

The Country Paper should not exceed 25 pages, including the cover page.
The finalized Country Paper should be submitted via email at ICCDPP2017@krivnet.re.kr in Word (.doc file).

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Introduction

We are now at a crucial crossroads where decisions must be made.

The structures of work opportunities are undergoing massive changes in most countries. Information and communications technology have significantly changed the ways how organisations and businesses function. The local and national economies are affected by the global economy in ways which could not have been envisaged 30 years ago. Many people struggle to make a living. Incomes have stagnated for many years while the cost of living is steadily increasing. Wealth and income inequality is growing with the former increasingly concentrated among a small percentage of the population. Youth unemployment and underemployment rates are universally high. Career pathways are very unclear. There remains a disconnection between education & training and the world of work. The role of between career development practitioners in all sectors and employers is rather vague. The era of the 4th Industrial Revolution and Artificial Intelligence (AI) has arrived. Automation is increasingly encroaching and reshaping skills and jobs in many economic sectors. The future of work is uncertain and unclear.

To deal with these issues above, there is high need to seek approaches and methods that meet individual career needs and produce measurable results that are practical and socially relevant for individuals and societies.

The career development sector addresses the challenges to bridging the supply and demand of the labour market towards enhancing the prospects of the national economy and society. It equips individuals on the one hand with skills for taking decisions on educational, training and work choices that will guide them in finding decent work and future career opportunities and on the other hand, it helps employers to access qualified and productive workers.

How is the career development sector in your country facing the challenge of being relevant and current in the context of such massive change? How have the personal, social and economic impacts of its programs and services been demonstrated and/or transformed in response to changes in the labour market? What can funders and policy makers realistically expect from programs and services provided within the sector? What can the public and employers realistically expect? What are the implications for policy and practice going forward?

The 2017 Symposium invites countries to examine the crossroads at which the relevance and impact of career development interact with the significant changes occurring in their labour markets and to explore constructive and impactful career development responses. Countries are expected to develop a Country Paper in which the following four themes will be addressed:



Theme 1

Understanding how work opportunities are changing



Theme 2

Ensuring that content and delivery of career development programs and services are relevant



Theme 3

Improving career practitioner training and practice



Theme 4

Reforming career services in education and labour to focus on career competencies and successful transitions

In reference to these themes, countries are encouraged to pay specific attention wherever possible to:

- Key elements in your country that are guiding policy development and implementation
- Examples of specific outcomes that are resulting from policy implementation and how these outcomes are measured
- Examples of promising implementation strategies.

General question

1. Please indicate the theme that you are the most interested in discussing (Please note that country teams will participate in all sub-themes discussions during the symposium.)
 - 2 Understanding how work opportunities are changing
 - o Ensuring that content and delivery of career development programs and services are relevant
 - o Improving career practitioner training and practice
 - 1 Reforming career services in education and labour market sectors to focus on career competencies and successful transitions

2. Please indicate your reasons for participating for this symposium.

Participating in the ICCDPP 2017 International Symposium is a privilege and an honor. The United State team is invested in growing professionally through collegial partnerships with career experts from around the world while exploring our own ability:

- To increase understanding, nationally and internationally, regarding how effectively the evolving world-of-work and career development needs of our citizens are being addressed by career development programs and services.
- To identify strategies for addressing career development needs more comprehensively and effectively.
- To examine career practitioner training and practice within national and global contexts.

3. To what degree are the established career content, programs and services in your country in meeting the career needs of the population?

(2)/5

4. On a scale of 1(Lowest) – 5(Highest), how does career development provided in schools, produce 'career ready school leavers' in your country?

(2)/5

5. On a scale of 1(Lowest) – 5(Highest), what is the strength of the public policy evidence base for career development in your country?

(2)/5

Thematic questions

Questions to help you to organise your country responses to the four specific themes are outlined below:



Understanding how work opportunities are changing

6. What are the major changes that are taking place in access to, or maintenance of, or progression in employment and/or livelihood possibilities for youth and adults in your country?

Career and Workforce Policy in the United States. [Good and Strong](#) (Chapter 2) describes the workforce develop system in the U.S. as a “patchwork quilt” of isolated programs and initiatives designed to address specific issues or groups but in a fragmented manner. Often each program is supported by a specific advocacy group that develop their programs in isolation from other existing or past efforts and thereby contributes to a fragmented workforce development structure. The U.S. Government Accounting Office identifies a number of challenges including duplication and inefficient use of limited resources, outdated outcome indicators, and an overall underinvestment in key areas such as helping adults develop the literacy and numeracy skills needed to enter the job market.

Among the challenges Good and Strong identify are: (a) full-time employment involving short-term contract work and multiple part-time positions; (b) cloud computing enables work to occur outside business site; (c) long-term unemployment and underemployment; (d) lifelong learning, stackable credentials and postsecondary degrees needed to adapt to changing skill demands; (e) technology used to create sophisticated hiring practices while job seekers have identified/different? strategies to maximize their self-presentation.

Other changes/challenges they identify include significant increased economic disparity among rich and poor, employees experiencing stagnant earning growth in a context of strong economic conditions and estimates of nearly [6 million disconnected youth](#) (i.e., opportunity or NEET) and young adults that are neither in school nor working.

The Workforce Investment and Opportunity Act (WIOA) is seeking to create more opportunity for collaboration and synergy across federally sponsored workforce development programs by establishing for the first time in the U.S. a common set of outcome indicators and expanding the range of indicators to include high school education and postsecondary education as viable outcomes in addition to traditional job placement. WIOA also places primary emphasis on service delivery of career development interventions rather than job placement. These changes demand significant redesign of services and increased career counseling skills among personnel within organizations that provide workforce development support to many high-needs and high-risk populations served by WIOA funds as well as One-Stop Job Centers and Vocational Rehabilitation Centers that serve as a primary resource for

supporting adults.

Another consideration is to begin focusing on facilitating career exploration, or career navigation skills. The idea is that youth and adults need to learn how to manage their own career opportunities by learning how to access available learning opportunities and to learn how to make sure these opportunities are aligned to their goals.

Good and Strong identify a number of workforce development strategies that must be considered. These include creating opportunities for work-based learning whereby individuals integrate education with skills development, better collaboration between employers and educational institutions to create career pathways and robust work-based learning internships and coops, and changing the education structure to assess for competencies rather than credit completion.

Four areas related to addressing these concerns are described below.

Skills Gap. Employers are expressing concerns that they are unable to find the right person with the skills they need to fill critical positions. This “[skills gap](#)” is not only acute in high-demand science, technology, engineering, and math (STEM) fields, but also in many middle skills occupations (jobs requiring more than a high school diploma but less than a 4-year postsecondary education). The skills gap causes and solutions are varied and complex. There are concerns that: (a) learners in secondary and postsecondary settings are not developing the competencies and skills needed for entry into the local labor market; (b) prospective candidates are not perceived as possessing the range of “[soft skills](#)” that are needed in today’s work setting (e.g., critical thinking, teamwork, communication, learning to learn and unlearn, self-management). Identified below are some organizations that are providing information and resources on how to address the skills gap challenge.

SME. [SME](#) is a non-profit company that sets competency standards for [manufacturing technology](#). These competencies are being used to develop national certification standards for manufacturing.

U.S. Department of Labor. The US Department of Labor’s WIOA supported One-Stop Career Centers offer access to a wide range of [competency and certification models](#), toolkits, and training programs. DoL also provides a nice overview of [competency and certification strategies](#) in the United States.

Advance CTE. [Advance CTE’s](#) 16 Career Clusters describes the knowledge, skills, and education requirements associated with 72 career pathways.

Lumina Foundation. National organizations such as the Lumina Foundation are focused on [talent development](#) by focusing on the coordination and communication of state credentialing opportunities.

Connecting Credentials. Managed by the Corporation for a Skills Workforce with funding from the Lumina Foundation, the [Connecting Credentials](#) national campaign involves a large number of organizations interested in [redesigning the credential process](#).

Career Pathways. One of the ways that states are addressing the skills gap is to adopt [career pathways](#) initiatives. Career pathways connect learners to education and occupational opportunities that generally occur through a two-year college setting. Career pathways incorporate career development, work-based learning and academic preparation in areas that support entry into an occupation or field. The quality of implementation of these efforts is challenging as school counsellors continue to have caseloads as high as 500-700 students. Such caseload levels make it difficult to offer personalized attention to each student. Establishing career pathways is also highly dependent on strong relations between the local employers, secondary education systems and higher education.

College and Career Readiness. A second way that states are addressing career and workforce development more generally is through the adoption of the college and career readiness initiative. While initial efforts focused on increasing college entrance exam test scores, more recently states have adopted a career development strategy referred to as individualized learning plans (ILPs). Used in 44 states ILPs efforts have expanded “college” to refer to a two-year or four-year credential or program. Low postsecondary completion rates and high college debt is encouraging secondary and postsecondary settings to engage in more career development efforts to create a more deliberate alignment between the learners career goals and their postsecondary education pathway. This effort is also being motivated by concerns that “career and technical education” (CTE) tended to enroll disproportionate numbers of low-income and minority students. ILP efforts are helping educators and youth identify the competencies needed to successfully pursue self-defined career and life goals and develop the career navigation skills needed to access work-based learning and postsecondary education pathways that align to their goals.

Employer Engagement in Career Development. The [U.S. Chamber of Commerce](#) Foundation launched a national effort to organize employers around youth career development. The [Coalition for Career Development](#) is a budding national grassroots effort designed to bring employers, national career and workforce development organizations and educators together to advocate for a collaborative national strategy to improve access to career development.

7. From your knowledge, what are the major drivers/factors behind these changes? -
*examples required

Skills Gap. As technology continues to replace routine job tasks, new and more advanced skills are needed in order to become employable in many job sectors such as manufacturing and biotechnology. While business and industry are constantly restructuring roles and skill needs, education and training providers are unable to respond quickly enough to changing workforce needs. In addition, the “Baby Boomer” generation has entered the retirement window meaning employers need to backfill the loss of key talents and skills within their organization. For example, companies like [the Boeing Company](#) in the aerospace industry are looking for new ways to create a pipeline of engineers as they face an aging workforce. Twenty-five percent of their workforce were officially eligible to retire between 2014 and 2018. Yet, even as the workplace gradually shifts to one with shorter periods of employment and greater skill requirements, according to the [US Chamber of Commerce Foundation](#), employers are unlikely to return to a time of large-scale in-house training. In short, the country is undergoing many changes that are requiring us to abandon the old playbook and develop new solutions for our time.

Career Pathways. Structurally, pathways look much different than in the past. Not only is it not

abnormal for young adults to have 4 jobs before they are 32, there are new work models that have reshaped the relationship between employer and employee. For example, the short-term (i.e. “gig”) economy has introduced more independent contracting strategies that may open up new potential career pathways. However, ensuring that existing pathways are real and not theoretical requires more employer leadership. Employers hold the greatest currency in career development: jobs. Yet they are seldom engaged beyond serving on advisory boards and have in the past not clearly communicated competency needs to talent providers. While there are examples of employers are playing a prominent role in creating career pathways (for example, Boeing created an engineering program to meet its talent needs) employer leadership needs to be strengthened overall.

8. How are education, training and employment policies and practices in your country responding, if at all, to these changes?

Focusing on industry recognized credentials. The credentialing marketplace is vast and the quality and the strength of a credential’s currency in the marketplace can vary widely. In order to strengthen the outcomes of career pathways, some education and training programs are focusing on delivering credentials that are in high demand and/or recognized as high quality by the business community. This is not limited to traditional 2- and 4-year degree programs. Private and non-profit accelerated programs, like boot camps and “[last-mile training](#)” providers, are increasingly filling the gap between our traditional education and workforce systems and employer needs. Organizing jobs into [16 CareerClusters](#) and 72 Pathways helps learners identify the skills and education pathways needed to pursue a wide range of occupations. Expanding from this effort, the [Lumina Foundation](#) is focused on mapping out the state-specific skills and credentials needed to pursue manufacturing and technical careers.

Ensuring career readiness for all. Recent federal legislation has renewed interest in increasing access to career awareness, preparation, and training programs for all young adults. For youth that are in-school, districts are looking to modernize career and technical education to fit the needs of 21st century jobs and strengthen sector strategies. Federal legislation is also influencing how regions are helping young adults transition into the world or work. For example, the [Workforce Innovation and Opportunity Act](#) placed a greater emphasis on reconnecting out-of-school youth to training and career opportunities, and the [Every Student Succeeds Act](#) (ESSA; our central primary and secondary school law) has encouraged states to include career readiness activities (e.g., work based learning, individualized career plans) into their accountability plans for all students.

Exploring new types of hiring models. There is a renewed effort to move toward [competency based education and hiring](#). The focus is moving from two or four-year degree attainment to a focus on one’s experiences, skills, and competencies.

Strengthening Career Pathways. The U.S. Chamber of Commerce Foundation, [National Career Development Association](#) and Coalition for Career Development are each looking at how to develop a pool of career professionals that are able to serve as a bridge between schools and local employers. This role will demand more knowledge of the skills and credential pathways local employers are needing and communicate these needs to schools and identify youth who may be good candidates for these opportunities . One example recently shared with the United Nations is a strategy used by the [Boston Private Industry Council](#) (Boston PIC) to place a career counsellor in each school to identify and connect youth to work-based learning opportunities. Additionally, cities

such as Denver, CO and Sacramento, CA, are developing the infrastructure to increase access to work-based learning experiences for all students.

9. What evidence is there, if any, of the impact of these policies and practices on improved access to work opportunities for youth and adults (please refer as appropriate to access issues covering gender, seniors, disabled and other minorities)?

The United States continues to struggle with measuring outcomes. States are creating longitudinal data systems that track education and workforce development accountability measures separately. States are beginning to develop strategies to combine education data with the labor data. Once linked, it will be possible to assess whether career development facilitates transition to employment in their chosen career fields as indicated by type of employment and earnings. More detailed information on workforce performance and feedback from colleges and employers on student readiness is currently not part of the system. An example of the potential for combining education and labor data was demonstrated by economist [Raj Chetty](#). He and his colleagues demonstrated the positive impact of elementary teacher quality on future college completion rates and wage earnings. Moreover, Chetty estimates the value of improving teacher quality among the lowest 5% performing teachers would add \$225,000 in lifetime earnings per child.

Career Readiness as a Part of Education Accountability. In order for career development to be assessed in a manner similar to Chetty's study, it is important that education systems track career readiness. While ESSA is mandating that states create an indicator in the area of social emotional learning, many, including the [U.S. Chamber of Commerce Foundation](#), are advocating for career readiness to serve as a meaningful part of accountability systems.

Career Development Efforts to Support High-Needs Populations. A number of promising national efforts have established the use of career development as a central theme. The Youth Technical Assistance Center sponsored by the U.S. Department of Education focuses on helping state Vocational Rehabilitation agencies design individualized learning plans for disconnected youth populations. The U.S. Department of Justice established a demonstration project designed to support use of individualized learning plans within agencies designed to support [court-involved youth's](#) ability to transition back to the workforce or education. The National Conference of [State Legislatures and National Conference of State Legislatures](#) co-authored a report that advises states to enact individualized learning plan related policies in order to improve transition readiness efforts among youth with disabilities. A number of efforts focus on increasing [women's representation](#) in STEM careers. [General Electric](#) recently highlighted the late Millie Dresselhaus, the first woman to win the National Medal of Science in Engineering in a commercial designed to encourage girls to pursue science. [National reports](#), however, demonstrate that efforts to address gender and ethnicity gaps in STEM fields, continue to fail.

Postsecondary Completion Rates. The economic impact of completing a two-year credential (involving 18 or more credits) or associate of arts degree has been demonstrated in a number of states to have a significant impact on quarterly earnings which bolsters efforts to focus on career pathways. With the advent of the [National Student Clearinghouse](#), school districts are able to track whether and to what extent redesign and career development efforts are impacting on two and four year postsecondary completion rates. [Massachusetts](#), for example, offers data that enables each high school to monitor their postsecondary completion rates. This data is accessible to the public. Career information systems have the ability to track this information and provide schools with a

disaggregated assessment of which students have completed their postsecondary goals. This has the potential of enabling districts to assess whether the amount and quality of career development skills attained are associated with higher postsecondary attainment.

10. What evidence is there, if any, of the impact of these policies and practices on improved access to appropriate workers by employers?

Many online career information systems offer an employer engagement feature that enables local business and industry to offer youth access to a wide range of work-based learning opportunities. At least one vendor enables employers to view youth e-portfolios in an anonymous manner in order to identify individuals that may fit their talent profile. Once identified, the employer works with the school counsellor to gain permission to reach out to the student directly. [Skillful](#) is another online tool that helps employers better network with job seekers as well as helping job seeker explore different career paths.

One example of industry and school alignment is South Sheboygan High School in Wisconsin. By working with their local industry to redesign their manufacturing career pathway, the business community raised \$4 million to provide the school with the latest technology equipment needed to support their efforts.

Resources are also available for communities to identify the regional job market and the skills needed to enter these occupations. [Burning Glass](#) generates labor market information by scanning job ads throughout the country. This strategy enables them to identify the general and specific skills requested by each industry, internships in high demand, as well as identify the education pathways needed to pursue careers within those industries. A series of research reports identifies the current labor opportunities in a wide range of career areas.



Ensuring that content and delivery of career development programs and services are relevant

11. What reforms, if any, have already taken place in the content and delivery of career services in the education and labour market sectors in response to the changes identified in Theme 1?

Skills Gap. [The National Skills Coalition](#) has formed a coalition of over 40 national organizations to identify federal and state policy changes needed to address the skills gap. The coalition also [publishes reports](#) that target skills gap areas in specific job sectors. According to one report, state policies to support one innovative strategy to address the skills gap - [stackable credentials](#) - have been established in 19 states.

Career Pathways. The most effective economic generator is the manufacturing industry where it is estimated that for every dollar generated there is \$1.33 generated by other businesses needed to support the manufacturing efforts (referred to as a multiplier effect). Efforts to increase the talent pipeline of youth and adults into the career pathways that support manufacturing is spurring many communities to establish clear career pathways from secondary into postsecondary settings that offer certifications in areas that support the manufacturing sector. These include welding, automation technicians, electricians, mechanics, designers, and engineers and scientists enhancing the production process. Other high impact industries in which career pathways are being developed include information technology and biotechnology.

The [California Career Pathways Trust](#) provides high schools and colleges with grant funds to establish career pathways. The [National Career Pathways Network](#) is a membership organization devoted to the design, implementation and evaluation of career pathways. The “[New North](#),” a multi-county initiative in Wisconsin, is a cross-sector strategy for career and workforce development initiated by the business community in multiple counties.

College and Career Readiness. The challenge is that establishing career and workforce development systems involves a systemic collaboration among employers and industry, K12 education, higher education. The Arizona Department of Education, for example, has established the [Arizona Career Leadership Network](#) that consists of over 60 cross-sector members that are devoted to supporting their [individualized learning plan implementation](#).

Employer Engagement.

12. What additional reforms are needed in the content and delivery of career services in the education and labour market (including PES and HR) sectors to respond to those changes?

Professional Development. With passage of the Workforce Innovation Opportunity Act (WIOA) and increased efforts to encourage career and workforce development efforts, it is clear that youth development professionals, school counselors, career and technical education educators, one-stop job

personnel and human resource staff do not have a strong command of the varied range of skills needed to design, implement, and evaluate quality career development strategies and programs. As the press to create community-wide participation, especially employer engagement, continues it is important to create a shared vision of the nature and goals of career development and how to design strategies and programs that facilitate positive youth and adult development rather than remain focused more narrowly on career decision making.

Talent Pipeline Management. The U.S. Chamber of Commerce has developed a [talent pipeline management](#) professional development initiative designed to build capacity among employers to become more actively involved establishing action strategies that address the skills gap. This is one strategy designed to reduce the millions of unfilled jobs due to youth and adults not having the advanced technology and related skills that are needed.

What is missing in this process are ways for employers to actively participate in career development efforts in schools and colleges. A report on [employer engagement in career development](#) from the U.S. Chamber of Commerce Foundation identifies the need for employers to become more actively engaged in helping education systems and colleges explain the requirements and job skills needs, offer increased access to work-based learning opportunities, and help explain the kinds of credentials and training necessary to enter local employment opportunities, and to recognize education systems that are producing graduates with the skills needed to support local labor needs.

Two [additional recommendations](#) from the U.S. Chamber include the need for a career professional role (“employer account manager”) to serve as the interface between business and K12 education and colleges and for business to create an “on-boarding” process that enables youth and young adults to learn about the culture of being an employee.

Youth Engagement in Technology Education. It is well known that technical education, regardless of where the student may place on the technology spectrum, must occur at an early stage of elementary education. Much has been made of STEM education over the past 10 years, particularly in outstanding extracurricular programs such as FIRST (For Inspiration and Recognition of Science & Technology) with age appropriate “leagues” (grades K-3 and 4-8) and “challenge” competitions (grades 7-12 and 9-12) culminating in the International FIRST Robotics Competition annually; and Project Lead the Way which engages students in hands-on projects, again in age-appropriate settings. These programs provide the relevance sorely needed in applying classroom learning to projects where teamwork, budgeting, project management, and leadership are important practices in providing a solution to a technical challenge. Career developers would be well served learning the inner mechanisms that not only attract children to these programs, but also make the programs successful. Understanding the needs of industry through relationships with industry and the industry supply chain are critical. That said, the devil is always in the details. One effective way to understand those industry needs, give definition to those needs, prepare the knowledge base for those needs, and to evaluate the student talent intellectually and psychologically is through the use of competency models.

The US Department of Labor, Employment & Training Administration (ETA) has a number of professional industry competency models available. One of the first manufacturing-related models created was the [Automation Competency Model](#) developed by a group of subject matter experts assembled by the Automation Federation and hosted by its founding member, ISA (International Society of Automation). The pyramid-tiered model first developed by NIST begins with the first tier focusing on the personality strengths, temperament, and basic abilities necessary to even consider a career in this particular profession. Each succeeding tier becomes more and more focused from general competencies to

increasingly specific competencies ranging from academic to general workplace, to industry-wide technical, to the automation-specific array of specific competencies for specialties within this very broad profession reaching across all industry segments. Within each specialty, critical work functions are listed, the technical content areas are then listed, and finally the specific competencies within the technical content areas. While this is one model, the website will show that there are many models available for various professions, all using the same focusing process. All these models are kept current by periodic critical review facilitated by ETA with panels of subject matter experts. Dialogs between career counseling professionals and industry experts in networking events or conferences will perhaps give counselors the ability to project a clearer pathway toward a successful career for the student and a better understanding of that career for the students' parents/family. Models such as this one can go a long way to keep meaningful discussions and planning on the right track.

13. What are the policy levers in place or needed in your country that support necessary reforms (e.g. the provision of experiential careers learning) in the content and delivery of career services in education and labour market sectors?

WIOA. WIOA has redesigned the function of workforce development services to focus on career development rather than job placement. WIOA introduces “career services,” “career pathways” and “long-term employability” as key terms. Common measures have also been expanded to include completion of a high school degree or equivalent, participation and completion of a postsecondary credential, two-year or four-year degree. This shift to an emphasis on career development demands a higher set of skills for WIOA sponsored One-Stop Job agencies and organizations. The challenge is that the U.S. does not have professional development opportunities and credential avenues to enable access to the advanced training necessary to support staff in job centers and organizations to provide career development services rather than job placement services. To address this, the Coalition for Career Development identified professional development as a national concern and is working with the National Career Development Association on defining the standards for certifying career development skills. Key areas of emphasis include helping career professionals become aware of local high demand career opportunities that involve a credential, learn how to mobilize the employer community to expand access to work-based learning opportunities, and how to provide personalized career planning services (i.e., Individualized Learning Plans).

Personalized Career and Life Planning for Youth. As part of a national effort to increase college and career readiness among K12 youth, 44 states currently mandate or strongly encourage that middle and high schools students be provided on-going opportunities for personalized career and life planning. While each state uses a different naming convention, nationally they are referred to as Individualized Learning Plans or ILPs. This effort has resulted in a number of states developing comprehensive career development materials to support a whole-school strategy for implementing ILPs. Excellent examples include [Arizona](#), [Colorado](#) and [Wisconsin](#). Over 20 states participate in a State Leaders Career Development Network that provides monthly opportunities to share implementation strategies and discuss ways to address challenges associated with supporting schools and communities implement ILPs with quality and fidelity.

U.S. Chamber of Commerce Foundation. The U.S. Chamber of Commerce Foundation is leading a national effort for encouraging business and employers to become involved in supporting career development efforts in their local schools and colleges. The Foundation effort is fuelled by the need to align and increase youth skills and interests in occupational areas that are in high demand within a given

local or regional area. In addition to providing a wide range of work-based learning opportunities, business and industry are also being encouraged to support the establishment of career pathways with K12 schools and higher education. In Sheboygan, Wisconsin, for example, the manufacturing business community was asked to review the school's science and technology curriculum. After the school made improvements to their high technology manufacturing pathway, the business community raised \$4 million to enable the school to upgrade their technology to meet local industry standards. Recognizing that school counselors have not received the training to work effectively with business and industry, the Foundation is piloting demonstration projects to add an intermediary career specialist role that helps businesses and schools collaborate more effectively. One successful and replicable example of this type of career specialist role is being implemented by the [Boston Private Industry Council](#).

Career Pathways. For a number of years, schools and postsecondary institutions receiving federal funding referred to as "Perkins" funds, were required to create career pathways that linked K12, business and higher education systems. When it works, this effort has created stronger community collaborations.

STEM and High Impact Industry Sectors. As a good example of the changing dynamics and additional career opportunities that have occurred in the last few years, cybersecurity has transformed the way the public views protection of their identity and the government protects their secrets. Generally, the public, and our leaders do not see that a similar transformation has occurred in the protection of our critical infrastructure, both public and in the private sector. Much has been done to draw attention to the issue. Standards have been written and accepted globally to protect power plants and electric transmission, water plants, and other public infrastructure as well as private sector plants such as chemical plants and refineries with both cyber and physical security. The operational technology (OT) philosophies for dealing with cybersecurity events are much different than IT-related methods to shut down and patch the network public perception which would be totally inappropriate. Many politicians and other social leaders are still unaware of this, yet some competency models, the Automation model in particular, have already been reviewed and modified to include this very important aspect of industrial control system cybersecurity. The global standard is listed as the reference to substantiate the competencies listed within that particular technical content area. This story shows how such career development programs can stay relevant through the use of competency models. The technical world is currently preparing for the proliferation of what is now known as IIOT, also referred to as Industries 4.0. Industry will once again transform to deal with the new ability to process massive amounts of data from unconventional smart devices. Competency models may represent the best means to remain current and relevant, presented in an understandable way.

14. What are the main barriers and/or success factors to implementing such career service reforms i.e. policy, content and kind of services, delivery methods, and openness to change?

Funding. Funding challenges come in many forms including salaries for career development professionals and resources to support career development programs. Wisconsin is one of the only states at the K12 education level to receive a significant infusion to support a statewide career development effort for ILPs that they refer to as Academic and Career Plans (ACPs). The funding enabled the state to purchase a license for an online career information system, develop communication materials and professional development resources/conferences, and evaluate the effects of ACP

implementation in demonstration sites prior to full-scale implementation.

However, as [William Symonds](#) often reports, in education systems, the funding spent to support career development efforts is less than the cost of a “can of Coke” per student.

Collaboration. States are only beginning to create cross-sector collaborations to discuss the design and implementation of career development efforts. [Arizona Career Leadership Network](#) is one example of this type of cross-sector effort. [New North](#) is one example of a model community strategy that brings together two- and four-year colleges, K12 schools, and employers to design career and workforce development efforts. On a smaller scale, efforts such as the [Tremealeau Valley Co-op 2.0](#) connects four rural districts in ways that enable students to participate in a wider range of career pathways and work-based learning simulations across four high schools.

Imagination. Career counselors in schools and higher education often express challenges in gaining access to students within the regular curriculum. The challenge is that educators at different levels do not understand that career development produces engaged learners. For one-stop job centers and state vocational rehabilitation services, one challenge is that WIOA has shifted their role from job placement to career development and it is not clear that staff understand the additional skill sets required to offer career counseling or that appropriate training is being provided to assist them in successfully making this shift.

Prestige Associated with “College” vs. two-year institutions. Similar to many knowledge-based economies, there is a status factor in seeking and completing a four-year college degree. As a result, parents and educators often are unwilling to consider two-year credentials and training programs as viable postsecondary options.



Improving career practitioner training and practice

15. How do governments/agencies/professional associations in your country ensure that the initial and continuing training of career practitioners in the public and private sectors stay relevant to the context (place, time and needs) of clients' social, economic and work lives?

Initial training/ credentialing of career practitioners as well as ongoing maintenance of such credentials is the purview of four distinct types of bodies: state legislatures, professional organizations, credentialing organizations, and individual training programs. Each is responsible for using relevant labor market and career information for its constituents, while state governments operate as the nexus of such activities for career practitioner and other professional credentials. For example, the Missouri state government is responsible for licensing and certification of career professionals, approving graduate and bachelor's training programs for those credentials, and provides local employment data and projections through the Missouri Economic Research and Information Center (<https://www.missourieconomy.org/>). This resource is used by career educators and practitioners throughout the state.

Credentialing has been defined by Sweeney (1991) as "a method of identifying individuals by occupational group. It involves at least three methods with variations on each: registry (not included in this question), certification, and licensure." These credentials are maintained over time through approved continuing education experiences including workshops, conferences, and on-line sources.

Licensing, established by law in state legislatures, is the most restrictive credential. Currently the State of New Jersey is the only state of 50 that recognizes "career counselor" as an independent license. Other States do recognize professional groups with a license who are trained and eligible to provide professional career services such as testing, counselling, and coaching with their license in general psychology, clinical mental health counselling, and social work. Each of these general specialty areas requires specific training requirements that include career development content and a passing score on a national or regionally normed assessment that includes content areas focused on assessment and career development and counselling. These programs often maintain accreditation through professional bodies. For example, The Council for the Accreditation of Counseling & Related Educational Programs (CACREP) is the accrediting body for approximately 800 individual counselling training degree programs, including 10 accredited career counselling programs, and is the curriculum model for non-accredited programs across the country.

Certifications are also required by state governments for specific employment positions, most apropos for this question are the titles of school counsellor and Society for Human Resource Management (SHRM) professionals. All 50 states recognize and require certification for school counselling with most defining a rigorous graduate level curriculum at the Master's degree level and a passing score on a

national or regionally normed assessment with content areas focused on assessment and career development and counselling. The American School Counselor Association (ASCA), a nation-wide professional organization, utilizes the ASCA National Model which denotes three primary domains within which school counsellors spend an equal apportion of their work effort: academic, social/ emotional, and career. These programs are also often CACREP accredited or modelled after the CACREP curriculum.

Additional credentials that may be certified include Global Career Development Facilitator (GCDF), Certified Workforce Development Professional (CWDP), Master Certified Career Coach (MCCC), Certified Rehabilitation Counselor (CRC), and Society for Human Resource Management (SRHM) Certification. The CDF program is maintained by the National Career Development Association (NCDA) and Center for Credentialing and Education and requires varying levels of education and experience as well as completion of 120 hour training. The Global Career Development Facilitator designation is the only professional development opportunity for K12 career practitioners. The CWDP is sponsored by the National Association for Workforce Development and requires at least a high school diploma or equivalent and varying levels of experience. Master Certified Career Coach credentials are typically identified with a coaching certification although this is not typically recognized nor monitored by any government body and thus are closer in definition to a registry for the purposes of this paper. MCCCs are sponsored by a variety of organizations (e.g., International Coach Federation) and generally require training programs lasting for approximately 50-200 hours. CRCs require masters degrees and are sponsored and accredited by the Commission on Rehabilitation Counselor Certification or the American Rehabilitation Counselor Association. Finally, the Society for Human Resource Management offers two certification levels that can be attained with a pre-defined mix of education and experience along with passing a certification examination. This credential is provided and maintained through the SHRM.

Many non-governmental organizations are offering professional development activities that address providing career development in specific contexts of for specific populations. Examples include:

The National Career Pathways Network offers certification workshops to help high school, college and workforce development professionals gain requisite competencies.

The Career Development Network offers advanced professional development, a wide range of career counseling certifications for career coaching and helping adults make effective career transitions.

The Association for Career and Technical Education (ACTE) offers leadership training for engaging in career and technical education programming.

Given the complexity of the career practitioner matrix described above (inclusive of types of credentials and controlling bodies), each entity becomes responsible for monitoring its own use of career information and its relevance to the consumer. In reality, this monitoring process varies greatly while the access to information is ubiquitous given that most of it is on-line and open access.

Reference: Sweeney, T.J. (1995). Accreditation, credentialing, professionalization: The role of specialties. *Journal of Counseling & Development, 74*, 134-138.

Individual Learning Plans. With widespread adoption of ILPs, states are beginning to offer statewide professional development opportunities, most notably Wisconsin. In addition, a number of organizations and states have generated a range of professional development materials including Arizona, Colorado and Wisconsin

WIOA. With the passage of WIOA, there is a large number of workforce professionals that need professional development in career development and currently there does not exist a system of professional development that is reaching out to them. For example, NCWD/Youth is home to the Youth Technical Assistance Center providing career related professional development to staff in state departments of vocational rehabilitation.

16. What role does/should the business/employer community have in influencing the relevance of practitioner training?

The US Chamber of Commerce is the world's largest business organization with the purpose of promoting pro-business policies. Within the US Chamber of Commerce, the Center for Education and Workforce (CEW) conducts research and programs designed to connect education and skills training to connect education and workforce reforms to economic development. Via lobbying, their own publications, and popular press publications such as articles and columns the CEW seeks to influence education and workforce training by taking on an "end-user" role to shape the preparation of a workforce that meets their needs. These advocacy efforts occur at the federal level in Washington, DC as well at the state level where the Chamber of Commerce is also very active (information downloaded from <https://www.uschamber.com/> February 1, 2017). The most direct influence on shaping career development training in the United States is a call from the U.S. Chamber of Commerce Foundation for helping career professionals become Employer Account Managers that "maintain relationships with the business community by ensuring career development practices are high quality and meet workforce needs." The Foundation identifies the key roles and activities to include:

- Represent the business community within schools
- Serve as a subject matter expert on career pathways
- Vet and match students with employers
- Validate skills acquired during work-based learning experiences
- Organize high-quality and diverse talent sourcing networks."

Individual corporations continue to play an important role in shaping local training via ongoing philanthropic arms that fund scholarships for students who meet labor demand profiles of interest, host/ sponsor career oriented trainings and information sessions in local communities, investing directly in university and technical training schools and programs, and funding recruitment activities at educational institutions. While these endeavors are rarely targeted directly at career practitioners (with HRM students being the exception), they do impact the total training and work environment for career

practitioners.

Finally, there is an intermediary type of organization that represents business/ employer interests within nonprofit or educational organizations. An example is the Global Pathways Institute, housed at Arizona State University. This global initiative has a mission of “GPI will advance a national movement to provide high-quality multiple pathways to economic independence for all young people. We will work with the organizations, institutions, and individuals aligned with GPI to accelerate awareness and adoption of effective pathways models, to facilitate development of innovative pathways programs and policies, and to build support for the national movement.” (downloaded from <http://globalpathwaysinstitute.org/> on February 3, 2017). The Founding Board of Directors provides insight into the relationship between business/ employer entities and this education/ non-profit endeavor. The Board includes CEOs of for profit corporations, executives of institutions of higher education, and Chamber of Commerce officials, and leaders of community foundations. Goals are pursued through convenings of invested parties, lobbying, and education efforts

17. What national/regional mechanisms are in place to ensure that practitioners’ competency frameworks, if such exist, stay relevant?

These National Career Development Guidelines are the only competency framework for career development. These are often used by states to design their own competency requirements for the K12 career development professionals. The National Career Development Association does provide a series of competency frameworks that may be adopted by various stakeholders. Included in these are Career Counseling Competencies (for Professional Career Counselors with Master’s or doctoral level education); Multicultural Career Counseling Minimum Competencies; Career Counseling Assessment and Evaluation Competencies; Global Career Development Facilitator (GCDF) Competencies, and a Code of Ethics. All competencies are reviewed on an ongoing basis by the NCDA Professional Standards Committee, the NCDA Board, and other relevant associations. These competencies are relevant locally/ regionally by members of NCDA, partner organizations, and state-affiliated organizations.

The US Department of Labor maintains a database of professional competency models at <https://www.careeronestop.org/competencymodel/>. “The database contains resources that list, describe, or are based on competencies, such as apprenticeship work process schedules, assessment instruments, curricula, and skill standards. These resources have been assembled to provide background information for developing and customizing competency models, career lattices, stackable credentials, and other workforce development products. Each database entry provides a description of the resource and a link to its location on the Web. To facilitate searching, the resources are categorized by 'type' (e.g., career lattice, curriculum model) and are linked to industry clusters that are economically important, projected to have long-term growth, or are being transformed by technology and innovation.” Typically, accepted models are reviewed by facilitated session every 3-4 years for relevance and addition of new critical work areas and competencies within them. There are more than 2500 Career One Stop centers, called American Job Centers, located regionally throughout the United States.

18. What are the main barriers/success factors to effecting reforms in the professional

preparation and development of career practitioners?

The professional preparation and development of career practitioners can be described at its best as decentralized and at its worst as soloed and suffering from overlapping interests/ activities or quality/ intervention gaps due to a lack of investment. Regardless of where one place the US efforts on this continuum, there is too often a disconnection between resources, tools, and the career practitioner most often because they simply do not know that certain resources or tools outside of their “silo” exists. Further, public misconceptions are often perpetuated by career practitioners because of either knowledge ignorance or lack of skill/ political capital in challenging these myths. The following paragraphs provide examples:

Barrier 1: Overlapping interests. There is a proliferation of professions (and their representative professional associations) that conducts career work in the United States. In addition to the various designations listed in Question 15, individual work sectors (e.g., trade unions) and corporations have their own designated career professionals who act in the roles of recruiter, trainer, and internal career development specialists with the employing institution's best interest in mind. In this competitive environment, information and resource sharing is limited and accurate information is at times difficult to attain. Furthermore, the oversight mechanisms vary greatly based on industry, culture, and intent.

Barrier 2: Intervention gaps due to decentralization. Early career development work falls under the purview of school based counsellors and specialists including certified school counsellors, college and career counsellors, and career facilitators. Public schools are locally governed and managed within a state-level system of mandates and evaluation criteria. Private schools and charter schools (which most often fall somewhere between public and private schools in terms of oversight and control from local or state entities) have far fewer attachments to local and state oversight and therefore even fewer means of implementing quality control and reform programs. These same factors occur with postsecondary education settings and the broader world-of-work. One challenge is that there needs to be a redesign of the National Career Development Guidelines in order to evaluate what career practitioner skills should be considered when certifying a career professional.

Barrier 3: Lack of knowledge/skill in the practitioner. As stated previously, practitioner training and credentialing is highly variable as are the parameters for maintaining credentials. Therefore, many practitioners are operating with older, less useful tools and information or as free agents.

Barrier 4: Lack of political capital to implement reforms. The career practitioner with the greatest amount and consistency in contact with US citizens is the school counsellor yet these career professionals are too often at the forefront of budget reforms and/or practical reforms to their job duties. While the American School Counseling Association recommends a best-practice, evidence-based ratio of one school counsellor for every 250 students, the national average in 2012-13 was a ratio of 491:1 (American School Counselor Association). At the local or regional level, there is great variation in the approved activities for school counsellors often at the exclusion of career development and counselling activities.

Barrier 5: Lack of integration between various education providers and credentialing bodies. The

National Career Development Association stands at the nexus of career development and counselling practice yet there are various other professional and business entities offering guidelines, training, and models for practice. Given that both initial training/ credentialing of career practitioners as well as ongoing maintenance of such credentials is the purview of four distinct types of bodies (i.e., state legislatures, professional organizations, credentialing organizations, and individual training programs), there is little leverage to compel these entities to work together towards more effective oversight or reform.



Reforming career services in education and labour to focus on career competencies and successful transitions

☞ **Transition** is a process of moving within and between education, employment or training situations.

☞ **Career transition** competences refer to the knowledge, skills and attitudes required to make successful transitions.

19. What have the Ministries of Education and Ministries of Employment done individually and collectively in your country to ensure that individuals learn how to make successful transitions to and within an uncertain labour market?

K12 Education Systems. The national College and Career Readiness initiative focuses on helping all youth become prepared to successfully enter and complete some form of training or postsecondary education. Broadly speaking, “postsecondary” includes two and four-year credentials, programs, and degrees. A total of 44 states are embracing the use of individualized learning plans which offers a personalized strategy for helping youth define career and life goals and establishing academic and postsecondary plans to pursue these goals.

For students with disabilities, the Individuals with Disabilities Education Act (IDEA) mandates that all adolescent youth (usually beginning by age 14) engage in transition planning as part of their annual Individualized Education Program (IEP) that includes identifying post-school goals. In 2016, a joint task force convened by the Council of State Governments (CSG) and the National Council of State Legislatures (NCSL) recommended in their “Work Matters” report that states support the use of personalized career development strategies associated with the ILP process to increase employability and career readiness among young people with disabilities.

Schools integrating career and technical education use federal Perkins funding to create “career pathways” that offer a sequence of academic and work-based learning opportunities aligned to the 16 Career Clusters and link directly to local two-year colleges. The National Career Pathways Network and The National Skills Coalition are providing support structures for developing career pathways, the U.S. Chamber Foundation is encouraging business and employers to engage in local career development efforts by offering a range of work-based learning opportunities, and higher education is participating by providing early access to college opportunities.

Two-year colleges. Under the Obama Administration, two-year colleges were being framed as the major source for helping adults transition into new high skilled occupational opportunities. While much is made of the reduction in unskilled and semi-skilled manufacturing occupations, there are a wide range of skilled labor opportunities in manufacturing that remain unfilled. As such, two-year colleges are being pressed to increase graduation rates and provide job training for regional high demand career pathways.

WIOA also allowed for more funding to flow to two-year colleges to provide training for and [Dislocated Worker Employment and Training Activities](#). These services include Adult Education and Literacy (i.e., Adult Basic Education) as well as career pathway development that supports training needed to enter regional career opportunities.

Four-year colleges. Some four-year colleges are beginning to think about career development and whether and how degree programs are preparing graduates to enter the world of work. Andy Chan is one national leader in this effort and his mantra that “[Career Services Must Die](#)” has led to redesigning the career services at Wake Forest to become a [Personal and Career Development Center](#). Dr. Chan has also begun to [organize other colleges](#) to begin rethinking how they engage in career development. One issue is that rather than job placement services, four-year colleges need to expand to create more personalized career development programming.

Adult-focused services. WIOA provides states with funding to establish [one-stop career centers](#). These centers are now expected to expand services beyond job placement to include more emphasis on career planning and supporting access to postsecondary education. [National organizations](#) are working to create a [credential system](#) that will enable colleges and career one-stop centers to share a common language and procedures for supporting adult career development.

20. How career transition competencies are currently addressed in curricula and in employability frameworks in the education and employment sectors (PES, HR, Employment training etc.) in your country?

NCWD/Youth created a national evidence-based transitions framework titled [Guideposts for Success](#) that describes the following developmental experiences all youth need to prepare for transitioning into adulthood:

“All youth” need the following:

- Access to high quality standards-based education regardless of the setting;
- Information about career options and exposure to the world of work, including structured internships;
- Opportunities to develop social, civic, and leadership skills;
- Strong connections to caring adults;
- Access to safe places to interact with their peers; and
- Support services to allow them to become independent adults.”

From the U.S. Department of Education, [Career and Technical Education](#) has identified 9 transferable skills that need to be considered. These 9 skills are organized in three areas: applied knowledge, relationship skills, and workplace skills.

[Framework for 21st Century Skills](#) offers a model that organizes skills in relation to career development skills, learning and innovation, and technology and media literacy.

Can't speak to that other than our own experience trying to reach separating veterans, particularly


through Veterans Affairs is difficult. This tends to be a for-profit business so not much sharing is going on.

21. How is the acquisition of these transition competencies assessed?

WIOA. WIOA has created a set of common measures for agencies receiving federal workforce development dollars that includes participation and completion of secondary and postsecondary education, job skills training, and job placement as key outcomes. While this does not measure “transition competencies” directly, it offers a way to measure return on investment by linking future wage earnings to workforce development strategies.

College and Career Readiness. The assessment of college and career readiness continues to pose a challenge as the concept encompasses two distinct facets that, though related, are separate--being ready for college as opposed to being ready for work. Where the first may attend to academic indicators, the second focuses on components of career development (e.g., self-awareness, securing employment). Within the K-12 educational setting the assessment of college and career readiness invariably takes the form of academic performance indicators--student grades (GPA) or standardized test scores (e.g., Scholastic Aptitude Tests; SAT). For students who participate in career and technical education programs (CTE) that specifically prepare them for entry-level jobs, assessments of job related competencies are used. However, there currently do not exist well established assessments to determine students’ readiness and confidence level for transitioning into the job market.

22. What research if any is undertaken in your country to identify the evolving career learning* (KSA) needs of different groups of the population? How are the results of such research acted on/used and by whom, in order to make career learning relevant?

 **Career learning** in this context refers to the knowledge, skills and attitudes that individuals require to enable them to both understand the worlds of work and learning and the relationships between them to enable them to navigate these worlds successfully.

For K12 settings, most states have identified KSAs based on the National Career Development Guidelines. As part of their individualized learning plan implementation, school districts are also identifying KSAs to guide grade level career development implementation efforts. One notable example is [Denver Public Schools](#) (note: scroll down the site to grade 1-5 and then 6-12 curriculum).

23. What needs to be done in your country so that transition, employability and entrepreneurial skills are integral and essential parts of curricula and programmes in education and labour sectors?

Most states in the U.S. value these three areas. The challenge is implementation and resource allocation. While most states have enacted policies in support of college and career readiness and use of individualized learning plans as a key driver for the career readiness portion of this effort, few states have provided the resources needed to support the efforts, regulate whether career development programs are being implemented with quality and fidelity, and created the assessment strategies

needed to demonstrate the impact of career development on key academic, economic and workforce outcomes. Arizona and Wisconsin are two notable states that are creating resources to support the quality design and implementation quality and fidelity of career development efforts