

1-1-2001

Economic Currents: The State of the State Economy

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Recommended Citation

Clayton-Matthews, Alan, "Economic Currents: The State of the State Economy" (2001). *Public Policy and Public Affairs Faculty Publication Series*. Paper 27.

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Economic Currents

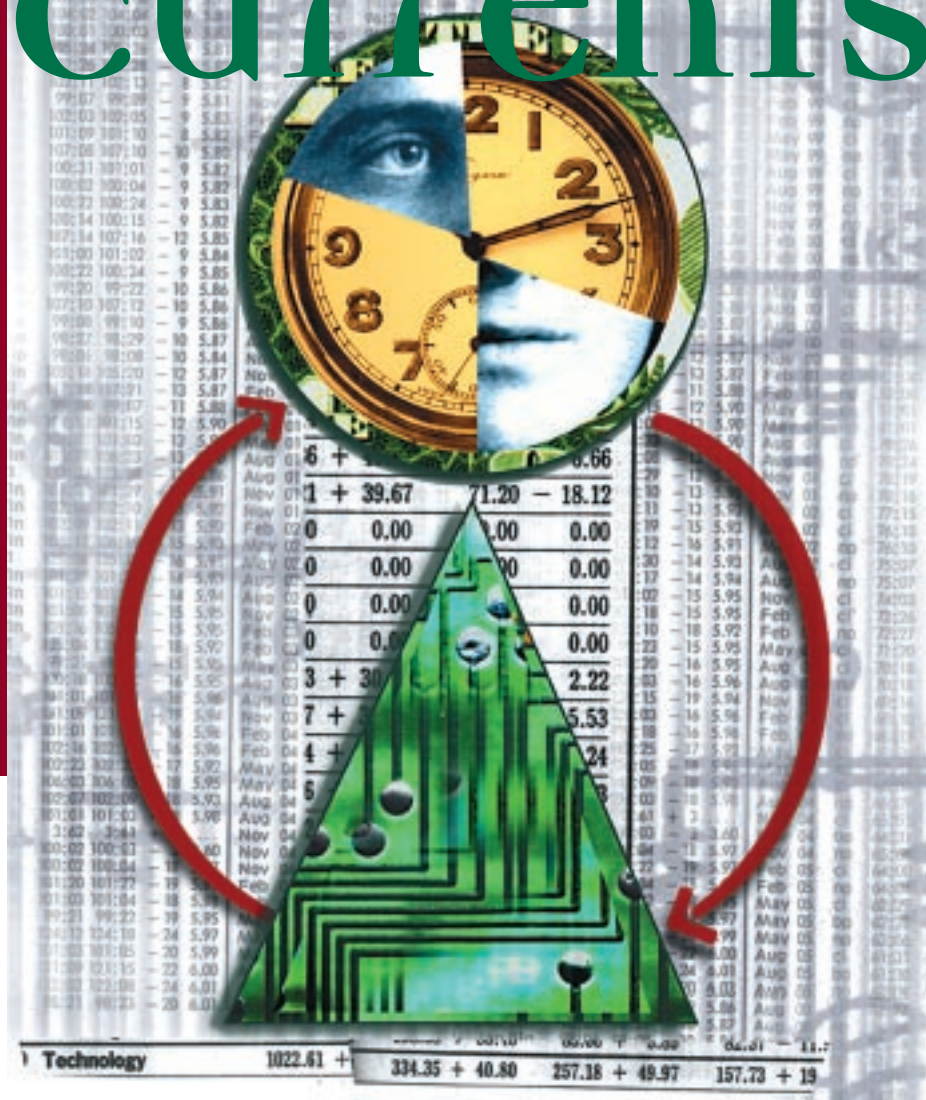


ILLUSTRATION: NAOMI SHEA

While the state's economy is still growing, albeit at a much slower rate than in the 1990s, there is a risk of a serious deceleration of economic activity. The evidence we have still favors a "soft landing" for the economy, but the risks of recession appear to have risen substantially.

For the first three quarters of the year 2000, businesses—particularly those supplying investment equipment—drove the Massachusetts economy. Strong but slower-growing consumer and housing sectors also contributed to overall growth. The Massachusetts Current Economic Index indicated a 3.4 percent annualized rate of real growth for the state economy in the third quarter of the year. This is roughly comparable to real U.S. GDP growth, which was 2.7 percent for the same period.

The Massachusetts Leading Economic Index has raised a warning signal that the state economy is decelerating quite rapidly. The index for November registered a 1.1 percent decline, while the three-month average for September through November was 0.2 percent. Eight of the ten index components contributed to below-trend rates of change, giving a clear indication of a pronounced slowdown in the economy.

The Bloomberg stock index was the most important contributor to the decline in the leading index. This indicator

The Current and Leading Economic Indices for Massachusetts

The Massachusetts Current Economic Index for November was 129.2, up 1.5 percent from October (at annual rates), and up 3.4 percent from November of last year. The current index is normalized to 100 in July 1987 and calibrated to grow at the same rate as the Massachusetts real gross state product over the 1978–1997 period.

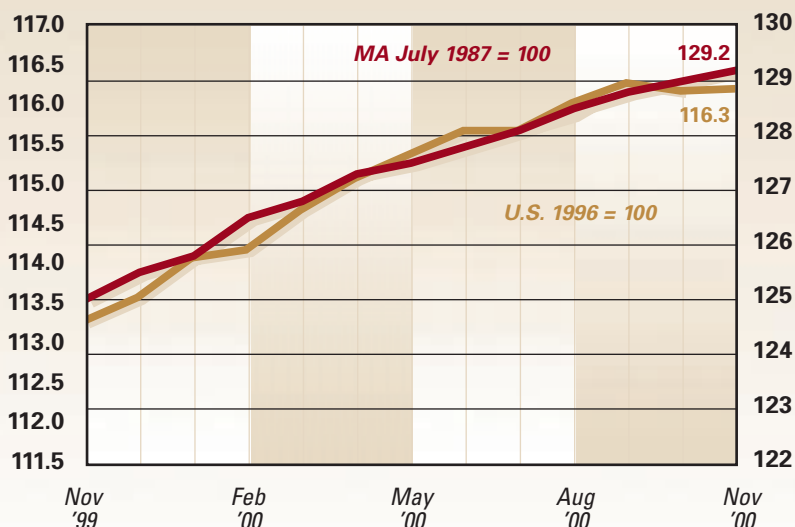
The Massachusetts Leading Economic Index for November showed a 1.1 percent drop, and the three-month average for September through November was 0.2 percent. The leading index is a forecast of the growth in the current index over the next six months, expressed at an annual rate. Thus, it indicates that the economy is expected to contract at an annual rate of 1.1 percent over the next six months. Because of monthly fluctuations on which the index is based, the three-month average of 0.2 percent, which indicates weak growth, may be a more reliable indicator of near-term growth.

The Massachusetts economy is decelerating. Withholding and sales taxes slowed substantially in recent months, and consumer confidence and stock markets were down sharply. Eight of the ten indicators registered below-trend rates of growth, clearly indicating that a pronounced slowdown is under way. The negative reading of the leading index does not indicate that a recession is imminent, however, as it is the result of a negative 1.8 percent contribution of the Bloomberg Massachusetts Index, a magnitude surpassed only during the stock market crash of October 1987. The effect of this outlier on the index should be appropriately discounted. Nevertheless, the risks of recession appear to have risen substantially.

Submitted Dec. 28, 2000; Revised Jan. 5, 2001

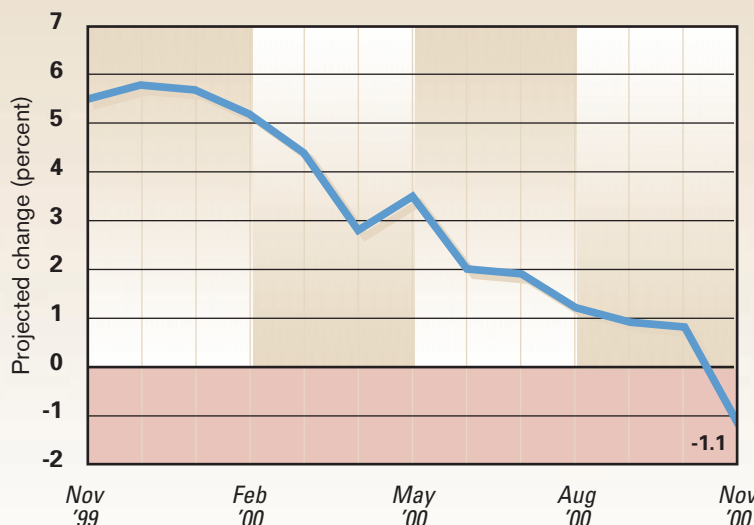
Current Economic Index United States and Massachusetts

The U.S. Current Economic Index is measured on the left vertical axis; the Massachusetts Current Economic Index is measured on the right.



Massachusetts Leading Economic Index

The leading index is the annualized, six-month projected change in the Massachusetts Current Economic Index.



Sources: The Conference Board; University of Massachusetts; Federal Reserve Bank of Boston

recorded a 1.8 percent decline in November, a precipitous drop surpassed only by the stock market crash of October 1987. The effect of this outlier, while it should not be ignored, should be qualified as an outlier. Therefore, it may be appropriate to give more weight to the three-month average leading index, indicating that, six months hence, growth in the state economy may be weak. In November, the Massachusetts Current Economic Index was up 1.5 percent from October and up 3.4 percent from November of last year.

Some Businesses Boom

Despite the state's current labor shortage and slow-growing labor force, several sectors have grown robustly. Showing strength were export-based manufacturing and services, sectors related to heavy construction, childcare services, and education. Manufacturing employment showed increases in stone, clay, and glass; primary metals; industrial machinery and equipment; and electronic components. Transportation employment growth was also strong. While slowing somewhat from decade-long, break-neck growth, money market and mutual fund employment continued to expand rapidly. Service sector employment growth was particularly strong in business services, education, childcare, and engineering and consulting.

Growth in merchandise exports from Massachusetts is another indicator of strong business activity. Exports in the second quarter of 2000 were up at an annualized and seasonally adjusted¹ rate of 32.2 percent over the first quarter and 22.6 percent over the second quarter of 1999. These rates eclipsed the corresponding national growth rates of 15.5 and 14.1 percent, respectively.

Nationally, the electronic components and accessories industry, which includes computer chip makers, has been bursting at the seams. (State-level data are not available at this level of detail.) Manufacturing employment grew by 7.8 percent over the year ending in October. Shipments in the third quarter of 2000 grew at an annual rate of 24.7 percent, and were 30.8 percent above shipments in the prior year. Unfilled orders amount to three months of current production levels.

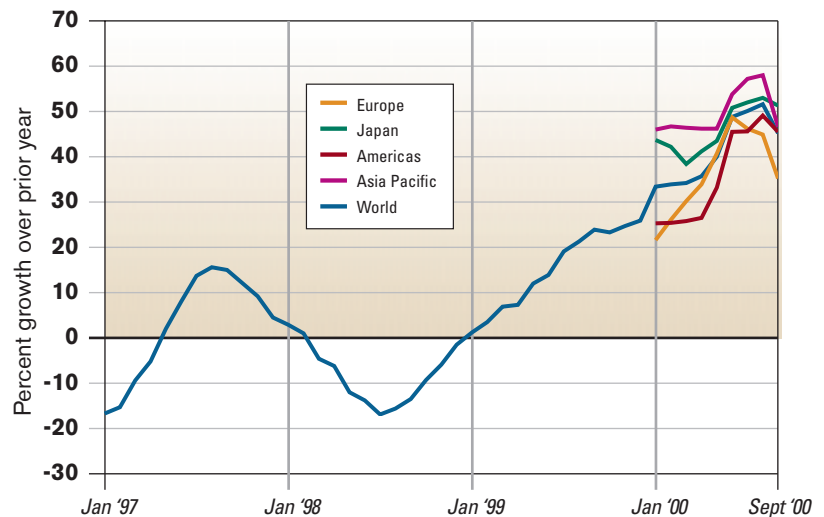
National and worldwide demand for chips and other electronic equipment and machinery has been fueling the industry. Worldwide semiconductor billings were up 45.2 percent in the third quarter of 2000 from the prior year, with growth over 35 percent in all major regional markets—the Americas, Europe, Japan, and Asia Pacific. The book-to-bill ratio for semiconductor equipment was 1.16 in the third quarter, indicating that new orders are outpacing shipments.

Massachusetts is sharing in this boom. Manufacturing employment in electronic components was up 1.6 percent

in September over the prior year, according to the monthly establishment survey (ES-790). Due to sampling problems, however, this survey seriously understates recent employment growth and will be revised sharply upward when the

Semiconductor Billings

Although growth in worldwide semiconductor billings is strong, it is falling.



Source: Semiconductor Industry Association; Regional data are not available before January 2000.

annual benchmark revisions become available. The most reliable employment data are from the Massachusetts Division of Employment and Training's ES-202 unemployment insurance series, which includes all employers. Data show 8.8 percent employment growth in electronic components manufacturing between the first quarter of 1999 and the first quarter of 2000, a figure comparable to national growth rates. Exports from the state's electrical equipment manufacturers in the second quarter were up 47.6 percent over the prior year.

Furthermore, compensation per employee has been rising rapidly. As compared to a year earlier, average wages rose 22.3 percent in the third quarter of 1999, 18.4 percent in the fourth quarter of 1999, and an astounding 60.3 percent in the first quarter of 2000. This figure almost certainly reflects an unusually high level of bonuses and stock options derived from the run-up in technology stock prices during the period.

Some Forecasts Revised Downward

There are several signs that the growth of business activity is slowing both nationally and worldwide. Most important for Massachusetts, capital expenditures for state-manufactured products are slowing. Growth in real U.S. investment spending for equipment and software in the third quarter of 2000 declined to an annual rate of 8.5 percent, sharply down from recent typical growth of 15 percent.²

Technology stock prices fell steadily throughout the fourth quarter, as companies revised their sales-growth forecasts downward. New orders for U.S. electronics components manufacturers were down 31.7 percent in the third quarter and up “only” 24.2 percent from the third quarter of 1999. Though growth in worldwide semiconductor billings is strong, it is falling, as are book-to-bill ratios for semiconductor equipment. Industry analysts expect these trends to continue and for capacity to exceed production sometime in 2001. We may be at the peak of the chip cycle.

Consumer Sector Strong, but for How Long?

Because of the volatility of sales tax receipts, it is difficult to get a clear reading on current consumer spending in Massachusetts. Available data are consistent, though, with national trends that reflect strong but slower-growing consumer demand. Nationally, nominal retail sales grew at a 6.0 percent annual rate in the third quarter of 2000 and were up 7.6 percent over the third quarter of 1999. The closest concept in Massachusetts is an estimate of the sales tax base derived from sales tax receipts.³ The nominal sales tax base grew at an annual rate of only 0.4 percent in the third quarter but by 9.9 percent over the third quarter of 1999.

Massachusetts motor vehicle sales taxes are less noisy and therefore more reliable for discerning short-run trends. Third-quarter spending declined at an annualized rate of 1.7 percent, and was off at an annualized rate of 0.5 percent in the six months ending in September, versus the prior six months. This slowdown may indicate that most households, after eight years of double-digit growth in motor vehicle purchases, simply don't need any more new cars.

The same stock adjustment process may be occurring with other consumer durable purchases. Other factors slowing demand include rising interest and credit rates, high oil and gas prices, and poorly performing stock markets.

Though still at high levels, consumer confidence measures for both New England and Massachusetts have leveled off. Retail employment in September was no higher than a year earlier. Most likely, this reflects the difficulty retailers have in hiring, given the availability of better jobs for their target workforce. However, holiday-season sales growth was expected to drop relative to a year earlier, given the performance of stock markets and the likelihood of smaller bonuses and other lump-sum earnings supplements.

Bonuses and Stock Options Mirror Equity Markets

Bonuses and stock options have become significant components of labor compensation for a growing minority

Massachusetts Motor Vehicle Sales Taxes

Motor vehicle sales taxes indicate a softening in consumer demand as spending leveled off in the first three quarters of the year.



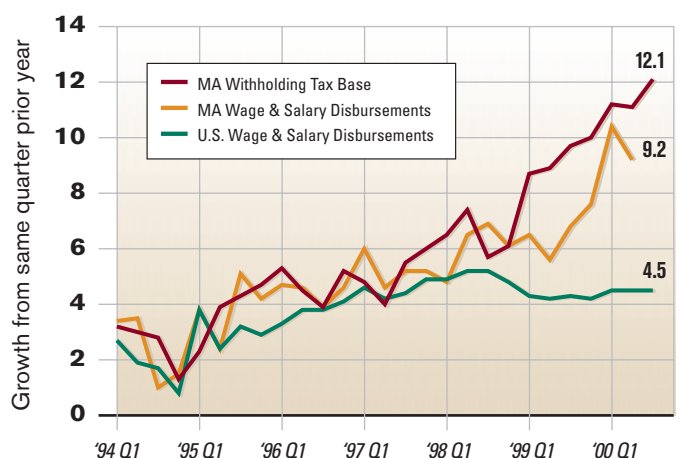
Sources: Massachusetts Department of Revenue; author's calculations

of Massachusetts workers. The explosive wage growth in the first quarter of 2000 can only be explained by gains in the equity markets in 1999 and early 2000, especially in technology stocks. In the last two months of 1999, the NASDAQ rose 37 percent and the Bloomberg Massachusetts Index rose 32 percent. Through the peak in early March 2000, they rose an additional 21 and 30 percent, respectively.

Anecdotal evidence of remuneration related to equity markets has been circulating for some time; now official aggregate economic statistics support the notion. The key evidence is from the quarterly state income data released by the U.S. BEA in late October, along with the Massachusetts Division of Employment and Training's ES-202 unemployment insurance quarterly employment and wage reports.⁴ The BEA reported a dramatic 4.1 percent upward revision in

Growth in Wages by Source of Data

Wage growth in the first quarter of 2000 can be explained by gains in equity markets in 1999 and early 2000.



Sources: U.S. Bureau of Economic Analysis; U.S. Bureau of Labor Statistics; MA Department of Revenue; author's calculations

first-quarter wage and salary disbursements, amounting to \$1.45 billion (\$5.8 billion at annual rates). This revision raised the year-over-year growth in average wages per payroll worker to 10.4 percent from the first quarter of 1999 to the first quarter of 2000. This is in line with the estimate of 11.2 percent derived from state withholding taxes. The most recent data in these series suggest a continuing trend of faster wage rate increases in the state than in the nation.

Quarterly ES-202 data reveal that the strong BEA and tax-based wage growth estimates are due to a surge in bonuses and realized stock options. According to this source, in the first quarter of 2000, average private-sector wages per worker rose 19.2 percent over the prior year. The figure reflects the huge lump-sum additions to pay. When the fourth quarter of 1999 and first quarter of 2000 are combined, taking account of the full bonus season, average wages were 13.6 percent higher than in the prior year.

Because the ES-202 data are not seasonally adjusted, it is possible to estimate lump-sum payments as the excess wages paid in the fourth and first quarters relative to trend.⁵ These were estimated to be \$3.9 billion in the fourth quarter of 1999 and \$3.9 billion in the first quarter of 2000, versus \$3.2 billion and \$1.4 billion a year earlier. The more recent numbers represent 6.1 percent of all wages and salaries paid in 1999, up from 4.0 percent in the prior year.

A \$2.5 billion piece of the pie was paid to workers in the finance industry. Service industry employees got \$2.0 billion,

While future sales growth in the technology sector is expected to decline, even the lower levels would be the envy of "old-economy" businesses.

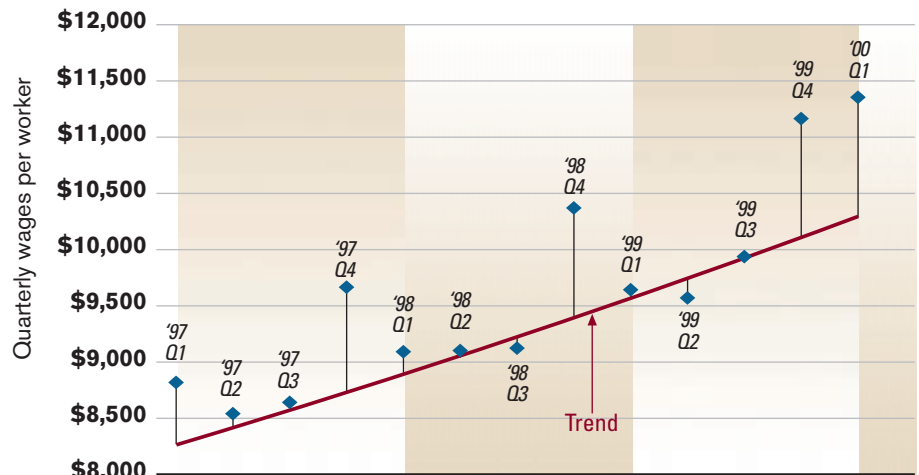
concentrated in computer and data processing services, doctors' and lawyers' offices, engineering and architectural services, research and testing services, and management and public relations services. Manufacturing accounted for \$1.2 billion, concentrated in computers, instruments, electronic components, and pharmaceuticals. Nonfinancial sectors

generally received larger proportional gains in lump sum payments in the first quarter, suggesting a more widespread reliance on compensation tied to the stock market.

It is important to recognize that these large increases in earnings are received by a minority of high-paid workers. At

Private Sector Wages: Average Wage per Worker vs. Trend

The line represents the time trend of average wages per worker, net of average fourth and first quarter deviations from that trend. Deviations reflect bonuses and stock options.



Sources: DET ES-202; author's calculations

the other end of the spectrum are the 56 percent of Massachusetts workers who are paid on an hourly basis.⁶ In the 12 months ending in September 2000, the average wage rate for hourly workers was \$12.69, versus an hourly rate of \$17.64 for all workers. Furthermore, the wage rate of hourly workers has been growing at a much slower rate than for salaried workers, at 2.6 percent in the year ending in September versus the prior year. For all workers, the annual hourly rate of wage growth was 6.2 percent. These figures from the Current Population Survey for Massachusetts exclude lump-sum payments, such as bonuses and stock options.

Soft Landing Still Likely, but not Certain

Though a soft landing still looks like the most probable outcome, the risk of recession has increased substantially. While 8 of the 10 components of the leading index are pointing toward slower-than-trend rate of growth, the negative reading for November was the result of a precipitous drop in the Bloomberg stock index. The rapid deceleration in growth implied by the indices suggests that the economy is slowing more sharply than anticipated. Assuming that stock markets do not continue to fall at this rate, the outlook is for a much slower rate of growth—significantly below those we have experienced in this long expansion—but not a recession.

Other indicators are consistent with a successful soft landing. While future sales growth in the technology sector is expected to decline, even the lower levels would be the envy of “old-economy” businesses. Prices of technology stocks seem to be adjusting accordingly. The consensus of forecasts for national and world economies is for moderate growth. World oil price futures project a price decline as increased supplies make their way through the transportation and refining pipelines. On the state level, housing starts have slowed, but moderately; and recent declines in mortgage rates should encourage a healthy level of activity in the housing market.

One cannot be too sanguine, however, especially about the long-term outlook for Massachusetts. Core consumer inflation is running about a full percentage point above the national rate, due largely to our faster-increasing shelter and health costs. The cost of living, particularly in housing, is still very much higher here than nationally, and the gap continues to widen.

Though new evidence suggests that a substantial portion of recent wage-rate growth may be tied to stock markets and is therefore flexible downward, we know too little to conclude whether or not labor costs in Massachusetts are getting out of line with those in other areas of the country. There is still the danger that traditional inflation in hourly wage rates will accelerate in response to tight labor markets and consumer price inflation. The state may also be facing a new fiscal challenge, as recent stock market declines will lower individual income tax receipts from capital gains. At the same time, withholding rates will decline in the wake of the passage of ballot question number four. ▮

Submitted November 27, 2000; amended January 5, 2001

1. Seasonally adjusted by the author.
2. Nominal growth shows a similar decline, so a drop in spending is not the result of an increase in the rate of change in the price deflator.
3. Sales taxes are converted into a sales tax base by adjusting for tax-law changes in the tax base, dividing by the tax rate, and smoothing. The resulting indicator is weighted toward durable goods, since food and most clothing is tax-exempt. The indicator also includes taxes paid by businesses, which may account for up to one-fourth of sales tax revenue.
4. The ES-202 series consists of quarterly reports to the Massachusetts Division of Employment and Training from virtually every employer in the Commonwealth, required by the unemployment insurance system. Employers report monthly employment and total wages for the quarter. The wage figure is supposed to include bonuses and the value of realized stock options. State ES-202 reports form the basis of the BEA’s quarterly state wage and salary disbursement estimates, except for the most recent quarter, which use the less reliable state monthly payroll estimates to extrapolate wages. These estimates subsequently get revised in the following release, based on the ES-202 data. Occasionally these revisions are substantial.

5. The estimates referred to here were calculated as follows: Quarterly average wages per worker from 1997Q1 to 2000Q1 were logged and regressed on a trend and dummies for the fourth and first quarters. The difference, when positive, between actual quarterly wages per worker in the first and fourth quarters and the trend values calculated from the regression (ignoring the quarterly dummies) served as estimates of average lump sum payments per worker. These figures times the corresponding quarterly employment gave an estimate of total quarterly lump sum payments. The analysis was done separately for each 3-digit industry.

6. These figures for Massachusetts are from the monthly Current Population Surveys (CPS). Each month, the CPS asks one-quarter of interviewees about hourly and weekly pay received in the survey week. Workers are asked to include usual forms of pay received on a regular basis, and so exclude lump sum payments like bonuses and stock options. In a single month, about 300 persons in Massachusetts are asked these questions. In order to get a large enough sample size for reliable estimates, the figures reported are 12-month moving averages.

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