



Cross Sector Council Report: October 10, 2016

Dear Members of the Governor's Workforce Development Board:

From August to September 2016, the Governor's Office of Workforce Innovation (OWINN) coordinated and held all eight of the Governor's Workforce Development Board (GWDB) Industry Sector Council meetings since the reorganization of the Industry Sector Councils authorized by [Executive Order 2016-08](#). The first round of meetings were informational for all eight Sector Councils established: Aerospace and Defense, Construction, Information Technology, Health Care and Medical Services, Manufacturing and Logistics, Mining and Materials, Natural Resources, and Tourism, Gaming, and Entertainment.

Since the meetings were informational, no formal recommendations were proposed and no actions were voted upon. However, each meeting provided members with context of the Sector Council's purpose, duties, goals and objectives. Furthermore, Sector Councils had robust discussions regarding labor market data, top in-demand occupations, industry trends, and state and national economic comparisons to serve as a foundation for future meetings scheduled for early December 2016 when members will vote on specific recommendations and provide additional insights. In general, members confirmed that the data presented by the Governor's Office of Economic Development and the Department of Employment, Training, and Rehabilitation accurately depicted the needs in their industries based on their experiences.

A succinct report for each individual Sector Council meeting is provided below. Additionally, I have scanned all eight meeting reports and identified key themes that show up across all eight Sector Council meetings regarding human capital needs, education, skills, and experience based on their industries. Individual Sector Council reports can be found below this document and on the [OWINN webpage](#), as well as the meeting minutes, which will be finalized soon.

Three key themes stood out and shows up throughout all eight Sector Council meetings:

1. **Need for soft skills:** Sector Council members expressed concerns over candidates lacking basic soft skills that makes them employable (both for entry level openings and middle management openings)
2. **Need for technical skills:** Sector Council members expressed concerns over candidates lacking traditional technical skills and new technologically based-skills
3. **Need for improved marketing strategies and awareness of industries:** Sector Council members expressed concerns over misconceived perceptions of their respective industries and the need to better market their industries to support recruitment

These three themes are reinforced by an overall concern to fill large number of openings and challenges to attracting, recruiting, and retaining millennial employees with appropriate levels of experiences as their workforce ages. Sector Council members consistently shared that “work experience can overcome [educational] degree” and **prospective employees need work-based learning opportunities to be successful**. The pages below expand upon and provide examples of the three key themes.

1. Need for soft skill training:

Sector council members frequently expressed the importance of and concerns with employees in their respective fields lacking basic soft skills to fill entry-level openings as well as middle management openings. Specifically, members discussed the need for workers to have teamwork, leadership, workplace communication etiquette, critical/economic thinking, problem solving, and business acumen.

Some employers see a divide between what younger employees believe a work environment should look like and have to work to get their buy-in. Sector Council members consistently stated concerns that younger employees lacked basic workforce etiquette such as showing up to work on time, calling in if they are going to be absent, and lacking other forms of communications etiquette. In discussing the need for soft skills, members often articulated age and experience gaps among workers that can interfere with gaining a high-quality workforce as younger and less experienced workers often lack these essential soft skills. However, more seasoned employees sometime struggle to make the transition from the kinds of soft skills needed for middle management, such as leadership and teamwork.

Further, in highlighting the importance of employees having knowledge and understanding of work culture/environment, Sector Council members stated that they often conduct “cultural screens” to assess additional soft skills such as humility, honesty, and compliance. Across all eight Industry Sector Council meetings, soft skills are seen as extremely crucial to success.

2. Need for technical skills training:

In addition to soft skills, members consistently articulated the need for a variety of technical skills for workers to be successful in their respective industries. Common technical skills members mentioned were written and verbal communication, math and reading skills, analytical thinking, precision, accuracy, safety, mechanical/technical thinking and expertise, and mechanical aptitude. Project management skills were also mentioned as being critical for success across all industry sectors. Members mentioned that project management skillsets become more important as one progresses in middle management and up career ladders.

Once again, Sector Council members expressed concerns that younger employees they recruit lack these technical skills. Members hypothesized that younger employees have less opportunities at the high school level for hands-on learning where they gain comfort with using basic tools and instruments. Members shared that these experiences are crucial to give employees foundational skills.

Furthermore, emerging technologies is reshaping the way work is executed and how industries deliver services, therefore putting pressure on all employees to be comfortable with new technologies. Sector Council members observed that younger and more seasoned employees are not showing up with appropriate skills. Classes such as computer science and, in particular, exposure to information

technology or systems, engineering, and software development are seen as vital for students even if they do not plan to work directly in information technology. These kinds of courses are seen as building blocks that provide all employees with a foundation that can be built upon with additional work based training. This is especially important since members shared that many of their most difficult to fill occupations revolve around the need to have those types of skills as they are seeing many more of their occupations require technological aptitude.

The importance of and need for proactive offering job training to develop these critical skills was also a common theme that arose during meetings. Members expressed the increased need for technical certificates, and opportunities (such as relevant internships) for K-16 students to gain adequate hands-on experience to develop these skills.

3. Need for improved marketing strategies and awareness of industries

The third theme across all eight industries revolves around industry perceptions and the pressing need to better market and expose prospective employees to their industry. Sector Council members noted that they need to “better tell their story,” especially to younger individuals. For example, employers shared concerns that millennials are not considering their industry or various occupations within their industry as viable career options because of negative perceptions, even though there are opportunities for quality wage. Sector Council members also wrestled with the level of exposure students have to their industry in schools.

These types of marketing and awareness obstacles, make it difficult for industries to recruit new employees. Nearly all industries indicated that high demand and difficult-to-fill positions could go an extensive period of time without being filled. While some members noted that their industry can have additional challenges, such as long hours and challenging workloads that deter promotion internally, they all believed that industry misconceptions impacted recruitment. Additionally, when discussing attempts to recruit talent from out of state, members also shared a critical need to rebrand Las Vegas and Reno places that are suitable to live and raise a family.

Next steps

As a next step to bring together information gathered across all eight Sector Council meetings, OWINN, in partnership with GOED and DETR created an Industry Occupations Insights Survey. The survey focus on top consensus occupations and skills within each industry and captures information that complements the Sector Council meeting discussions. OWINN has shared this survey with Sector Council members and a broader list of employers to expand the sample size. Recommendations will be developed from that reported information for the Council’s consideration during meetings scheduled for early December.

On behalf of the Council members, thank you for providing Nevadans with this forum.

Respectfully submitted,

Manny Lamarre

Executive Director
Governor’s Office of Workforce Innovation

Key Takeaways from September 2016 Aerospace and Defense Sector Council Meeting

- A chair and vice chair was elected
- A common meeting structure was established

Data Presented by DETR and GOED

- Employment in aerospace and defense is projected to grow from 13,100 jobs in 2016 to 13,400 jobs in 2024.
- Top three aerospace and defense industry occupation groups based on GOED consensus rankings:
 1. Engineers
 2. Drafters, Engineering Technicians, and Mapping Technicians
 3. Computer Occupations
- Seven occupations ranked in the top 25 high demand occupations list by GOED's consensus ranking also appeared in the top 25 when sorted by "jobs below national average".

Sector councils discussed in-demand occupations, emerging industry trends, and human capital needs as it relates to education, skills, and experience:

- Members confirmed that the data presented by GOED and DETR accurately depicted the needs of their industry based on their experiences. However, the data had a manufacturing bent and members would find value in seeing the data broken down even more. High demand and difficult to fill positions that members specifically mentioned:
 - Software and hardware engineers; Machinists; Welders; Mechanical engineers; Quality engineering/quality control/inspectors; Mechanical engineering technicians; Sheet metal technicians
 - Member shared quality controls, quality engineers, and quality inspectors are specific to their industry and wanted to see the data reflect that more
- Members expressed a need for a variety of certain skills including communication and writing, analytical thinking, precision, and mechanical/technical thinking and knowledge.
- Members discussed soft skills and work culture particularly the difference between employees with military background and experience and those without. For example, individuals with military background were more prepared to navigate a more structured environment, which is often needed in their industry. However, these differences were noted as possibly posing difficulties in recruiting and retention of new younger employees.
- Employers shared there was a significant experience gap in their industry; employers are struggling to find individuals with appropriate years of experience.
- Members noted that a focus at the high school level in mechanical experience and knowledge and craftsmanship would be beneficial. Employers are seeing more and more students who lack baseline technical skills. CTE students and interns that stay are most successful in their experience.
- The employer presentation revealed possible emerging industry trends including drone technology and other man/un-manned aviation, which is projected to balloon from a \$2 billion industry to \$127 billion by 2020.
- Employers expressed that their industry need to have a public communications component that keep the public aware that technology is being used for the right reasons.

Key Takeaways from September 2016 Construction Sector Council Meeting

- A chair and vice chair was elected
- A common meeting structure was established

Data Presented by DETR and GOED

- At its height, construction accounted for 11% of employment in Nevada, compared to a national average of 4%. Nevada lost about 100,000 construction jobs during the recession and has recaptured about 20,000 since.
- Employment in construction is currently around 74,389 jobs in 2016 and is projected to remain level at 73,698 jobs in 2024.
- The construction industry sector has an employment concentration 27% above the national average.
- Top three construction industry occupation groups based on GOED consensus rankings:
 4. Construction Trades Workers
 5. Other Installation, Maintenance, and Repair Occupations
 6. Business Operations Specialists
- Seven occupations ranked in the top 25 high demand occupations list by GOED's consensus ranking also appeared in the top 25 when sorted by "jobs below national average".

Sector councils discussed in-demand occupations, emerging industry trends, and human capital needs as it relates to education, skills, and experience:

- Members shared there is a pressing need to better market the construction industry and "better tell their story", especially to younger individuals. Employers shared concerns that millennials are not considering construction as a viable career option because of negative perceptions even though construction is one of the highest average paid industries with many opportunities.
- Members expressed concern over an "experience gap", where many middle-term construction employees left the state during the recession and did not return. The current labor pool of qualified workers consists largely of very experienced employees and those who are just entering the industry.
- Members explained the historical methods of training in the construction sector, where apprenticeships are the predominant form of training for employees and was based on a group of employers coming together to train workers knowing that potential employees for competitors would be trained.
- Members mentioned that training should be more proactive versus reactive. Employees will need to learn emerging technologies to make buildings better, more economical, more environmentally sound, and more advanced, and being ahead of the curve will make Nevada more competitive in the recruitment of large scale projects and the recruitment of companies looking to develop or expand.
- Members explained that the hiring process and the demand for employees matches the timeline of construction projects, where demand for first stage employees is heavy in the beginning of a project but diminishes as the project continues and those employees have to reenter the labor pool.
- Architects and engineers are a leading indicator of construction demands.
- Members expressed concerns over matching Occupation Information Network (O*NET) descriptions of occupations to education requirements due to the occupation descriptions being so broad. An example mentioned was that of roofers, where the skills needed could vary from installing shingles to solar panels.

Key Takeaways from September 2016 Information Technology Sector Council Meeting

- A chair and vice chair was elected
- A common meeting structure was established

Data Presented by DETR and GOED

- Employment in information technology is projected to grow from 59,310 jobs in 2016 to 65,923 jobs in 2024.
- Top three information technology industry occupation groups based on GOED consensus rankings:
 7. Computer Occupations
 8. Business Operations Specialists
 9. Information and Record Clerks
- Ten occupations ranked in the top 25 high demand occupations list by GOED's consensus ranking also appeared in the top 25 when sorted by "jobs below national average".
- The number of jobs in the business information technology ecosystems sector in Nevada is 33 percent below the national concentration.

Sector councils discussed in-demand occupations, emerging industry trends, and human capital needs as it relates to education, skills, and experience:

- Members confirmed that the data presented by GOED and DETR accurately depicted the needs in their industry based on their experiences. High demand and difficult to fill positions that members specifically mentioned:
 - Software developers (employers can't fill their openings for software developers fast enough)
 - Gaming development and design are examples of occupations employers seek
 - Project manager skillsets become more important to progress in middle management and up the career ladders
 - Skills to become manager is important and difficult to find with individuals going from an individual contributor to managing team success
- Members expressed a need for a variety of soft skills including:
 - Soft skills
 - Understanding of corporate communications, etiquette, etc.
 - Generational conflict and soft skills should not be underestimated. Some employers see a divide between what younger employees believe a work environment should look like and have to work to get their buy in.
 - Some employers suggest it is important to do a "cultural screen" to assess skills such as humility, honesty, and compliance.
 - Critical, economic thinking
- Members discussed typical entry education and experience levels. Many members stated that IT certification is adequate and that bachelor's degrees were more necessary for business management within the IT sector.
 - IT certifications are more responsive to market needs and evolves with industry trends.

Key Takeaways from August 2016 Manufacturing and Logistics Sector Council Meeting

- A chair and vice chair was elected
- A common meeting structure was established (see below)
- Top three manufacturing and logistic industry occupation groups based on GOED consensus rankings:
 1. Other Production Occupations
 2. Metal Workers and Plastic Workers
 3. Business Operations Specialists
- Employment in manufacturing and logistics is projected to grow from 116,000 jobs in 2016 to 124,000 jobs in 2024.

Sector councils discussed in-demand occupations, emerging industry trends, and human capital needs as it relates to education, skills, and experience:

- Members expressed a need to engage and train students in manufacturing and logistics careers
 - Concerns about the demand side of training programs and recruiting potential students into existing manufacturing and logistics career pathways. Questions were posed of whether the provision incentives for students to enter training programs had been considered (much like the incentives for recruitment of students into teacher/educator training programs).
- Questions on logistics training and whether it incorporates certain standards and certifications, program elements, etc.
- Desire to have data on Nevada's System of Higher Education students who complete programs in manufacturing and logistics. It was recommended that the council look at data available through the state's longitudinal data system, NPWR.
- Need for the analysis of job postings specific to the needs of large manufacturing operations/employers.
- Members expressed the need to capture labor market data on short-term and medium-term job projections that may not be represented in the Bureau of Labor Statistics data (i.e., Tesla, Faraday Futures, Panasonic, etc.) – considering the impact of multiple new, large manufacturers being relocated in Nevada.
- Members expressed the need and commitment for Sector Councils to identify industry recognized credentials and assessment tools, which then need to be targeted and utilized by training programs

Key Takeaways from September 2016 Mining and Materials Sector Council Meeting

- A chair and vice chair was elected
- A common meeting structure was established

Data Presented by DETR and GOED

- Employment in mining and materials is projected to grow from 14,000 jobs in 2016 to 17,600 in 2024.
- Members expressed concern that data nomenclature does not match with the position titles that the industry uses.
- Employment in mining and materials in Nevada is 135% above the national average.
- Top three mining and materials occupation groups based on GOED consensus rankings:
 10. Extraction workers
 11. Other installation, maintenance, and repair occupations
 12. Other production occupations
- Nine occupations ranked in the top 25 high demand occupations list by GOED's consensus ranking also appeared in the top 25 when sorted by "jobs below national average".

Sector councils discussed in-demand occupations, emerging industry trends, and human capital needs as it relates to education, skills, and experience:

- Members discussed high demand and difficult to fill positions in the mining and materials industry. Specific positions discussed included:
 - Electrical/Instrumentation technicians; electrical engineers; HR/Administration and supply chain; specialty trades that require on-the-job training (ex. conveyer belt splicers); welders; fabricators; millwrights; front-line supervisors
- Employers often find it difficult to fill managerial positions because some employees often lack soft skills/administrative skills such as communication, strategy, and leadership.
- Members expressed concerns over employees leaving to more urban areas after gaining experience.
- Members are concerned that they are seeing fewer technicians entering the field.
- As a result of the industry focusing on improving efficiencies, reliability, and productivity, needs for mechanics, mechanical engineers, and instrumentation technicians will increase.
- The use of automation and autonomous vehicles will increase.
- The surge of digitalization and use of sensors will increase the needs for people with computer science and information technology backgrounds and skills.
- Members expressed concern on the entry education and experience levels identified by the Bureau of Labor Statistics, stating that the data does not properly represent the necessary entry education level.
 - Members stated that many jobs are becoming more advanced in technology and require technical certifications. This data needs to be accurate in order for post-secondary training programs to pursue grants and alternate forms of funding.
- Members expressed concerns that students at the K-12 level don't engage in adequate hands-on experiences to gain baseline skills for their industry. Additionally, there is a strong need for students to gain relevant internships or on the job training to be prepared.
- Members discussed concerns that some post-secondary training programs at Great Basin College are supported by grants and industry partnerships may expire and reduce institution's capacity to maintain current enrollment levels.

Key Takeaways from September 2016 Natural Resources Sector Council Meeting

- A chair and vice chair was elected
- A common meeting structure was established

Data Presented by DETR and GOED

- Employment in natural resources is projected to grow from 117,900 jobs in 2016 to 123,600 jobs in 2024.
- Top three natural resource industry occupation groups based on GOED consensus rankings:
 13. Engineers
 14. Drafters, Engineering Technicians, and Mapping Technicians
 15. Computer Occupations
- The amount of mechanical engineers (high demand consensus rank 1) in Nevada is 958 below the national average, and the amount of electrical engineers (high demand consensus rank 2) is 632 below the national average. Both are in the top 3 when data is sorted by the amount of jobs below the national average.

Sector councils discussed in-demand occupations, emerging industry trends, and human capital needs as it relates to education, skills, and experience:

- Members confirmed that the data presented by GOED and DETR accurately depicted the needs in their industry based on their experiences. High demand and difficult to fill positions that members specifically mentioned:
 - Engineers; engineering technicians; mapping technicians; computer and other information technology occupations; mechanics and technicians; postdoctoral researchers (specifically in water research); maintenance technicians for automation equipment in agricultural and packaging
- Members noted that they typically have to recruit out of state and relocate workers in order to fill open positions in the engineering field.
- Members expressed a need for a variety of certain skills including mechanical aptitude, knowledge of safety, technical expertise, basic math and reading skills, and information governance management.
 - Skillsets such as “accuracy” and “safety” is extremely important in their industry.
- Members expressed concerns of an aging workforce within their sector and younger employees are lacking appropriate soft and technical skills such as problem solving and mechanical aptitude
- Members expressed having positive experience with CTE students in terms of their skillsets
- Computer occupations is very important and is becoming more relevant.
- Members appreciated the educator/training provider presentation from Great Basin College and are excited about the possibility of developing future collaborative relationships.
- Emerging industry trends that members foresee impacting jobs and requiring new training is the increased demand for clean energy.

Key Takeaways from September 2016 Tourism, Gaming, and Entertainment Council Meeting

- A chair and vice chair was elected
- A common meeting structure was established

Data Presented by DETR and GOED

- Employment in tourism, gaming, and entertainment is projected to grow from 408,860 jobs in 2016 to 432,750 jobs in 2024.
- Top three tourism, gaming, and entertainment industry occupation groups based on GOED consensus rankings:
 16. Business Operations Specialists
 17. Computer Occupations
 18. Information and Record Clerks
- Six occupations ranked in the top 25 high demand occupations list by GOED's consensus ranking also appeared in the top 25 when sorted by "jobs below national average".

Sector councils discussed in-demand occupations, emerging industry trends, and human capital needs as it relates to education, skills, and experience:

- Members discussed high demand and difficult to fill positions in the tourism, gaming, and entertainment industry. Specific positions discussed included:
 - Operations managers
 - Food and beverage/restaurant managers; human resources and other administrative managers; entry level management; middle management
 - Culinary workers; market researchers; information technology positions
- Members expressed a need for a variety of certain skills including:
 - Leadership and administrative skills
 - Communication skills
 - Basic written and verbal communication
 - Bilingual
 - Business acumen
 - Project management
- Members expressed significant concerns with finding talent for middle level management positions, particularly those with an understanding of cultural diversity as well as talent that understands technology and business.
- Members discussed challenges and barriers to finding qualified candidates for high demand, hard to fill positions. These challenges and barriers included:
 - Language barriers
 - Long hours for certain positions that deter promotion internally
 - Wages
 - Rebranding Las Vegas and Reno as a place to live and raise a family in recruiting and talent acquisition out of state

Key Takeaways from August Health Care and Medical Services Sector Council Meeting

- A chair and vice chair was elected
- A common meeting structure was established

Data Presented by DETR and GOED

- Employment in health care and medical services is projected to grow from 105,700 jobs in 2016 to 123,400 jobs in 2024.
- Top three health care and medical services industry occupation groups based on GOED consensus rankings:
 1. Health diagnosing and treating practitioners
 2. Health technologists and technicians
 3. Counselors, social workers, and other community social service specialists
- Eleven occupations ranked in the top 25 high demand occupations list by GOED’s consensus ranking also appeared in the top 25 when sorted by “jobs below national average”.

Sector councils discussed in-demand occupations, emerging industry trends, and human capital needs as it relates to education, skills, and experience:

- The employer presentation revealed several high demand positions in the health care and medical services industry, which council members concurred were high demand and difficult to fill in their experience as well. The positions mentioned in the presentation and by council members were:

✓ Registered Nurses (RN)	✓ Physical Therapists	✓ Nurse Practitioners
✓ Medical Lab Technologists	✓ Occupational Therapists	✓ Physician Assistants
✓ Respiratory Therapists	✓ Clinical Lab Scientists	✓ Mental Health Practitioners

- Council members had concerns that the data presented by DETR and GOED did not declare mental health practitioner as high a need as perceived by the Council. Included in the discussion was an emphasis for skills and training in addiction counseling. Also mentioned were the difficulties incurred by clients due to the syphoning and movement of mental health practitioners from one entity to another, where coverage may change due to the practitioner’s move from an in-network provider to an out-of-network provider.
- Some Council members projected that demand for nurse practitioners and physician assistants would increase in order to reduce the amount of time and effort expended directly between physician and patient. Members stated this increased demand is heavily influenced by insurance companies wishing to reduce costs, where physician/patient interaction is much more expensive than interactions between patients and nurse practitioners and/or physician assistants.
- A skill projected by the Council to increase in demand is the ability to coordinate care and case/project management. It was mentioned that registered nurses, certified nursing assistants, and aides would need these skills as the coordination of transitions between in-patient and out-patient care would most likely see an increase, due to large demand for patients, especially the elderly, to remain independent and at home. Costs for home care are lower than care that takes place in a facility or nursing home and if reimbursement structures were to change in response to these lower costs, demand would largely increase.

Comments and key points on training and education:

- Training programs and institutions of higher education lack the resources and capacity to meet industry demand and applicant interest. Specifically, less than half the applicants for health care programs at TMCC are accepted due to the lack of capacity and resources.
- Vital partnerships between employers/industry and institutions of higher education, such as St. Mary's Health Network and TMCC, exist and need to continue to be developed and facilitated.
- Members expressed that training programs that include career ladder resources need to be developed. Similar to a career pathway, career ladder resources provide training leading to advanced medical certifications and professional certifications, elevating current staff to higher levels, increasing wages, and encouraging staff to remain in Nevada. TMCC stated that they have programs leading to advanced certifications in the pipeline.
- Some members shared that they believed jobs exist for which there are no training programs, leading to those interested in health care careers going out of state for training and employers having to recruit from out of state, incurring relocation and recruitment expenses to do so.