Business Employment Dynamics
Office of Research

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Business Employment Dynamics:
Inaugural Release - Fourth Quarter 2006

Introducing the Connecticut BED Data

This release represents the introduction of a new quarterly data series on job flow activity. The *Business Employment Dynamics* (BED) data is derived from Connecticut Unemployment Insurance (UI) program records and covers approximately 93% of all wage and salary workers in the state of Connecticut. The BED program links UI records across quarters to provide a longitudinal history for each establishment. The longitudinal data then provides information on job gains and losses, which allows the identification of expanding, opening, contracting, or closing establishments.

It might be asked, when we already have the monthly survey of Connecticut's establishments that provides estimates of nonfarm employment, and the quarterly administrative data on employment covered by unemployment insurance, why introduce yet another employment series? What can a new series add to our understanding of Connecticut's labor markets?

The answer to these questions lie in what the BED data reveal. The existing data present static pictures of the labor market, meaning that these two data sources only provide estimates of the employment stock and the changes in this stock from one period to the next. The BED data present the gross job gains and losses from establishments, also known as job flows. These flows provide an understanding of the labor market dynamics that unfold over time. The job flow data scratches below the surface to expose the undercurrents that produce the net outcomes reported in CTDOL's other statistical series. For instance, when the CTDOL publishes its monthly nonfarm employment statistics in the *Labor Situation*, it releases the net employment change from the previous month and the change from the same month of the previous year. This change is the result of a process where some establishments added jobs and some establishments eliminated jobs. The difference between these job gains and losses yields the net employment change reported in the *Labor Situation*. Thus, the BED data adds an important piece of information to that currently available.

An important trend, hidden from view by the point-in-time and "surface" perspective statistical series, is the declining trend in the job creation and destruction processes in the Connecticut economy since 1997. This may have implications about the economy's ability to generate innovative activity, while shedding the obsolete. This process is what the economist Joseph

Schumpeter called *Creative Destruction*—the ability of an economy to periodically reinvent itself through the introduction of new technologies and innovations, which render existing technologies obsolete. It is the BED data, with its lens focused on the creation and elimination of jobs, and the opening and closing of establishments, that offers us a glimpse into this process of continuous renewal.

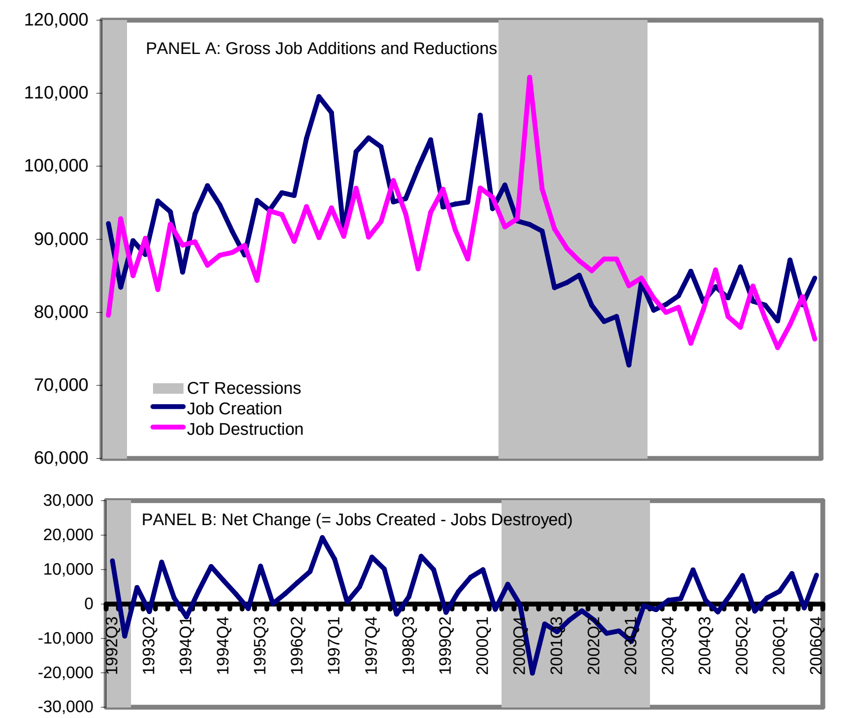
Connecticut Business Employment Dynamics, Fourth Quarter 2006: Job Flows

From September to December 2006, the number of gross job gains, also known as job creation, from opening and expanding establishments was 84,707. The number of gross job losses, also known as job destruction, from closing and contracting establishments was 76,336. This resulted in a positive net employment change of 8,371 jobs between September and December 2006. Of the 84,707 gross job gains in 2006Q4, 87.6% (74,228) were due to existing establishments adding jobs, and 12.4% (10,479) were the result of establishments opening. Of the 76,336 gross job losses, 90.3% (68,890) were due to existing establishments eliminating jobs, and 9.8% (7,446) were the result of establishments closing.

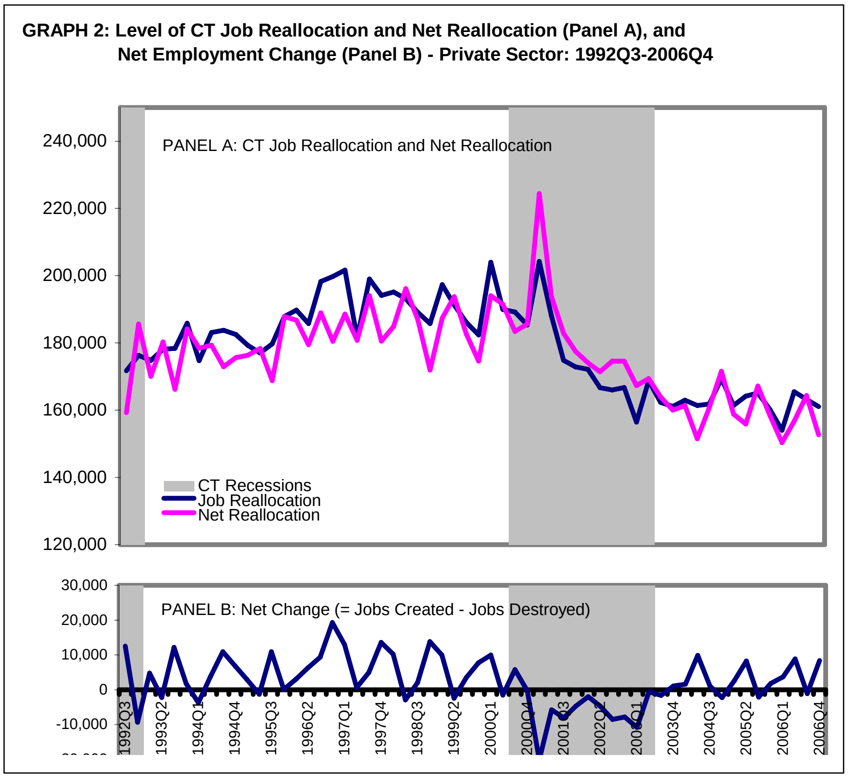
Job Creation, Destruction, and Reallocation: Some Trends

Graph 1 (all graphs are at the end of the text) presents the quarterly levels of Connecticut's job creation and job destruction from 1992Q3 to 2006Q4 in the top panel and the quarterly net employment change in the lower panel. Note how job creation activity appears to peak in 1997 and then declines afterwards, whereas job destruction activity peaks in the early stages of the 2000 recession (shaded in grey). Further, a decline in both series takes place over this recession. Since the recovery, which began in July 2003, the levels of job creation and job destruction have

GRAPH 1: Level of CT Job Creation and Destruction (Panel A), and Net Employment Change (Panel B) - Private Sector: 1992Q3-2006Q4



remained flat and lower than their pre-recession levels. Graph 2 explores this point further.

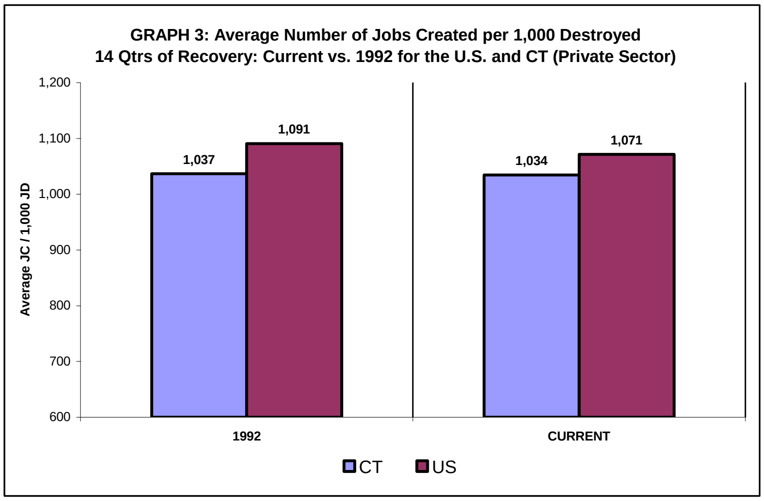


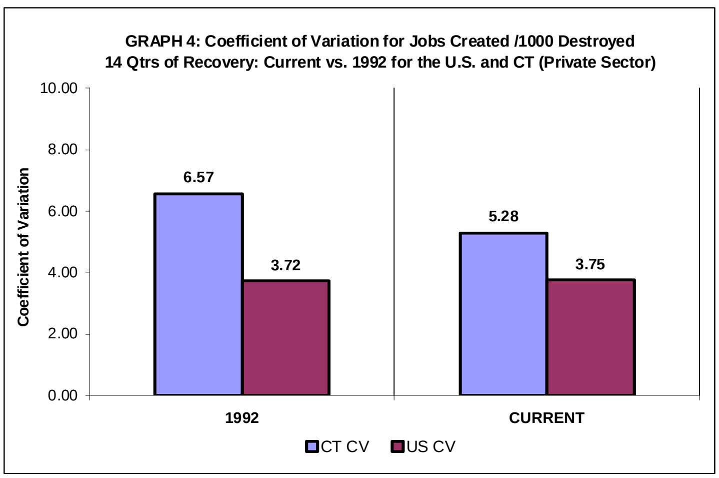
Another indicator of labor market dynamics is job reallocation, which is the sum of job creation and job destruction. Furthermore, *net* job reallocation, which equals job reallocation minus the net employment change, is yet another statistic measuring market dynamics. In the top panel of Graph 2 are the quarterly levels of job reallocation and net job reallocation for Connecticut between 1992Q3 and 2006Q4. The quarterly net employment change is in the bottom panel. The job reallocation series indicates a peak in job flow activity before the 2000 recession. However, the net job reallocation series indicates a peak in dynamics that coincides with the surge in job destruction at the early stages of the 2000 recession. Nevertheless, the one phenomenon that consistently comes through in Graphs 1 and 2 is the post-recession decline in the state's labor market dynamics.

Connecticut Job Flows: The Current Recovery and Expansion

Connecticut's employment recovered in July 2003, exactly three years after the downturn began in July 2000, based on the behavior of the nonfarm employment series. Following a cyclical pattern that has persisted throughout the post World War II era, Connecticut's employment declined seven months before the decline in U.S. employment, and rebounded two months after the U.S. Moreover, Connecticut has exhibited a distinctly different job flow pattern when compared to the U.S. Since BED data are unavailable before 1992Q3, comparisons are limited to the current and previous recoveries.

Graph 3 presents the average number of jobs created per 1,000 jobs destroyed for Connecticut and the U.S. during the 14 quarters of the current, Connecticut-defined recovery and the comparable period over Connecticut's 1992 recovery. On average, Connecticut created fewer jobs per 1,000 jobs destroyed. However, for both Connecticut and the U.S, the rate of job creation declined slightly over the current cycle compared to the previous cycle.

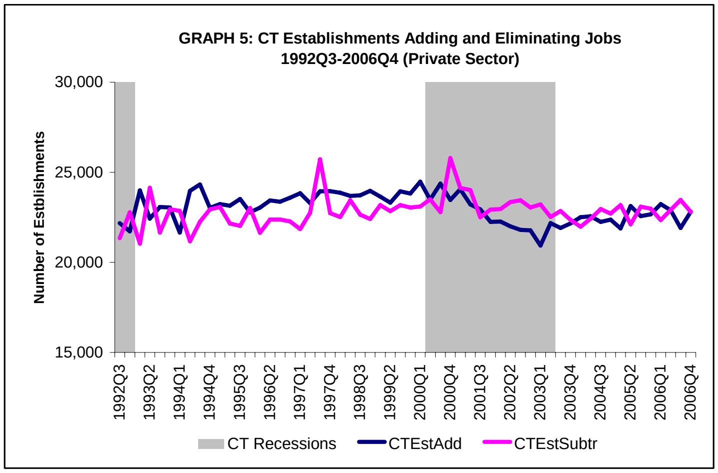




In addition, as depicted in Graph 4, though still higher than that for the U.S., the volatility in Connecticut's employment cycle has declined over the current cycle when compared to the previous cycle. The coefficient of variation, which measures the relative deviation around the average number of jobs created per 1,000 jobs destroyed, declined from 6.57 to 5.28 from the 1992 recovery to the current recovery. The variation in U.S. job creation activity over the two recoveries has virtually remained the same. This implies that Connecticut's economy, while still subject to wider swings in its job creation rate than the U.S., has nevertheless had a reduction in the size of those swings over the last two business cycles.

Establishment Dynamics

Graph 5 tracks the total number of establishments adding and eliminating jobs since 1992Q3. During the 2000 recession, the number of establishments destroying jobs first surpassed the number creating jobs in 2000Q4. As expected, the number of establishments destroying jobs did not fall below the number creating jobs until after the recession, specifically between 2003Q4 and 2004Q1. During the current recovery, the two series continue to track each other closely, and they are at lower levels than before the recession.

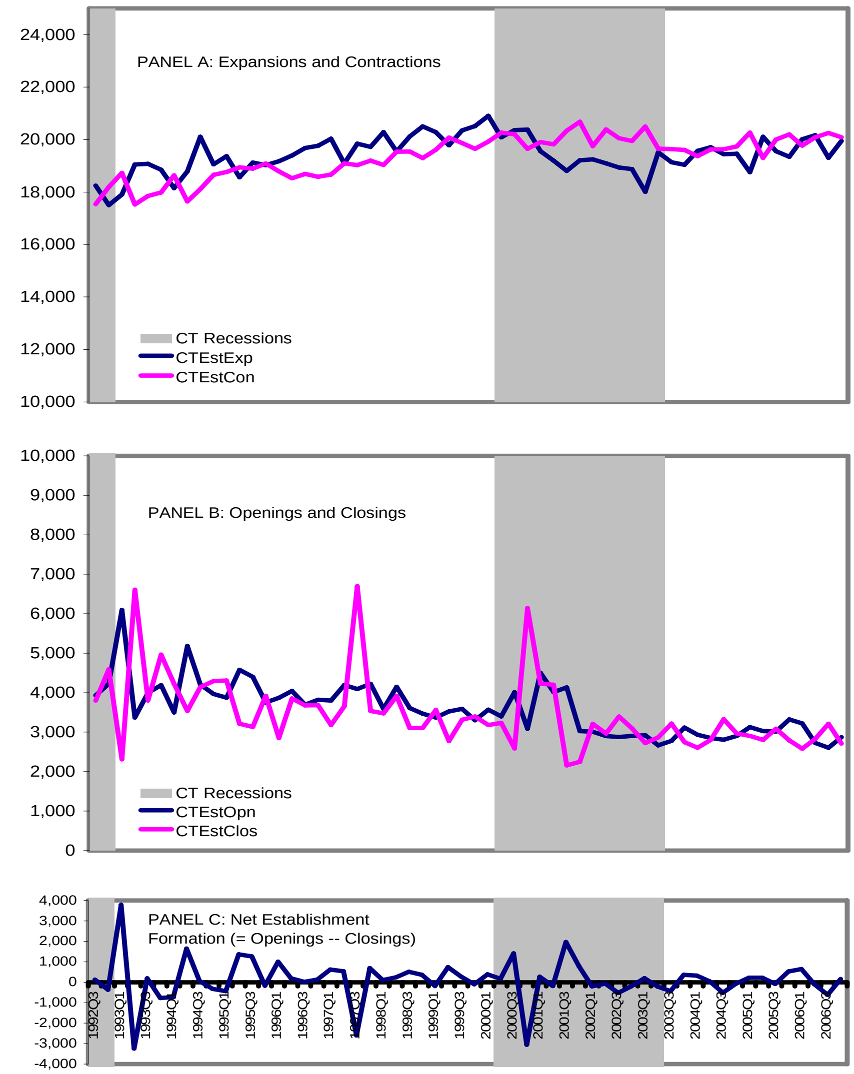


Graph 6 breaks out the creation and elimination of jobs by expanding and contracting establishments (Panel A), opening and closing establishments (Panel B), and net establishment formation, which equals opening minus closing establishments (Panel C). Panel A shows an increasing trend in both expanding and contracting establishments until the beginning of the 2000 recession. Expanding establishments then declined during the 2000 recession and have been rising again during the recovery, while the number of contracting establishments remained at a comparatively steady level throughout the period.

For establishment openings and closings, the trends have run steadily downward and have tracked each other closely throughout the history shown. There are three spikes in the number of closing establishments. Two have ready explanations: 1993Q3 and 2000Q4. The 1993Q3 spike occurred as the Connecticut economy was still in the early stages of recovering from the recession in the early 1990s. The spike in 2000Q4 occurred as the state's economy entered the 2000 recession. The spike that occurred in 1997Q3 is more difficult to explain. However, preliminary research suggests that it may mark a turning point in the dynamism of Connecticut's economy.

Corresponding with the spikes in the number of closing establishments, net establishment formation had significant declines in 1993Q2 (-3,237), 1997Q3 (-2,602), and 2000Q4 (-3,057). Interestingly, the 1993Q2 rash of closings followed a spike in the number of net establishments in 1993Q1 (+3,780), and the 2000Q4 decline followed the 1,420 net gain in the number of establishments in 2000Q3. The latest data show a very modest gain of 158 net new establishments in 2006Q4.

GRAPH 6: Number of Establishments Adding Jobs through Expansion and Openings, and Eliminating Jobs through Contractions and Closings, Net Establishment Formation



For More Information

Additional information on gross job gains and losses is available at the Business Employment Dynamics page on the CTDOL web site at http://www1.ctdol.state.ct.us/lmi. This information includes data on the levels and rates of gross job gains and gross job losses. In the future, data will be available by firm size, industry, and sub-state geographic region. The complete set of tables, including levels and rates of job creation and destruction, and establishments adding and eliminating jobs, may be found at the above-cited URL. Additional information about the Business Employment Dynamics data can be found in the technical note accompanying this release, or may be obtained by e-mailing dol.lmi@ct.gov.

Comparing Business Employment Dynamics Data with Other Employment Series

The net change in employment from the BED data series will not match the net change in employment reported in the *Labor Situation*. The monthly nonfarm employment estimates are based on a survey of a sample of establishments, while the BED are based on quarterly administrative records. In addition, the more current monthly estimates have different coverage. They exclude the agriculture sector and include establishments not covered by the UI program. The intended use of the BED statistics is to show the job flows that underlie the net changes in employment levels.

BED data have a more limited scope than the detailed statistics derived from the quarterly records of employment covered by unemployment insurance. The BED data exclude government employees, private households, and establishments with zero employment.

See *Business Employment Dynamics: Technical Aspects* for further information.