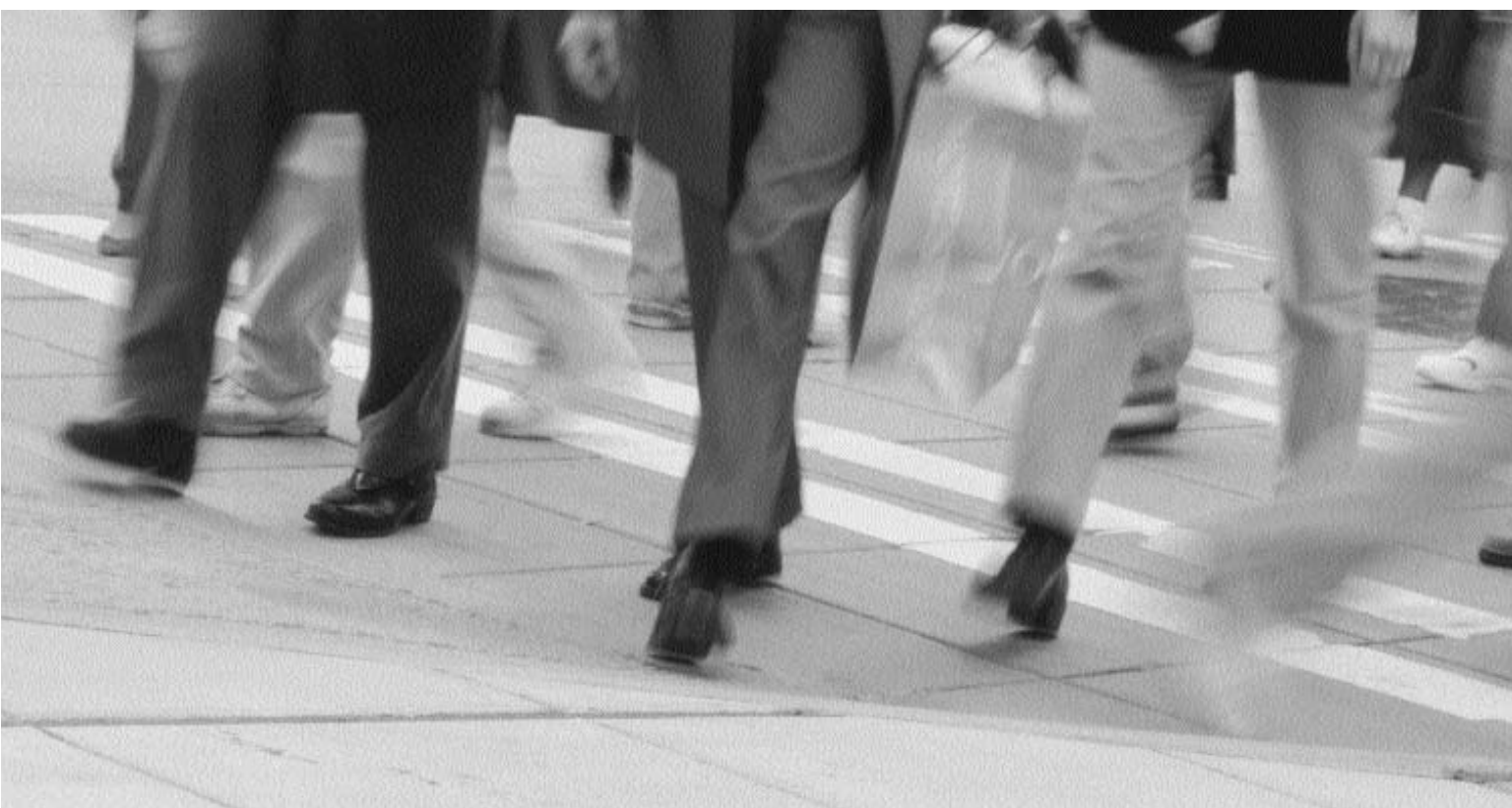


SPRING 2005

# THE Connecticut Economy

A UNIVERSITY OF CONNECTICUT QUARTERLY REVIEW



## Human Capital and Connecticut's Workforce

2005-07 Biennium State Budget:  
Deficits Revisited

Economic Forecasts:  
Insider Views of Why They Differ

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**Executive Editor:** Steven P. Lanza

**Editors:** Dennis R. Heffley, James R. Moor, Jr., and Arthur W. Wright

**Editors Emeritus:** William A. McEachern Raymond R. Bearegard and Edwin L. Caldwell

**Research Associate:** Nandika Weerasinghe

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**Connecticut Center for Economic Analysis**

University of Connecticut  
 341 Mansfield Road, Unit 1240  
 Storrs, CT 06269-1240

<http://cteconomy.uconn.edu>



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**THE EDITORS**



**Steven P. Lanza**, *Executive Editor*, coordinates the production, publication, and distribution of *The Connecticut Economy*. He has taught at several universities, including the University of Connecticut, in fields that span economics, business, government and history, and has served as an economic consultant. He has appeared on NECN and CPTV, and has been quoted in the *New York Times* and the *Wall Street Journal*.



**Dennis R. Heffley** is a Professor of Economics at the University of Connecticut, and has taught courses in urban, health, and mathematical economics since 1973. His research, published in the *Journal of Health Economics*, *Journal of Urban Economics*, *Journal of Regional Science* and other leading professional journals, uses microeconomics to better understand market behavior and public policy.



**James R. Moor, Jr.**, has had a long association with CCEA, taught courses in UConn's MBA program, and been an Associate Professor in Residence at the School of Business. He was Chief Economist of The Hartford Financial Services Group for seventeen years and actively involved in economic development in the Hartford area.



**Arthur W. Wright** is Emeritus Professor of Economics at the University of Connecticut, where he was Department Head, 1979-1989, and taught courses in industrial organization and market regulation. He was the department's Honors Advisor and taught the Honors Seminar. His research has appeared in the *American Economic Review*, *National Tax Journal*, and *Journal of Comparative Economics*, among other professional journals.

# Strong Job Growth Doesn't End the Worries

**Connecticut nonfarm payrolls grew by a better-than-expected 4,700 posts in 2004-Q4, thanks to a particularly strong November jobs report. But some dark clouds on the horizon are casting a shadow on future job growth.**

On the whole, job losses in industries that have fared poorly since the economic peak of 2000 were offset by job gains in industries that have done well. Jobs slipped in information and in professional and business services but expanded in leisure and hospitality, health care, and especially education.

What's more, inventory rebuilding, a sliding dollar and expanding exports have boosted the fortunes of Connecticut's manufacturers. Factory jobs climbed by 1,100 between 2004-Q3 and 2004-Q4—the third consecutive quarterly increase. At the same time, average weekly hours inched up 0.3%, and hourly pay jumped 2.0%.

Regionally, Q4 job growth was concentrated in western Connecticut. Danbury and Stamford were the only large labor market areas to gain jobs in the quarter. But these two regions and New London, plus the smaller areas of Danielson, Torrington and Lower River, all posted higher payroll totals in 2004-Q4 than in 2003-Q4.

Unfortunately, the churning sea of economic activity that produced those net job gains created some losers as well. Connecticut's Sikorsy Aircraft

lost its bid to build the next-generation presidential helicopter to a consortium that includes European manufacturers. That's the second disappointment in a year for the Stratford manufacturer, which earlier last year fell victim to the cancellation of the Comanche helicopter program. And MetLife announced plans to buy Hartford-based Travelers, putting more jobs in the state's financial services sector at risk.

Often, in a rocky economy, people return to school to beef up their skills and credentials. That partly explains why education has been the state's strongest sector over the last several years, and it posted the largest percentage growth of any industry this quarter.

And when jobs and skills are undergoing profound transformations it can be hard to match the right worker with the right job. A recent CBIA survey found that between 19% and 54% of state manufacturers are having "extreme or very high" difficulty finding appropriate workers in 12 key job categories. Even the twice-spurned Sikorsky has grumbled about a dearth of qualified engineers in the state. Accordingly, in this issue we focus on a couple variations on the theme of workforce development.

## CONNECTICUT ECONOMIC INDICATORS

(Percent change: 2003-Q4 to 2004-Q4)

### Indicators of

#### Current Economic Activity

Total Nonfarm Jobs	+0.4%
Number Unemployed	-17.4%
Labor Force	-0.3%
Manufacturing	
Jobs	+0.1%
Avg. Weekly Hours	-0.2%
CT Mfg. Prod. Index	+3.3%
Avg. Hourly Earnings	+4.5%
New Auto Registrations	-16.6%
Travel and Tourism Index	+3.4%
Bradley Airport	
Passengers	+10.0%
Freight	+6.5%
State Tax Receipts	
Sales	+4.0%
Income	+8.0%
Real Estate Conveyance	+29.6%
Normalized Electricity Use	+1.0%
State Exports	+4.8%
Personal Income (est.)	+5.0%
Confidence in Current Economy	+17.6%
Coincident GDI	+0.7%

### Indicators of

#### Future Economic Activity

Help-Wanted Ads	+7.4%
Avg. Initial Unemp. Claims	-10.9%
Housing Permits	+16.4%
Net New Business Starts	+22.0%
Confidence in Future	-14.9%
Leading GDI	+1.0%

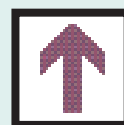
## THE CONNECTICUT ECONOMY SPORTS A NEW LOOK

Regular readers of *The Connecticut Economy* will notice some differences starting this issue. We've changed typefaces to make text easier to read. We've changed our layout so pages appear less cluttered. And we've changed our graphics to make them (we hope) more appealing, improving our use of charts and tables and adding color in new places like our headlines.

What hasn't changed is our commitment to our readers. Using the expertise available at the University of Connecticut, we will continue to offer readers substantive, data-driven analyses of current events and longer-term trends in the state and regional economies, making every effort to remain clear, objective and unbiased. And subscribers will receive their full complement of issues, despite a change in issue number and volume that begins with this edition.

The *Quarterly's* goal is to help improve residents' understanding of their state's economy, and help fulfill the University's land-grant mission of service to the people of our state.

We hope our new look better reflects our aim as a publication. Give us your feedback at [theconnecticuteconomy@yahoo.com](mailto:theconnecticuteconomy@yahoo.com) or visit us at <http://cteconomy.uconn.edu>.



### GOOD NEWS

+0.4%

Nonfarm Jobs



### BAD NEWS

-14.9%

Confidence in Future

# Plumbing Connecticut's Brain Drain

BY STEVEN P. LANZA

**We've all heard the lament. Young Nutmeggers are leaving the state in droves. Connecticut is suffering a massive "brain drain" as young, educated workers head for the borders in search of brighter employment opportunities elsewhere.**

But the truth is more complicated. Many high school graduates do leave the state to attend college somewhere else, but Connecticut also attracts many college-bound high school graduates from other states. The difference, our net out-migration rate, isn't any worse than might be expected, given the factors that influence such a statistic. What's more, once students finish they often stay—the state's addition to its population of college graduates in the 1990s exceeded the number of degrees it granted.

## THE BRAIN DRAIN

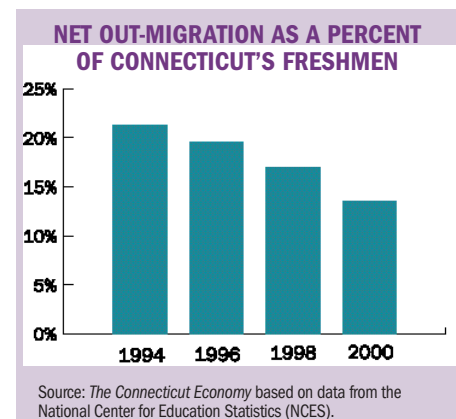
The loss of college-educated young adults is a major policy concern in many states, including Connecticut. According to the most recent data from the National Center for Education Statistics (NCES), 43% of college-bound Connecticut high school seniors left the state in 2000 (the last year reported) to start their freshmen years. Alarming as that figure might seem, it actually represented an improvement over previous years. In 1998, 45% of Connecticut college freshmen enrolled in schools out of state, while in 1996 and 1994 the share was 53%. Throughout this period, Connecticut consistently ranked among the top five states and the District of Columbia in the out-migration of college freshmen.

Most of those who leave don't travel far. A recent report from the Connecticut Board of Governors for Higher Education shows that more than 70% of the state's migrating freshmen attended college either in other New England states or in New York, Pennsylvania or New Jersey. But in an economy struggling to add new workers and where human capital is king, the fact that so many of the state's bright young minds are but a short commute away from a weekend visit home may offer little consolation.

But Connecticut can take some comfort from the fact that much of the state's outflow of college students is partially offset by a compensating inflow of students from other states. NCES data also show that for every 10 state residents who leave Connecticut, 6 or 7 out-of-staters enter to begin their studies here. Connecticut still ranks near the top of the list of states for net out-migration, but the magnitude of the brain drain is significantly diminished after accounting for those nonresidents who choose Connecticut as the place to begin their educations.

And after graduation, Connecticut college students often remain in the Nutmeg state. One index of the extent

*Our net out-migration rate isn't any worse than might be expected, given the factors that influence such a statistic.*



of a college-graduate brain drain—or gain—is the difference between the number of college graduates a state produces over time and the change in the number of college graduates in its population. If the change in college graduates exceeds the number of degrees granted, the state is a net brain gainer. Indeed, that’s where the Nutmeg State found itself at the end of the 1990s.

In 1989, 590,000 Nutmeggers aged 25 and up held a bachelor’s degree or more. In 1999, 738,000 residents held at least a bachelor’s degree—an increase of 148,000. But over the same period, the state’s institutions of higher learning only produced 144,000 degrees, so the difference—4,000—represents a net inflow of college-educated adults into the state. One shortcoming of this measure: it can bias results in older states, like Connecticut, if educated workers retire from the workforce but remain in the population.

### EXPLAINING THE VARIATION

Even the states with the highest retention rates end up sending some of their young people elsewhere for their educations. And every state manages to attract at least some students from other locations. But what accounts for the varying ability of states to retain and attract talented young people?

Formal analysis, and casual empiricism, suggests several factors likely to affect the migration decision. Those setting out for their educations and newly minted grads alike are no doubt trying to maximize their career opportunities. Students hope to get first-rate educations, and graduates are trying to find rewarding, high-paying

jobs. But such opportunities involve a cost, the most obvious being the out-of-pocket expenses of tuition room and board, which students would naturally like to minimize. Also important is the nebulous cool factor—people want to enjoy a high quality of life outside the classroom or workplace.

The top panel of the table on page 6 shows a number of variables chosen to try to measure the influence of these factors across the fifty states and District of Columbia over the time period 1994 to 2000. According to a multivariate regression model, these variables together explain more than 80 percent of the variation in the net share of freshmen who leave their home states to attend school.

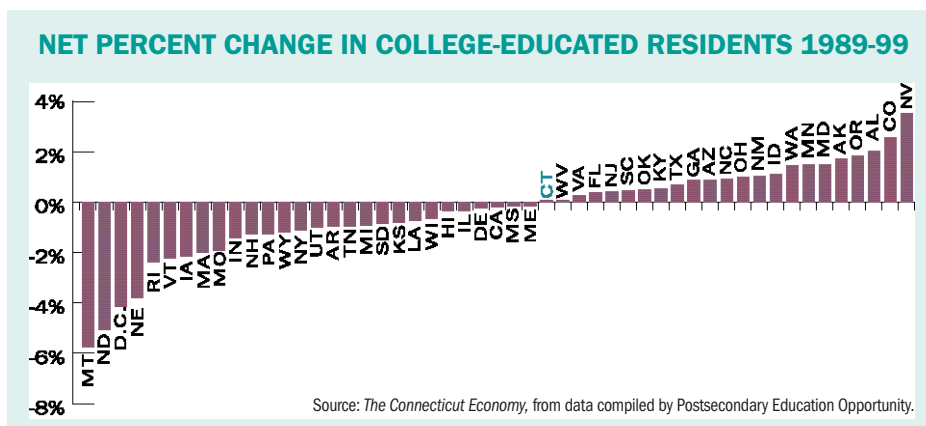
The college-bound clearly respond to the set of choices available to them. States with faster job growth tend to have lower net out-migration rates, as do states that invest a greater share of their budgets on spending for higher education. Where students have more local options to attend school, as measured by the number of institutions of higher education per pupil, they are more apt to stay closer to home for their schooling. But higher expenses for tuition, room and board seem to be

associated with lower rates of out-migration. Perhaps tuition and related expenses are capturing quality differences in schools across states.

Outmigration is also positively associated with income in the “sending” state, a puzzling relationship for those who believe that students would move toward areas where the pay promises to be higher. But higher education is also likely to be what economists call a normal good, one for which demand rises along with income. So higher incomes also make it easier to broaden the geographic search for high-quality education and to escape the in-state limits on higher educational opportunities.

Oddly, out-migration tends to rise with a state’s land area. One might have hypothesized that small states would see more out-migration since a trip of a given distance is more likely to take one out-of-state in a small state than in a large one. But, perhaps residents of large states are more accustomed to traveling long distances and so are less averse to crossing borders to attend school.

Lifestyle variables also have an important influence on location decisions. All else equal, students prefer to



stay in areas where the beach is a relatively short drive away and where there's a local professional sports team to root for. And students seem to like congregating with others, preferring urban locales with high population densities.

### CHASING THE LEAK

After taking account of the various influences on the educational migration decision, one of the most surprising things about Connecticut's high net out-migration rate is that it isn't higher. Our model predicts a 21 percent net outmigration rate for Connecticut in 2000, but the state's actual figure was just 14 percent. Nevertheless, the average state saw an 8 percent net in-migration rate that year, so Connecticut's number is still 20 points higher than other states. What, according to the model, explains this difference?

Part of the explanation lies in the state's comparatively low commitment of resources to higher education. We have fewer institutions of higher learning per student than average, and spend less of our state's budget on higher education than does the typical state. Our low job growth rate doesn't help, either, but it doesn't hurt as much as one might imagine.

By far the biggest reason for the difference lies in the state's high per capita income. Connecticut income in 2000 was \$7,500 higher than average, a sum that by itself would suggest an outmigration rate for the state some 40 points above the norm. The fact that

it is only about 20 points higher than average reflects the influence of other, offsetting factors, such as our coastal locale, high population density and access to urban centers.

### BACKFLOW HELPS

The increase in the number of college-educated adults exceeded the number of college degrees produced in the state between 1989 and 1999—a period that also saw, incidentally, a massive recession in Connecticut. So once they graduate, Connecticut college students tend to stay put, or at least to be replaced by college grads from elsewhere if they leave.

One might speculate that economic and lifestyle variables would be key determinants in the choice of where to put down roots, and this conjecture is supported by the evidence. Four variables—job growth, average annual pay, population density, and whether or not a state has a coastline—account for more than 40 percent of the variation in the flow of the college educated across states. Compared to the average state, which saw a net outflow of college educated folks, at a rate of 3.7 percent, Connecticut enjoyed a net inflow. The actual inflow, 0.5 percent, was about 1.6 percentage points below the predicted figure of 2.1 percent.

Connecticut's meager job growth rate over the period (more than 17 points below average) accounted for nearly all of the drag on the state's inflow of the college educated. Our high population density was a bit of a hindrance too. Unlike the college

bound, who look for high-population areas when attending school, college grads prefer to settle down in less congested areas. On the plus side, our coastal locale serves as a big draw, but by far the most attractive feature about our state is its high pay. Average annual pay in the 1990s was about a third higher in Connecticut than in other states, which offset the entire burden on the net in-migration rate from our poor track record on jobs.

### FITTING A PLUG

As Connecticut's example shows, a state's human capital plumbing problems aren't always as bad as they seem, but fashioning a plug to fit the brain drain may not be so simple, either. Stopping one leak may well create another. Connecticut's high incomes, for example, make the state an attractive target for skilled job seekers. But they also make it possible for Connecticut's kids to shop beyond the state's borders for the best schools. Pouring resources into higher education may help to keep them in state for school, but they're not apt to stay if jobs aren't around after they graduate.

Perhaps the best strategy is for Connecticut to encourage the growth of new jobs. More jobs won't necessarily stem the exodus of the college-bound, but they would certainly help plug the drain on college grads leaving. Of course, that prescription only pushes the human capital problem up another level. Just as there are no quick fixes in plumbing repair, there is no sure-fire recipe for cooking up jobs.

#### EXPLAINING THE NET OUT-MIGRATION OF FRESHMEN, 2000

	Effect	Average		
		State	CT	Difference
Constant		-0.68	-0.68	0.00
JOBS		-0.04	-0.03	0.01
INCOME	+	0.87	1.26	0.39
INSTITUTIONS	-	-0.11	-0.09	0.03
ED SHARE	-	-0.23	-0.13	0.09
TUITION	-	-0.12	-0.15	-0.03
TEAMS	-	-0.02	0.00	0.02
TEMP	+	0.24	0.23	-0.02
COAST	-	-0.03	-0.06	-0.03
AREA	+	0.06	0.00	-0.05
DENSITY	-	-0.09	-0.18	-0.09
RURAL	+	0.07	0.03	-0.04
<b>Predicted Net Effect (Fraction)</b>		<b>-0.08</b>	<b>0.21</b>	<b>0.29</b>

#### EXPLAINING THE CHANGE IN COLLEGE-EDUCATED RESIDENTS, 1989-99

	Effect	Average		
		State	CT	Difference
Constant		-0.81	-0.81	0.00
JOB GROWTH	+	0.18	0.00	-0.17
PAY	+	0.57	1.76	0.19
DENSITY	-	-0.02	0.04	-0.02
COAST	+	0.05	-0.11	0.06
<b>Predicted Net Effect (Fraction)</b>		<b>-0.04</b>	<b>0.02</b>	<b>0.06</b>

# Investing in Education: Connecticut's Portfolio

BY STEVEN COELEN\* AND  
DENNIS HEFFLEY

**Many Connecticut high school seniors grab their diplomas and run...or so it seems. Facing one of the nation's highest gross out-migration rates for high school cohorts, Connecticut business and government leaders are searching for ways to slow this exodus, but getting students to look before they leap may require a more balanced and attractive menu of educational choices.**

## PAYOFFS TO EDUCATION

For many years, economists largely skirted the issue of education. Few doubted its importance, but education, like health care and other “intangibles,” was seen as a topic that didn't quite fit the economist's quantitative view of how the world works. In the 1960s, Chicago economist Gary Becker and a handful of other brave souls began to treat education much like other forms of investment: upfront (and perhaps continuing) costs, followed by benefits or “returns” to the student-investor, prospective employers, and possibly even society at-large. This brave new world of “human capital” eventually landed Becker a Nobel Prize (1992), but it also opened the door to more intensive economic analysis of education—how it is financed and “produced” and who ultimately gains from various types of education.

Economic analysis of education has mushroomed over the last several decades. [A quick search of working papers and articles containing the keyword “education” on <http://ideas.repec.org>, a research archive serv-

ice maintained by UConn economics professor Christian Zimmermann, turns up more than 14,000 items.] Results of this research are far from uniform, but some key findings have emerged. *First*, educational “outputs”—often measured by graduation rates, standardized test scores, or even labor-market outcomes—are affected by personal inputs and some school resources, but they also depend heavily on “social inputs” such as household and community language practices, educational attainment of parents, neighborhood stability, and public safety. Earlier issues of *The Connecticut Economy* (Spring 1997, 1998, and 2002) have reported such results for Connecticut schools, noting that up to 75% of the variation in test scores across the state's 169 towns can be traced to community characteristics that lie beyond the control of teachers and administrators.

*Second*, economic data confirm that greater investment in education is associated with higher lifetime earnings. The two-panel chart on page 8 shows the 2003 mean earnings expressed in 2004 dollars, for various age groups and by gender, based on the Census Bureau's *Current Population Survey* (CPS). For females (first panel) and males (second panel), five levels of education are considered: no high school diploma (< HS); high school diploma (HS); two-year associate's degree (AS); bachelor's degree (BA); and master's degree (MA). The CPS data are reported for age intervals (18-24, 25-29, 30-34,...,65-69); this accounts for the step-like appearance of the earnings profiles. For all degree levels, male earnings tend to exceed

*...economic data confirm that greater investment in education is associated with higher lifetime earnings.*

\*Professor in Residence, University of Connecticut

female earnings. Labor economists have spent much time trying to determine whether this gender-based earnings gap reflects different occupational choices, dissimilar career patterns, or labor-market discrimination.

*Third*, what factors influence personal decisions to “invest” in education? It’s not surprising that age, gender, race, family wealth and other attributes affect decisions to defer labor market entry, remain in school, and spend time and money seeking a higher degree. For example, given the unequal earnings profiles for males and females, the present value of lifetime earnings for a particular degree will be quite different for each gender, possibly influencing educational investment decisions. Based on the earlier profiles, the chart on page 9 shows the present value of average lifetime earnings, by gender, for each level of education. [Note: present values here are calculated using a simple “offset method,” where the real (inflation-adjusted) rate of earnings growth equals the real discount rate, both commonly assumed to be about 2% per year.]

More education clearly boosts the present value of lifetime earnings for both genders, but for each educational level, women tend to have lower lifetime earnings than men. Extracting information from the horizontal bars, the four columns to the right of the chart show, for females and males, the (present value) dollar gains and the

percentage gains from each additional degree. For example, relative to a high-school dropout, a high school degree boosts the present value of female lifetime earnings by \$329,239, or 40.9%, and the present value of male lifetime earnings by \$462,276, or 35.3%. Interestingly, while the absolute payoff to each additional degree is higher for males, the percentage gains are larger for females, except for completion of the bachelor’s degree. Relative to a person of the same gender with an associate’s degree, men who complete a bachelor’s degree enjoy a much larger gain than do women, both in dollar terms (\$913,915 versus \$379,932) and on a percentage basis (42.5% versus 26.3%).

### ENCOURAGING LOCAL INVESTMENT

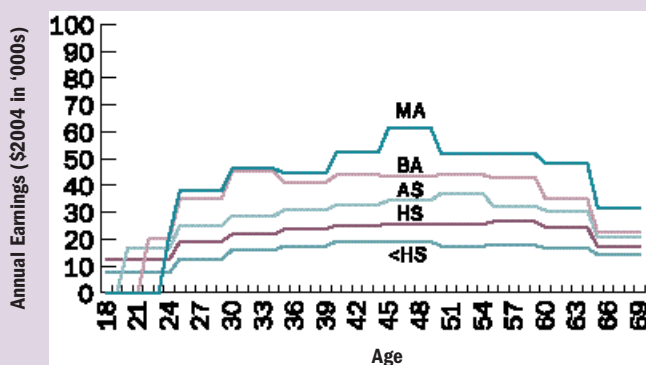
Economists will continue to dissect the unequal returns to education for men and women and for other population subgroups, but it’s clear that payoffs to education—at all degree levels, for both genders—are sizeable. The CPS data used to estimate these figures represent U.S. averages, and are not specific to Connecticut, but there is little reason to believe that the state’s education system offers lower returns to students. So why do so many high school graduates opt to leave, and what does the state need to do to retain them,

encourage their “local” investment in education, and capture their skills for the benefit of Connecticut’s economy?

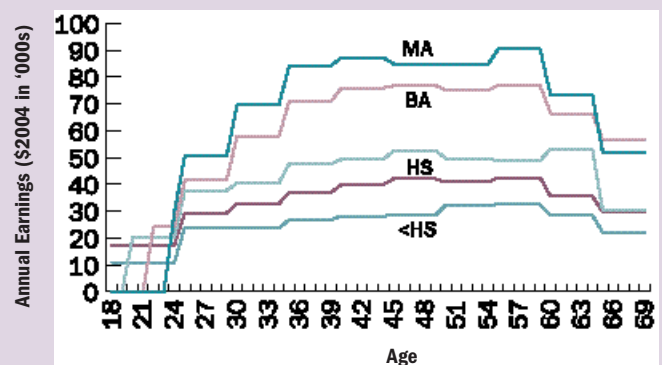
Connecticut has substantially upgraded parts of its public higher education system. “UConn 2000” and “UConn 21st Century” have provided funds to upgrade and expand the physical infrastructure at Storrs, the Health Center, and the regional campuses of the University of Connecticut. Enrollment data suggest that this major facelift (coupled with the visibility of its championship athletic teams and higher standing in collegiate “horseraces” conducted by *U.S. News and World Report* and others) has attracted a larger and more talented applicant pool. Between 1999 and 2004, freshman applications to UConn rose by 56.7% at the Storrs campus, from 11,781 to 18,466, while the entering freshman cohort rose by 9.8%, from 2,956 to 3,245, pushing up the average SAT score of entering freshmen. These high-profile improvements in the state’s public university are critical to encouraging students and their families to invest in education here rather than elsewhere, but they also have longer-term effects, given that many college graduates choose to live and work near their alma mater. But other, less glitzy, strategies are also important.

The charts show that, like 4-year and advanced degrees, 2-year degrees (and even high school diplomas) yield

**FEMALE EARNINGS BY AGE AND DEGREE**



**MALE EARNINGS BY AGE AND DEGREE**



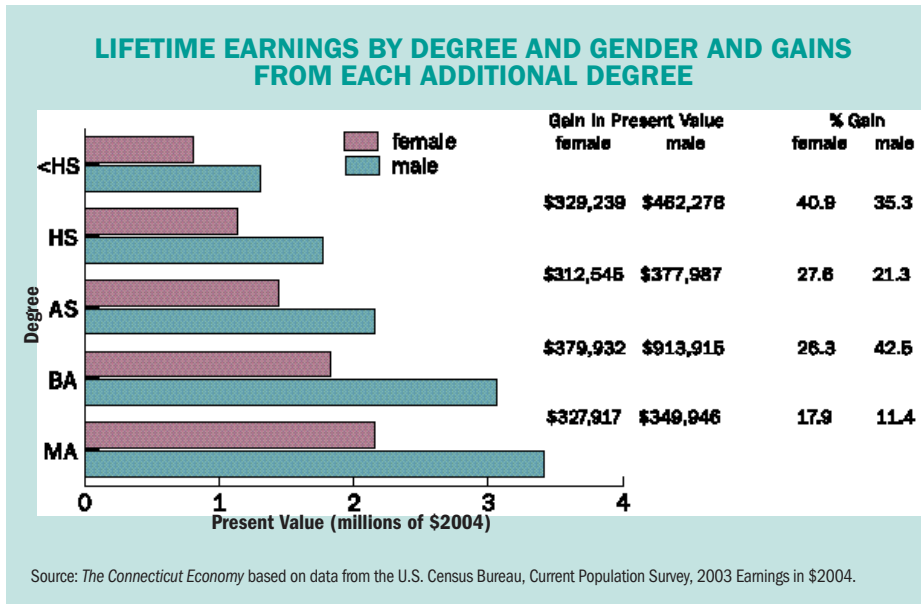
Source: *The Connecticut Economy* based on data from the U.S. Census Bureau, Current Population Survey, 2003 Earnings in \$2004.

significant returns. But keep in mind that these returns accrue to the individual over a lifetime, not instantly. In principle, students should be able to borrow against future gains to finance their studies, but reluctance to incur substantial debt, poor information about the size of potential gains, or access to other earning opportunities may limit personal borrowing and investment in education on the demand-side. In this regard, efforts to better inform high school students about the returns to education relative to other options, or to reduce the financial barriers to further education, are essential.

Policies on the supply-side of the education market also shape the final pattern of investment. As with other investments, diversification plays a critical role. Providing high school graduates with a full range of high-quality choices makes it easier for them stay. A balanced mix of opportunities—healthy two-year programs with a strong vocational orientation, a robust Connecticut State University system that provides a good foundation for direct entry into the workforce or higher degree programs, and a further improved University of Connecticut that serves occupational and professional needs and strengthens research capabilities—makes it more attractive for students and their prospective employers to remain in Connecticut.

### PRIVATE VS. PUBLIC?

Particularly in New England, public education policies are complicated by the presence of strong private schools and colleges—strong in both the academic sense and in terms of political influence. Historically, efforts to improve the quality and scope of public education have often been seen as a source of “unfair competition.” Subsidies to public universities, for example, can make it more difficult for private insti



tutions to maintain higher tuition and fees.

On the other hand, the goal of extending better educational opportunities to students, regardless of economic background, and the presumed social benefits of education (beyond the potential earnings that accrue directly to the student) provide the traditional arguments for public involvement in education. Finding the right balance between public and private education and crafting politically acceptable policies that encourage excellence in both sectors is no simple task, but one that ultimately affects the state’s economic health.

# Winters of Our Discontent:

## TIME TO END STATE BUDGET GIMMICKRY

BY ARTHUR W. WRIGHT

*What the short-term  
fixes mask is a  
long-term structural  
budget deficit.*

**It's winter in Connecticut and therefore the State budget season. Three years on from the Great Cold Bath of 2002-2003, Nutmeggers are still struggling with their state's budget process. Several doses of strong medicine—spending cuts and tax increases—had eased our symptoms and brought a semblance of normalcy to this fiscal year's budget. Indeed, we are on track for a FY 2005 surplus well in excess of \$300 million.**

But our new governor, Republican Jodi Rell, has warned of a FY 2006 deficit of some \$1.2 billion, nearly 10% of current general-fund spending. Even her Democrat pooh-poohers say the deficit will be “only” \$650-700 million in FY 2006 (and, oh, yes, \$850-900 million the next year!). So what gives? Is something wrong with the way the State is claiming and spending The People's money?

What genius came up with the idea of putting the State budget season in February? There's a reason February is the shortest month; and while we're at it, can't we shorten January, too?

We'd been spoiled. The Seven Fat Years of the 1990s made State budgeting less disagreeable, allowing us to enjoy the dead of winter to its fullest. The broad-based income tax adopted in 1991 and the economic boom of the Clinton years put the revenue side of the State budget on an even keel. The main challenge was to resist the temptation to go on a spending spree. Steady habits, reinforced by a spending cap, protected us pretty well against the ordinary vicissitudes of state fiscal policy.

Joan Q. Public may well ask why Connecticut is still struggling to shed its wintry budget sack cloth.

### AN EXTRAORDINARY VICISSITUDE

The seemingly mild national recession that began in winter 2001 hammered state budgets across the country. The major blow came from a wild swing in capital gains realized. According to Economy.com, nationwide household income from capital gains and stock options quintupled in 1996-2000 to \$1 trillion; by 2002, all of that growth had been reversed. Tax-return data show a comparable trajectory in Connecticut. As the nearby table on general-fund revenues shows, the swing (together with the recession itself) took its toll, to the tune of a billion-dollar shortfall in projected total general-fund revenues in FY 2002, and a further \$377 million—from a more modest forecast—the next year.

With the FY 2004 budget, Connecticut finally seemed to be emerging from two long winters of budget discontent. We'd tried everything—tax increases, spending cuts, drawing down State reserves, and adding to State debt. In calendar 2003, the basic personal income tax rate rose 11 percent (from 4.5 to 5.0%), and the property tax credit got a haircut. Painful spending cuts included reductions in State aid to towns and cities, shifting part of the impact onto municipalities. (See the Centerfold on pp. 12-13). Even though Connecticut's Rainy Day Fund was full in 2000, the State burned through it before the painful drop in revenues had run its course. New State borrowing helped ensure that the

Nutmeg State would not have to relinquish pride of place as number 1 in state debt per capita.

### STRUNG OUT ON GIMMICKS

But there was one further discontent—or, rather, a bit of gimmickry that did mitigate the pain during the darkest days of crisis, but since has morphed into an addiction that is masking the root cause of Connecticut’s continuing budget problems. The gimmickry is one-shot budget fixes—surtaxes, spending deferrals, obscure transfers from one fund to another, and the like. What the short-term fixes mask is a long-term structural budget deficit: “normal” or “permanent” revenues (generated by the best tax system that can muster a legislative majority and a governor’s signature) don’t quite cover “normal” or “permanent” spending that State leaders would like to maintain to govern the state—and to get re-

lected. As the state’s Constitution requires a balanced budget, every winter our leaders must scramble around to find money to close the gap.

In the table on general-fund revenues, the one-time fixes show up in “Other Revenues and Other Sources”, which combines two budget categories. Following the steep dive in tax revenues in FY 2002, this combined category jumped nearly \$700 million in FY 2003 to about \$3.8 billion, where it remained into FY 2005. The most variable component, “Net Transfers from Other Funds”, jumped to nearly \$400 million in FY 2003 before dropping back in FY 2004 and FY 2005 to just twice the level of FY 2001.

Perhaps the signature goal of Governor Rell’s first biennial budget is to start to wean Connecticut off its dependence on one-shot budget fixes. The State’s Office of Policy and

Management (OPM) compiled a somewhat tendentious but nonetheless illuminating table of “One Time Revenues in the Budget” for FY 2004 and FY 2005. In 2004, State officials managed to add nearly half a billion dollars to the General Fund to cover a deficit. The stop-gap nature of the fix is all too apparent from this grouped list of the ploys used:

Wait, you say—they add up to *more than* half a billion. That’s because \$125 million of the total was transferred from the FY 2004 “surplus” to the FY 2005 budget, which (as of January 20, 2005) is showing a \$316 million “surplus”—inclusive of the \$125 million plus another \$291 million in stop-gap revenues, or \$416 million. So the “surplus” this year would actually be a deficit of \$100 million without all the hanky-panky.

(continued on page 22)

### GENERAL FUND REVENUES, STATE OF CONNECTICUT (millions of current dollars)

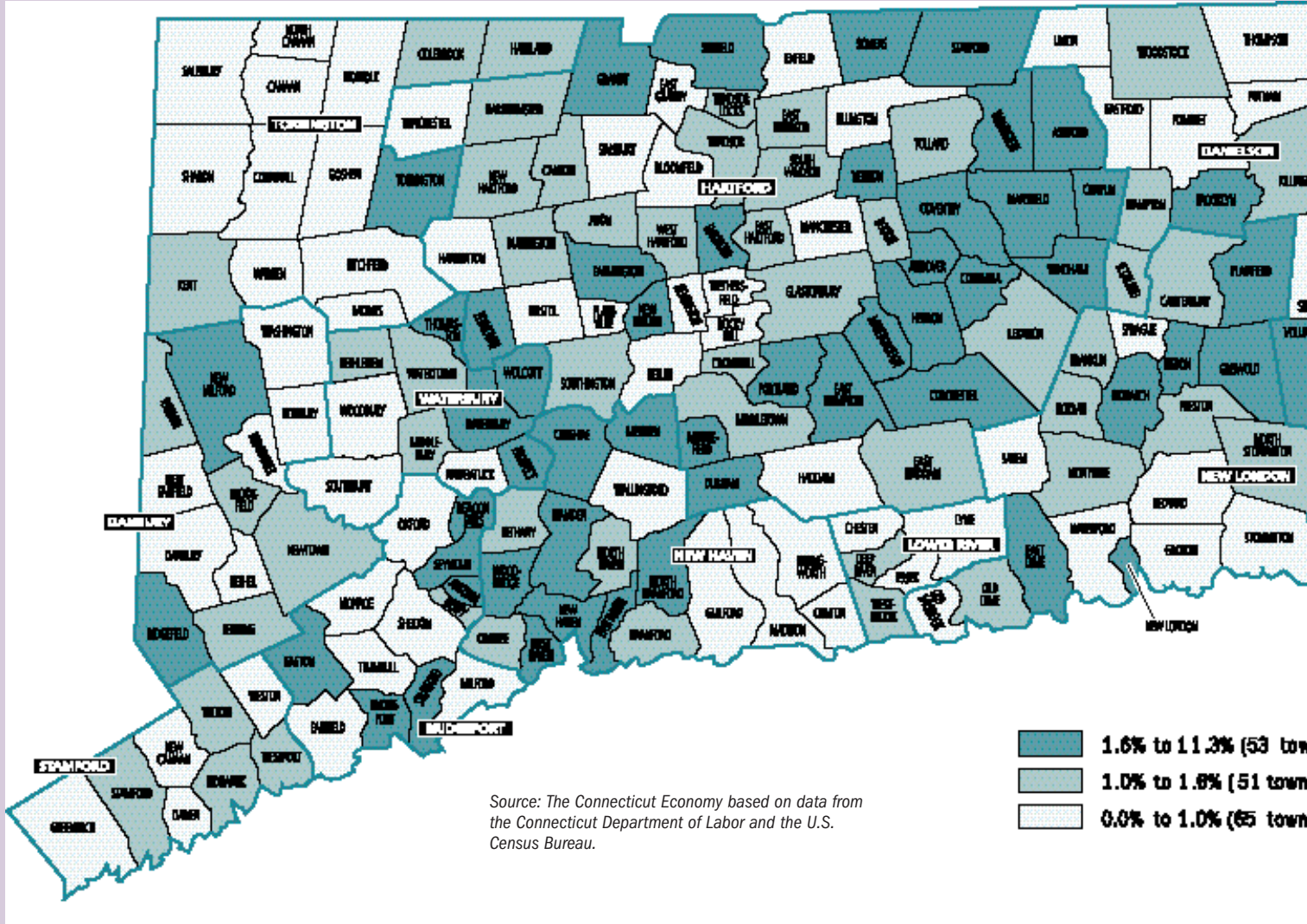
	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
<b>TOTAL:</b>							
ACTUAL OR ESTIMATED:	\$11,985.5	\$10,845.4	\$12,023.3	\$12,972.6	\$13,637.2		
LESS PROJECTED:	\$11,814.1	\$11,858.2	\$12,400.3	\$12,477.0	\$13,028.7	\$14,124.7	\$14,881.0
Difference:	\$171.4	(\$1,012.8)	(\$377.0)	\$495.6	\$610.5		
<b>TAXES LESS REFUNDS:</b>							
ACTUAL OR ESTIMATED:	\$8,707.1	\$7,731.0	\$8,229.8	\$8,182.7	\$8,789.8		
LESS PROJECTED:	\$8,631.3	\$8,689.0	\$9,048.4	\$8,941.1	\$9,329.3	\$10,400.9	\$10,737.9
Difference:	\$75.8	(\$958.0)	(\$818.6)	\$241.6	\$460.3		
<b>OTHER REVENUES* &amp; OTHER SOURCES:</b>							
ACTUAL OR ESTIMATED:	\$3,278.3	\$3,114.5	\$3,793.5	\$3,789.9	\$3,769.9		
LESS PROJECTED:	\$3,282.8	\$3,189.2	\$3,351.9	\$3,535.9	\$3,775.1	\$3,723.8	\$3,943.1
Difference:	(\$4.5)	(\$54.7)	\$441.6	\$254.0	(\$5.2)		
Federal Grants:**	\$2,370.0	\$2,142.3	\$2,318.4	\$2,563.7	\$2,497.2	\$2,586.7	\$2,641.4
Net Transfers from Other Funds:**	\$53.4	(\$27.7)	\$396.5	\$111.6	\$183.1	(\$9.3)	\$134.7

\*“Other Revenues” consists of Transfers-Special Revenue; Indian Gaming Revenue; Licenses, Permits, Fees; Sale of Commodities, Rents, Fines and Escheats; Investment Income; and Miscellaneous less Refunds of Payments.  
\*\*The two components of “Other Sources”. Figures FY 2006 and FY 2007 are estimates.

Source: Governor’s Budget, Fiscal Summary, FY 2001-2006 Version; Item, FY 2003-2006 Version; Item, FY 2004-2007 Version

# THE CENTERFOLD

## Town Debt as a Percent of ENGL, \* 2001-02



	DEBT PER CAPITA 2001	BOND RATING	DEBT TO GRANDLIST
<b>Bridgeport LMA</b>			
Ansonia	2,579	A3	4.2
Beacon Falls	3,624	A3	4.7
Bridgeport	4,585	Baa1	11.3
Derby	879	A3	1.2
Easton	3,967	Aa1	1.7
Fairfield	1,733	Aaa	1.0
Milford	1,046	Aa2	0.8
Monroe	1,119	Aa2	0.8
Oxford	1,101	A1	0.9
Seymour	2,400	A3	2.9
Shelton	740	Aa3	0.6
Stratford	3,570	A1	3.5
Trumbull	1,331	Aa2	0.8

	DEBT PER CAPITA 2001	BOND RATING	DEBT TO GRANDLIST
<b>Danbury LMA</b>			
Bethel	1,326	Aa3	1.0
Bridgewater	699	N/A	0.3
Brookfield	1,560	Aa2	1.0
Danbury	763	Aa2	0.7
New Fairfield	1,312	Aa3	0.9
New Milford	2,609	Aa2	2.4
Newtown	2,268	Aa2	1.5
Redding	2,504	Aa1	1.1
Ridgefield	4,738	Aaa	1.9
Roxbury	907	Aa3	0.3
Sherman	2,077	A1	1.1
Washington	815	Aa3	0.3

	DEBT PER CAPITA 2001	BOND RATING	DEBT TO GRANDLIST
<b>Danielson LMA</b>			
Brooklyn	1,488	A3	2.1
Eastford	180	A3	0.2
Hampton	914	N/A	1.3
Killingly	944	A1	1.3
Pomfret	786	A3	0.9
Putnam	281	A3	0.4
Scotland	1,115	A3	1.5
Sterling	275	N/A	0.4
Thompson	232	A3	0.3
Union	1,052	N/A	0.9
Voluntown	1,134	A3	1.7
Woodstock	1,399	A2	1.6

DEBT PER CAPITA  
2001      BOND RATING      DEBT TO  
GRANDLIST

### Hartford LMA

Andover	2,190	A3	2.9
Ashford	1,945	A2	2.9
Avon	2,060	Aaa	1.2
Barkhamsted	1,295	A2	1.2
Berlin	501	Aa3	0.4
Bloomfield	732	Aa2	0.7
Bolton	1,218	A2	1.3
Bristol	625	Aa3	0.9
Burlington	1,317	A2	1.2
Canton	1,339	A1	1.2
Chaplin	1,166	N/A	1.7
Colchester	1,871	A1	2.6
Columbia	1,879	A1	2.1
Coventry	1,667	A2	2.1
Cromwell	1,116	A1	1.0
Durham	1,890	A1	1.7
East Granby	1,296	A1	1.0
East Haddam	1,109	A1	1.0
East Hampton	1,442	A2	1.7
East Hartford	883	A1	1.3
East Windsor	1,325	A1	1.3
Ellington	737	A2	0.9
Enfield	485	Aa3	0.8
Farmington	3,311	Aa1	2.0
Glastonbury	1,533	Aa1	1.2
Granby	2,431	A1	2.4
Haddam	565	N/A	0.5
Hartford	1,305	A1	2.6
Harwinton	911	A2	0.9
Hebron	3,107	A1	3.6
Lebanon	947	A1	1.2
Manchester	576	Aa2	0.7
Mansfield	1,035	Aa3	2.3
Marlborough	2,079	A1	2.2
Middlefield	2,447	N/A	2.4
Middletown	1,296	Aa3	1.6
New Britain	2,956	A3	7.5
New Hartford	1,591	A2	1.5

DEBT PER CAPITA  
2001      BOND RATING      DEBT TO  
GRANDLIST

Newington	456	Aa3	0.5
Plainville	712	A1	0.8
Plymouth	1,451	A2	2.3
Portland	1,727	A2	2.2
Rocky Hill	1,119	Aa3	0.9
Simsbury	598	Aa1	0.5
Somers	1,824	A1	2.2
South Windsor	1,451	Aa3	1.3
Southington	941	A1	1.0
Stafford	1,490	A3	2.1
Suffield	2,594	Aa3	2.6
Tolland	1,080	A1	1.2
Vernon	1,088	A1	1.6
West Hartford	1,451	Aaa	1.3
Wethersfield	672	Aa3	0.7
Willington	1,369	A2	1.7
Winchester	274	A1	0.4
Windham	1,322	A2	3.3
Windsor	1,577	Aa2	1.4
Windsor Locks	1,613	Aa2	1.3

### Lower River LMA

Chester	835	A2	0.6
Deep River	1,148	Baa1	1.1
Essex	905	Aa3	0.5
Lyme	1,936	N/A	0.8
Westbrook	2,377	A1	1.4

### New Haven LMA

Bethany	1,959	A1	1.6
Branford	1,503	Aa3	1.2
Cheshire	2,956	Aa3	2.5
Clinton	697	A2	0.6
East Haven	2,567	A3	3.5
Guilford	1,413	Aa2	0.9
Hamden	1,351	A1	1.7
Killingworth	491	N/A	0.4
Madison	1,429	Aa1	0.8
Meriden	1,788	Baa1	3.1
New Haven	3,079	A3	6.8
North Branford	2,079	A1	2.4
North Haven	1,627	Aa2	1.1
Orange	1,855	Aa2	1.0
Wallingford	539	Aa1	0.5
West Haven	1,699	A3	2.8
Woodbridge	2,895	Aa1	1.9

### New London LMA

Bozrah	1,383	N/A	1.3
Canterbury	892	A3	1.2
East Lyme	2,701	A1	2.7
Franklin	1,236	A3	1.1
Griswold	1,250	N/A	2.2
Groton	755	Aa3	0.8
Ledyard	384	A1	0.5
Lisbon	1,637	A3	2.0
Montville	1,066	Aa3	1.5
New London	1,003	A1	1.6
North Stonington	1,301	A3	1.1
Norwich	1,252	A1	2.1
Old Lyme	2,307	Aa2	1.1
Old Saybrook	1,473	A2	0.7
Plainfield	1,046	A3	1.7
Preston	1,166	A3	1.4
Salem	699	A3	0.8
Sprague	715	A3	0.9
Stonington	1,439	Aa3	1.0
Waterford	9	N/A	0.0

### Stamford LMA

Darien	2,364	Aaa	0.6
Greenwich	653	Aaa	0.1
New Canaan	3,184	Aaa	0.8
Norwalk	1,657	Aaa	1.2
Stamford	2,261	Aaa	1.1
Weston	1,455	Aaa	0.5
Westport	4,859	Aaa	1.2
Wilton	4,335	Aaa	1.5

### Torrington LMA

Canaan	1,486	N/A	1.0
Colebrook	1,388	A3	1.1
Cornwall	1,295	A1	0.6
Goshen	1,490	A2	0.9
Hartland	1,427	A3	1.6
Kent	3,060	A1	1.4
Litchfield	593	Aa3	0.4
Morris	1,434	N/A	0.9
Norfolk	1,228	A3	0.7
North Canaan	1,047	A3	1.0
Salisbury	955	A1	0.4
Sharon	970	A1	0.5
Torrington	1,693	A1	2.4
Warren	1,147	N/A	0.5

### Waterbury LMA

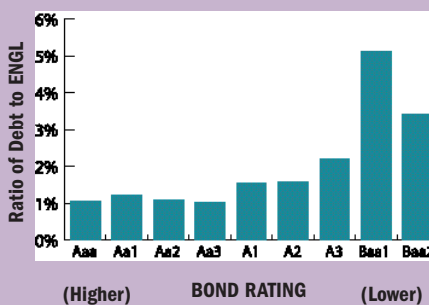
Bethlehem	1,147	N/A	1.0
Middlebury	1,506	A1	1.1
Naugatuck	580	A1	0.9
Prospect	3,610	A3	3.7
Southbury	642	Aa3	0.4
Thomaston	2,386	A2	2.7
Waterbury	1,526	Baa2	3.4
Watertown	1,103	Aa3	1.1
Wolcott	2,758	A3	3.6
Woodbury	1,086	N/A	0.7

169-town Average    \$1,528    N/A    1.5%

### \*ABOUT THE CENTERFOLD

Municipal borrowing varies across towns, from less than one-tenth of a percent (Waterford, with its nuclear power plant) to more than 11 percent (Bridgeport) of equalized net grand list (ENGL, a measure of the market value of property in a town). All else equal, higher debt levels tend to raise the perceived riskiness of a town's financial obligations, thus leading to a lower bond rating and a higher cost of capital. This relationship between debt ratios and bond ratings for Connecticut towns is shown graphically in the accompanying bar chart.

### HIGHER DEBT LOADS DEPRESS A TOWN'S BOND RATING



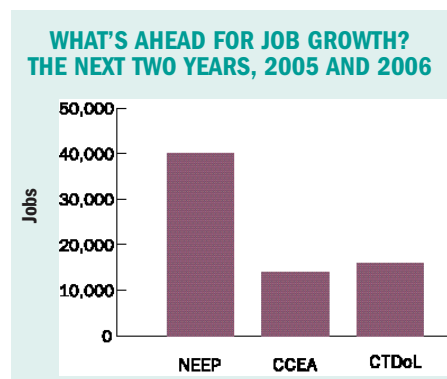
# Why Do Economists' Forecasts Differ?

BY DANIEL W. KENNEDY\*  
AND PETER E. GUNTHER\*\*

News bulletin: Economic forecasts do not always agree. Truth be known, they rarely agree. Jokes like “How many economists does it take to have a debate? Ans.: One” do make it seem as though the dismal science consists of highly trained wonks trying to find ways to disagree with each other.

Yet who does it better? Economic forecasts can be useful, even essential, for sensible, informed decision making, whether in business or in government. How, then, can we tell how much store to set by a given forecast? To answer that question, one has to understand the challenges forecasters face, how they address them—and why their results must, of necessity, differ.

The graph below shows three different, independent forecasts of the number of new jobs that will be created in Connecticut in 2005 and 2006. NEEP (the New England Economic Partnership) is the optimist, forecasting relatively robust growth. The other two groups, CCEA (Connecticut Center for Economic Analysis) and CTDoL (Connecticut Department of Labor), are pessimists, projecting job growth only 35-40% as great as the



NEEP figure. How can three similarly trained, relatively smart sets of analysts, who occasionally talk to each other as colleagues, differ so much in their forecasts?

Forecasting changes in a regional economy, such as a state, is not like a laboratory experiment, in which a scientist is able to exclude, or “control for”, all manner of noisome factors that might warp her results. Rather, the economic forecaster is dealing with a constantly changing social system so intricate that it defies human attempts, even with powerful computers, to comprehend all the underlying interrelationships. Into the bargain, the main driver of most state economies is the national economy, which just magnifies the challenge. Then (as Governor Rell points out on the back page) there's the global economy, which these days is ever more imminent in “open” national economies like the U.S. No wonder economists sometimes attribute their blunders to “bounded rationality”.

In theory, of course, if economic forecasting models were good representations of the actual economy, and if the structure of the economy remained relatively unchanged, then economists' forecasts would all be (a) fairly accurate and (b) pretty much the same. Alas, as Hendry and Clements have noted in a 2001 survey article on forecasting ([www.ecb.int/pub/pdf/scpwps/ecbwp082.pdf](http://www.ecb.int/pub/pdf/scpwps/ecbwp082.pdf)), experience in economic forecasting has demonstrated the poverty of these two assumptions. Why should we be surprised? All econometric models are misspecified, and all economies are constantly subjected to unanticipated shifts.

Enter perhaps the single most important source of differences among economic forecasts: How the forecasters “adjust” their results to incorporate their non-quantifiable knowledge of what makes an economy tick. Near the end of World War II—two decades before computer technology began to allow the manipulation of large masses of data—President Truman wanted to know whether the government should do anything to ward off a return to the Great Depression. So Alvin Hansen of Harvard, an early disciple of Lord Keynes, assembled a cadre of young Ph.D. economists to study the problem. The story goes that the cadre reasoned and fought and calculated for some weeks before bringing their tentative findings to the boss. They sat with bated breath as Hansen hummed and stroked his chin. Finally, based on a hunch that monetary policy would remain “loose” for the foreseeable future, he suggested raising their estimates of total GNP and total job creation, but also of inflation. The boss proved right, and President Truman did not recommend a stimulus package such as a number of members of Congress had been urging.

These days, even with the powerful computers now available, hunches—or (euphemistically) “expert judgment”—are still as important as statistical tools in the forecasting game. A favorite trick is the “intercept correction”, which involves manually adjusting the estimated constant term when using an econometrically fitted model for forecasting. The constant term is (in the colorful phrase of one editor) a “garbage collection” of all the stuff not included in the fitted model, like omit-

ted causal variables (whether through oversight or for want of data), measurement errors in the data used, or changes in economic conditions during the forecast period. Thus, forecasters like to tweak the intercept so that the published forecast reflects their hunches about information missing from the fitted model.

For instance, the CTDOL routinely adjusts the levels for particular industries in its model-based forecasts when companies or agencies announce actual job additions or reductions after the models have been run. Less frequently, CTDOL may base intercept corrections on new macroeconomic data for the U.S. or on anticipated public policy changes. Analysts may use statistical tools like dummy variables to incorporate constant-term effects, but they may also simply modify the forecast based on "expert judgment". One major macroeconomics text, by Abel and Bernanke, reports macro forecasters attributing 20 to 30% of the information in their final forecasts to their educated hunches. Future models, of course, may be altered to reflect the factors that, in a prior forecast, required the insertion of expert judgment into the process of making a precise-seeming quantitative forecast.

The CTDOL jobs forecast discussed above includes three different sorts of tweakings: (1) anticipated policy changes, (2) the stage of the national business cycle, and (3) subjective risk estimates.

(1) The Department's forecast gave extra weight to the likely dampening effects of higher interest rates, lessened fiscal policy stimulus, and weakened business investment incen-

tives in 2005. Those effects seem to imply that Connecticut's improvement in manufacturing employment in 2004 will be short-lived. The result was a downward intercept correction to the model-driven forecast of state employment.

(2) The CTDOL analyst opined that the U.S. economy probably is no longer in the self-sustaining recovery stage of the national business cycle, so that growth will likely slow. The result was to reinforce the downward intercept correction mentioned in point (1) above. In contrast, NEEP forecasters are more upbeat about the current state of the U.S. business cycle.

(3) Economic risks for 2005 that stood out in the mind of the Department analyst were a possible spike in interest rates; a sharp drop in the dollar brought on by foreign investors' concerns about the U.S. "twin deficits" in the Federal budget and the international-trade current-account; consumers reining in their spending, especially if their debt burdens continue to grow; sustained high oil prices and chances of further increases; and the bursting of a housing "bubble," if one exists or develops. Specific to Connecticut are the threat of closing the Groton submarine base, electricity rate increases, and congestion costs, particularly along I-95 and the Merritt Parkway in Fairfield County.

Interestingly, all three jobs forecasts were influenced by these intercept-shift factors, but the weights attached to them differed. Clearly, the optimists at NEEP attached smaller weights generally than did their more pessimistic colleagues at CCEA and CTDOL.

Forecasters may also use "sensitivity analysis" to adjust their forecasts, to test whether the effects of a certain tweak yield results that are beyond the pale of their hunches. The Bayesian Vector Autoregressive (BVAR) model used by CCEA actually facilitates ongoing adjustments, as the forecast period unfolds, in each time series that interacts with other variables in the model. If one is going to use *ad hoc* adjustments, it is helpful if the methodology regularly reminds analysts to test the complex effects of their tweakings.

More frequently than some might think, economists' forecasts are in pretty close agreement. The CCEA and CTDOL forecasts for 2005 and 2006 are within 2,000 jobs of each other. We think the difference would widen to 3,000 jobs if the housing activity underpinning CCEA's forecast returned to the lower levels that prevailed over the last 5 years. Conversely, of course, an even more bullish housing outlook at CCEA could close the gap between the CCEA and CTDOL forecasts.

Similar results from using different models and judgment calls suggest robustness across forecasting approaches. Perhaps that should reassure interested outside observers. But large differences should alert readers to important sensitivities arising from differences in key assumptions. Ladies and gentlemen, start your hard questions.

\*Senior Economist, Connecticut Department of Labor  
\*\*Senior Research Fellow, Connecticut Center for Economic Analysis

# THE WEBSTER UCONN SURVEY

## Nutmeggers of Two Minds about Worker Productivity

*When it comes to productivity theory, Connecticut's residents earn high grades.*

BY JAMES R. MOOR, JR.

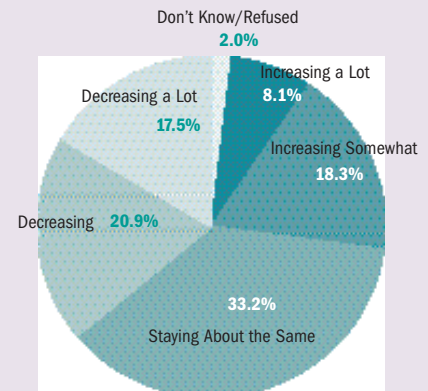
The concept of worker productivity is admittedly one of the more complex in economics. January's *Webster-UConn Survey* asked state residents to evaluate the last three years of American worker productivity and then identify the factors that influence productivity from a menu of possible choices. The results of this two-step exercise proved somewhat contradictory. When it comes to productivity theory, Connecticut's residents earn high

grades, demonstrating an impressive understanding of the likely causes of high and rising productivity in today's world. But, apparently, understanding all the factors that lead to productivity gains and believing they're actually occurring are two very different realities. See what you think ... like the Coffee Talk Lady, I'm verklempt!

### THINKING ABOUT THE LAST THREE YEARS, DO YOU THINK THE PRODUCTIVITY OF AMERICAN WORKERS IS INCREASING, DECREASING, OR STAYING ABOUT THE SAME?

First, January's *Webster-UConn Survey* asked respondents to answer the above question and then to qualify any change as either "a lot" or "somewhat." The pie chart details their responses. Fully three-fourths of respondents do not think worker productivity in America is increasing at all. A tiny minority – only 8% – believe productivity is "increasing a lot." As the line graph clearly demonstrates, however, worker productivity in the U.S. has undergone an unprecedented surge since the mid-1990s-recession or not.

The three-year moving average of annual productivity growth culminated in a fifty-year high of 4.1% in 2004. In other words, over the last three years American workers have made record-setting productivity gains. It's hard to believe that most Nutmeggers are not observing this phenomenon at work or learning about it through the media. Complexities aside, the preponderance of economists, business analysts, and government statisticians can't all be wrong. Nutmeggers, usually quite savvy about business and economic conditions, apparently fail to appreciate the pivotal role that high and rising American productivity is playing in today's increasingly competitive and global business environment.

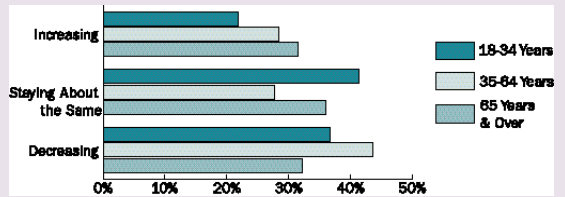


## DO OPINIONS ON THE PRODUCTIVITY TREND DIFFER AMONG THE DEMOGRAPHIC GROUPS THAT COMPRISE CONNECTICUT?

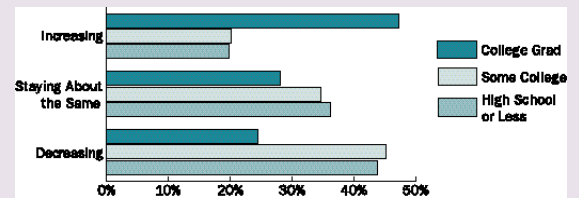
The bar charts in this panel show some of the statistically significant variations in response patterns to this lead question across the state's various demographic groups. For ease of understanding, each chart combines the two separate "increasing" or "decreasing" answers into one bar and excludes respondents who said "don't know" or refused to answer. First, since economics is, by and large, a college subject, it is encouraging that college graduates have the largest share of respondents who said that productivity is increasing—47%, compared with just 27% for the state as a whole.

Well, almost half the class got the direction right at least. Outperforming younger residents were respondents age 65 years and older (32% said "increasing"), although seniors also had the highest share of respondents saying they didn't know the answer. Residents living in the western third of the state were significantly more astute than those from other regions, while those in Hartford and Middlesex Counties had the largest share (50%) of respondents who thought productivity had decreased over the last three years. Other than that, most other respondents were within a stone's throw of the state average. All in all, it was a rather lame performance, so let's move on quickly to some much more stellar results.

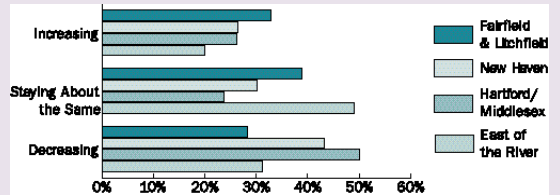
### Response Pattern by Region



### Response Pattern by Educational Attainment



### Response Pattern by Age Group



## DEGREE OF INFLUENCE ON WORKER PRODUCTIVITY

The *Webster-UConn Survey* then asked respondents to assess the relative importance of various factors influencing productivity as either "extremely strong, very strong, somewhat strong, not so strong, or no impact at all." The ten factors were offered in random order, each stated in a manner which would tend to enhance productivity. The chart details state resident's response patterns, excluding those who "refused" to answer or "didn't know." The purple portion of each bar combines the "extremely" and "very" strong responses, while green combines "somewhat" and "not too" strong.

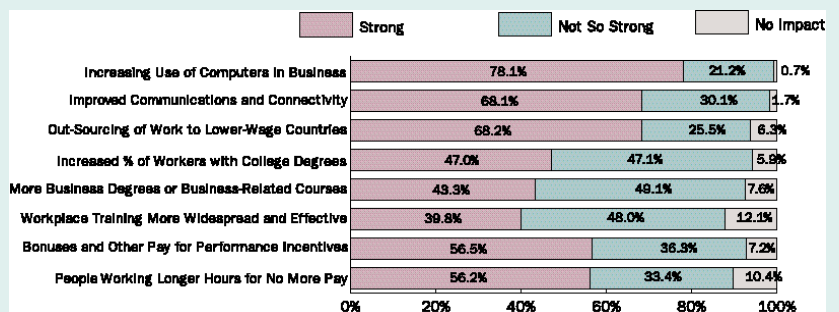
The first two factors garnered the strongest overall response, confirming that Nutmeggers understand well the key role that productivity-enhancing tools play in boosting output per worker, particularly computers. Equally strong is the third factor depicted—the trend toward outsourcing work to lower-wage countries. This factor is the only productivity enhancer that is external to the domestic labor market. That it garnered the highest "extremely strong" response (42%) is testimony to Nutmegger's degree of sophistication about this line of questioning and probably to the high visibility that outsourcing has as a political and business issue as well.

Factors 4 through 6 are different aspects of education and training, all of which can serve to improve the quality of human capital and thus worker productivity. The response patterns to

these choices are remarkably similar, with a plurality of state residents saying "not so strong" in each case, which makes a lot of sense, given that the connection to productivity gains is indirect.

Finally, factors 7 and 8 represent two distinct aspects of worker motivation, which a clear majority of state residents believes also exerts a strong influence on productivity. Bonuses and other pay-for-performance incentives more closely tie worker compensation to desired work outcomes. Such arrangements have proliferated over the last two decades and Nutmeggers obviously think they are making a difference. Moreover, respondents assert that labor nowadays is simply choosing to work longer hours, regardless of compensation. Seemingly selfless, in reality, this tendency is probably more of a

defense mechanism than altruism – the result of a high degree of competition for jobs and the proliferation of increasingly mobile tools that make working today a virtual 24/7 endeavor. Taken together, these eight factors thoroughly cover the potential sources for productivity gains, and respondents seem to give each one an appropriate amount of credit. Well done Connecticut ... this economics professor gives Nutmeggers an A!



# LABOR MARKET ACTIVITY INDEX

## Most Areas Post Strong LMI Gains

Labor market performance improved in four of the seven major areas of the state, according to our labor market activity index (LMI). Danbury led the areas in LMI growth, thanks to improvements in every component of indexed activity except for real hourly earnings. New Haven remained the dawdler of the group, as every index component save unemployment looked worse in Q4 than at the same time the year before.

The number of jobless dropped below the previous year's level in all labor markets, and average weekly manufacturing hours were up everywhere but in last place

New Haven. Overall, changes in the labor force and in real earnings had little impact on the regional LMIs.

Only Danbury, Stamford, and New London showed any four-quarter growth in payrolls and only the first two posted any seasonally-adjusted job growth between Q3 and Q4. But 2005 holds promise for improvement. Job losses should end in Bridgeport and New Haven. Gains should return in New London and Waterbury, and growth should continue in Danbury and Stamford. Only Hartford seems destined to be mired in continued job losses over the course of the year.

*The LMI measures the four-quarter change in a composite index of labor activity in every major labor market of the state. The index includes five variables: the labor force, jobs, the number unemployed, weekly manufacturing hours, and real hourly earnings in manufacturing. (Due to data limitations, Stamford's index excludes the last two variables). The bar graphs show the recent percentage changes in the LMI. All figures discussed in the text are four-quarter changes unless otherwise indicated.*



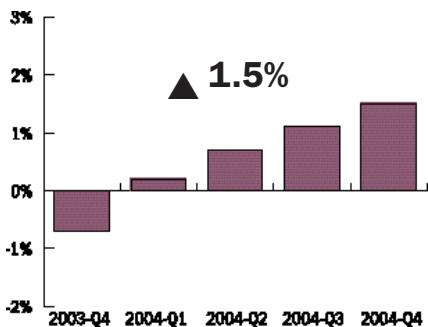
### BRIDGEPORT

**Bridgeport's LMI abruptly reversed course** after three consecutive quarters of growing advances.

**A shrinking labor force** eased the unemployment situation despite a continued reduction in job totals; earnings and hours held steady.

**Manufacturing payroll cuts** accounted for the net four-quarter decrease in jobs; gains in finance, education & health and leisure offset losses in other service sectors.

**The seasonally-adjusted job total slipped** by several hundred in Q4 and will likely fall further in the first few quarters of 2005 before stabilizing in the second half.



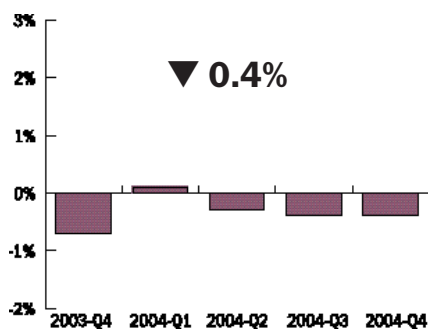
### DANBURY

**Momentum continued to build** in Danbury, thanks to an invigorated job market and a growing labor pool.

**A longer workweek** offset some slippage in real hourly manufacturing pay, and unemployment sank to a three-year low.

**Manufacturing jobs remained well below** year ago levels, but strong gains in trade, education & health, and government lifted payrolls past last year's total.

**Danbury added 300 seasonally-adjusted jobs** in Q4, and should see continued gains throughout the year, though at a slightly slower pace.



### HARTFORD

**Hartford's LMI again fell** as the layoffs continued and ready workers exited the labor force.

**But for those who remained on the job**, weekly hours in manufacturing were longer, and price-adjusted hourly earnings were higher than a year ago.

**Though the goods-producing sectors** accounted for most of the four-quarter drop in payrolls, the services weren't immune, particularly retailing and financial services.

**Hartford lost nearly 1,000 seasonally adjusted jobs** in Q4, and nearly 8,000 jobs in 2004. Unfortunately, 2005 looks to bring more of the same.

## NEW HAVEN

**New Haven's unemployment situation** may have shone brighter, but all other indicators of labor market activity looked worse than the year before.

**A plunge in real hourly manufacturing pay** accounted for half the decline in the index, with the balance owing to reductions in the labor force and jobs.

**Manufacturing payrolls were up** a bit from last year but key service sectors—particularly education, government and business services—suffered setbacks.

**New Haven's job losses slowed** to a seasonally-adjusted trickle in Q4, but this labor market area will struggle to add back jobs throughout 2005.



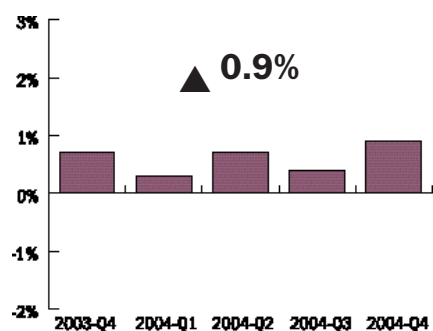
## NEW LONDON

**A healthy jump in manufacturing hours** gave New London's LMI a boost, though the effect was blunted a bit by a reduction in real hourly earnings.

**Reinforcing the area's LMI growth** this period, the labor force inched upward and the number unemployed crept down.

**Payrolls ended 2004 higher** than the year before, with construction and manufacturing joining trade, transportation & utilities, and education & health in posting advances.

**Though this labor market area failed** to record any seasonally-adjusted job gains in Q4, that shouldn't stop modest growth from returning again this year.



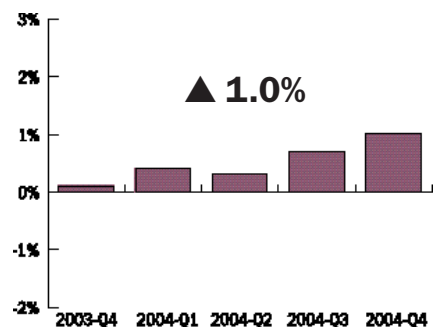
## STAMFORD

**Stamford's momentum continues to build**, with all three components—jobs, labor force, and unemployment—contributing to the achievement.

**But a 25% year-over-year reduction** in the number of jobless provided most of the impetus behind the quarter's LMI growth.

**Led by gains** in health, leisure, finance, and retailing, Stamford's Q4 payrolls climbed 0.6% compared with the same period the year before.

**Stamford enjoyed a seasonally-adjusted gush** of 800 jobs in Q4, and 2005 promises more of the same, though the surges may not be quite so large.



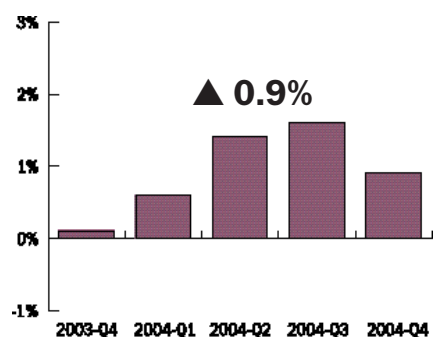
## WATERBURY

**Though Waterbury's LMI posted** its sixth consecutive quarterly gain, the area's momentum slowed a bit in Q4.

**Why the deceleration?** Jobs and average weekly hours had shown strong four quarter growth in Q3, but in Q4 employment was down and hours were flat.

**In the goods producing industries**, payrolls continued to climb above year-ago levels, but jobs in business, education, and government fell well short of their numbers from last year.

**Seasonally-adjusted job totals** took another 500-post hit in Q4 and may do so again in Q1 before jobs begin to creep back into the Waterbury area later in 2005.



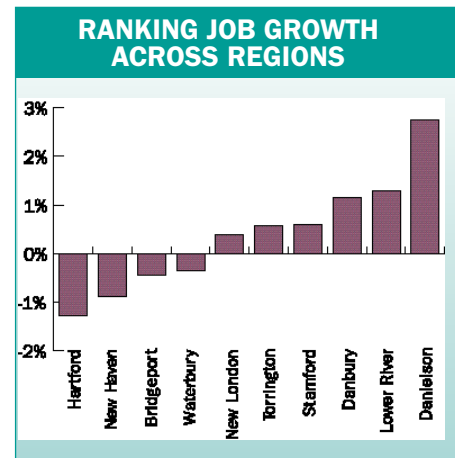
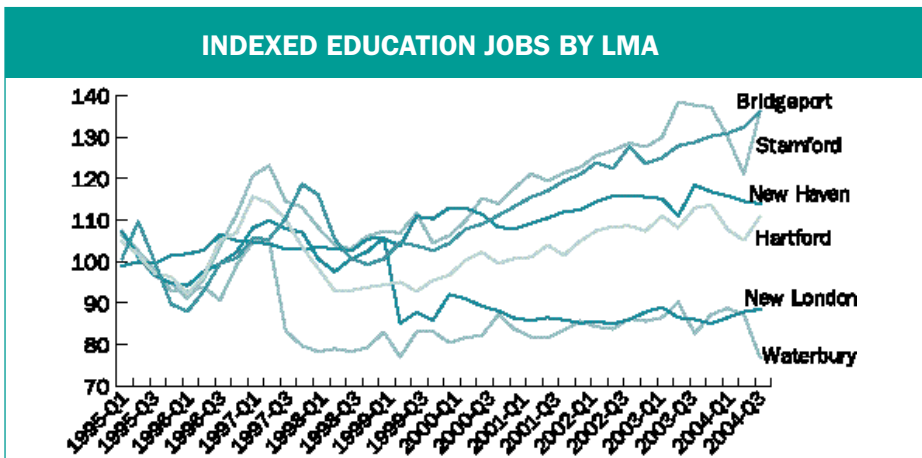
# LABOR MARKET DATA

*Fourth quarter unemployment rates remained below year-ago figures in all but one labor market area.*

Labor Market Area	LABOR FORCE		NONFARM JOBS		UNEMPLOYMENT RATE (%)	
	2004-Q4 (000)	% Change Year Ago	2004-Q4 (000)	% Change Year Ago	2004 Q4	2003 Q4
Bridgeport	227.5	-0.7	184.9	-0.4	4.8	6.1
Danbury	119.1	1.7	91.2	1.1	2.7	3.4
Danielson	33.6	-6.9	22.3	2.8	4.3	5.2
Hartford	600.0	-0.9	591.2	-1.3	4.5	5.3
Lower River	13.8	3.5	10.4	1.3	2.4	3.0
New Haven-Meriden	286.7	-1.0	256.5	-0.9	4.2	4.9
New London-Norwich	167.7	0.1	146.2	0.4	3.6	4.4
Stamford	193.9	0.4	198.5	0.6	2.5	3.2
Torrington	34.4	-14.1	29.0	0.6	4.2	4.0
Waterbury	117.3	-0.6	82.8	-0.4	5.5	6.7
<b>Statewide</b>	<b>1,785.1</b>	<b>-0.3</b>	<b>1,662.4</b>	<b>0.4</b>	<b>4.1</b>	<b>5.0</b>

*Statewide manufacturing jobs were up slightly from last year's total, but hourly earnings rose 4.5%.*

Labor Market Area	MANUFACTURING JOBS		MANUFACTURING WEEKLY HOURS		MANUFACTURING HOURLY EARNINGS	
	2004-Q4	% Change Year Ago	2004-Q4 (000)	% Change Year Ago	2004 Q4	% Change Year Ago
Bridgeport	28.1	-2.9	40.9	0.1	\$20.16	3.8
Danbury	11.4	-7.5	42.2	4.3	16.59	-1.6
Danielson	-	-	-	-	-	-
Hartford	68.0	-5.6	43.6	2.3	20.21	5.5
Lower River	-	-	-	-	-	-
New Haven-Meriden	30.5	0.5	41.9	-0.2	14.88	-6.9
New London-Norwich	19.3	0.3	43.1	2.1	18.55	2.2
Stamford	9.8	-6.1	-	-	-	-
Torrington	3.6	-1.8	-	-	-	-
Waterbury	13.2	2.6	39.3	0.3	20.16	13.0
<b>Statewide</b>	<b>197.0</b>	<b>0.1</b>	<b>42.1</b>	<b>-0.2</b>	<b>18.78</b>	<b>4.5</b>



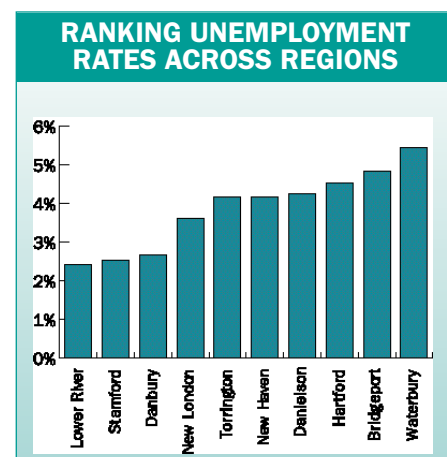
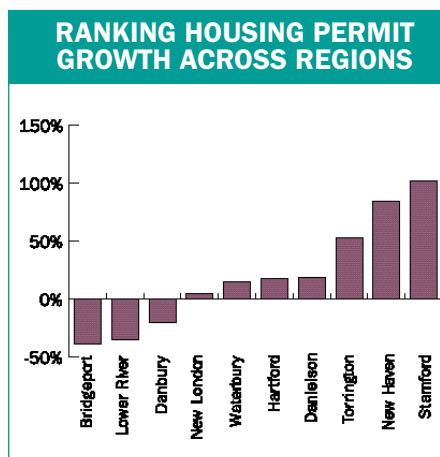
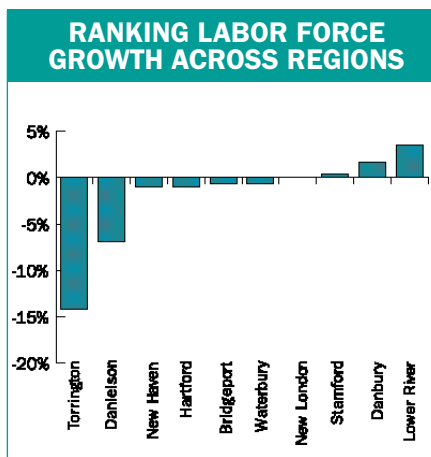
Labor Market Area	HOUSING PERMITS		HOUSING PRICES		EDUCATION & HEALTH JOBS	
	2004-Q4 (000)	% Change Year Ago	2004-Q4 (000)	% Change Year Ago	2004-Q4 Q1	% Change Year Ago
Bridgeport	251	-38.9	366.6	11.8	34.0	2.3
Danbury	171	-19.7	460.1	13.8	14.2	5.7
Danielson	113	18.9	146.5	3.9	-	-
Hartford	1,209	17.6	225.2	10.5	89.4	0.3
Lower River	13	-35.0	-	-	-	-
New Haven-Meriden	485	84.4	263.2	10.9	60.3	-1.3
New London-Norwich	346	5.2	237.3	10.6	19.5	1.9
Stamford	318	102.5	808.7	15.4	23.7	3.8
Torrington	98	53.1	155.7	1.4	-	-
Waterbury	157	15.4	192.3	7.8	15.0	-0.4
<b>Statewide</b>	<b>3,161.0</b>	<b>-16.4</b>	<b>374.1</b>	<b>11.6</b>	<b>270.6</b>	<b>1.0</b>

*Double-digit inflation in housing prices prevailed in most market areas, but permit activity for the state was down more than 16%.*

Labor Market Area	BUSINESS SERVICE* JOBS		FINANCIAL ACTIVITIES JOBS		INFORMATION JOBS	
	2004-Q4 (000)	% Change Year Ago	2004-Q4 (000)	% Change Year Ago	2004-Q4 Q1	% Change Year Ago
Bridgeport	18.8	-5.0	14.3	3.4	4.0	-4.0
Danbury	9.5	-6.0	4.3	1.6	2.5	-7.4
Danielson	-	-	-	-	-	-
Hartford	61.8	1.5	70.0	-2.9	11.2	6.4
Lower River	-	-	-	-	-	-
New Haven-Meriden	25.2	-3.5	14.0	1.0	9.5	3.6
New London-Norwich	10.6	0.0	3.8	0.0	2.4	1.4
Stamford	43.6	-3.6	28.0	2.3	6.4	-1.0
Torrington	-	-	-	-	-	-
Waterbury	8.4	-3.8	3.6	2.9	1.3	0.0
<b>Statewide</b>	<b>194.9</b>	<b>-0.7</b>	<b>142.7</b>	<b>-0.5</b>	<b>38.6</b>	<b>-0.6</b>

*2004-Q4 brought statewide gains in health and education jobs, but other service sector jobs waned.*

\*Includes Professional Jobs



How big is what we may call the State's structural budget deficit? The real deficit in FY 2004 (excluding the \$125 million transferred to this fiscal year) was at least 2.5 percent of the revenues in the "Estimated Final Budget" as determined on July 20, 2004. For FY 2005, the real deficit (inclusive of that \$125 million transfer) is more than 3 percent of total

estimates total more than \$1.5 billion over the biennium. If Governor Rell's more pessimistic numbers obtain, a permanent structural deficit approaching 10 percent of General Fund revenue would not be out of the question, unless her proposed changes, or their numerical equivalent, are adopted.

**A GOOD FIRST STEP TOWARD REFORM**

Governor Rell has chosen not only to make an issue of the structural deficit, but also to propose some hard choices, especially spending cuts, to begin to do something about it. (Close readers of my general-fund revenue table will note that her FY 2007 budget still has \$135 million of gimmickry in "Net Transfers from Other Funds".) Proposed spending cuts, relative to the "current-services" budget (maintaining existing authorized State activities), total \$564 million for FY 2006 and some \$750 million for FY 2007. The FY 2006 cuts amount to about one-half of the projected \$1.2 billion "current-services" deficit.

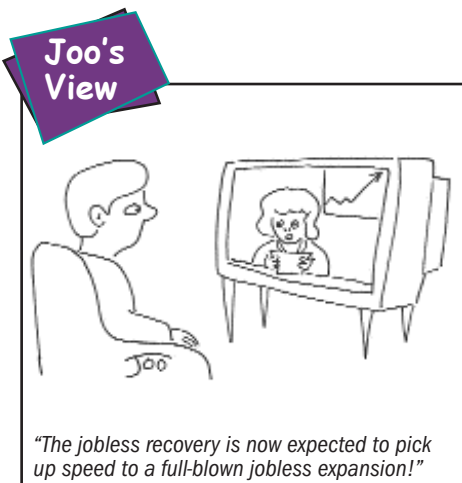
In this light, the *Hartford Courant's* editorial characterization of the Governor's budget (February 11, 2005) as "timid" strikes this observer as overly harsh.

<i>Surcharges on the corporation tax:</i>	<i>\$75 million</i>
<i>Extensions and deferrals of spending or tax-relief items:</i>	<i>\$21 million</i>
<i>Use of specific Federal funds:</i>	<i>\$250 million</i>
<i>Transfers from off-budget agencies or trust funds:</i>	<i>\$55 million</i>
<i>"Securitizations" of future revenue streams:</i>	<i>\$169 million</i>
<b><u>Other1</u></b>	<b><u>\$25 million</u></b>
<i>Total:</i>	<i>\$595 million</i>

General Fund revenue, per OPM's estimates as of December 31, 2004.

In this, our sixth year of what the Governor's Budget document calls "difficult budget climates" (it's winter, remember?), how much longer can Connecticut pretend to observe its Constitution by balancing the budget with gimmickry? Eventually, won't all of the peas under the walnut shells be claimed?

Consider: Even if someone could conjure up another \$886 million in one-time fixes—the sum of OPM's list of one-time revenues for FY 2004 and FY 2005—for the coming budget biennium, the two yearly budgets would still not be in balance. Even the Democrats' more optimistic deficit



# CCEA FORECAST

## A Ho-hum Employment Forecast, but What About Manufacturing?

BY PETER E. GUNTHER

The latest income data mean a more upbeat growth forecast in this issue than in the Fall 2004 issue. We now project that Real Gross State Product (RGSP) will grow by 2.9 percent per year through 2006-Q4. Historically, Connecticut's growth has marginally trailed that of national GDP, which (constrained by high energy prices) is expected to grow at only 3.1 percent annually. (Not yet incorporated in the model is the huge Microsoft dividend payout in January 2005, which will give the economy a further short-term boost, though its effects will be transitory).

The higher RGSP growth, along with continued strength in housing permits, will push Connecticut's seasonally adjusted employment growth a bit higher, to 0.75% per year compared with 0.50% last time.

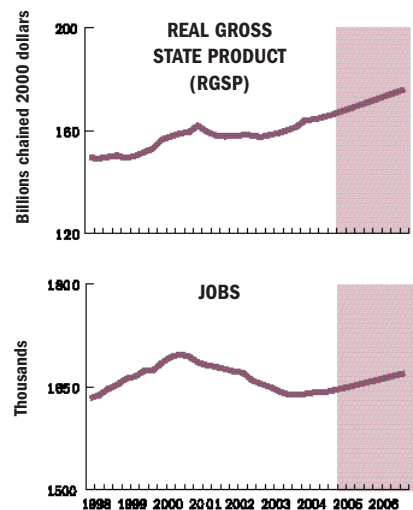
How will that growth vary across the different sectors of the state's economy? Judiciously tweaking our aggregate results (see my article with Dan

Kennedy on macroeconometric modeling on p. 14 of this issue), we can get some consistent projections of employment by sector—that is, the sectoral projections add up to the aggregate figure.

None of the sectoral forecasts is spectacular—employment in Finance, Insurance and Real Estate (FIRE)—looks basically flat—but some are a lot better than others. Health and Education leads the pack at 2.5% growth over the forecast period. Trailing close behind are Government (+2.0%); Professional and Business Services (+1.9%); and Construction (+1.6%). Those sectors, along with Leisure and Hospitality (+1.4%), Retail (+1.2%), and Other Services (+1.1%), account for better than 70% of Connecticut's forecasted total employment in 2006-Q4.

On the negative side of the ledger, Manufacturing will continue to be hard hit, with employment in durables sliding by 5.0% a year and non-durables by 2.8%. This intermediate-

term outlook, which is consistent with the Connecticut Department of Labor forecast (see page 14 in this issue), is seemingly at odds with the recent record: three straight quarters of job gains in manufacturing, with current employment exceeding that of 4 quarters ago. If ever a forecaster wanted to be wrong, this is the time.



Predicted values for RGSP and jobs are in the shaded areas.

### THE CONNECTICUT TRAVEL AND TOURISM INDEX



The overall index increased 3.4% in 2004-Q4 compared with the same quarter the year before. The index consists of hotel-motel revenues, slot machine revenues, attendance at six major tourist attractions, and traffic on five tourist roads.

Hotel/Motel Rev.	▲	9.6%
Slot Machine Rev.	▲	3.6%
Attendance	▼	2.7%
Traffic	▲	3.0%
<b>Overall</b>	<b>▲</b>	<b>3.4%</b>

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# A FORWARD LOOK

## Recovering State Economy Presents Opportunities

BY GOVERNOR M. JODI RELL

When it comes to building our state's economy, we now compete not just with other states but with other nations. This is the reality of today's complex world of high technology and the global economy.

To meet this challenge and fulfill our responsibility to create well-paying jobs for all of our citizens, we must make certain Connecticut's basic economic foundation is strong.

We must maintain our attractive quality of life while keeping taxes in check. We must offer a positive and welcoming regulatory environment. And, we must also have an active and aggressive marketing strategy that encourages existing businesses to expand in our state and attracts new companies here.

It is also critical, however, to understand the broader and longer-term challenges facing our economy. We must address the trends and developments that are shaping our future.

This fall, I received a report from the state's Office for Workforce Competitiveness that sounded some alarm bells. The report says that we face a clash

between economics and demographics. This clash is developing because we are not generating the kind of workers needed to fill the types of jobs that are likely to be created here.

*To quote the report:*

"The major challenge to economic growth and quality of life in Connecticut is the mismatch between the skill needs of the state's employers and the size and skills of the available talent pool."

The report documents the potential for job growth in key fields such as information technology, nursing, teaching, engineering and manufacturing.

But the report says we may not be able to fill those jobs because of an aging workforce and slow population growth, and because many of our young people, who will make up the work force of the future, are not getting the education they need, particularly in mathematics and communication skills.

I have taken several steps to address this issue.

Through an Executive Order, I expanded the membership of the Governor's Jobs Cabinet, the body of state officials charged with developing our eco-

nomie growth and job strategies. As a result, the leaders of our state colleges and universities are now in the Cabinet, working closely with key agencies traditionally involved in this arena, such as the Department of Economic Development and the Department of Labor. I have also expanded the authority of the Jobs Cabinet to deal directly with the looming shortage of workers in the key growth areas.

At the end of January, I also held a Governor's Jobs Summit. At the summit, experts from around the nation explored major issues concerning economic development and job creation. With information and insights from the summit, I am working with the Jobs Cabinet to develop recommendations for action that will move our state forward.

Jobs in the 21st century will be grown, not merely filled, and the companies that create them must be nurtured, not merely attracted to Connecticut. Yankee ingenuity has sparked our success for 300 years. Our challenge now is to turn that ingenuity toward building a dynamic, vibrant 21st century economy for our state.

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