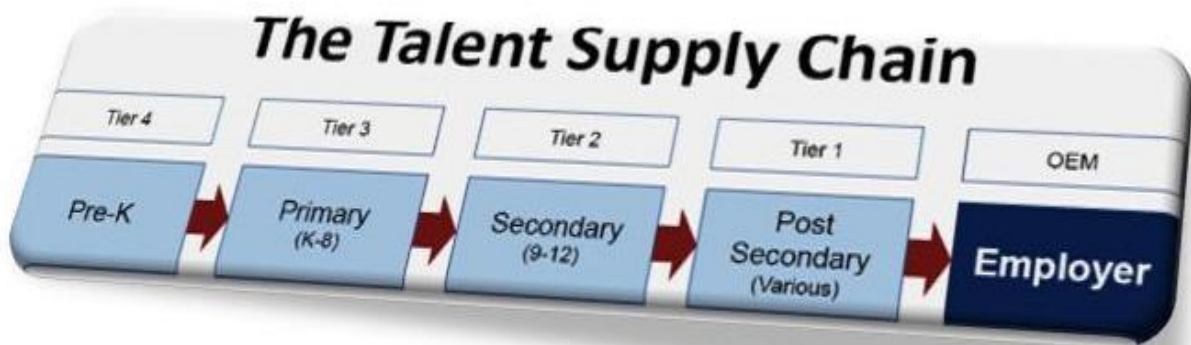


Talent Supply Chain Management

Vision 2025



Bill Guest and Tom Karel

Abstract

Talent development needs to become more certain, uniform, and predictable. Employers need to develop a robust capacity for Talent Supply Chain Management (SCM) to drive improvements in the talent development system.

Societal trends are driving a need for change in our workforce and education systems in much the same way that global trade has driven change in other sectors of our economy. Leading businesses have global supply chains for materials and services. It will be increasingly compelling for businesses to also have professionally managed talent supply chains.

Customers must define their requirements specifically for global supply chains to work. Both the product specification and the delivery schedule must be clear. Talent supply chains will require the same clear communication. Talent will be defined by competency models. Workforce planning systems will emerge to provide quarter-by-quarter demand forecasts much like Material Resources Planning (MRP) systems emerged to manage material supply chains.

Talent SCM will become common practice. This will be a business imperative, not a public service by employers. Individuals will target and develop competencies that are valuable in the job market. Employers will increasingly look to third-party credentials that provide valid reliable indication of the competencies needed for performance. As individuals draw a larger share of their education from on-line resources, traditional “time-in-seats” credentials will have less value. Employers will need trustworthy evidence of key competencies to make sound hiring decisions.

Evidence-based hiring and promotion practices will become common. Employers will correlate various sources of competency evidence to performance on the job. As employers develop a deeper understanding of performance at work, and the competencies required to perform, they will transform the way they hire, develop, and promote. This will radically shift the relationship between employers and their talent suppliers. Schools and workforce development agencies will focus education time and dollars on the competencies that are most relevant to enable high performance. This will enable savvy educators to redesign educational offerings to be better, faster, and cheaper. Blended learning models will become the norm.

One day, talent will be pulled forward through the supply chain by employers rather than pushed forward by educators. The results will be transformational: employers will have top talent, individuals will have clear guidance for their education and career plans, schools will become highly effective in serving each individual’s educational needs. Everyone will know precisely what they need to do to get a good job, and they will have the support to do it.

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More at: www.ncrcadvocates.org/SitePages/TalentSCM.aspx

Preface

We are business leaders writing to our colleagues. This vision evolved as a result of our work with countless collaborators. The conversations, the teamwork, and the lessons we learned together contributed immeasurably to this vision. Our intention in publishing this work is to advance the ideas and to accelerate the pace and productivity of our conversations and our work. We invite you to join the conversation and join the work to make this vision a reality.

Why Talent SCM? People are people. People are not parts moving through a logistics system. Understood and agreed. We selected talent supply chain management as a framework because business leaders understand that framework. And, we need business leaders to embrace this work and participate in the leadership of transformational change. In our lifetime logistics systems moved from “push” systems that didn’t work very well to “pull” systems that work much better. It is long overdue to apply these same ideas to our talent development systems. People are more important than materials. How can it be that we are pursuing “zero defect” manufacturing and we aren’t pursuing “zero defect” talent development? We believe every life matters. We believe everyone has a place.

It is a universal truth – everywhere and in every culture – parents want the best for their children. We are calling upon our colleagues to work together to build robust systems so that collectively we ensure a clear path to a better life for all of our children. We see the possibility for everyone to have a development path that leads to a good job and all of the benefits that come to those that have good jobs.

The current “push” talent systems are not working for everyone. A lot of the discussion around “failing schools” blames one group or another. The solutions are not to be found in finding the right ones to blame. The people are not the root cause of the problems. Anyone who has worked closely with educators and workforce development professionals, and we have, knows that they are overwhelmingly wonderful hard working people that bring a sense of mission and an extraordinary devotion to their jobs. It is the system that is broken. It is time to apply systems thinking and build a “pull” system that works for everyone.

Let’s use our best systems thinking to serve each other – to build our communities.

Talent Supply Chain Management

Vision 2025

“Employers work to make things predictable, uniform, and certain. Predictability, uniformity, and certainty are universal goals of executives. The National Career Readiness Certificate does this for the hiring process.”

Mac MacIlroy, Past President, Michigan Manufacturing Association, 2008

Talent development needs to become more certain, uniform, and predictable. Employers need to develop a robust capacity for Talent Supply Chain Management to drive improvements in the talent development system. To fully explore these thoughts let's look at the trends that affect us, reflect on those trends, set forth a vision, and explore the details of the attributes of the talent supply chain of the future.

Trends

- **Information** – Information that was scarce is now abundant. We spend less time searching and collecting scarce information and more time filtering and organizing the abundance of information available to us. Media is shifting from place-based paper to globally available digital formats.
- **Community** – The center of our belonging is moving from solely being members of local communities to members of the global community.
- **Work** – We work less in top-down command and control organizations and more in teams and networks.
- **Communication** – We are communicating less with letters and newspapers and more with email, on-demand digital feeds, and on-line multimedia news. Friends and local editors have less influence over our thinking as they compete for our attention. We have more choice and control over the information sources upon which to base our thinking.
- **Learning** – Learning is moving from traditional professional instructor-led environments and material organized with professional pedagogy to self-directed, on-demand learning.
- **Careers** – Career development is moving from collecting experiences to building competencies.
- **Personal Responsibility** – There is an overarching theme within the above trends. That is from “push” to “pull.” And, from other directed to personal

responsibility. We now have the opportunity and responsibility to build our skills. For example:

- The media has less power to organize and push information to us. We now pull the news we want to read.
- Learning is moving from instructor-led to self-directed.
- Careers are moving from life-long careers within an organization to self-directed career development across multiple organizations.

Reflections

A few thoughts on what these trends mean to each of us.

- On the positive side we have more individual liberty, opportunity, and responsibility for ourselves.
- The price we pay is that we are, to a larger extent, on our own. We must take care of ourselves.
- The challenge we have as a society is to help each individual develop the capacity to care for their career needs.
- It is in our collective self interest for each individual to find their best place in society, a place where they are able to enjoy contributing significantly, and a place where they are fully rewarded for their contributions.
- Our challenge is to arrange support and assistance so that each individual finds the path to an optimal spot where they are contributing and being rewarded. And, we need to ensure broad access to opportunity for all individuals.

Vision

Our vision of talent management in 2025:

- We will have more clarity around competencies. We will think of experiences in the context of their impact on building our competencies. We will all know what we are good at and we will all have plans to develop and exploit our strengths.
- We will access and utilize self-directed career paths. We will all be called upon to do a better job of self-assessment and we'll know how to use that information to move forward. In other words: We'll each need to know the *current state* of our skills, have a plan for the *future state* of our skills, know how to do a *gap analysis*, and create *learning plans* to eliminate the gaps.

- Our talent development system on all levels will be driven by the pull from employers. Employers will be thinking and saying “We are working on improvements in our talent supply chain” rather than “They need to fix the schools and workforce system.” Rather than expecting “them” to fix the systems, employers will be focused on communicating requirements and providing planning information to help talent suppliers meet the requirements.

Attributes of the 2025 Talent SCM System:

- **Talent Supply Chain Management** – Talent SCM will be common practice. Just as managers have learned how to manage global material and service supply chains, they will master the management of global talent supply chains. This will be a business imperative, not a public service by employers.
- **Foundational Cognitive Skills** – The evidence-based skills identified by the WorkKeys system will gain recognition. The bundled set of cognitive skills in the National Career Readiness Certificate (NCRC) will be thought of less as three discrete skills of Reading for Information, Applied Math, and Locating Information and more for the reasoning components of critical thinking and problem solving.
- **Behavioral Skills** – The highly fragmented market in soft skills assessments will yield to a few dominant trusted players. Demand will be driven by employers using the assessments for hiring and promotion decisions. Valid reliable assessments with published predictive validity studies will be the market leaders.
- **Competency Focused** – Employers will define roles and establish entry criteria based on the competencies required to perform in those roles. Credentials based on “time in seats” will have less stature. Credentials that represent competencies with clear alignment to performance will gain stature.
- **Work Team Productivity** – Employers will focus on work team productivity. Value is created by teams that work effectively together to accomplish results for the organization. The full set of skills needed to accomplish work outcomes effectively in teams will guide the requirements for role entry.
- **Evidence Based** – Competencies will be evidence-based. Credentials will need to be valid and reliable based on third party assessments of competencies. Learning on-demand from multiple sources will need trusted independent validation of outcomes so employers have evidence of capabilities.
- **Pull Systems** – Employers in need of talent will have well developed talent supply chains to pull in talent from multiple sources. These will be global talent supply chains designed to pull the best talent in the world at the most competitive rates. Educators and workforce developers will increasingly see their role as the local portion of a global talent supply chain.

- **Valid Reliable Third-Party Assessments** – Markets that have thousands of sellers and thousands of buyers work best with clearly defined standards. ISO standards are an emerging solution to the needs of global markets. Talent credentials will evolve in similar fashion. Standards will emerge and third-party validation will become a norm. The ANSI/ISO/IEC 17024 standard to harmonize the worldwide certification system is a step in this direction.
- **Closed-Loop Feedback Systems** – Evidence-based hiring and promotion will enable the emergence of closed-loop feedback systems. Managers will be able to collect and analyze data to cause hiring and promotion processes to be predictable, uniform, and certain. We will think of hiring and promotion processes as processes that need to be “under control” in a six-sigma style of control.
- **ONET Occupational Groups** – Process control analytics will drive the need for grouping work roles into related occupations. The ONET will emerge as the standard occupational grouping used by all employers, educators, and workforce development professionals.
- **Regions** – Employers will work together to collaborate around the development of regional labor sheds. Regional population centers are the logical scale of focus for collaboration among employers. Labor sheds are defined by the commute patterns between counties.
- **LEAN Education and Workforce Skill Building** – Educators will apply LEAN principles to simultaneously improve the cost, quality, and delivery of education. Clearly defined requirements by employers will enable suppliers to become more effective and efficient. Education and training will be optimized to focus on the core competencies required for performance in work roles after employers clearly define the competencies required for proficient and masterful performance.
- **The Talent Economy** – The economic model of talent management will be viewed increasingly as a supply and demand model. Educators and workforce development professionals will define their roles in terms of supporting the self-directed learning of individuals seeking to build skills that are in demand. Demand will be defined by the aggregated voice of employers for individuals with the competencies required for performance at work. Corporate learning officers will need to redefine their roles. Individuals will need to take full responsibility for their own learning and development plans. Organizational responsibilities for career plans will shift from the supervisors to the individuals themselves.

Thoughts on the business models:

- **Evidence-Based Hiring Processes** will provide the demand side of the equation. Employers will select the credentials that they trust to inform them of the critical competencies required in various work roles. These credentials will be the evidence of the essential skills required to perform in the role.

- **Career Navigation Centers** will provide the tools to the supply-side partners and individuals so they can develop and execute learning and development plans that will lead to careers that will provide optimal benefit and enjoyment to them. Individuals will have education plans that support their career plans. Evidence of these plans and credentials to demonstrate progress on these plans will open doors to employment opportunities.

Thoughts on the **evidence-based hiring process**:

- **Competency Models** will become common language and a cornerstone of job descriptions, hiring processes, and promotion processes.
- **Foundational Cognitive Skills** based on the NCRC skills with emphasis on the critical thinking and problem solving skill levels.
- **Behavioral Skills** that enable effective and efficient accomplishment of work tasks, duties, and responsibilities in team environments.
- **Observation Skills** that quantify the perceptive abilities of individuals so that employers can correlate observation abilities to work performance.
- **Degrees, Licenses, and Occupational Credentials** that represent the content knowledge and skills required to perform the specific roles.
- **Job Descriptions** based on the ONET occupational groupings. Role descriptions will need to start with a reference to the relevant ONET code and detail the specific role relative to the general definition of skills provided in the ONET definition.
- **Performance Feedback** systems that collect accurate supervisor feedback on performance to enable statistical analysis of the process control for hiring and promotion processes.
- **Workforce Planning Systems** must evolve so that supply-side partners have the data needed to make prudent capacity planning decisions. These systems will ultimately evolve to enable just-in-time talent development.
- **Industry-Recognized Credentials** that meet ANSI/ISO/IEC 17024 standards will gain popularity among employers.
- **Diversity and Inclusion** initiatives will embrace foundational skills training, development, and certification as tools to accelerate progress. Inclusiveness goals and plans will be integrated into talent development at all levels from sourcing, selection, and hiring to development through retirement.

Thoughts on the **Career Navigation Centers**:

- **Career Literacy Skills** will become a necessity for the majority of workers. Everyone will need to learn how to plan and organize targeted skill development to enable career progression.
- **Career Navigation Centers** that have tools and staff to assist individuals to develop career literacy will become common. Some will be embedded in employers, schools, and workforce development agencies. Some will be independent centers.
- **Career Coaching** will become a standard practice as hiring requirements become more clear and specific. The basic elements of career coaching are:
 - **Self Understanding** – individuals will use cognitive and behavioral assessment tools to gain a deeper understanding of self so they can accurately assess viable career options that are a good fit.
 - **Explore Career Options** – The ONET will expand and become a common framework for career exploration. Individuals will commonly explore multiple options to compare for best fit.
 - **Decision Making** – Individuals need to develop the competency to evaluate options considering all of the important factors such as access to programs, personal interests and values, compensation and demand for their target occupations, financial position, and support available to pursue the option.
 - **Action Plans for Education and Career** – Individuals will learn to create and continuously update education and career plans as evidence to employers that they possess the requisite level of career literacy. And, they will increasingly hold themselves accountable for progress on those plans.
- **Evidence of Career Literacy** – will include items specified by employers as important evidence for hiring decisions for the individual's target occupation.

Consider these insights from Peter Drucker:

- Success in the knowledge economy comes to those who know themselves – their strengths, their values, and how they best perform.
- Self-knowledge isn't just a tool for personal enrichment. In today's knowledge economy, it's critical for survival.

Footnote: Peter Drucker published *Managing Oneself* in Harvard Business Review in 1999. The article was an excerpt from his then upcoming book *Management Changes for the 21st Century* (published May 1999).

About the Authors

Bill Guest is the President and CEO of Metrics Reporting, a West Michigan based workforce development and information technology consulting firm. He is an international consultant, conference speaker, and practitioner in the areas of workforce development, innovation, and metrics. His consulting practice is currently focusing on human capital supply-chain challenges at all levels. His work draws on experiences from his 25 years of industry experience in a variety of roles from engineer to CEO. Bill can be contacted at: bill.guest@metricsreporting.com

Tom Karel is Vice President of Organization and Talent Effectiveness (OTE) at Saint Mary's Health Care. Tom is a recognized innovator and collaborative leader working to advance talent systems on all levels: locally at Saint Mary's, system-wide at Trinity Health, and regionally in West Michigan. He served as a member of the Health Care Regional Skills Alliance convened by the Alliance for Health. He is a founding member and chair of the Health Care Employer Council, a West Michigan based group of industry leaders, working to create an adequate pipeline of qualified, competent and compassionate health care workers to meet the needs of the region for the next 15 years. The council collectively acts as the caretaker of the West Michigan health care labor shed. They recognize that all employers draw from the same pool of workers, therefore they work together to build the quantity and quality of workers in the pool. Together they must forecast needs, communicate requirements, solve regional problems, and work collaboratively with talent supply-side partners to improve the workforce and education systems. Tom can be contacted at: kareltl@trinity-health.org

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Attachment A: Work Plan for Employers – First Steps

Following are thoughts to help employers get started. The suggestions are organized into five key areas of work to establish talent supply chains.

One – Clarify Performance

- Develop a deep understanding of performance.
- Clarify the competencies that enable performance, the measures of performance outcomes, and how they are related
- Develop a comprehensive understanding of workers and jobs
- Define a framework for grouping data (such as the ONET Content Model)
- Define the high value items that are essential to the work
- Distinguish between attribute data (credentials) and variable data (skills)
- Distinguish between the essential few and the important many (80/20 rule)
- Define the tools to document performance (evidence of enablers and outcomes)
- Review baseline data that relates competencies to performance outcomes
- Define your initial method to define essential skills for each role, such as: referencing the ONET or conducting benchmark studies with current employees
- Define your method for validating the essential skills and tools over time

Two – Workforce Planning

- Recognize that plans operate in a system. The workforce plan is a supporting plan that supports the achievement of the organization's strategic plan.
- Distinguish between short-term planning and long-term forecasting
- Short-term plans (18 to 24 months) should be definite commitments based on approved organizational plans that can be used for program enrollment.
- Long-term forecasts are best estimates based on long-term plans (5 years) that can be used for capacity planning
- Clarify the end goal – to have the right people, in the right place, at the right time, with the right skills and abilities, with the right credentials
- Human resources managers need to view the hiring managers as the ultimate customers and the talent supply chain as a system to satisfy those customers
- Clarify the “make vs. buy” analogy with talent development vs. acquisition
- Define how workforce planning will drive the talent development process
- Define how workforce planning will drive the talent acquisition process
- Define bidirectional commitments with employees via the performance management process that are used to incorporate advancement into the model
- Implement a planning system to communicate requirements to the supply chain that is analogous to MRP and ERP systems used to manage material suppliers
- In this analogy, think of ONET codes as part numbers and job descriptions as drawings and specifications

Three – Talent Acquisition

- Develop a comprehensive definition of talent acquisition: search, select, and hire
- Make an organizational decision to transition to evidence-based hiring

- Identify valid reliable assessments and other evidence-based tools to be used in hiring decisions
- Use the evidence-based process to build a pool of outstanding candidates so hiring managers can focus on the fit of the candidates to the work teams
- Distinguish between specific work roles and job categories
- Simplify job descriptions by utilizing ONET occupations as a baseline
- Implement a data collection and analysis system to calculate the predictive validity of the assessments and other evidence tools used in the hiring process

Four – Talent Development

- Develop a clear definition of talent development – an organization’s ability to align strategic training and career development opportunities for employees
- Roles must be defined by the required competencies to enable effective gap analysis and personal development by individuals seeking those roles
- Require everyone to have a career plan and a supporting learning plan
- Clarify the level of personal responsibility expected for learning and development
- Interface with workforce planning to balance supply and demand
- Review learning program content for alignment with competencies required
- Review learning outcome credentials to ensure they are valid reliable indicators of competencies required

Five – Collaboration and Partnerships

- Identify the workforce development agencies and postsecondary institutions, both public and private, in your region.
- Seek out and learn about national best practices in workforce development, systematically determine the best practices that could be most helpful to your region, and make plans to pilot and implement those practices locally.
- Learn about the role of third party conveners, workforce intermediaries
- Develop a productive relationship with your regional convener
- If there is not a convener, work with other employers to establish one
- Develop an understanding of the various policy and funding levels: Federal, state, and regional; and the mechanisms to fund regional work
- Become an active participant in the work to improve the regional labor shed
- Agree upon common frameworks (ONET Content Model)
- Agree upon a common framework for Talent SCM – employers as end-users of talent, postsecondary as Tier 1, high schools as Tier 2, K-8 as Tier 3, etc.
- Agree upon common assessments and credentials to develop a common regional language for skills and competencies
- Align workforce training and postsecondary education to the competencies needed to perform at work
- Evaluate and align with national partners that can be helpful to your work
- Focus first on Tier 1 and Tier 2 projects

Attachment B: Work Plan for Educators – First Steps

Following are thoughts to help educators get started. The suggestions are organized into five key areas of work to support development of talent supply chains.

One – Job Analysis – Engage with key employer partners to assist with detailed job analysis and competency model development using the ONET Competency Model Clearinghouse. Work with employers to customize job descriptions to align with the competencies most critical to job performance.

Two – Gap Analysis – Develop tools that can be used by incumbent employees to perform a skills gap analysis that accurately defines the gap between the competencies in the model and the employees' current skill set. Assist individuals to develop customized learning plans that guide the employees' development to address the gaps.

Three – Employee Development – Provide on-demand education and training opportunities for employees to address the skill gaps.

Four – Educational Content Alignment – Analyze current degree and certificate programs to determine the alignment of the program content to the competencies in the model. Revise the program content to focus acutely on the competencies most critical to performance in the occupation.

Five – Education Innovation - Reinvent the learning experience. Search, summarize, organize, vet, and prioritize national best practices. Imagine, design, and run pilots to test the usefulness of selected innovations relative to local needs.

Thoughts on education innovation:*

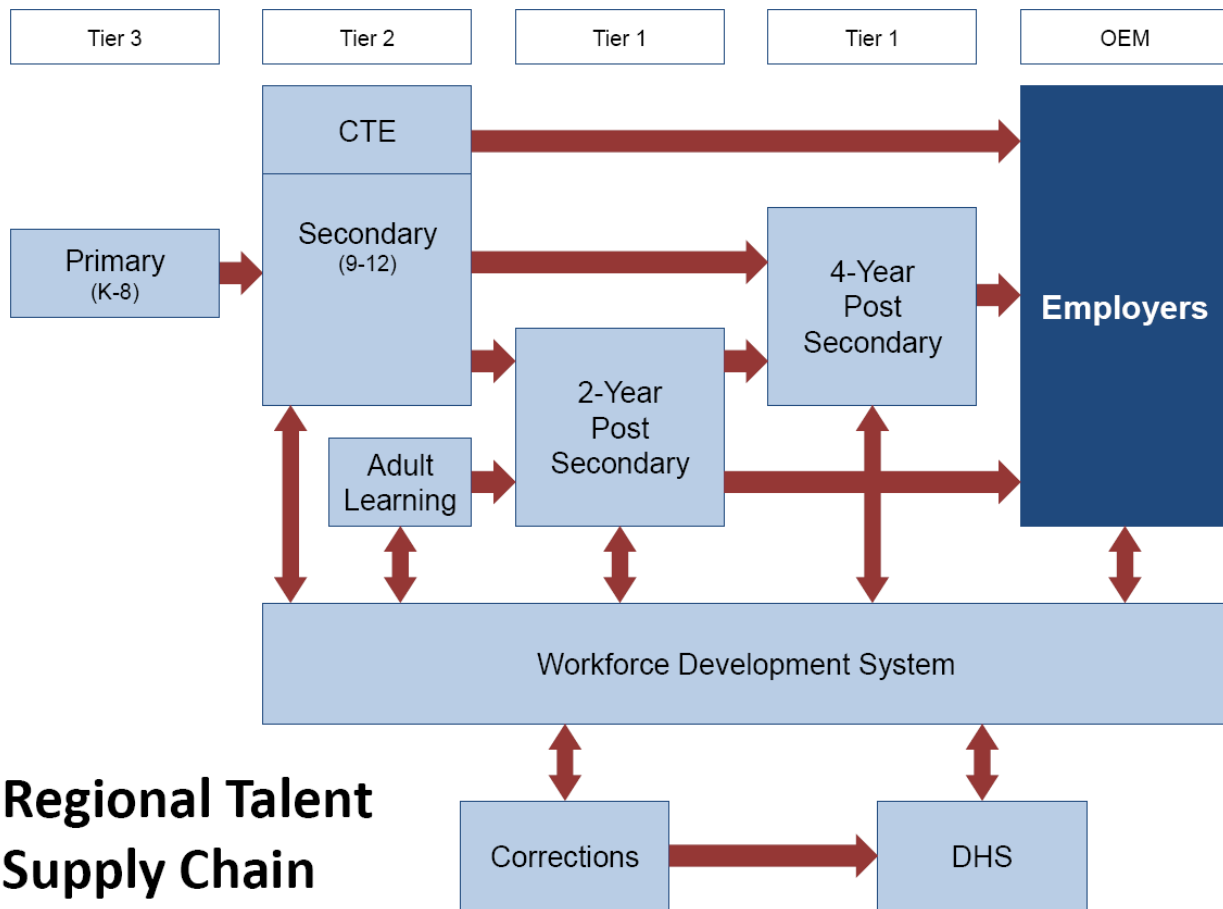
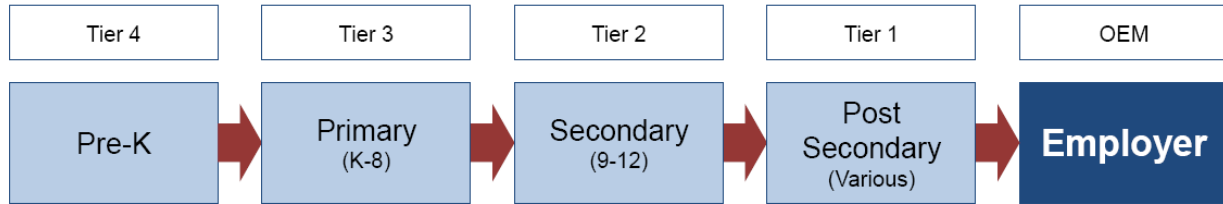
- **Open Educational Resources (OER)** – Creative Commons (CC) is a nonprofit set up in 2001 to create intellectual and legal framework to share or mix creative work online.
- **OpenCourseWare** – The open courseware project at MIT offers 1,900 courses online. More than 200 institutions in 32 countries have posted courses online at the OpenCourseWare Consortium under CC licensing.
- **Flat World Knowledge** – is a for-profit company that offers originally produced, open-source textbooks. Students can read them for free online, download a PDF for a few dollars, or get a printed copy for \$29.95.
- **Open Learning Initiative (OLI)** – at Carnegie Mellon University in Pittsburgh is researching the efficiency and effectiveness of using technology to “change the knowledge state of the learner” – that is – to deal directly with the skills element. They developed “concept-specific immediate supported practice” or “scaffolding” as a learning model. This drives students to “deep practice” and couples that with learning analytics. OLI students learn more, learn faster, and enjoy it a little bit more too. They found students who took classes online learned more and

performed better on average than those who stuck to traditional face-to-face classes. Hybrid approaches worked best of all. Online students benefitted most in the cases where they were able to move at their own pace, prompted to spend more time on task, reflect on what they'd learned, and collaborate.

- **National Center for Academic Transformation (NCAT)** – has worked with hundreds of public universities to redesign individual courses “to prove that it is possible to improve quality and reduce cost in higher education.” Toni Farley, a computer science professor at Arizona State used NCAT’s guidance to redesign an intro computer science course. The outcomes were dramatic. The cost per student in the course dropped by 44 percent, mostly because about 80 percent of the assessment was automated. Students learned much better: even though the course moved faster, covered more material, and was deemed harder by the panel of outside expert advisors that Farley convened; the percentage of students who passed with a C or better rose from a lame 26 percent to a strong majority – 65 percent. And, students enjoyed the course, rating it higher on their evaluations. The most recent round of NCAT course redesigns at public university campuses across the country cut costs an average of 39 percent ... Outcomes improved by almost any measure: test scores, grades, information retention, student persistence, student satisfaction, and graduation rates.
- **Transforming Teaching Through Technology (T⁴)** – is a project at the University of Wisconsin at Madison that supports the development of simple, purpose-built games in areas like economics, foreign languages, music theory, math, and science.
- **Western Governors University (WGU)** – was formed as a private nonprofit in the late 1990s by the Governors of 19 Western states. WGU is a national innovator in learning. They do not have credit hours; they have a series of assessments that measure competencies and on that basis award the degree.
- **The Online Skills Laboratory** – was announced in the summer of 2009 with \$500 million in funding inviting colleges, publishers, and other institutions to create free open-source online courses, primarily at the community college level, with an emphasis on vocational topics.
- The **Gates Foundation** - Announces \$20 Million for New Education Technology Program was the headline of an article in *The Chronicle of Higher Education* recently. The ultimate dream, Gates said, is to take a quality education that might cost \$200,000 today and make it more broadly available at a much cheaper price. There’s a huge potential to make education easily twice as effective per dollar as it is today.

*Footnote: Most of the material for this appendix is from *Edupunks, Edupreneurs, and the Great Transformation of Higher Education* by Anya Kamenetz, March 2010. More specifically, the material included here is from the *Computer Science* chapter.

The Talent Supply Chain



Regional Talent Supply Chain