

**A big thank
you to
Rebecca
Wilder...**



We make a great team...

Kind of Like Brady and Gronkowski...





Economic Forum

COLLEGE OF BUSINESS

UNIVERSITY OF COLORADO
COLORADO SPRINGS

Disruptions and Economics

(Pre-Recorded) October 11, 2021

Tatiana Bailey, Ph.D.

Director, UCCS Economic Forum

Presentations are usually proprietary, but once a year the presentations are posted at uccseconomicforum.com.



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Major Challenges, Growing Pains, Prospects for Change...

Labor Shortages

- Labor participation rates

- Lingering pandemic effects

- Demographics

- Income inequality and cultural shifts

- Skills gap, appropriate training and higher education challenges

Supply Shortages/Disruptions – Inflation

Waning Consumer and Business Confidence

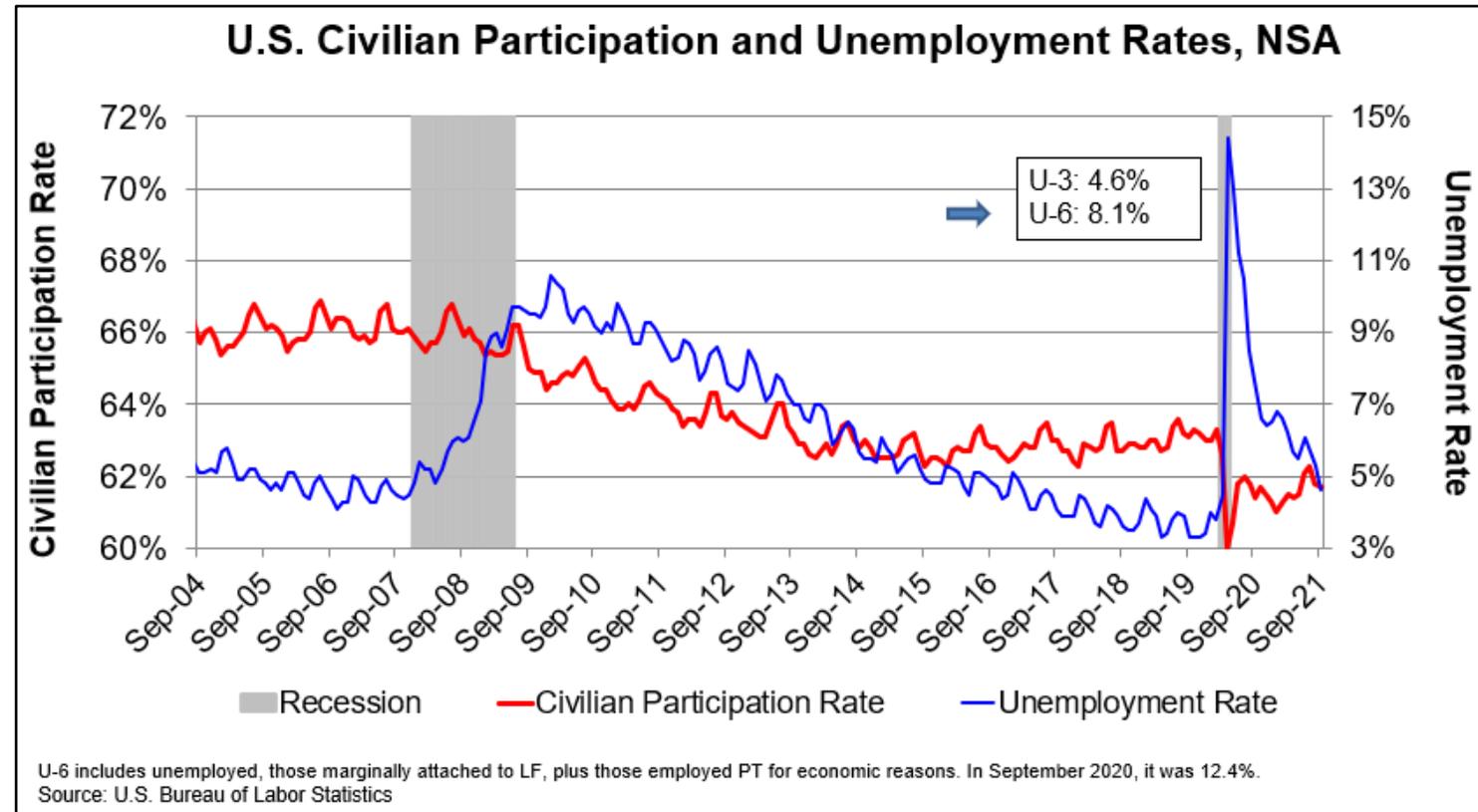
- Small Business Viability & Unfair Competition with Behemoth Companies (Walmart, Amazon..)

Housing, Affordability, and a Little on Commercial Real Estate

Transportation and Final Thoughts

Where Have All the Workers Gone??

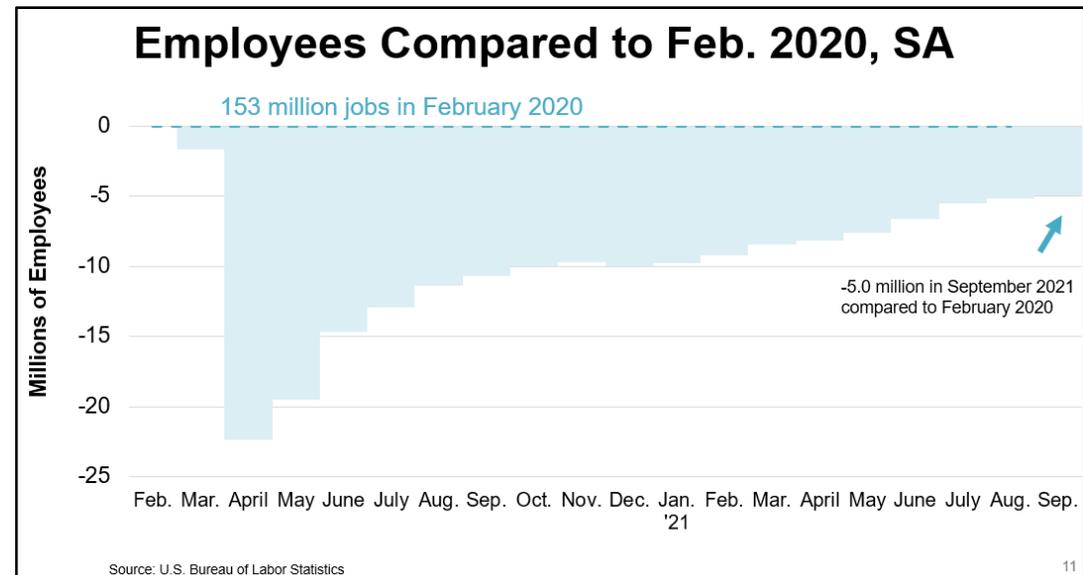
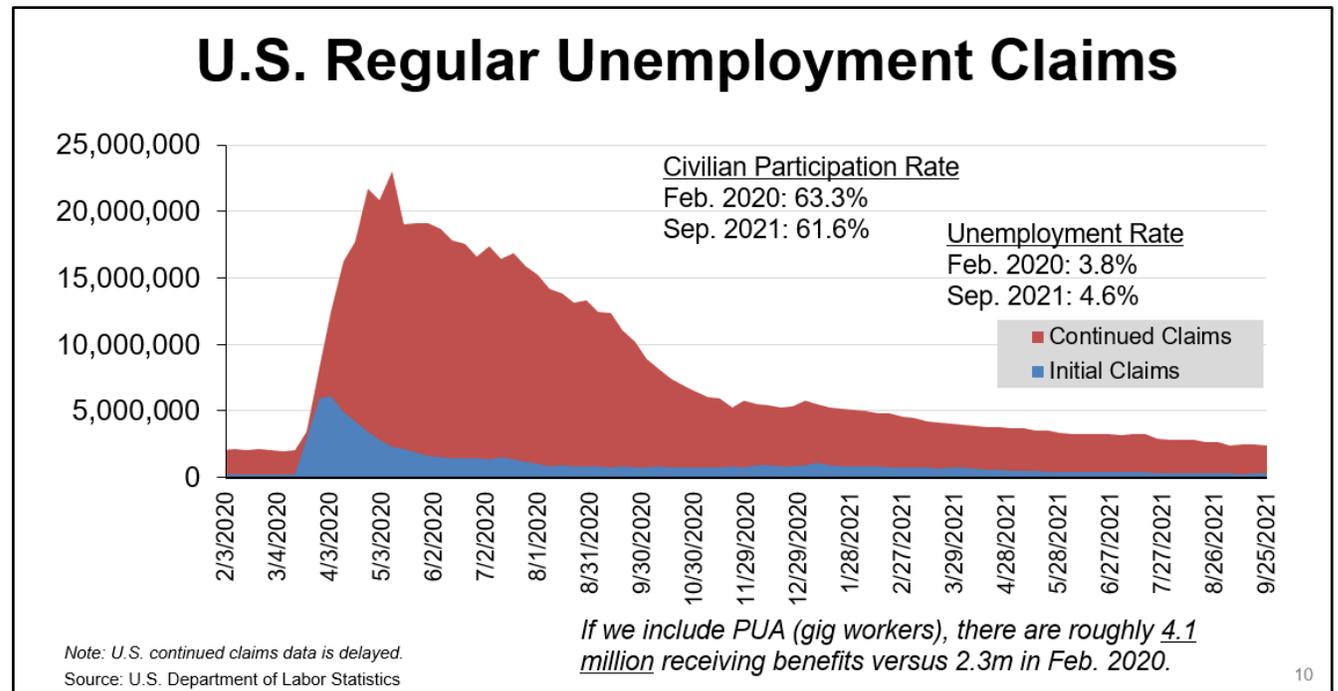
- Job #s disappoint in September again (+194,000)
- Supplemental unemployment benefits ended early September, but workers not returning to LF as anticipated...
- At Sept rate it would take ~2 yrs to get back to Feb 2020 employment levels
- Unemployment rate low because of all the people who have left the labor force (not counted in U-3)
- If we count those who consider themselves part of LF, but work PT and want FT or have given up in last 4 wks (“marginally in the LF”) U-6 = 8.1%



Labor participation never recovered after Great Recession.

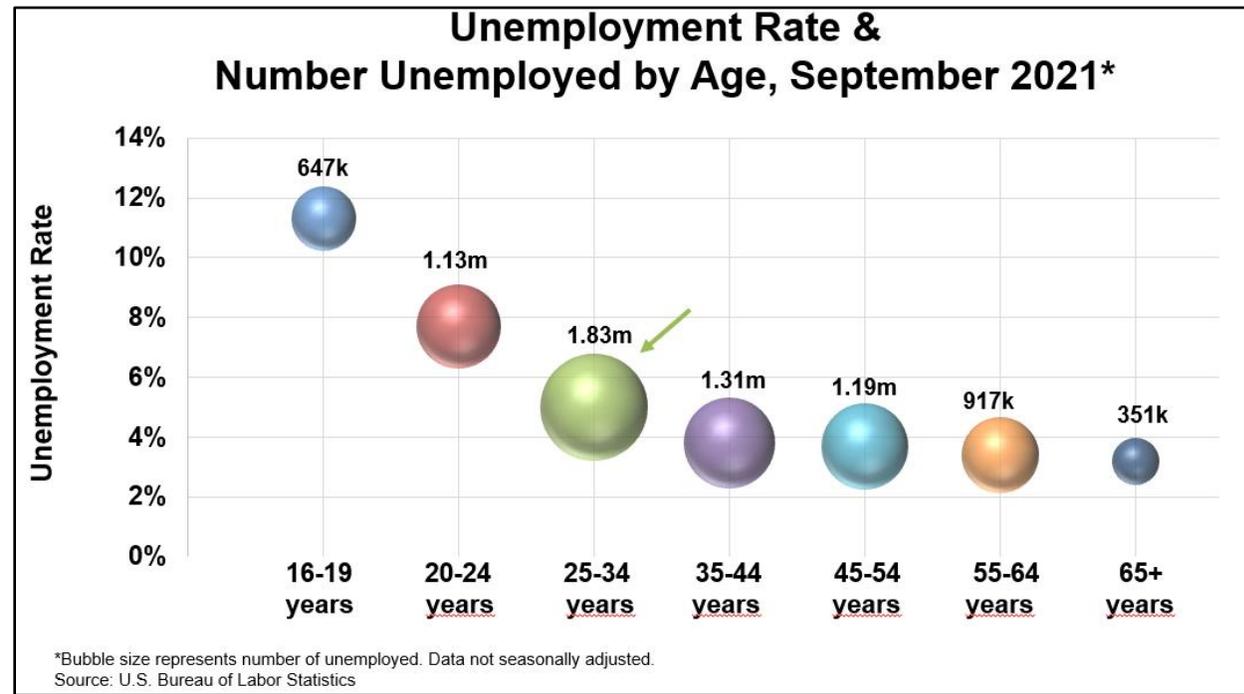
How Bad is the Labor Problem? Pretty Bad..

- Labor participation at 61.6% (was low at 63.3% in Feb 2020)
- 4.1m people receiving benefits (2.3m in Feb 2020), but 7.7m total unemployed (so not everyone receiving benefits)
- 5m fewer workers in Sept versus Feb 2020.
- In addition, currently have 5.2m more people not participating the LF with ~3m due to pandemic
- *And yet GDP continues to grow (robotics, automation, other efficiencies??)*



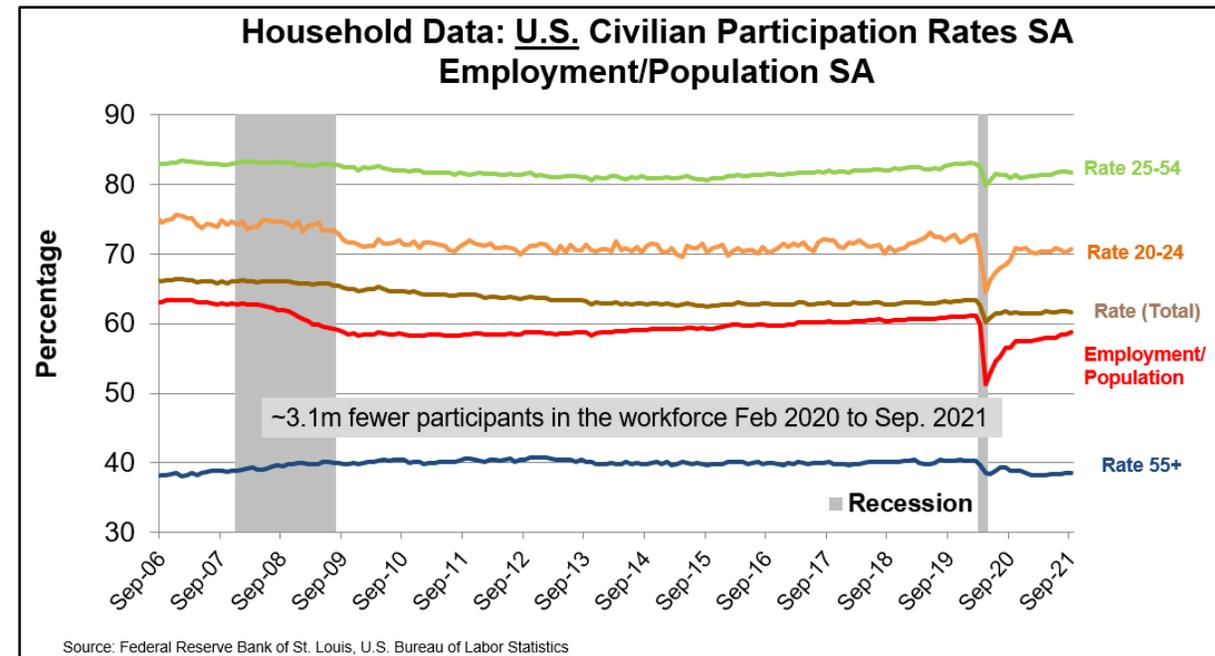
Who Are the Unemployed and the Non-participating?

- Unemployed: mostly young
- Nonparticipating: all ages
- And more women than men (even in Colorado)...



COLORADO DATA	Labor Force 2019	Labor Force 2020	Change from 2019
Men	1,696,000	1,707,000	0.65%
Women	1,439,000	1,420,000	-1.32%
Ages 20-24	314,000	304,000	-3.18%
Ages 25-34	773,000	748,000	-3.23%

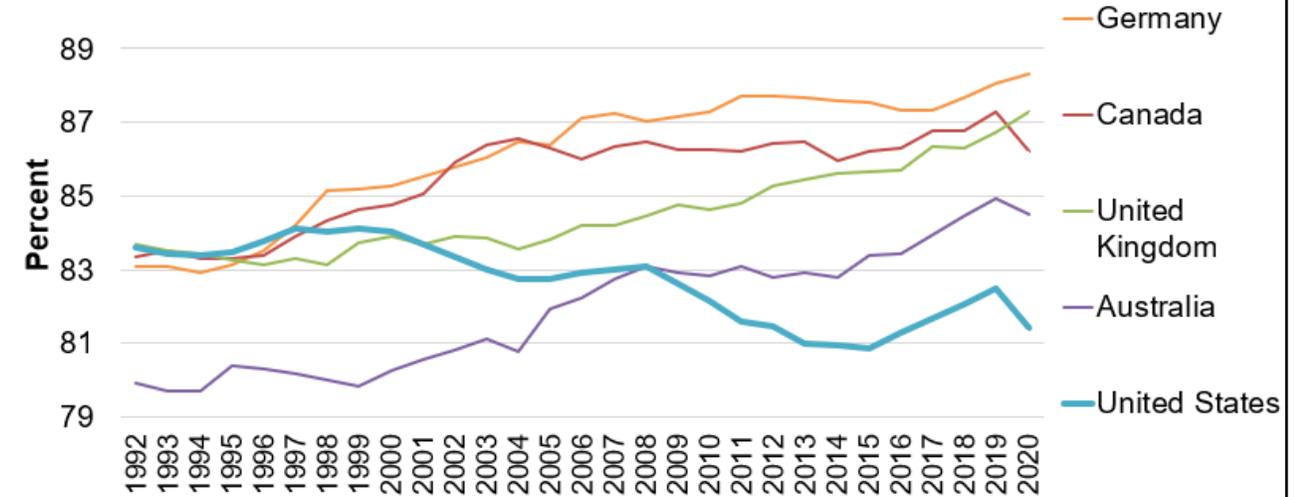
Source: U.S. Bureau of Labor Statistics, Local Area Unemployment Statistics. Monthly data not available but will compare same data at the end of 2021.



How Does This Compare to Other Nations and What Are Future Prospects??

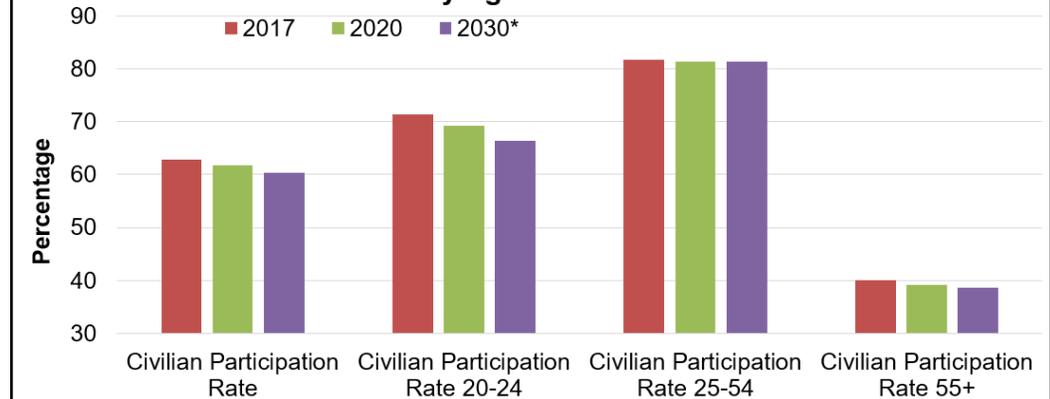
- Peer nations have aging demographics like U.S. (or worse).
- Most peer nations have as generous or more generous unemployment benefits.
- Even before pandemic, LF participation forecasted to decline more by 2030 – and it's not all about aging (look at ages 25-54)...

Civilian Participation Rates for Ages 25-54



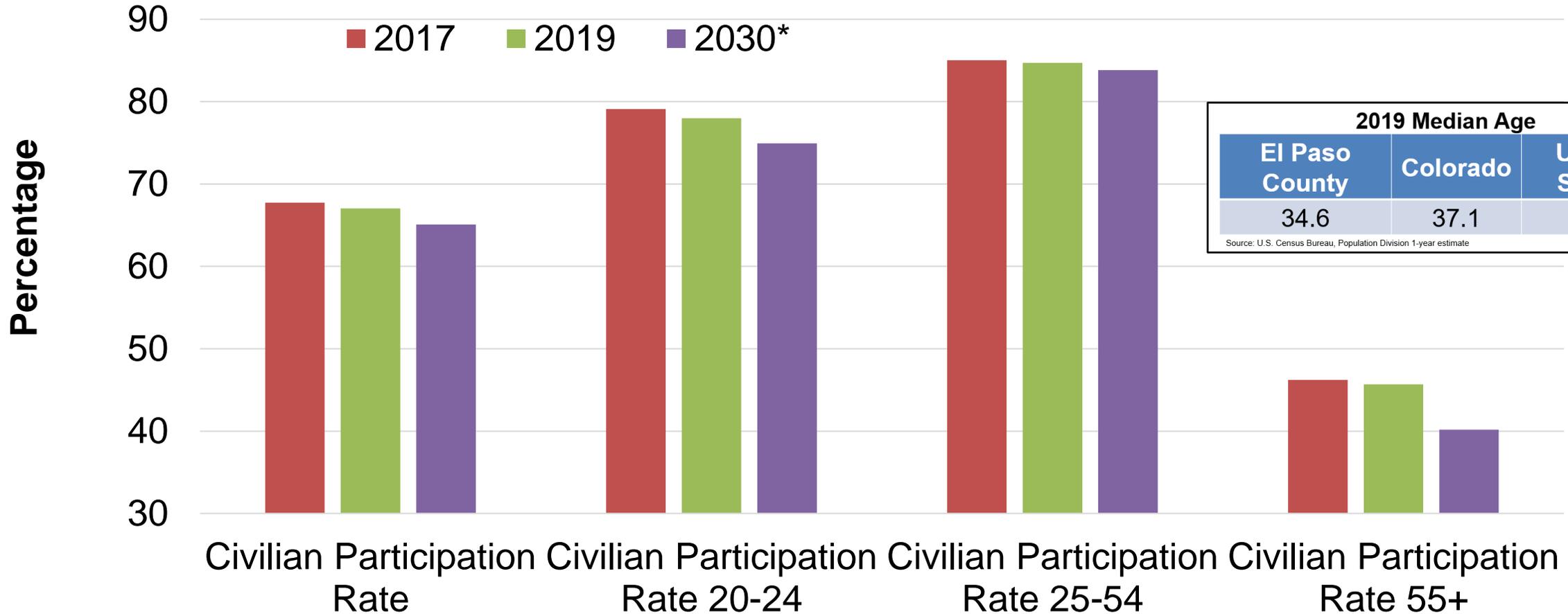
Source: OECD.Stat

U.S. Civilian Participation Rates SA by Age with Forecasts



Source: Federal Reserve Bank of St. Louis, U.S. Bureau of Labor Statistics

Also True for Our Region: EPC Civilian Participation Rates SA by Age with Forecasts



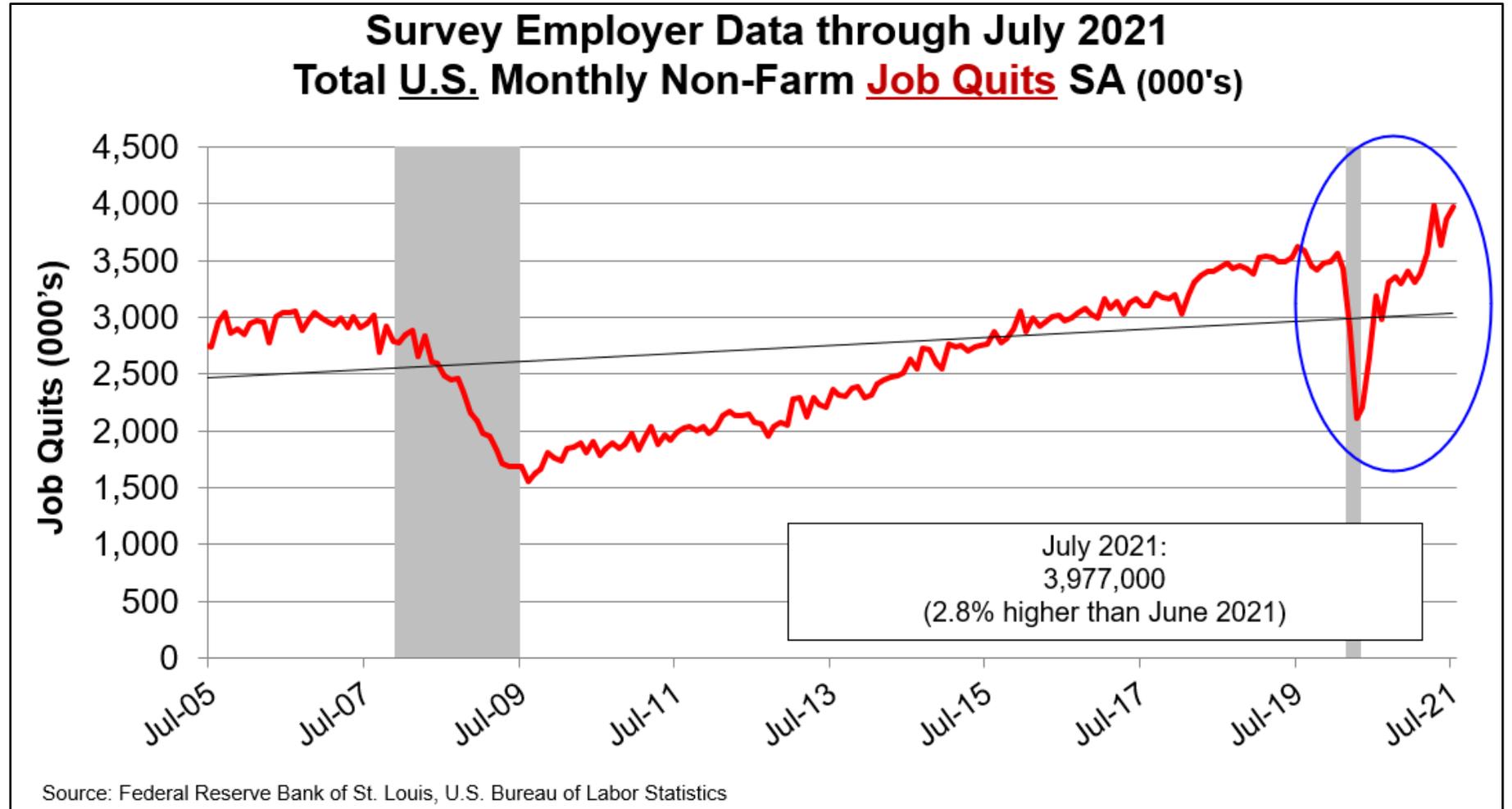
2019 Median Age		
El Paso County	Colorado	United States
34.6	37.1	38.4

Source: U.S. Census Bureau, Population Division 1-year estimate

Source: Colorado State Demography Office *Forecast

And to Make Matters Worse...

- Quits are at an all-time high (~4m in July).
- This doesn't usually happen during recessions/early recoveries.



Why Are All the Workers Gone???

Problem is so acute because of convergence of several factors...

Transitory

- 1) COVID worries (of course); not wanting vaccination
- 2) Quarantines at schools/preschools keep parents out of labor force
- 3) Supplemental govt assistance (even after +300/wk ended); savings rates high
- 4) People changing industries and/or place of residence (“frictional”)
- 5) Business deaths (-110,000 restaurants)

Hopefully, these subside in 2022

Structural

- 1) Lack of childcare (down 127,000 workers)
- 2) (Long-standing) skills gap
- 3) Shift in family priorities (low & high income)
- 4) Shift in personal priorities (incl. younger workers)
- 5) More early retirees (~50 to 60s) with healthy portfolios & general wealth accumulation
- 6) Tight labor market means workers can be choosy (and many prefer hybrid or all WFH)
- 7) Tight labor market *will not disappear* due to demographics.

Data to Back it Up...



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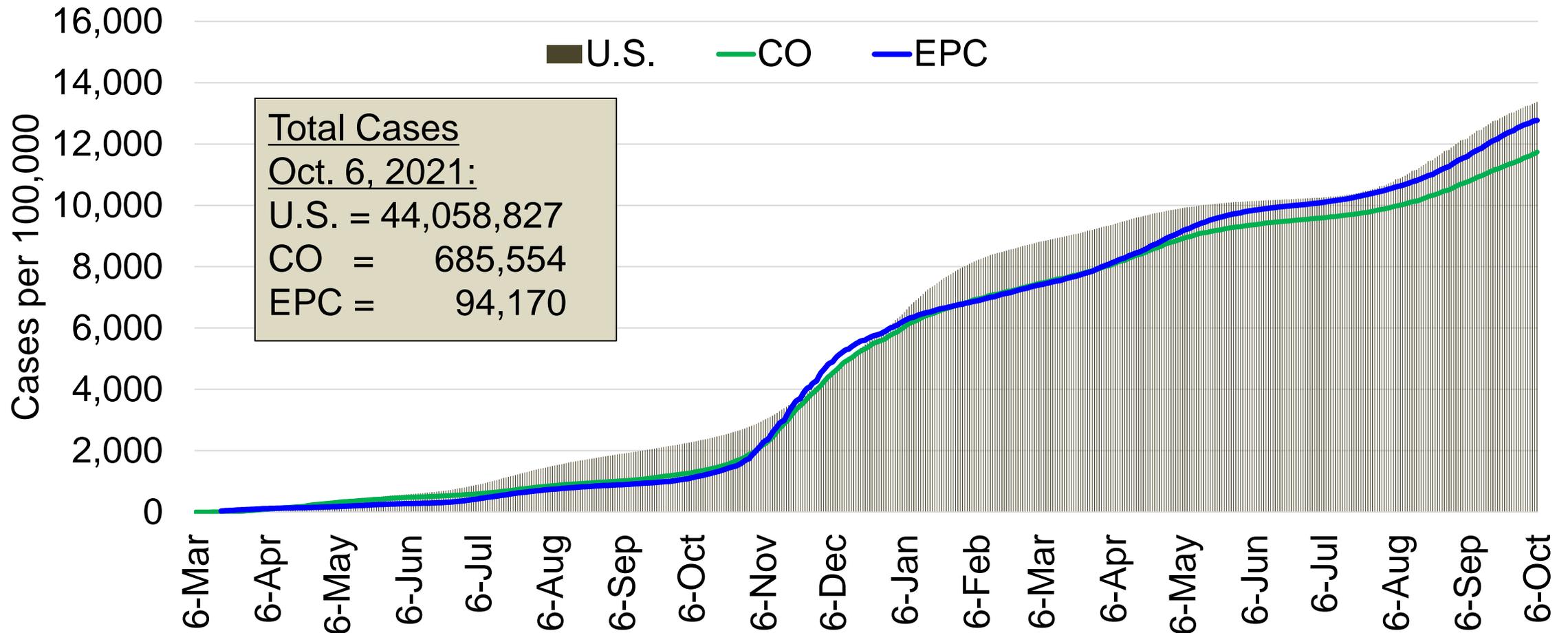


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Many People Are Still Wary...

COVID-19 Cases per 100,000: U.S., CO & EPC



Total Cases
Oct. 6, 2021:
U.S. = 44,058,827
CO = 685,554
EPC = 94,170

Note: Local data lags so data includes most recent update available.

Sources: Colorado Department of Public Health; European Center for Disease Prevention and Control



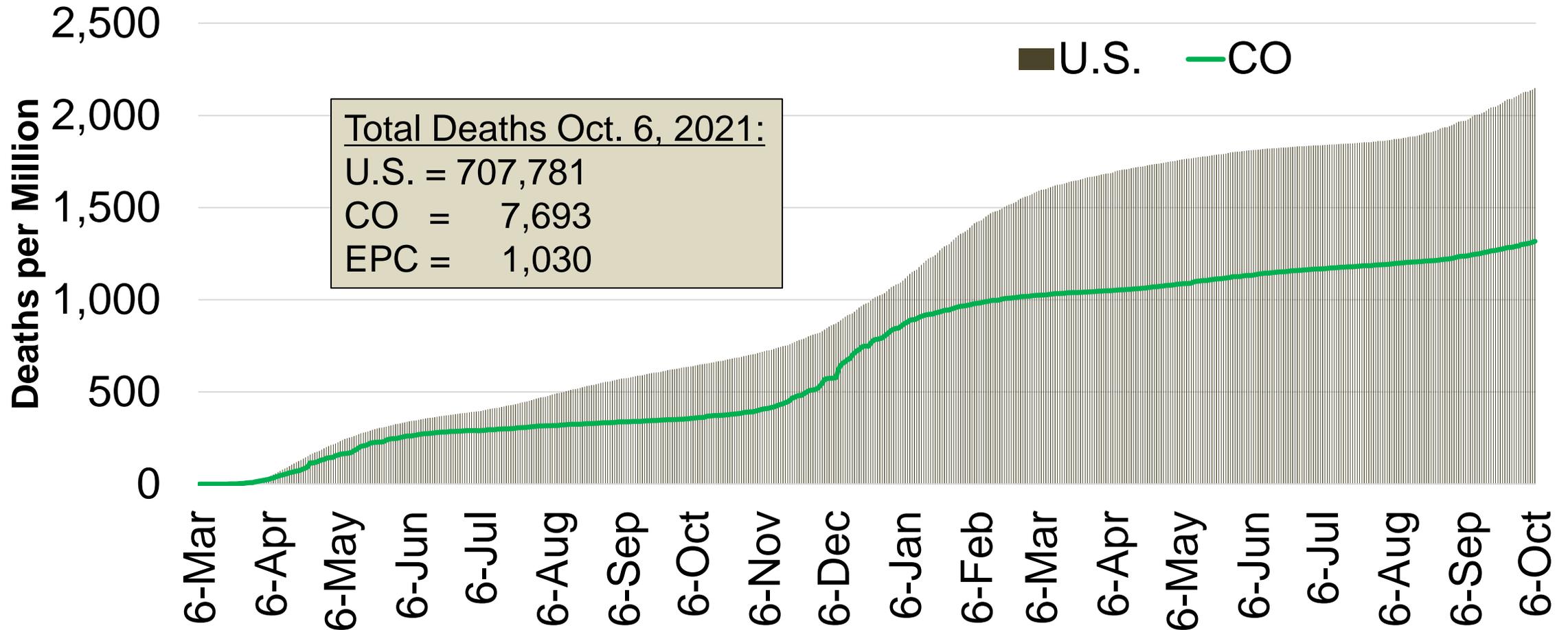
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COVID-19 Deaths per Million: U.S. & CO



Total Deaths Oct. 6, 2021:
 U.S. = 707,781
 CO = 7,693
 EPC = 1,030

Note: Local data lags so data includes most recent update available.

Sources: Colorado Department of Public Health; European Center for Disease Prevention and Control

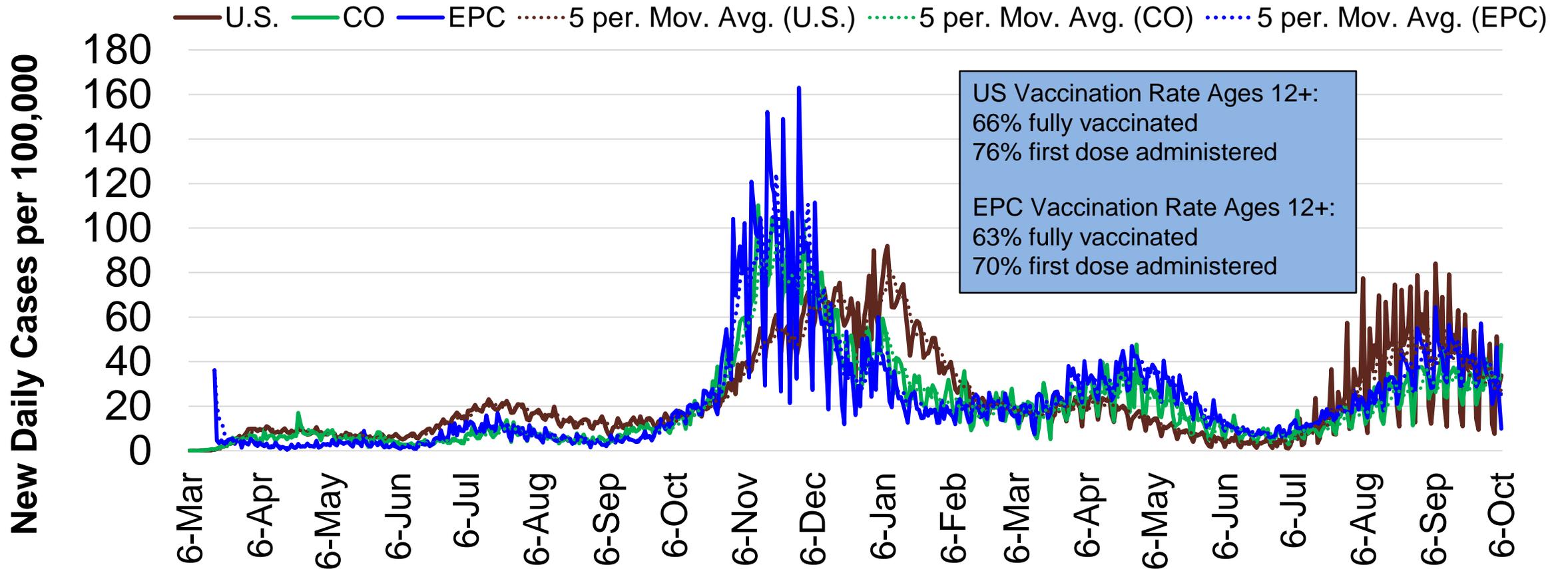


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New Daily COVID-19 Cases per 100,000: U.S., CO & EPC



Note: Local data lags so data includes most recent update available.

Sources: Colorado Department of Public Health; European Center for Disease Prevention and Control



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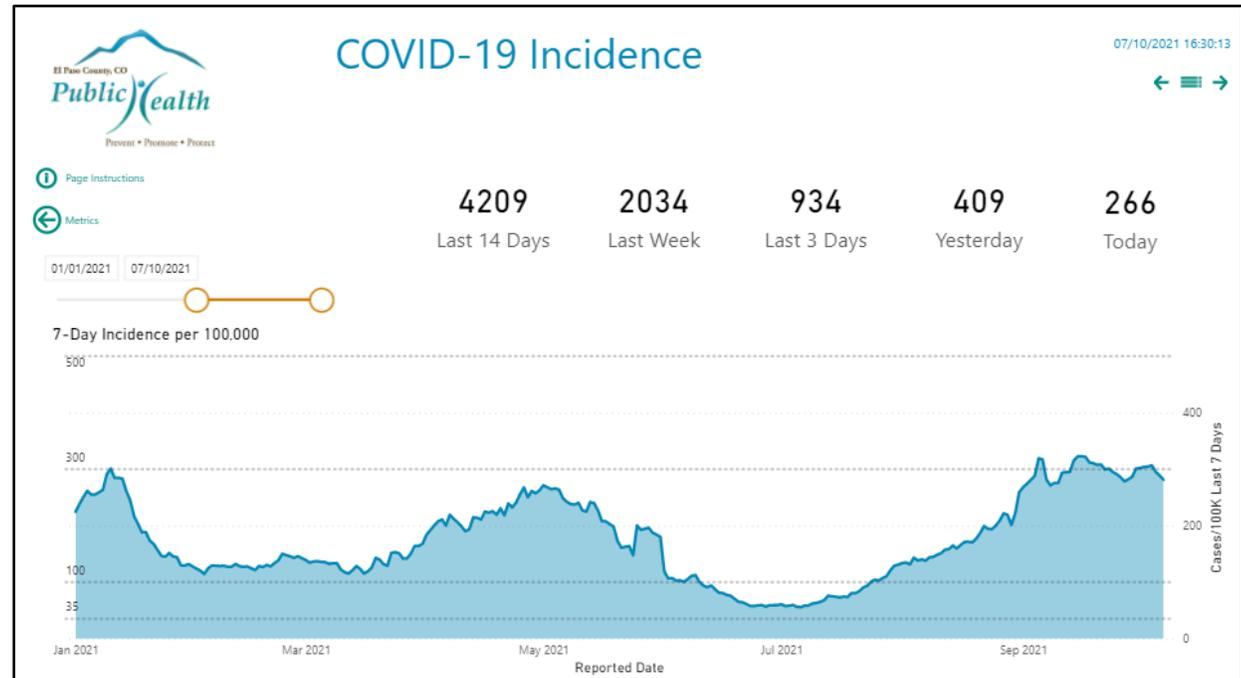
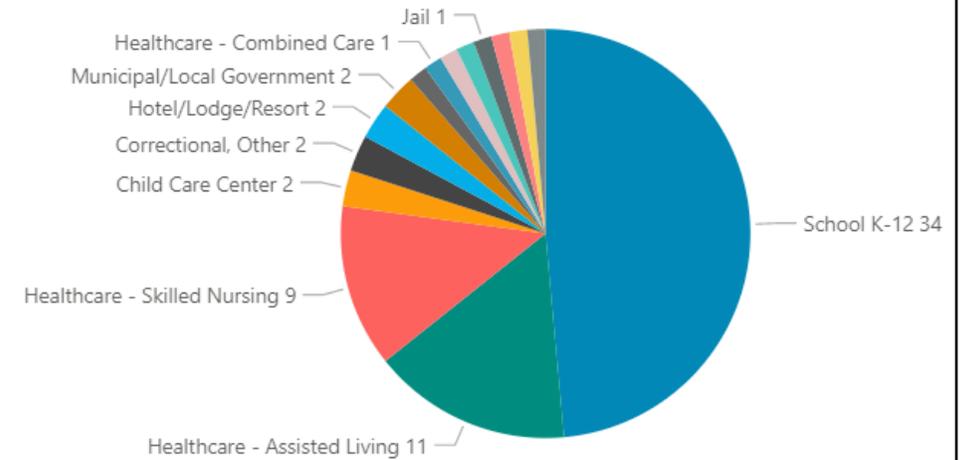
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In El Paso County...

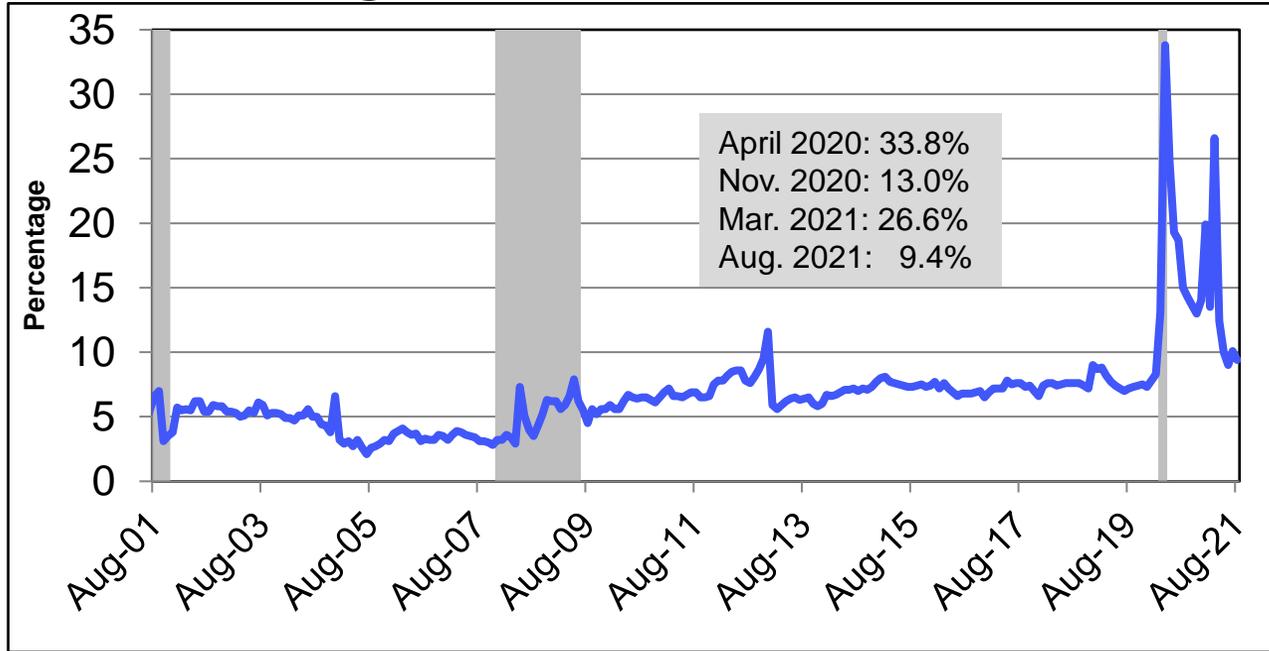
- Most outbreaks at schools.
- Incidence has levelled off.
- Difficult to say if winter will cause another wave.
- Vaccinations for Delta must be at a higher rate due to higher transmissibility.

COVID-19 Outbreaks

Outbreaks by Outbreak Setting Type



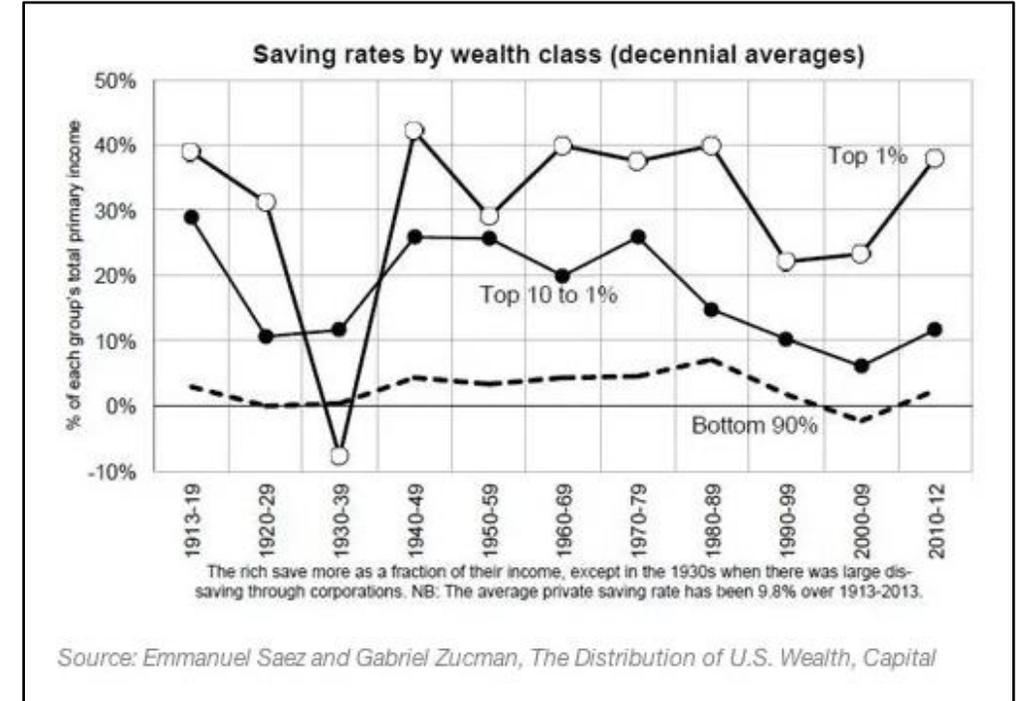
Many People Have More Cushion (Savings)...



Targeted stimulus checks would have made more sense.

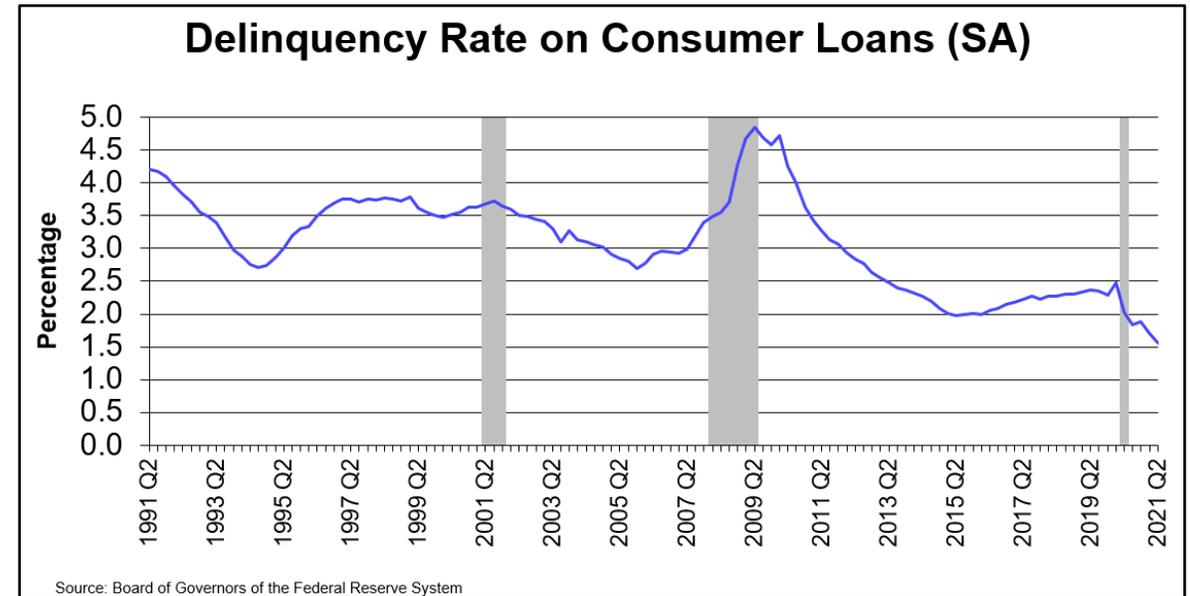
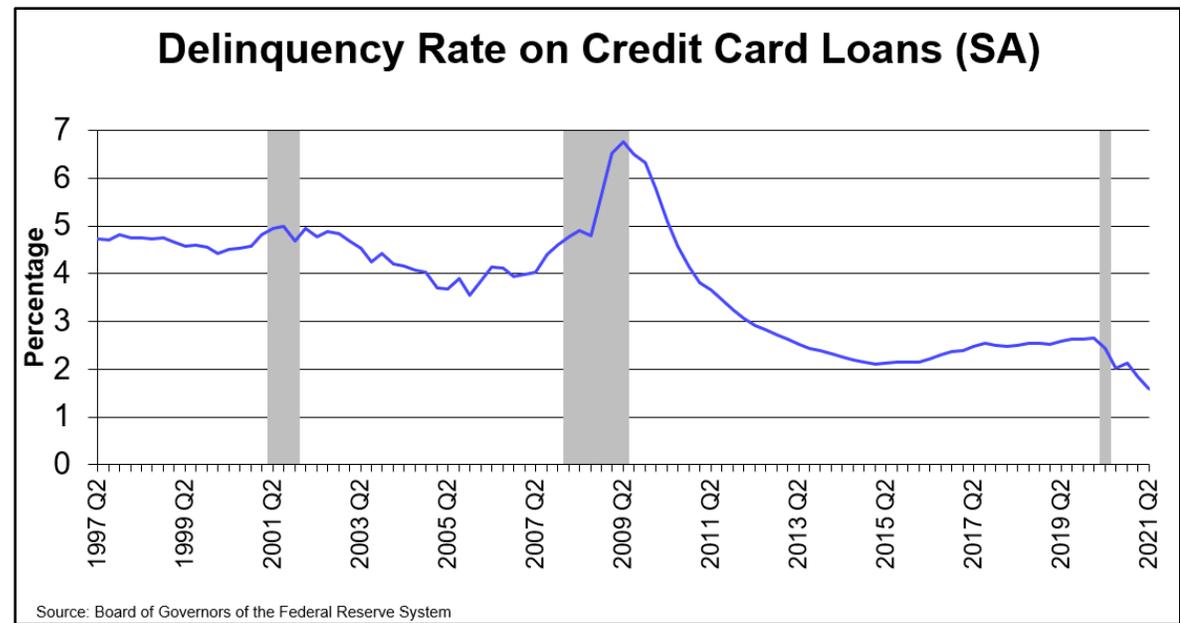
- Quick to rise and quick to fall.
- High savings rate may fuel inflation in 2021 (\$1.5T in “excess savings”)
- More useful to know savings rate by income categories...

January 2020 savings rate was 7.8% (and has been around that rate).
Source: U.S. Bureau of Economic Analysis



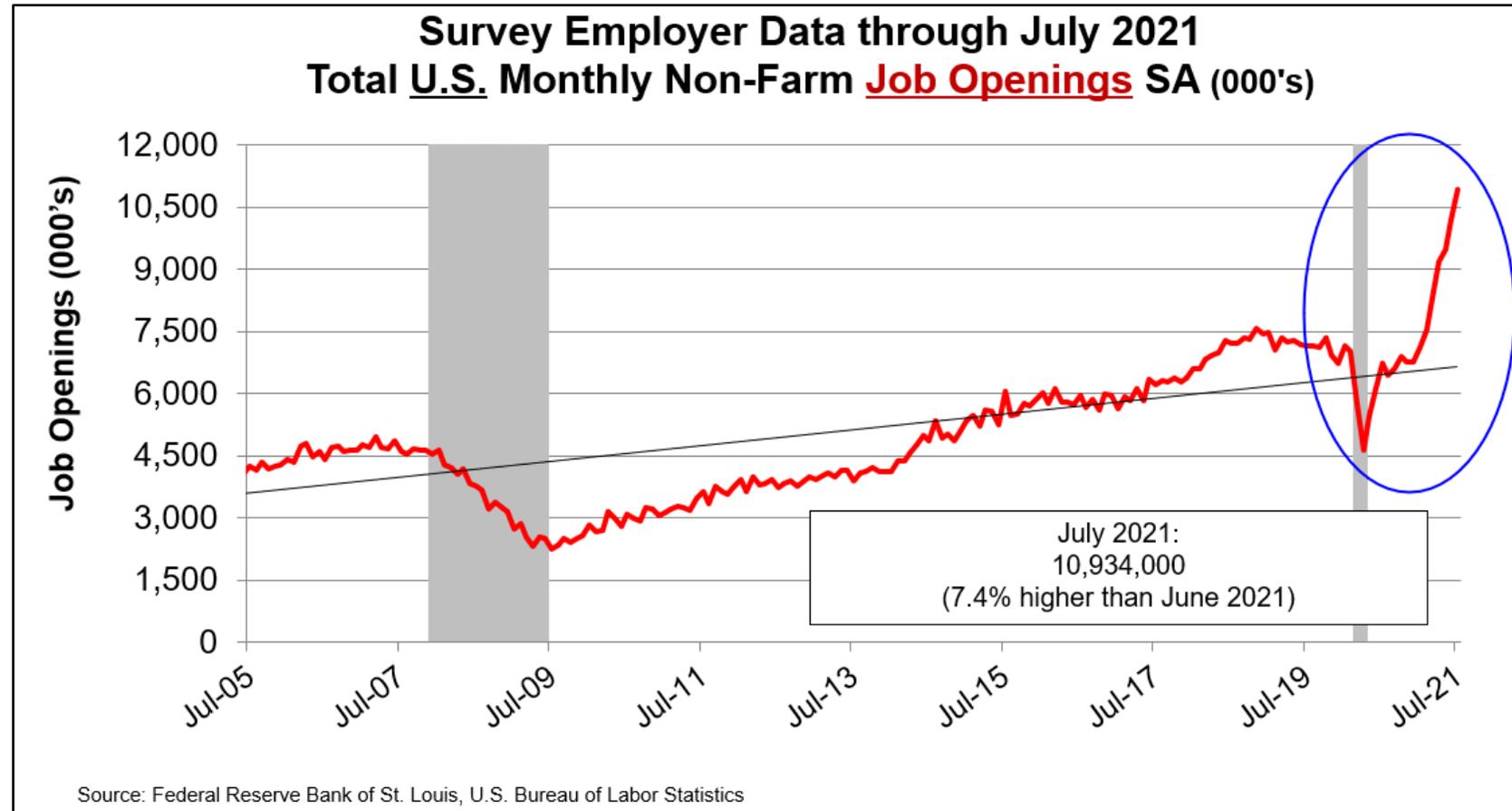
BTW, Some of the Savings Used to Pay Down Debt...

- This bodes well for the longer-term recovery.
- But remember! Not everyone has access to credit.
- And those who don't, don't show up in this data (evictions?? foreclosures??)



Skills Gap Keeping Workers on the Sidelines...

- Plenty of job openings! (11m in July)
- Many not participating in labor force have given up looking for work (true pre-pandemic)
- Don't have the requisite skill sets for today's economy/job market
- Big argument to be made for reskilling/upskilling people

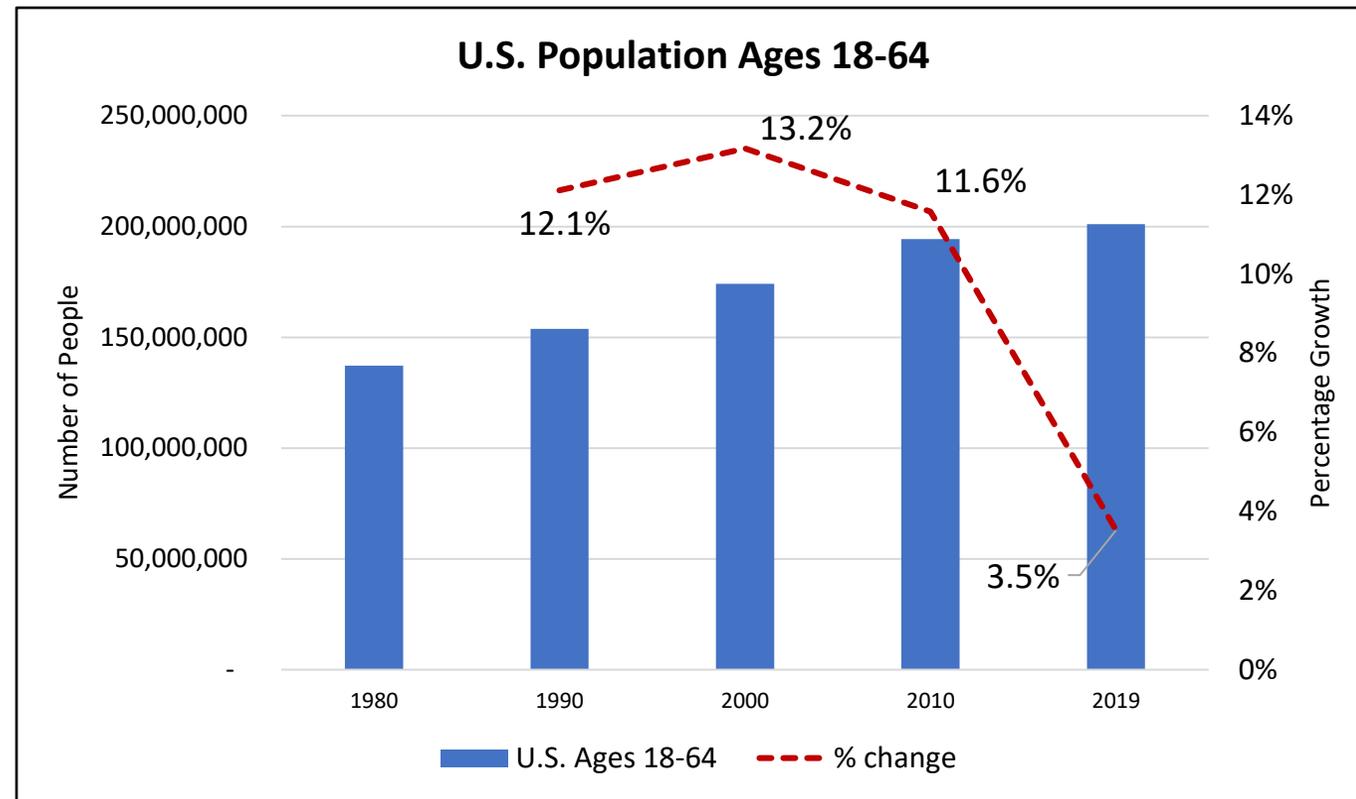


U.S. has roughly 1 available worker for each open job.

Source for job openings: Burning Glass/EMSI

And I Mentioned Demographics...

- Shouldn't ignore declining absolute number of working age people.
- This will only get worse in coming years:
 - In 2010, we had 74.2m ages 18+
 - In 2020, 73.1m ages 18+ (a 1.4% decrease)
- Decline in fertility started in 2007.
- And only guaranteed, quick fix is legal immigration.



“Population Under Age 18 Declined Last Decade”



Source: U.S. Census



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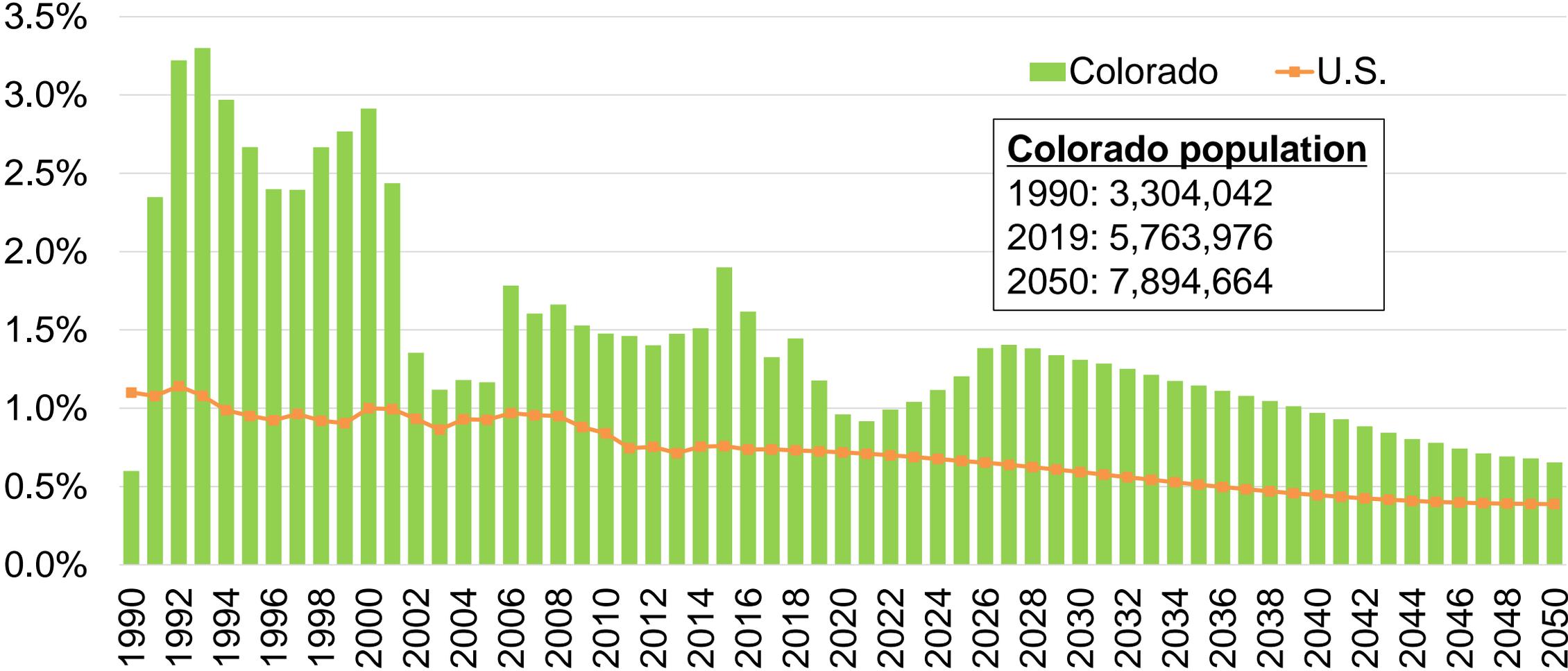
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Quick Aside: Tatiana & Ian Did Their Part...



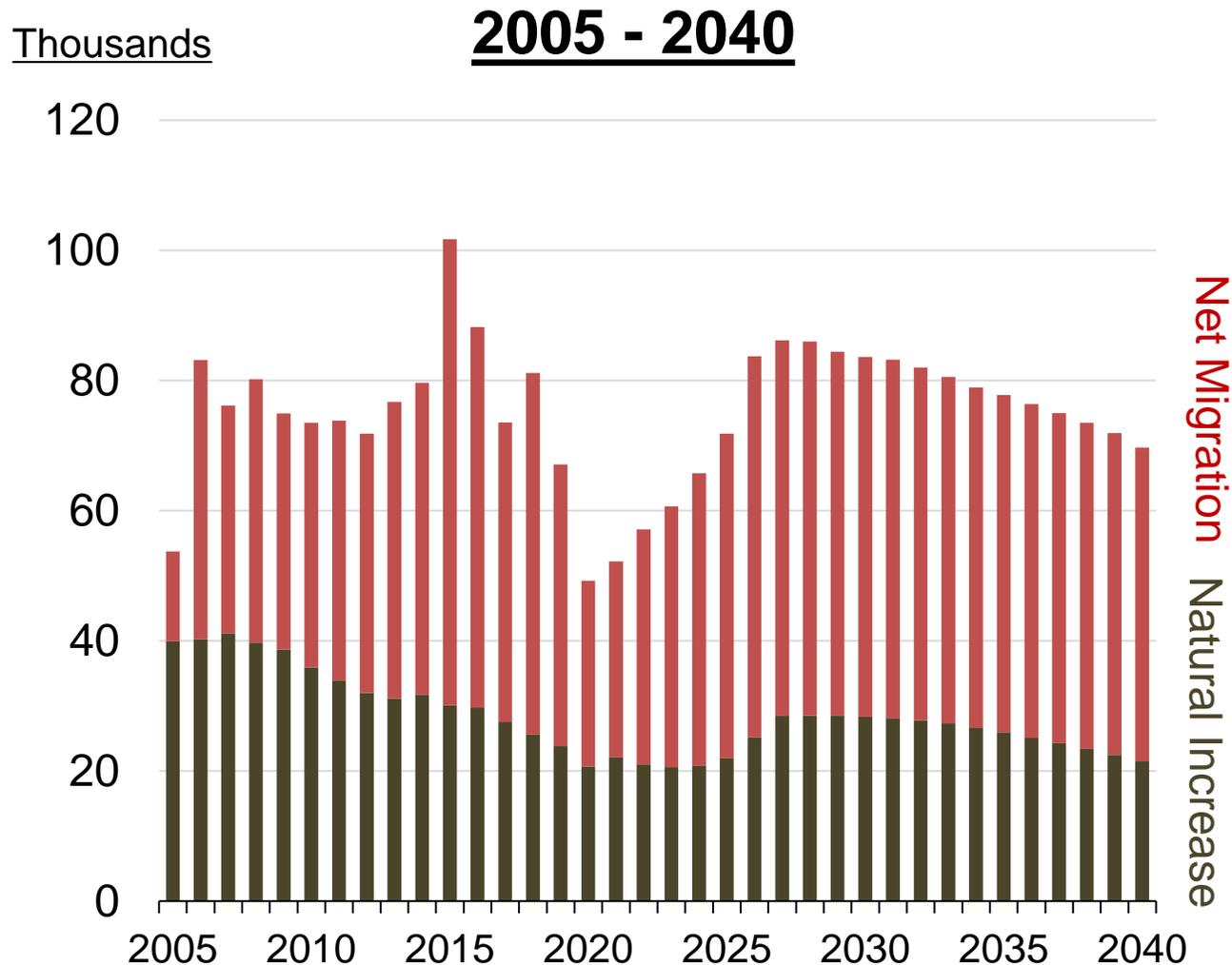
Colorado Is Better Poised than U.S.: Colorado & U.S. Growth Rates



Source: Colorado State Demography Office; U.S. forecast prepared by U.S. Bureau of the Census, 2017



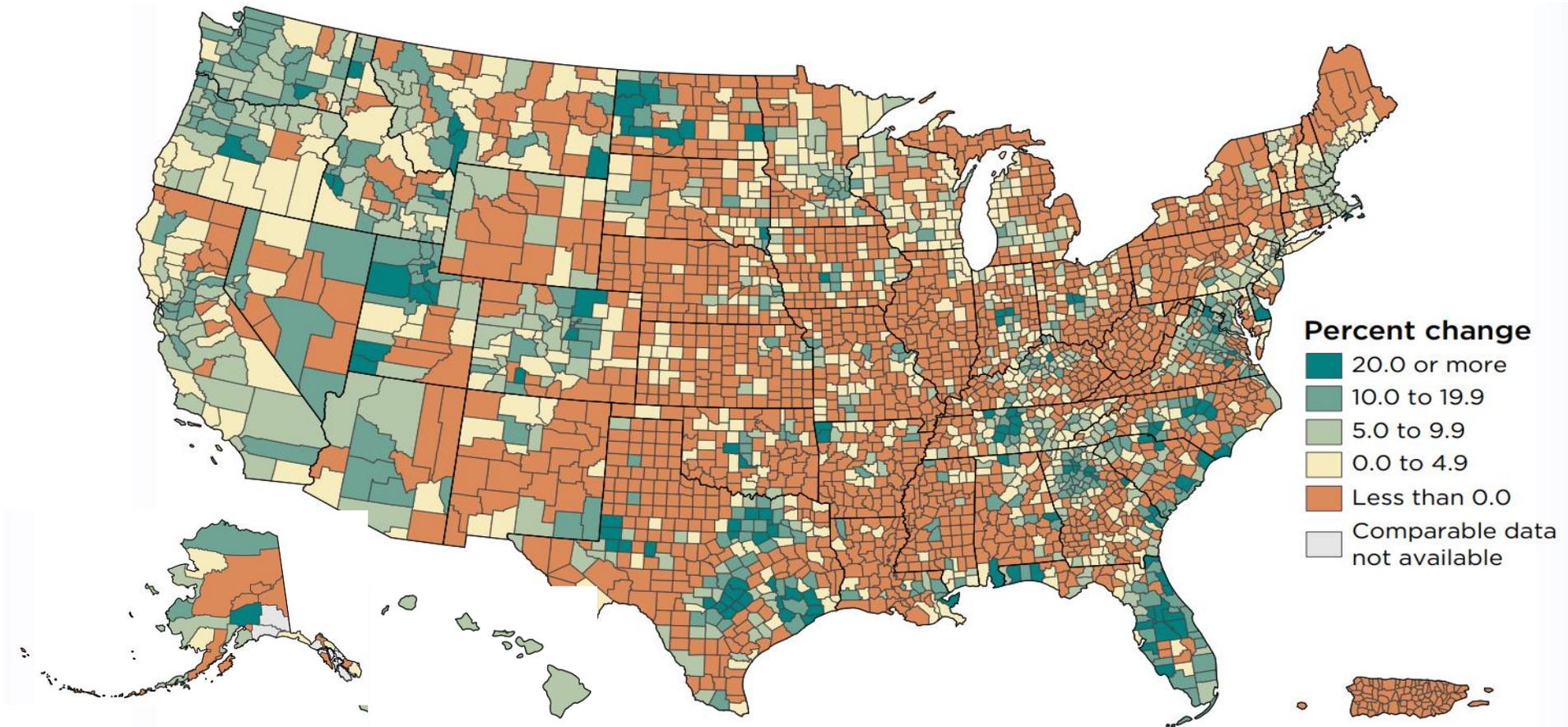
Colorado Change in Population



- 87% of growth from 2020-30 is projected to be along the Front Range
- **Denver and El Paso Counties roughly the same size now..**
 - ***Denver County:***
765,401
 - ***El Paso County:***
766,445

Sources: Colorado State Demography Office; CU Boulder Leeds School of Business

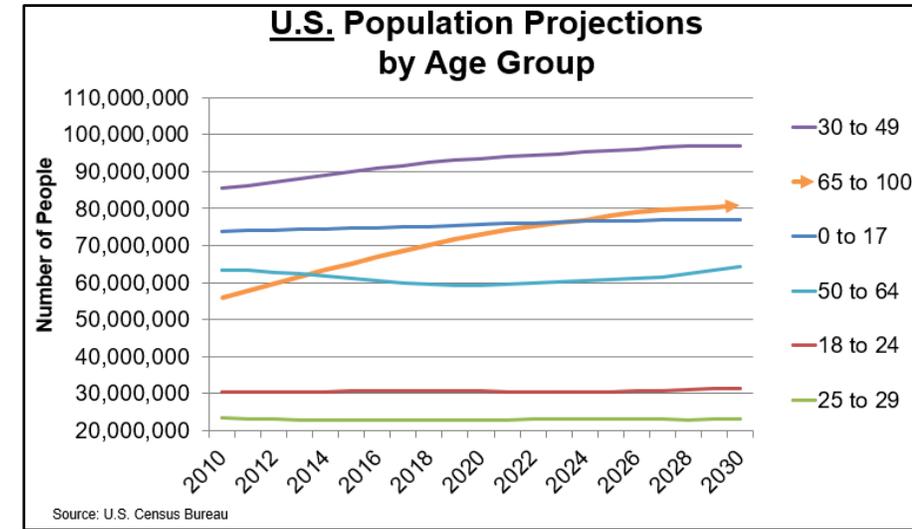
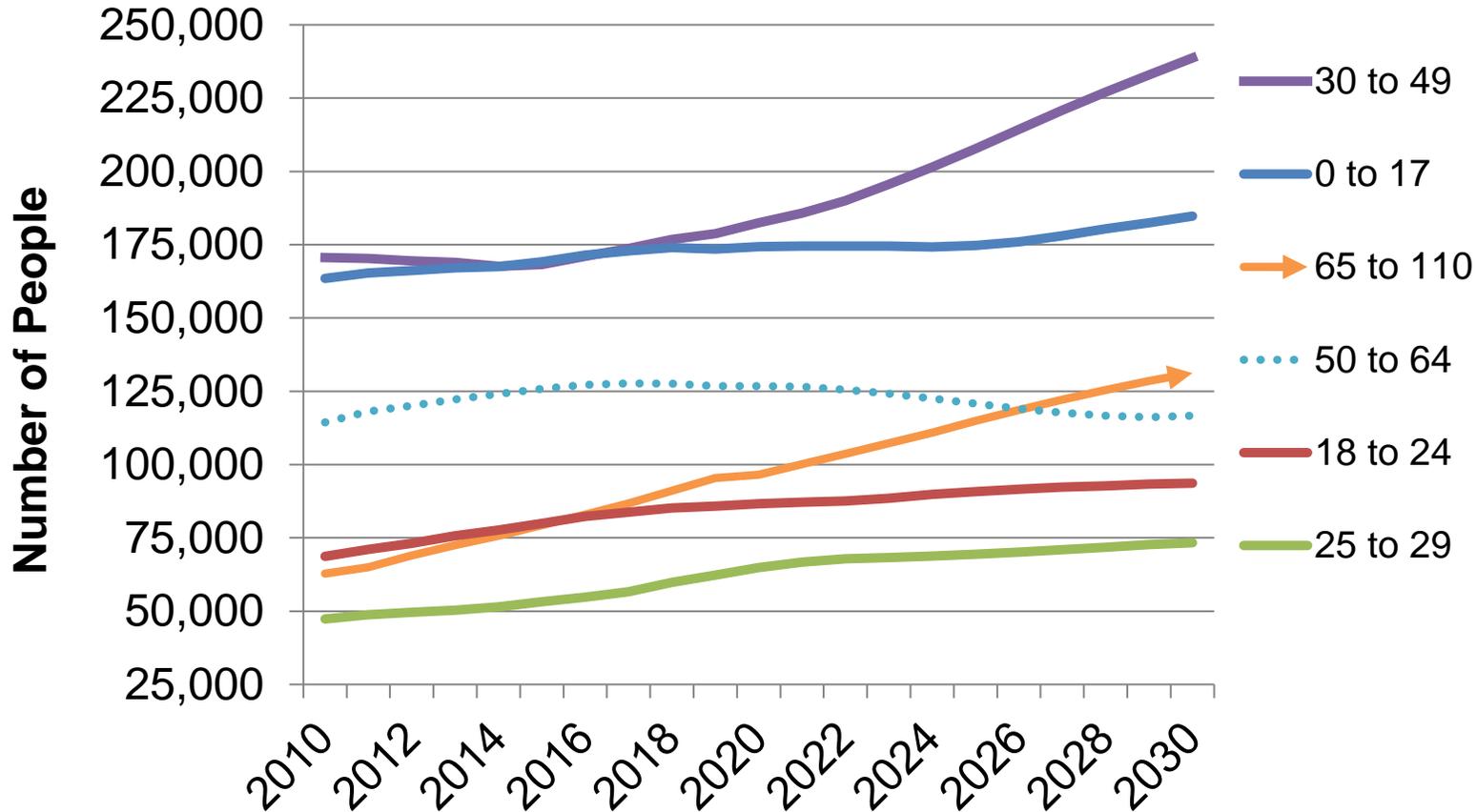
Where the Population is Changing, 2010 - 2020



2019 percent of the population moving from any other region/country to:
El Paso County: 10.6% *Colorado: 9.7%* *United States: 6.1%*

Sources: U.S. Census Bureau; Vintage 2019 Population Estimates, American Community Survey 1-year estimates

El Paso County Population Projections by Age Group



*Our young population today and tomorrow give us a **LARGE** competitive advantage IF we train workers appropriately.*

Note: From 2010 to 2015, Colorado Springs had a 14.7% increase in its millennial population. (Brookings)

Source: Colorado Department of Local Affairs, State Demography Office



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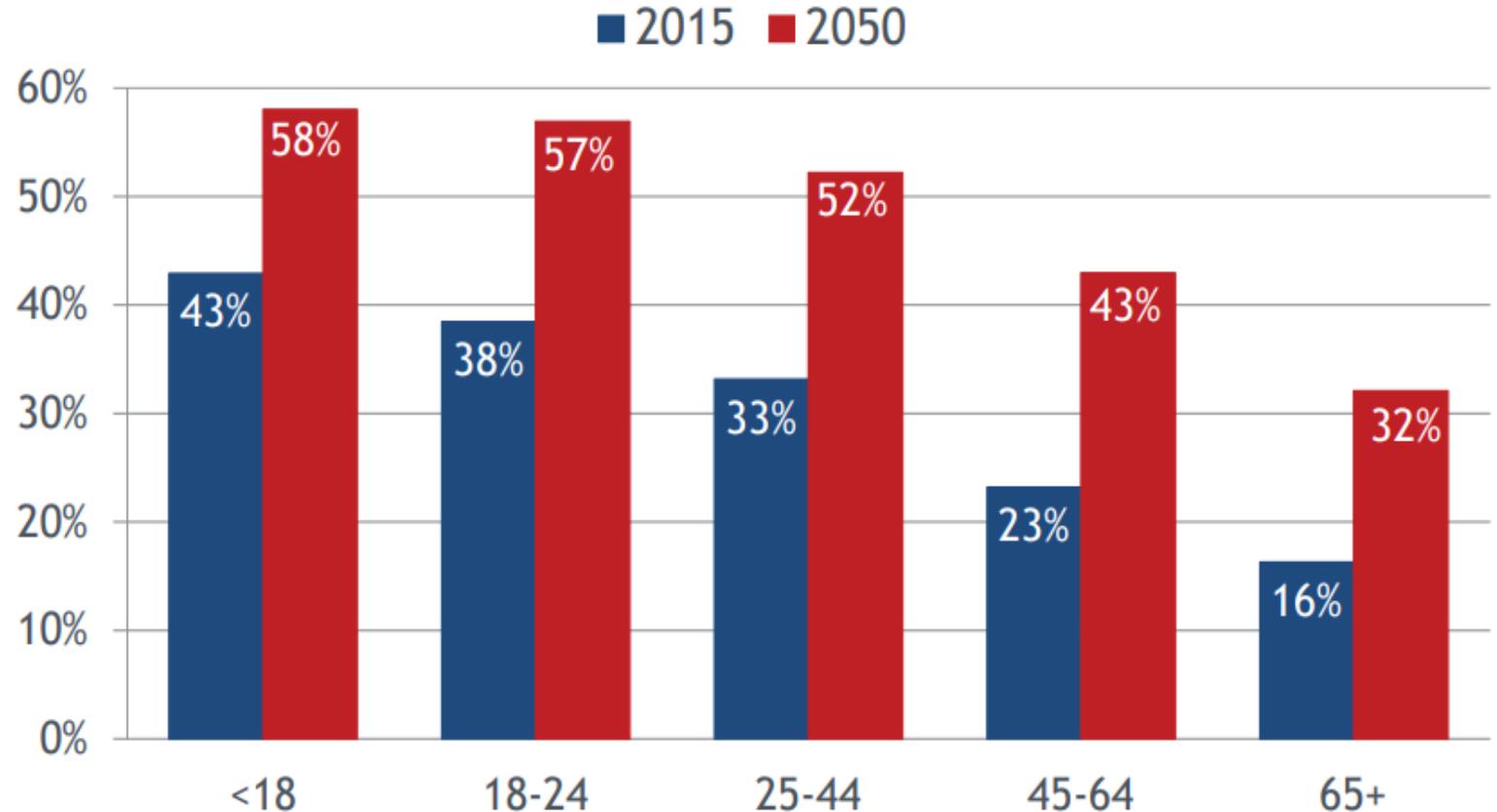


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Colorado: Projected Diversity by Age

Hispanic, Black, Asian, and other minority share



- Accessibility to good K-12 and post-secondary education
- Racial/ethnic minorities are CO's future workforce – make sure they have access to educ/training.

Source: Colorado State Demography Office last updated 11/5/2018.

Incentives to Work? Cultural and Cohort Shifts?

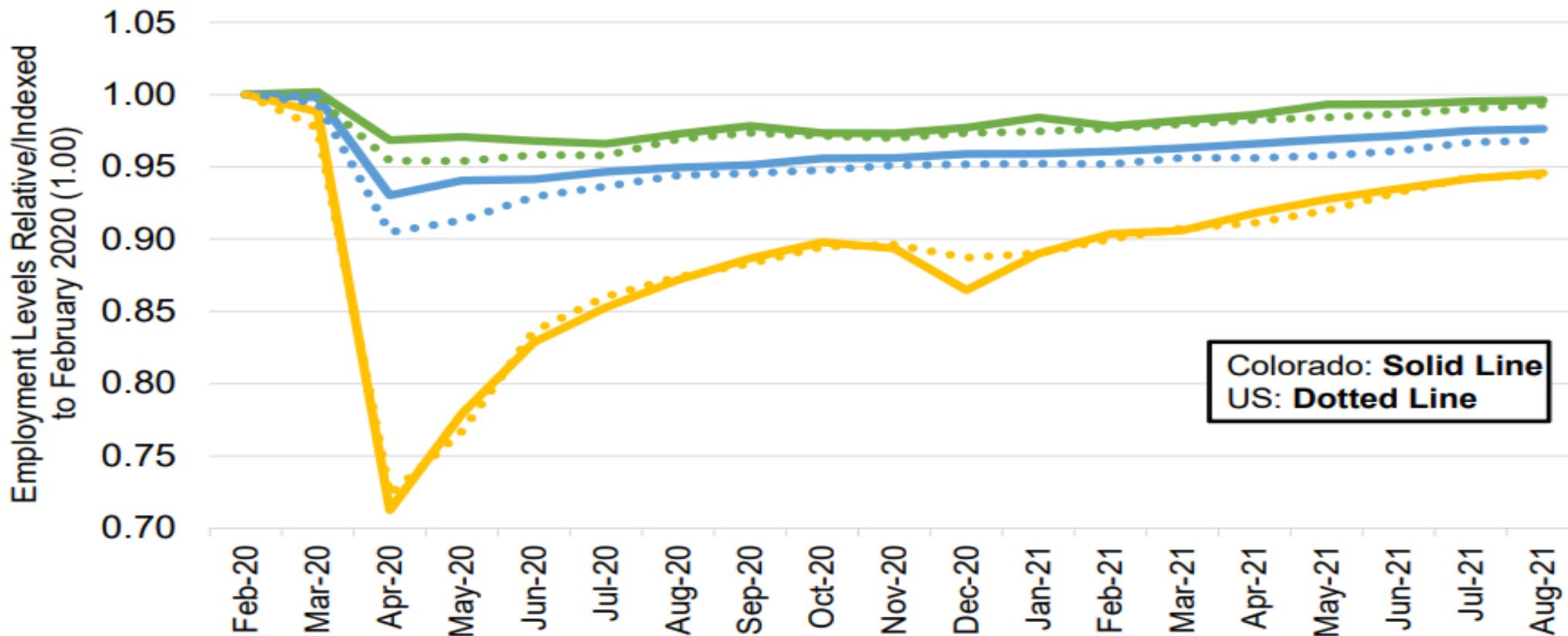


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Job Loss and Recovery by Low, Medium, and High Wage Industries (Colorado & U.S.)



Source: Colorado Department of Labor and Employment; Bureau of Labor Statistics

Data seasonally adjusted. Note: low, medium, and high wage industries are determined by the 2019 state-level average weekly wage estimates from the Quarterly Census of Employment and Wages. **Low wage industries include:** retail trade; admin support/waste mgmt; private education services; arts, entertainment, and recreation; accommodation and food services; and other services. **Medium wage industries include:** construction; manufacturing; transportation, warehousing, and utilities; real estate, rental, and leasing; private health care and social assistance; state government; and local government. **High wage industries include:** mining and logging; wholesale trade; finance and insurance; professional and technical services; management of companies; and federal government.



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Income Inequality

- The top 1% of U.S. earners account for 21% of the country's total annual income while the lowest earning 25% account for only 3.7% of total U.S. annual income (IRS 2017 income data).
- The top 1% of households had an average annual income of \$2 million while average income for the lowest 20% was \$21,300, a 94-fold difference according to 2017 Congressional Budget Office (CBO) data
- Averages are skewed by outliers such as the top .01% of households that had an average income of \$48.5 million in 2017 (CBO).

Income includes wages, salaries, dividends, pensions, rental & other income.

Another Angle: Wage Inequality

- Earned wages are another way to look at financial standing (Social Security Administration data).
- “Wages and tips” do not include other financial resources such as dividends as does the “income” metric above.
- Wage data was available for 2019 and it shows that the top 1% (2.7 million of the 170 million workers) earned 16.2% of all wages while the bottom 25% (44 million workers) earned 3.1% of total wages.
- The bottom 50% (86 million workers) earned only 15.1% of total wages.
- From 1979 to 2017, real wages for the top 1% increased 157% while the wages for the bottom 90% grew 22%.

Note: A higher share of “income” will accrue to the top percentiles than will be the case for “wage earners” because higher income individuals tend to obtain more of their financial gains from investments and in fact, do not always work for wages.

Another Angle: Wealth Inequality

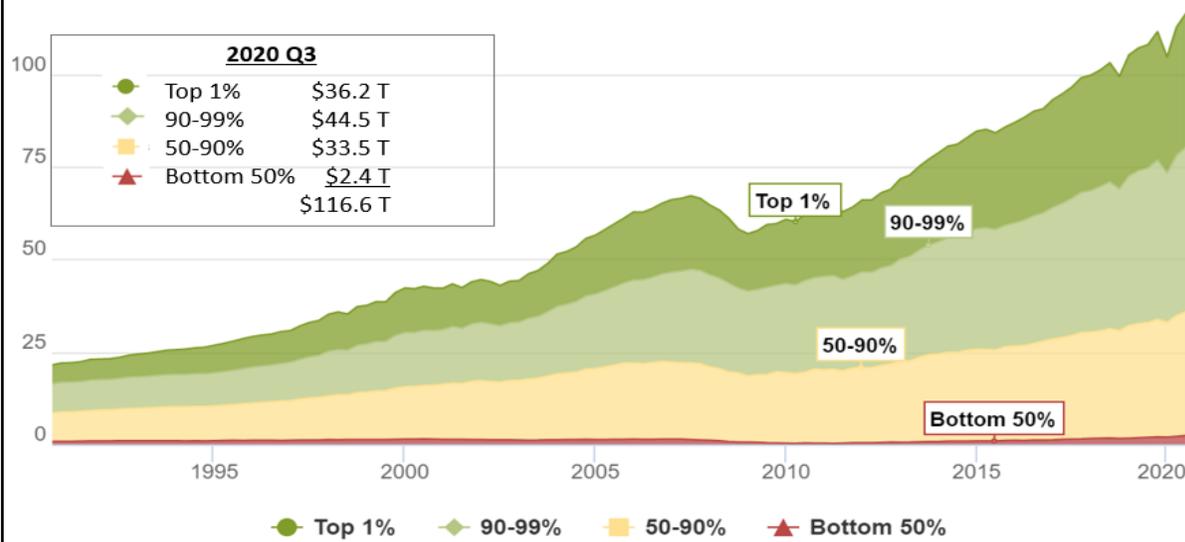
- Another important metric to look at is wealth or net worth. This data is available from the Board of Governors of the Federal Reserve System.
- This metric incorporates assets such as money in bank accounts, cars, and homes minus the debts owed.
- The Fed tracks this data on a quarterly basis and 2020 Q3 data shows that the top 1% had 31.0% of the total wealth (\$36.2t), those in the 90-99% had 38.2% of total wealth (\$44.5t), those in the 50-90% had 28.7% of total wealth (\$33.5t) and the bottom 50% had 2% of total wealth (\$2.4t) in the U.S. (Figures 1 and 2).
- The bottom 50% represent most of the laid off workers from pandemic
 - Their lack of wealth means that they do not have the assets to help cushion wages lost and payments missed especially once stimulus is gone (and that's a lot of people)
 - Their credit may be damaged during this crisis, which will hamper their ability to build assets in the future, like a home.

Figure 1. Distribution of Household Wealth (Dollars)

(Board of Governors of the Federal Reserve System, Survey of Consumer Finances & Financial Accounts of the U.S.)

Trillions of Dollars

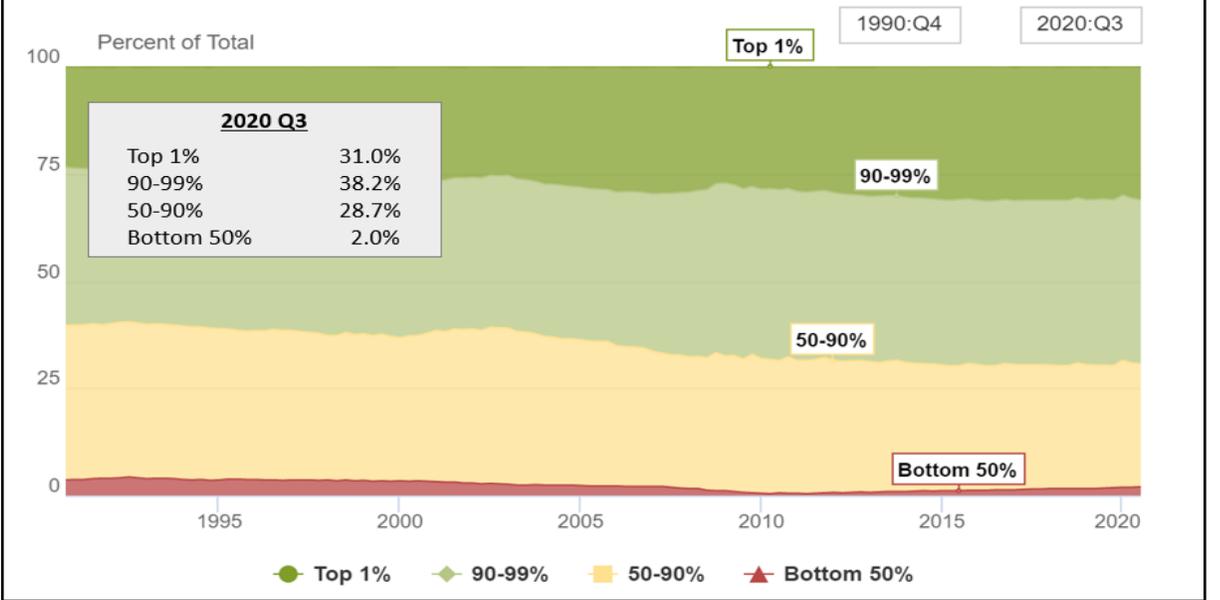
1990:Q4 2020:Q3



Wealth Inequality

Figure 2. Distribution of Household Wealth (Percent Allocated to Each Wealth Group)

(Board of Governors of the Federal Reserve System, Survey of Consumer Finances & Financial Accounts of the U.S.)



Income Inequality and Incentives

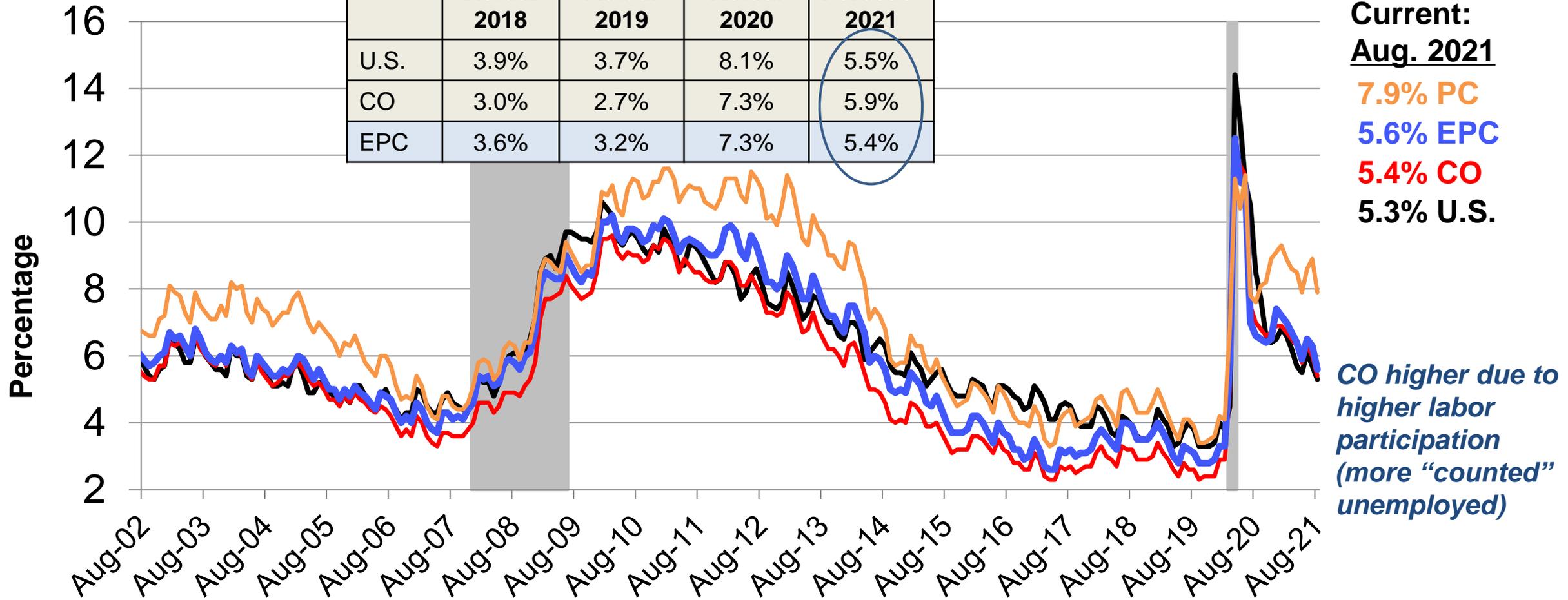
- Turning back to incentives, let's now take a closer look at the poorest contingent who are at or below the federal poverty level (FPL).
- **The FPL for an individual, which is the threshold for receiving Medicaid and other federal assistance is currently \$12,760 and \$26,200 for a family of four.**
- **If someone works full time at the \$7.25 minimum wage, they make \$15,080 a year, but often those jobs do not offer health benefits whereas being under the FPL creates access to health benefits.**
- It's not surprising that many people who do not have access to higher education and higher earning potential choose not to work given this **tradeoff between full-time, low-pay work and receiving social assistance like Medicaid**. Likewise, it's not surprising that **many females choose not to work because of the high cost of childcare**. **Higher education is also increasingly out of reach with even middle-income families finding it difficult to afford higher education** for their children.
- Many college degrees do not always ensure a living wage anymore, so more individuals are questioning the **return on investment of higher education** especially with high student debt load.
- The incentive structure just isn't so clear anymore.

Article by Tatiana Bailey: https://gazette.com/business/investments-in-long-term-sustainable-economic-growth-are-also-investments-in-americans-tatiana-bailey/article_82bd2a1a-4c65-11eb-94bf-df916344d886.html

What About Labor and Wages in Colorado and Colorado Springs??

Monthly Unemployment Rate – NSA

	Actual 2018	Actual 2019	Actual 2020	Forecast 2021
U.S.	3.9%	3.7%	8.1%	5.5%
CO	3.0%	2.7%	7.3%	5.9%
EPC	3.6%	3.2%	7.3%	5.4%



Note: September 2021 U.S. unemployment rate: 4.6%.

Unemployment rate is from the CPS and includes self employed. Last time EPC rate was higher than U.S. was April 2014. Forecasts for the U.S. and CO by the Colorado Office of State Planning and Budgeting, September 2021. EPC forecasts by UCCS Econ Forum.

Sources: U.S. Bureau of Labor Statistics; Colorado Department of Labor and Employment



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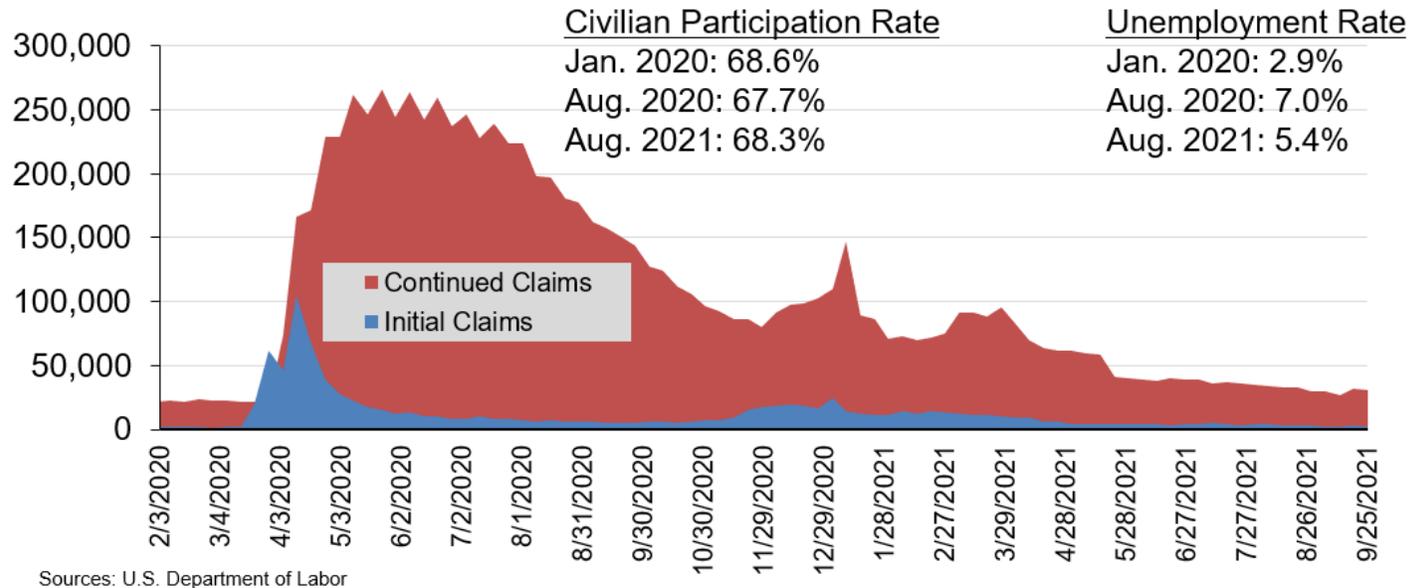


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We Do Still Have Elevated Number of Unemployed

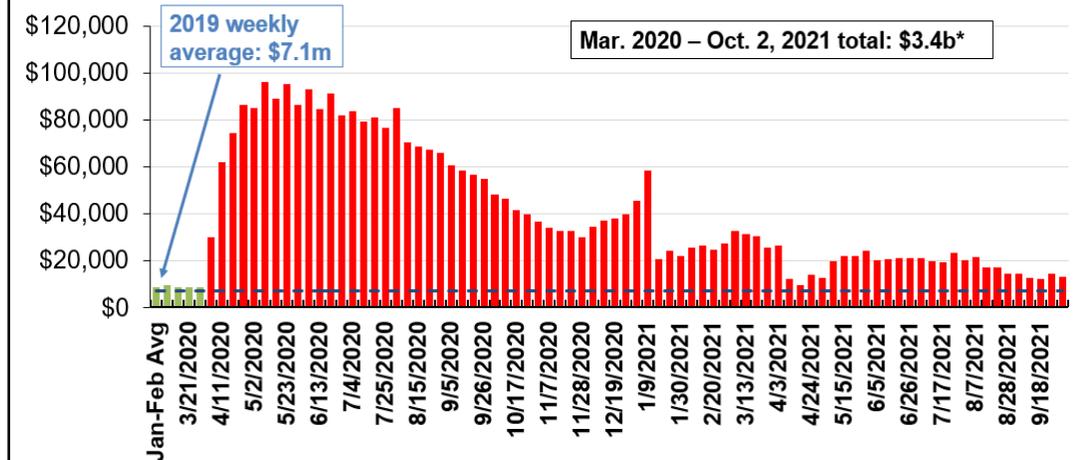
Colorado Regular Unemployment Claims



- Almost 190,000 unemployed (seasonally adjusted)
- Compared to 88,000 in February 2020
- LFP almost back to pre-COVID

- State has spent \$3.4b for their portion of unemployment payments
- Doesn't include federal programs like PUA.

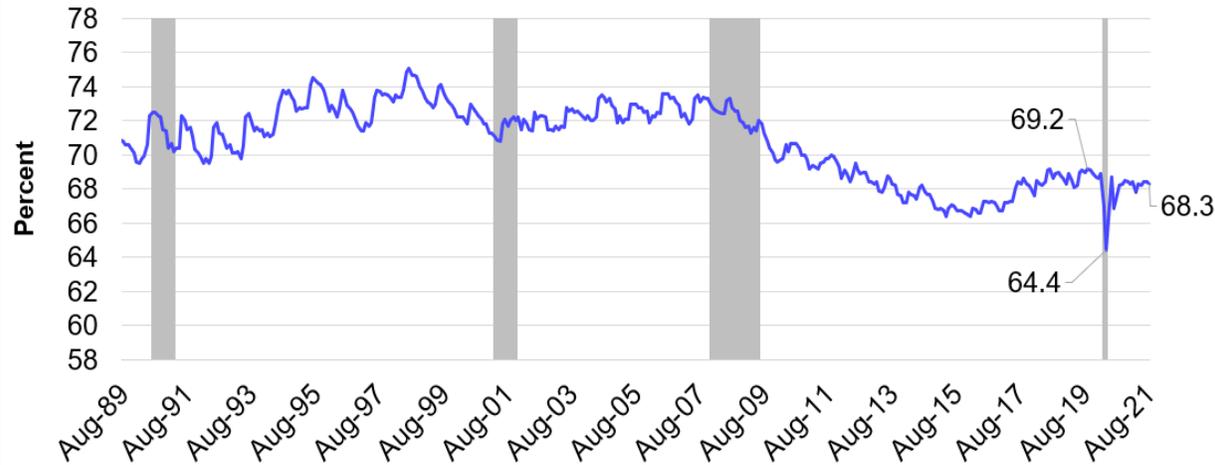
CO Regular Unemployment Insurance Benefit Amounts Paid



*UI paid for regular CO UI excl. federally paid PUA (gig/self-empl)
Source: Colorado Department of Labor and Employment.

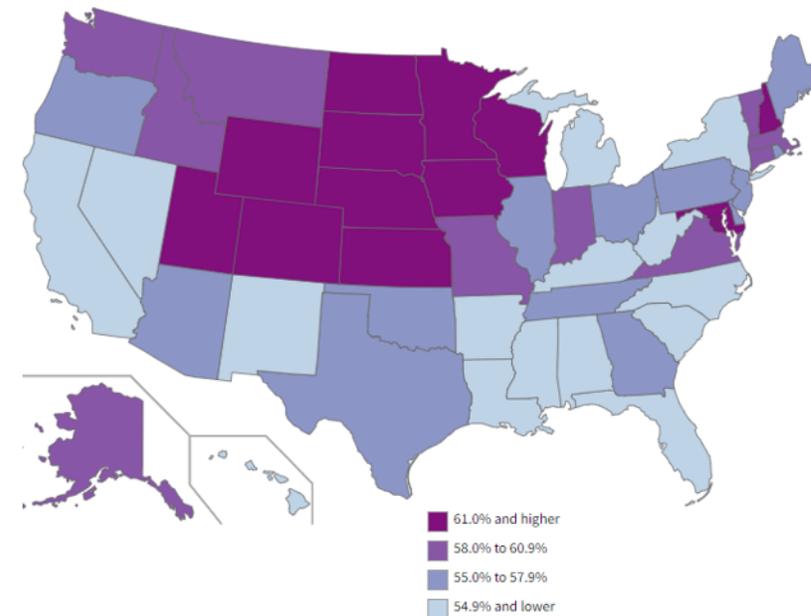
Good News: More Available Workers in Colorado...

Colorado Labor Force Participation Rate



Note: U.S. labor participation in the U.S. was 62.7% in July 2021, NSA.
Source: U.S. Bureau of Labor Statistics

2020 Employment-Population Ratio by State



- CO was 62.8% (down 4.1% from 2019).
- U.S. was 56.8% (down 4.0% from 2019).
- NE highest at 66.7%.
- WV lowest at 50.3%.

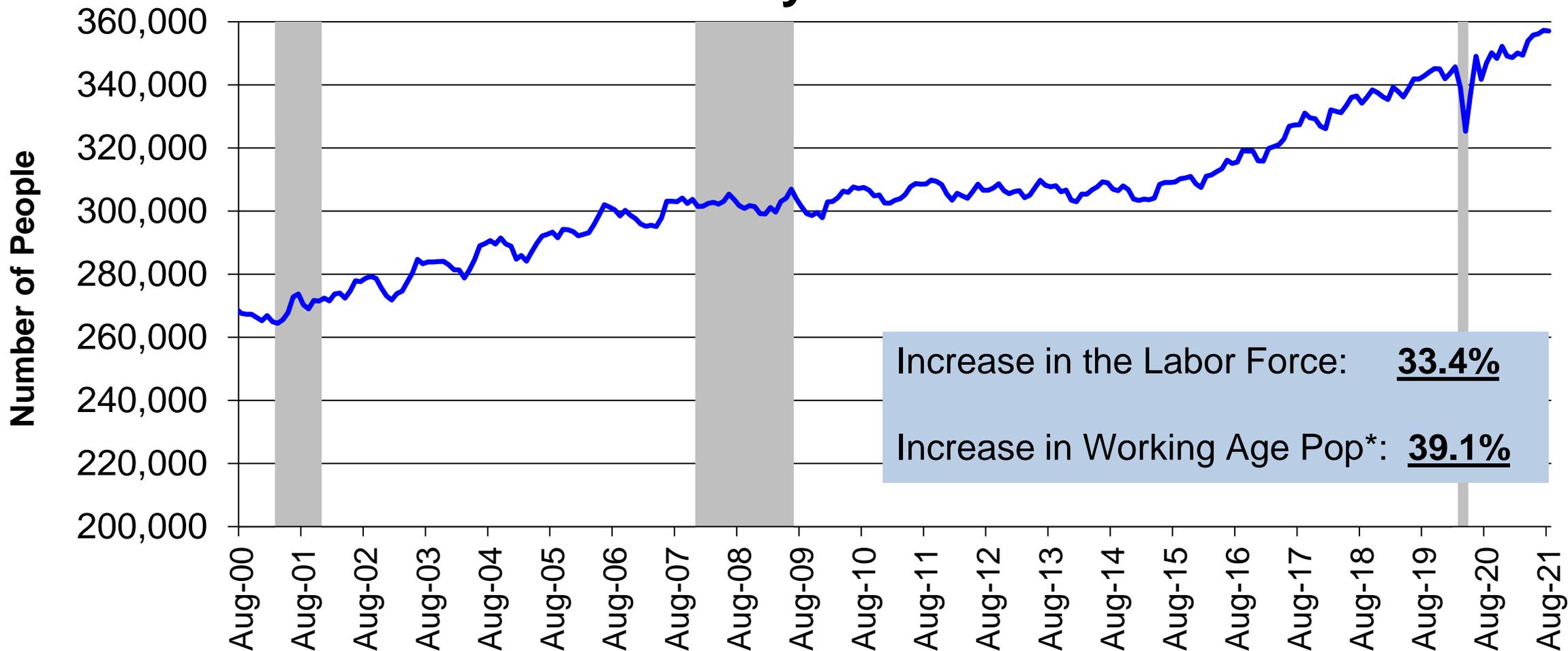
Source: U.S. Bureau of Labor Statistics

Hypothetical U.S. Unemployment Rate with CO LFPR

Month	CO Labor Force Participation Rate (LFPR)	U.S. Labor Force Participation Rate (LFPR)
February 2020	68.7	63.3
August 2021	68.3	61.7
Latest month LFPR recovery compared to Feb. 2020	99.4%	97.5%
U.S. August 2021 LFPR if recovery rate same as Colorado (99.4%)		62.9
Additional number of U.S. individuals who would be moved from not in the labor force to unemployed status given new LFPR figure of 62.9		3.2m, which would increase the U.S. labor force total from 161.5m to 164.8m, and the number of unemployed from 8.3m to 11.6m
U.S. Unemployment Rate in August 8.3m unemployed / 161.5m in labor force 5.2%		Adjusted U.S. Unemployment Rate 11.6m unemployed / 164.8m in labor force 7.0%

Sources: U.S. Bureau of Labor Statistics; Colorado Department of Labor and Employment; UCCS Economic Forum; Conversation with Ryan Gedney, Senior Economist Colorado Department of Labor and Employment. Data is seasonally adjusted.

Also True for Our Region: Increase in the Labor Force El Paso County 2000 – 2021*



*Ages 18-64; population is still 2000 – 2020

Sources: U.S. Bureau of Labor Statistics; Colorado Department of Local Affairs



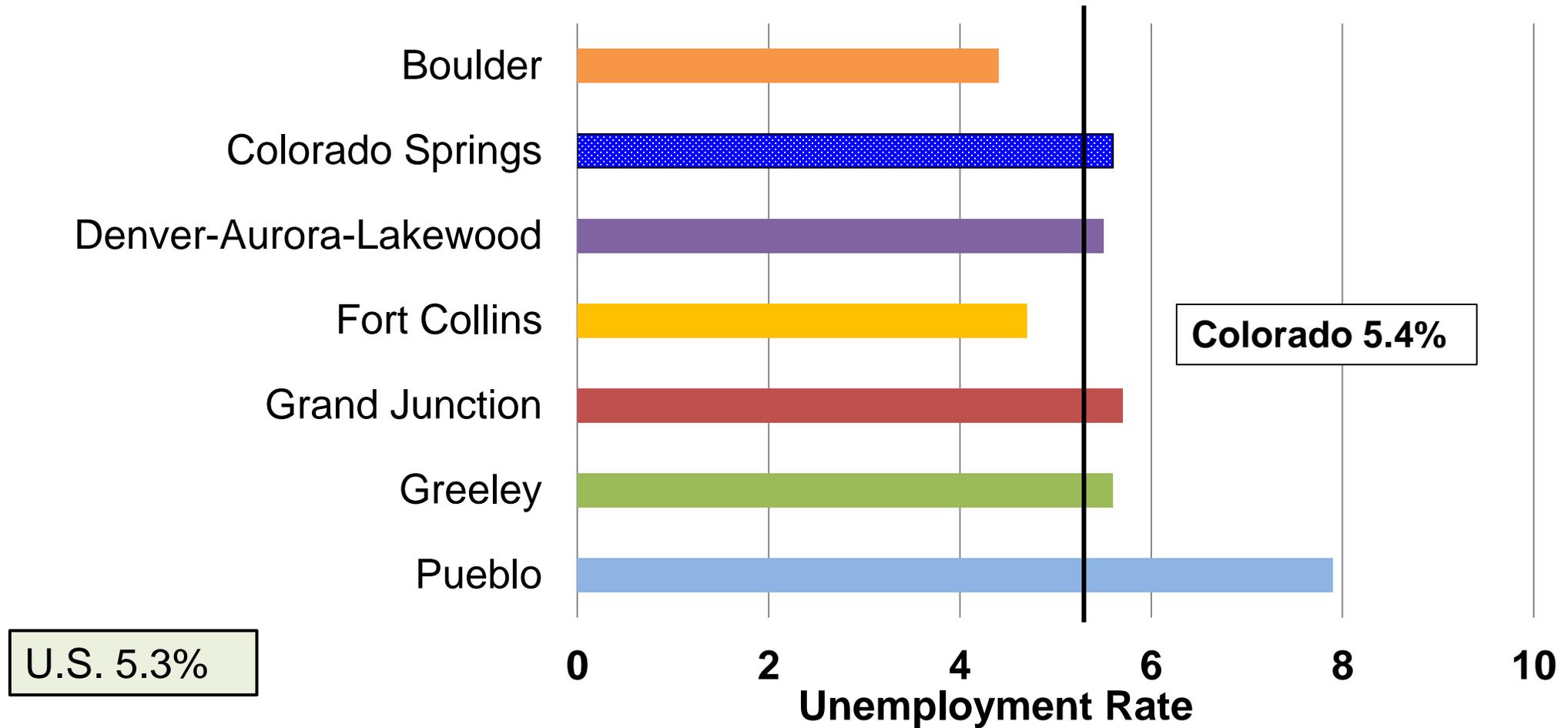
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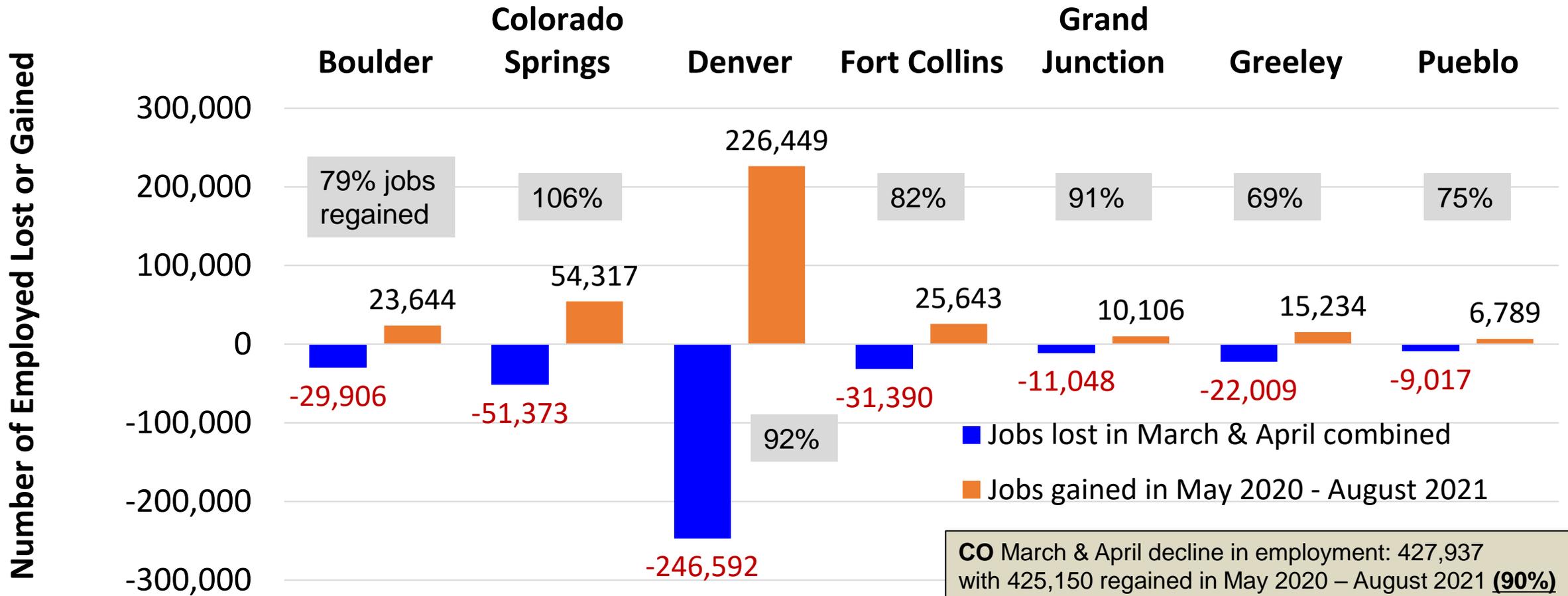
Regional Unemployment Rates, August 2021



Note: All data is not seasonally adjusted.

Sources: Colorado Department of Labor and Employment, Office of Labor Market Information; U.S. Bureau of Labor Statistics

More Good News ... Change in Employment March/April 2020 – August 2021

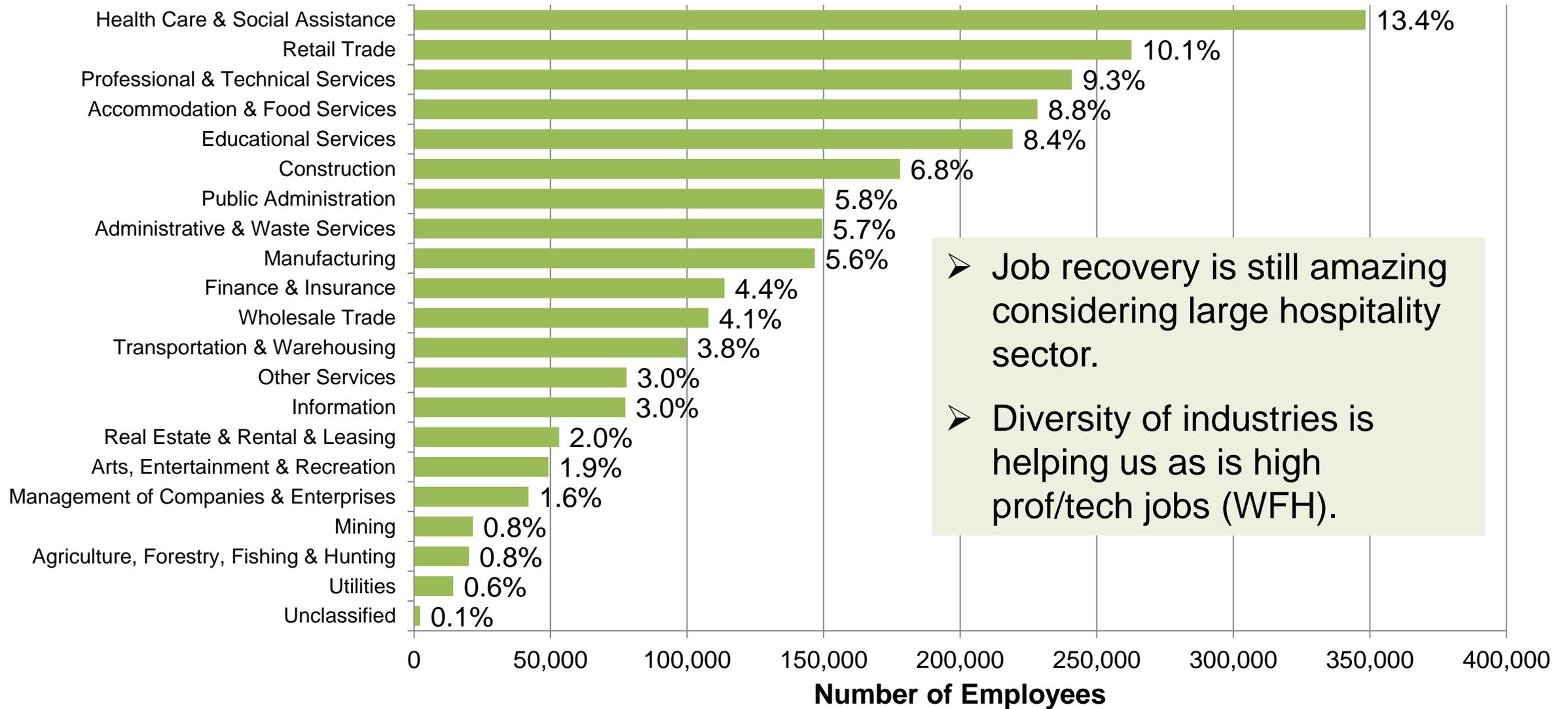


CO March & April decline in employment: 427,937
with 425,150 regained in May 2020 – August 2021 **(90%)**

U.S. March & April decline in employment: 24.7 million
with 19.9 million regained in May 2020 – August 2021 **(81%)**

Note: Data is not seasonally adjusted.
Source: Colorado Department of Labor & Employment, LAUS: U.S. Bureau of Labor Statistics

Employment by Sector in Colorado, 2020

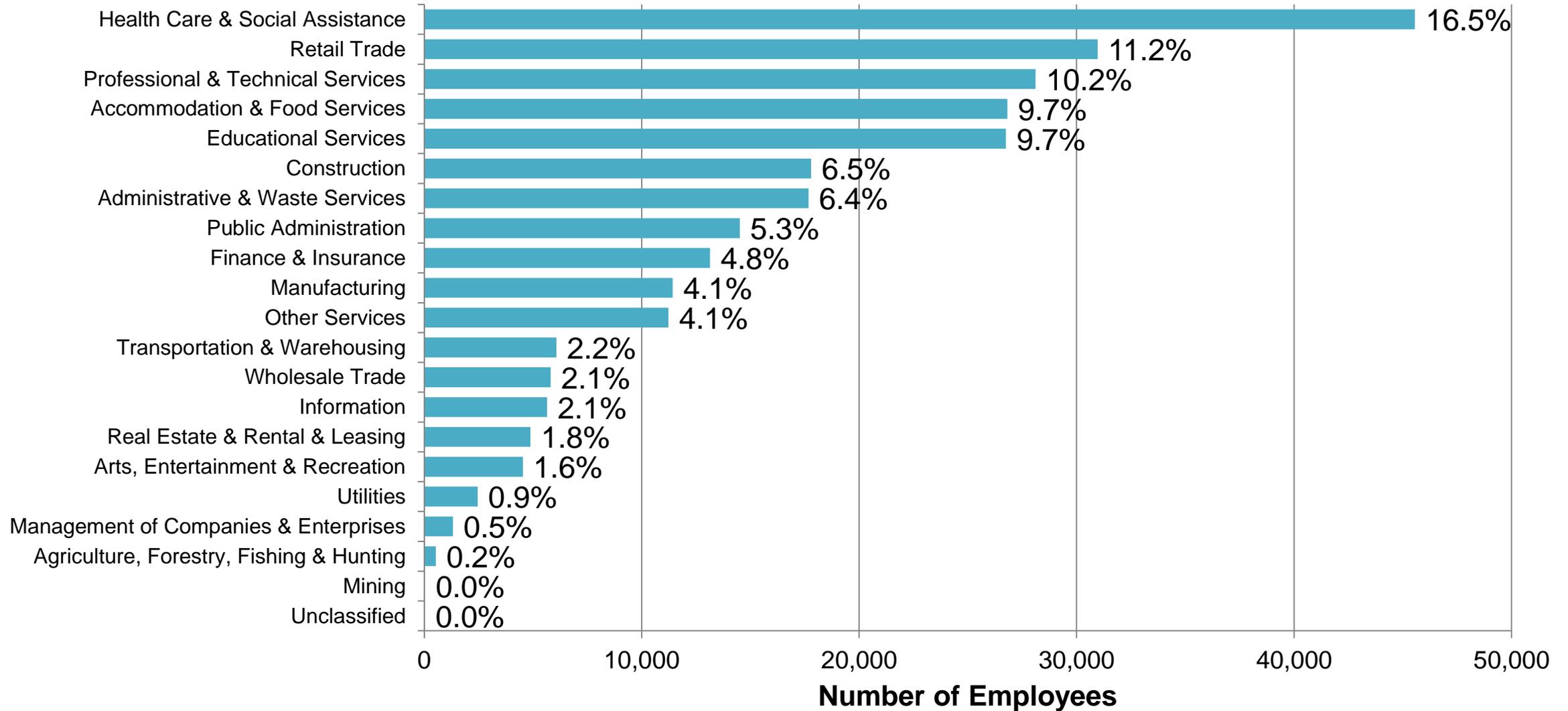


➤ Job recovery is still amazing considering large hospitality sector.

➤ Diversity of industries is helping us as is high prof/tech jobs (WFH).

Source: Colorado Department of Labor and Employment, Quarterly Census of Employment and Wages (QCEW)

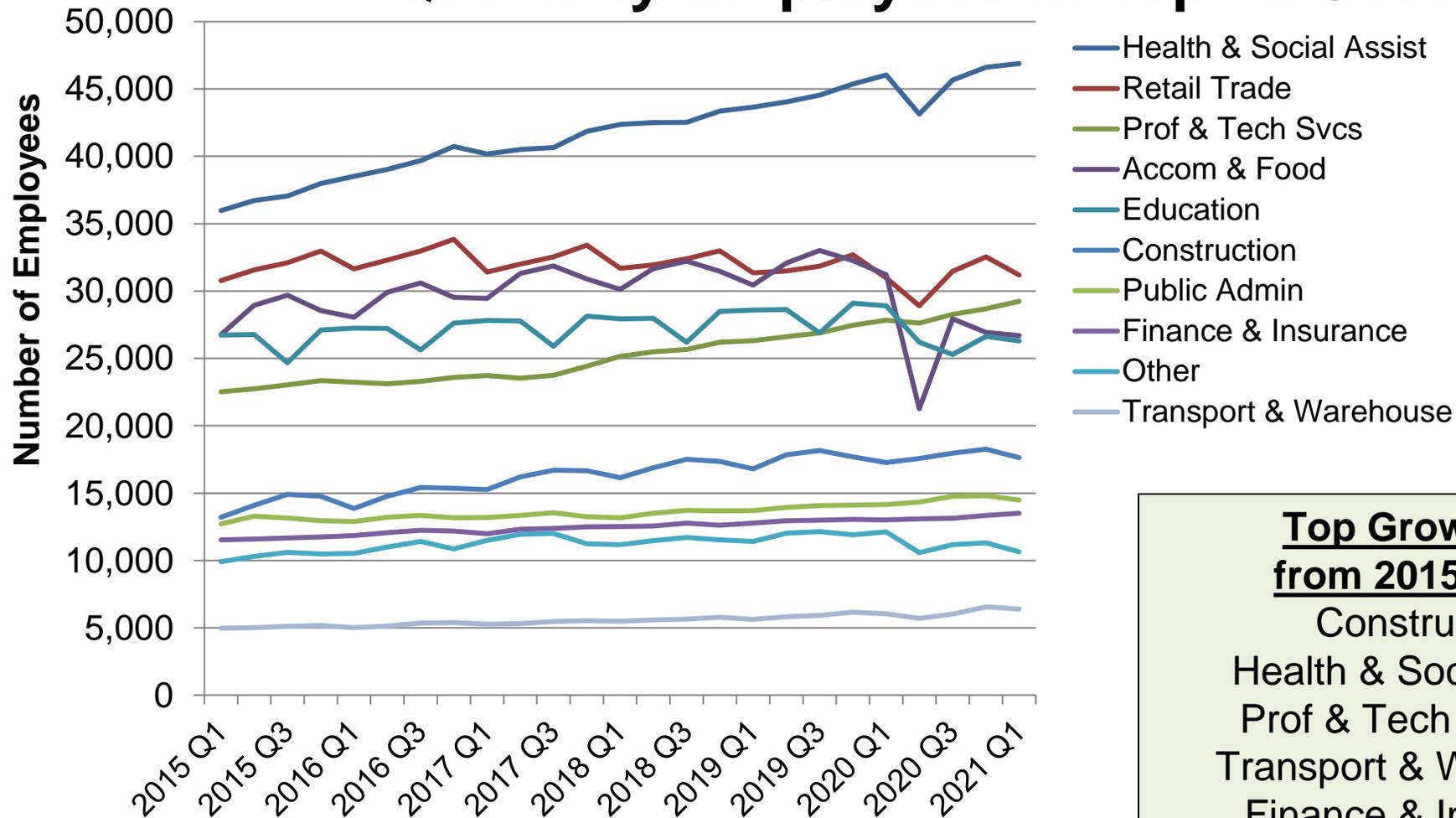
Private Employment by Sector in El Paso County, 2020



Sources: Colorado Department of Labor and Employment, Quarterly Census of Employment and Wages (QCEW)

Super Sectors Continue to Grow

Quarterly Employees in Top 12 Sectors



*These “super sectors”
accounted for 69% of
new jobs in 2019
(+ 7,038 jobs)*

Top Growing Industries from 2015 Q1 to 2021 Q1

Construction: +33.5%
Health & Social Assist: +30.3%
Prof & Tech Services: +29.8%
Transport & Warehouse: +29.0%
Finance & Insurance: +17.9%

Source: CO Department of Labor and Employment, Quarterly Census of Employment and Wages (QCEW)



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Top 7 Industries for Employee Growth in Colorado Springs MSA between 2020 and 2030

	Employment Change	Annual Average Percent Increase
Health & Social Assistance	14,933	3.0%
Pro, Sci & Tech Services	12,529	3.7%
Accom & Food Services	8,529	2.7%
Transportation & Warehousing	4,933	6.9%
Construction	4,139	2.1%
Educational Services	3,778	1.3%
Other Services	3,702	1.9%
Source: Colorado Department of Labor and Employment: QCEW		

Total Growth Projection: 66,758 employees gained, 2.0% annual average increase

Poverty and Wages

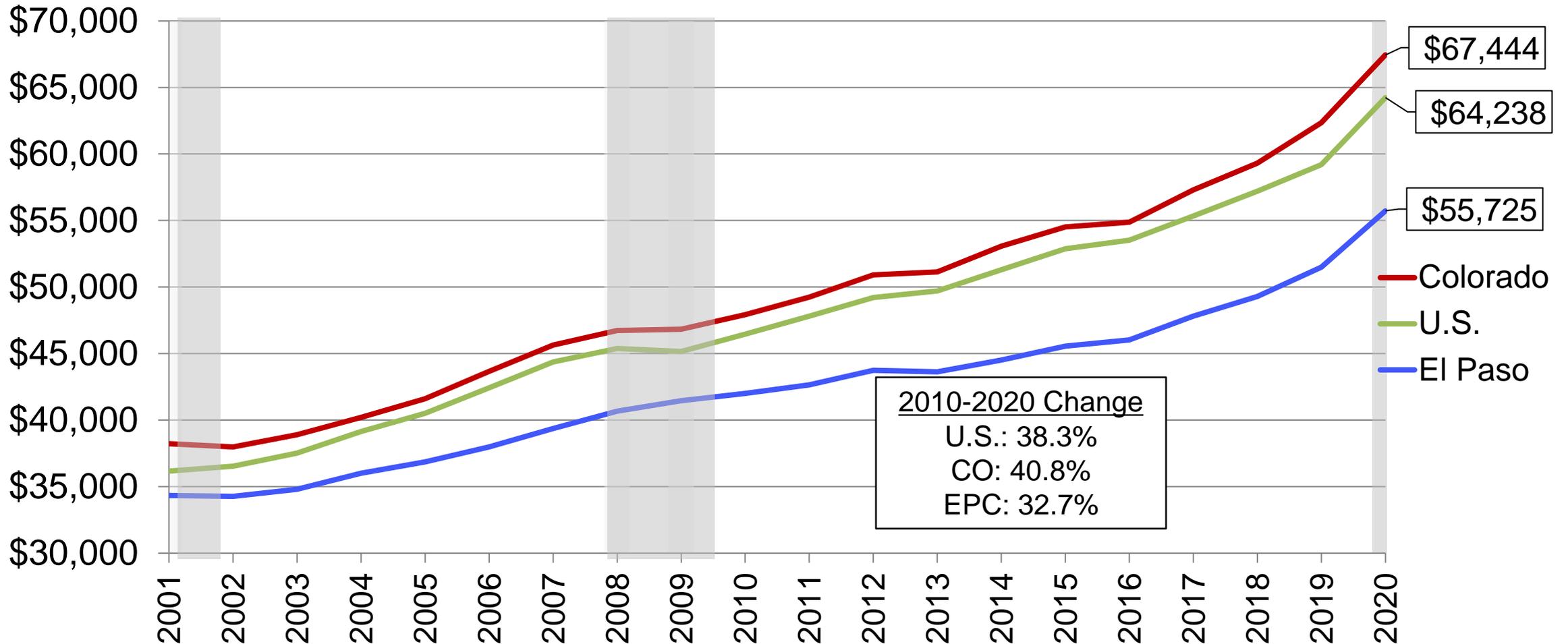
2019 Federal Poverty Level (FPL)		
	<u>El Paso County</u>	<u>U.S.</u>
% people at FPL or below	8.5%	12.3%
Note: FPL in 2019 was \$12,490 for an individual and \$25,750 for a family of four.		

Minimum Wage & Living Wage, El Paso County		
	<u>Wage/Hr</u>	<u>Annualized</u>
Minimum wage salary for full-time worker	\$12.00	\$24,960
Living wage: HHs with 1 adult, 2 children	\$40.09	\$83,387
Living wage: HHs with 2 adults (1 working), 2 children	\$33.39	\$69,451
Living wage: HHs with 2 adults* (2 working), 2 children	\$22.01	\$45,781
*Living wage is for each working adult. For specifics, go to livingwage.mit.edu .		

According to ACS data, 32.3% of HHs in EPC had a median income below \$50,000

Sources: U.S. Census Bureau, American Community Survey 1-year estimate; U.S. Department of Health & Human Services; MIT Living Wage Calculator

Private Annual Wages (Nominal)



Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

Still Have Work to Do: Pikes Peak Workforce Center

- In 2019, the PPWFC was averaging about 125-150 walk-ins per day
- Averaged about 375 during The Great Recession
- Now average 40-50 walk-ins per day
- Have training dollars, but they are not being tapped by eligible individuals
- “Ready to Rise” – new CO money to upskill, reskill and next skill (\$1.8m) training
 - Must be financially impacted by COVID
 - Training must be less than 12 months; through end of 2023
 - Using for a lot of incumbent workers
- Returning workers are looking for flexibility and WFH
- People are cutting HH costs, starting businesses, still getting child tax credit, enhanced public assistance including free medical through December
- Schools also using fund to help parents (e.g., technology, food assistance)
- Many parents can’t work (U.S. down 127,000 childcare workers); U.S. Census HH Pulse Survey: 31% were in homes where children were unable to attend daycare in past 4 weeks
- Local initiatives: Early Childhood Education Coalition (UCCS, PPCC, Early Connections)

Source: Traci Marques, Executive Director Pikes Peak Workforce Center

(Local) Early Connections and State Info

- Anecdotally hear of long waitlists, but state tracks that data and it's not robust.
- Early Connections (and a few others) have raised salaries by ~\$3/hr. up to \$18/hr with benefits and reduced childcare costs.
- They are likely poaching from lower-paying childcare centers.
- Many statewide childcare centers have enrollment freezes (due to teacher-child ratio licensing requirements) – further reduces available child slots esp. infants and toddlers.
- Child development certificate (U.S.) takes 9-12 months to complete; includes OJT
- Colorado has ~24,000 early childhood educators.
 - Employee costs make up about 80% of ECE program budgets
 - 1/3 of CO preschool/ECE workers rely on public assistance
 - These workers are among the lowest paid (2020 U.S. average pay: \$26,500/yr.)

Sources: Diane Price, Early Connections and Colorado Public Radio. *Program is through UC Denver and 3 Denver childcare centers.

Innovative Solutions

- D11 has community-based training; CS working to develop apprenticeships.
- One other possible solution: “Place-based bachelor’s degree”*
 - Program is through UC Denver and 3 Denver childcare centers.
 - Bachelor’s degree credits gained on the job
 - 17% of CO childcare workers have a bachelor’s
 - Better child outcomes and higher retention (quit costs \$17,000)
 - That \$17k could instead be put into teacher salaries...
- (Finally!) Attention to the issue: Federal funding
 - Colorado putting \$275m of Fed \$ toward reducing tuition and increasing ECE pay

Source: Diane Price (Early Connections) and Colorado Public Radio.

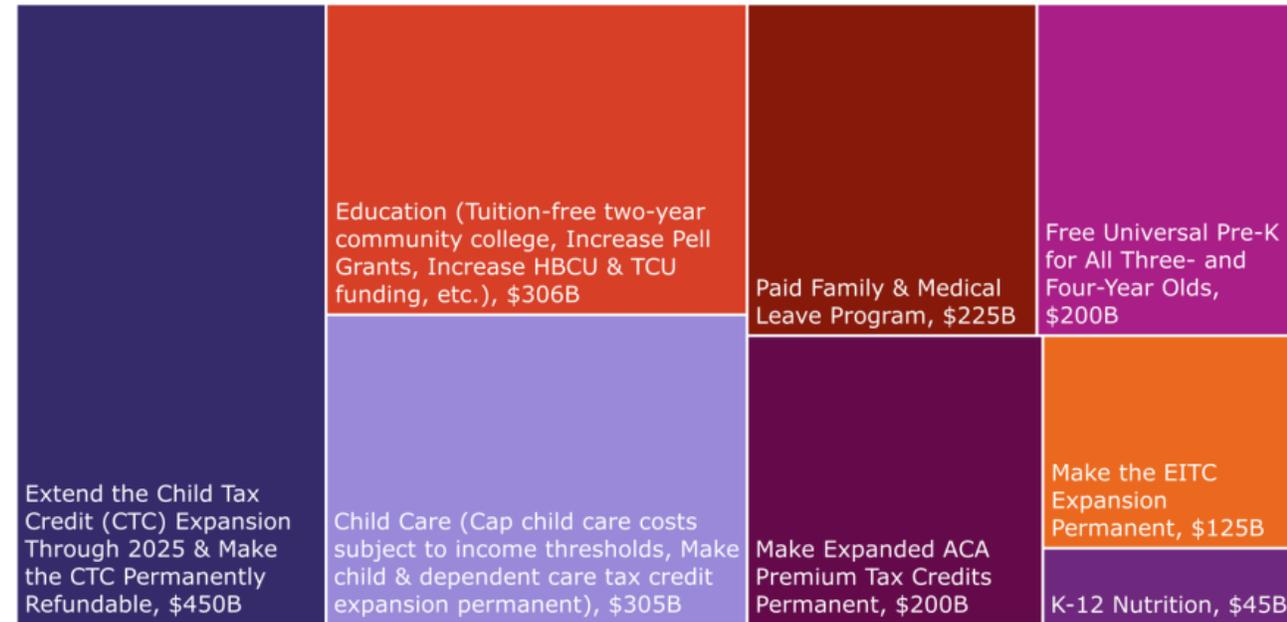
Handouts versus Investments

- American Jobs Plan: \$137b for education and childcare
- American Families Plan:
 - \$200b for free universal pre-K (3-4s)
 - \$305b to cap childcare costs tied to income & make dependent care tax credit permanent
 - \$450b extend and make permanent the child tax credit (may indirectly defray childcare costs)
 - Total almost \$100b

American Jobs Plan



American Families Plan



Source: The White House and Wells Fargo Securities

What's the Return on Investment for 4's Program?

Annual Economic Summary: Short-term Benefits

State & Local Taxes	\$1.5 million
K-12 State & Local Savings	\$2.2 million
State & Local Welfare Savings	\$12.5 million
TOTAL ANNUAL SAVINGS	\$16.2 million

The ROI in the short-term is 19% per year.
(If Colorado Springs ECE Program costs \$13.5m)

Does not include annual GMP contribution = \$45.9 million
If we include federal taxes, the ROI increases to 31%.

Study conducted by Tatiana Bailey and Rebecca Wilder, UCCS Economic Forum.
Funded by The Legacy Institute in 2019 using 2017 dollars.

What's the Return on Investment Downstream?

Total Annual Impact After First Early-Childhood Education Cohort Enters the Labor Force (Long-term Benefits) Assumes 149 Additional HS Graduates*

State & Local Taxes	\$1.5 million
K-12 State and Local Savings	\$2.2 million
State and Local Welfare Savings	\$12.5 million
Future State & Local Taxes (of ECE graduates)	\$300,401
TOTAL ANNUAL IMPACT	\$ 16.5 million

Societal ROI is 22%.

Does not include short-term GMP contribution = 45.9 million

Does not include future GMP contribution = \$1.97 million

*129 of those graduates would have participated in the LF regardless of ECE, but will have higher earnings due to HS diploma, and there would be 20 add'l workers who would not have participated in the LF at all if they had not had ECE.

Study conducted by Tatiana Bailey & Rebecca Wilder, UCCS Economic Forum. Funded by The Legacy Institute in 2019 using 2017 dollars.

Skills Gap as a Barrier to Work



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Job Openings and Labor Supply

August 2021	U.S.	Colorado	Colorado Springs MSA
Job Openings	7,758,067	226,555	29,005
Total Unemployed	8,556,000	171,287	20,707
Workers Available per Job Opening	1.10	0.76	0.71

Locally, based on total unemployed (20,707) divided by total job openings (29,005) = 0.71

Sources: The Conference Board® Burning Glass® Help Wanted OnLine™ via Pikes Peak Workforce Center; CO Department of Labor and Employment; U.S. Bureau of Labor Statistics; UCCS Economic Forum

Colorado Springs MSA

September 2021

Top Job Titles	# of Job Postings	Market Salary
Registered Nurses	1,000	\$59,706
Software Developers, Applications	727	\$97,088
Retail Salespersons	702	\$26,536
Sales Reps, Wholesale & Mfg	558	\$44,104
Computer Systems Engineers/Architects	556	\$98,972
Managers	474	\$70,815
Customer Service Reps	474	\$28,334
First-Line Supervisors of Retail Sales	430	\$35,878
Maintenance & Repair Workers	386	\$32,478
Food Prep & Serving (<i>new in top 10</i>)	375	\$19,997

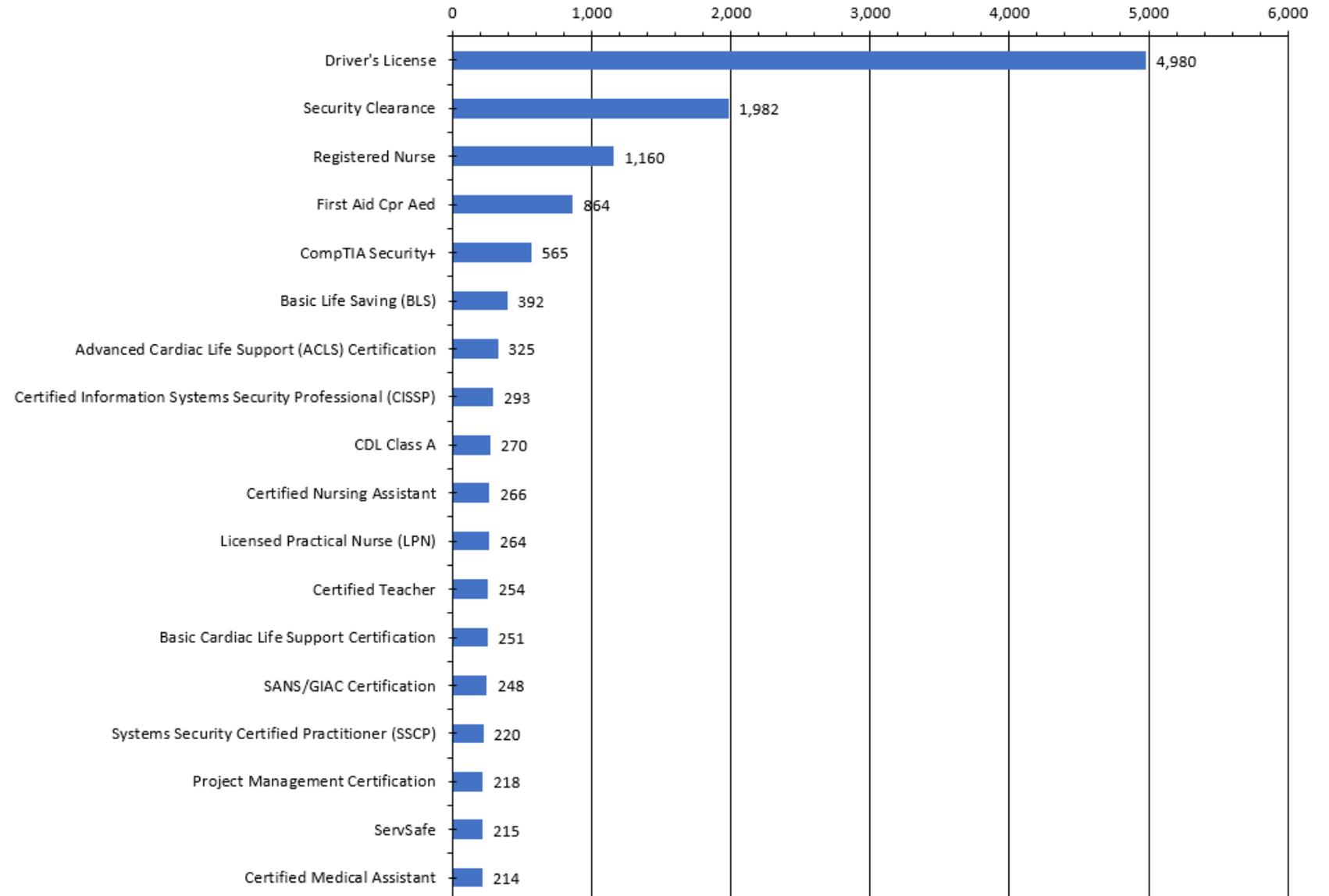
TOTAL JOB OPENINGS: 27,142

Source: The Conference Board® Burning Glass® Help Wanted OnLine™ via Pikes Peak Workforce Center and CO Dept. of Labor & Employment

**Pandemic induced us
to look at..**

Highest Demand Certifications Colorado Springs

Certifications in Greatest Demand, Colorado Springs August 2021



Source: The Conference Board® Burning Glass® Help Wanted OnLine™
via Pikes Peak Workforce Center



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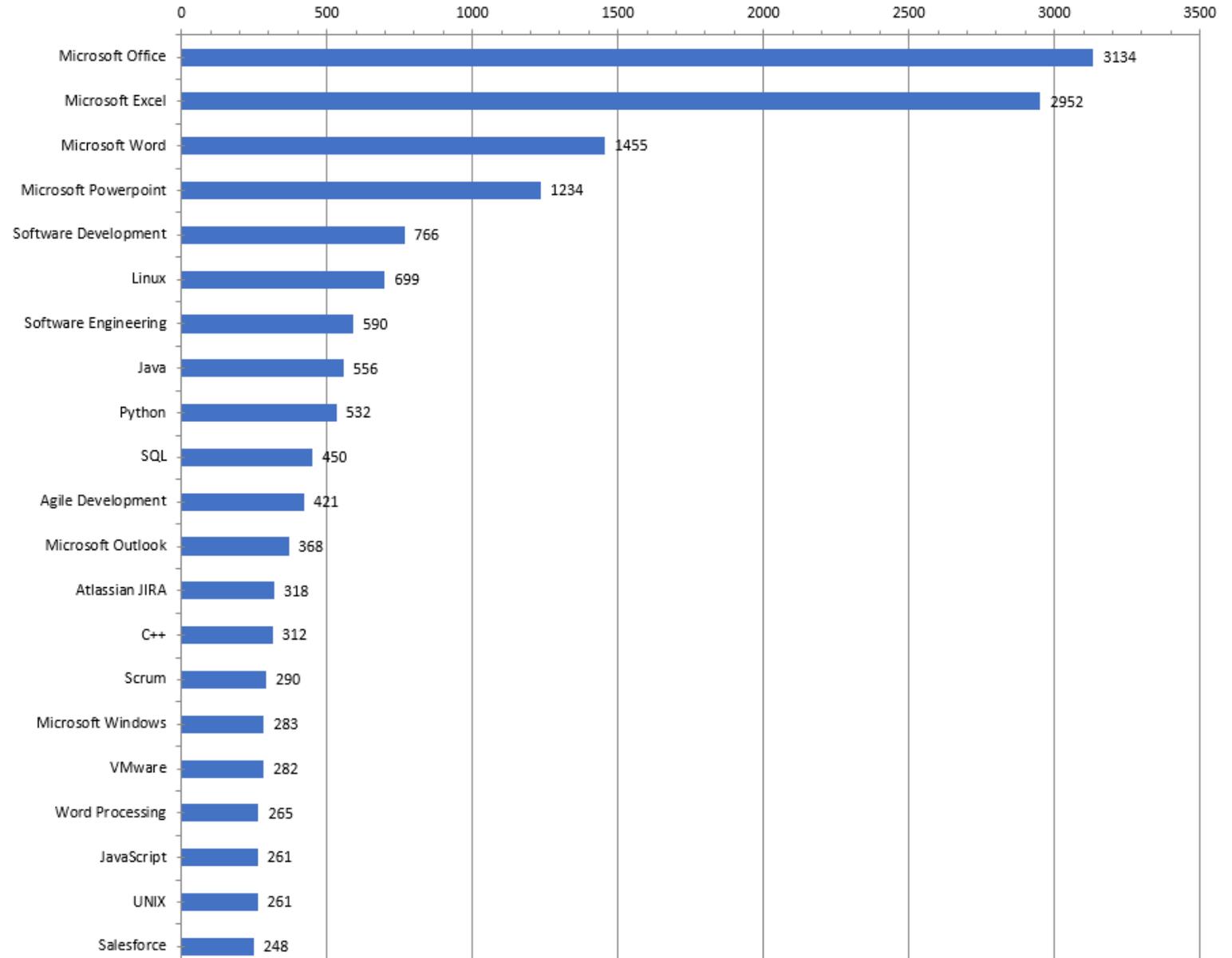


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Highest Demand Software Skills Colorado Springs

Software & Programming Skills in Greatest Demand, Colorado Springs August 2021



Source: The Conference Board® Burning Glass® Help Wanted OnLine™
via Pikes Peak Workforce Center



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Common Sense Solutions

- Audit high demand job postings against local, available training programs
- Not always easy to create or scale certain (costly) programs..
- But can focus on the few that are both high demand AND scalable.

Health Care Audit Preliminary Results

Job Category	2017 Job Postings Junior Level (0-2 Years)	Job Postings Total All Levels	2017 Labor Supply (Number of Local Graduates)**	Total Unmet Need (Demand – Supply)
Registered Nurse (#1)*	1,615	5,394	190	5,204
Medical Assistant (#6)	259	1,063	214	849
Nursing Assistant (#9)	486	1,463	95	1,368
LPN (Licensed Practical Nurse)	238	480	3	480
Phlebotomist	53	134	18	116

*Rankings are for job titles in Talent Neuron's May 2018 data, which is characteristic of 2017 postings.
 ** Graduates from PPCC, UCCS, Pima Medical Institute, National American University, and IntelliTec for calendar year 2017.
 Note: Job postings are for Colorado Springs MSA.

PPCC Offers	Occupation
Yes	Registered Nurses
Yes	Software Developers, Applications
	Retail Salespersons
	Sales Representatives, Wholesale & Manufac, Except Technical & Scientific Products
	Customer Service Representatives
	Managers, All Other
Yes	Computer Systems Engineers/Architects
	Heavy and Tractor-Trailer Truck Drivers
	First-Line Supervisors of Retail Sales Workers
Yes	Maintenance and Repair Workers, General
	Janitors and Cleaners, Except Maids and Housekeeping Cleaners
Yes	Nursing Assistants
	Laborers and Freight, Stock, and Material Movers, Hand
	Medical and Health Services Managers
Yes	Combined Food Preparation and Serving Workers, Including Fast Food
	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive
Yes	Cooks, Restaurant
Yes	Waiters and Waitresses
Yes	Automotive Specialty Technicians
	Maids and Housekeeping Cleaners
	Food Service Managers
	Personal Care Aides
	Landscaping and Groundskeeping Workers
	General and Operations Managers
Yes	Security Guards
Yes	Medical Assistants
Yes	Network and Computer Systems Administrators
Yes	Information Security Analysts
Yes	Construction Laborers
	Licensed Practical and Licensed Vocational Nurses
Yes	Computer User Support Specialists
	Driver/Sales Workers
	Sales Managers
	Hotel, Motel, and Resort Desk Clerks
	Dental Assistants

Common Sense Solutions

- Audit high demand certifications against local, available training programs
- Most of these are shorter duration, affordable, and offer a livable wage.

<u>Certification</u>	
Driver's License	
Security Clearance	
Registered Nurse	Yes
First Aid Cpr Aed	Yes
CompTIA Security+	Yes
Basic Life Saving (BLS)	Yes
Advanced Cardiac Life Support (ACLS) Certification	Yes
Certified Information Systems Security Professional (CISSP)	
CDL Class A	
Certified Nursing Assistant	Yes
Licensed Practical Nurse (LPN)	
Certified Teacher	*Yes
Basic Cardiac Life Support Certification	Yes
SANS/GIAC Certification	
Systems Security Certified Practitioner (SSCP)	
Project Management Certification	
ServSafe	Yes
Certified Medical Assistant	Yes
GIAC Security Essentials Certification	
Cisco Certified Network Associate (CCNA)	Yes
Certified Information Systems Auditor (CISA)	
Project Management Professional (PMP)	
Automotive Service Excellence (ASE) Certification	Yes
IT Infrastructure Library (ITIL) Certification	
Security Certified Network Professional	
Social Work License	*
Security Certified Network Architect	
Food Handler Certification	Yes

What If??

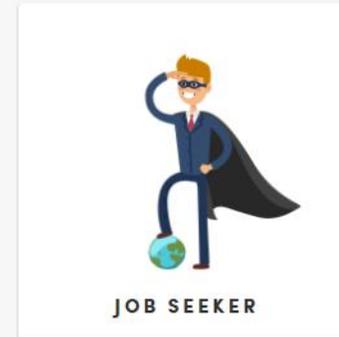
- Incorporated in-depth education in K-12 about high demand jobs?
- Ramped up internships/apprenticeships in local K-12 (PPBEA)?

Colorado Springs Workforce Asset Map

The Workforce Asset Map (WAM!) is a "one stop," free, online tool that helps job seekers, employers, and students identify and easily access workforce-related resources within the Colorado Springs region.



I am a...

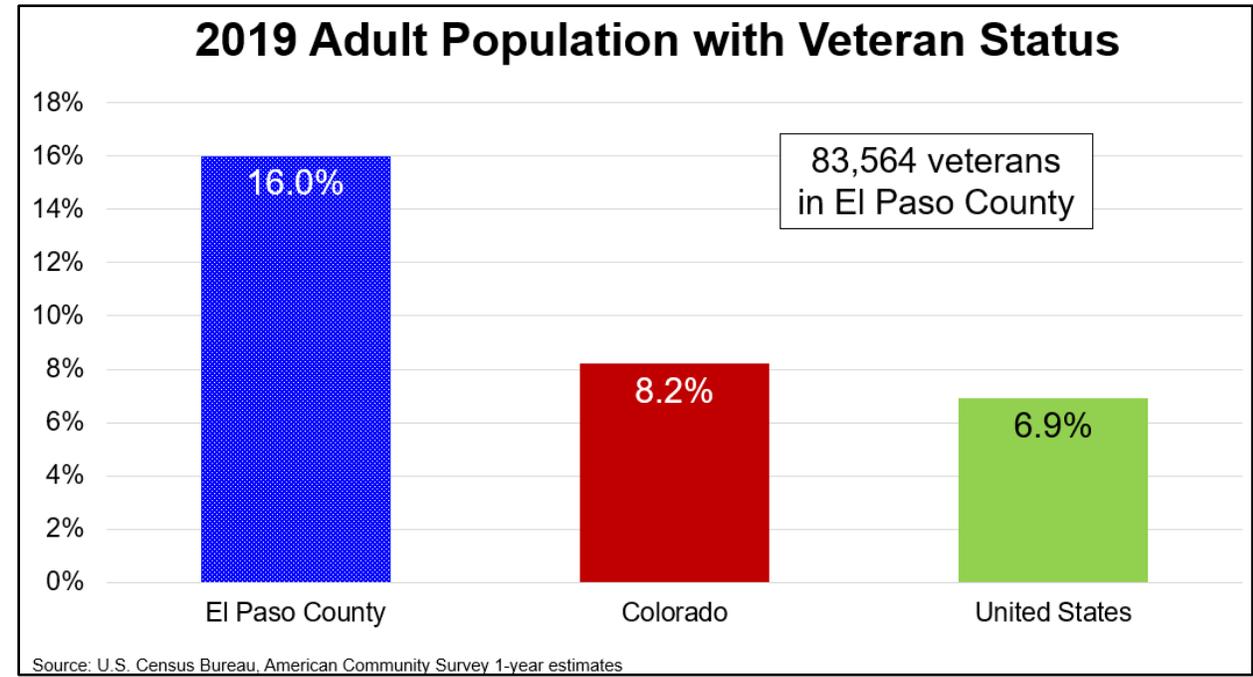


As you navigate through this website, the  indicates a veteran specific program or service (to include spouses and family members).

<https://wam.uccs.edu/>

What If??

- Fully utilize community colleges, which usually provide training at the lowest cost (with some support services)
- Subsidized state-wide support services; free community college?
- Fully utilize public universities, which have higher level training at best cost (UCCS)
- Build upon efforts to transition “retired” military into high-demand jobs



Skills Gap and High (University-Level) Education Costs Especially in Colorado



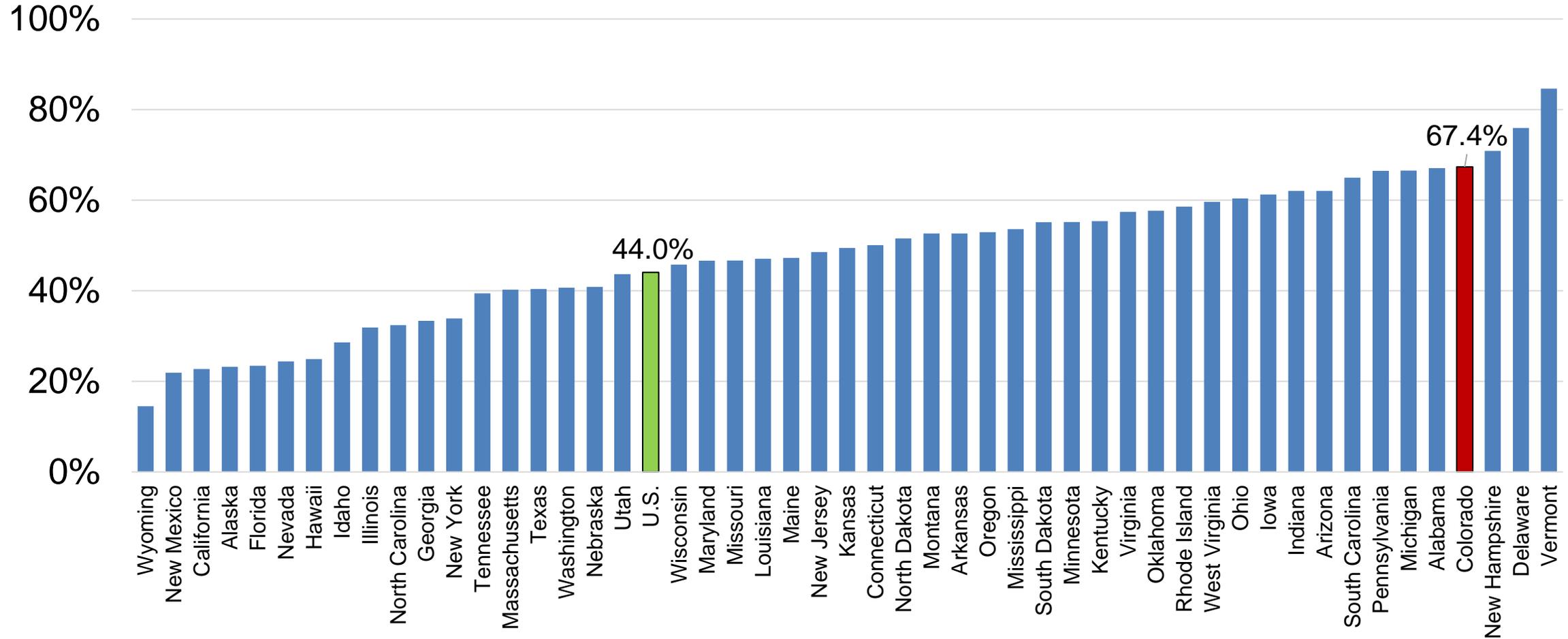
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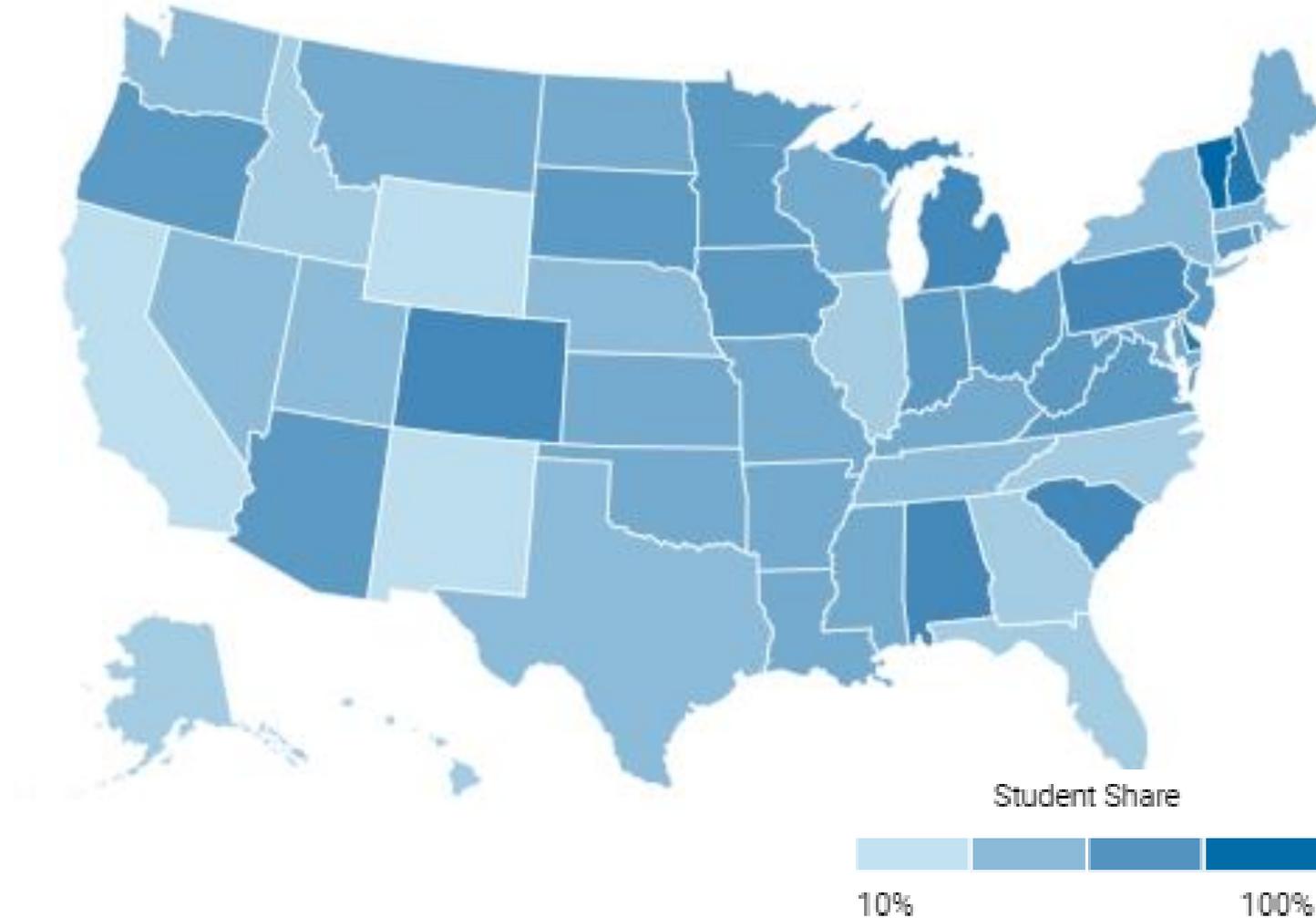
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Student-Paid Portion of Higher Education Tuition at Public Institutions in 2020



Source: 2020 SHEF Report, State Higher Education Executive Officers

Student-Paid Portion of Higher Education Tuition at Public Institutions in 2019



Source: 2019 SHEF Report, State Higher Education Executive Officers



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Student Loans Are a Problem

- Student debt now amounts to \$1.6t with 43m borrowers, more than credit card debt (\$807b); has doubled since 2007
- Average student loan debt is \$37,693 for all borrowers (\$30,520 for White borrowers; \$57,770 for Black borrowers)
- Private schools are more expensive than public: average private student loan debt \$54,921 (UCCS is ~\$11,000/yr.)
- 20 years after entering school, half of student borrowers still owe \$20,000
- Average of 15% of student loans are in default
- Ubiquitous – 70% of college grads have student loans

Source: Educationdata.org

Completion is a Problem

- About 50% of university-level students who enroll, do not graduate by the end of their 6th year (and after 6th year it's unlikely).
- Weighted average
 - 62% for all four-year institutions combined
 - 61% for public institutions
 - 67% for private nonprofits
 - 25% for private for-profits!
- How much is attributable to costs?? To academic readiness?? To income inequality??

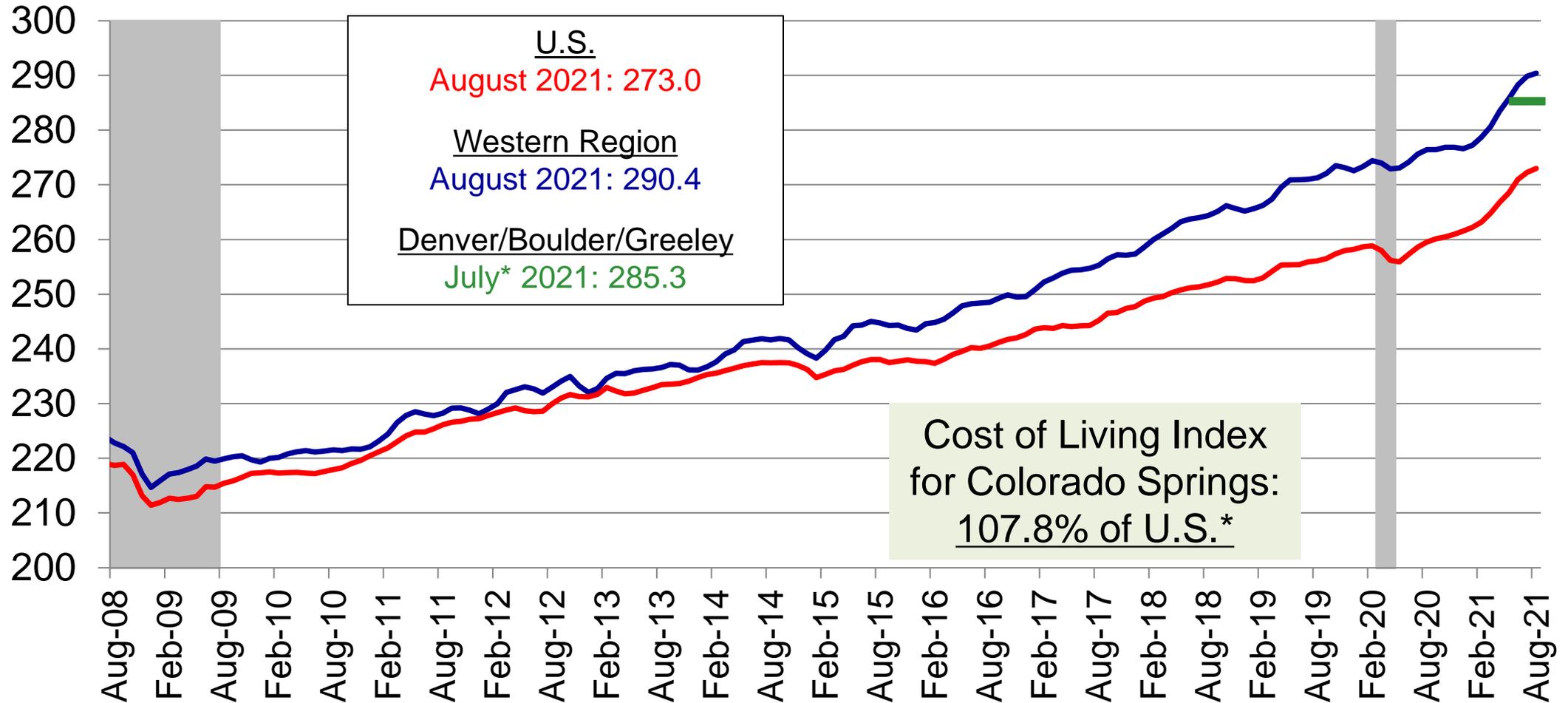
Source: Janet Yellen, Former Federal Reserve Chair, Brookings Institute Fellow; National Center for Education Statistics

What If??

- Ramped up training programs for high demand (4-yr) degrees
- Put pressure on largest endowment universities to build out satellite schools in marginalized communities perhaps with CCs and federal funding/incentives
- More public service opportunities for university-level graduates = loan forgiveness; besides lower debt, gives new graduates experience
- For any government-subsidized programs in higher ed, future workers become taxpayers so it's truly a government *investment* – not handout.
- Increased productivity and GDP economic growth rates
- Directly and *positively* impacts income and racial/ethnic inequalities

Inflation

Consumer Price Index (1982-1984 = 100)



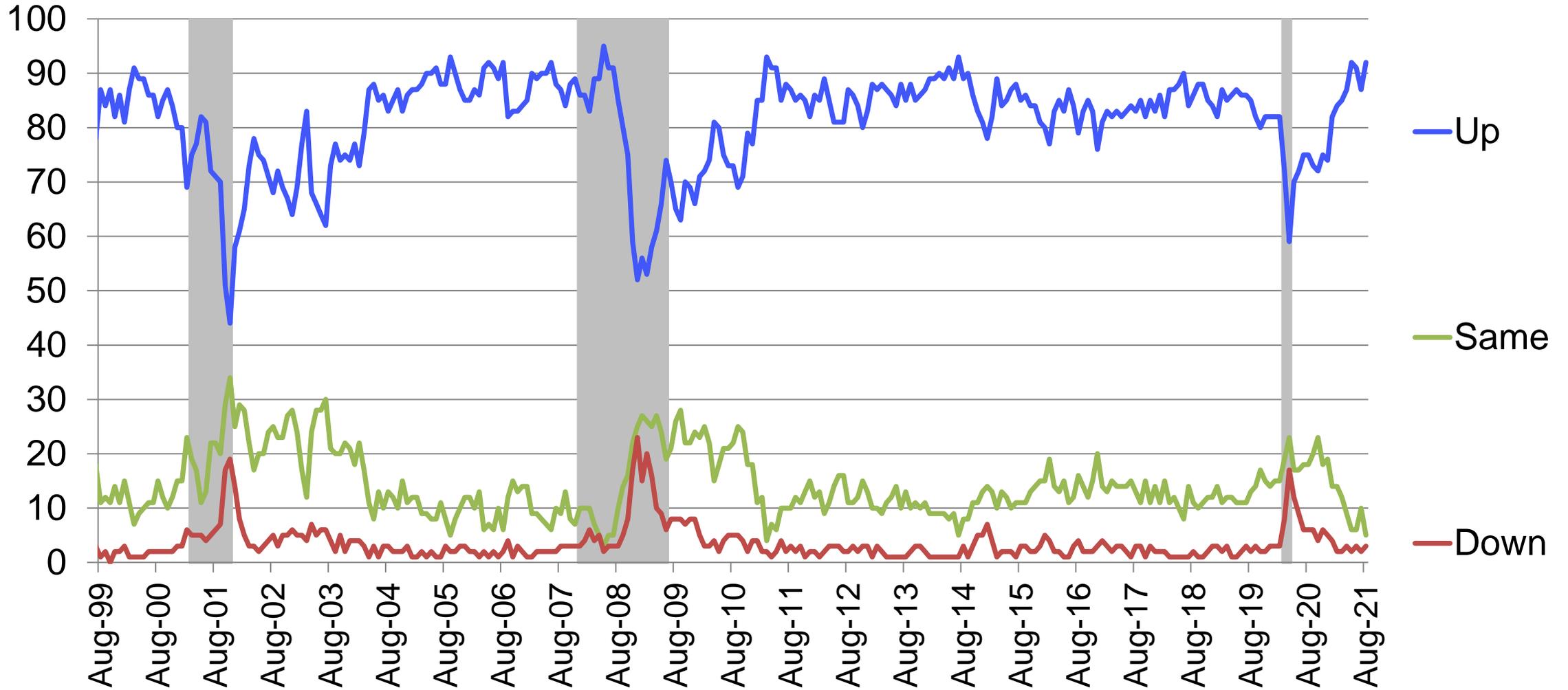
NOTE: From August 2020 to August 2021, the CPI increased 5.3%; all items less food and energy increased 4.0%. *Latest data available for Denver/Boulder/Greeley. *Data is from 2021 Q2; Denver's is 112.6% - shrinking difference with CS. Source: U.S. Bureau of Labor Statistics

Inflation in the Last 12 Months...

- 5.3% increase August 2020 to August 2021.
- Largest increases are largest components of typical HH budgets:
 - Gasoline +43%
 - Natural gas +21% (and winter is coming)
 - Shelter +3% but this metric lags. Home prices up 20% nationwide.
 - Used cars and trucks up 32%
 - New cars up 7.6%
- August 2021 increase “only 0.3%” whereas July was 0.5%.
- Lower August rate due to Delta (airfares, hotel and used cars/trucks had declining prices)

Source: Bureau of Labor Statistics, September 14, 2021 report

Expected Change in Prices During the Next Year



Source: University of Michigan, Surveys of Consumers

Is Inflation a Threat Long-term? Tatiana Says Yes..

➤ Supply Side

- Fewer goods produced during a lockdown
- Preferences shifted (e-commerce and types of goods)
- Supply chains disrupted due to COVID shutdowns early in pandemic and now overall labor shortage impacting transport, distribution & logistics
- Fewer businesses esp. hospitality (-110,000 restaurants)
- BIG one now is global shortage of natural gas

➤ Demand Side

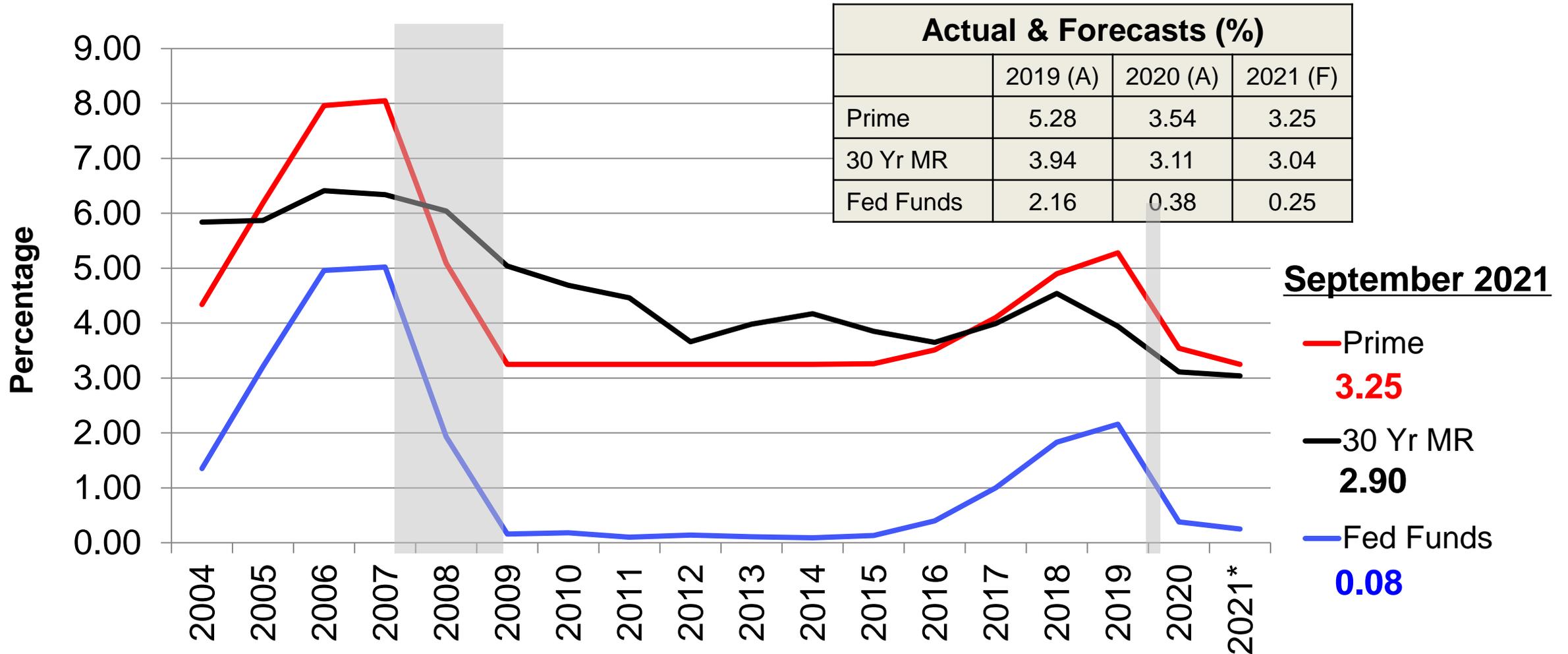
- Pent-up demand is a real thing esp. service industry
- Many consumers have extra cash
 - Fiscal (stimulus \$, UI \$)
 - Monetary (lower interest rates)
 - Higher income groups have benefitted from stock market rally

➤ Expectations

- If people expect higher prices, they can pull up purchases exacerbating shortages

➤ (Qualified) Labor shortages – topics described above

Fed May Be Between a Rock and a Hard Place: Interest Rates



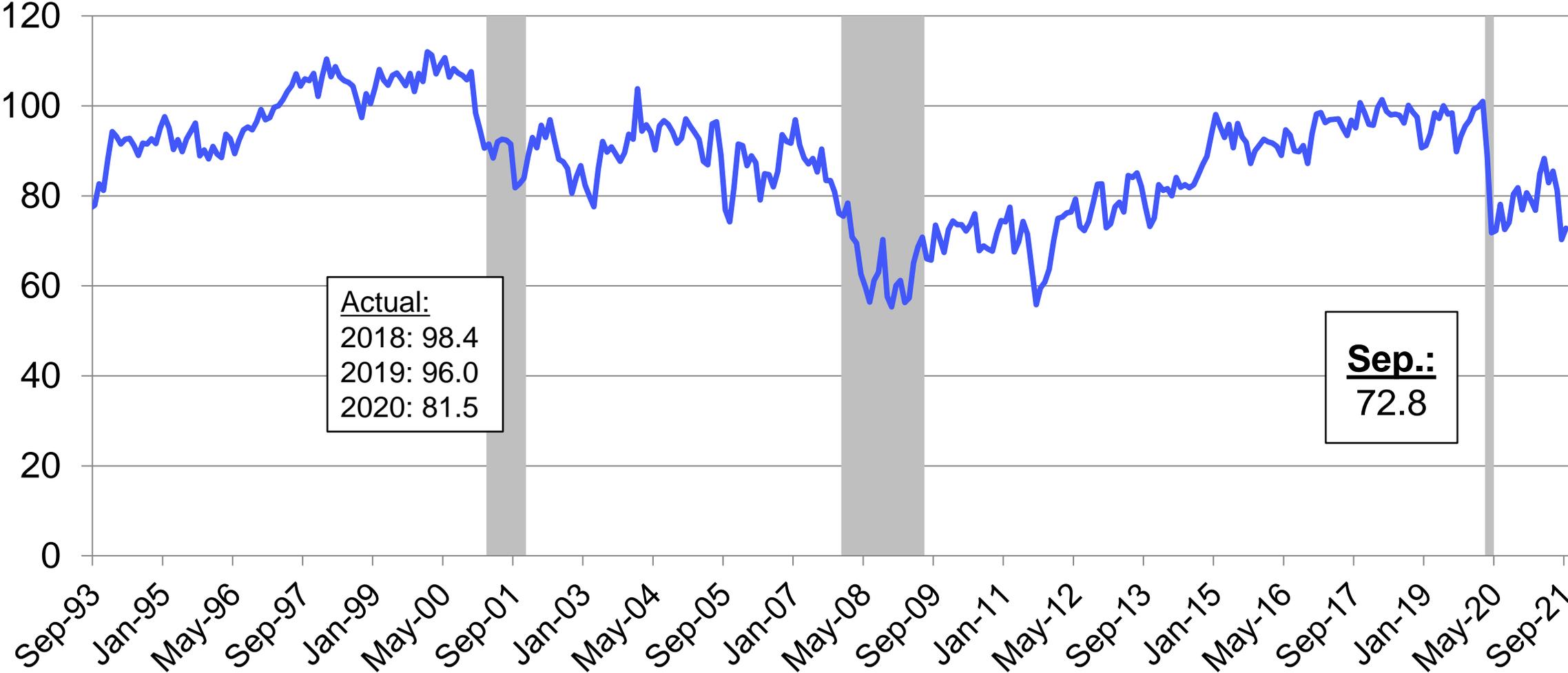
*Forecasts by Wells Fargo, updated September 2021. Wells Fargo forecasting no increase in interest rates in 2022 either.

Source: Board of Governors of the Federal Reserve System (US)

Waning National Consumer Confidence (not so much in Colorado Springs though)



University of Michigan Consumer Sentiment



Source: University of Michigan, Survey of Consumers



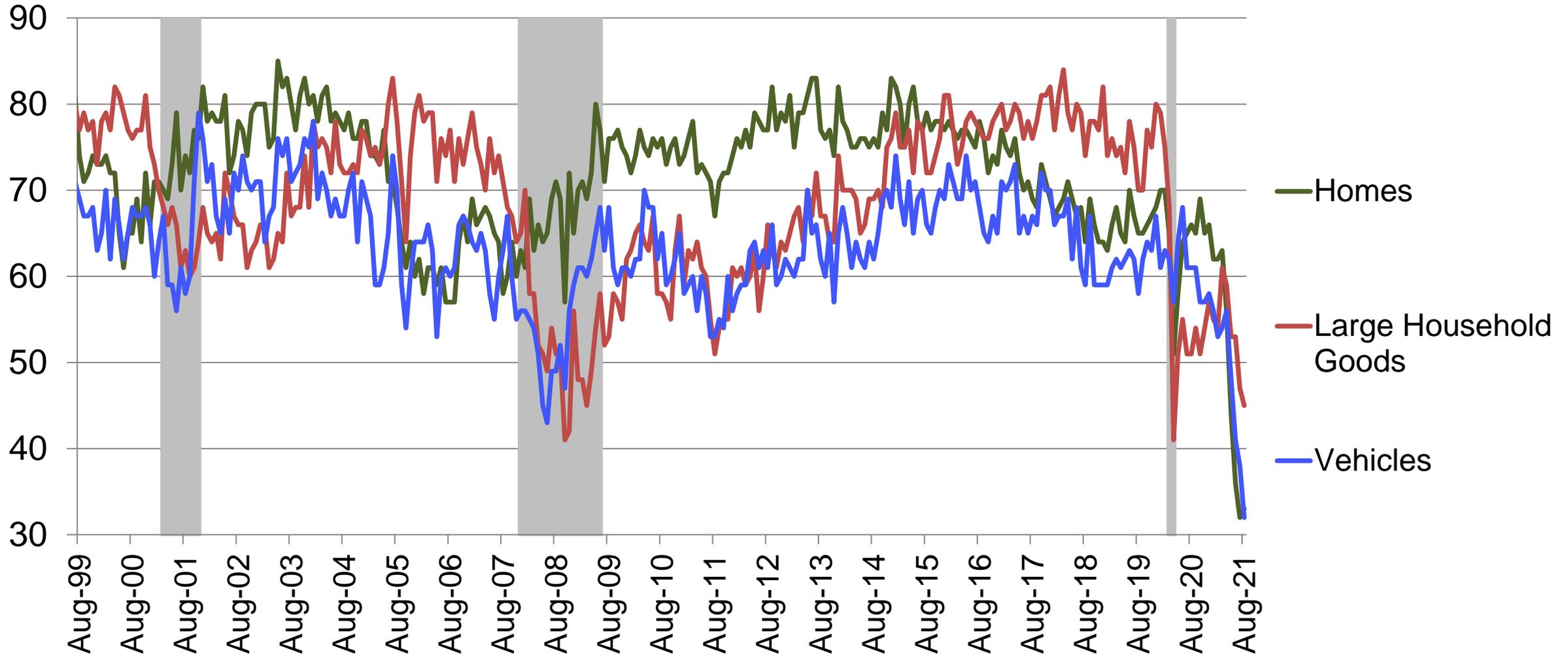
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Good Time to Buy – Percentage Saying “Yes”



Source: University of Michigan, Surveys of Consumers



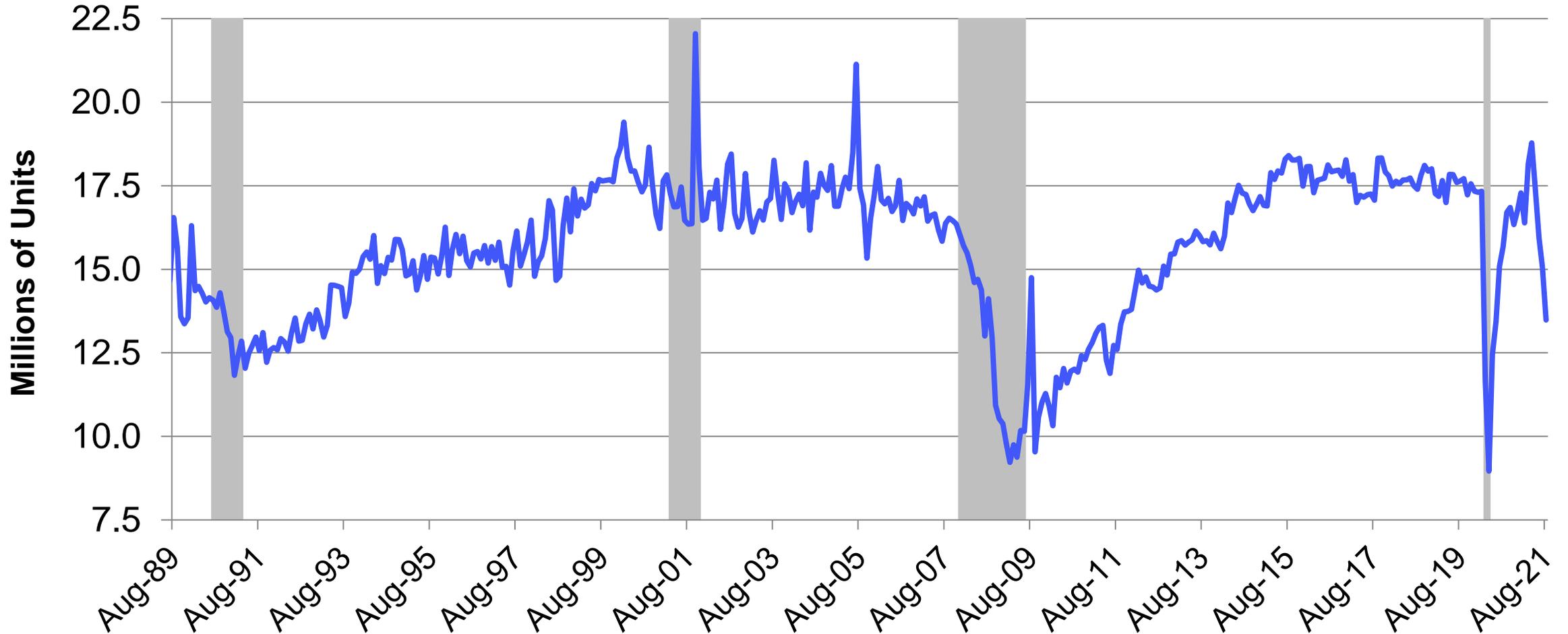
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Total Vehicle Sales



Yet many automakers are saying their profits are way up... because they're selling high-end vehicles with large profit margins to the 1%ers..

Source: U.S. Bureau of Economic Analysis



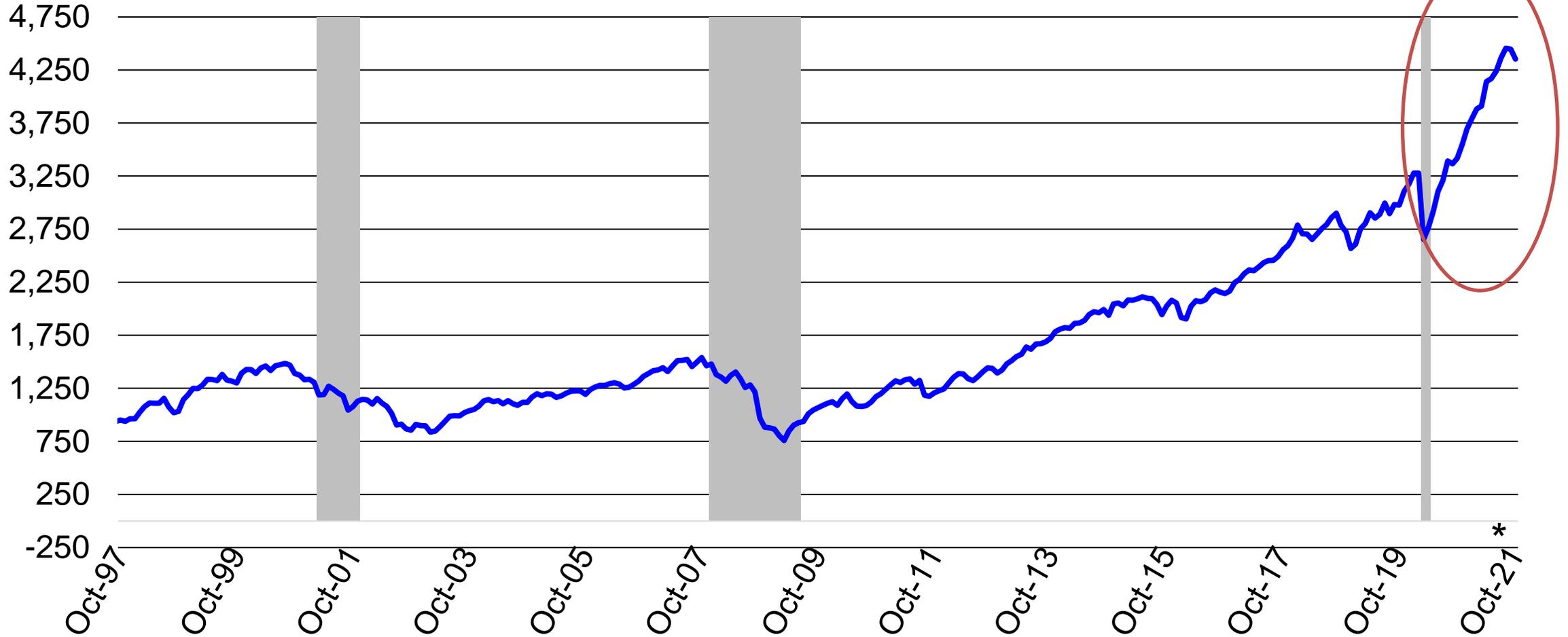
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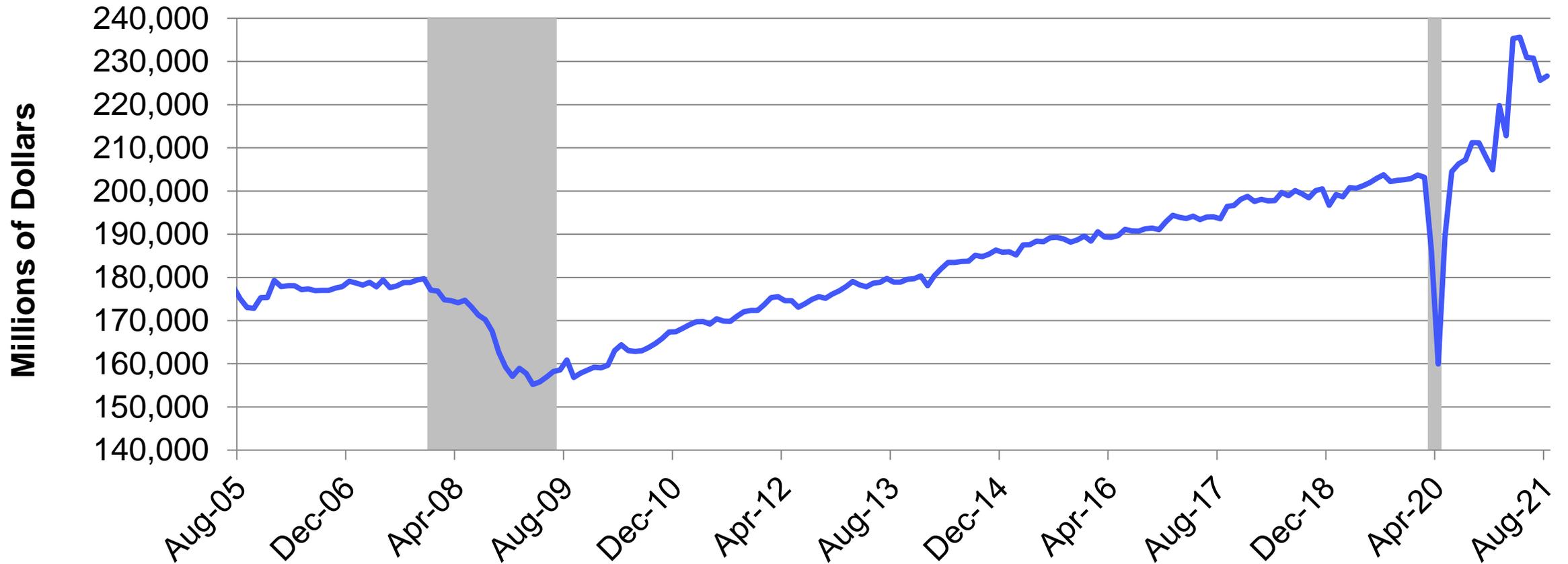
Higher Income Groups Are Confident & Spending

Historic S&P 500 - NSA



Note: Data is monthly averages. *Oct-21 is through October 7.
Source: Yahoo! Finance, S&P Dow Jones Indices LLC

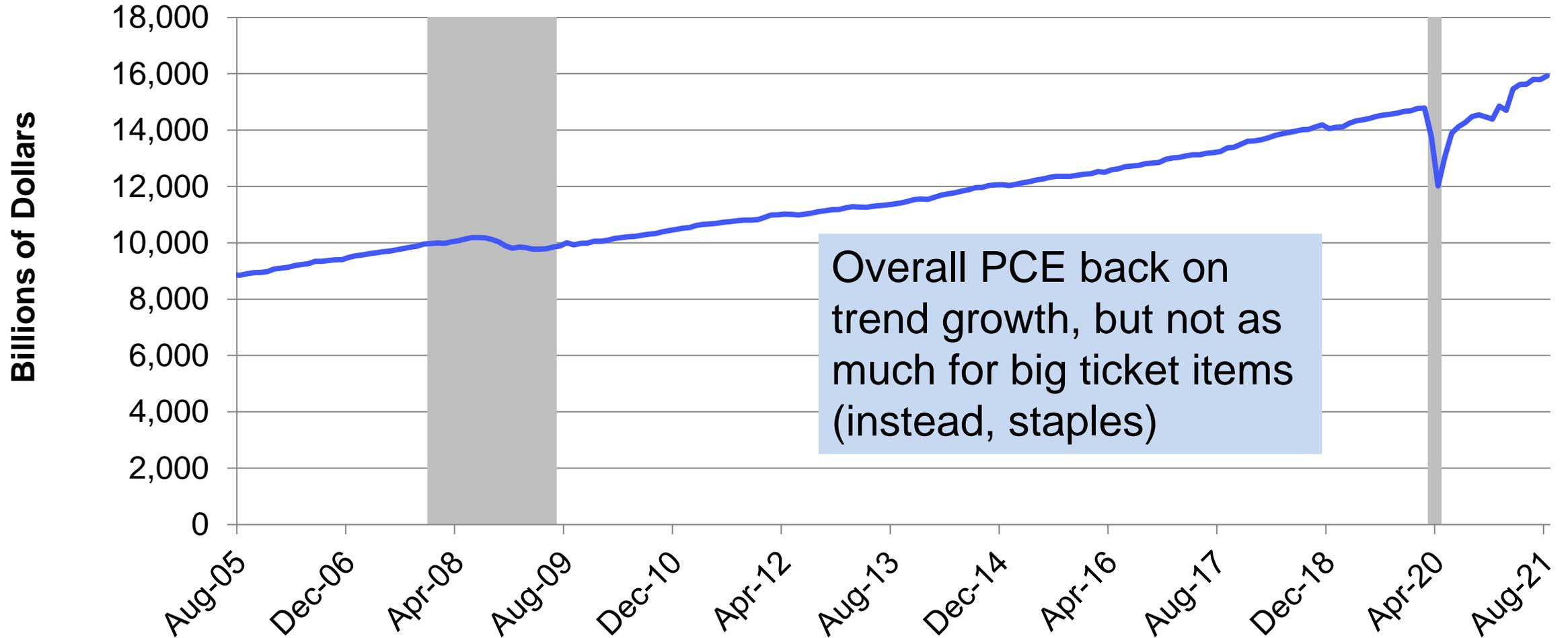
Total Retail and Food Service Sales



Source: Federal Reserve Bank of St. Louis

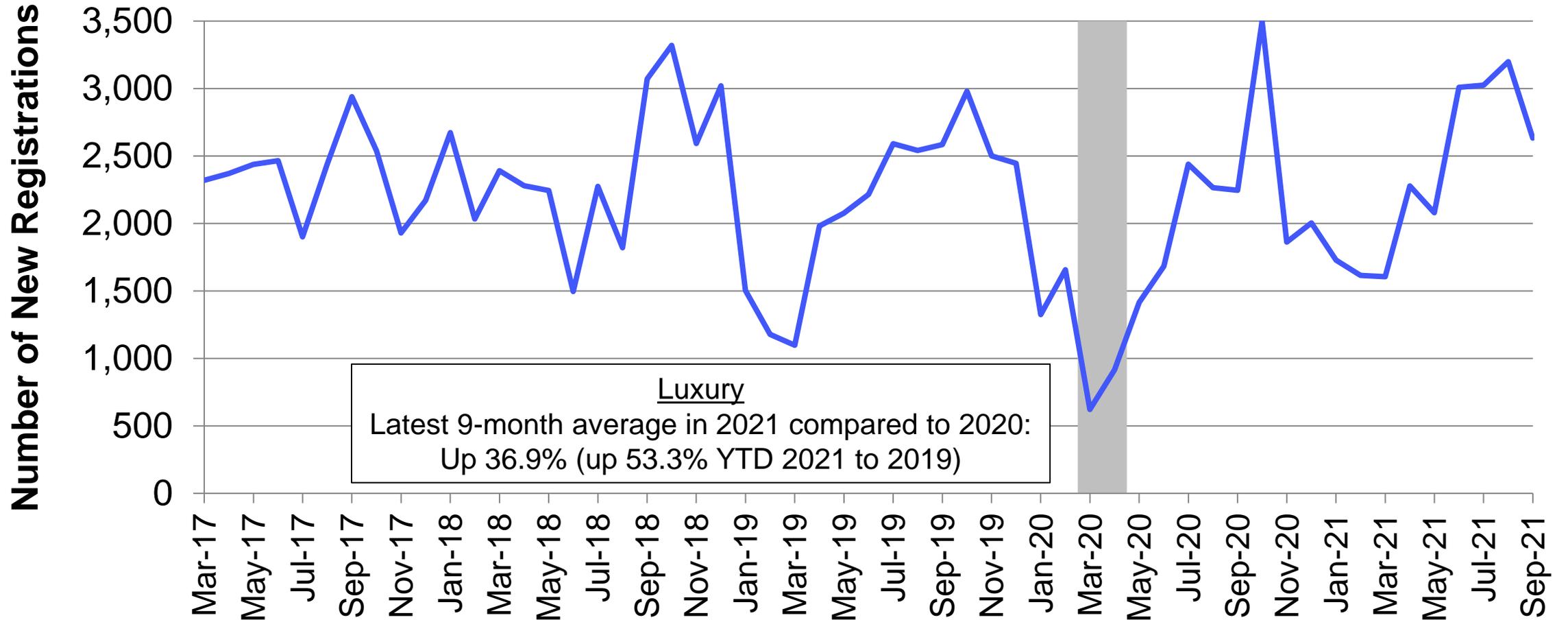
Includes motor vehicle and parts dealers, furniture and home furnishing stores, electronic and appliance stores, building material and garden dealers, food and beverage stores, health and personal care stores, gasoline stations, clothing, sporting good, hobby, musical and bookstores, general merchandise and miscellaneous (e.g., floral shops). Includes online sales. Retail sales make up about 40% of total personal spending. PCE incorporates retail, which is mostly goods consumption, and services.

Personal Consumption Expenditures



Source: U.S. Bureau of Economic Analysis

Consumer Confidence: El Paso County New Vehicle Registrations (without luxury utility)



Luxury utility categories (all terrain, camper trailer, trailer coach and trailer utility) are not included in the graph line above, but % change in this category is noted in the text box.

Sources: El Paso County Clerk and Recorder; Colorado Interactive LLC



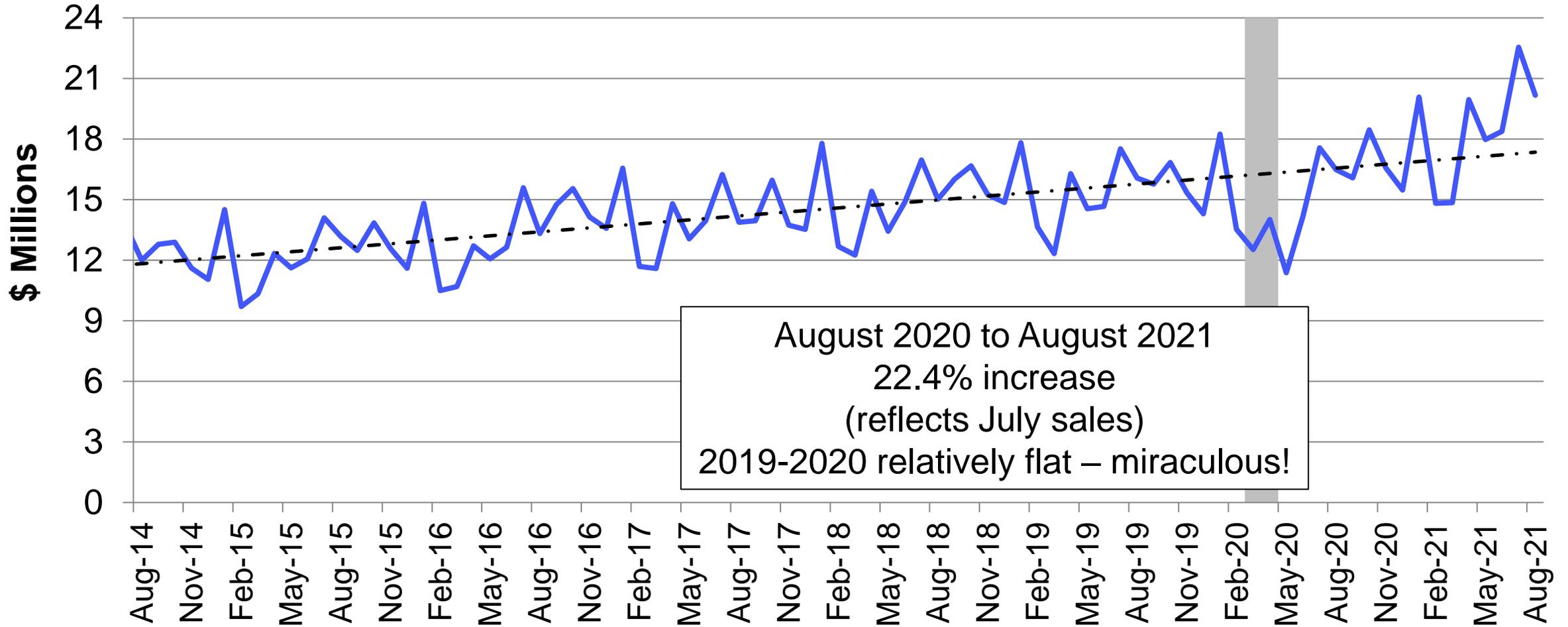
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Consumer Confidence In Colorado Springs Is Strong! 2% Monthly Sales & Use Tax Collections



Source: City of Colorado Springs



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Business Confidence



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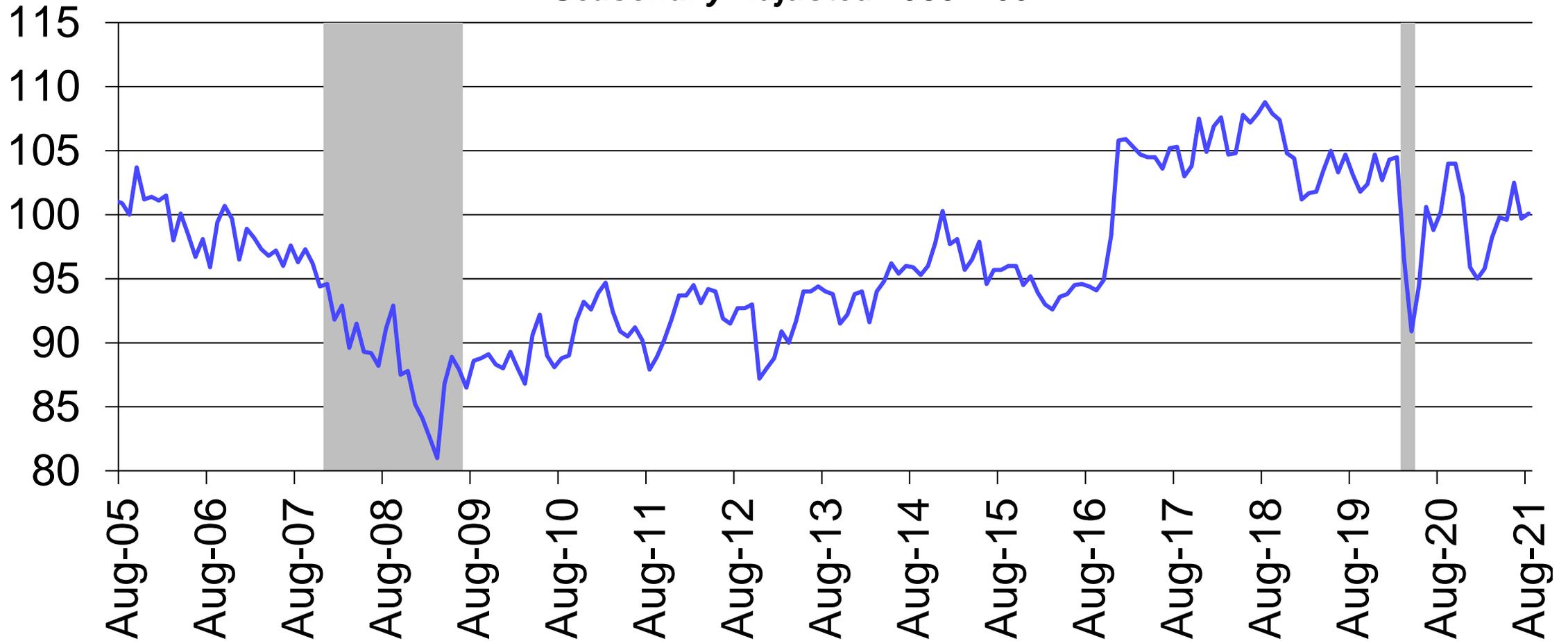
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Business Confidence

Small Business Optimism Index

Seasonally Adjusted 1986=100



Source: ©NFIB Research Center, Small Business Economic Trends Report



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Small Business Confidence – August 2021

- The August reading rose 0.4 points to 100.1.
 - Five of the 10 components improved; however, this did not make up for the large drop (2.8 points) in July.
- **32% of businesses plan to create new jobs (SA).**
- **41% of respondents say they have increased compensation (SA) – wage inflation!**
- **50% of owners (SA) could not fill job openings**
 - **91% of those hiring reported few or no “qualified” applicants for open positions**
 - 44% have openings for skilled workers and 27% have openings for unskilled workers

Source: ©NFIB Research Center, Small Business Economic Trends Report

U.S. Census Small Business Pulse Survey

September 27th – October 3rd, 2021

- 23% of businesses experienced decreased operating revenues/sales/receipts
- 23% report large negative effect from pandemic
- **44% report domestic supplier delays**
reduced supply = price increases

Source: U.S. Census Bureau, Small Business Pulse Survey



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Small Business Competitiveness is Tough

- As recently as 2017, Amazon's share of U.S. e-commerce was 37%
 - In 2019 (pre-COVID) 45% and in 2020, 47%
 - Walmart online getting close to 10% of e-commerce sales
 - In terms of total retail sales, consumers spent \$610b on Amazon purchases and \$556 billion on Walmart purchases (July 2020 to July 2021).
 - Total retail sales (online and in-store) in U.S. in 2020: \$4 trillion
 - **About 30% of all sales go to two suppliers.**
 - These behemoth companies have massive economies of scale
 - In terms of purchasing power for finished goods they sell
 - Equipment they purchase
 - Labor efficiencies
 - Can obtain tax credits
- Harder for small businesses to compete especially with escalating labor costs.***

Source: Statista; New York Times

Is Part of the Solution Anti-trust Enforcement?

- Sherman Anti-trust Act of 1890. “If we will not endure a king as a political power, we should not endure a king over the production, transportation and sale of any of the necessaries of life.”
- Anti-trust laws written a long time ago (pre-internet).
- How do we address lapses in privacy & data security, which impact advertising?
- Reform has bi-partisan support (rare!); there is momentum for change
- El Paso County also stepped in with three COVID programs
 - Assisting region’s small businesses, nonprofits and other community orgs
 - Granted ~\$26m assisting about 1,600 entities using CARES and ARPA funding
- Ongoing efforts like buy local campaigns; buy local web platforms...

The viability of small business is at the heart of American innovation and opportunity.

Sherman, William T. (1990) [1875]. *Memoirs of General W. T. Sherman*. New York, New York: Literary Classics of the United States. ISBN 0-940450-65-8.

Housing and Housing Affordability



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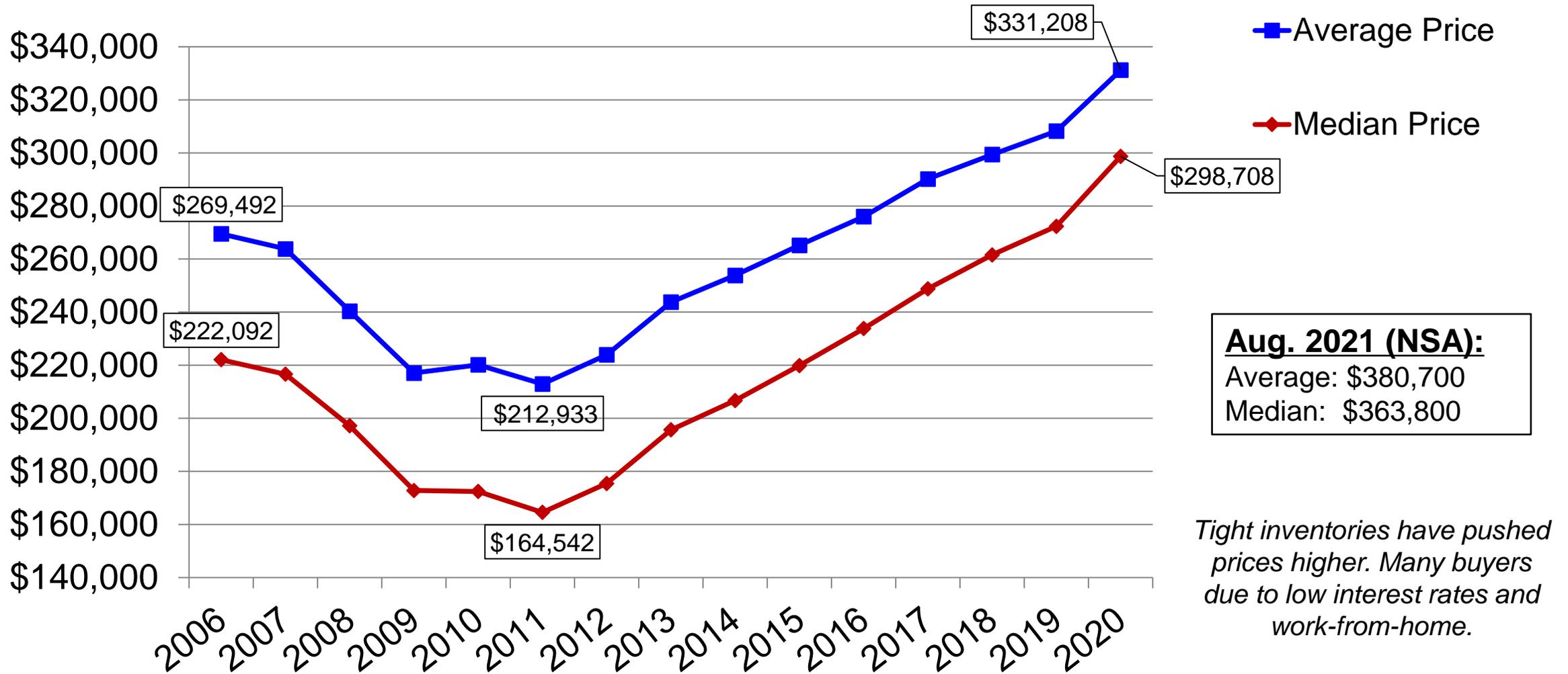
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Housing is a Big Player...

*Real estate makes up 12-15% of GDP
(if you include resale, new construction, SF, MF, and rental markets)*

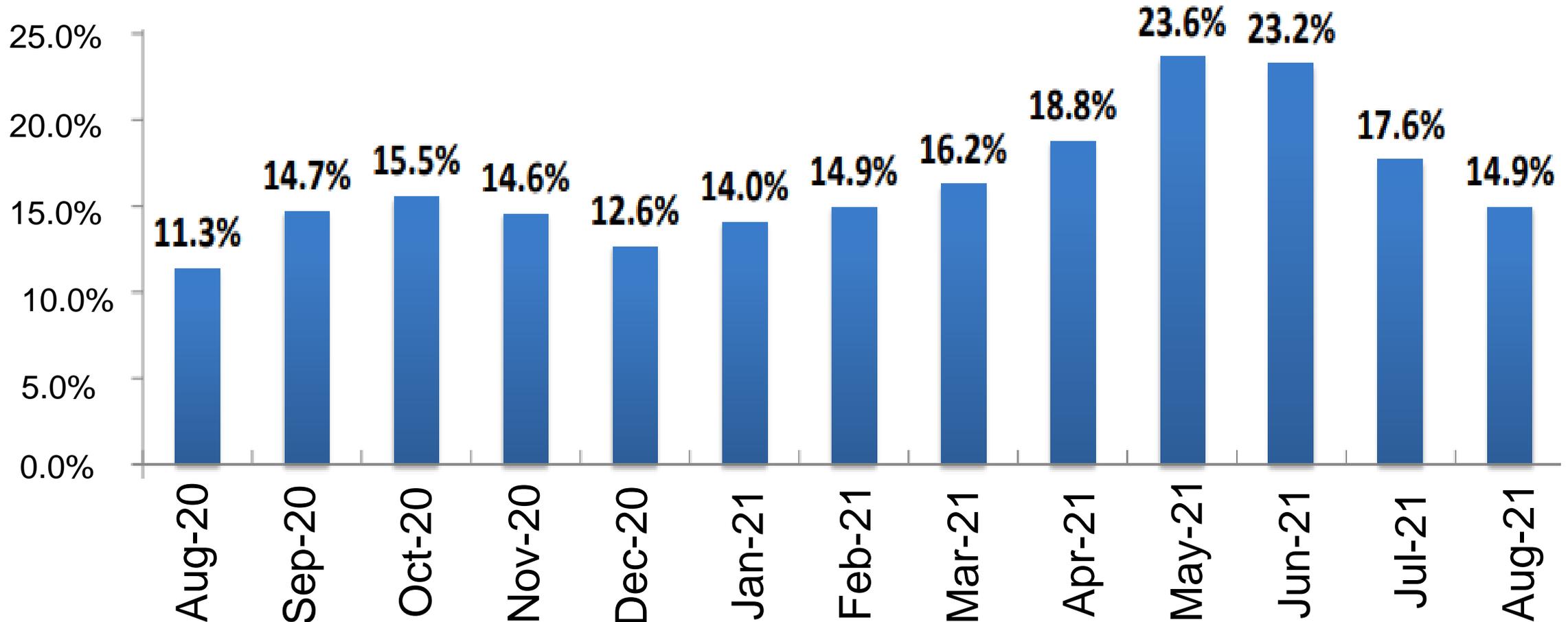
*Expenditures on homes are usually highest household expense and
home ownership is primary mechanism for wealth accumulation*

U.S. Annual Average & Median Existing Single-Family Home Prices



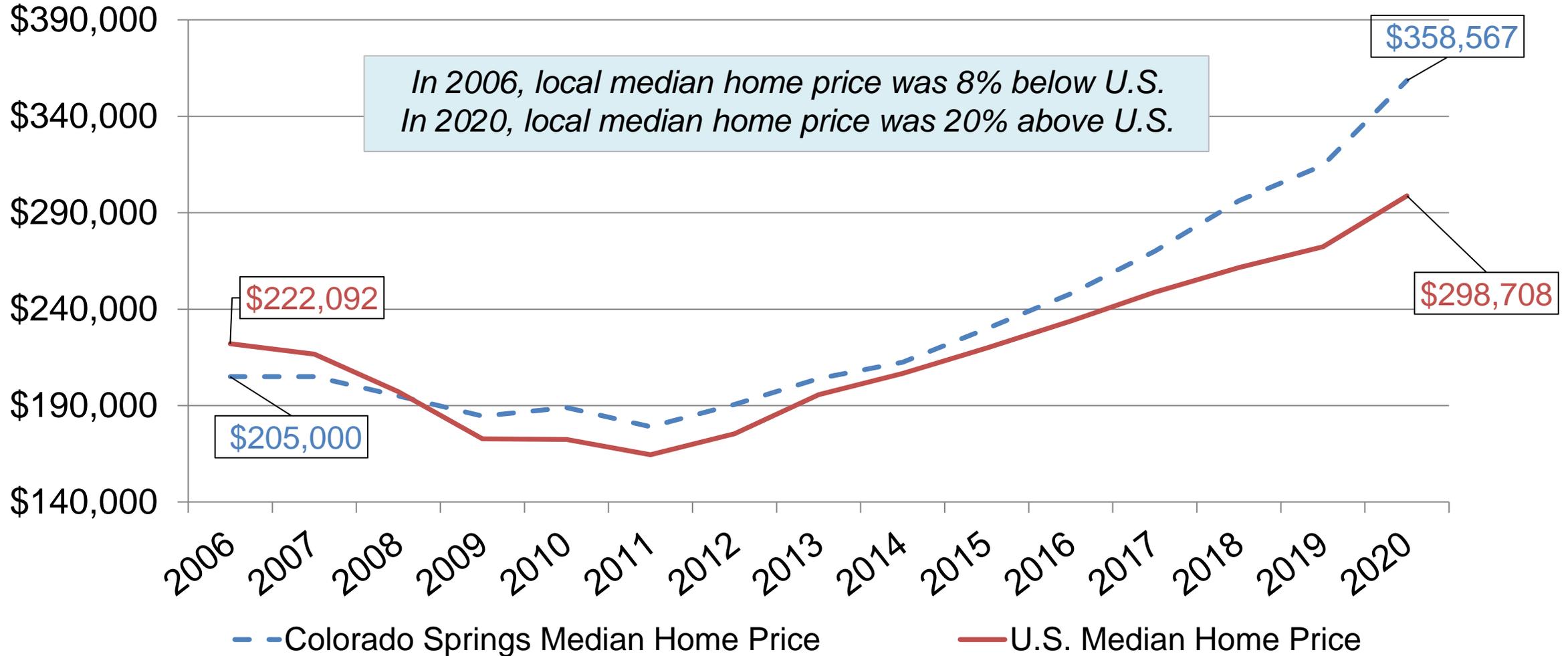
Source: National Association of REALTORS®

U.S. Existing Home Sales Median Price Percent Change Year-Over-Year



Source: National Association of REALTORS®

Median (Existing) Home Prices, U.S. & Colorado Springs



Source: National Association of REALTORS®; Pikes Peak REALTOR® Services Corp. (RSC)

Why The Surge in Demand (with Price Increases)?

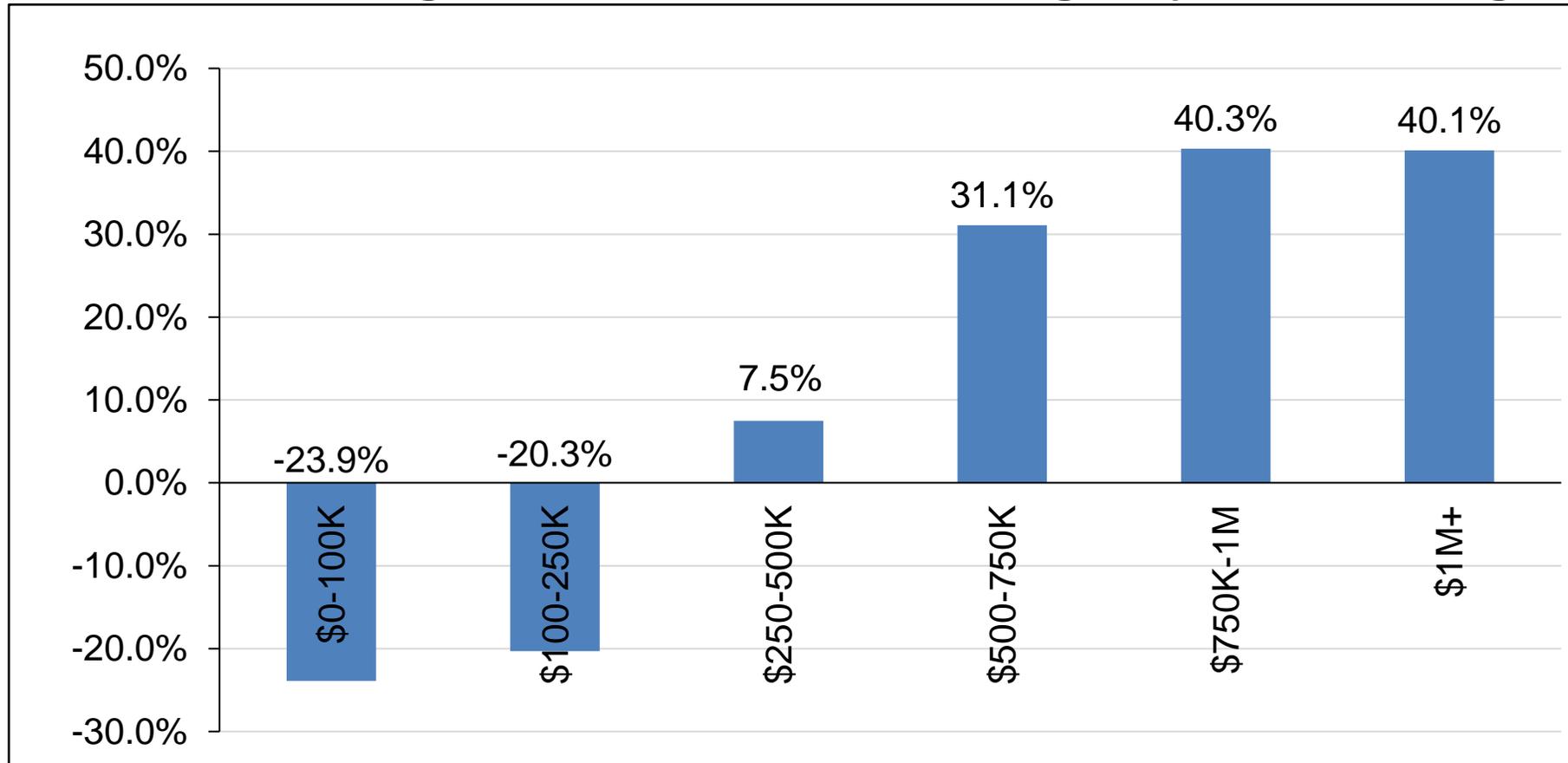
- Low interest rates; those with \$ feel secure
- (Secure) renters tipped over by low R
- Impact of low interest rates:

Interest Rate	<u>\$400,000 Loan</u>	<u>\$500,000 Loan</u>
3%	\$1,686/mo	\$2,108
5%	\$2,147/mo	\$2,684

- \$100,000 difference in price/affordability with 2% difference in interest rates
- A national shortage of homes (6.0m)
- Preferences shifting – more at home time (indefinitely)? Work and play time??
- Those with money (via stock market gains...) are spending

Source: Comments from TB and loan analysis from Bruce Betts. U.S. home shortage from National Association of Home Builders. NAR states 5.5m shortage.

Percent Change in Sales from Year Ago by Price Range



Sales by Price Range:

\$0-100K	\$100-250K	\$250-500K	\$500-750K	\$750-1M	\$1M+
4%	25%	43%	16%	6%	6%

Source: National Association of REALTORS®, August 2021

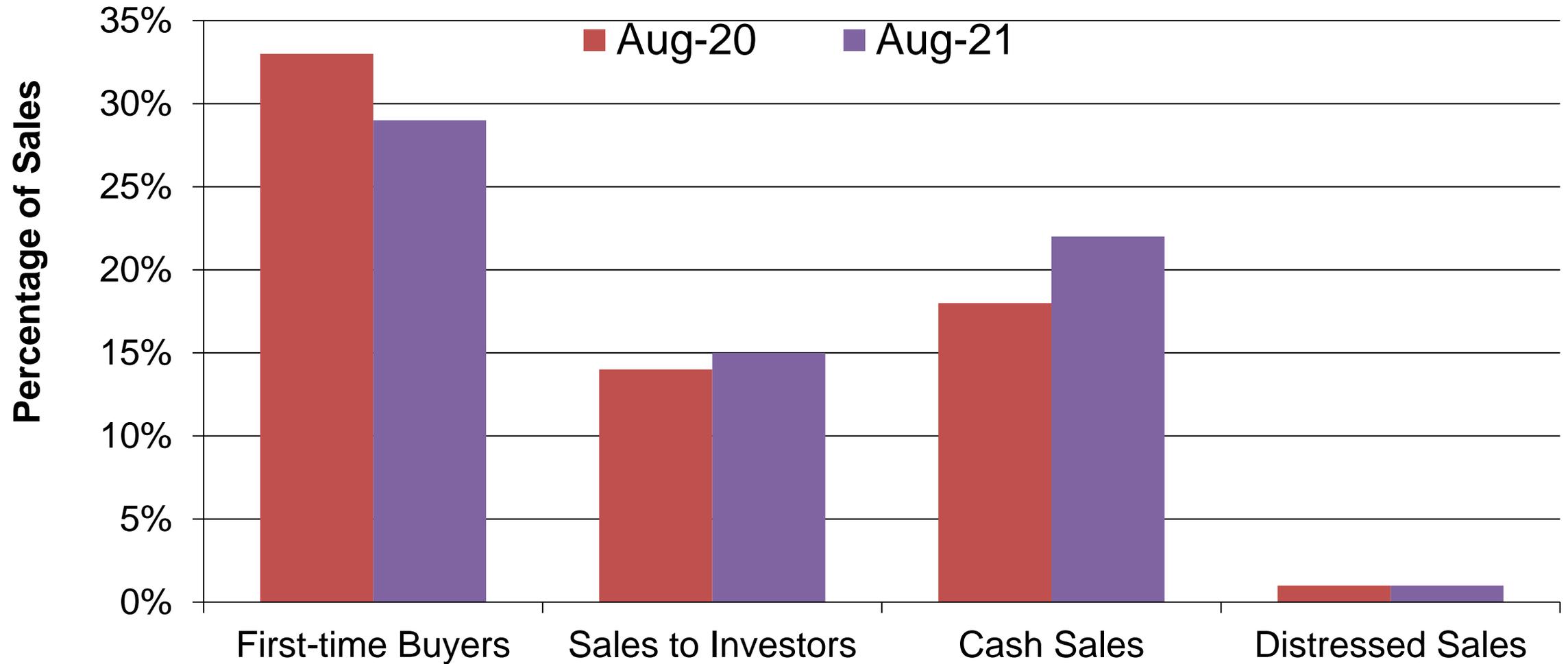


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Market Conditions



Source: National Association of REALTORS®, Realtors® Confidence Index

National Picture 2021 Q2 – Housing Prices

- **99% of measured MSAs (183) showed gains in single-family home prices** due to “continued low levels of housing inventory & with low mortgage rates”
 - **94% had double-digit growth from one year ago**
- **98% of MSAs (63) showed gains in median condo prices.**
 - U.S. median existing SF home price in Q2 was \$357,900 (**up 22.9%** 2021 Q2 from 2020 Q2).
 - Median condo price in the U.S. was \$305,700 (up **17.5%**).

	<u>2020 Appreciation</u>	<u>2021</u>	<u>2022</u>
Existing Homes	9.1% (\$296,700)	14.1% (\$338,500)	4.4% (\$353,500)
New Homes	4.8% (\$336,900)	10.2% (\$371,400)	1.1% (\$375,300)

Source: National Association of REALTORS® Forecasts updated August 2021.

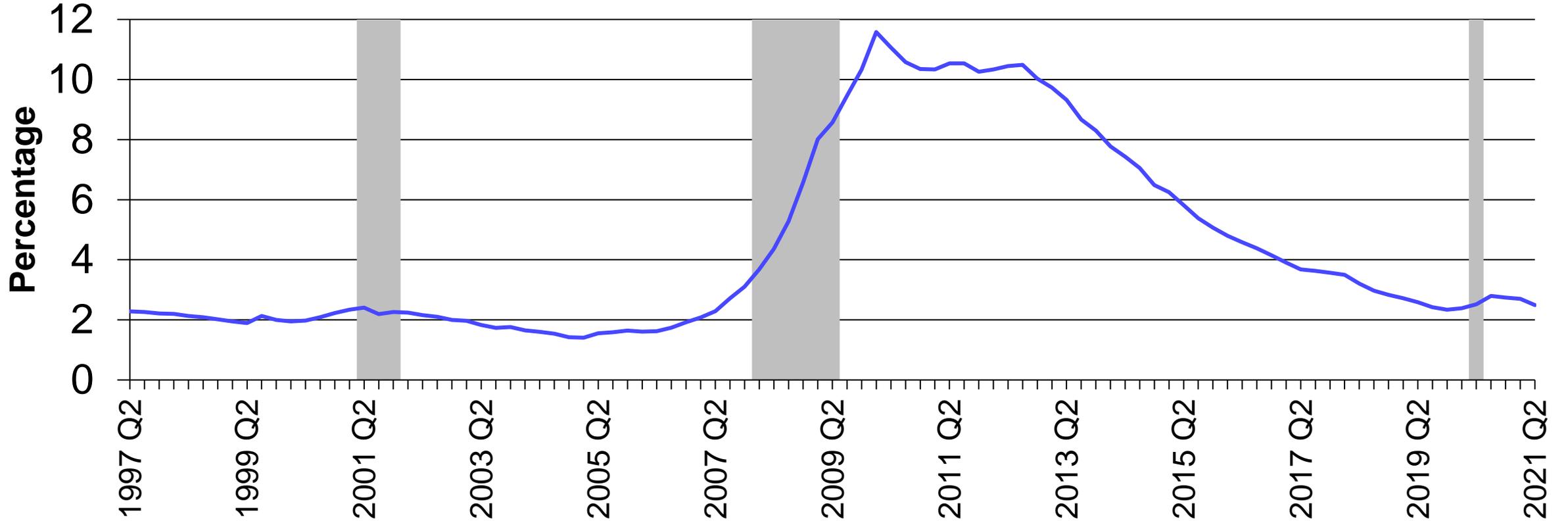
U.S. New Single-Family Home Sales - SA



2020 had a 18.8% increase in new home sales (811,000 total).

Source: U.S. Census Bureau; Existing data trends closely mirror new home sales.

Delinquency Rate on Single-Family Residential Mortgages* (SA)



Foreclosure moratorium ended June 30, 2021.

Eviction moratorium ended July 31st (extensions vary by state).

*Booked in Domestic Offices, All Commercial Banks.
Source: Board of Governors of the Federal Reserve System

Colorado Real Estate



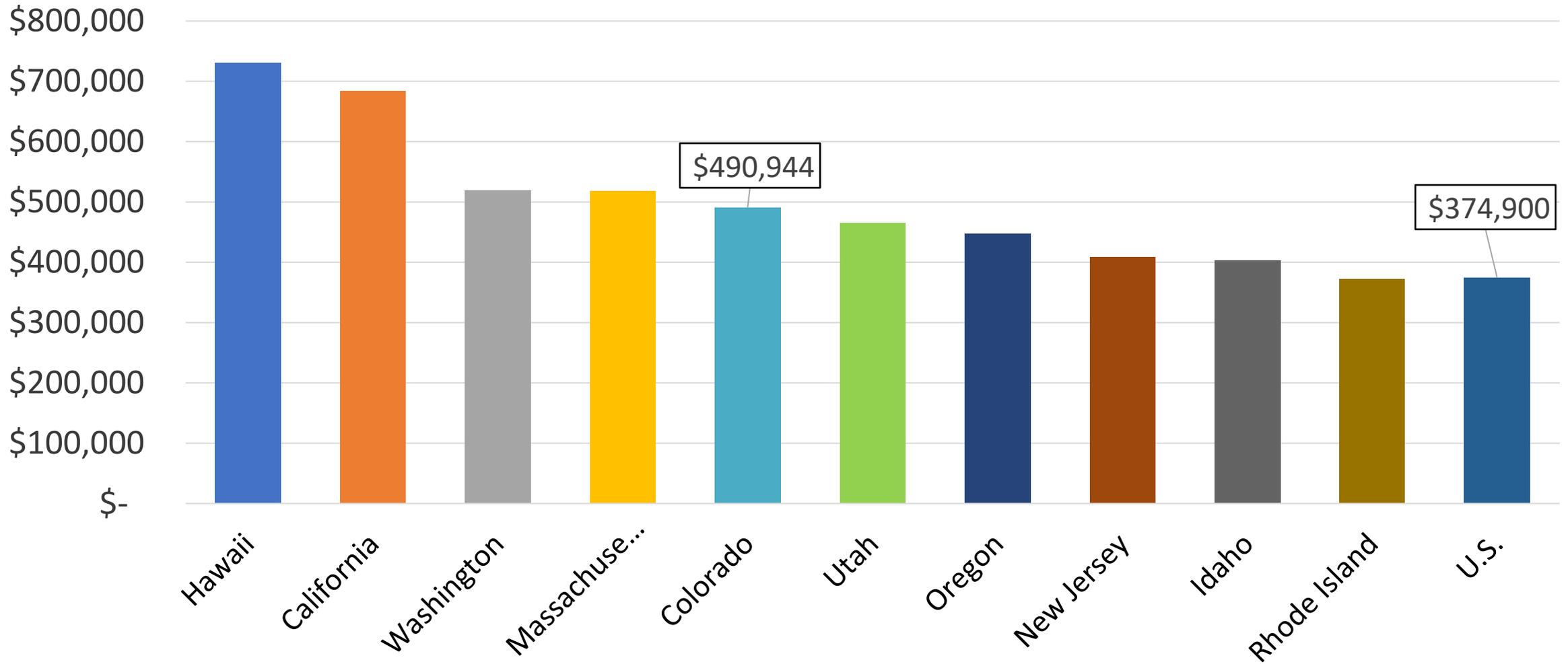
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Median Home Sale Prices – 10 Most Expensive States June 2021

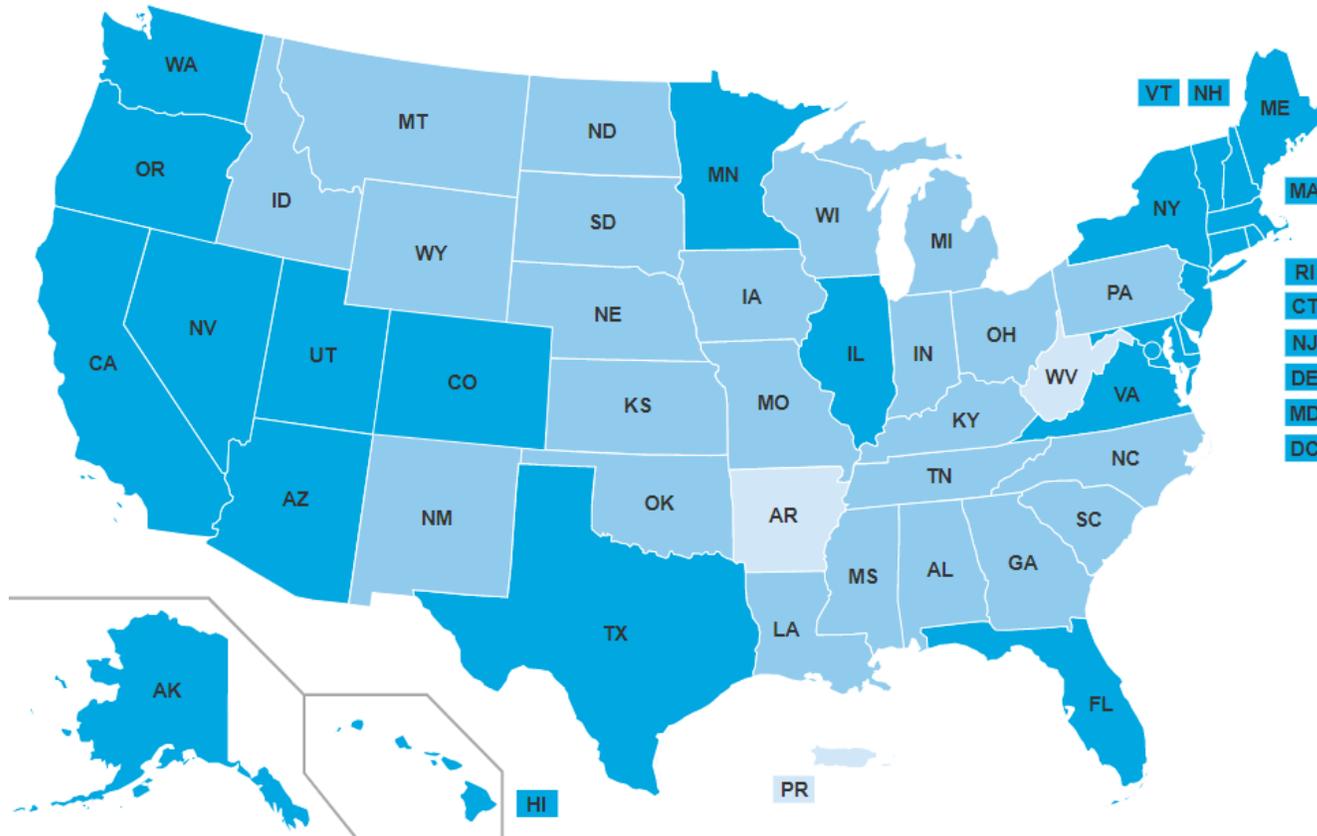


Source: Zillow® Research through The Ascent article by Lily Daly

But How Affordable Are the New Apartments? What You Need to Earn to Afford a Modest Apartment in 2021

Hourly wage required to afford a two bedroom rental home by state.

● Below \$15.00 ● \$15.00 - \$20.00 ● Above \$20.00



Colorado ranks 9th highest state at \$27.50/hour to rent a 2-bedroom apartment.

It would take 72 hours/week at the minimum wage to rent a 1-bedroom apartment.

Source: National Low Income Housing Coalition

Local Real Estate



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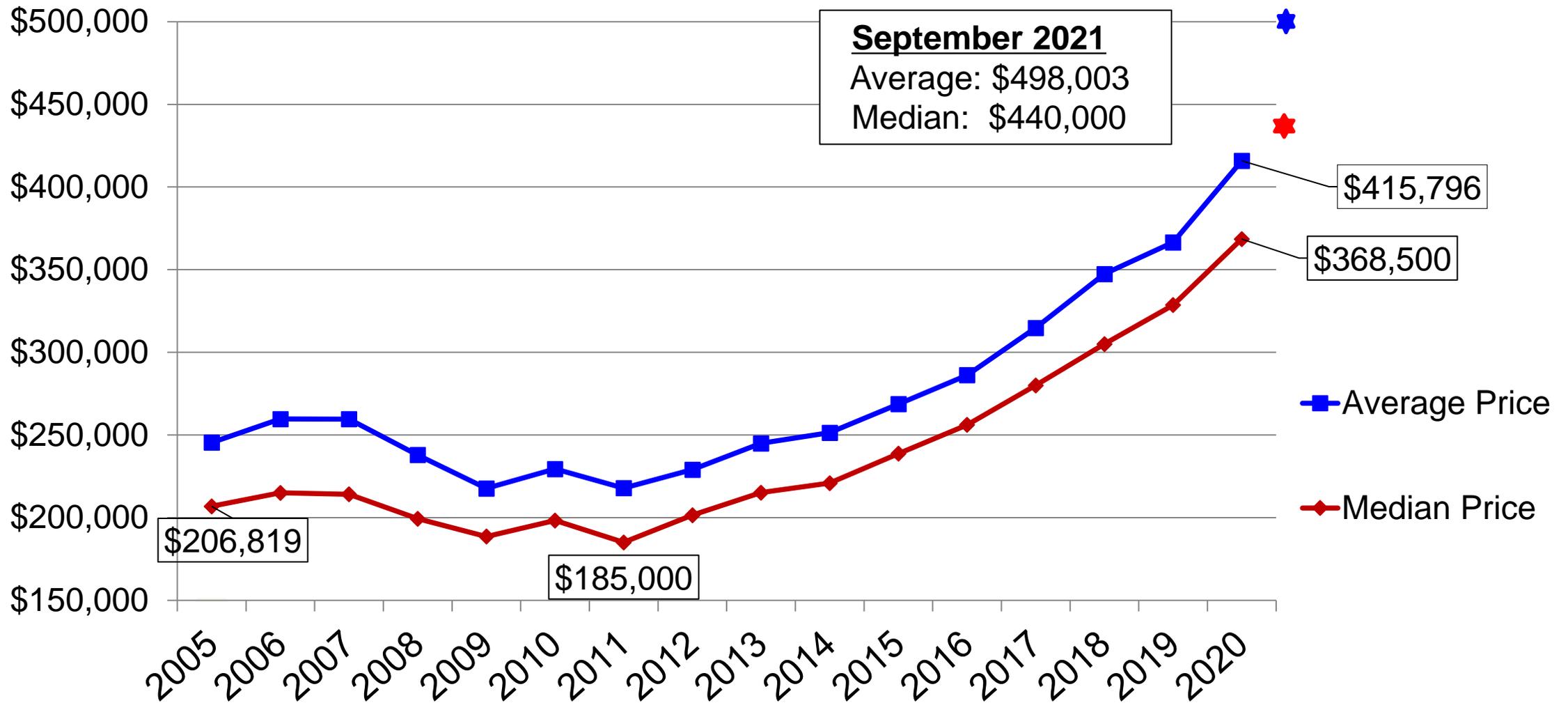
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More Recently in the Colorado Springs MSA

- In 2021 Q2, for existing single-family homes:
 - Median home price was \$439,200
 - Up **24.3%** from 2020 Q2
 - U.S. median in Q2 was \$357,900.
 - **We are now 22.7% higher than U.S.**
 - 0.6 months supply in September 2021 in the Pikes Peak region for existing homes (0.7 for all homes).
 - DOM in September – 12 days

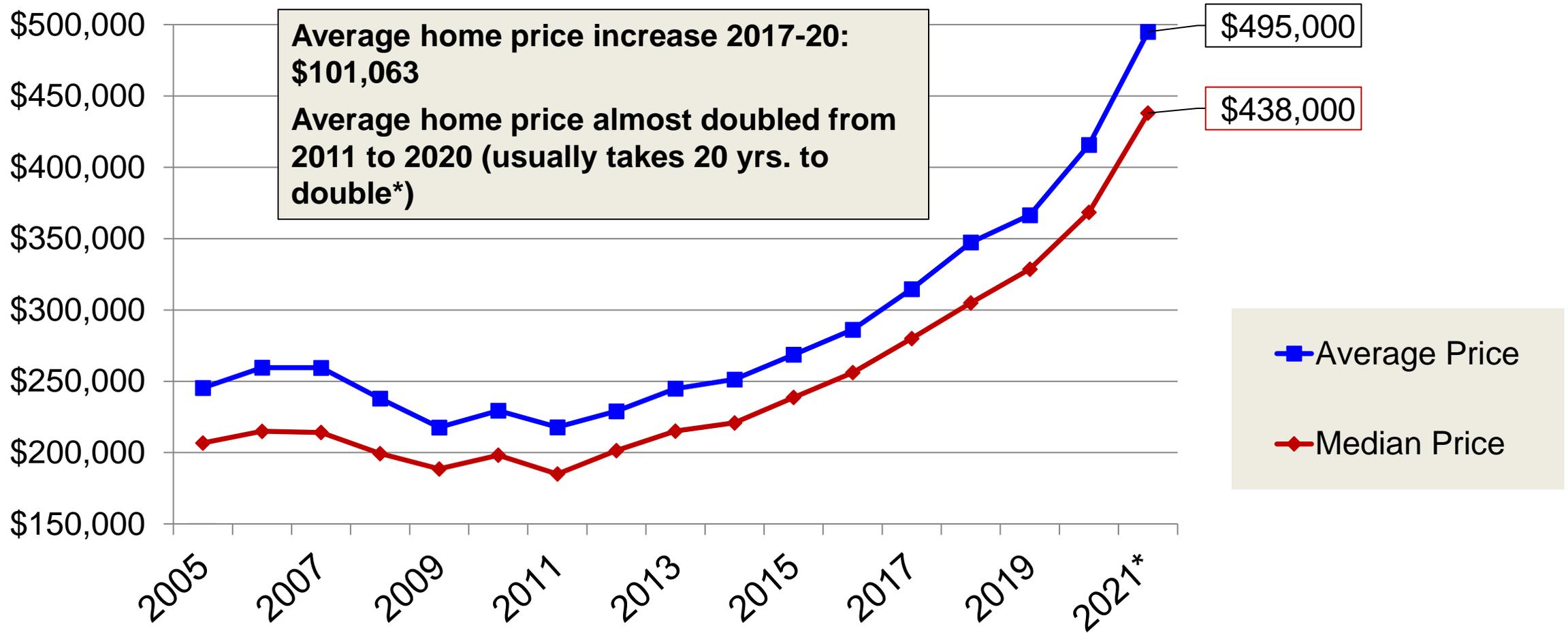
Sources: National Association of REALTORS®; Pikes Peak REALTOR® Services Corp. (RSC)

Pikes Peak Region Annual Average & Median* (Single-Family) New & Existing Home Prices



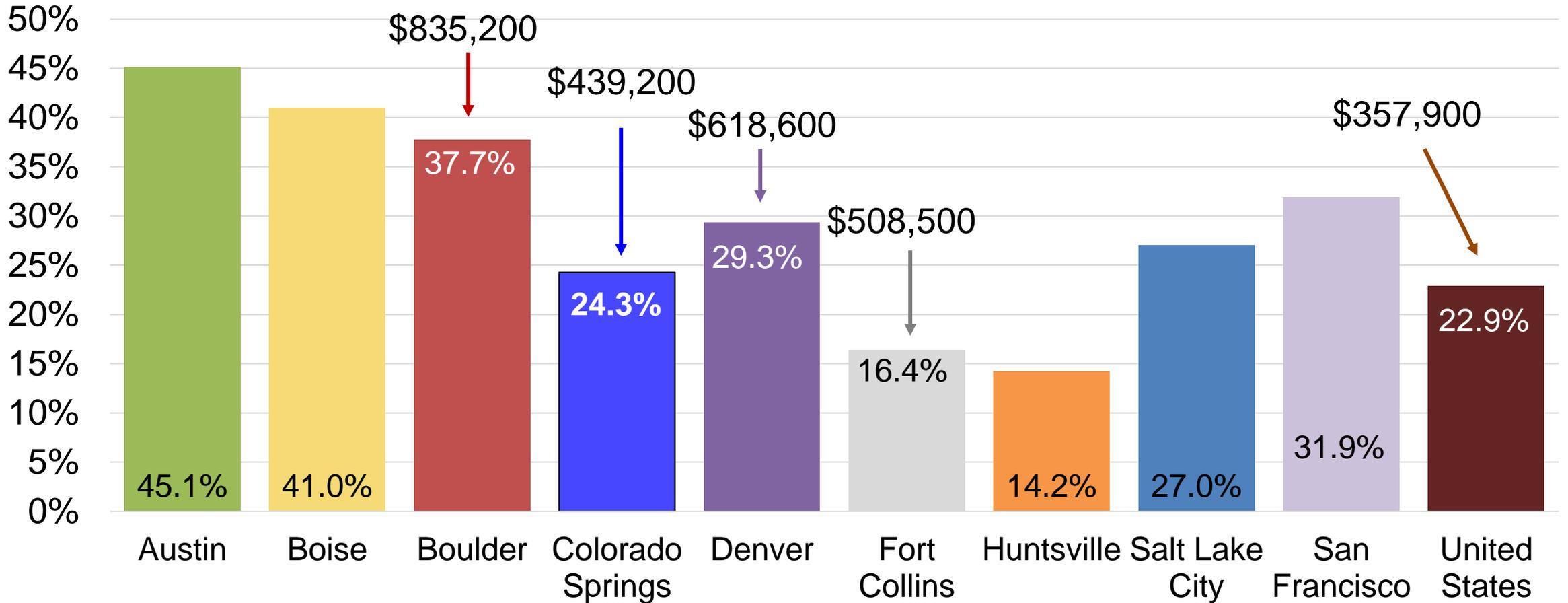
Source: UCCS Economic Forum; Pikes Peak REALTOR® Services Corp. (RSC) *Includes all homes: new and existing.

Pikes Peak Region Annual Average & Median* (Single-Family) New & Existing Home Prices



*Forecasts by UCCS Economic Forum with input from Cherri Fischer, Doug Stimple, Eddie Hurt, Harry Salzman, Michelle Blessing and Zillow.
Source: UCCS Economic Forum; Pikes Peak REALTOR® Services Corp. (RSC). Doubling comment by Bruce Betts

Annual Home Price Appreciation 2020 Q2 to 2021 Q2



Note: This data is *seasonally adjusted*. PPAR data is not seasonally adjusted. Year over year.

Sources: National Association of REALTORS®

U.S. Existing Sales Distribution, August 2021

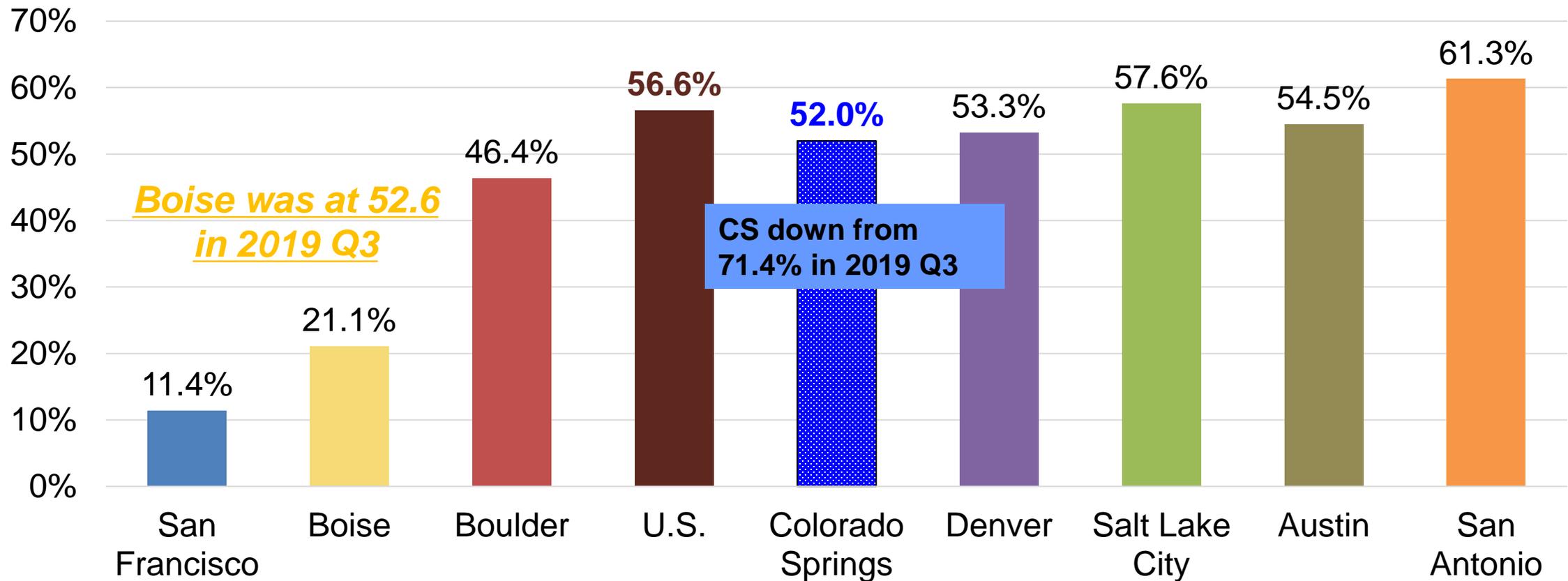
\$0- <u>100K</u>	\$ <u>100-</u> 250K	\$250- 500K	\$500- <u>750K</u>	\$ <u>750K-</u> 1M	\$1M+
4%	25%	43%	16%	6%	6%

Colorado Springs MSA Sales Distribution, August 2021

\$0- <u>200K</u>	\$ <u>200-</u> <u>300K</u>	\$ <u>300-</u> 500K	\$500- <u>800K</u>	\$800K- 1M	\$1M+
1%	3%	60%	31%	3%	2%

Note: U.S. sales are existing only; Colorado Springs MSA sales are for all single-family homes. Notice price categories are slightly different.
Sources: National Association of REALTORS®; Pikes Peak REALTOR® Services Corp. (RSC)

Housing Opportunity Index – 2021 Q2

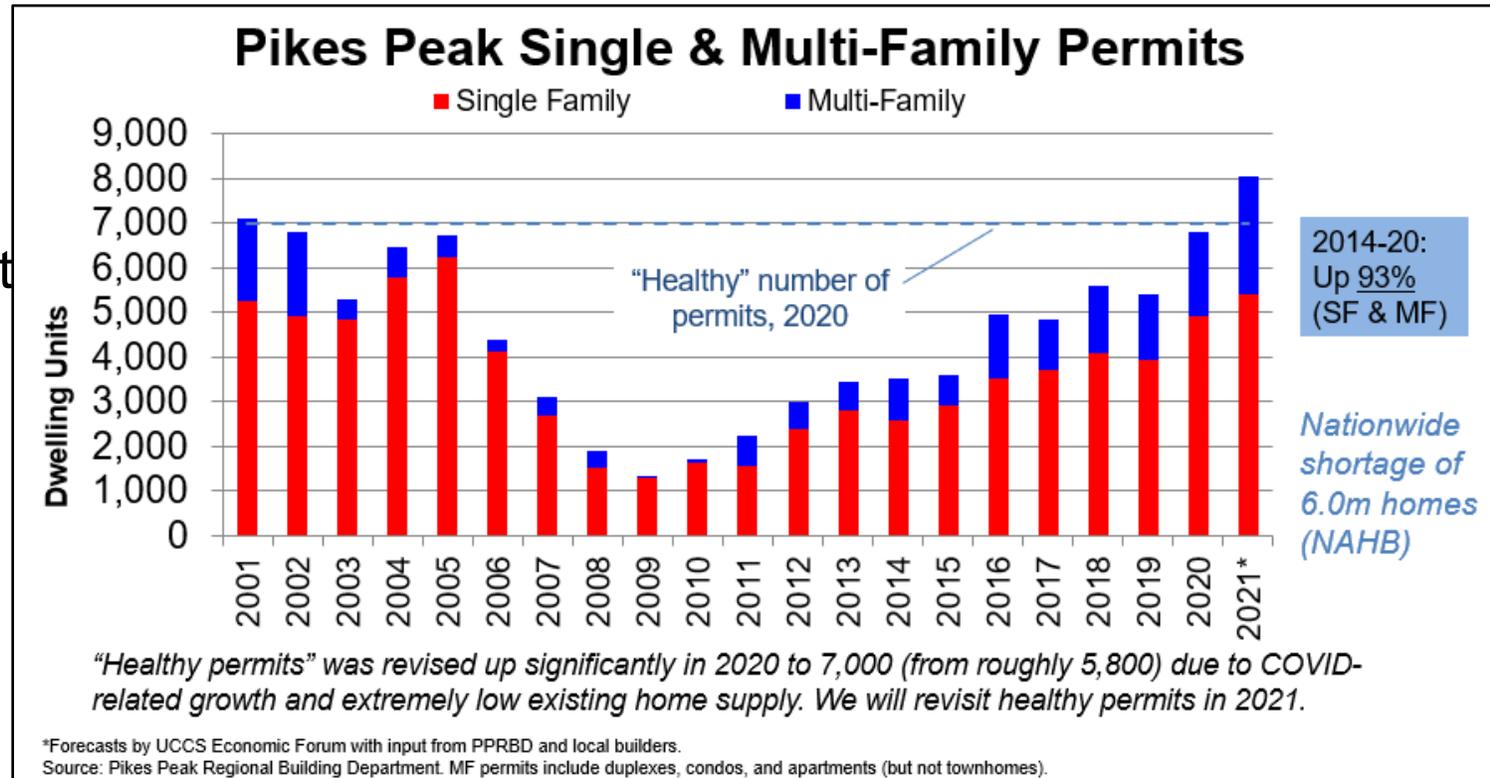


Notes: HOI is defined as the share of homes sold in that area that are affordable to a family earning the local median income, based on standard mortgage underwriting criteria. Includes new and existing homes.

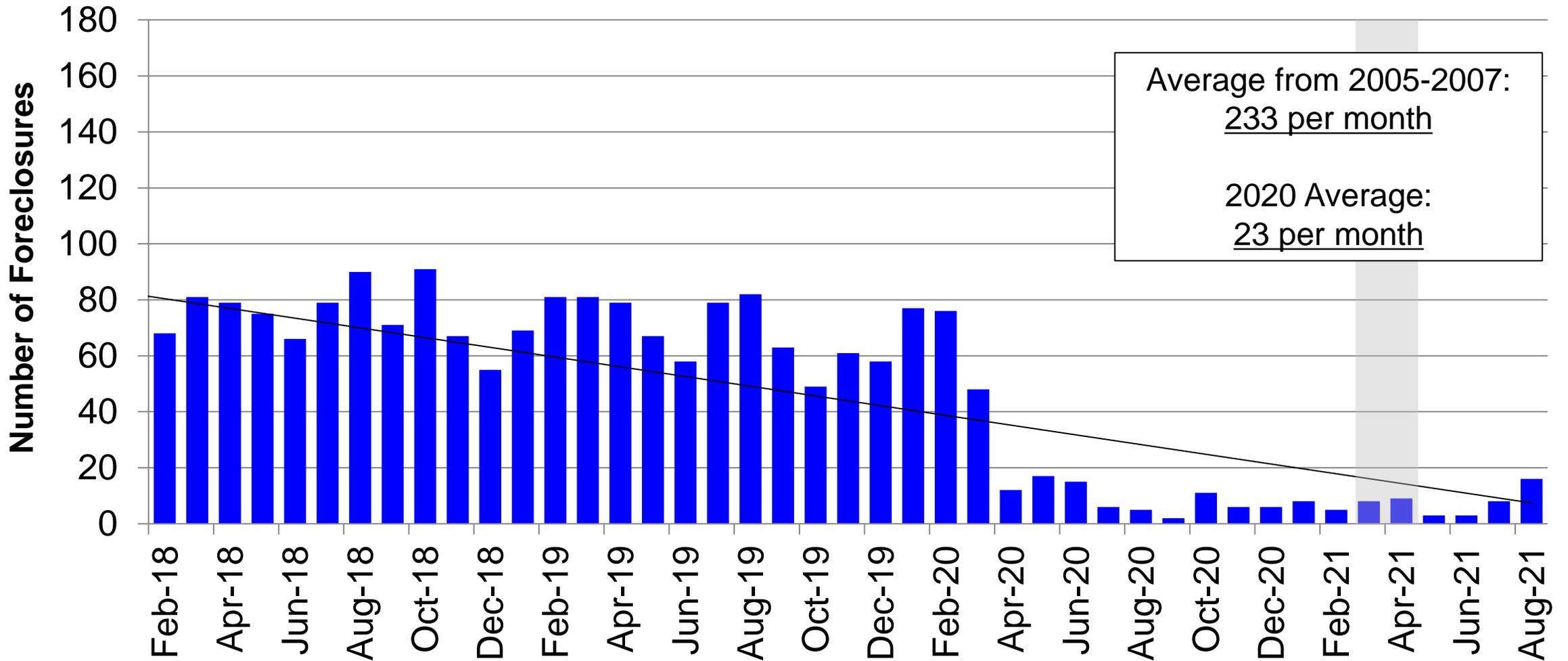
Sources: National Association of Home Builders and Wells Fargo

Home Building

- Home building is increasing and meeting the estimated construction needed to match population growth...
- But a lot of that is multi-family and rents have doubled since 2006.
- In terms of single-family, first it was material shortages and exorbitant cost increases to build.
- That is easing some, but shipping/delivery is now another large obstacle.
- If you want “guaranteed” date for delivery for shipping a container overseas, that cost used to be \$2,500 and now it’s \$25,000 (Doug Stimple, Classic Homes)



Number of Foreclosures, El Paso County



Source: El Paso County Public Trustee

Apartment Rental Market



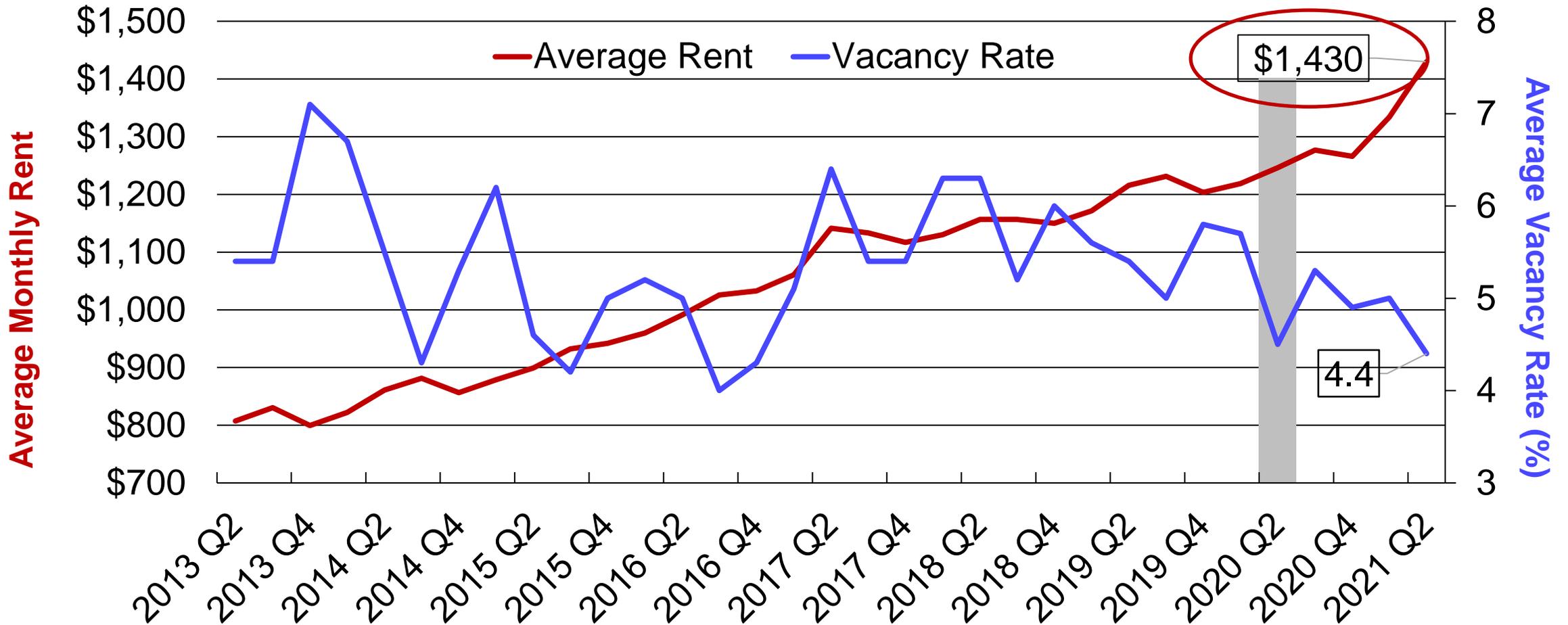
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Multi-Family Rental & Vacancy Rates in Colorado Spring MSA



Source: Colorado Springs Metropolitan Area Apartment Vacancy and Rent Survey provided by Laura Nelson (AASC).
 Economic vacancy rate was 5.0% in 2021 Q1. This is physical vacancy plus concessions & discounts as a % of gross potential rent.

El Paso County Apartment Rental Data in 2021

- The Fair Market Rent (FMR) for a two-bedroom apartment was \$1,200.
- At a 40-hour work week, 52 weeks per year, this level of income translates into a wage of \$23.08 per hour (or \$48,000/yr.)
- But the average renter wage: \$16.63/hour.
- So, we are squeezing out low-earning workers from the local rental market.

Source: National Low-Income Housing Coalition. "Fair market rent is what HUD considers "fair" or typically 40th percentile rents including utilities. FMR is used to help calculation housing assistance programs and amounts for quality housing.

HUD Report, Region 8

Apartment markets tightened throughout the Rocky Mountain region during the second quarter of 2021, but conditions remained balanced in a few metropolitan areas.

	Market Condition	Vacancy Rate			Average Monthly Rent		
		2Q 2020 (%)	2Q 2021 (%)	Percentage Point Change	2Q 2020 (\$)	2Q 2021 (\$)	Percent Change
Billings	Tight	5.4	1.7	-3.7	1,049	1,199	14
Boulder ^a	Tight	6.1	4.2	-1.9	1,600	1,712	7
Cheyenne	Slightly Tight	2.2	1.4	-0.8	885	934	6
Colorado Springs ^a	Tight	6.3	3.8	-2.5	1,158	1,342	16
Denver ^a	Tight	6.4	4.9	-1.5	1,489	1,593	7
Fargo	Balanced	4.9	4.3	-0.6	786	809	3
Provo-Orem ^b	Balanced	4.3	3.9	-0.4	1,010	1,006	0
Rapid City	Slightly Tight	3.6	1.9	-1.7	1,000	1,050	5
Salt Lake City ^b	Balanced	6.0	5.3	-0.7	1,119	1,123	0

2Q = second quarter.

Sources: Market condition—Economic and Market Analysis Division; vacancy rate and average monthly rent—(a) *Apartment Insights*, (b) Moody's Analytics REIS; all other metropolitan areas—Real Page, Inc.

2019 percentage of renter occupied housing units:

El Paso County: 35.9%

Colorado: 34.1%

United States: 35.9%

Source: U.S. Census Bureau, American Community Survey 1-year estimates



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Denver and Colorado Springs, 2021 Q2

	Denver	Colorado Springs
Average Monthly Rent	\$1,651	\$1,430
Vacancy Rate	3.7%	4.4%

Note: Absorption is the net change in the # of apartment units rented in the current time period (quarter/year) compared to the same time period last year.
Sources: CS and Denver Metro Area Apartment Vacancy & Rent Surveys provided by Laura Nelson (AASC)

Brief Comments on Commercial Real Estate

U.S. Commercial Real Estate Construction

- **Record low construction in 2021 Q1 and Q2** and true for all three major property types. Low supply has likely helped keep the market stable.
 - Retail had lowest construction levels in 20 years of tracking the national data (only 39,000 sq. ft. brought online in Q2).
 - Some **red flags for office sector**: low construction, but rents still declined slightly, vacancies up slightly, negative absorption.
- **Material and labor shortages combined with structural changes (more WFH)**
- Sublease availability up 30-60% in many markets.

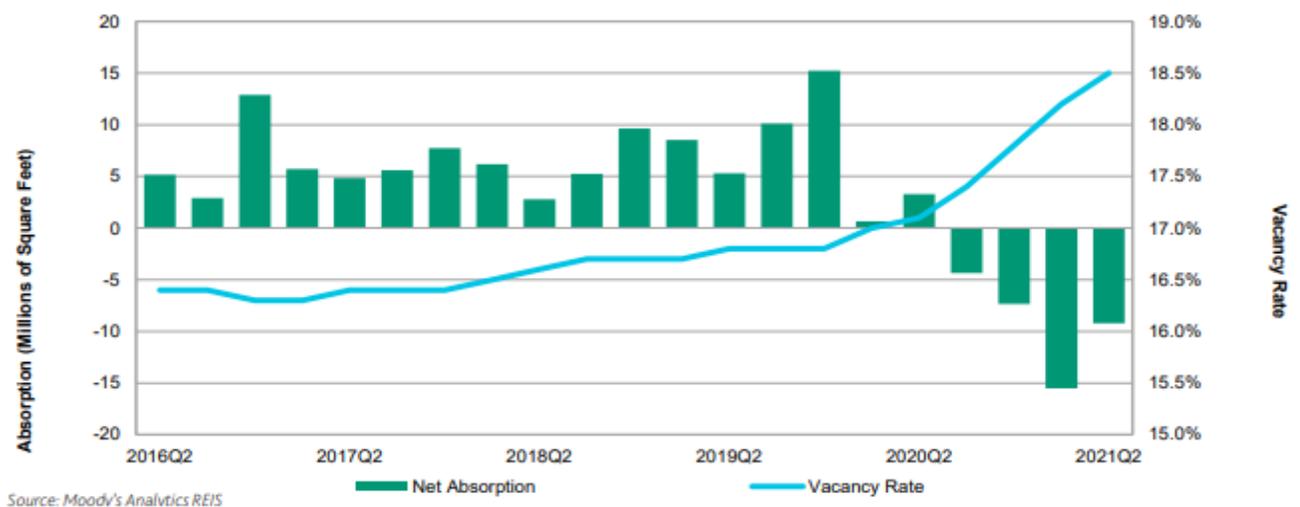
Source: Moody's Analytics, 2021 Q2 REIS report

Office

- National vacancy rate increased in Q2 by 0.3% and stands at **18.5%** (peak was 17.6% during GR 2010).
- Office vacancies were pretty high at 17.0% in 2020 Q1; averaged 16.9% from 2011 to 2019 (too much product)
 - Not as true locally because we didn't have a lot of spec product
- However, **Moody's forecasts continued increases in vacancy rates (at about 20%, or 1 in 5 offices vacant).**
- **Will hybrid result in less intensive use of space or simply eliminate some office space?**
- In 1980s, each employee utilized about 250 sq. ft. and this declined to about 125 sq. ft. per employee at end of 2019.

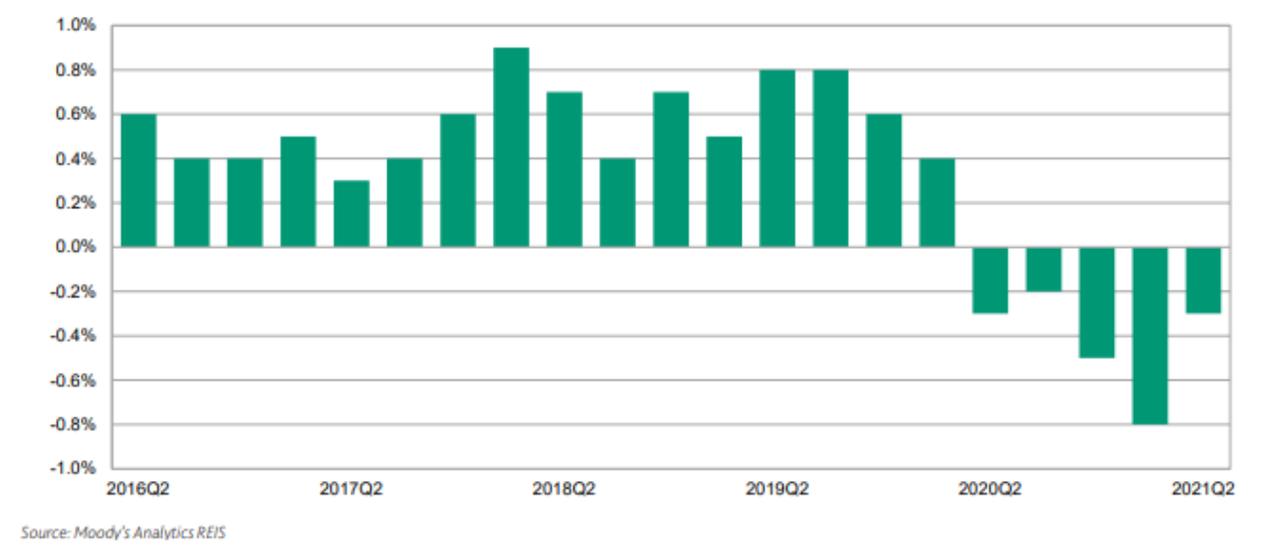
Source: Moody's Analytics; Jim DiBiase, Olive Real Estate

Figure 1 Office Net Absorption and Vacancy



Office

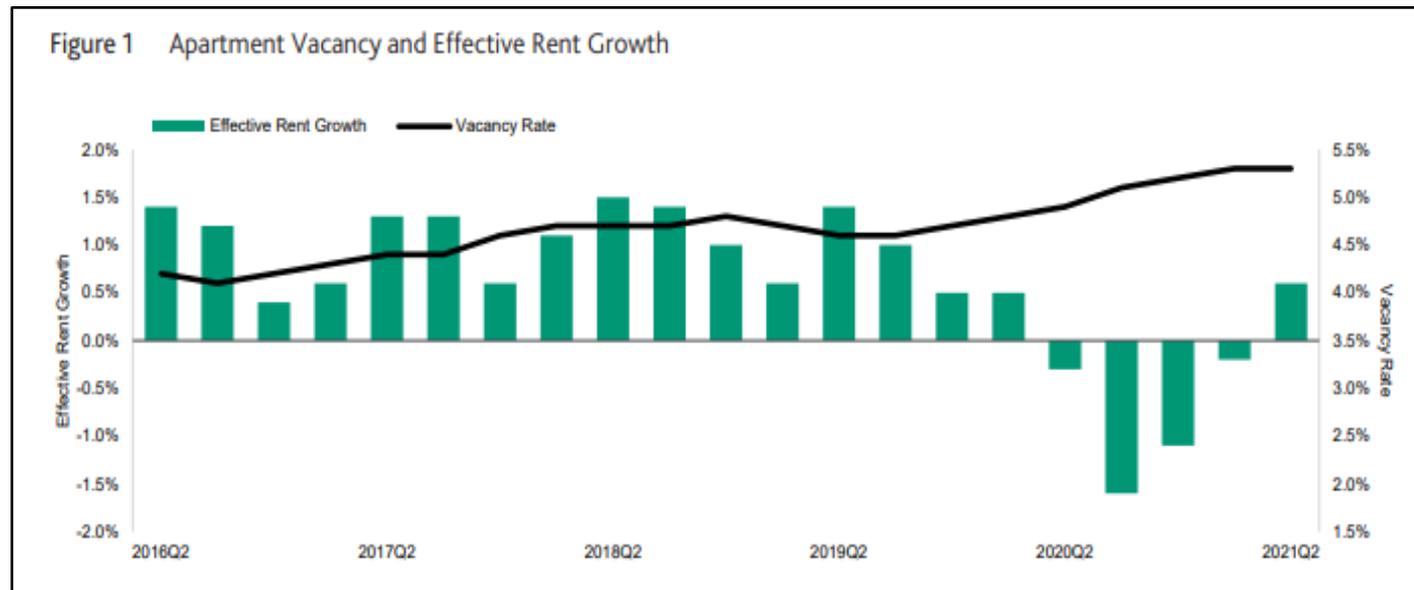
Figure 2 Office Effective Rent Growth



Source: Moody's Analytics

Apartments

- **Greatest uncertainty is how the lifting of the eviction moratorium will impact vacancies.**
- National vacancy rate at **5.3%** in 2021 Q2.
- We are seeing some of the hardest hit urban areas rebound with respect to apartment demand.
- Again, limited construction is helping the market stay stable (and not oversaturated).
 - **Not true locally:** construction, absorption and rent growth are up; vacancies are low.



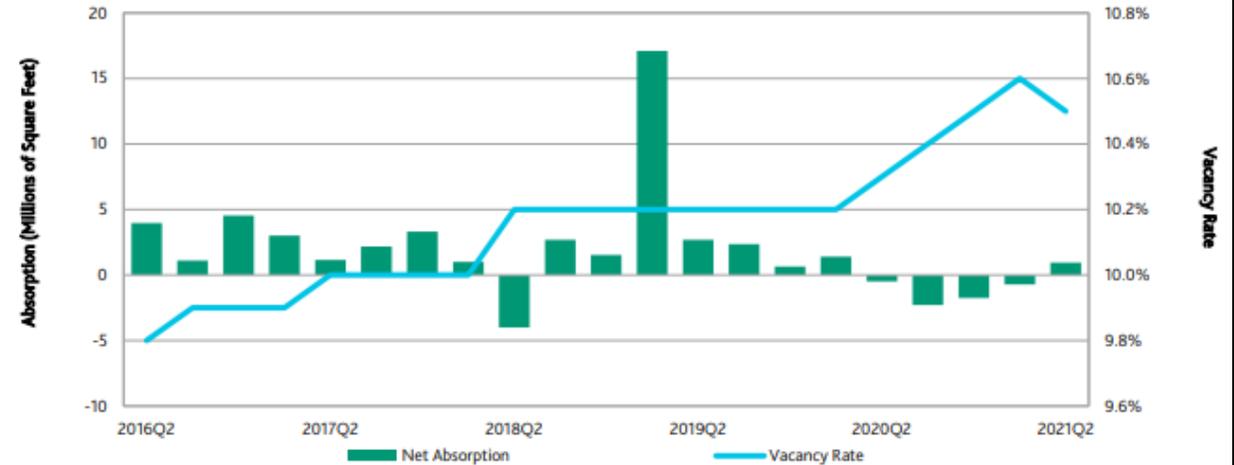
Source: Moody's Analytics

Retail

- **Stable:** absorption and rent growth now slightly positive.
- Low investment and construction keeping market stable.
- **This subsector has been adjusting for many years.**
- Moody's still predicts **3-5% decline** in rents in 2021/

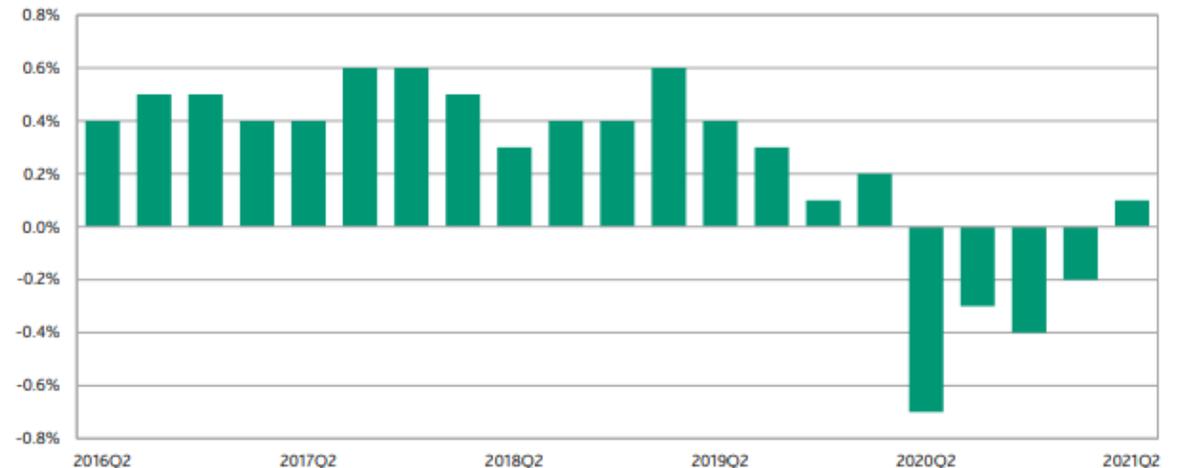
Source: Moody's Analytics

Figure 1 Neighborhood and Community Shopping Center Net Absorption and Vacancy



Source: Moody's Analytics REIS

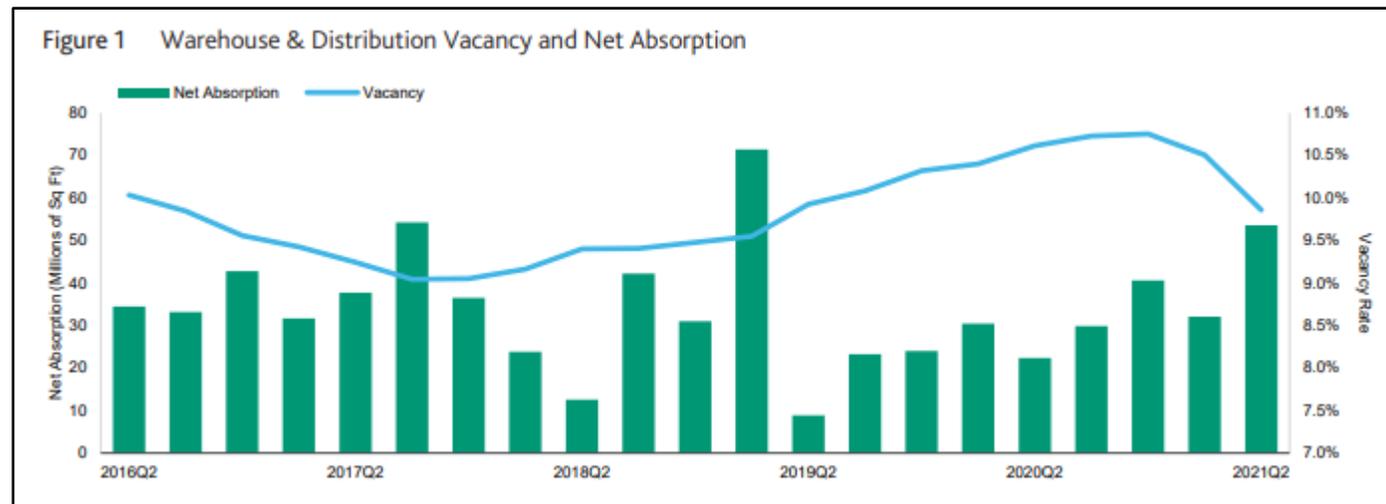
Figure 2 Neighborhood and Community Shopping Center Effective Rent Growth



Source: Moody's Analytics REIS

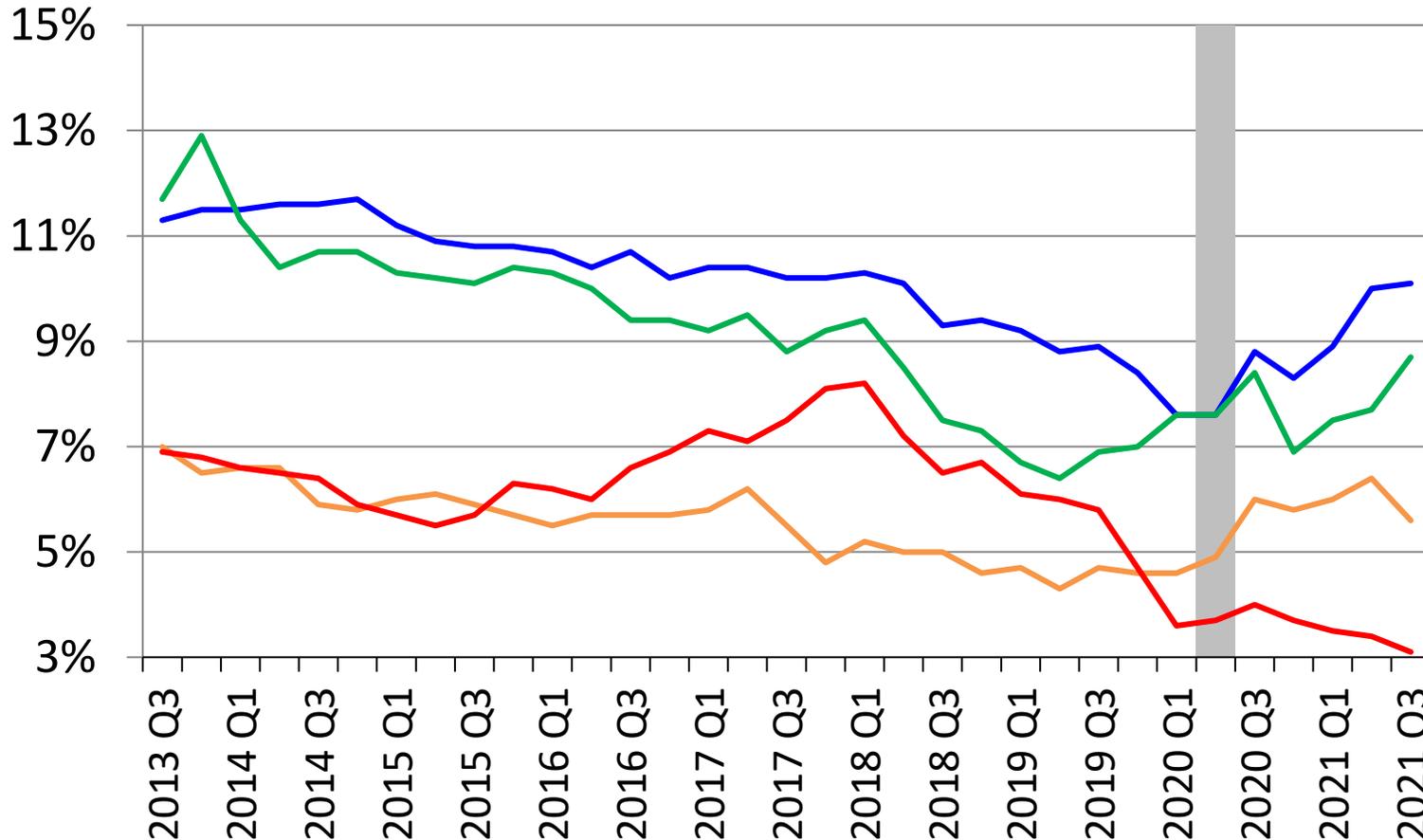
Industrial

- **Industrial space continues to be the superstar.**
- Absorption up, vacancies down, effective rents up (0.8%) from Q1.
- Warehouse/distribution, but also flex/R&D space
- **National vacancy down to 9.9% (much lower in Colorado Springs)**
- Demand for shorter delivery times calls for more distribution space (e.g. “last mile”) and e-commerce will continue to grow. Bullish projections for this subsector.
- **Effective rents projected to increase 3% in 2021**



Source: Moody's Analytics

Colorado Springs Commercial Vacancy Rates and Rents



2021 Q3 Rents

- Office
\$24.10 per sq. ft.
- Medical Office
\$26.32 per sq. ft.
- Retail
\$14.78 per sq. ft.
- Industrial
\$9.08 per sq. ft.

Sources: CoStar Group™; Olive Real Estate Group, Inc. Local office vacancy rates up mostly due to WFH for larger employers like Comcast and Verizon (call centers).

Colorado Springs to Denver (cities): Rents per Square Foot

2021 Q3				
	Retail	Office	Industrial	Medical Office
Colorado Springs	\$14.78	\$24.10	\$9.08	\$26.32
Denver	\$21.32	\$32.78	\$7.94	\$20.74
% Difference	-30.7%	-26.5%	14.4%	26.9%

Sources: CoStar Group™; Olive Real Estate Group, Inc., Jim Justus & Jim DiBiase

Transportation



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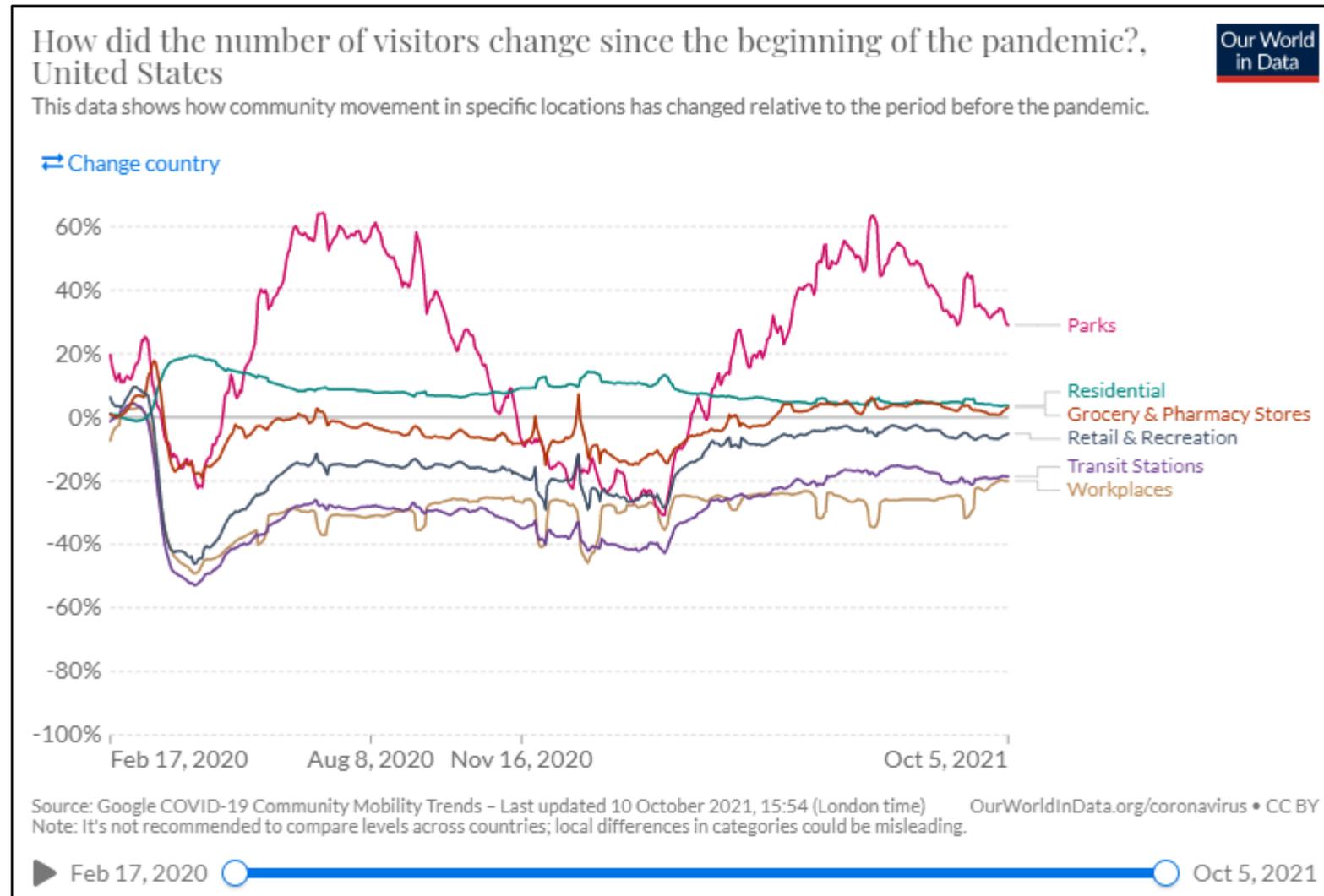
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COVID and Changes in Transportation

- Mobility trends show less work commuting and less transit use.
 - Are these offsetting in terms of carbon emissions?
- Pandemic seems to have accelerated move to EVs* and even autonomous
 - Project 30% EVs by 2030
 - Volatile & high gas prices “fueling” the move towards EVs.

*EV sales up 43% in 2020.



Transportation and our Region

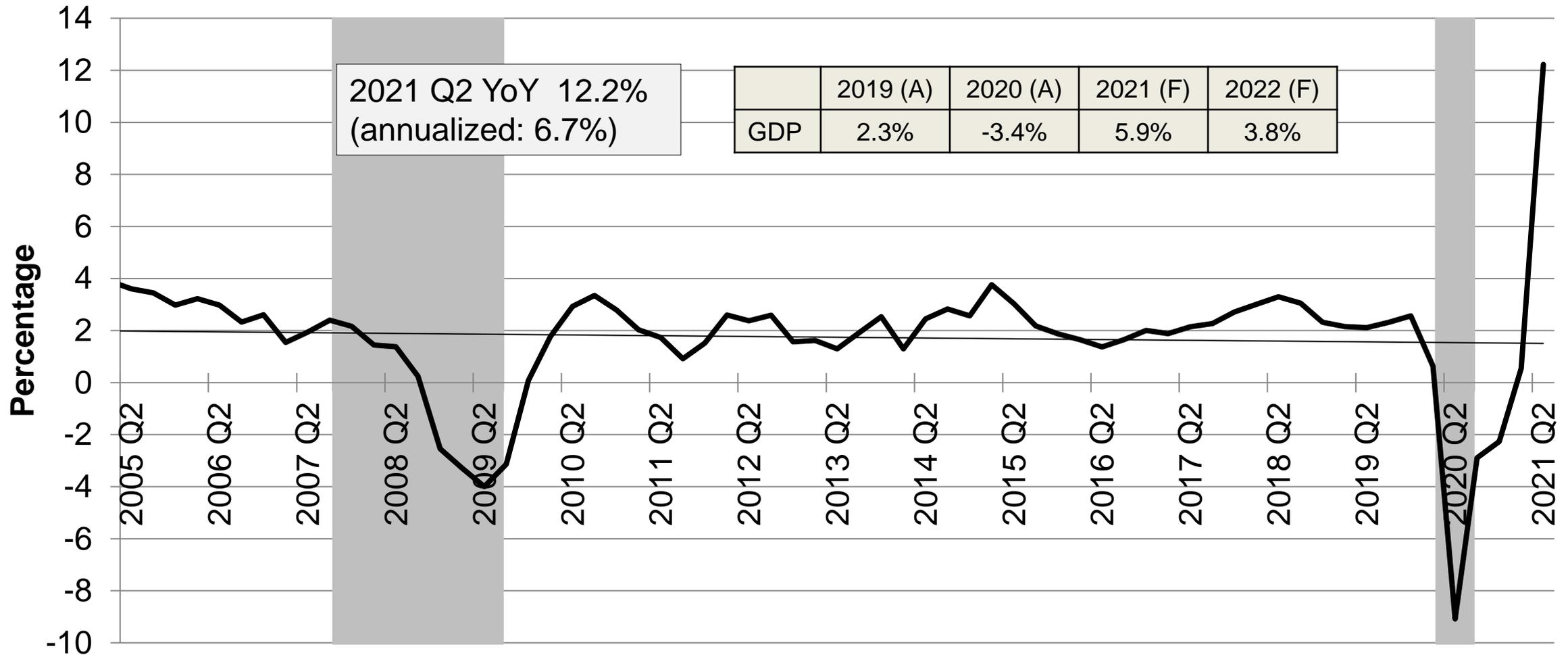
- I-25 gap construction remains on budget and on schedule for November 2022 completion.
- Partially because federal funding may be available through \$1t infrastructure bill, the Front Range Passenger Rail (FRPR) seems more likely
 - Bill has funding for leveraging passenger rail
- PPACG gives it a 50/50 chance:
 - In favor: Amtrak considers FRR a high service priority - having SW Chief (btw Chicago and LA) and connecting to La Junta and Pueblo gives a route to connect to FRPR. State is also onboard to reduce gas emissions; public support too.
 - Against: Requires a sales tax hike by ballot question in affected areas. Business community is thus not as keen on it.
- Project could use existing tracks and 10-20 yr. timeline could thus shorten.
- Will there be as much support of public transit (w/public health concerns & WFH)?

Lastly, Growth Forecasts

(Better Known as “Guessenomics”)



Real Growth in GDP vs. Year Ago (SA)



GDP forecast by **WF and Conference Board for 2021** and **Conference Board (only) for 2022**. Graph shows **seasonally adjusted data**.
Source: U.S. Bureau of Economic Analysis.

Conference Board GDP Forecasts

Base Case 2021 GDP will increase **5.9%** YoY*. Trend growth average ~2.5%.

- GDP forecast down from 6.6 and 6.0% in previous forecasts.
- Moderated expectations due to Delta, supply constraints and hindered shipping activity, labor shortages, inflationary pressures, expect interest rates to increase in 2023 Q2, end of stimulus payments, increased imports and less demand for our exports (as global COVID cases continue), and reduced consumer confidence
- Current economic environment may delay Fed tightening although asset purchases will begin sooner.
- 3.8% growth in 2022 and 3.0% in 2023 (YoY)

Incorporates unemployment gap, Fed fund rate vs. natural rate, yield curve inversion, LEI, hrs. worked, & retail sales
Source: The Conference Board. September 15, 2021.

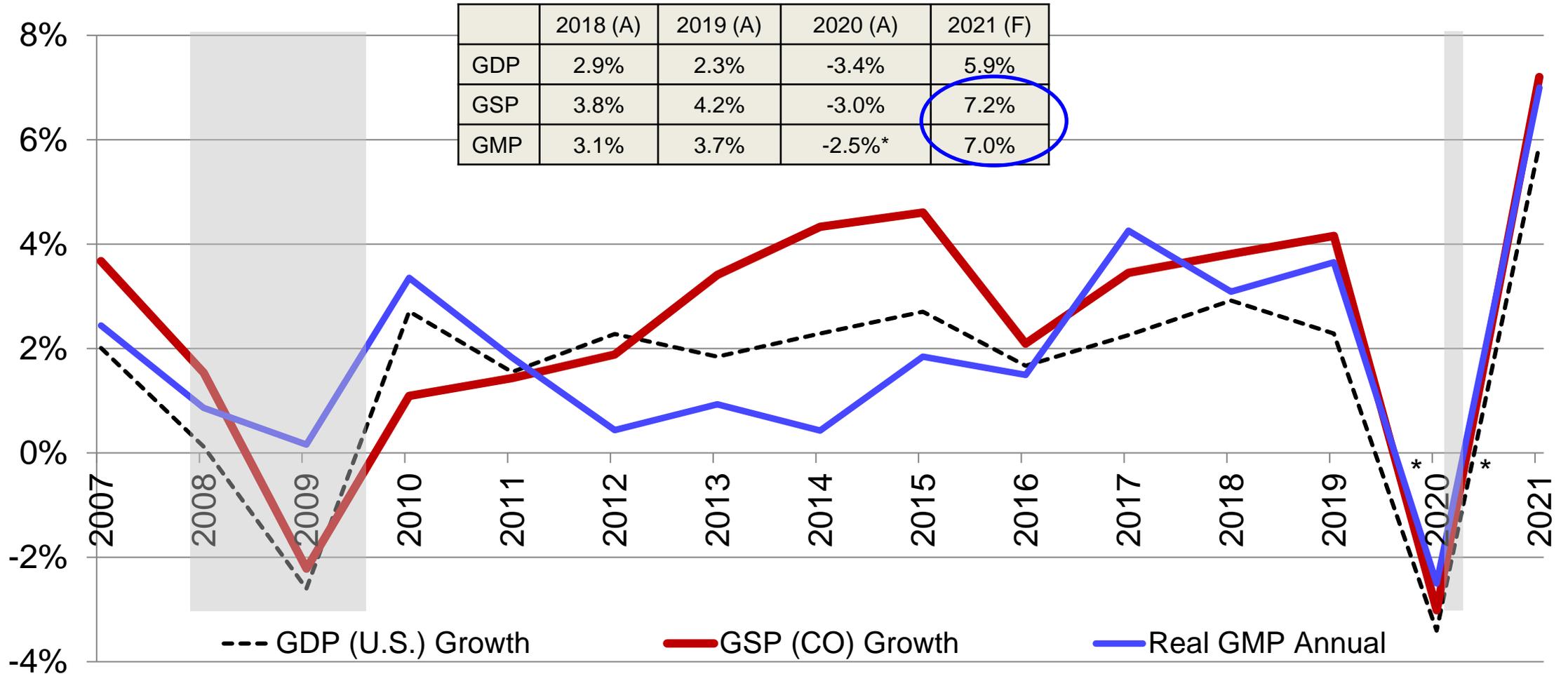
Conference Board GDP (Other) Forecasts

- Consumer spending up 8.1% in 2021 (YoY).
- Residential investment up 10.3 %.
- Non-residential up 7.4%.
- Unemployment rate 5.5% (but watch labor participation rate) in 2021 and 3.8% in 2022.
- Inflation at 3.5% in 2021; 2.9% in 2022 and 2.0% in 2023.

Incorporates unemployment gap, Fed fund rate vs. natural rate, yield curve inversion, LEI, hrs. worked, & retail sales

Source: The Conference Board. February 10, 2021 report

Real Growth in Annual GDP, GSP & GMP vs. Year Ago



*GDP forecast by Wells Fargo. GSP & GMP forecasts by the UCCS Economic Forum with input from CO Office of State Planning & Budgeting.

In 2017, Real GDP for the U.S. (2.3%), CO (3.5%) and EPC (4.3%)

Source: U.S. Bureau of Economic Analysis

Overall Bullish for Colorado and Colorado Springs

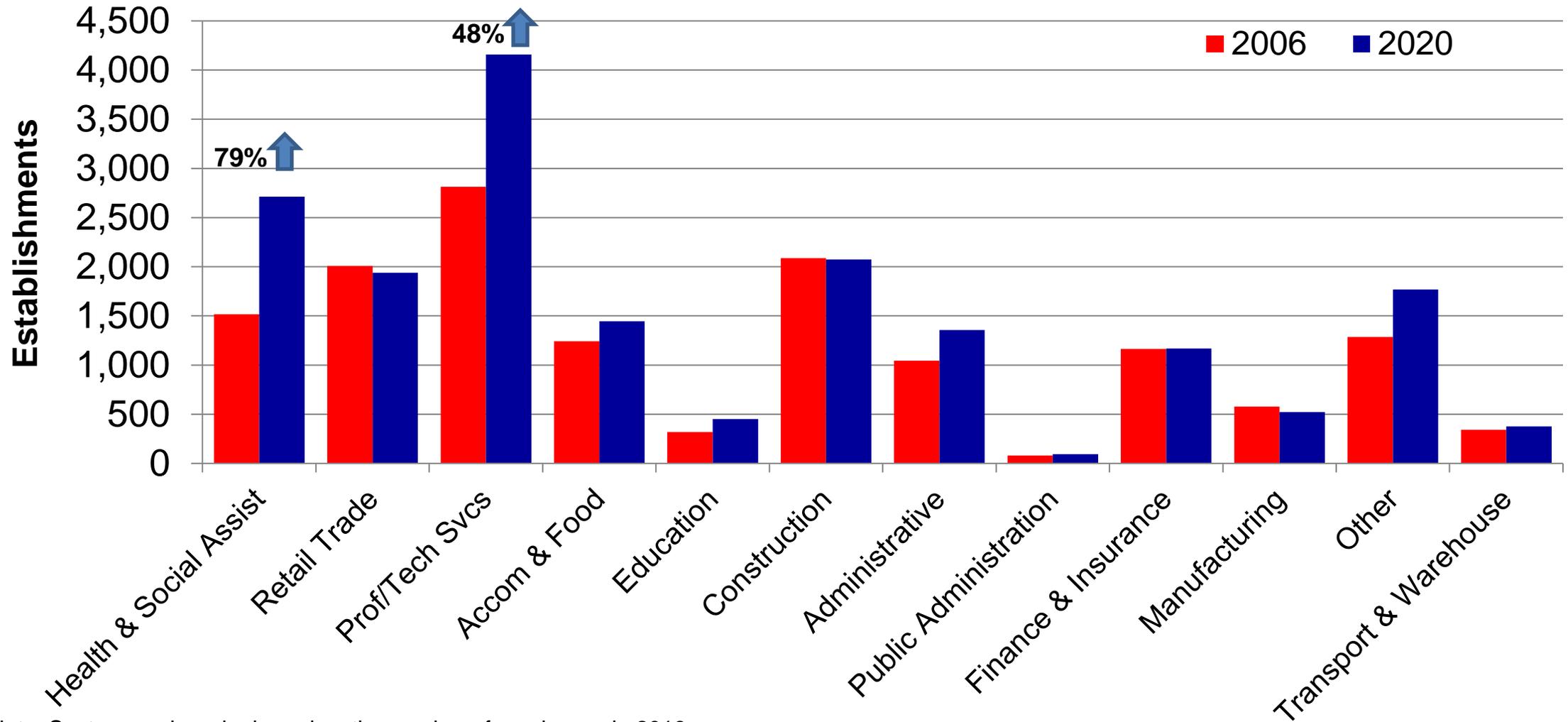
- Population growth continues (primarily educated and young)
- Become a destination for knowledge workers (some of that due to WFH)
 - Benefitting from migration away from MW, portions of NE and South
- Diversity of sectors with a lot of innovation and business startups
- Local tourism sector very robust with continued growth in professional/technical (including DoD contracting), finance/insurance and health care.
- City of Colorado Springs is bucking trends with high LF participation and continued growth downtown (indicative of overall growth – next slide)

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El Paso County Average Number of Establishments in Selected Sectors for 2006 and 2020

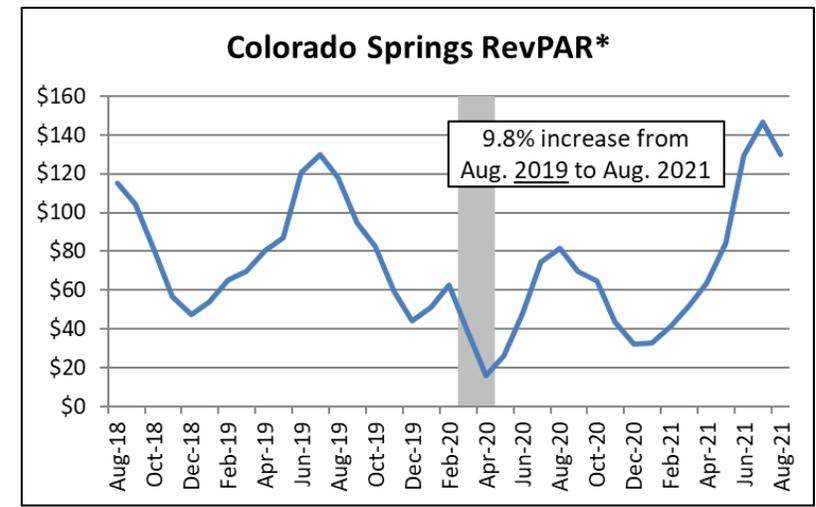


Note: Sectors are in order based on the number of employees in 2019.

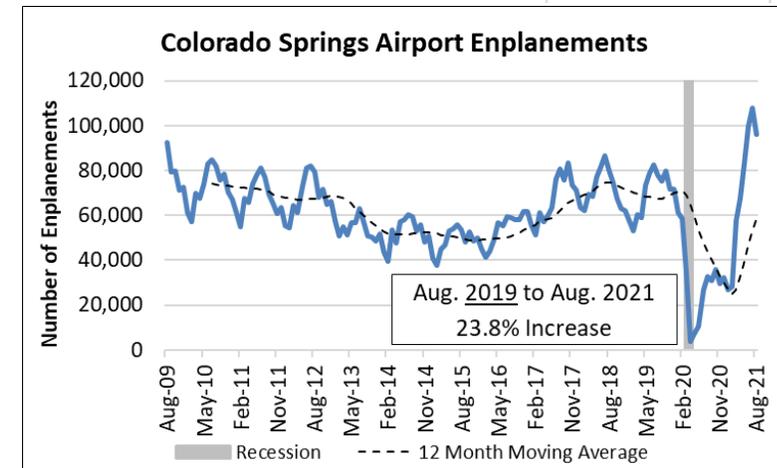
Source: Colorado Department of Labor and Employment, Quarterly Census of Employment and Wages (QCEW)

A Couple More Growth Indicators

- Downtown (DT) visitation up 7% July from 2019 to 2021*. Typically see about 1 to 1.2 million visitors monthly.
- Workforce numbers flat compared to June of last year – more returning workers but fewer days in office per week (at 60% of 2019's rate).
- However, DT (apartment) living way up and that may sustain/grow hospitality-related businesses.
 - 600 new units since 2015; but another 1,349 to be completed by end of 2021. Another 1,000 breaking ground in 2022 and another 2,000 in pipeline
- Net growth in # of storefronts in past 2 years (9 deaths, 28 births in 2021)



Hotel Occupancy Rate August 2021		
Colorado Springs	Denver	Colorado
75.8%	70.3%	69.3%



*Typically see about 1 to 1.2 million visitors monthly. Visitors are people who are DT for 15 minutes or more to shop, dine, etc. Filters out people who are DT 8+ hours (workforce & residents).
Source: Susan Edmondson, CEO Downtown Partnership.



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