75 years of state monthly nonfarm employment statistics

By Lincoln S. Dyer, Economist, lincoln.dyer@ct.gov, DOL

In the beginning
State and national nonfarm industry employment statistics officially begin their time-series in 1939 just before the start of World War II. More expanded reports on state and national employment, however, were already being called for by the late 1800's because of rapid industrialization, and during the Great Depression for more national economic planning to emerge from that lasting downturn. By 1940, the U.S. Bureau of Labor Statistics (BLS) moved to consolidate much of the work already being performed by federal statistical agencies, cooperating state research bureaus, and statistical and industrial societies for war planning purposes before WWII and began producing a national nonagricultural employment series for all 48 states, just as the US was preparing for war. This may have facilitated the redirection and awareness of industrial planning during and after the second world war across the country especially as the GI's returned home looking for jobs – ready with *pent-up demand*. (Most of the state data development, firm sampling, and nonfarm employment estimation work were performed in each individual state from about 1947 until recently – 2011. States still are a big part of the process.)

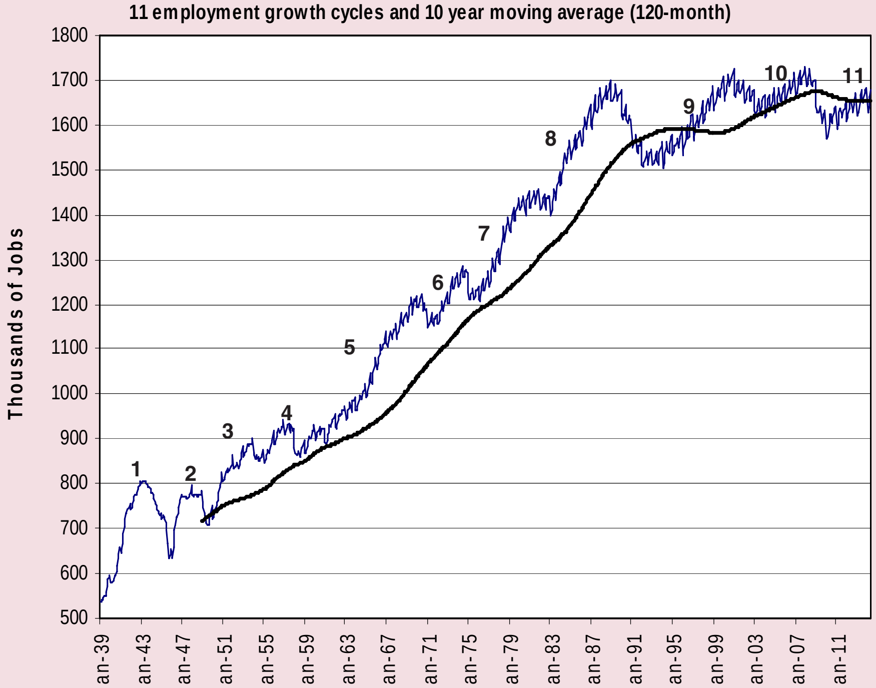
Update to 2014. We now have seventy-five years of unadjusted monthly state and national nonfarm industry employment statistics with the last 25 years or so that includes seasonally adjusted data (Connecticut can go back with spliced seasonally adjusted data to 1982). At the state level, nonfarm job counts have become the most-timely, accurate (benchmarked), and one of the longest running economic time series assessing the real-time health of the individual states in relation to the nation that shows a true business/employment cycle. While GDP – Gross Domestic Product addresses the nation's and state's domestic output only on a quarterly basis, monthly nonfarm employment tracks the most important and determinant facet of economic well being, income-producing jobs. A true economic recovery is jobs.

State unemployment rate statistics only go back to 1976 (unadjusted) and are not truly benchmarked and are subject to large sampling error. State quarterly GDP only goes back to 1963 and is often very volatile with large revisions and leakages. One economic statistic at the state level that does go back farther is personal income – PI (dating to 1929). Personal income is measured only quarterly with a long lag but PI can be a rough proxy to output in National Income and Product Accounting (NIPA) schemes. However, PI does not seem to catch the apparent coincident business/employment cycle as well as nonfarm employment does in a timely manner.

Looking at Connecticut's nonfarm jobs monthly history until now, one can discern about 11 clear up employment cycles since 1939. These job cycles are especially evident since the late 1980's moderation of employment growth. This slowing of employment growth in the state seems to coincide with the ending of the Cold War (1990's Peace Dividend) and the peaking of the rate of growth of woman participation in the labor force.

CHART 1. Connecticut Nonfarm Employment (1939-May 2014, NSA)

11 employment growth cycles and 10 year moving average (120-month)



10 – 1 Job Cross (nod to Shiller)

Connecticut nonfarm employment growth since 1989 has been modest and yet still very correlated with the overall US employment cycle. The data show that the current slow growth across the nation has been apparent in Connecticut for over 25 years now.

Starting at the beginning of 2014, we have seen current Connecticut short-term nonfarm employment growth trend levels (specifically the

12-month moving average of nonfarm employment) exceed the longer 10 year nonfarm growth pattern level (as represented by the 120-month moving average). This applies to both seasonally adjusted and not seasonally adjusted time series (in the 2nd chart we used seasonally adjusted data).

Dr. Robert Shiller, the recent economics Nobel Prize co-winner and a behavioral economist residing in our state (New Haven – Yale), used a longer term 10-year averaging of aggregated quarterly corporate earnings to assess the longer term valuation and hence future potential direction of the stock market (aka CAPE Ratio, cyclically adjusted price-earnings ratio, which averages corporate profits in relation to stock price over *ten* years). Here we do a similar basic analysis by simply running an averaged short-run level of nonfarm jobs (12-month moving average) against a Shiller-like longer 10 year trend level (120-month) average of nonfarm employment.

The longer 10 year average (120-month) may represent the state's current average longer run carrying capacity level for jobs. Or it could be thought of as a more recent normalized level for Connecticut's nonfarm employment within the inherent political structure (state lines) and taking into consideration density (geography), demand for money (interest rates), demographics (people), and even destiny (industry-mix).

It is notable that this longer (10 year, 120-month) month trend level of nonfarm employment in the state is starting to turn up and at the beginning of this year, the current shorter term (1 year, 12-month) trend level of nonfarm employment actually crossed above this improving longer term trend level of Connecticut nonfarm jobs. This is inferring our current shorter term employment prospects are outperforming or exceeding our state's recent longer term employment trend levels (10 year). Perhaps some of the longer term down ward job prospects in the state over the last decade are slowly being alleviated and readjusted to as the younger generations get their footing and eventual opportunity in the slowly recuperating job market.

Back to the future – Pent up demand?

There is no denying the Great Recession employment recovery in the state has been slower than some expected but no slower than the 1990's job recovery pace or the rebound from the 2k technology bust. Our experience from the 1990's shows that slower employment recoveries can end up lasting longer (1993-2000). This can happen especially as the readjustments in the economy are often offsetting and worrisome in the short term but are reinforcing in the longer term. Secular shifts, like the internet emergence in the 1990's, always happen with uncertainty. And new foundations for future growth are always uncertain. And like after WWII, society's pent-up demand from the war and from the Great Depression seemed to overcome the fears of falling back into another major depression immediately after the war's end. Today it seems apparent in some ways that pent-up demand is building from the very large millennial generation and others who are waiting out this slow recovery to fully act and maybe the rising 10-1 job cross is supporting this. ■