

Connecticut's Competitive Challenge

State
of the
Workforce
2006


**Workforce
Alliance**

Structural Change In The Economy Creates New Realities For The Workforce

Connecticut's employment situation is undergoing tremendous structural change, while the region's and the state's workforce has been stagnant for 15 years. With little population growth, and major transitions in the demographic makeup of the workforce, Connecticut is second to last nationally in job creation. The State of the Workforce 2006 covers the elements of structural change, and looks at some of the obstacles to Connecticut's employment growth.

The jobs being created are also very different than what the Land of Steady Habits has been used to. The consumer economy has pushed more and more people into service occupations. Trends predicted by the CT Department of Labor call for more of the same over the next few years. Fortunately, we still have strong innovators, entrepreneurs in next generation industries who have the capacity to create new products and markets, and to hire better-educated, higher-earning employees.

Over the past few years, Workforce Alliance has published the statistical evidence of workforce challenges, including immigration, illiteracy, youth detachment from the workforce, the out-migration of 200,000 young people from the state in a ten-year period, and the disappearance of thousands of middle-aged men from the labor pool. Add to this the rapid obsolescence of skill sets in a high tech world and the disappearance of factory jobs and it is obvious that Connecticut faces daunting competitive challenges.

At the end of this report, we offer 5 ways to effect a workforce turnaround. Last year we suggested ways of lowering the high school dropout rate, increasing the literacy of ex-offenders, and improving Connecticut's use of higher education to move people out of poverty. This year we add two more concepts: fund additional training for existing workers to upgrade their skills, and find cutting edge ways to increase the supply of affordable workforce housing in the state.

Ideas are only as valuable as they are successfully implemented. The concepts in this report are built upon existing programs and have the potential to prepare our workforce for jobs that haven't even been thought of today. Lifelong learning and a commitment to change and self-improvement are the hallmarks of the 21st Century worker.

*Joseph Mirra, Chairman
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The Workforce Struggles to Adapt to Structural Economic Change

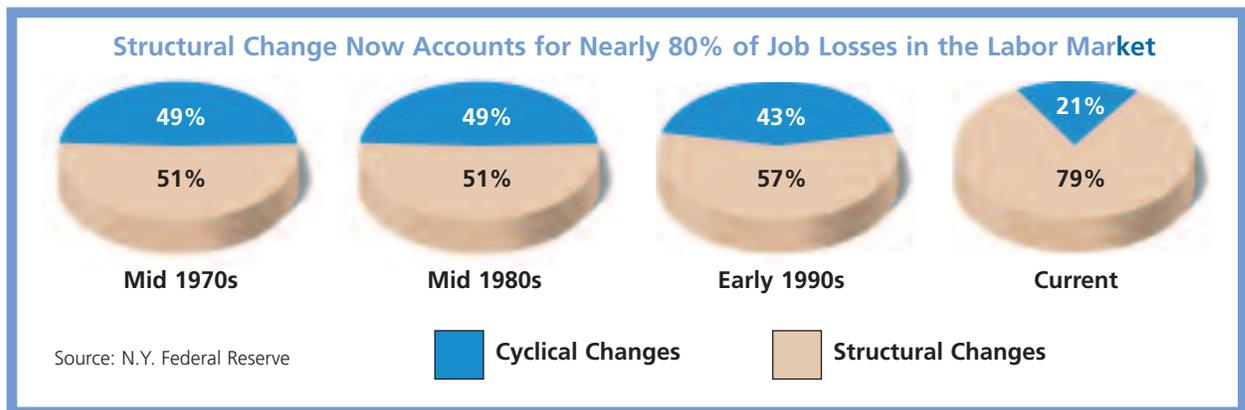
Change in the economy is a fact of life, and also the engine for innovation and entrepreneurial enterprise. We have weathered the trauma of great technological change, changes in the makeup of our industries, obsolescence of workforce skills, and the recent changes in the way businesses operate in a global environment. The economic landscape is dynamic and seldom looks backward. The new realities of economic activity have a life of their own.

Workforce development must recognize these dynamics in the marketplace and plan accordingly. The American labor market is in the throes of unparalleled structural change. In addition to the well-known out-migration of manufacturing, globalization has:

- Created a whole new supply of less expensive white collar labor
- Generated new employment opportunities due to the proliferation of internet-based economic activity
- Forever altered the role of human capital in the economy through new technologies

Structural change is first and foremost the predominance of permanent job losses over temporary layoffs. In the past, we could anticipate cycles of temporary layoffs and plan for them. Today, we are faced with the total obsolescence of whole fields of work, and the downsizing of industries which have replaced people with technology. These are jobs that won't come back.

A 2003 New York Federal Reserve Report shows that 80% of the changes in today's labor market are structural in nature, up from 50% which was the norm from the 1970s-1990s. Structural change within the domestic labor market has resulted in permanent shifts in the distribution of workers throughout the economy.

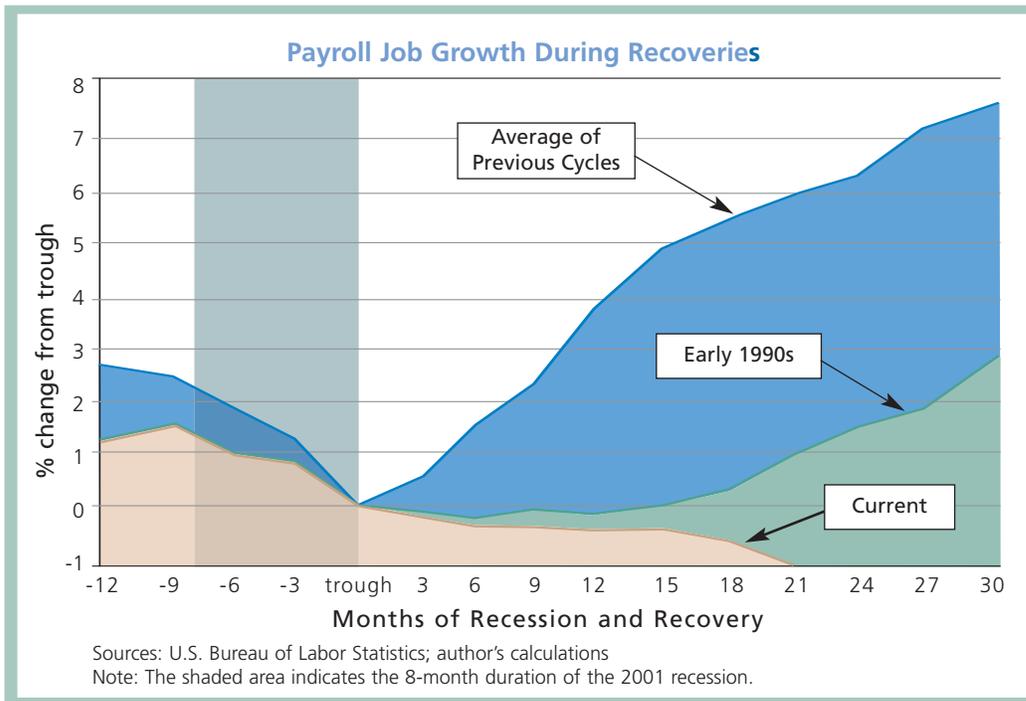


New Jobs, Less Pay

A second major element of structural change is the relocation of jobs from one sector to another. The sluggish nature of Connecticut's economy in the recent recovery – we still have not replaced all the jobs lost in 2000-2001 – indicates a disturbing trend. Most of the new jobs being added are entirely new

positions in different firms and industries, not rehires. This changes the pace of job creation: new job development takes longer than recalling workers to existing jobs, and has a greater element of risk for employees in this uncertain economic environment.

Job losses that result from structural change are not only wrenching, they frequently result in employees taking their next jobs at much lower wages than the workers' previous employment.



Employment Trends – Demand for Labor

The composition of the regional workforce is changing with the economy. Fortunately, a number of the region's greatest strengths are in sectors that generate enough income to be considered net "wealth creators". Primary drivers of the economy (those industries with significant depth in employment and facilities in the area) include seven sectors with a major presence in the South Central CT region. It is notable that manufacturing continues to be the single best wealth creating industry, responsible for 15% of our wealth creation, leading the professionals (13.6%) and health care (12.2%) categories.

"70% of wealth creation is related to human capital."

Ed Barlow, Creating the Future

Despite the presence of these primary driver industries, the region and the state have consistently underperformed in job creation. From 1992 to 2004, total job growth in the New Haven Labor Market Area was 5.8%, while the state grew 8.2% and the national job growth rate was 20.7%. Within

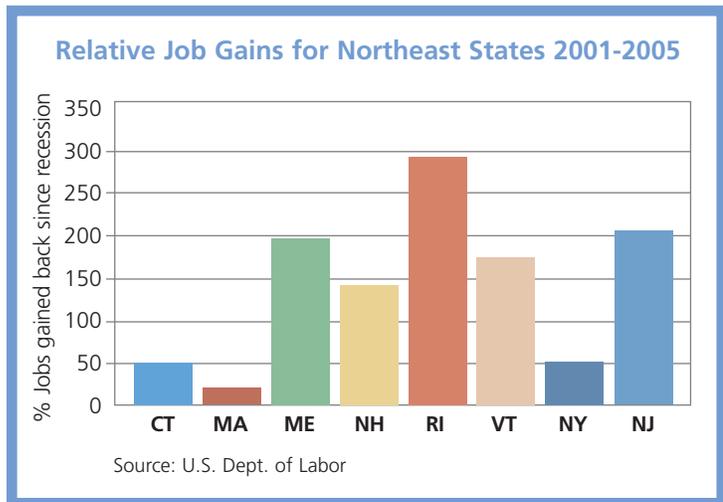
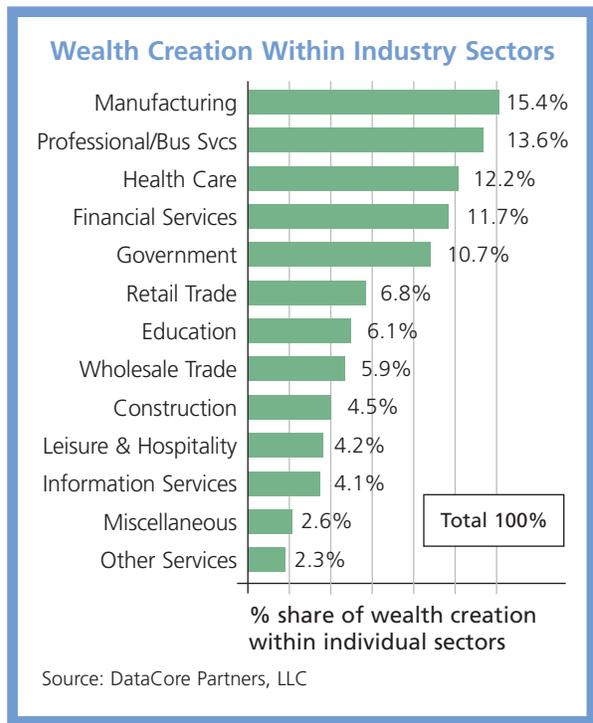
the Northeast, only Massachusetts has fared worse than Connecticut in job gains since the 2001 recession. The New Haven area had a weak 0.1% job growth year-over-year through November 2005.

Not only is job growth limping along, but many of the jobs being created are low-skilled and low-paying. The top 10 occupations projected for most openings through 2012 pay average annual earnings of \$25,341. Take away the top earning job, registered nurse (\$54,036), and the average goes down to \$23,275 per year. The outlook for high school dropouts is even bleaker. From 2000-2003 the number of employed high school dropouts 16-24 years of age dropped 11.3%, as the labor market increasingly requires more and better skilled workers.

Innovation Spurs Job Growth

Another way of analyzing job growth is by growth rate: the percent change over the 10-year period projected by CT Department of Labor. There are a number of occupations in this category which have the potential to provide ancillary job growth. Given the explosive growth that often follows innovation, those occupations that are at the core of innovation have the potential to produce jobs across the economy. For instance, computer software, biochemists and biophysicists, microbiologists, environmental and other engineers, architects, and financial managers are all slated for double digit growth through 2012. Occupations projected for substantial percentage growth also include many in healthcare and financial services.

Several of Connecticut's industry clusters projected for greatest rate of growth, including Bioscience, Aerospace, Software and Information Technology, rely upon employees with advanced science and math skill sets. Despite the large numeric increases in low-paying service jobs, growth in clusters, especially based on innovation and new enterprises, has the potential to defy projections and grow well-paying jobs for educated, talented workers.



Education Provides a Great Return on Investment

Higher Education: a proven catalyst for future economic growth



more than three times as much.

While the cost of higher education may initially be daunting, the advantages are substantial, to the individual and to society. College graduates earn an average of \$1 million more during their careers than high school graduates. College graduates can expect to earn about \$2.1 million over their lifetimes, compared with \$1.2 million for people with high school diplomas only. People with advanced degrees can expect to earn

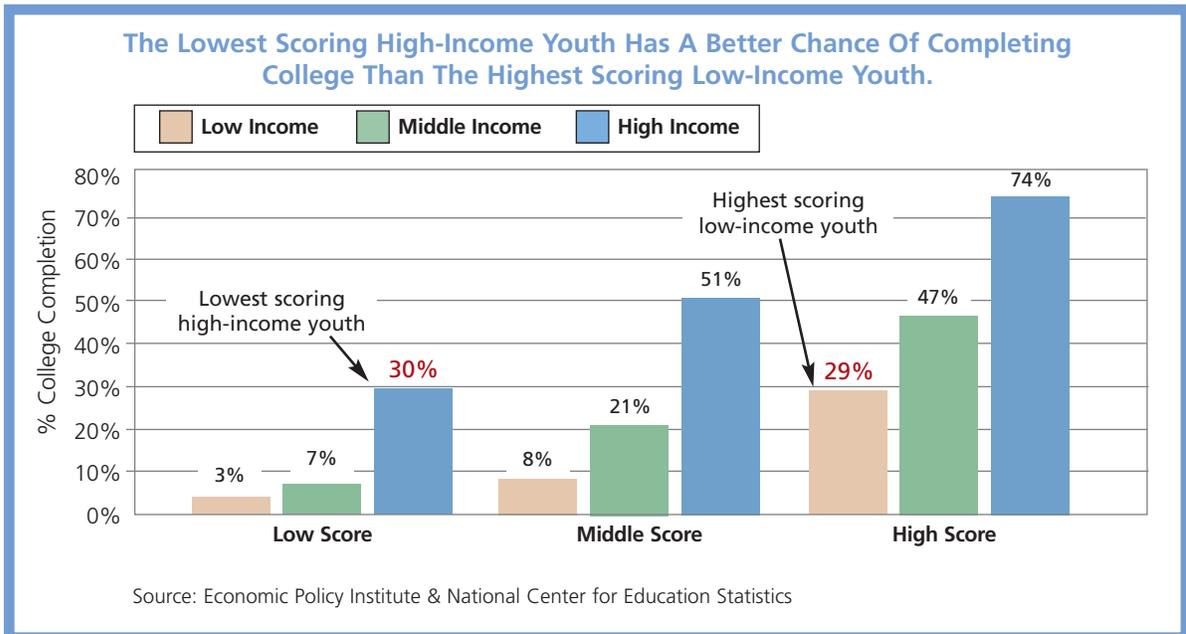
“These (science and math-based) occupations would seem to have more job openings available than there are individuals being trained to fill them.”

CT Dept. of Labor, CT Workforce Demands and the Implications for Education

Within the CT Community College system, the return on investment (ROI) is 22%. For every \$1 invested, students get back \$6.17 in higher inflation-adjusted earnings over a 35 year period. The increase in income thereby elevates sales taxes and income taxes around the State. The State also benefits, saving the public \$24 million each year in social welfare costs for those who don't participate in post-secondary education.

Moreover, college graduates:

- 1) Are half as likely to be unemployed compared with high school graduates
- 2) May earn back as much as \$30 for every dollar invested in higher education
- 3) Experienced an employment increase of 1.8 million jobs in the past decade, as compared to a loss of almost 700,000 jobs for those with a high school diploma



The Right Start -- K-12 Education: The 3-R's Are Just the Beginning



While Connecticut still boasts a strong share of higher education degrees in science and engineering, the increase in the number of degrees awarded from 1990-2000 was less than 1%. Preparing students for STEM (science, technology, engineering, math) careers must start in the earliest years of education. Early education also forms the foundation for successful careers in virtually any career.

Through 2020 an estimated 40 percent of new workers are projected to come from urban areas, where average SAT scores are up to 200 points lower than the lowest state in the union. Improvements are evident: Meriden and New Haven achieved the state-mandated graduation rate of 70% in 2005, but there remain an alarming number of high school dropouts with little opportunity for meaningful employment in the new economy.

Between 1992 and 2002, the cost of public 4-year higher education nearly doubled in Connecticut, from \$5,976 to \$11,805, while family income increased about 50%.

U.S. Census Bureau

Improving the educational outcomes of our youth and enhancing their potential for higher end occupations, is especially important at a time when population growth in the region has been stagnant. All growth in the region is due to the arrival of immigrants, who have education needs of their own. To effect job growth, it is necessary to increase the number of educated and skilled workers who already live in the region, and to decrease the number of college students and young professionals who have been leaving Connecticut in record numbers in recent decades.

The Demographics of Connecticut Are Shifting Dramatically

The Short Term: 2000-2010

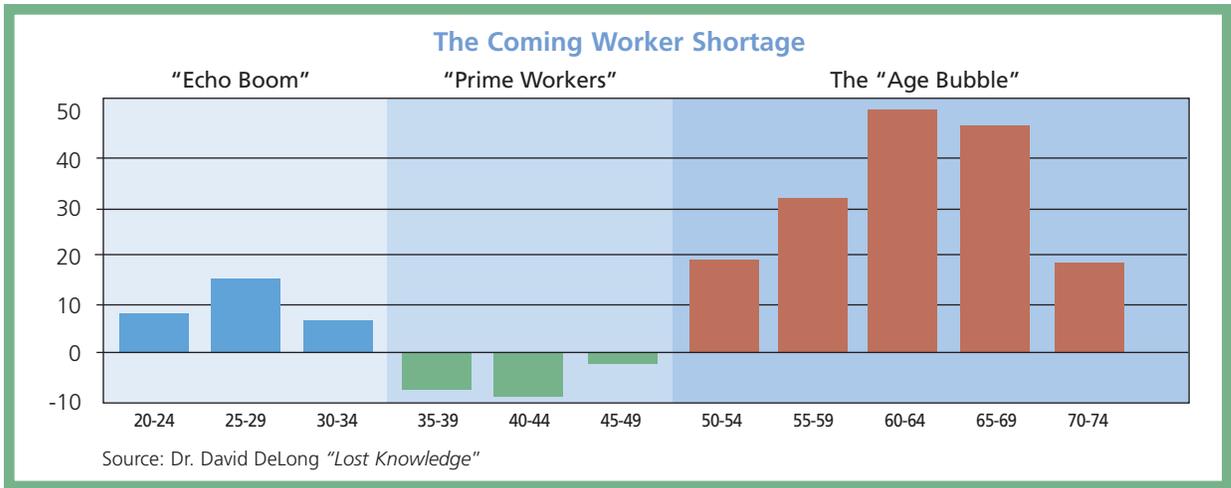


Looking at the flow of workers, Connecticut's student population is dropping sharply (by 22,000 or 3.9% through 2010). Our entry level workforce is rising (up 21%). Then the real decline of workers appears with the 25-44 group (down 10%), and the all important 30-45 year olds – our next generation of managers, executives and highly skilled workers – dropping 15.8%.

The fastest growing segment of the workforce is the 45-64 year olds, up 200,000 workers, or 26%. Considering the much lower number of workers directly behind them, expect this group to work longer and be forced to embrace lifelong learning.

The Longer Term: 2000-2020

The pattern of decline in the number of prime working age residents continues over the 20 years from 2000-2020. The student population drops 6%. The entry level workforce rises by 10%. But the 30-50 year olds, experienced workers on a leadership track, drop by 17.2%. Workers from 50-64, those with institutional knowledge, are still growing (up 21%), the second fastest growing segment. The 65+ group is now the fastest growing group, up 172,000 or 37%. It is this group that will put a strain on services as fewer proportions of younger workers support older residents.



With shifts in the general workforce demographic, it is important to be inclusive of all categories of potential workers, including the retired, the disabled and ex-offenders. Each year, nearly 5,000 Connecticut prisoners are released back into the community. The greatest majority had been incarcerated for non-violent, drug-related offenses. After a transitional program, many are able to work, when jobs are available. Education and skill development could move thousands of individuals into the labor force.

Housing Is a Workforce and an Economic Development Issue

Affordable Workforce Housing Is a Prerequisite for Job Growth

Connecticut's single-family housing prices have been accelerating at a faster rate than the U.S. as a whole. Since 2000, prices climbed from \$165,000 to \$247,000 in 2004, an increase of 49.7% in just four years. For every 10% that CT housing prices exceed the national average, the state loses 1,900 jobs in the long run, according to "A Crisis in the Making: The Need for Affordable Housing in Connecticut", 2005.

As a result of structural changes, the labor force is transitioning from higher to lower paying jobs, leaving an increasing number of residents without the means for decent housing. Households earning less than 80% of the median income in the region (which can include earnings up to \$35,500), and spending more than 30% of their total income on housing have been identified by the South Central Regional Council of Governments as being in jeopardy. A startling 35,937 households in the SCRCOG's 15-town region fit this description. Of those, 39.8% are elderly households.

	Fair Market Rent	Annual Income Required	Housing Wage	Housing Wage As % of Min. Wage
1 Bedroom	\$830	\$33,200	\$15.96	216%
2 Bedroom	\$1,003	\$40,120	\$19.29	261%
3 Bedroom	\$1,201	\$48,040	\$23.10	312%
4 Bedroom	\$1,372	\$54,880	\$26.38	356%

Source: National Low Income Housing Coalition

Income Has Not Risen With The Price Of Housing

Consumer spending power is a key driver of the price of housing. Unfortunately, due to shifts in job quality, the number of workers priced out of the housing market will continue to grow. Income has not risen

with the price of housing. From 2000-2004, income rose 12.6% but housing prices jumped 49.7% in Connecticut. The amount of housing construction has not kept pace with the market. The upward pressure on prices, therefore, comes from the lack of inventory and low interest rates, not the increasing wealth of residents. This is true of sales and rentals.

Initiatives are underway at many levels of government and within private industry to find new ways to create affordable worker housing. State and local officials are interested in finding ways to allow service workers the ability to live in the town where they work. Models for worker housing affordability are cropping up nationwide, ranging from the development of housing on public or quasi-public properties, to tax incentives and direct subsidies.

CT and U.S. Comparisons on Cost of Housing

YEAR	CT Median Housing Price	U.S Median Housing Price
1994	\$135,000	\$107,200
1995	\$132,000	\$110,500
1996	\$133,500	\$115,800
1997	\$135,000	\$121,800
1998	\$140,000	\$128,400
1999	\$148,000	\$133,300
2000	\$165,000	\$139,000
2001	\$174,000	\$147,800
2002	\$193,000	\$158,100
2003	\$221,500	\$170,000
2004	\$247,000	\$184,100
2005	\$273,000	\$206,600

Sources: Warren Group, National Assn. of Realtors

What Can Be Done to Improve Connecticut's Economic Future

Income and quality-of-life increase in direct proportion to the education and skill sets of individuals. Economic growth is dependent on workers who are flexible and trainable – skill sets are continually changing, and the pace of new technology is even faster. Whether a worker is growing in a chosen field, or wants to change occupations, lifelong learning has become a basic requirement of career growth.

Connecticut employers and the workforce development system need to further develop ways to increase the skills of existing workers, thereby improving the competitiveness of businesses and increasing individual income potential. Investment in training and retraining is a solid business decision. Targeted training, aimed at incumbent workers, enhances the mobility of the employee, and opens opportunities for more entry-level hiring.

“Organizations must accelerate the learning of younger employees so they can adequately fill the roles of those retiring. Training is critical for sustaining performance.”

Dr. David DeLong, Lost Knowledge: Confronting the Threat of an Aging Workforce

Connecticut's elected officials, developers and land-owners also have the opportunity to devise new ways to create housing opportunities that are affordable for working families. Too many of our brightest youth leave the state in search of good jobs, and affordable housing.

Practical approaches to increasing the quality, the quantity and the competitiveness of Connecticut's workforce

1. Raise the legal age for leaving school to 18 years of age or issuance of a diploma. High School drop-outs feed unemployment, the penal system, and substandard job opportunities. The current mandatory age of 16 years is a relic of times when people could work at well-paying manufacturing jobs just by the skill of their hands. Today, and in the future, dropping out of school is a virtual guarantee of a lifetime of poverty, unemployment or crime.

2. Require literacy training for prison inmates. There were nearly 11,000 active adult probationers in the South Central Region in 2004; and 42.8% of them were in New Haven. The estimate for functional illiteracy within the penal system is 70%. The lack of literacy skills is an overwhelming barrier for ex-offenders who already face numerous hurdles in returning to society. For the workforce and for the individual, we must provide the essential tool of literacy before an offender is released.

3. Access Higher Ed – The state loses young residents to colleges all over the country. Young people, especially urban poor, often believe they will never have access to college. Keeping students in Connecticut and creating a viable path to college should be a state priority. The Governor could appoint a task force to consider the potential and the ramifications of providing full tuition scholarships for CT high school graduates who have achieved basic proficiency in their 10th grade CAPT; who have maintained a “C” average in high school and whose family income is \$45,000 or less.

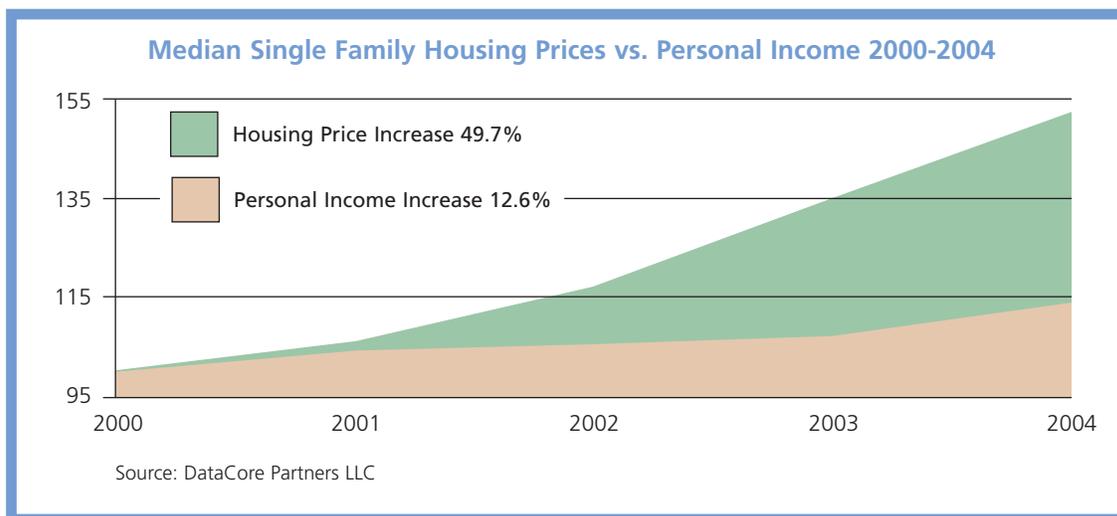
“Make post-secondary education, if not compulsory, then government-subsidized for at least two years... Post-secondary education is more critical the flatter the world gets, because technology will be churning old jobs and spawning new, more complex ones.”

Paul Rohmer, Economist, Stanford University

Providing incentives for Connecticut residents to attend the state’s public colleges will retain more of our bright, educated young people, who will then become part of the workforce and Connecticut taxpayers. Our state system is also in an excellent position to assure

that students prepare for jobs that are in greatest demand, by making a greater connection between economic development and education.

4. Workforce Housing – Housing developers are in a for-profit business, and charge what the market will bear. In a high cost state like Connecticut, average people are at the mercy of the housing market. A number of methods have proven that public/private partnerships, especially with state and local government, plus quasi-public agencies which have large rate-payer-owned landholdings, could identify and subsidize the development of affordable workforce housing in communities throughout the region.



Municipalities want and need the full tax value of residential property, yet key municipal, education and public safety employees often can't afford to live where they work. Municipalities could be incentivized to create partnerships resulting in housing earmarked for town and moderate income employees.

Workforce housing strengthens the local economy. Creating new affordable (rent subsidies, low-cost mortgages and other incentives) worker housing (new units, rehabs) could result in 7,178 new jobs in Connecticut and \$515 million in new economic activity for every 1,000 units (*Partnership for Strong Communities*, Donald Klepper-Smith 2005).

Due to shifts in job quality, the number of workers priced out of the housing market will continue to grow.

Source: DataCore Partners

Partnerships often include a university's existing housing trust, plus a city or state contribution. It's working at Harvard in Cambridge. Yale's Employee Housing program could be a foundation to build a partnership with the city of New Haven.

5. Incumbent Workers – Upgrade the Workers We Have – Growing companies need a continually renewed labor pool with modern skills. Even without real job growth, there will be increasing difficulty replacing existing workers, especially those with the most sought-after experience. Connecticut's best chance of avoiding the worst is to make the best of the existing workforce: ***incumbent workers***.

Incumbent worker training is also an excellent use of a range of public institutions, including Adult Ed and the community colleges. Working on training design with employers and trade associations helps educators to better understand the latest needs in the business market.

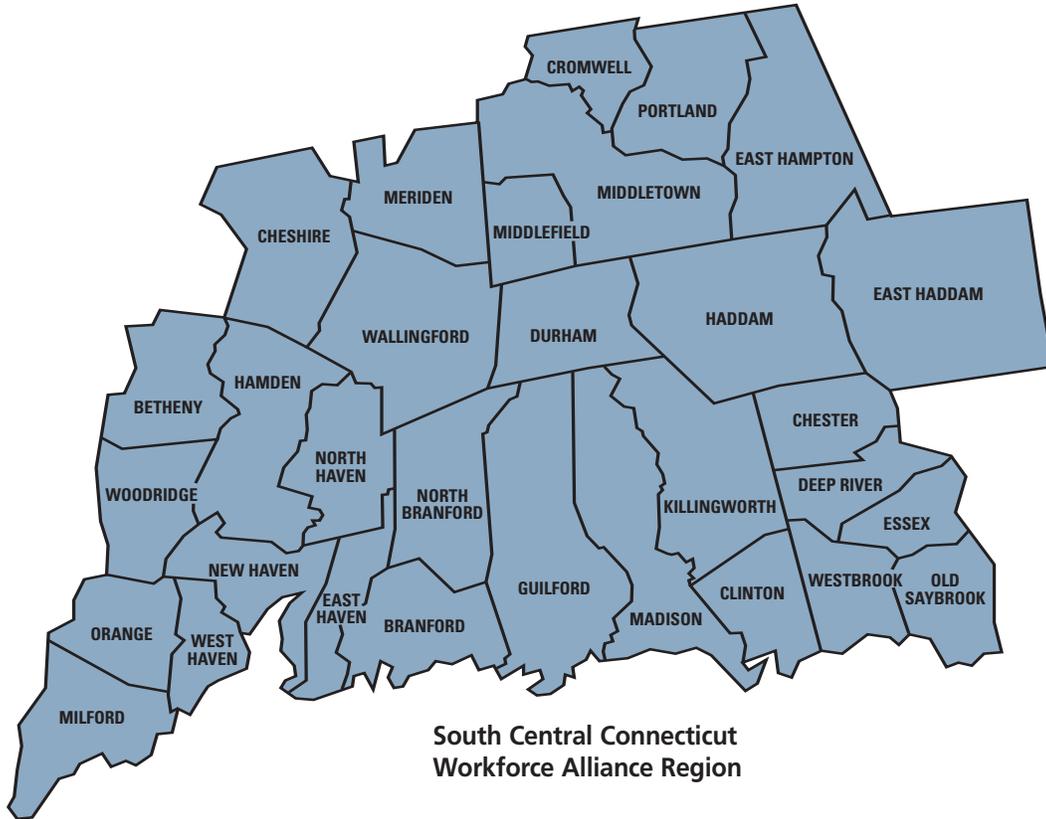
Federal funding for incumbent worker training is targeted only to certain groups. What is needed is funding for all kinds of workers in all kinds of companies. The state has the power to increase mobility in the workforce and to enhance the skills and competitiveness of our workforce. Company funding of incumbent worker training leverages public investment and the regional economy benefits.

Employers help design the specific training, and also provide a 50% plus match to the project. This means that for every dollar the public invests, two dollars or more in training is purchased. With promotions and pay raises, the employees pay more taxes. The employer's productivity and competitiveness gains also can mean increased taxes, and the retention of the company in Connecticut.

Workers trained to move up to better positions not only make more money and have more opportunity they also open up positions for new entry level workers. Remaining competitive and creating jobs for the future means moving existing workers into ever more responsible positions, while training people for entry level jobs.

“ Predictable surprises happen when leaders had all the data and insight they needed to recognize the potential, even the inevitability, of major problems, but failed to respond with effective preventable action. ”

Max H. Bazerman and Michael D. Watkins
“Predictable Surprises: The Disasters You Should Have Seen Coming and How To Prevent Them.”



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