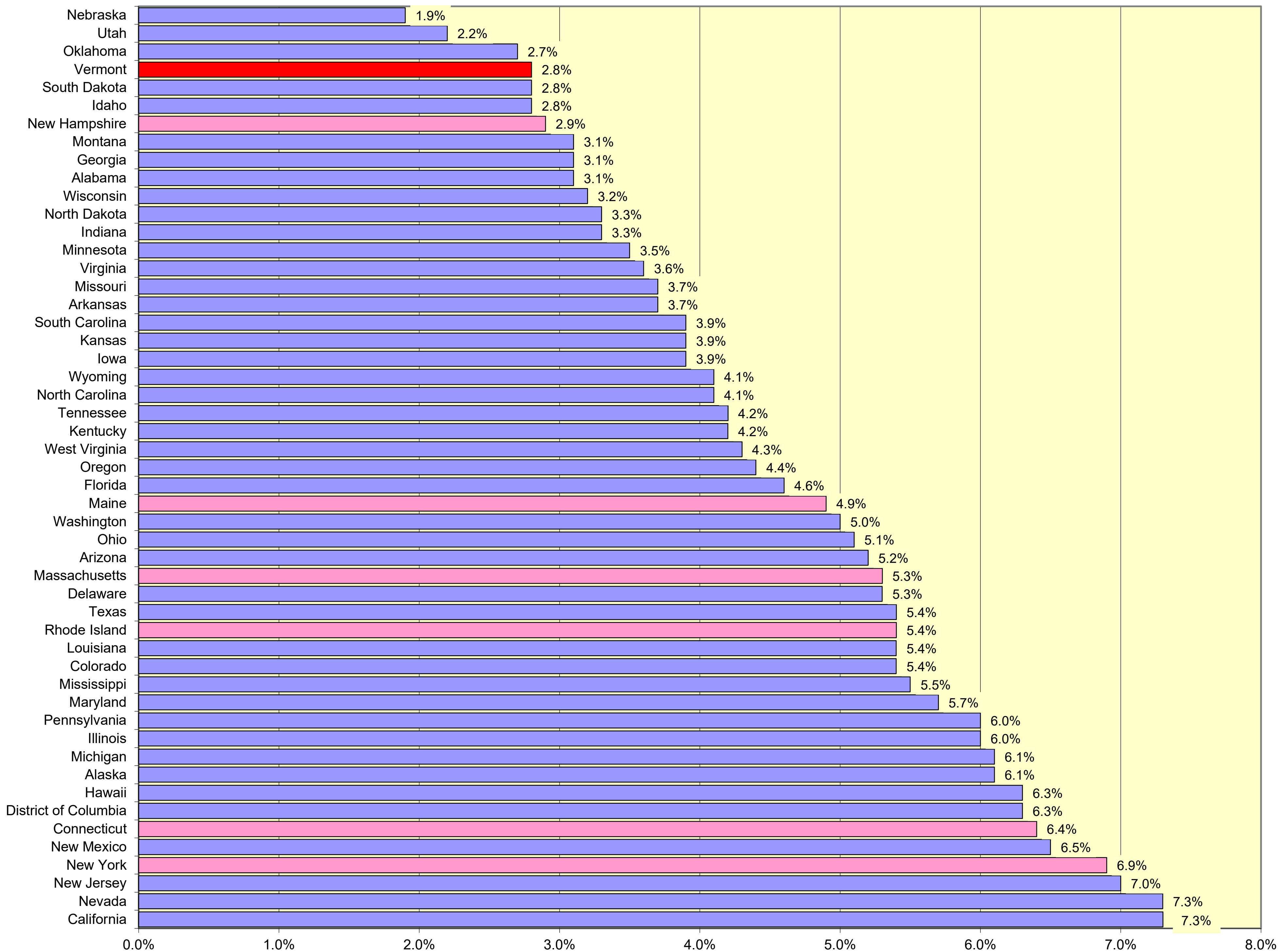
Sep-20
Dec-20
Mar-21
Jun-21
Sep-21


Unemployment Rates Improve Amidst Pandemic Measurement Anomolies
(Seasonally adjusted data, Source: Bureau of Labor Statistics, U.S. Department of Labor)
Percent Unemployed
15.0
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
Jun-06
Jun-08
Jun-10
Jun-12
Jun-14
Jun-16
Jun-18
Jun-20
U.S.
Vermont

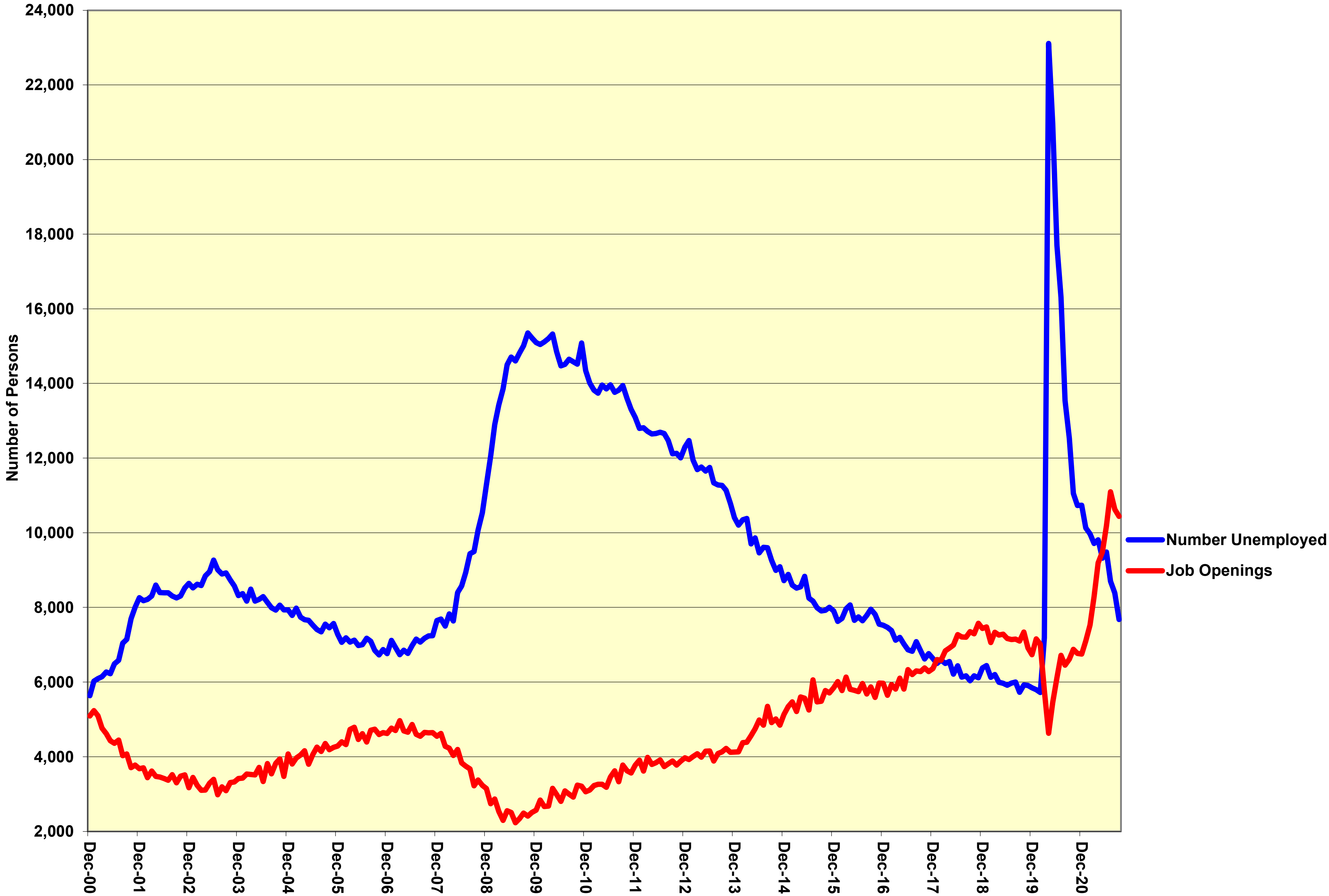
Unemployment Rate by State - October 2021

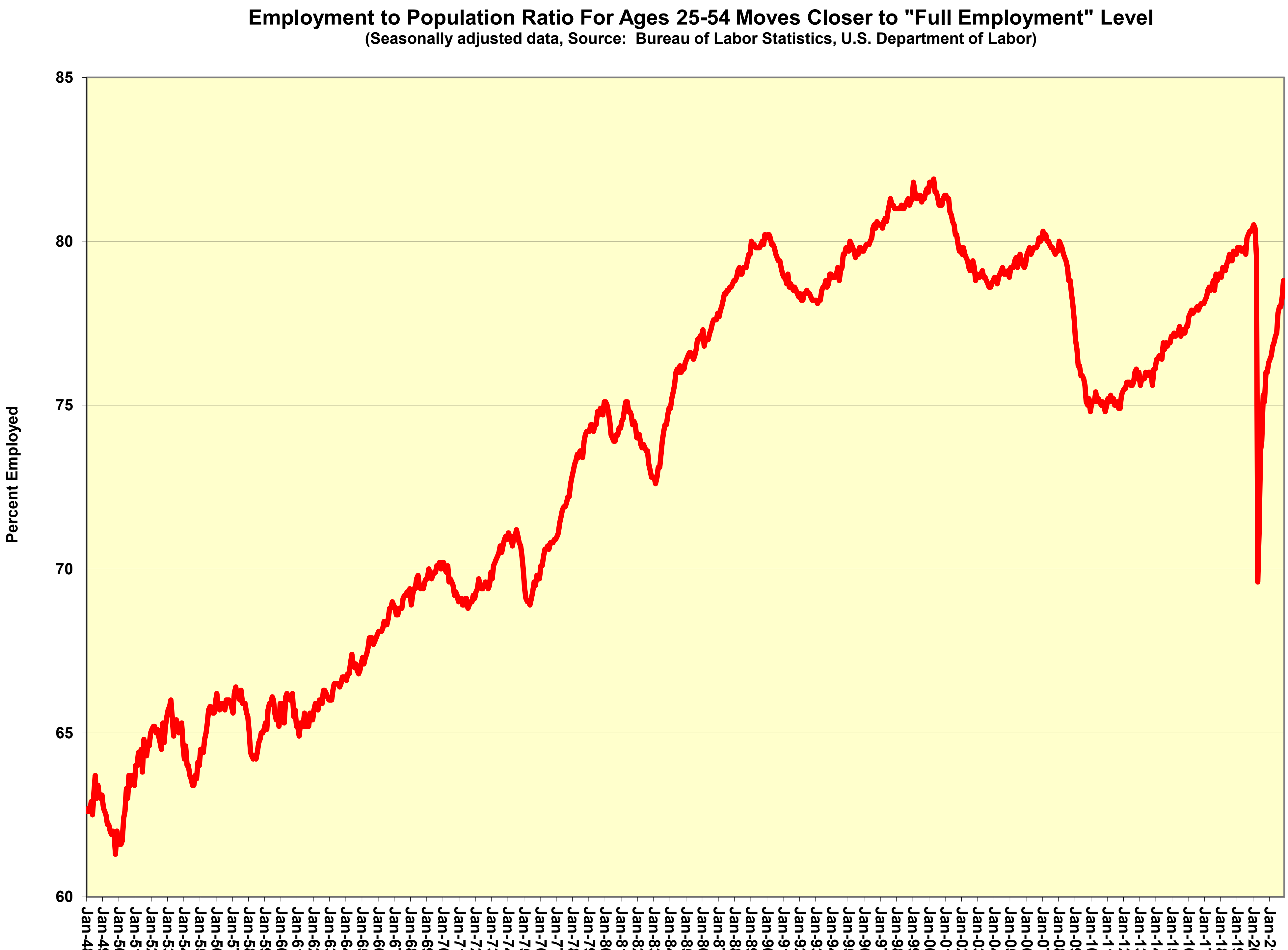
Seasonally Adjusted Data, Source: U.S. Bureau of Labor Statistics



Job Openings Now Exceed Number Unemployed, Reflecting Tight Labor Market

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




Employment to Population Ratio For Ages 25-54 Moves Closer to "Full Employment" Level
(Seasonally adjusted data, Source: Bureau of Labor Statistics, U.S. Department of Labor)
Percent Employed
85
80
75
70
65
60
Jan-48
Jan-49
Jan-50
Jan-51
Jan-52
Jan-53
Jan-54
Jan-55
Jan-56
Jan-57
Jan-58
Jan-59
Jan-60
Jan-61
Jan-62
Jan-63
Jan-64
Jan-65
Jan-66
Jan-67
Jan-68
Jan-69
Jan-70
Jan-71
Jan-72
Jan-73
Jan-74
Jan-75
Jan-76
Jan-77
Jan-78
Jan-79
Jan-80
Jan-81
Jan-82
Jan-83
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Jan-03
Jan-04
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Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Jan-18
Jan-19
Jan-20
Jan-21

Oo ?


JOE HELLER ©2021 HELLERTOON.COM
I CAN GO AROUND THE WORLD IN ONE NIGHT!
HERE... HOLD MY BEER.
OMICRON VARIANT

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

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