Texas Workforce Investment Council

Policy News Highlights

Issue 23, Quarter 3, September 2013

Policy News Highlights is a quarterly review of selected reports relevant to the policy and research functions of the Texas Workforce Investment Council (Council). Federal and state agency websites, in addition to numerous public policy and educational databases, are scanned monthly for reports on relevant and emerging issues. Reports are catalogued and stored electronically in the Council's Information Repository (IR).

The IR is divided into 12 topic areas that correspond to priority issues supporting the Council's current strategic plan. They are: adult education, apprenticeship, career and college readiness, career and technical education, clusters and sector strategies, competitiveness, data, disabilities, dropout prevention, green initiatives, supply-demand, and training. Not every topic area is addressed each quarter.

Policy News Highlights is organized as an annotated bibliography with short summaries of recent articles grouped according to their topic area.

Apprenticeship

Apprenticeship 2000: Program Overview, Daetwyler
This apprenticeship program offers high school students more than a variety of technical employment opportunities upon graduation, it is designed to increase the career flexibility of workers and companies in response to changes in trends, market conditions, and machine performance. Continuous learning is cultural. Monthly performance evaluations include: job knowledge, quality, efficiency, dependability, initiative, adaptability, team ability, safety, and punctuality. Students earn an associate's degree in manufacturing technology, a Journeyman's certificate, and have the ability to design, machine, document, and assemble changes virtually on demand. Originally developed in 1995, the program has historically retained 80 percent of its apprentice graduates. About 10 percent of graduates continue classes and complete other related associate's degrees. Another seven percent of apprentice graduates pursue a four-year degree. Additionally, the employer offers a reimbursement policy for its employees and supports employee choices for continuing education.
http://apprenticeship2000.com/partners/Apprenticeship%20brochure%2010.08.pdf

German Skills Initiative, Embassy of the Federal Republic of Germany, Washington D.C., October, 2013
Supported by the U.S. Department of Labor Office of Apprenticeship, the German Skills Initiative addresses issues related to a shortage of skilled workers. The program identifies best practices unique to the history and culture of each country and training providers that are meeting the workforce needs of German companies. Today, more than 3,500 German companies have investments in the American market and have created approximately 600,000 jobs. Germany's dual system of vocational training provides qualifications through its unique combination of theory and practice, learning and working, offering a continuous training and career path after high school. The German Embassy, German-

American manufacturing companies and the German American Chamber of Commerce are working together with government, workforce, and education agencies to develop and implement the program.
http://www.germany.info/contentblob/3846858/Daten/3101503/SkillsInitiativeBrochurePDFalt.pdf
See also: http://www.germany.info/skillsinitiative

Summary Minutes of the Advisory Committee on Apprenticeship Meeting, U.S. Department of Labor, Employment and Training Administration, June 2013
This document summarizes the committee's discussion on how to develop Registered Apprenticeship to meet the nation's workforce development challenges with particular focus on increasing access to opportunities for veterans and defining recommendations for improvement. The meeting focused on four main topic areas: providing timely information to the service member as they transition out of the service, improving access to pre-apprenticeship and apprenticeship programs for veterans, providing credit for prior military experience, and bringing best practices to scale through partnerships and other efforts. The key points of the discussion included timeliness and customization of information for veterans, examining the role of technology, the need for local contacts, and development of a common language between the military and civilian definitions of the training, credit, and credentials.
https://21stcenturyapprenticeship.workforce3one.org/view/2001322532570937951/info

Career and College Readiness

Failure to Launch: Structural Shift and the New Lost Generation, Georgetown Center on Education and the Workforce, September 2013
This report analyzes the divergent labor market trends for young and older adults since 1980. Its findings reveal that older workers are not crowding young adults out of the labor market. In fact, there are more job openings created from retirements per young person today than there were in the 1990s. However, between 2000 and 2012, the employment rate for young adults fell from 84 percent to 72 percent. The report considers a number of factors that suggest a shifting, and no longer linear, life cycle of learning, work, and retirement. To maintain current productivity levels at current postsecondary attainment rates, it proposes a more flexible, modern system that combines work and learning with greater alignment between postsecondary education and the workplace. This proposed system would accelerate transitions for younger workers into the labor market and transition older workers through flexible phases of work into retirement.
http://www9.georgetown.edu/grad/gppi/hpi/cew/pdfs/FTL_FullReport.pdf

Beyond Completion: Getting Answers to the Questions Governors Ask to Improve Postsecondary Outcomes, National Governors Association, September 2013
Recognizing the shift in postsecondary education policy from emphasis on the inputs to the relationship between resources and outcomes, this paper informs recommendations that facilitate the development and analysis of postsecondary policies. It recommends building capacity to analyze and use data while auditing existing accountability measures, reports, and activities to eliminate information that is outdated or duplicative. It also recommends implementation of effectiveness and efficiency indicators that demonstrate the productivity of colleges and universities with the resources available to them. However, caution is suggested in the use of the recommended indicators. Care should be given to ensure alignment with state goals and priorities, to look for trends instead of single-year changes in performance, and to recognize unique characteristics among the institutions measured such as different student populations, products, stakeholders, and funding streams.

http://www.nga.org/files/live/sites/NGA/files/pdf/2013/1309BeyondCompletionPaper.pdf

Addressing Teacher Shortages in Disadvantaged Schools: Lessons from Two Institute of Education Sciences Studies, National Center for Education Evaluation, September 2013

This evaluation brief presents findings of studies designed to address concerns that teachers from alternative certification are not as well prepared for the classroom as teachers who followed the traditional route. The studies evaluated teachers who entered teaching via two highly selective alternative routes—Teach For America and the Teaching Fellows programs—and less selective alternative routes that accept nearly all applicants. Key findings suggest that alternative certification can help fill teacher shortages without reducing student achievement. However, taking coursework while teaching may have a negative impact on student learning, and few characteristics or credentials can predict teacher effectiveness during hiring. Study results also indicate that policies setting restrictions on the routes through which individuals can enter teaching or the academic credentials that they must acquire are unlikely to improve the quality of instruction. The brief also includes detail on the findings and background on alternative routes to teacher certification.

http://ies.ed.gov/ncee/pubs/20134018/pdf/20134018.pdf

Innovative Learning Environments, Centre for Education Research and Innovation, Organisation for Economic Co-operation and Development, September 2013

This international study focuses on innovative ways of organizing learning to bring forward-looking insight about learning and innovation to contemporary education systems. Part of a broad initiative, it provides a concept of a learning environment–defined as an eco-system that includes the activity and the outcomes of the learning–and appropriate terms and tools for future research. This report, the second of three phases in the initiative, presents findings on innovative cases from detailed research on 40 case studies selected from an international set of 125 cases that engaged the interest and insight from systems, innovators, and decision makers in 23 countries. These select cases fit a demanding set of learning principles defined in the study and provide an opportunity for replication. This study of isolated exemplars acts as a bridge between the original "Learning Research" study and the next, "Implementation and Change," which will focus on key drivers of widespread innovation.

http://www.keepeek.com/Digital-Asset-Management/oecd/education/innovative-learning-environments_9789264203488-en#page1

National Assessment of Educational Progress: An Overview of NAEP, National Center for Education Statistics, August 2013

This brief provides an overview of the largest nationally representative assessment of what students in the U.S. know and how they perform various subjects. It explains how NAEP differs from state assessments, what subjects are assessed, what schools and students can expect, and why student participation is important. NAEP is also advancing technology-based assessments and collecting new types of data to provide an understanding of the manner in which students engage with technology to approach problem solving. These assessments include technology and engineering literacy, writing in response to prompts delivered in multimedia formats, and interactive computer tasks in science that often involve simulations.

http://nces.ed.gov/nationsreportcard/subject/_commonobjects/pdf/2013455.pdf

What It Takes to Complete High School: The Shifting Terrain of Course and Diploma Requirements, Jobs for the Future, July 2013

This brief profiles graduation requirement trends in five states and the courses students must pass to attain a high school diploma. States appear to be setting new graduation requirements for several reasons, and these trends are being tracked to present a coherent set of requirements once the national

Common Core standards are in place. Of particular interest is whether changes support or challenge the effort to ensure student success—graduating from high school ready to succeed in postsecondary education—whether completing a certificate, an associate's degree, or a four-year degree.
http://www.jff.org/sites/default/files/WhatItTakesToCompleteHS_071713_0.pdf

Early College, Early Success: Early College High School Initiative Impact Study, American Institutes for Research, June 2013
This study evaluated Early College High Schools (ECHS) and found a statistically significant impact on high school graduation, college enrollment, and degree attainment both for the overall sample and for various subgroups of interest (women, racial/ethnic minorities, low-income students, and first-generation college students). Results show that from 2005 to 2011, 86 percent of the ECHS students graduated high school versus 81 percent of comparison students. Postsecondary enrollment was 80 percent for the ECHS students and 71 percent for the comparison students. Additionally, 22 percent of ECHS students earned a postsecondary degree during the study period, compared to two percent of comparison students.
http://www.air.org/files/AIR_ECHSI_Impact_Study_Report_Final.pdf

Complete College Texas, Complete College America, April 2013
This report recognizes Texas' leadership, commitment, and success in undertaking the challenging task of improving the college completion rate and closing critical educational attainment gaps. It covers five proven game-changing strategies: performance funding, co-requisite remediation, time and intensity, block scheduling, and guided pathways to success that must be implemented to scale. This analysis provides comparative data, Texas' status in implementing these key strategies, recommendations, and success stories for each of the strategies.
http://www.completecollege.org/docs/CCT-low-res.pdf

Introduction: The Importance of and New Opportunities for Leveraging Afterschool and Summer Learning and School-Community Partnerships for Student Success, Afterschool Alliance, February 2013
This collection of articles is excerpted from the book, *Expanding Minds and Opportunities: Leveraging the Power of Afterschool and Summer Learning for Student Success*. This compendium is composed of nearly 70 research studies, reports, essays, and commentaries by more than 100 researchers, educators, community leaders, policy makers, and practitioners. The collection presents a base of research that demonstrates how effective expanded learning programs, after school or in the summer, leverage resources and have a positive impact on student learning, family engagement, and community partnerships.
http://www.expandinglearning.org/sites/default/files/em_introduction.pdf

Career and Technical Education

Work-Based Learning Opportunities for High School Students, FHI 360, National Institute for Work and Learning, February 2013
This report provides a conceptual base and recommendations for state leaders to implement work-based learning (WBL), a strategy that helps students apply academic and technical skills while developing employability skills, as part of secondary career and technology education (CTE) programs. It describes similarities and differences, as well as strengths and limitations, across three major WBL categories: internships/ co-operative education, youth apprenticeship, and school-based enterprises. It

features case studies and detailed descriptions of selected sites. Recommendations include: providing professional development that helps employer mentors and teachers design instructional strategies and detailed student training plans; demonstrating strategies for involving academic and CTE teachers to effectively connect WBL to classroom learning; providing better guidelines for accountability for student learning; and funding coordinators for each project with adequate support and resources.
http://www.nrccte.org/sites/default/files/publication-files/nrccte_work-based_learning.pdf

Clusters and Sector Strategies

The Manufacturing Workforce: A Deepening Crisis, Manufacturing Leadership Council, June 2013
The Manufacturing Leadership Council's Board of Governors authorized a survey of the global manufacturing industry to help assess the current state of the production worker shortage and identify and project trends in acquiring skilled labor over the next five-to-10 years. The results find that the difficulty of attracting people with the right skills to manufacturing jobs, both hourly and salaried, is not only real, but is growing more severe despite numerous efforts to improve recruitment of skilled workers. While Africa and Asia face the greatest current challenge finding qualified workers, North America is viewed as a future challenge. In addition to collaboration and lean functional skills, industry employers expect engineering and technical skills to dominate their talent acquisition efforts.
http://manufacturingleadershipcouncil.com/

Factories of the Future: Building Fast-Moving, Highly Automated Future Factories and Plants, Manufacturing Leadership Council, May 2013
This report presents the key findings from a survey of 175 participating manufacturers representing a variety of sectors. Designed to help industry leaders understand how manufacturing executives are thinking about and planning for next-generation factories and plants, the study covered factory and production models, process digitization, measures of success and challenges, workforce requirements, technologies required, and expected energy sources. Manufacturers anticipate greater automation and a computer-savvy workforce, although actualization of these trends have been delayed due to economic challenges. Survey findings also demonstrate clear vision with regard to workforce skills required of employees, including: an ability to collaborate, analytical skills, basic math and engineering skills, the ability to innovate, and computer-based skills.
http://www.gilcommunity.com/files/2513/6630/6975/Factories_Future.pdf

The Manufacturing Resurgence: What It Could Mean for the U.S. Economy, A Forecast for 2025, Manufacturing and Society in the 21st Century, The Aspen Institute, March 2013
This report provides a framework for how U.S. policy makers can help create a manufacturing resurgence in this country. Based on the premise that the primary challenge facing the U.S. is implementation of a sustainable approach for creating new wealth, the report suggests that manufacturing is the most effective tool for doing so. First, it establishes the importance of manufacturing because of its impact on other sectors and economic outputs. The paper then lays out a blueprint for policy makers highlighting the key drivers required to reestablish manufacturing in the U.S. and the policy changes needed to engage those drivers.
http://www.aspeninstitute.org/sites/default/files/content/docs/pubs/Manufacturing_Resurgence.pdf

Competitiveness

The Global Competitiveness Report 2013–2014: Full Data Edition, World Economic Forum, September 2013
This year, the report recognizes how the relationship between advanced and emerging economies has evolved. The global economic landscape blurs the distinction between those economies, particularly when it comes to growth and competitiveness. While the Forum previously based its competitiveness analysis on the Global Competitiveness Index (GCI), in this edition it describes its efforts at exploring the complex relationship between competitiveness and sustainability by measuring its social and environmental dimension. In the quest for increased competitiveness, international leaders will also benefit from the Forum's efforts to compile and publish a repository of public-private practices that countries have implemented in order to improve their competitiveness. This report also reviews the 12 pillars of competitiveness, their interrelationships, and the competitiveness of countries given their varying stages of development.
http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2013-14.pdf

The Factory of the Future is Here, National Center for the Middle Market and the National Association of Manufacturers (NAM), July 2013
This report suggests that the 47 percent of middle-market manufacturing firms have adopted advanced manufacturing technologies including automation, information technologies, process technologies, and more. By adopting these technologies, manufacturers can reduce labor costs and waste, as well as improve processes, productivity, profitability, and global competitiveness. These advances have made a skilled workforce more important than ever. However, middle-market manufacturers face challenges finding workers with the requisite technical skills. Survey findings report inadequate technology, computer, and math skills, and lack of technical skill attainment (certification, associate degree, etc.) as primary barriers in recruiting new employees.
http://www.middlemarketcenter.org/stuff/contentmgr/files/0/2fa77165a203459f28a249bdd154d9ff/download/advanced_manufacturing_report.pdf

A Matter of Degrees: The Effect of Educational Attainment on Regional Economic Prosperity, Milken Institute, February 2013
This study applied original research—creating a unique data set of educational attainment by occupation and industrial employment by occupation—to demonstrate the strong relationship between educational attainment and a region's economic performance. It offers a framework for policy makers, educators, and business and civic leaders for developing education and skills training in a region. Findings suggest that education increases regional prosperity and produces bigger benefits for better-educated workers, certain industries offer higher returns, and clusters of high-skilled occupations have a stronger impact. Five key policy recommendations include: making higher education more affordable and accessible, increasing higher education graduation rates, strengthening coordination between institutions of higher education and industries, and promoting research and development.
http://www.milkeninstitute.org/pdf/Matter-of-Degrees-FR.pdf

Data

OECD Skills Outlook 2013: First Results from the Survey of Adult Skills, Organisation for Economic Co-operation and Development (OECD), October 2013
This international survey of adult skills was designed to inform educators, policy makers, and labor economists with greater insight into the availability of workers with high-level cognitive and interpersonal skills in demand by global industry. Education and training system leaders and policy makers can use evidence from the survey to enhance development of these skills. This first edition reports results from interviews with 5,000 individuals, aged 16 to 64, in each participating country. It directly measures proficiency in several information processing skills, including literacy and numeracy and problem solving in technology-rich environments, but also collects broader information about how skills are used at work and in other contexts. The survey is designed to provide comparative analysis of skill-formation systems and their outcomes, and international benchmarking regarding adult skills.
http://www.oecd.org/site/piaac/Skills%20volume%201%20(eng)--full%20v8--eBook%20(01%2010%202013).pdf

Export Nation, Brookings Institute, September 2013
Given the significant role that exports have played in the U.S. economic recovery (37 percent of post-recession GDP growth), this report highlights successes and missed opportunities across a variety of metropolitan areas, industries, and sizes of firms. However, it notes that much of the progress has been generated by relatively few large firms in key industries and by large, dynamic metro areas. It encourages increased support for metro areas to develop more industries in their economies to grow export businesses and covers the methodologies developed to produce more meaningful export data. Two primary features distinguish estimates in this report from federal trade data. First, goods export estimates are based on the origin of production, rather than the origin of movement. National export values are allocated by industry based on county output in that industry. The second major distinguishing feature is the inclusion of detailed metro-level services data. Goods and services are estimated using the same detailed, county-level allocation method and presented at similar levels of industrial detail.
http://www.brookings.edu/~/media/Research/Files/Reports/2013/09/17%20export%20nation/ExportNation2013Survey.pdf

Toward Universal Learning: Recommendations from the Learning Metrics Task Force**,** Brookings Institute, September 2013
This report presents six areas of learning measurement recommended to address gaps in data in order to track global progress in foundational skills such as literacy and numeracy. It also offers new global indicators that include readiness to learn in early childhood and skills and values necessary for youth to become successful citizens of the world. An indicator that combines measures of access, completion, and reading is also included, which supports a primary goal to refocus the world's education systems beyond student access toward access and learning outcomes. The task force additionally calls for a simple global tool to examine the breadth of learning opportunities to which children and youth are exposed through education. The Learning Metrics Task Force draws input from 30 organizations representing 118 countries with a combined interest in improving learning experiences for students around the world.
http://www.brookings.edu/~/media/research/files/reports/2013/07/global%20framework%20measuring%20learning/lmtfreport2_final.pdf

Five Steps for Structuring Data-Informed Conversations and Action in Education, Institute of Education Sciences, U.S. Department of Education, September 2013
This guide helps educators and policy makers at the grade, school, district, and state levels understand and apply data related to student learning, programs, instructor effectiveness, and system performance to inform conversations, make decisions, and take action. Given increased access to and awareness of the power that education data can have on student learning and program management, educators and education organizations increasingly form data teams to organize, analyze, lead data-informed conversations, and coordinate responses or develop plans. This guide walks users through five steps in using data for decision making and strategic action: setting the stage, examining the data, understanding the findings, developing an action plan, and monitoring progress and measuring success.
http://ies.ed.gov/ncee/edlabs/regions/pacific/pdf/REL_2013001.pdf

E*xpanding Education and Workforce Opportunities through Digital Badges,* Alliance for Education Excellence, August 2013
The increasing emphasis on lifelong, continuous, and competency-based learning to develop worker skills and expertise beyond secondary or postsecondary coursework is raising awareness and the value placed upon informal, expanded learning opportunities. Workers need new ways to demonstrate and present skills attained through informal learning to employers, college administrators, and others. This report provides background and information on digital badges. Badges are digital credentials that represent skills, interests, and achievements attained by an individual through specific projects, programs, courses, or other activities. Some employers have begun to use digital badges to hire employees, because the badges connect informal learning assets and credentials together to more accurately portray workers' skills. Digital badges are also helping veterans leverage their military training and the unique skill sets acquired while serving in any branch of the U.S. military.
http://all4ed.org/wp-content/uploads/2013/09/DigitalBadges.pdf

Higher Education Pays: But a Lot More for Some Graduates than for Others, College Measures, American Institutes for Research and Matrix Knowledge Group, September 2013
This report suggests that several states are outpacing the federal government in producing informative data that can assist students to discern an effective career path, program of study, and institution to achieve their dreams. It presents comparative earnings data from five states: Arkansas, Colorado, Tennessee, Texas, and Virginia. In some cases, findings reaffirm the results of other research and, in others, provide new insight. Examples of these findings include: a chosen program of study has a greater impact on earnings than which school students attend, selected associate's degrees can result in higher earning potential than bachelor's degrees in some fields, and the 'S' or science degrees in STEM do not pay as well as technology, engineering, and math degrees.
http://www.air.org/files/Higher_Education_Pays_Sep_13.pdf

Postcollege Workforce Outcomes Measures: Issues Facing Policymakers, Analysts, and Researchers, American Association of Community Colleges, July 2013
This discussion paper highlights several foundational considerations of, and challenges to, the application of data that support workforce outcomes measures. These data become central to policy analysis and discussions about the role of postsecondary education, and community colleges in particular, in the U.S. economy and the workforce development system. While the report recognizes the work within states to connect education and workforce data, it assumes use of federal data by states. Employment rate, wages earned, and availability of data are reviewed in detail, and other related issues and questions are also explored.
http://www.aacc.nche.edu/Publications/Reports/Documents/WorkforceOutcomes_2013.pdf

Credentials That Work: Using Real-Time Labor Market Information on a Nationwide Scale, Jobs for the Future, April 2013
Real-time labor market information (LMI) is a tool for assessing employer demand for labor by occupation, industry, and geography based on regularly collected and aggregated data from job postings that include skills, certification, and wage information. This brief presents the findings of a study on the benefits and limitations of real-time LMI for federal agencies and national trade associations. The study found less potential for using real-time LMI to inform postsecondary education and training program development due to limited availability of widely accepted and well-defined career ladders with direct associations to specific competencies. However, real-time LMI demonstrates potential benefits for five activities supported by these organizations: labor market research, preparing occupational profiles, statistical modeling, managing grant programs, and delivering constituent services.
http://www.jff.org/sites/default/files/NationwideUsesRealTimeLMI_042513.pdf

Disabilities

A Better Bottom Line: Employing People with Disabilities, National Governors Association, August 2013
This blueprint gives state policy makers options for assessing the competitive labor market in their states and introducing strategies designed to support employment opportunities for an underemployed population: people with disabilities. It presents best practices gathered from leaders in the field of disability employment and is organized into five key action areas: make employing people with disabilities part of the broader state workforce strategy, find and support more businesses who hire people with disabilities, be model employers of people with disabilities, prepare youth with disabilities for the workforce, and make the best use of scarce resources to advance employment opportunities for people with disabilities.
http://www.nga.org/files/live/sites/NGA/files/pdf/2013/NGA_2013BetterBottomLineWeb.pdf

Leading Practices on Disability Inclusion, U.S. Chamber of Commerce and the U.S. Business Leadership Network, July 2013
This publication highlights a wide range of strategies that businesses of all sizes can use to recruit and retain individuals with disabilities and create a more inclusive workplace, marketplace, and supply chain. It features examples from 18 different companies that have overcome sometimes significant challenges to implement inclusion strategies. Companies like Sprint, Microsoft, and UPS have developed diverse and competitive workforces and offer insight to help businesses realize the wide range of opportunities available and the potential for replicating success. A workplace disability inclusion assessment tool is included to initiate or enhance disability-friendly corporate practices.
http://www.uschamber.com/sites/default/files/reports/020709_DisabilityInclusion_final.pdf

Supply Demand

Information and Communications Technology Workforce Study, Australian Workforce and Productivity Agency, July 2013
Noting substantial growth in data usage and technological trends, the swift pace of change, and the diffusion of information and communications technology (ICT) across all industry sectors, this study predicts that ICT will continue to drive innovation and change the way that we live, play, and work. It

considers the demand and globalization of workforce skills and new methods for recruiting talent. The report profiles the Australian ICT workforce and looks at challenges to increasing the talent supply. It also recommends potential solutions to these challenges including strategies for attraction, recruitment, and retention as well as improving data collection on supply and demand.
http://awpa.gov.au/publications/Documents/ICT-STUDY-FINAL-28-JUNE-2013.pdf

The $250 Billion Question: Can China Close the Skills Gap? McKinsey and Company, May 2013
China's companies are failing to find the high-skilled workers they need, while individual workers find themselves ill-prepared for the jobs that are available. Based on research on the transition from education to employment using 100 case studies in 25 countries, this white paper focuses on the growing skills gap in China and details successful programs and several key principles for companies to follow. At the high end of the labor market, despite the remarkable increase in the number of postsecondary graduates in the last decade, the demand for skilled labor is likely to outstrip the supply by 24 million people in 2020 (eight million university graduates and 16 million vocational). McKinsey estimates the opportunity costs could be more than $250 billion (about 2.3 percent of GDP) if China does not bridge this gap.
http://mckinseyonsociety.com/downloads/reports/Education/china-skills-gap.pdf

Addressing Skills Gaps, Creating Careers: Key Findings from the Washington State Centers of Excellence, Association of Washington Business Institute, April 2013
Washington State Centers of Excellence focus on targeted industries and serve as statewide liaisons to business, industry, labor, and the state's educational systems for the purpose of creating a highly skilled and readily available workforce to meet industry demand. This report includes data on each targeted industry and summarizes key findings from a series of industry skills gap forums that engaged more than 100 employers and 150 educators in a discussion to determine the skills that are missing in the employment candidates they are recruiting.
http://www.awbinstitute.org/docs/2013%20COE%20Report_vFinal_LR.pdf

The Future of the Manufacturing Workforce: Technology and the Manufacturing Workforce, An Overview, Manpower, February 2013
This report presents insight from a survey of 353 North American manufacturing managers that begins a series of reports on the new manufacturing workforce. It highlights several trends that are aligning to reveal significant shifts in the demand and shortages in the supply of North American manufacturing workers. These trends include: a growing consensus among governments, the business media, universities, and other institutions that manufacturing matters to the well-being of economies and societies and is critical to a thriving middle class; the nature of manufacturing jobs has changed dramatically because of new technologies; workforce skills deficiencies have a significant impact on manufacturers' ability to expand operations or improve productivity; and occupations now demand well-educated knowledge workers thus leading to new recruiting and retention strategies. This report addresses the need for dramatic changes in the development of the workforce supply and offers examples of promising programs, though fragmented and limited in scope, that mix training, apprenticeship, and the accumulation of workforce experience.
http://www.manpower.us/Website-File-Pile/Whitepapers/Manpower/Man_Manufacturing-Overview_021913.pdf

The Future of the Manufacturing Workforce: The Rise of the "Tech" in Manufacturing, Manpower, February 2013
This second report in a series on the new manufacturing workforce focuses on an emerging class of worker in the contemporary manufacturing environment. Manufacturing has historically operated under a distinct division of labor between managers and engineers, typically with four-year university degrees, and unskilled labor or skilled trade workers with high school degrees. This report describes an emerging category of workers commonly referred to as manufacturing technicians or "techs" who program, operate, troubleshoot, and maintain the increasing number of computer- and network-driven manufacturing devices in the contemporary factory. These devices also generate data that need to be analyzed and applied on the factory floor. Because programs to develop the talent supply have primarily been localized and tactical, recognition of demand for this new class of worker is needed to engage stakeholders in the development of strategies to effectively create, find, and retain workers.
http://www.manpower.us/Website-File-Pile/Whitepapers/Manpower/Man_Rise-of-Tech_021913.pdf

The Future of the Manufacturing Workforce: Contemporary Manufacturing Technologies and the Talent to Use Them, Manpower, February 2013
The third report on the manufacturing workforce highlights the role that manufacturing technologies play in the changing demand for manufacturing workers. These technologies, which include computerized numerical control (commonly referred to as CNC) devices, robotics, machine vision systems, additive manufacturing, and data-related developments, are driving a considerable evolution of the manufacturing workforce. As they converge with information technologies, they will impact multiple aspects of the work model. The implications for technicians include: increasing need for specialization on relevant information technology tools; work becomes more professionalized and better compensated; work aligns more closely with line manufacturing work requiring more technically literate workers in general; networked manufacturing technologies will increase the need for techs to install, operate and maintain the networks and devices; and some factory-floor labor will be organized in semi-autonomous and multi-skilled teams. An infrastructure of educational and training offerings needs to emerge to develop the workforce.
http://www.manpower.us/Website-File-Pile/Whitepapers/Manpower/Man_Contemporary-Technologies_021913.pdf

The Future of the Manufacturing Workforce: Approaches to Educating the Manufacturing Workforce on Technology, Manpower, February 2013
The fourth report in this series looks at the current landscape of education and training for manufacturing in North America and suggests changes. In order to attract youth, the report recommends more effective promotion of the new career opportunities, technological advances, and changing work environment in this industry to confront the current impression of manufacturing jobs as dull, dirty, dangerous, and declining. While the programs and numbers of students needed may be smaller than during the Industrial Revolution, these occupations offer promising potential for workers and are vitally important to the economy. New training programs, leadership, and collaboration are needed to update and, in some cases, recreate previously eliminated regional training programs. Strategies are needed to engage regional or national collaboration among two-year technical and community colleges since the colleges lack a cohesive system, even within some states, and this results in fragmented program development efforts when the changing demands of this industry are pervasive.
http://www.manpower.us/Website-File-Pile/Whitepapers/Manpower/Man_Approaches-to-Educating_021913.pdf

The Future of the Manufacturing Workforce: Policy Prescriptions for the Manufacturing Talent Gap, Manpower, February 2013
The fifth report in the series on the new manufacturing workforce first considers current government initiatives supporting manufacturing in North America. It then recommends a variety of interrelated approaches and strategies for education, industry, funding, policy, and cultural awareness programs. Promising programs and initiatives that address the challenges presented in these reports are currently limited and fragmented. Therefore, leadership as well as competitive funding and sustainable local funding are recommended to engage stakeholders in a coordinated, comprehensive response. The expansion of leading secondary and postsecondary education programs across regions with high demand and programs that produce workers with skills in the most common disciplines is a primary requirement. These disciplines include: computer numerical controls (CNC) devices, complex machining, and welding. Certification programs are also needed to show that workers demonstrate the necessary skills for manufacturing technologists. The report recommends that industry should take the lead on certifying workers where appropriate.
http://www.manpower.us/Website-File-Pile/Whitepapers/Manpower/Man_Policy-Prescriptions_021913.pdf

Training

Healthcare Workforce: Federally Funded Training Programs in Fiscal Year 2012, Government Accountability Office, September 2013
To better understand the scope of the federal government's role in healthcare workforce training, this report evaluated federally funded healthcare workforce training programs that supported postsecondary training and education for direct care health professionals in fiscal year 2012. It includes detailed information about program purpose, funding, and targeted health professionals. Four federal departments—the Department of Health and Human Services, Department of Veterans Affairs, Department of Defense, and Department of Education—administered 91 programs that supported postsecondary training or education specifically for direct care health professionals. The departments reported obligating about $14.2 billion for these programs in fiscal year 2012 with the majority (78 percent) of funding going to programs that supported graduate medical education—postgraduate residency training for physicians and certain other health professionals.
http://www.gao.gov/assets/660/656960.pdf

Innovations and Future Directions for Workforce Development in the Post-Recession Era, Urban Institute, July 2013
This report presents highlights from facilitated discussions that explored promising practices and policies implemented during the economic recovery to inform a broader research agenda and greater system efficiency given the decline in funding for federal workforce programs. The discussions focused on three key areas of workforce development: connecting employers with workforce programs and services, building the education and work experience of under-skilled and unemployed workers to get them on a viable career path, and understanding advances in business practices and technology to better serve workforce system customers. Sections include emerging trends, promising practices and innovations, discussion on replication and scalability, and how policy can support implementation.
http://www.urban.org/UploadedPDF/412884-Innovations-and-Future-Directions-for-Workforce-Development.pdf