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BBER's services and research help leaders in New Mexico to identify and understand trends and changing economic markets across New Mexico in order to inform decision making.

THE NEW MEXICO ECONOMIC FORECAST: RECENT DEVELOPMENTS AND OUTLOOK

PREPARED FOR THE REVENUE STABILIZATION & TAX POLICY COMMITTEE

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OCTOBER 6, 2022

October 6, 2022

- US Review + Economic Outlook
- New Mexico Economic Outlook
- Questions and Comments

US Review + Economic Outlook



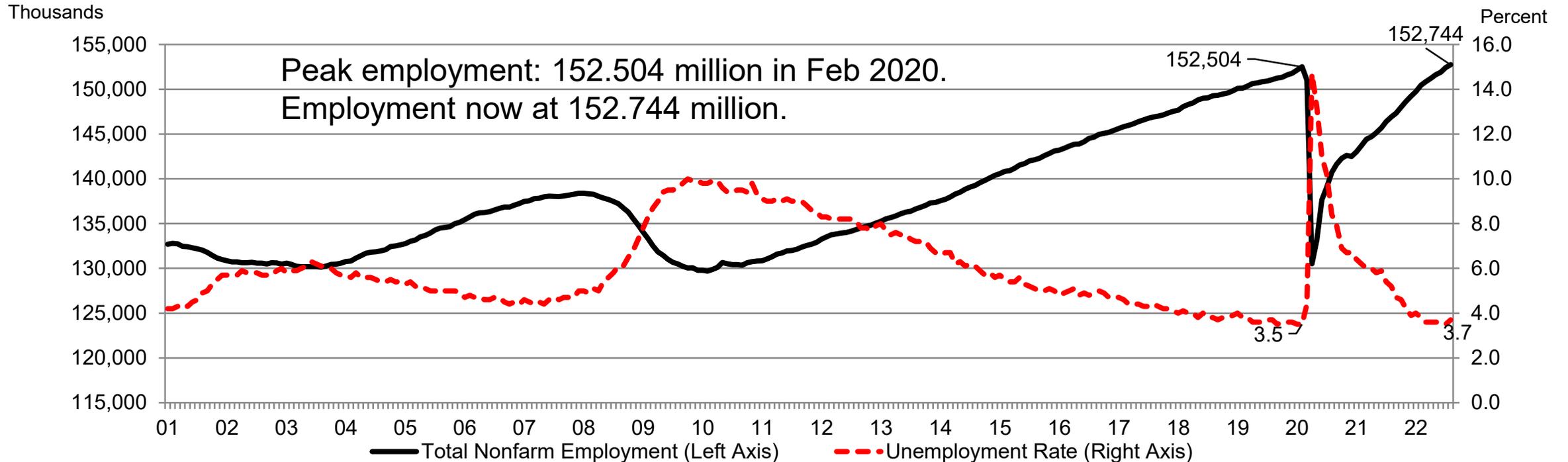
Review: National Economy

- ❑ In the first 8 months of the year, US job gains solid: averaging 438,000 per month. Now above pre-pandemic levels. New data out tomorrow.
- ❑ Initial & continuing claims for unemployment have generally stabilized and unemployment rate 3.7% in August.
- ❑ Real GDP: 2022Q1 (-1.6% SAAR) and 2022Q2 (-0.6% SAAR) disappointing. Q3 data out Oct 27.
- ❑ WTI spot price around \$80-\$90/barrel. Had spiked above \$125/barrel.
- ❑ Consumer Sentiment Index (U. of Mich.) is low.
- ❑ Stock markets flagging (though some upward movement this week).
- ❑ However, ISM manufacturing and non-manufacturing indices continue to expand (27 consecutive months of expansion).
- ❑ **Concerns: Inflation, labor and supply chain disruptions, geopolitical. Are we in a recession?**

US Employment Situation

Note: Payroll processor ADP estimates 208k private sector jobs added in September.
<https://adpemploymentreport.com/>

US Nonfarm Employment + Unemployment Rate, Monthly SA

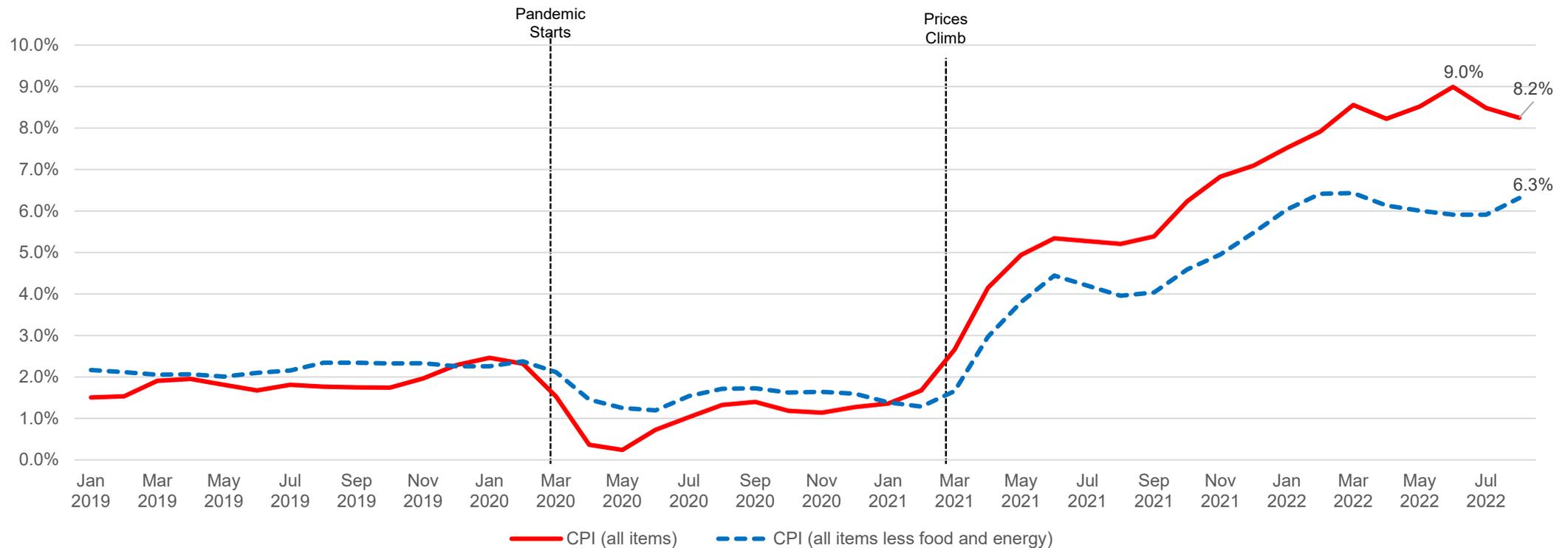


Private employment 885k more than pre-pandemic.
 Gov't employment 645k less than pre-pandemic.

Note: UI rate now 3.7%.

Source: BLS, through August 2022 (<https://www.bls.gov/ces/>)

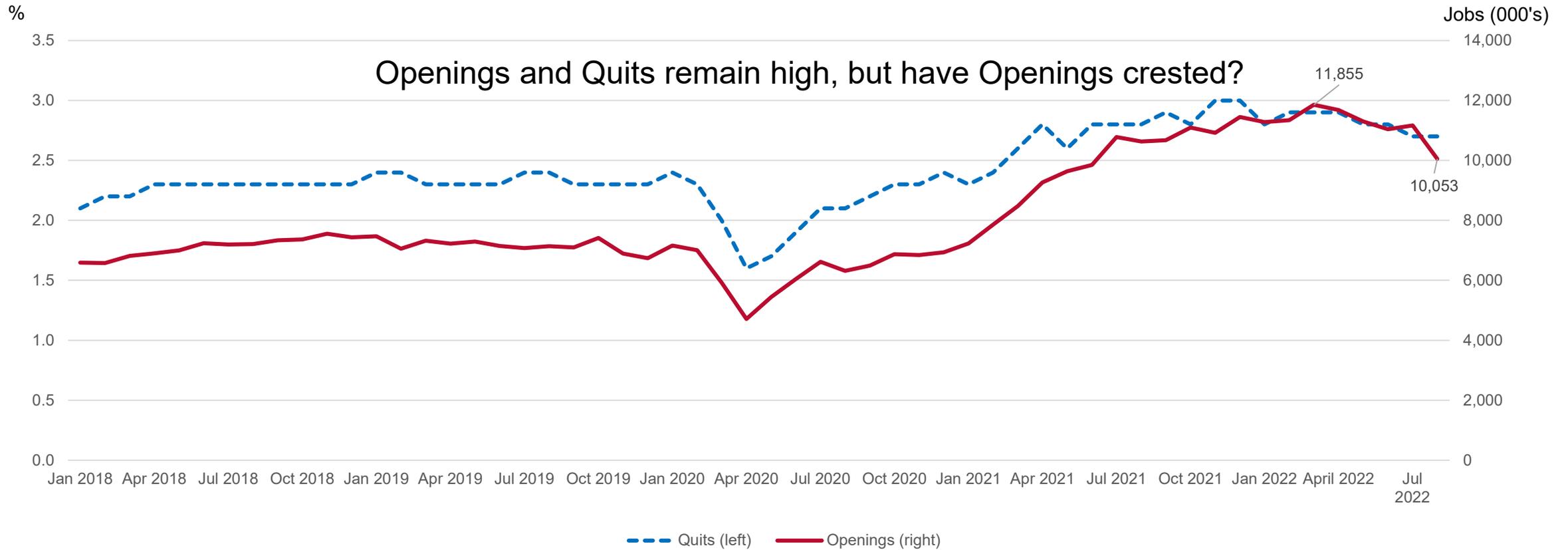
Concern: US Inflation



Data current through June 2022. Y/Y price growth still high. “All Items” are impacted with growth around 8.2%. Excluding food and energy, prices are still rising by about 6.3%.

Source: BLS CPI data (<https://www.bls.gov/cpi/>)

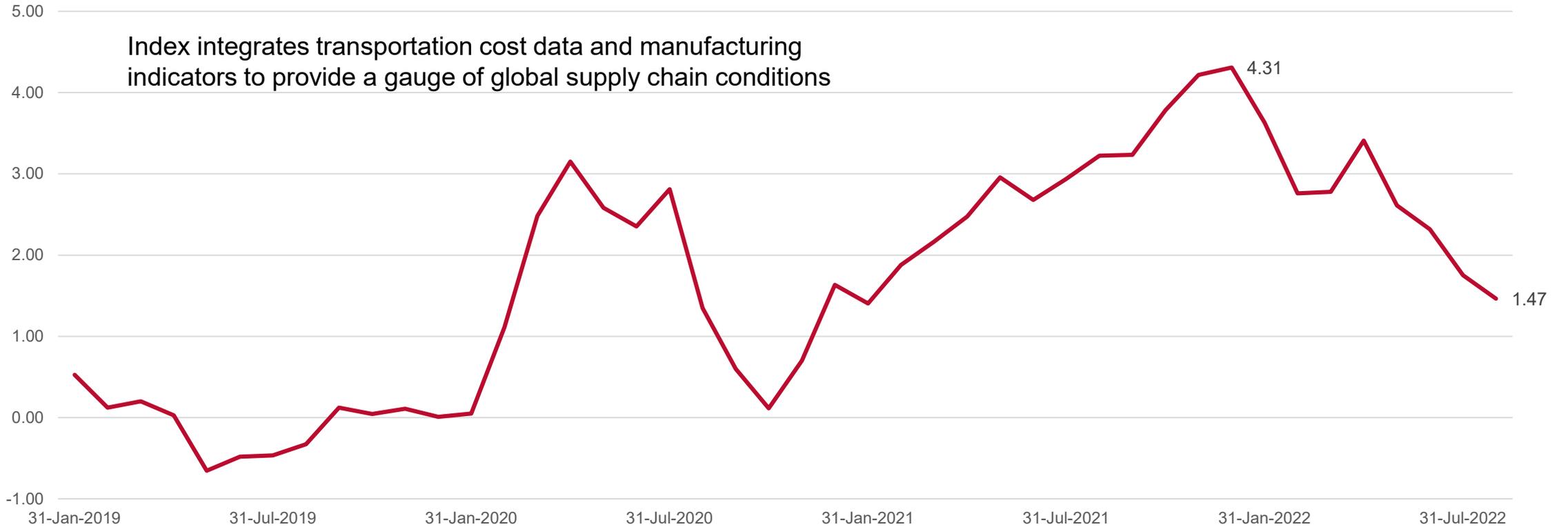
Concern: US Labor Markets



Source: BLS JOLTS, through August 2022 (<https://www.bls.gov/jlt/>)

Concern: Global Supply Chains

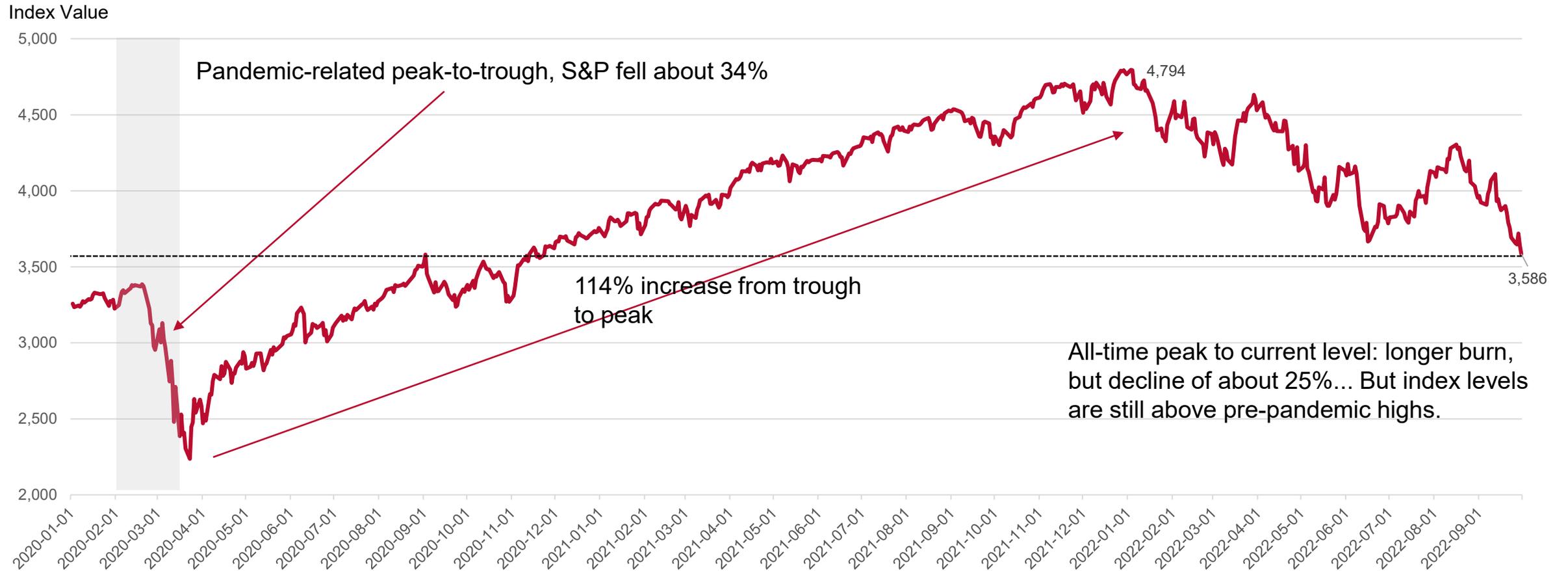
Standard Deviation from Historical Value



Source: Sources: Bureau of Labor Statistics; Harper Petersen Holding GmbH; Baltic Exchange; IHS Markit; Institute for Supply Management; Haver Analytics; Refinitiv; Fed Reserve calculations. (<https://www.newyorkfed.org/research/policy/gscpi#/overview>)

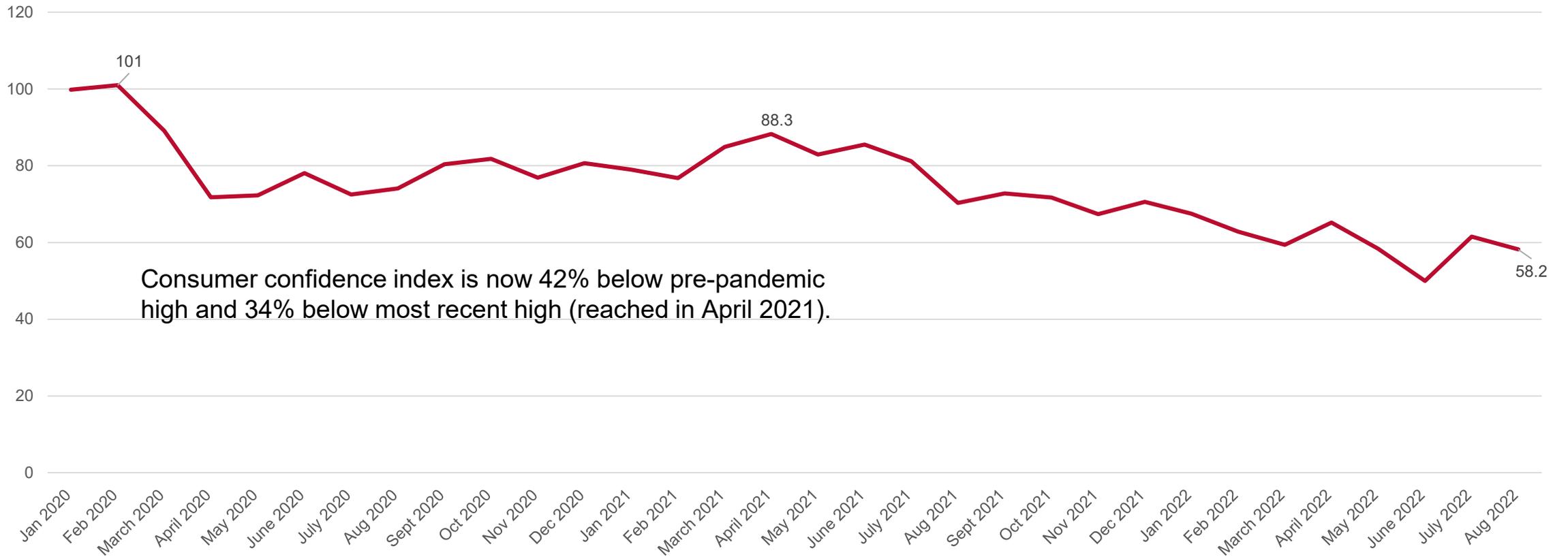
Concern: The “Market”

Note: data are through 9/30/22. First few days of October have seen improvement.



Source: S&P 500 Index, reported by Fed Reserve of St. Louis

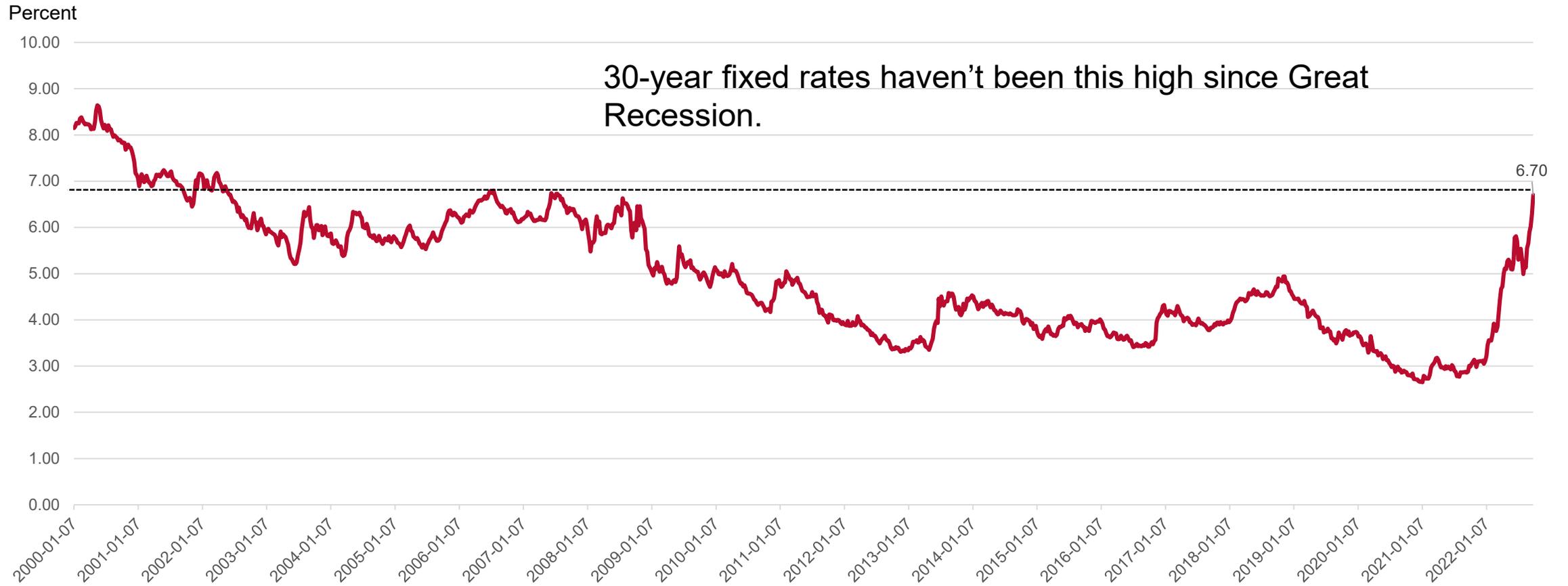
Concern: US Consumer Confidence



Note: Higher readings correspond to higher confidence.

Source: University of Michigan, Consumer Confidence Index (<http://www.sca.isr.umich.edu/>)

Concern: US Interest Rates



Relatedly, federal funds rate has been raised rapidly to attempt to combat the effects of inflation.

Source: 30 Fixed Mortgage Rates, Fed Reserve of St. Louis

Concern: Recession?

- ❑ The Conference Board predicts 96% chance of recession within next 12 months (<https://www.conference-board.org/topics/recession/US-recession-probabilities-reach-96-percent>).
- ❑ Goldman Sachs: 30% probability of recession... but this was in July (<https://www.goldmansachs.com/insights/pages/gs-research/revisiting-recession-facts/report.pdf>).
- ❑ Federal Reserve Yield Curve analysis implies a 25% recession probability (https://www.newyorkfed.org/research/capital_markets/ycfaq#/interactive).
- ❑ IHS Markit:

“The sharp worsening in financial conditions in recent weeks, including a steep decline in equities, a jump in term interest rates, a further rise in the dollar, and widening yield spreads, points to a further weakening in spending that will cause the US economy to slide into recession in coming quarters. We expect the recession to be mild by historical standards...”

New Mexico Review

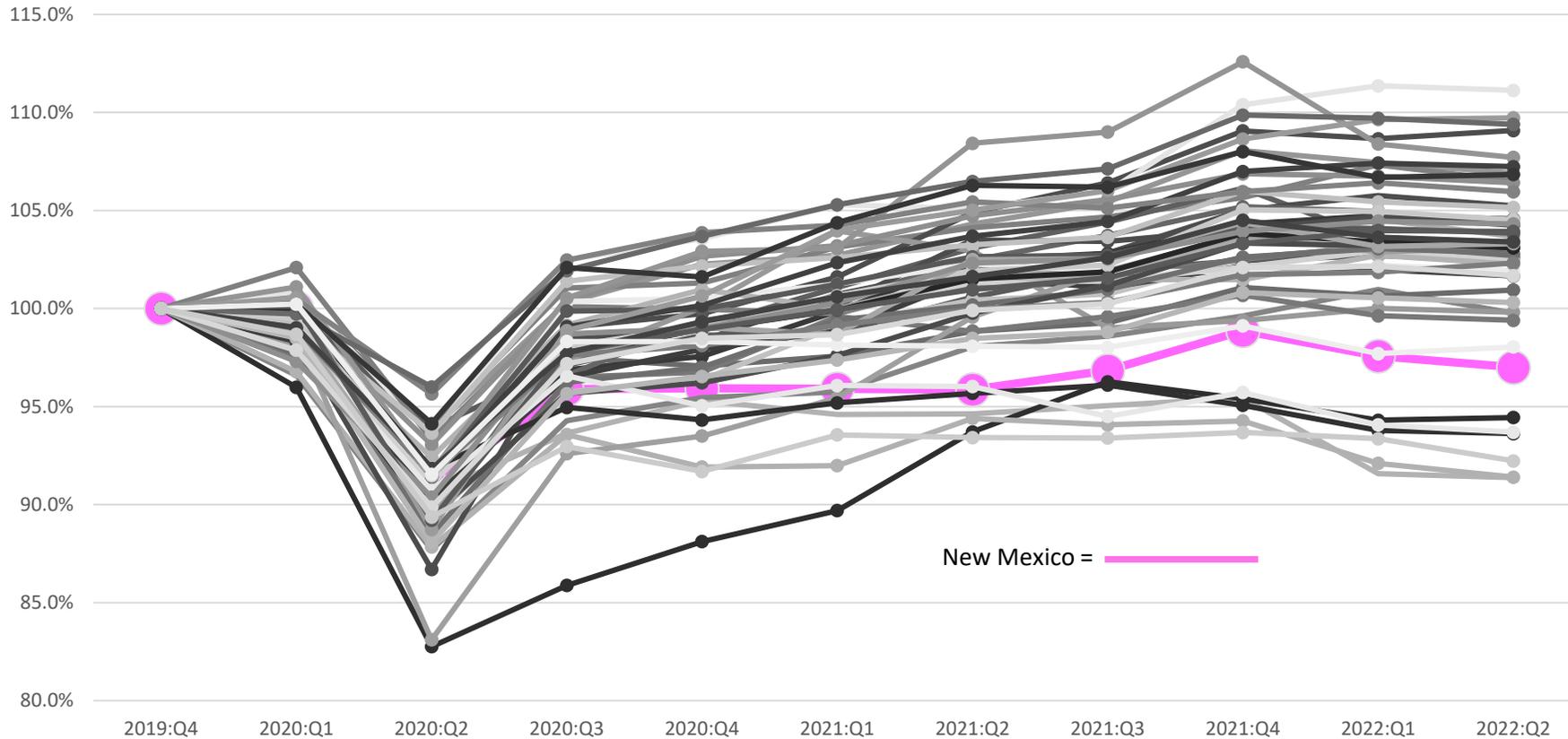


New Mexico Current Economic Situation

- COVID variants continue to concern, but things are improving; other macroeconomic issues are now more pressing.
- NM data seems to be improving – though improvement is slowing:
 - Employment:
 - CES: implies state down about 12k jobs (-1.4%) versus pre-pandemic high (August 2022 versus January 2020).
 - QCEW: implies state down 45k jobs (-5.4%) versus pre-pandemic high for same qtr. (2022Q1 versus 2020Q1).
 - Weakness (versus pre-pandemic period): mining, accommodation, local government.
 - Gross State Product: back to about 97% of pre-pandemic high.
- Unemployment Insurance claims have stabilized.
- Oil: WTI now around \$80-\$90/barrel (prices ticking up last few days).
 - Drilling robust and production high; still pretty good news for state budgets.
- Next several slides show key data.

BEA Gross State Product

NM is about 97% of pre-pandemic high.



Measure of the value of goods and services produced in the state.

Each state indexed to 2019Q4 (NM's high point).

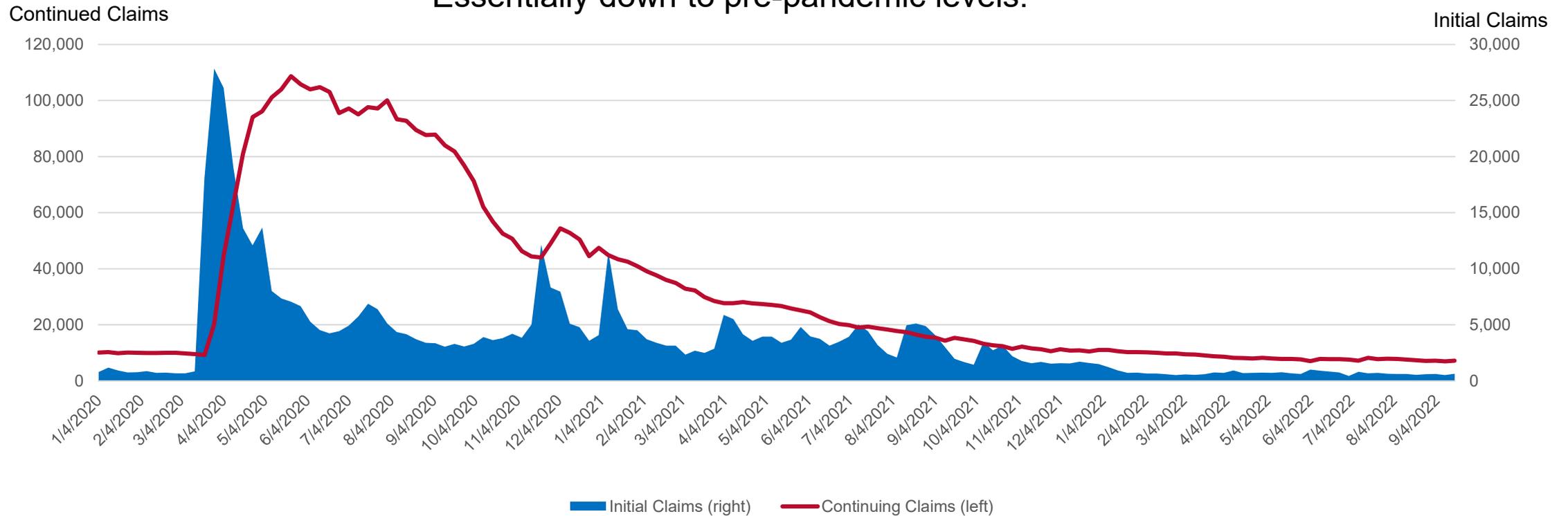
Through 2022Q2, 44 states have had greater recoveries in GSP.

Important to note: series is regularly revised. Possible that value of oil production not fully accounted for.

Source: Bureau of Economic Analysis

Unemployment Insurance Claims

Most recent week: IC about 650; CC about 7,200
Essentially down to pre-pandemic levels.

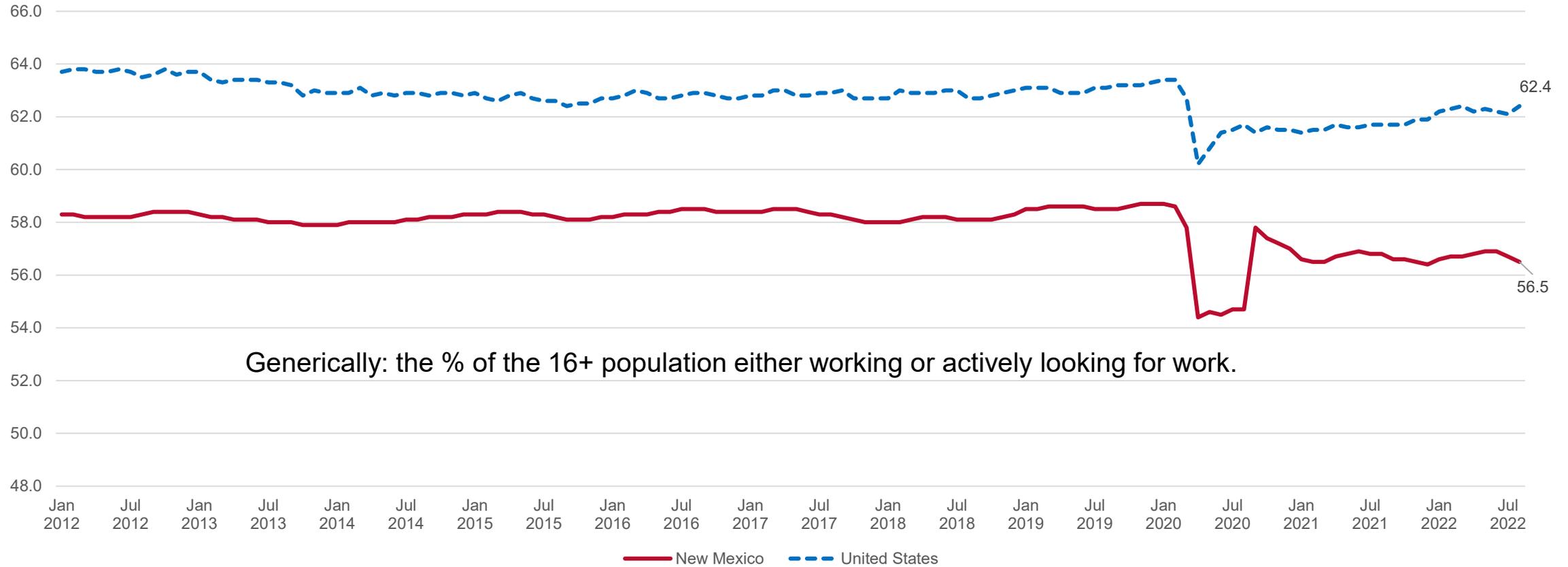


Note: data only includes "traditional" claims.

Source: BLS (reflecting through August 16, 2022)

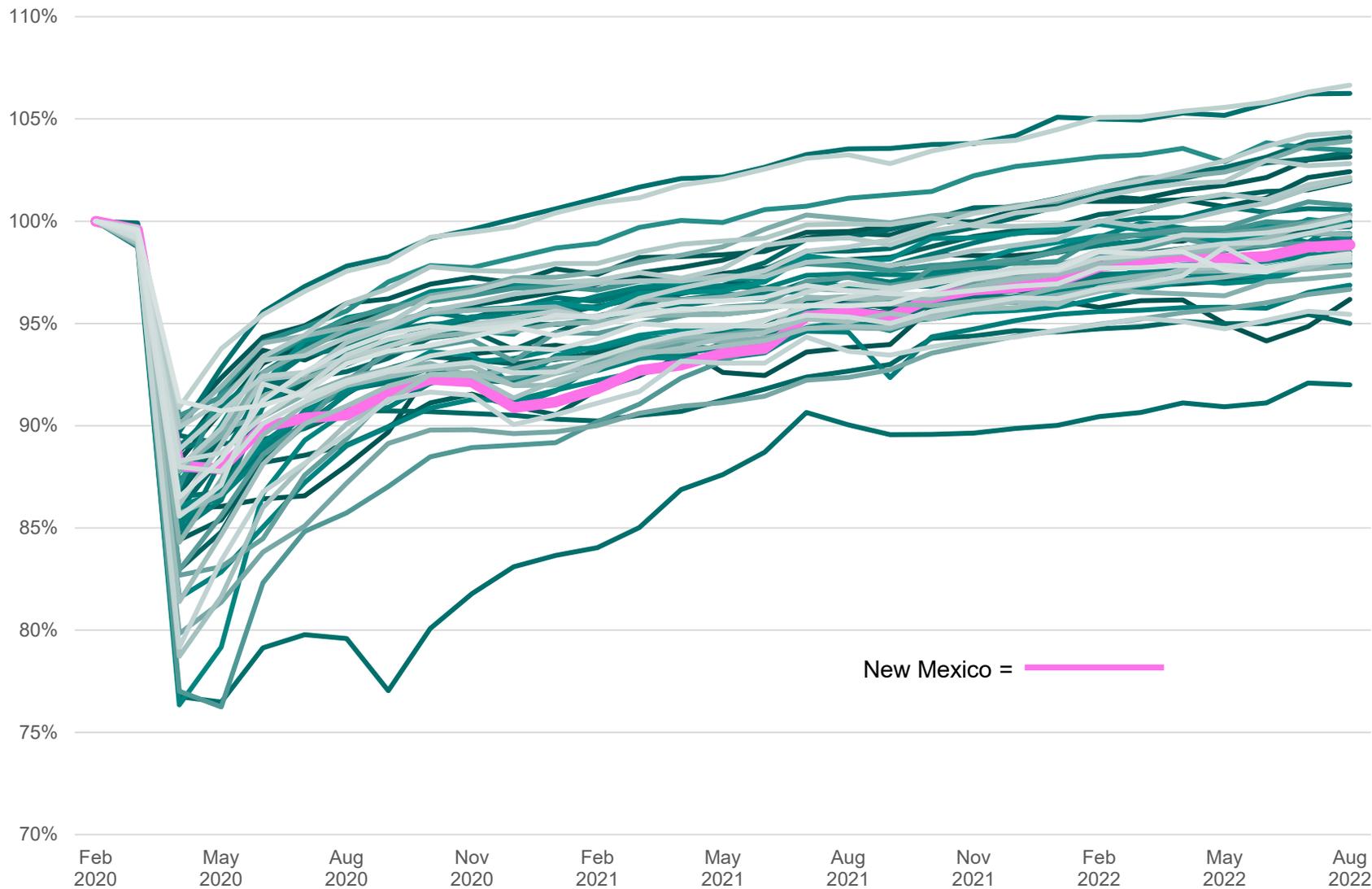
NM vs. US Labor Force Participation Rate

New Mexico has trailed the US in terms of participation rate for some time.



Source: BLS & NMDWS LAUS, through August 2022

Employment by State Indexed to Respective February 2020 (=100%) Levels

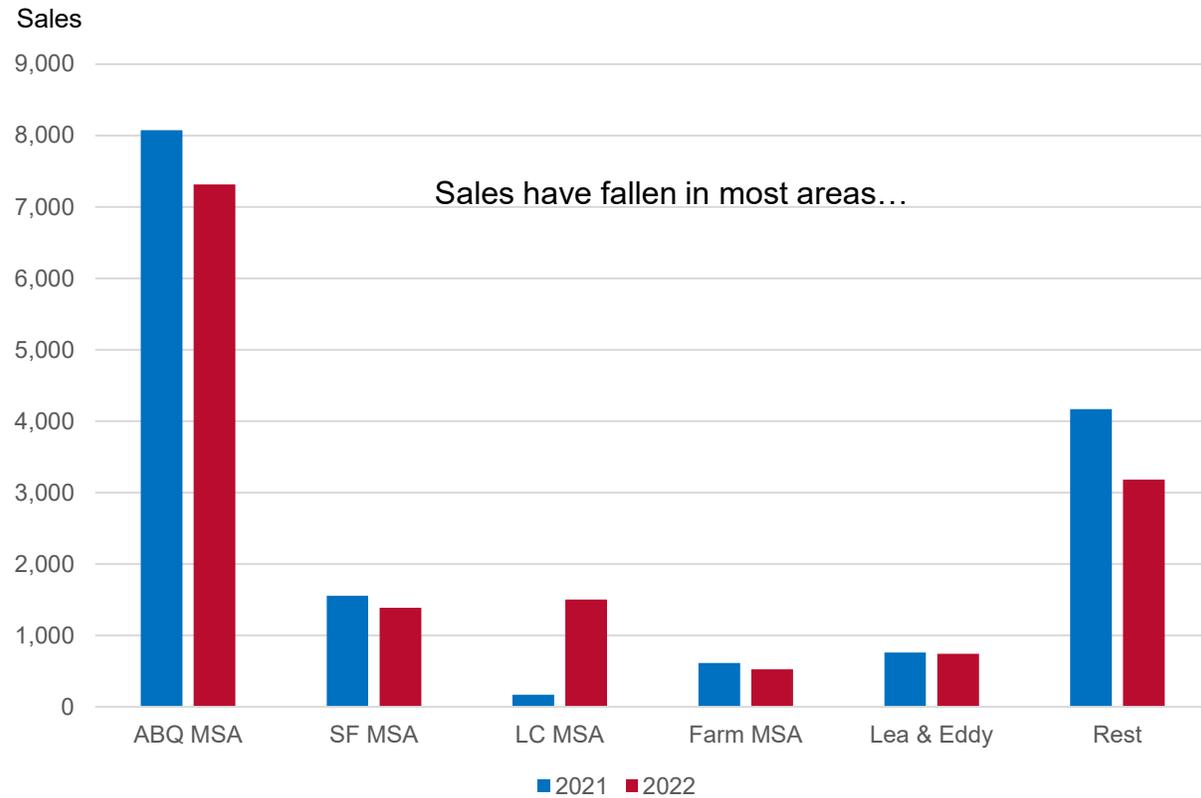


Change in Employment (CES data)

- As of August 2022, NM has recovered 98.8% of the jobs it lost at the start of the pandemic.
- NM is (slowly) improving: now, 29 states have recovered a greater share of jobs than New Mexico.
- Other surrounding states: AZ 102%; CO 102%; OK 99%; NV 101%; CA 99%; TX 104%; UT 107%.

Source: BLS CES, August 2022

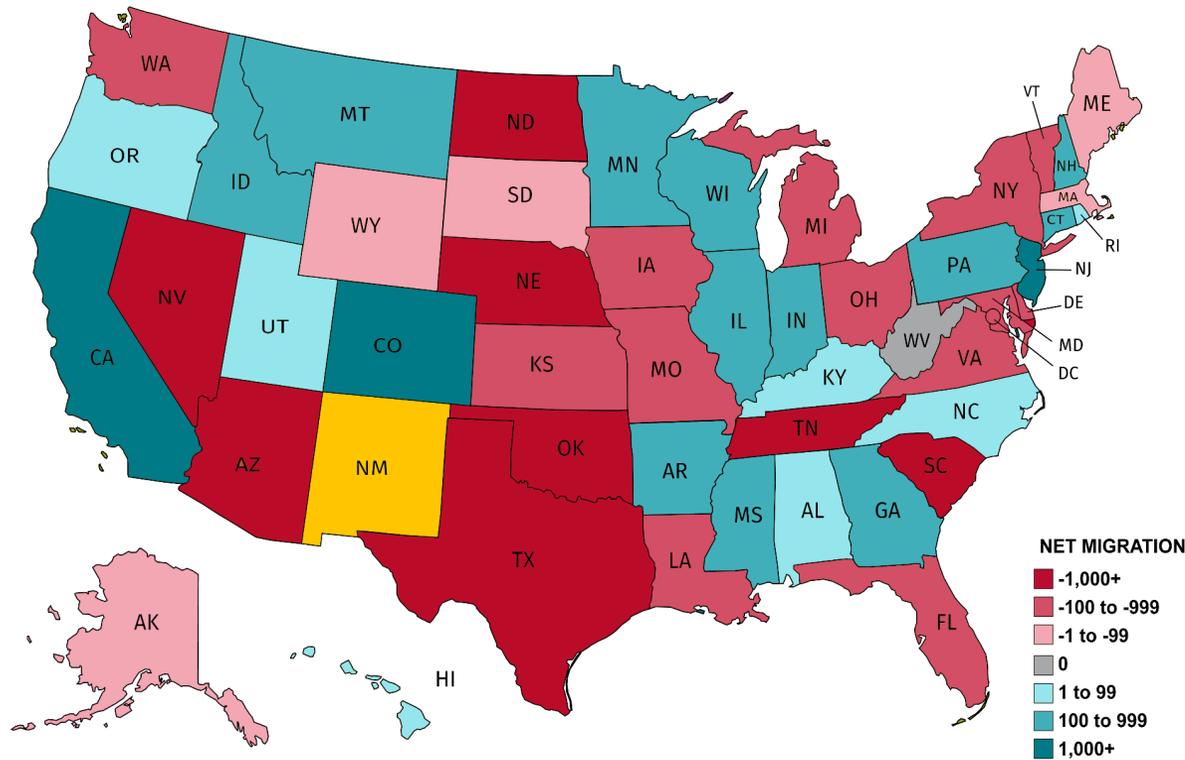
New Mexico Housing Sales & Prices Through July 2022 versus 2021



- Data through July 2022 available from NM Realtor's Association: Sales down 4.5% statewide and median price up from \$269k to \$305k versus same period in 2021.
- Greater Albuquerque Realtor's Association has data through August 2022: Sales **down** 16% but median price up 16% to \$330k.

Source: New Mexico Realtors Association, <https://www.nmrealtor.com/housing-trends/>

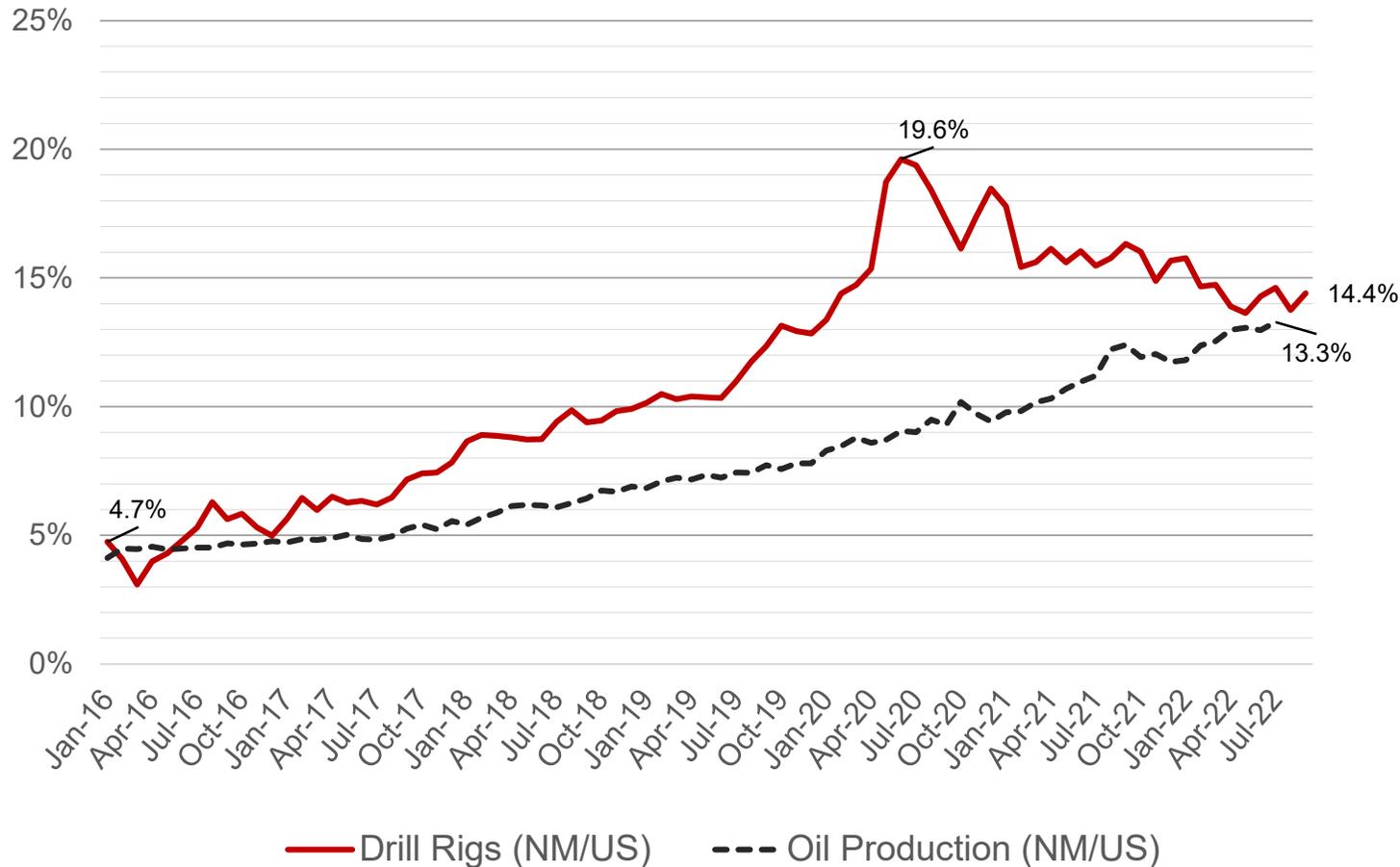
New Mexico Population & Migration



Source: US Census Bureau ACS 2019 Estimates

- On net, NM lost about 17,000 persons in 2019.
- Historically (prior to Great Recession) NM typically added (net) population from migration. That trend has generally reversed.
- From 2009 through 2019, the state has lost around 40,000 persons to net-migration.
- Over the eleven year interval, the state only added people on net (to migration) in three years.

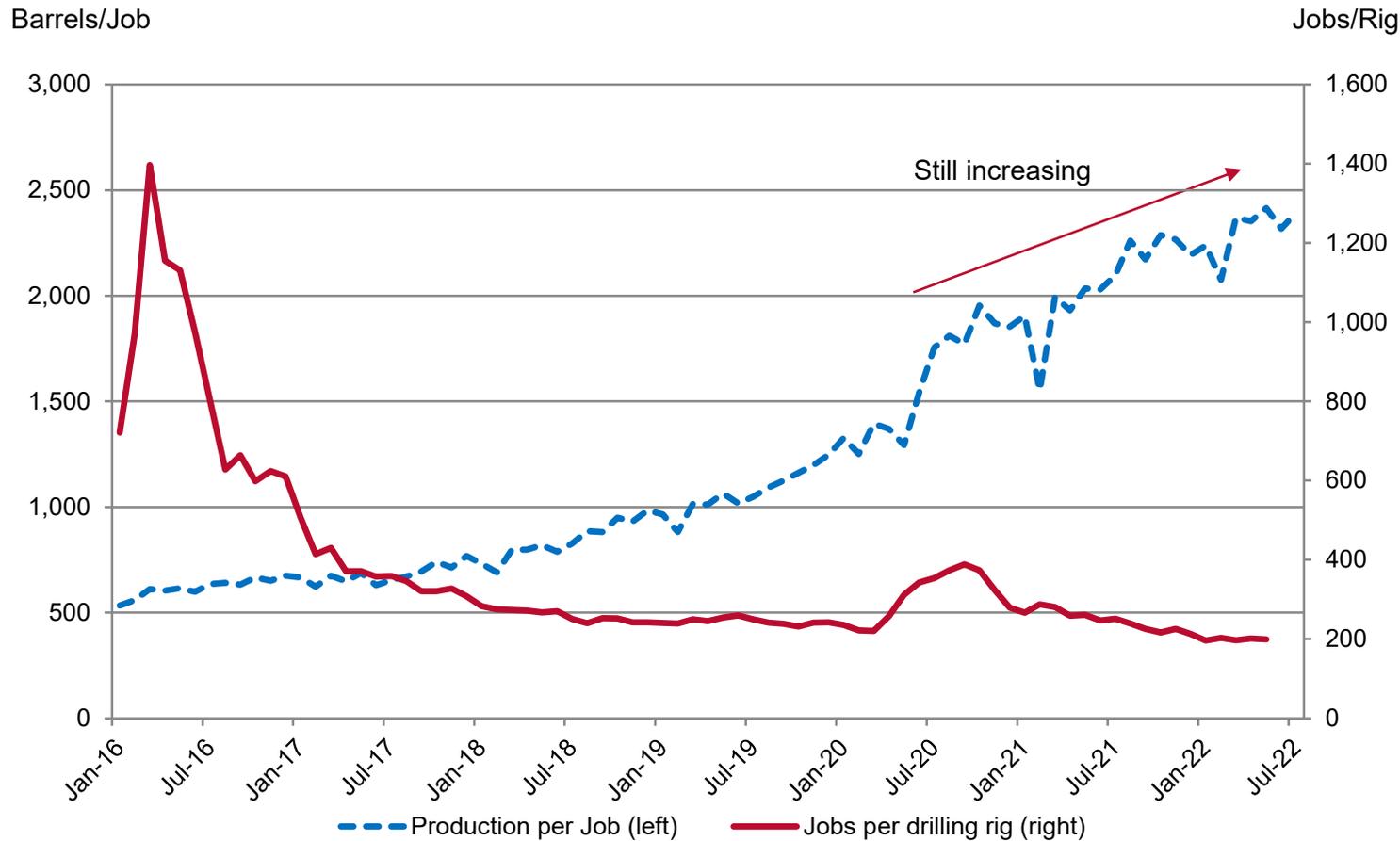
Increased NM Field Oil Production Presence



- Currently about 110 drilling rigs operating in NM.
- Around 14.4% of all US drilling rigs are in New Mexico.
- More than 13% of all US field oil production occurs in NM – up from less than 5% in 2016.
- To put in perspective: 2021 field oil production in US totaled 11.253 million barrels per day (bpd), which is up 27% from 2016 (up from 8.9 million bpd). In NM, production increased from 400,000 bpd in 2016 to 1.252 million bpd in 2021 (up 212%).
- Also, NM accounts for around 5% of US gas production by volume.

Sources: EIA, Baker Hughes. Calculations: BBER

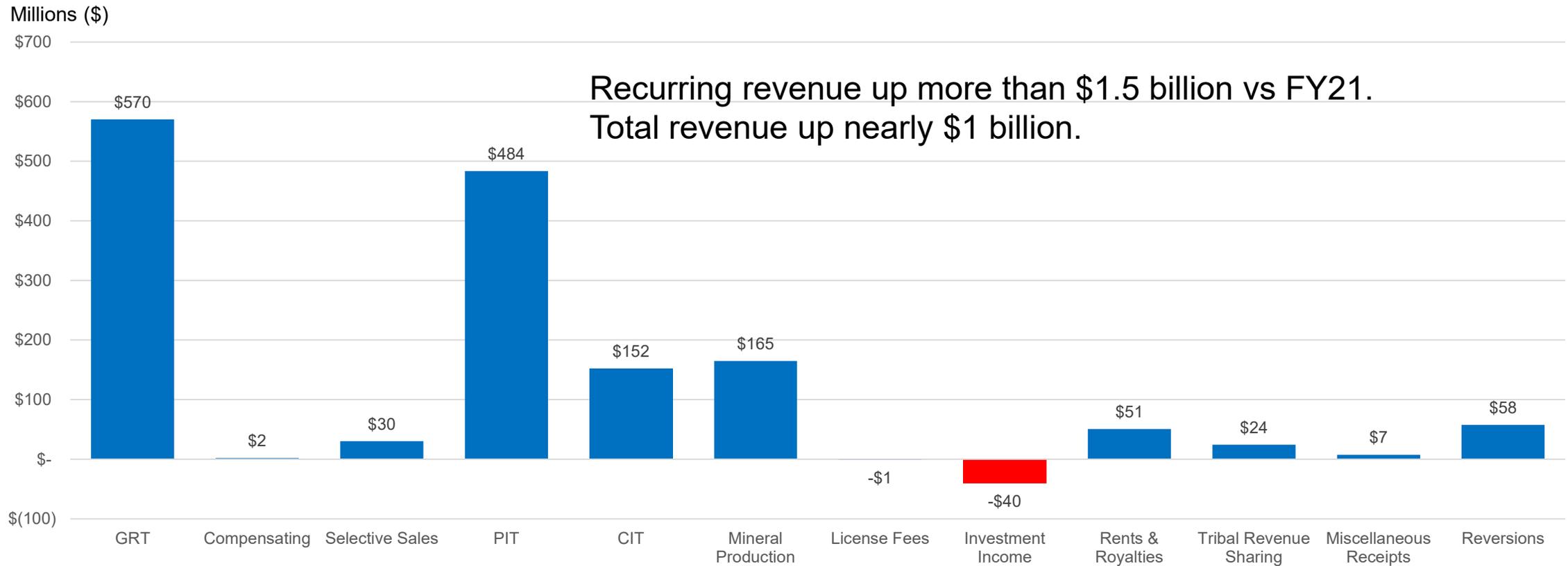
Move Toward More “Efficient” Production



- NM “mining” jobs averaged about 20,000 in 2016, peaked at 26,000 in 2019 and is now around 20,900 (as of August 2022).
- Still reasonable labor demands for drilling, but production is deviating.
- For local areas:
 - Fewer workers to spend in local economy
 - Negative impacts to associated industries
 - Recovery of (some) oil & gas tax revenue

Sources: EIA, Baker Hughes. Calculations: BBER

State Recurring Revenue: FY22 vs FY21 (through May 2022)

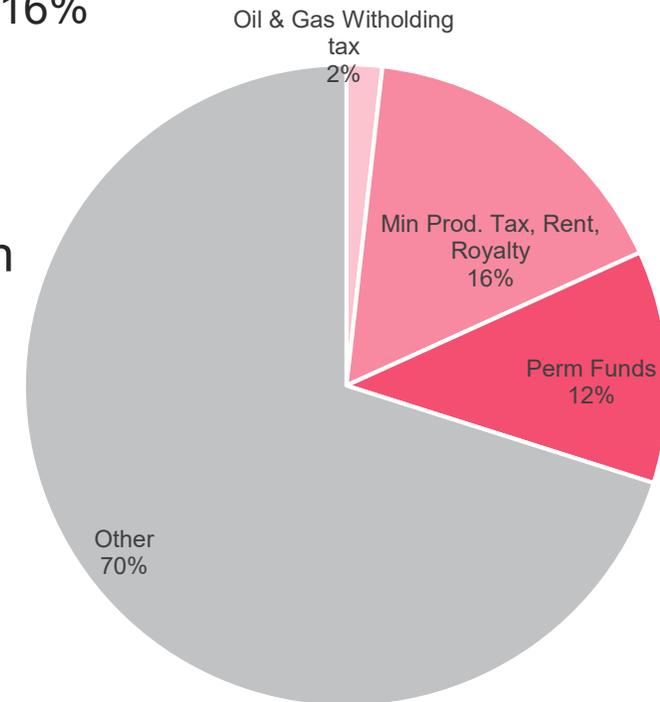


Source: NM LFC (data in millions), https://www.nmlegis.gov/entity/lfc/Revenue_Reports

State Recurring Revenue: Focus on O&G

- Historically, portion of total recurring revenue from O&G production is ~30%
 - Only including mineral production taxes and rents and royalties accounts for ~16%
 - Land Grant & Severance Tax Permanent Funds: ~12%
 - Oil & Gas Withholding Tax ~2%
- But... “Other” category includes components adjacent to O&G production
 - PIT & CIT in mining industry
 - GRT in mining industry
- In other words: mining and O&G industry a key revenue source.

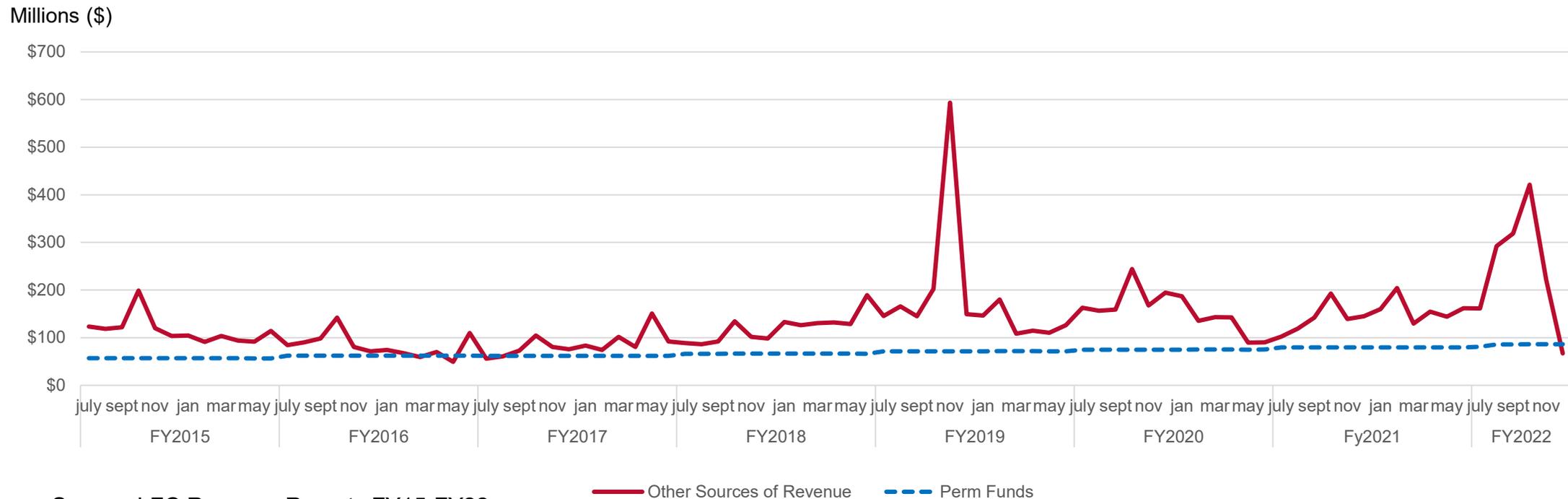
Breakdown of Recurring Revenues



Average proportions from FY15 through current
Source: LFC Revenue Reports

Volatility of O&G Revenues 1

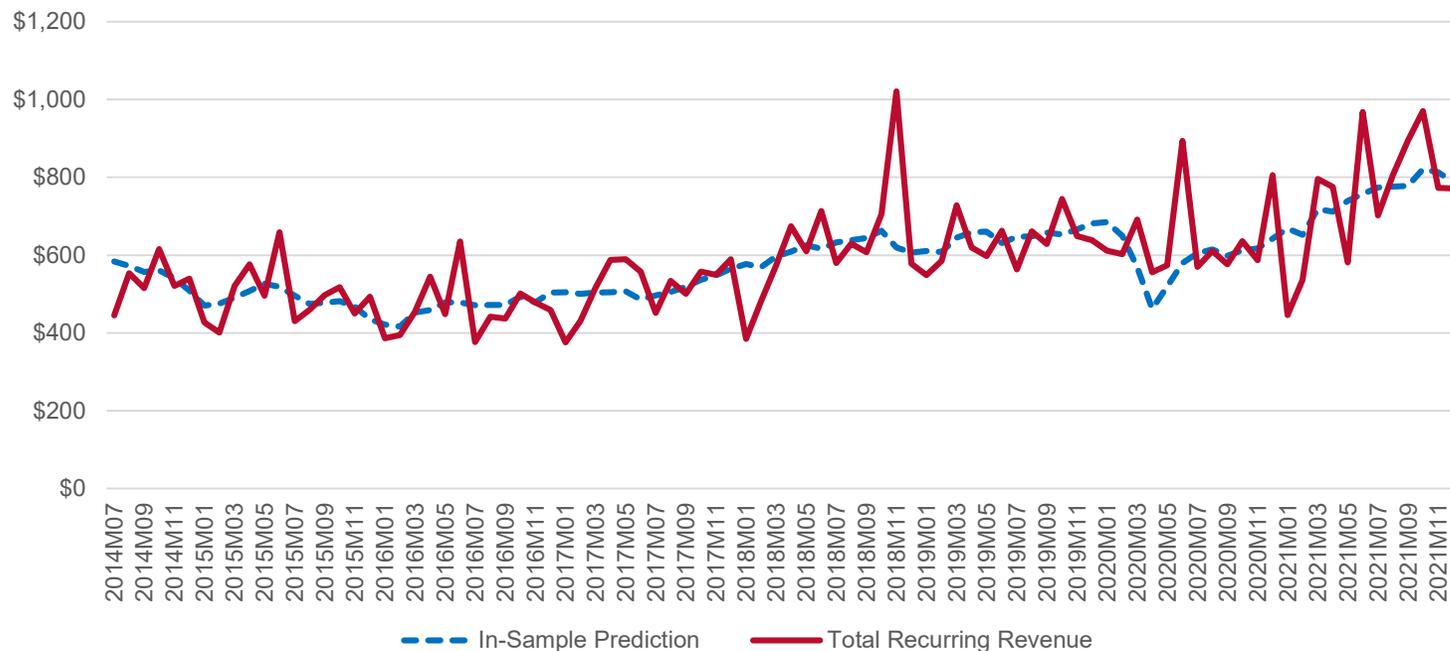
- In current form, operation and construction of Permanent Funds are not particularly volatile.
- However, other O&G-related sources (including mining GRT revenues) are volatile (shown below).



Source: LFC Revenue Reports FY15-FY22

Volatility of O&G Revenues 2

- Develop simple regression equation where Total Recurring Revenue depends on WTI price times production volume: $\log(\text{Recurring Revenue}_t) = \beta_0 + \beta_1 \log(\$WTI_t * \text{Volume Oil Produced}_t) + u_t$.
- To operationalize, requires (good) predictions for production & WTI price.



- Model R^2 of 0.55
- $P < 0.00001$
- Implies that a 1% increase in WTI price times oil produced generates 0.3% increase in total recurring revenues.

I would caution against blindly using this model; however, the benefit is that it highlights the interdependence between the O&G industry and recurring revenues.

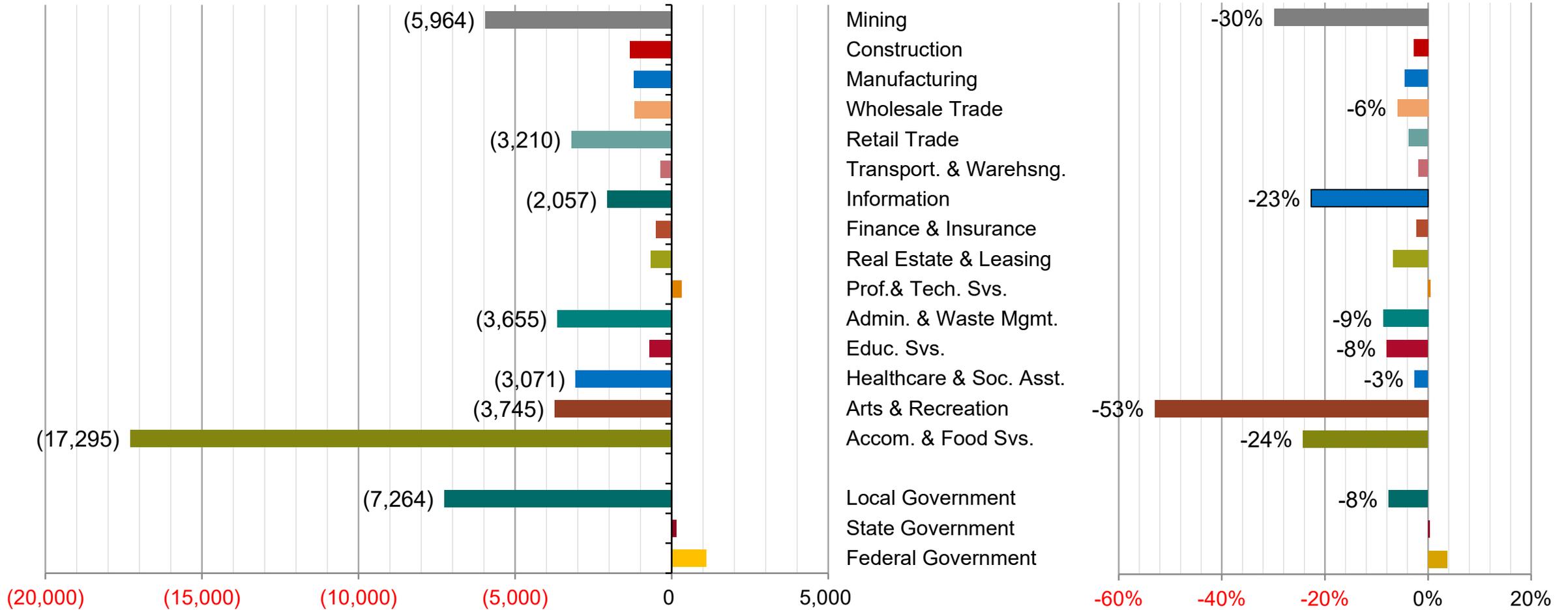
New Mexico Outlook



New Mexico Economic Outlook 2022-2027

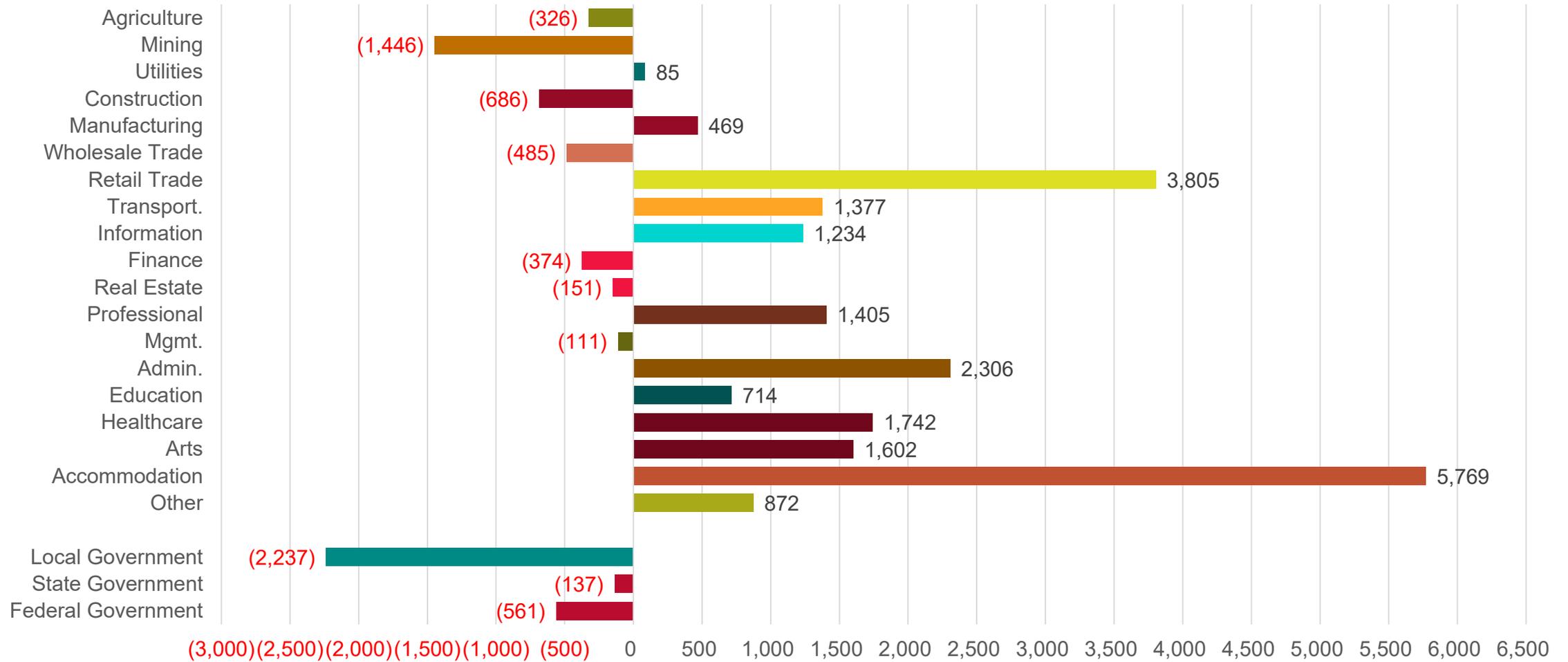
- Our expectation **was** for a new “normal”
 - a. Slow (vs. US) recovery upfront, but one that is more consistent.
 - b. But, we have two more pessimistic scenarios: (1) Shallow recession; (2) Prolonged struggle that wipes out household and business balance sheets and shakes confidence.
- Loss of 89,700 jobs year-over-year (-10.5%) in 2020Q2. There has been improvement since. In the most recent QCEW data, the economy is down about 45,000 jobs (through 2022Q1). More up-to-date CES data suggest that employment is now only down about 1% compared to pre-pandemic levels.
- Employment grew 1.9% in 2021. In August, we projected that 2022 will gain steam and average growth of 3.6% for the year. Growth of about 0.9% projected per year thereafter.
- In August, we projected that the economy exceeds 2019 levels in second-half of 2023, with employment some 29,000 jobs above 2019 levels (a gain of 3.5%) by 2027.
- Income patterns: Pullback of transfers stifles growth in 2022 (0.3%), but then accelerates thereafter (about 4.7% per year).

Job Growth/Loss by Sector, 2020



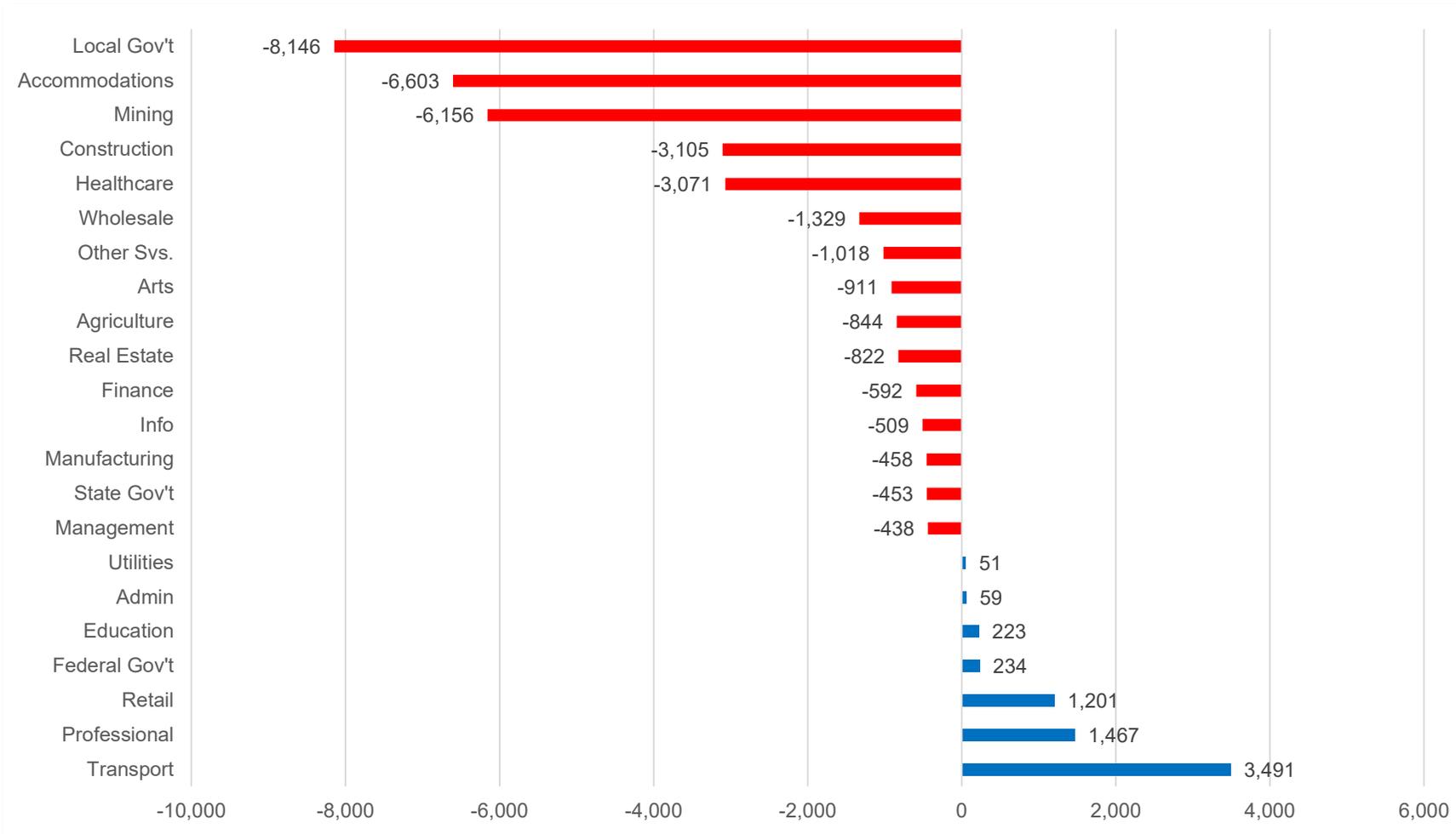
BBER FOR-UNM, October 2022

Job Growth/Loss by Sector, 2021



BBER FOR-UNM, October 2022

Job Loss/Addition 2021Q4 vs. 2019Q4 (QCEW)



**2020Q4
Job Loss
- 70,000**

Note: the second quarter of 2020 saw the biggest Y/Y drop (-87,000 jobs).



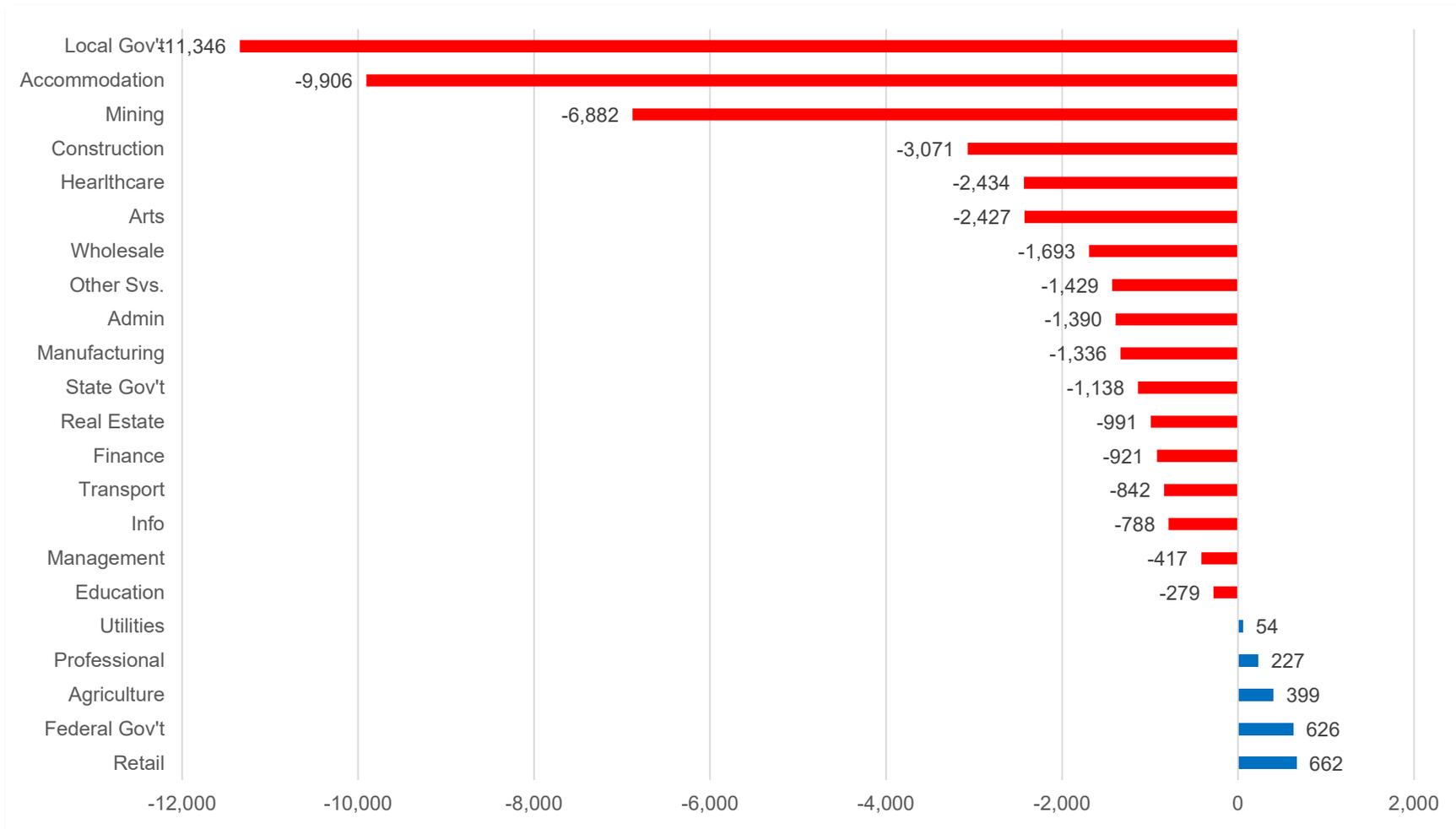
**2021Q4
Job Gain
42,280**



**State economy was
down some 27,700 jobs**

BBER FOR-UNM, October 2022

Job Loss/Addition 2022Q1 vs. 2020Q1 (QCEW)

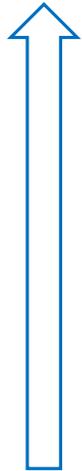


2021Q1
Job Loss
- 68,300



Again, CES data suggests continued improvement through year.

2022Q1
Job Gain
23,000



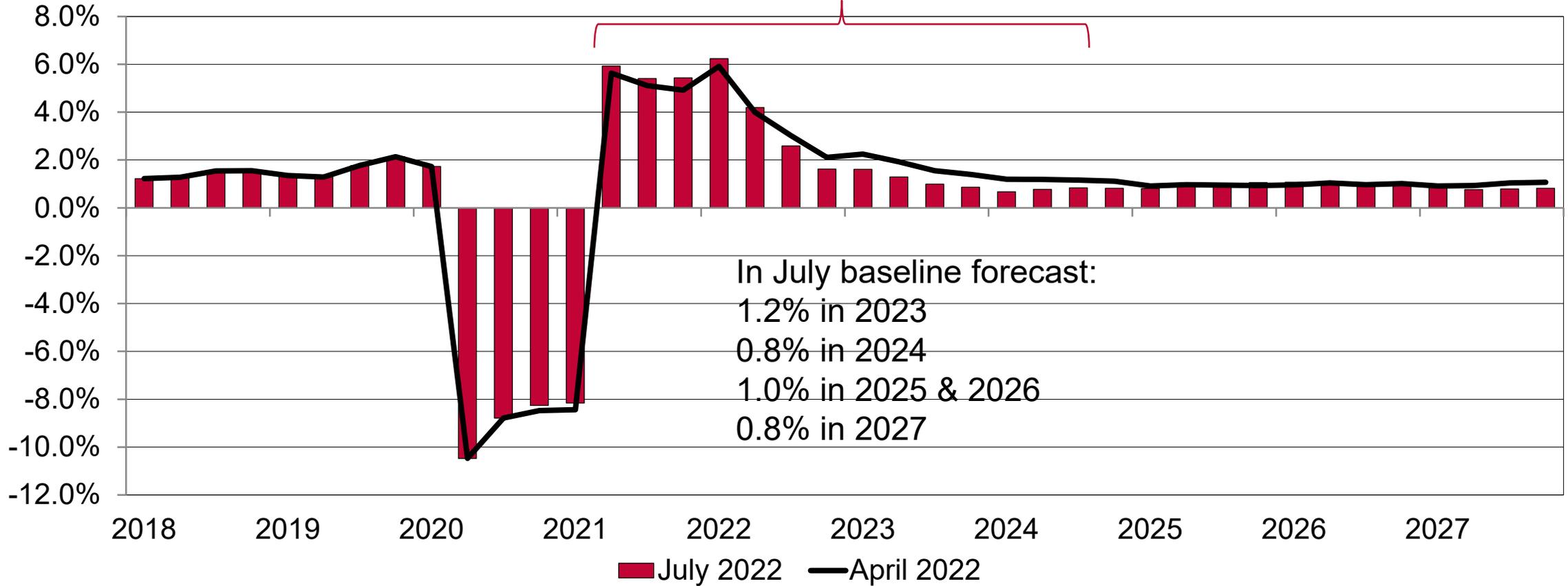
State economy is still down some 45,300 jobs

Some industries are giving back gains.

BBER FOR-UNM, September 2022

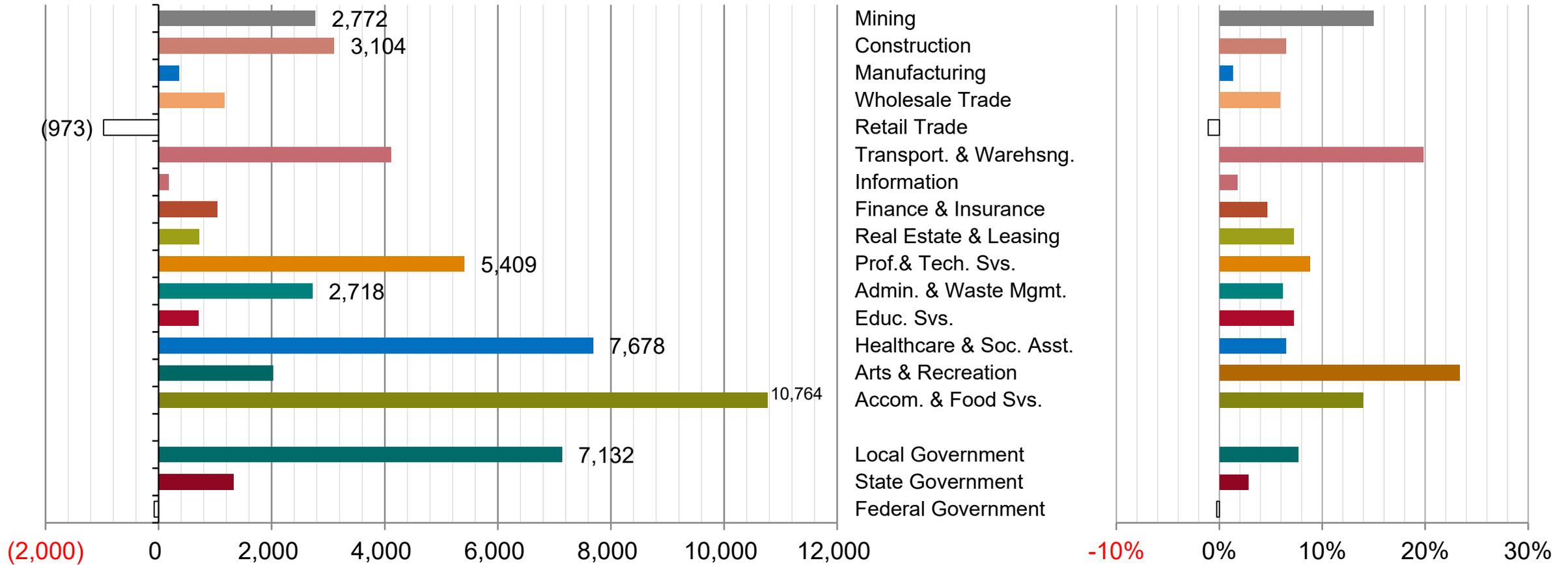
Baseline Forecast Comparison: Employment Growth

Stronger near-term growth, but then softens



BBER FOR-UNM, July 2022 + April 2022

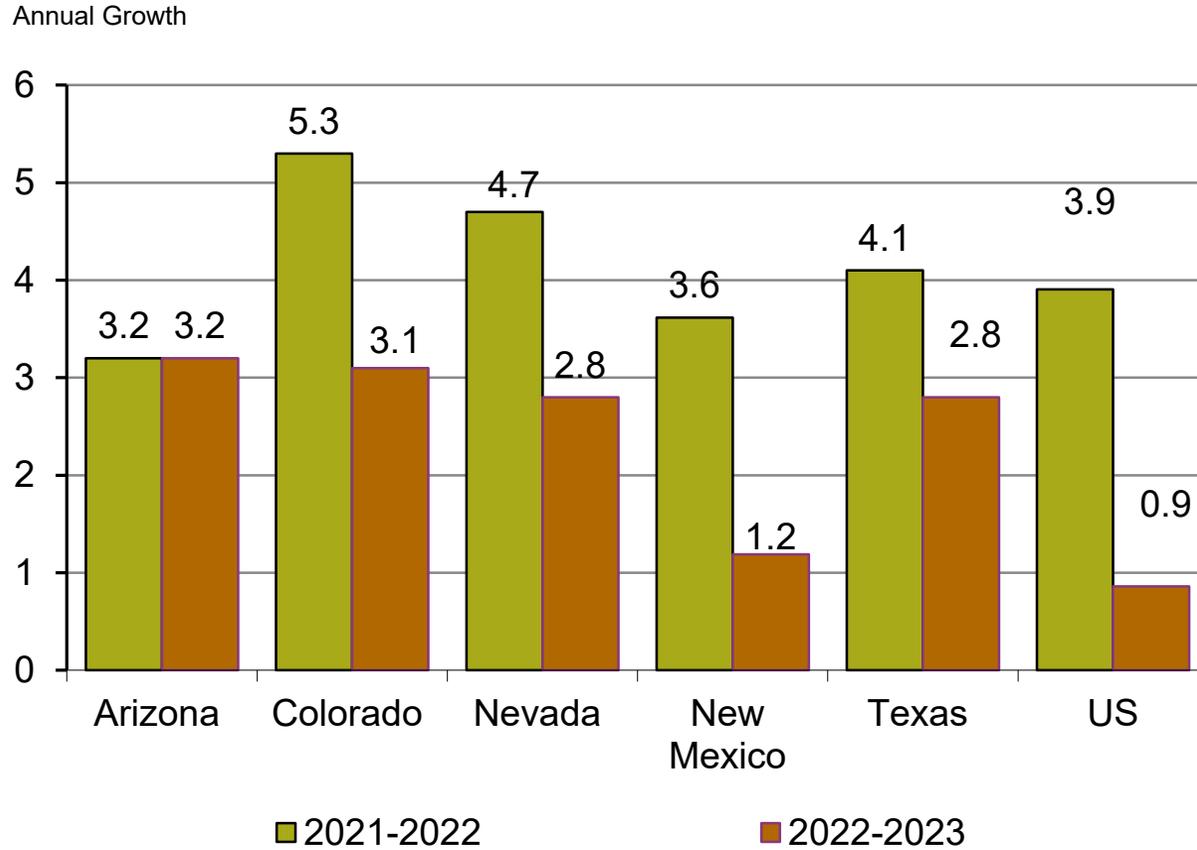
NM Job Growth by Sector, 2021-2026



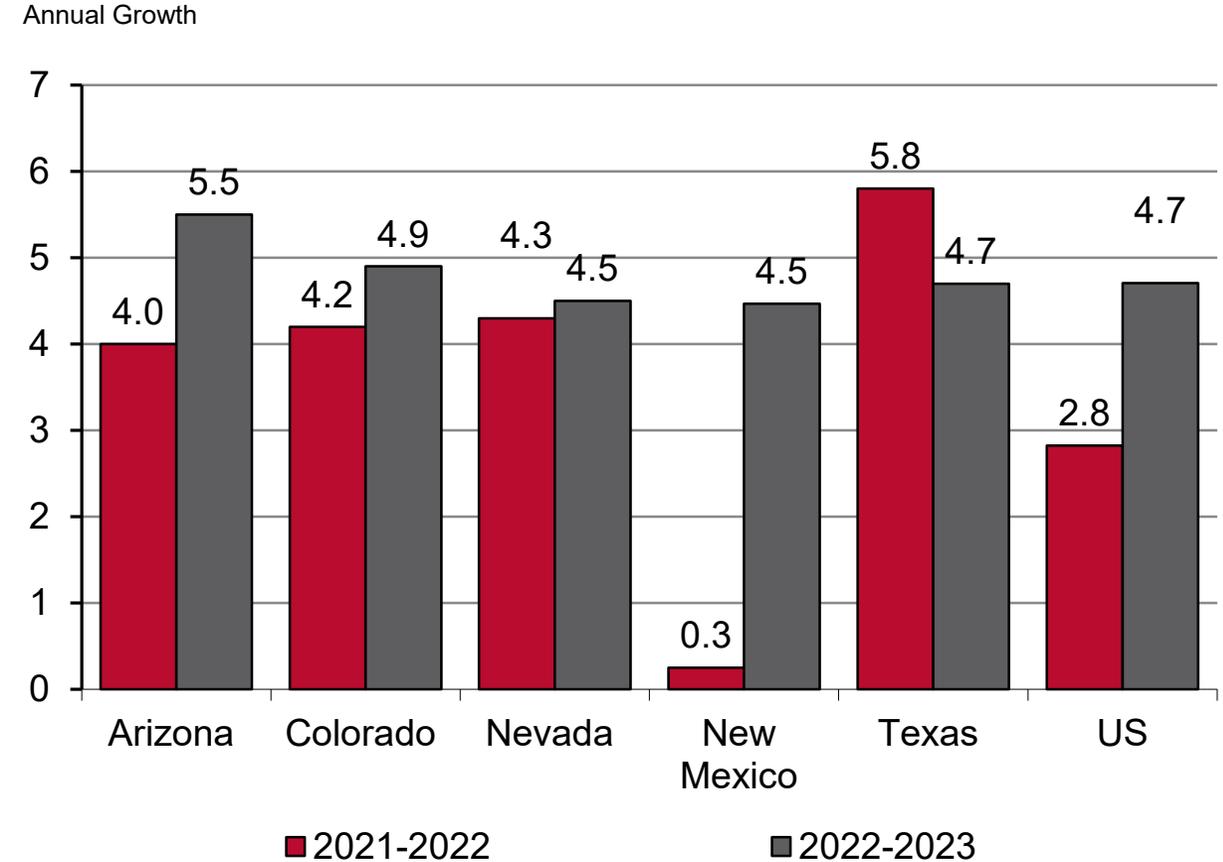
BBER FOR-UNM, July 2022

NM Forecast vs. Other States

Employment

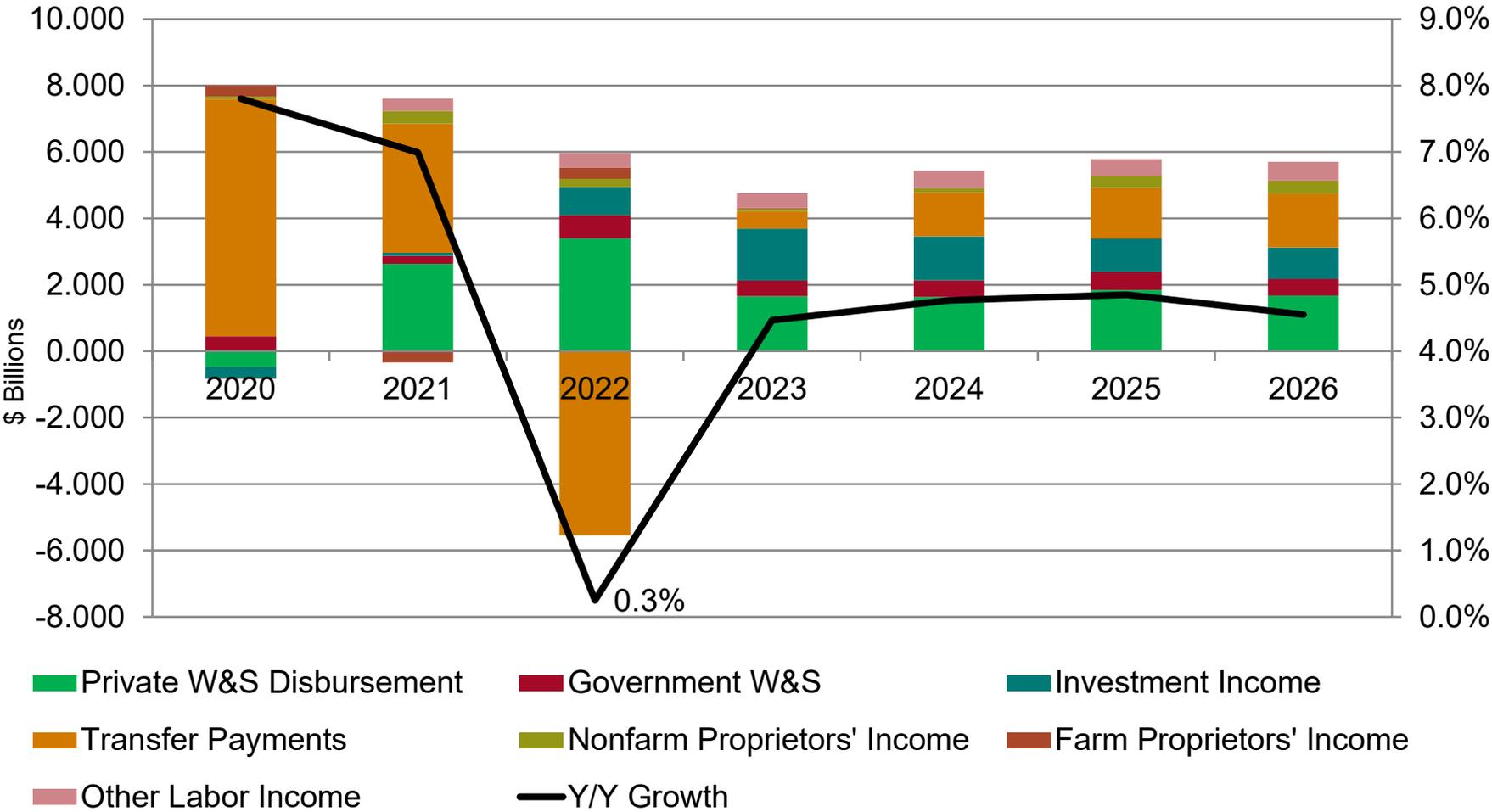


Income



Sources: State submissions to Western Blue Chip Economic Forecast <https://seidmaninstitute.com/western-blue-chip/>; IHS Markit; FOR-UNM

Forecast Personal Income Growth, by Component



- Personal incomes positive in 2020 & 2021 due to massive increase of federal transfers (unemployment, stimulus checks, Medicaid and other CARES funding).
- Income growth flattens in 2022 (0.3%) with reductions in transfers.
- Consistent growth returns in 2023.

BBER FOR-UNM, July 2022

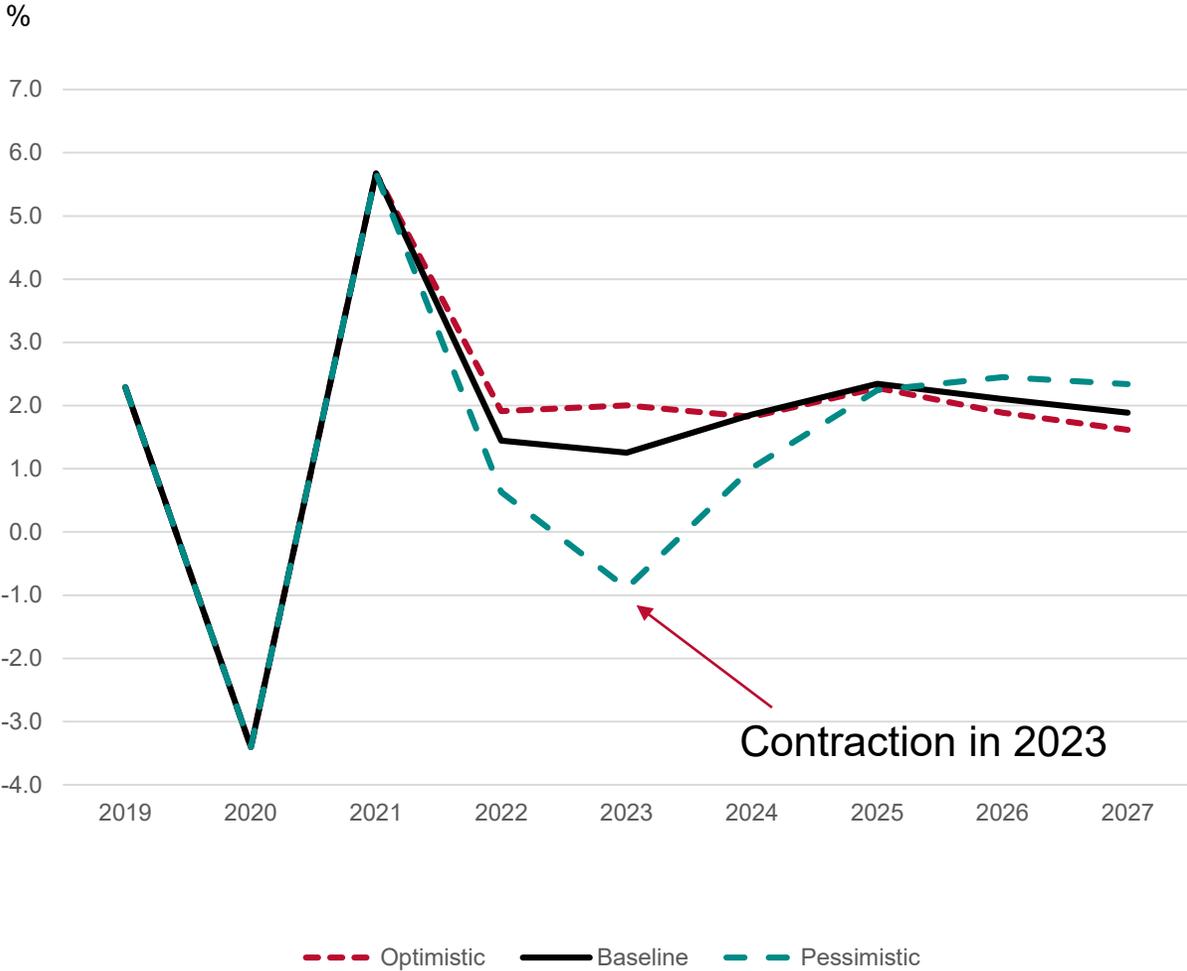
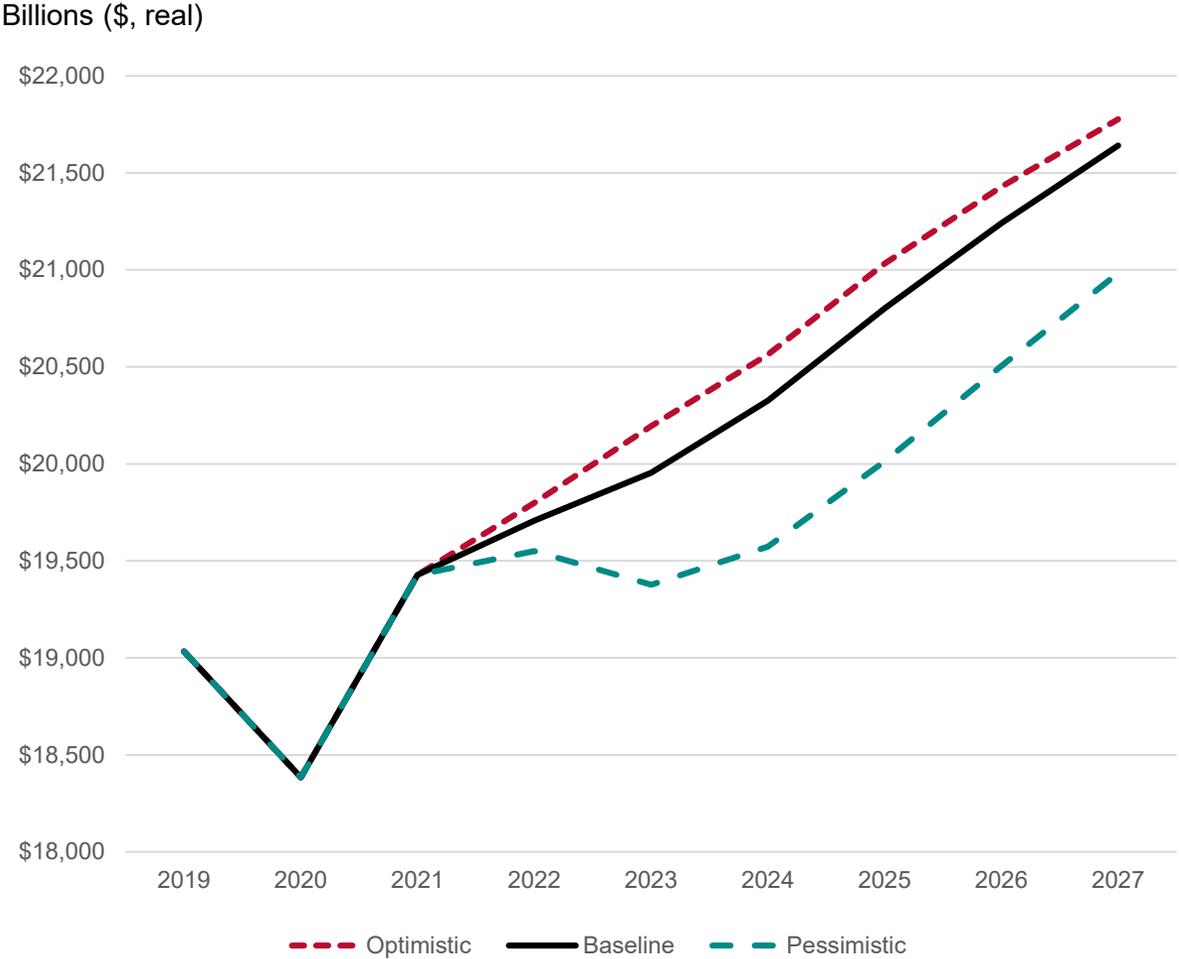
Not incorporated yet, but first half of 2022 versus 2021 is down 2.2%.

Alternative Scenarios - Released in July

- Still good degree of uncertainty. Less so because of COVID, though that is still a potential roadblock.
- IHS Markit's forecasts are generally V-shaped. **BUT** Pessimistic Scenario called for a short/shallow double dip recession. Recall from earlier:

“The...worsening in...conditions in recent weeks...will cause the US economy to slide into recession in coming quarters.”
- FOR-UNM offers the baseline and the two standard alternatives plus a fourth more pessimistic scenario (Pessimistic 2) intended to put a floor under the outlook.
- Pessimistic scenarios considers challenges facing NM: a) small business access to federal loans, b) trend toward business consolidation, C) government budget cuts.
- IHS October Baseline is likely to look similar to its pessimistic scenario from July.

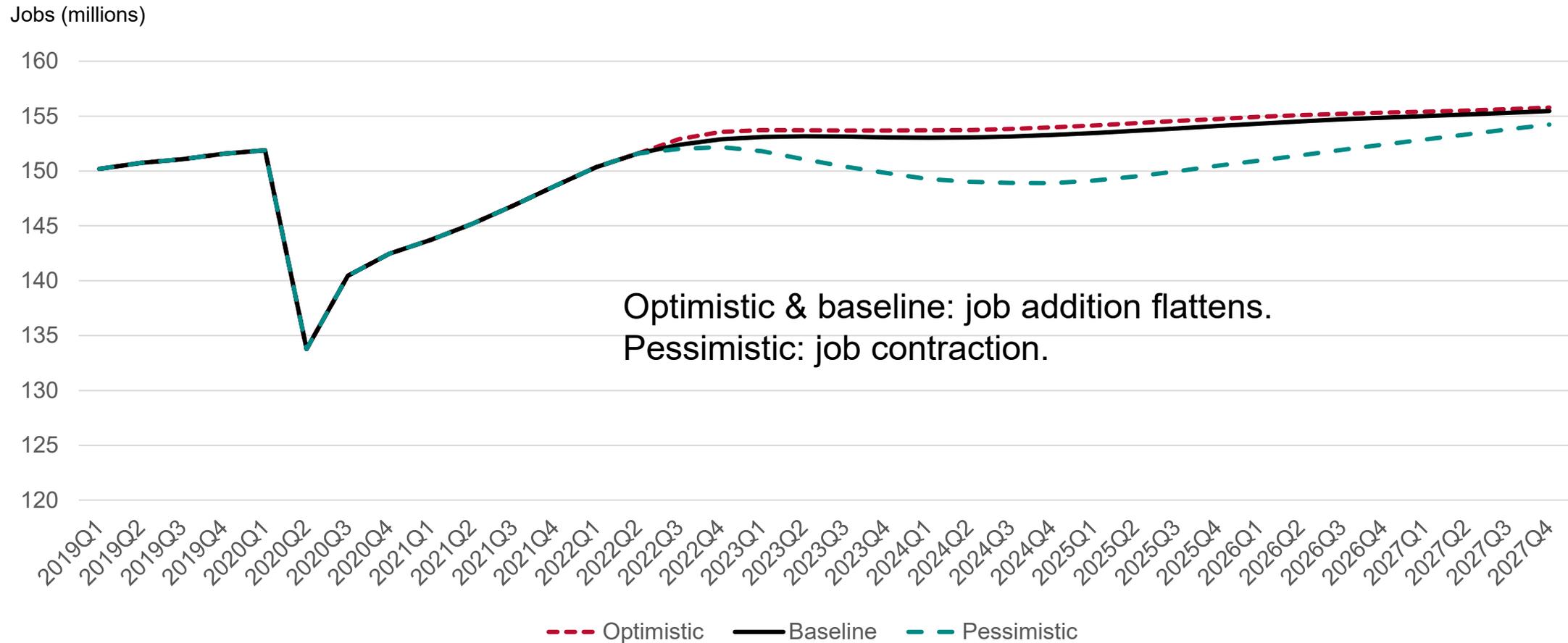
US Real GDP Forecast – Alternative Scenarios



IHS Markit, July 2022

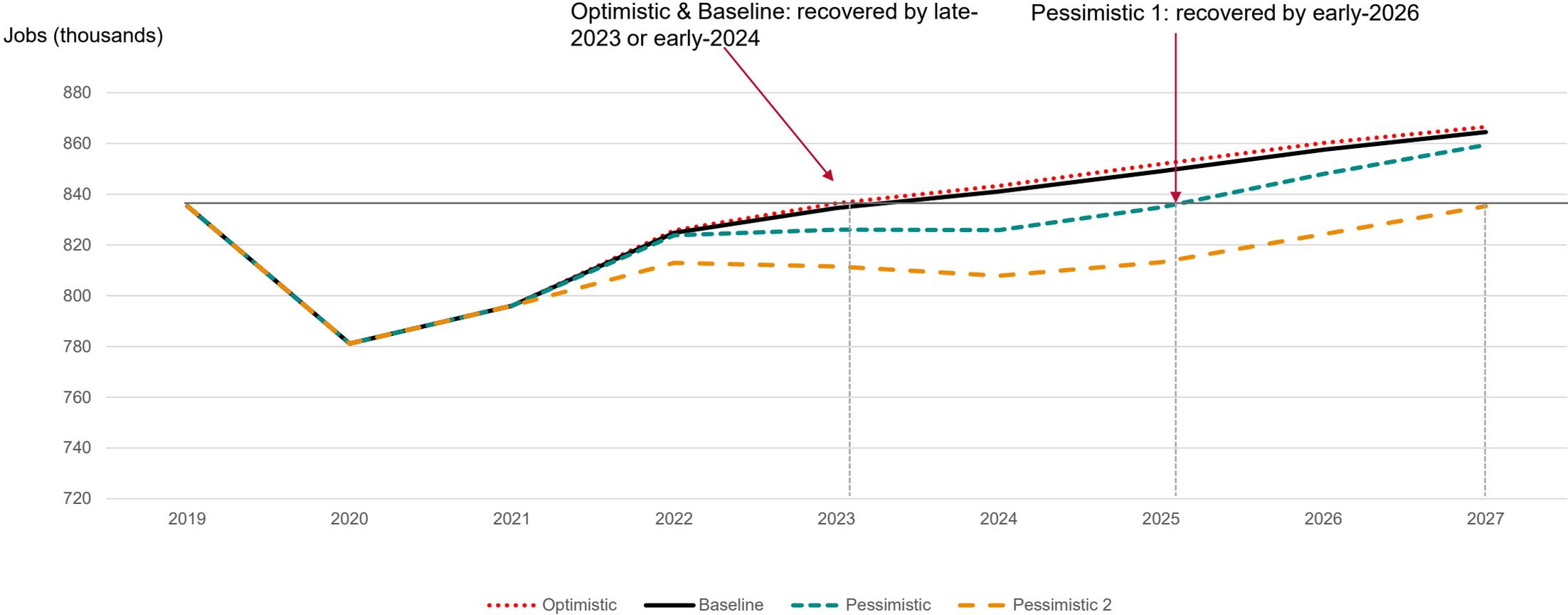
Optimistic: 5%; Baseline: 50%; Pessimistic: 45%

US Employment Forecast – Alternative Scenarios



Source IHS July 2022

NM Employment Forecast – Alternative Scenarios



Source: FOR-UNM, July 2022

Probabilities: Optimistic, 5%; Baseline, 50%; Pessimistic 1, 35% Pessimistic 2, 10%