

## **Workforce Shortages & Skills Mis-Matches**

### **Workforce Development Solutions For Connecticut**

Connecticut is at a precarious and pivotal point in its competitive position in the national economy. At question is its ability to nurture and sustain growth, innovation and leadership in the business community. The greatest workforce challenges the state faces are the deleterious effects of an aging workforce, a shortage of skilled youth and a mismatch of existing worker skill sets for today's and tomorrow's business needs. The challenges threaten the state's prosperity, functionality and the state's attractiveness as a place to do business. For better or for worse, the rest of the nation, as well as most industrialized countries are showing similar signs. Connecticut must seize this window of opportunity to identify solutions that will lead to positive change.

This emerging threat on our economy needs to be better understood by us all. We need a broadly accepted and supported Roadmap to achieve Connecticut's workforce goals. Recently, the Connecticut Workforce Development Council led a Forum to ignite this process, gathering nearly 200 state, municipal and business leaders.

Futurist and workforce champion Ed Barlow of Creating the Future, Inc. characterized this challenge as the second most critical issue facing the U.S. after national defense. He encapsulated the challenges, trends and implications we face. His core message is that the world has changed and we have not changed with it. Mr. Barlow's presentation was followed by discussion-based work sessions, creating a pool of solutions from those in attendance. Following are some of the challenges and suggested strategies extracted from this session.

### **The Challenges**

#### ***In the World:***

- **China** -- has the most college graduates in natural science and engineering (in 1999, 100,000 more BA graduates than the U.S. at 322,000 and 71,000 more than India) – “Is Your Job Next” Business Week, February 3, 2003
- **India** -- has the largest skilled work force and second largest pool of scientists; India's burgeoning middle class outnumbers the entire U.S. population – Om Malik, July 2004 Issue
- **U.S. Corporate Profitability** – In 2004, almost 27% of U.S. corporate profits were earned outside the U.S. compared to only 18% in 1998. – Dallas Morning News, Sept 18, 2005

#### ***In the Nation:***

- **Manufacturing** - 70% of today's manufactured goods will be obsolete in six years.<sup>1</sup>
- **Health Care** – 75% of the medical knowledge is obsolete in 8-10 years.<sup>2</sup>
- **Corporate Survivability** – 60% of the companies listed in the Fortune 500 in 1970 have disappeared (either been bought out or no longer in business).<sup>3</sup>

- **Computers Replacing Human Capital** – By 2015 the power of an off-the-shelf computer will exceed the intelligence of that of a human being.<sup>4</sup>
- **The Need for Continuous Learning** – 50% of the job/knowledge skills of Baby Boomers (born 1946-1964) became obsolete in 12-15 years; 50% the job/knowledge skills of those born after 1965 and before 1984 will become obsolete in just 30-36 months<sup>5</sup>
- **Future Workforce** – 80% of the jobs today’s kindergartners will occupy sometime in the future, don’t yet exist.<sup>6</sup>

### *In Connecticut*

- **Employment** – Employment in Connecticut has been basically flat for 15 years.<sup>7</sup>
- **High Cost of Doing Business** – Connecticut has the 5<sup>th</sup> highest cost of doing business in the country.<sup>8</sup>
- **Aging Workforce** - Seven of the 10 oldest states are in New England, with a median population age of 38.5.<sup>9</sup>
- **Slow Population Growth** - Seven of the 10 slowest growing states are in the Northeast, with Connecticut ranking 47<sup>th</sup> in growth from 1990 – 2000.<sup>10</sup>
- **Manufacturing** – In 1992, manufacturing provided 18% of all jobs in the state, but by 2012, that share is expected to fall to slightly over 10%.<sup>11</sup>
- **Research & Development** – Manufacturing companies with strong R&D strategies are 73% more profitable(1) – Yet, Connecticut, in all industries, ranks second to last in the nation in university-level growth of R & D. 12

### **There Are Solutions**

A mechanism is in place, and positioned to address these most serious issues. Increased awareness of the issues and their consequences will help our existing workforce development capacity to better prepare and align a competitive workforce with the marketplace. It is really merely a matter of providing the “dedicated” resources necessary to meet the challenge, identifying a unified course of action, eliminating any duplication of effort, leveraging the strength of each partner, and building and executing a workforce development plan that will serve as a model for efficiency. It is a team effort from beginning to end, and everyone must be accountable.

### **Keeping up with the Rapid Rate of Change**

No one is exempt from the effects of the challenges. All sectors of the Connecticut economy, employers, workers, communities must come together to address them. In particular, a new continuum of education must be developed, that is tied directly to current and future workforce needs, from entry level to advanced degrees. This continuum must be driven by the current and anticipated economic development engines that will drive our future prosperity.

CT is facing a workforce challenge now, plus the many other related challenges on the horizon. Businesses need to take action, but they lack a sense of urgency. The pace of change is faster than ever, and the rate of expected change is overwhelming. The economy needs more training for existing and dislocated workers to help them transition to meet a

different set of business needs. Education must be ongoing and lifelong to keep up with the rate of change.

The state needs to do a better job of adjusting the education system to provide the skills for future workforce requirements. There are too many “silos,” when teamwork should be sparking economic growth. Everyone needs to play a role taking a holistic approach to achieving solutions.

### **Creating a Roadmap**

While many strategies have been devised to address the challenges we face, there is no roadmap that all stakeholders rally around. Leadership in all sectors must provide a clear, consistent direction: a roadmap to success. There are many stakeholders, including the Workforce Investment Boards, the Governor’s Jobs Cabinet and Connecticut Training and Employment Commission, leaders in business, education and government who are trying to make a difference, but there is no system in place to “connect the dots.” Workforce Boards are in an ideal position to convene the partners and create the roadmap that will ensure Connecticut’s desirability as a place to live, learn and do business.

### **High Impact Strategies for Creating a Competitive Workforce**

1. **Increase public investment in worker education and training --** Merge workforce development, education and economic development policy. Create an infrastructure that supports partnership, not silos, and fund accordingly. Form regional alliances.
2. **Provide more effective public incentives for the upgrading of existing worker skills --** Identify more funding for incumbent worker training and leverage more funding for existing, employer-driven incumbent worker training programs administered by the state’s workforce investment boards.
3. **Expand access to education and training --** Promote lifelong learning and continuous training for future workforce needs. Create and support an “earn while you learn” model to keep our workforce on the cutting edge. Focus more on science, math and technology. Improve 2-year post-secondary education systems and linkages with the business community. Adjust competencies in pre-K – 14 to meet tomorrow’s expected needs.
4. **Boost labor force participation rates among all groups --** Find ways to entice more workers into the labor market; create worker family housing that is affordable; provide better transportation; and improve access to education and training. Increase use of CTWorks One-Stop Career Centers.
5. **Measure policies by their success in developing self-sufficient workers.** The attainment of this long-term goal (versus welfare caseload reduction or short-term workforce attachment) should be the standard
6. **Promote and reward local innovation.** Local leaders should not be restricted by federal mandates (e.g., “work first”) that interfere with already successful strategies

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