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Tracking Labor Market Stress

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State-level unemployment claims can provide a real-time measure of national labor market conditions and the overall state of the economy. A rapid and widespread buildup of stress in state labor markets usually signals the start of a recession. In mid-2024, some widely followed indicators of recession risk flashed red. However, analysis of state-level data indicates that labor market declines were not as widespread as they had been in previous recessions. Applying this analysis to the latest data suggests that the labor market has remained stable through mid-2025.

The labor market is an important barometer of overall economic health. Rapid increases in the unemployment rate are usually associated with the start of recessions. Therefore, a timely and accurate assessment of labor market conditions is essential for policymakers and market participants.

As the Federal Reserve began tightening interest rates in early 2022 to reduce inflation towards its 2% target, concerns grew about slowing the economy to the point where it would fall into recession. Two popular macro alarms sounded last summer. First, in July 2024, the Sahm (2019) rule indicated that the economy might be in a recession. The Sahm rule suggests that, when the national unemployment rate rises 0.5% or more relative to the lowest 3-month average over the preceding 12 months, it usually signals the economy is in a recession. Second, the difference in yields between long- and short-term Treasury securities remained negative from late 2022 until late 2024, a phenomenon known as a yield curve inversion. In the past, such inversions have reliably foreshadowed recessions a year in advance (see, for example, Bauer and Mertens 2018).

Despite those warning signs, consumer spending, payroll growth, and business investment continued to expand, leaving forecasters divided on whether a downturn was imminent. Given these conflicting signals, we describe in this *Economic Letter* our new labor market measure that could help alert policymakers to rapidly deteriorating economic conditions on a timely basis.

Geography matters

National averages of economic indicators hide important regional diversity. For example, while the unemployment rate has risen 2 percentage points in Colorado since mid-2022, unemployment has barely budged in Hawaii. Experience shows that recessions become self-reinforcing when job losses spread broadly across states and sectors (Hamilton and Owyang 2012). If economic weakness remains isolated, healthy regions can offset those that are struggling through tourist inflows, interstate supply chains, and federal transfers, thus preventing a nationwide contraction.

Our new Labor Market Stress Indicator (LMSI) takes a different approach by examining unemployment patterns across all 50 states and the District of Columbia. Rather than relying solely on national aggregates, this indicator counts the number of states experiencing *accelerating unemployment*—defined as a state's unemployment rate increasing at least 0.5 percentage point above its previous 12-month low. It can be interpreted as a state-level version of the Sahm rule.

The LMSI uses state-level unemployment insurance claims data, which provide a more timely reading into labor market conditions. Since official state unemployment rates are only available from 1976 onward, we rely on the recent work by Fieldhouse et al. (2024), who digitized historical state-level unemployment claims. Based on their statistical model, we extend their state unemployment rate estimates from 1948 to today, thus creating a comprehensive historical data set spanning 77 years.

This approach offers two main advantages over national aggregate measures. First, it captures the geographic breadth of economic stress, distinguishing between localized downturns and widespread recessions. Second, it accounts for the fact that different states may experience varying labor market conditions due to regional economic structures and policies.

A simple state count, but a powerful signal

Figure 1 shows the LMSI from January 1948 to June 2025, with shaded areas representing official recession periods, as dated by the National Bureau of Economic Research (NBER). Though not specifically for this purpose, the LMSI correlates very well with recessions throughout modern U.S. economic history. The national economy has invariably been in recession each time 30 or more states simultaneously experienced accelerating unemployment.

The indicator's performance becomes even more compelling when we consider the proportion of the national labor force affected when the LMSI signals that a state is in distress. Adjusting for the relative population size of each state in this way provides a more intuitive read on the scope of deteriorating labor market conditions.

Figure 1
Labor Market Stress Indicator (LMSI) based on state-level unemployment claims

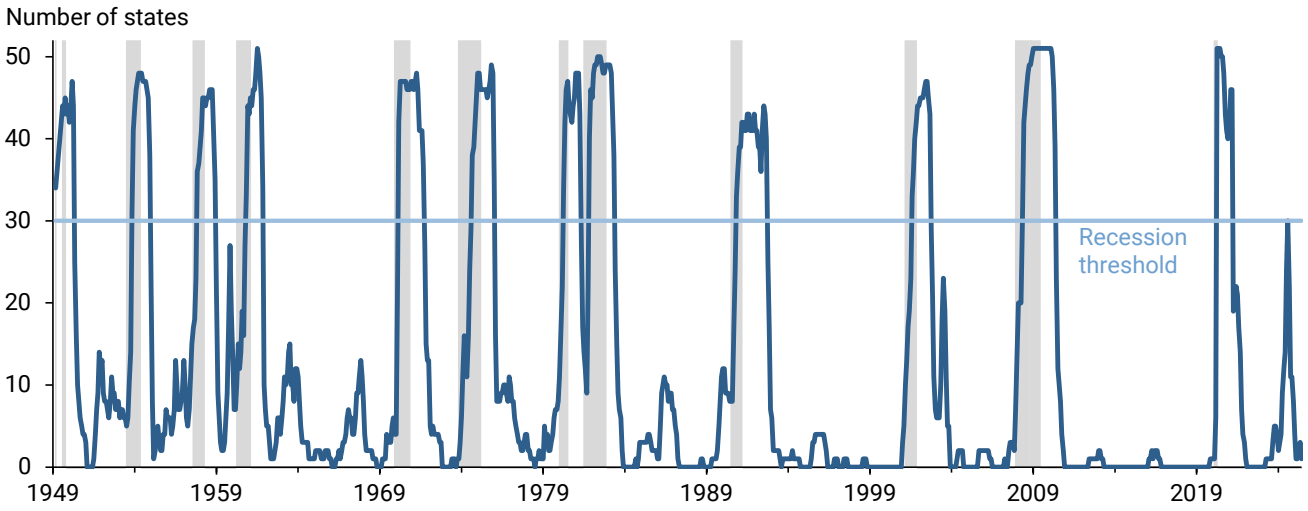


Figure 2
Share of the total labor force in states with accelerating unemployment

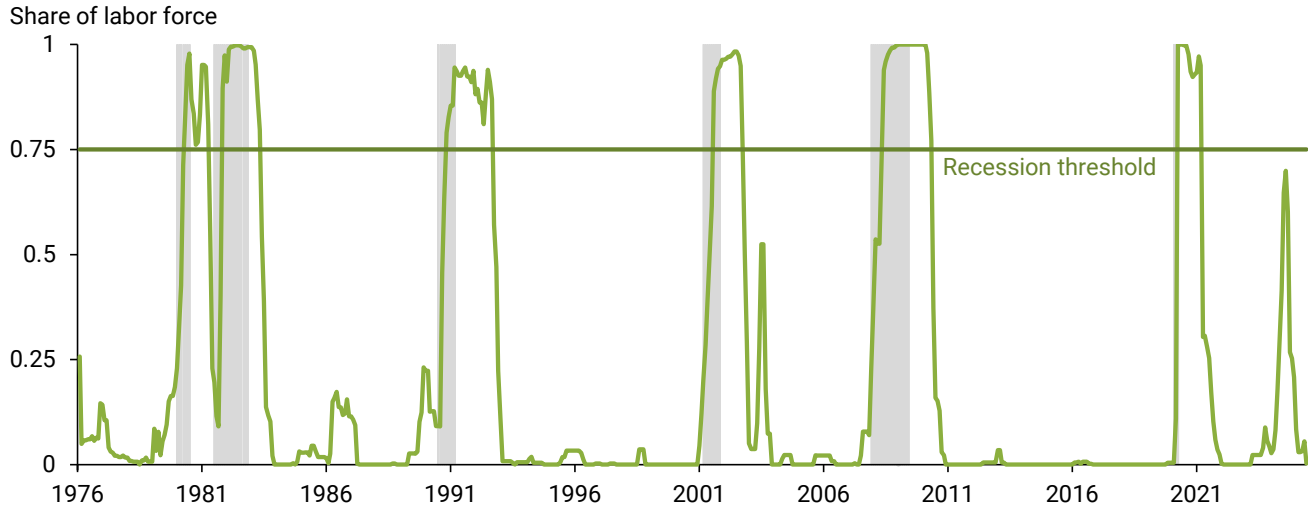


Figure 2 shows this adjusted measure, based on state-level labor force data that are only available since 1976. In previous recessions, roughly 75% of the U.S. labor force has lived in states experiencing accelerating unemployment. By examining these two signals simultaneously, we are better able to distinguish genuine recession signals from temporary or localized labor market disruptions.

False alarm

The July 2024 period provides a compelling case study for the LMSI's value. Why did the national Sahm rule flash red even though there was no apparent recession? It is helpful to consider not only the number of states with stressed labor market conditions but also the share of the labor force that live in such states. For example, a handful of large states—California, Texas, and New York—account for more than one-third of the U.S. labor force. An unusually large jump in any one of them can significantly impact the national unemployment rate, even if labor market conditions in most other states remain stable.

In July 2024, nearly 70% of the labor force resided in a state with accelerating unemployment, slightly below the 75% mark typically associated with recession calls, as shown in Figure 2. However, the share of states meeting our LMSI-based rule barely cleared the 30-state threshold and quickly fell within one month, as shown in Figure 1. By contrast, in every post-1980 recession, the LMSI and the share of the labor force in distress quickly climbed and stayed elevated for months. Hence, the more limited geographic pattern of distress and its very short duration were notably different from previous recessions.

According to June 2025 data, only the District of Columbia exhibits accelerating unemployment, corresponding to about 0.2% of the U.S. labor force—a far cry from the 75% mark.

We can also use the LMSI to develop a statistical model that estimates the likelihood of recession based on the number of states experiencing accelerating unemployment. This model indicates that the LMSI assigned a probability of at least 40% or higher to all previous recession periods, whereas it typically shows probabilities below 10% during expansion phases.

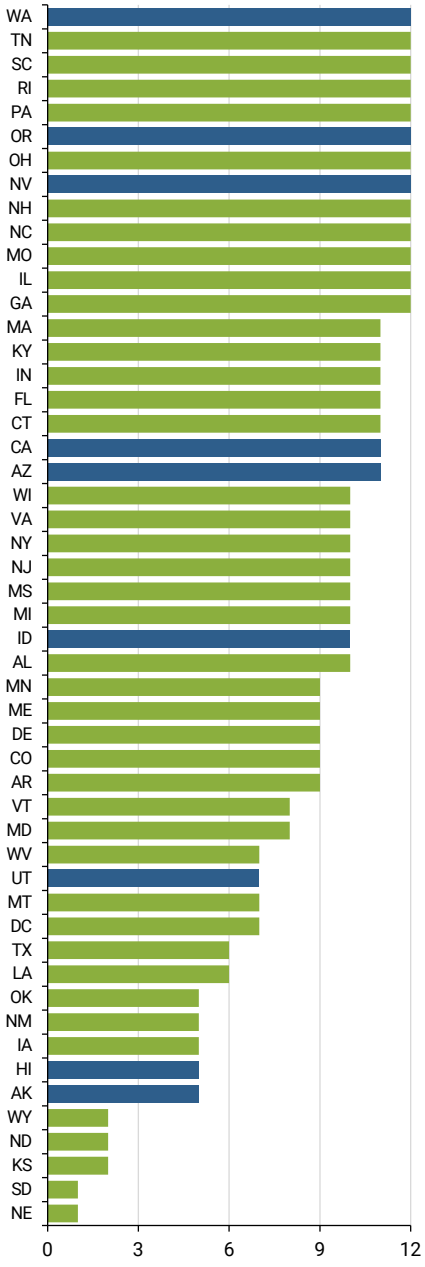
Based on the latest data, the model predicts a recession probability of just 5%, suggesting that we are in an expansion phase and far from recession. Thus, the rapid improvement in labor market conditions suggests that the July 2024 signal reflected temporary factors rather than the onset of a sustained economic downturn.

Canaries in the coal mine

The LMSI also provides valuable insights into regional economic conditions and how they tie in with national recessions. For example, in Figure 3, we rank states by the number of times during the previous 12 recessions they exhibited accelerating unemployment, as measured by our version of the state-level Sahm rule. On one side of the spectrum, Illinois, Missouri, North Carolina, New Hampshire, Nevada, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, and Washington have flashed red in every single one of the past 12 recessions. On the other side, states like Nebraska, South Dakota, Kansas, North Dakota, Wyoming, Alaska, Hawaii, Iowa, New Mexico, Oklahoma, and Louisiana have flashed red less than half the time when a recession occurred in the national economy.

What is different about that latter set of states that are not closely connected to national recessions, for example the Dakotas, Wyoming, and Alaska? These are states that rely heavily on industries that extract natural resources, where swings in the unemployment rate are less likely to be tied to the national business cycle. These differences allow us to get a clearer picture of the sources of labor market stress that may have national implications from those that are more regional in nature.

Figure 3
Unemployment signals by state during past 12 recessions



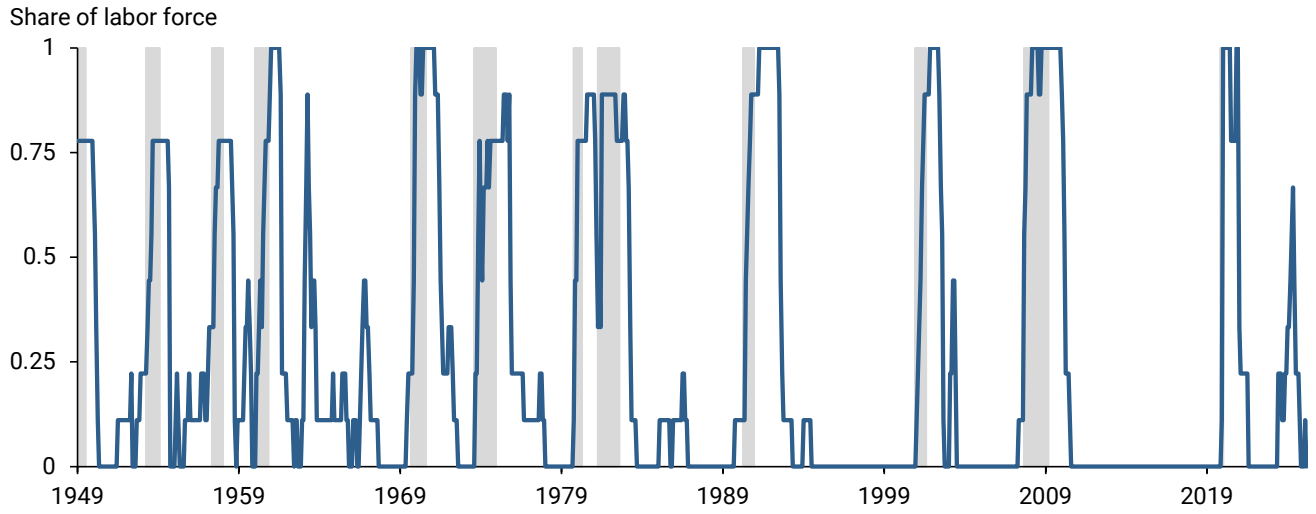
Note: Blue bars indicate states in the Federal Reserve's 12th District.

The 12th District

The Federal Reserve Bank of San Francisco is responsible for the 12th Federal Reserve District, which includes the states of Alaska, Arizona, California, Hawaii, Idaho, Nevada, Oregon, Utah, and Washington. Combined, these states represent one-fifth of the national labor force. We may therefore ask, How does the 12th District compare with the national economy?

The blue bars corresponding to 12th District states in Figure 3 offer a clue. Those states are evenly distributed across the spectrum: States like Washington and Oregon are the clearest bellwethers of national distress in labor markets, while states like Alaska and Hawaii are considerably more isolated from domestic economic conditions.

Figure 4
Share of the total labor force of 12th District states with accelerating unemployment



Considering that District states appear to evenly represent the range of state experiences, we consider another question: How well would a version of the LMSI perform if we base it only on 12th District economies?

Figure 4 presents the share of the District's labor force in states with accelerating unemployment, based on the method we used for the national economy.

In all previous NBER recessions, about three-fourths or more of the 12th District labor force resided in states with accelerating unemployment. In July 2024, the fraction of District states in this category fell well short of the 75% threshold. This reinforces the previous observation that recent national labor market signals were uneven and probably reflected temporary factors more than a generalized weakening of the economy.

It is important to note that since June 2022, unemployment rates in California, Idaho, and Oregon have each ticked up by close to a percentage point. However, during early 2025, labor market conditions appear stable across the District.

Conclusion

The Labor Market Stress Indicator (LMSI) described in this *Letter* provides a valuable complement to national recession indicators by revealing geographic variation in labor market weakness. The LMSI's transparent methodology—simply counting states with accelerating unemployment—makes it easy to interpret while providing valuable insights into the geographic distribution of economic stress. This geographic lens becomes especially valuable when national indicators provide mixed or unclear signals about the state of the U.S. economy.

As of mid-2025, our indicator shows that the U.S. economy is not currently in recession and that labor market conditions remain relatively stable. The flexibility, clarity, and ease of interpreting the LMSI make it a useful addition to the standard tools used by economists, policymakers, and the public to monitor

economic conditions. A new LMSI data page with weekly updates will be available on the SF Fed website in the coming months.

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