Southern Border Regional Workforce Development Plan
San Diego and Imperial Counties
2017-2020

Developed in collaboration to meet the requirements for the WIOA Four Year Regional Planning Unit and the Community Colleges' Strong Workforce Program

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Date of Submission: _____

Background

California state law SB 293, Statutes of 2005 (Unemployment Insurance (UI) Code Section 14020) requires the State Workforce Board to collaborate with the Chancellor of the California Community Colleges, the State Department of Education, other appropriate state agencies, and local workforce development boards to develop a comprehensive state plan that serves as a framework for public policy, fiscal investment, and operation of all state labor exchange, workforce education, and training programs.

The Community College Strong Workforce Program (Ed Code Title 3, 88821) requires the Community College Board of Governors to facilitate program coordination and alignment with other workforce training, education, and employment services in the state. The Strong Workforce Program shall operate in a manner that complies with the California Strategic Workforce Development Plan, required pursuant to the federal Workforce Innovation and Opportunity Act (Public Law 113-128), and expand upon existing consortia infrastructure.

Each regional planning unit in the state submits a regional workforce development plan to meet the requirements of their funding entity and the State of California's adopted Workforce Development State Plan. Developed with required partners, the plan provides direction and regional support for sectors that drive the regional economy, career pathways, strategic workforce development priorities, and agreement on outcomes/metrics. While the plan is developed jointly, the annual funding plans from each entity are developed and approved by each entity's governance structure.

The Imperial County Workforce Development Board (WDB), the San Diego Workforce Partnership (SDWP), and the San Diego Imperial Counties Community Colleges Regional Consortium agreed to work together, with our mandated partners, and produce a joint core Regional Workforce Development Plan, to which we would each add our local and regional funding plans.

Summary of Regional Planning Process

San Diego and Imperial Counties workforce development community have a history of working together as a region. For community colleges, the region is composed of both counties and each college is represented at SDICCCA [San Diego Imperial Counties Community Colleges Association]. SDICCCA meets monthly and representatives from UC and CSU attend regularly; WDBs attend occasionally.

In 2014, a memorandum of collaboration (MOC) was signed by SDICCCA, Imperial County WDB, Imperial Valley Regional Occupation Program, SDWP, and San Diego County Office of Education. The objective of this collaboration was to develop a coordinated approach to industry sector analysis, enhance regional capacity to support the growth and expansion of priority and emergent sectors, create regional systems of data collection, knowledge development and action planning, and develop and enhance career pathway training programs.

As a precursor to the Southern Border Regional Workforce Development Planning process, the MOC confirms the region's commitment to work together. Also, in 2014, the San Diego County College and Career Readiness Consortium (CCRC) was launched as a regional approach to implementing the

California Career Pathways Trust (CCPT) grant. The school partners in the CCPT grant are high schools from 16 districts, one charter school, and all five of San Diego County's community college districts. The purpose of the CCPT project is to provide infrastructure investment to support the development of key components of a regional system to ensure delivery of streamlined, coordinated, sequenced career pathway curricula aligned to industry needs. Industry sectors targeted through the application include Advanced Manufacturing, Clean Energy, and Information and Communication Technologies (ICT). Imperial Valley was also awarded a CCPT grant in 2014 with a focus on Law Enforcement and Health. For both projects, local workforce development boards are considered essential partners.

Regional Workforce Development Plan Participating Agencies

Ten Community Colleges (Six Districts) in the Region
Cuyamaca College
Grossmont College
Imperial Valley College
MiraCosta College
Palomar College
San Diego City College
San Diego Continuing Education
San Diego Mesa College
San Diego Miramar College
Southwestern College

San Diego and Imperial Workforce Development Boards
San Diego Workforce Partnership
Imperial County Workforce Development Board

K-12 (Secondary) and Adult Education
San Diego County Office of Education
Poway Unified School District
Imperial County Office of Education
San Diego-Imperial Adult Education Consortia

Universities
University of California San Diego (UCSD) Extension
San Diego State University (SDSU)

Industry/Industry Association/Regional Government/Economic Development/Chambers
East County Economic Development Council
Imperial Valley Economic Development Corporation (IVEDC)
San Diego Regional Economic Development Corporation
SANDAG

Other
Employment Development Department LMID
CalWorks
County of San Diego
Department of Rehabilitation (DOR)

Planning Meetings

Discussion began on May 3, 2016 when a group of community college and San Diego Workforce Partnership representatives met to review the requirements of both the WIOA plan and the Strong Workforce Plan and determine if it was feasible to work together in the creation of a joint regional workforce development plan, with agency specific funding plans separately included. In attendance were:

Lorraine Collins (SDCCD)   Greg Newhouse (DSN)
Lynn Ornelas (CTE Dean Miramar & Chair of WDC)   Mary Wylie, Regional Consortium Co-Chair
Zhenya Lindstrom (LMI Research, COE)   Andy Hall (VP, Chief Program Officer of SDWP)
Sally Cox (GCCCD)
Tina Ngo Bartel (Research, SDWP)

The representatives present agreed a joint plan was feasible, as the content and mandatory partners were almost identical. Andy Hall contacted Miguel Figueroa, Imperial Valley WDB, who subsequently confirmed Imperial Valley's participation. It was agreed that the WDBs would use their planning fund to pay for a facilitator/plan writer; and the community colleges agreed to pay for the costs of meetings.

At the next two meetings held on June 2 and July 18, the representatives outlined the plan components and assigned work to be done. The parties agreed to form a research team that Zhenya Lindstrom and Tina Ngo Bartel would co-lead, and the San Diego and Imperial County Workforce Development Boards would hire the planning consultant. The group also agreed to invite other partners within the workforce development system to form a formal planning committee whose mission would be to develop strategies around regional workforce development, and coordinate the delivery of services to businesses and jobseekers in the region. The group drafted some tentative areas where collaboration could be an outcome:

- Labor market priorities

- Need for foundational and soft skills

- Business services

- Job-readiness implementation

The formal Strong Workforce Planning Committee was constituted, and meetings held September 1 September and 21. The following partners participated:

Community Colleges
Cindy Miles, Ph.D., Chancellor, Grossmont-Cuyamaca Community College District
Efrain Silva, CTE Dean, Imperial Valley College
Greg Newhouse, Deputy Sector Navigator, Advanced Transportation & Renewables
Kate Alder, Ph.D., Vice President of Instruction, San Diego Continuing Education
Katrina VanderWoude, Ed.D, Regional CIO Chair, Vice President of Instruction, Grossmont College
Lorraine Collins, CTE Dean, District Office, San Diego Community College District
Lynn Ornelas, Workforce Development Council Chair, CTE Dean, Miramar College
Mary Wylie, Co-Chair, Regional Consortium
Sally Cox, Executive Director, Grossmont-Cuyamaca CCD Foundation, Fiscal Agent, Regional Consortium
Wilma Owens, Co-Chair, Regional Consortium
Zhenya Lindstrom, Labor Market Director, San Diego-Imperial, Centers of Excellence

San Diego and Imperial Workforce Development Boards
Andy Hall, Vice President/Chief Program Officer, SDWP
Camilo Garcia, Employment Coordinator, IVWDO
Kelly Henwood, San Diego Continuing Education, SDWP training provider
Maria Solano, Program Compliance Coordinator, IVWDO
Miguel Figueroa, Director, Imperial Valley Workforce Development Office (IVWDO)
Omar Passons Esq,. Vice President, Jacobs Center, WDB member, San Diego
Sarah Burns, Research Manager, SDWP
Tina Ngo Bartel, Director of Business Programs and Research, SDWP

K-12 (Secondary)
Brian Butler, Ed.D, CTE District Advisor, College & Career Readiness Unit, Learning & Leadership Services, San Diego County Office of Education
Kathleen Coy Porter, Executive Director, Career, Technical, Adult and Alternative Education, Poway Unified School District
Pam Garramone, Assistant Principal, CTAAE, Poway Unified School District

Adult Education
Denise Cabanilla, Director of Higher Education and Adult Learning, Imperial County Office of Education
Susan Yamate, Representative, San Diego Imperial Adult Education Consortia, Coordinator, SDCE

University of California San Diego/San Diego State University
Antoinette Marbray, Ph.D., Associate Vice President, Student Affairs, SDSU
Mary Walshok, Ph.D., Associate Vice Chancellor, Public Programs, UCSD Extension

Industry/Industry Association/Regional Government/Economic Development/Chambers
James Sly, Vice President, East County Economic Development Council
Mark Cafferty, President and CEO, San Diego Regional Economic Development Corporation
Ray Major, Chief Economist, SANDAG

Sean Wilcock, Vice President of Business Development & Services, Imperial Valley Economic Development Corporation (IVEDC)
Timothy Kelly, IVEDC

Employment Development Department
Abel Alcocer, Region Manager, Employment Development Department & LMID
Annie Ta'amilo, Regional Director, Employment Development Department (EDD)
Ruth Salcido, EDD

County of San Diego/CalWorks
Laura Hernandez, Program Manager, CalWorks
Lisa Purser, Program Specialist, County of San Diego

Department of Rehabilitation
Carmencita Trapse, Regional Administrator, Department of Rehabilitation (DOR)
Virginia Ruth Guerra, Associate Information Systems Analyst, DOR

At the first Regional Plan Committee meeting on September 1, held at the San Diego Workforce Partnership office, a presentation on the role and function of the Committee, noting the outcome being a completed regional workforce development plan. Much discussion ensued. It was agreed that two subcommittees would be formed:

(1) A Data Subcommittee composed of Zhenya Lindstrom, Sarah Burns, and representatives from EDD, SANDAG and Economic Development would meet prior to the next meeting to formalize a research plan.

(2) A Regional Strategic Workforce Priorities Subcommittee will meet to discuss and draft broad core strategic priorities that could be used to encourage discussion at the regional planning meeting. Kelly Henwood, Susan Yamate, Andy Hall, Mary Wylie, Lorraine Collins, and Miguel Figueroa agreed to serve on that subcommittee.

At the second meeting, on September 21, held at the San Diego Continuing Education North City Campus, the subcommittees reported on their draft outcomes. Discussion of a structure to achieve an agreed upon draft plan by December resulted in a plan to hold one large regional planning meeting targeted for all partners in late October/early November to review the regional data and gap analysis, and formulate strategic workforce development priorities. The research plan structure and draft core tenets were presented and agreed upon.

On November 7, 2016 the Southern Border Regional Workforce Development Plan meeting was held at the Mission Valley Resort in San Diego. Approximately 125 participants, with representatives from all mandated partners, were in attendance. Participants were presented with information on the ranking of sectors, gaps between demand and supply for educated middle-skill workforce, assets in place, and major initiatives already underway. Utilizing a cell-phone voting application, participants were able to vote on which four of eighteen sectors that drive the regional economy the region should support; and which four of nine strategic priorities the region should focus on the near future. The nine strategic priorities developed by the Committee included:

1. ***The Regional Workforce Development System is more than the programs we fund:*** Each of the stakeholders manage individual programs, infrastructure, and investments. Our vision is to connect these programs to create a more unified, **integrated workforce development system.** Programs change lives, but systems have the power to transform communities.

2. ***Shared Labor Market Data:*** The Southern Border workforce stakeholders will collaborate on **sector research and reports**, creating a common vision/agreement on which sectors/occupations to invest in, reduce duplication, and to align the direction of our collective investments.

3. ***Creating Opportunity for <u>ALL</u> San Diegans:*** Our dual mission of regional prosperity and income mobility for the hardest to serve do not have to be mutually exclusive. Our job is not finished with just job placement. We must go further by creating and **supporting career pathways** to careers that offer family sustaining wage and room for professional growth for ALL communities.

4. ***Human-centered approach to service design:*** We must organize services around **customer needs,** not programmatic requirements. Whether it is employers, adult jobseekers, or youth, our focus should not be on programs, it should be on people.

5. ***Single entry point for business customers***: Today, the public workforce system engages employers by program, with different people from different organizations calling employers to hire their participants. We change this by taking a "demand driven" approach to business services. San Diego's public workforce system must **engage businesses by sector under a common strategy** with a coordinated sales force.

6. *Increase service access points:* Through co-location, service integration with system partners, and the development of meaningful remote access points, we must create more on-ramps into the public talent development system. Through co-location with partners, development of affiliate sites, better on-line and mobile friendly service offerings, and other strategies, we must **increase the accessibility or program services**.

7. ***Common definition of work-readiness:*** Businesses want a way to measure and understand job-readiness and essential skills in addition to the technical skills. We must all agree on a common, nationally-recognized **career readiness certificate** (such as the ACT National Career Readiness Certificate) for all jobseekers and students coming out of our programs, schools, and job centers.

8. ***Less money spent on bricks and mortar, more invested in people:*** Through shared and leveraged infrastructure, integrated staffing models, and expanded use of technology, system-stakeholders must reduce money spent on bricks and mortar and **invest more in people.**

9. ***Efficiency and measurable continuous improvement:*** Ineffective tactics will hinder well-thought out strategies. We must continuously **improve the system's processes, policies, and professionalism** while maintaining our commitment to transparency to achieve the vision and intent of WIOA and Strong Workforce Program.

The cell-phone vote supported focusing on four of the nine priorities:

- Strategic Priority: **Support 18 sectors that drive the regional economy; focus regional efforts on Advanced Transportation/Clean Energy, Advanced Manufacturing, Health, and ICT.**

    1. Action Item: Agree on the major regional shared sector research reports for each fiscal year, obtain agency approvals, fund the research and resulting dissemination reports/conferences.

- Strategic Priority: **Coordinating industry engagement and developing a single entry point for business customers**

    2. Action Item: Explore the use of an e-portal, including the CCPT developed portal, for **work-based learning** opportunities for K-14 individuals, with the capability of coordinating employer contacts and involvement in the region.

- Strategic Priority: **Creating opportunity for all San Diego and Imperial County residents through Career Pathway Development**

    3. Action Item: Agree to focus on one sector and from a regional perspective, describe the career pathway/career ladder for K through adult participants, involving all partners including business/industry and resulting in a clear understanding of access and upward mobility. Partners annually agree on the major regional shared sector research reports for each fiscal year, obtain agency approvals, fund the research and resulting dissemination reports and conferences.

    4. Action Item: Hold a meeting with partners in the first quarter of 2017 to solidify plans for work readiness initiatives across partner organizations.

- Strategic Priority: **Supporting human-centered approach to service design.**

    5. Action Item: Agree to provide human-centered design training for all partnering agencies in 2017-18; upon completion of training, agree regionally to identify a regional design training opportunity, and complete the three stages: Inspiration, Ideation, and Implementation.

A summary of the gap analyses for each of the four sectors chosen for regional support, based on the evidence-based research made available by the region's research subcommittee, is listed below:

Clean Energy/Advanced Transportation

A unique part of this sector is that there is a balanced supply of workers; however, these tend to be older workers who will need to be replaced when they retire in the future. Hands-on training is typical, and many jobs are apprenticable. Based on the supply/demand gap analysis, there are certain areas of worker shortages, specifically in new clean energy trade work even though the sector is balanced. The Advanced Transportation sub-sector of Clean Energy is also a balanced market, though there may be an under-supply of auto mechanics and fleet managers. Skills in demand include repair design, diagnostics and asset management. Talent is typically grown from within companies in this sub-sector. The workforce system can help promote the Clean Energy sector growth with investments in new technology in the classroom/lab, work

with employers to standardize certifications where they are not yet standardized, recruit dislocated workers with experience in construction to upgrade skills, and incorporate soft skills training into education/training programs.

Health Care

The research shows that there is an over-supply of certain health care workers, but an under-supply of other occupations. There are many occupation-specific technical skills, which reduces the amount of transferable skills in this sector; however, the most important skills are soft skills. The workforce development system can focus on soft skills in training programs, especially teamwork, communication, problem solving, critical thinking, organization, time management and customer service to support the industry's movement towards patient-centered and coordinated care approaches. Additionally, the workforce system can support the development of strong technical skills in health care workforce, coordinate externship experience for students, and assist in the transfer of knowledge from older workers to those newer to the workforce.

Ten separate career pathways were created for the **Health Care** priority sector report, one for each occupational pathway. These were completed and reviewed by medical professionals as well as hospital administrators and health care educators.

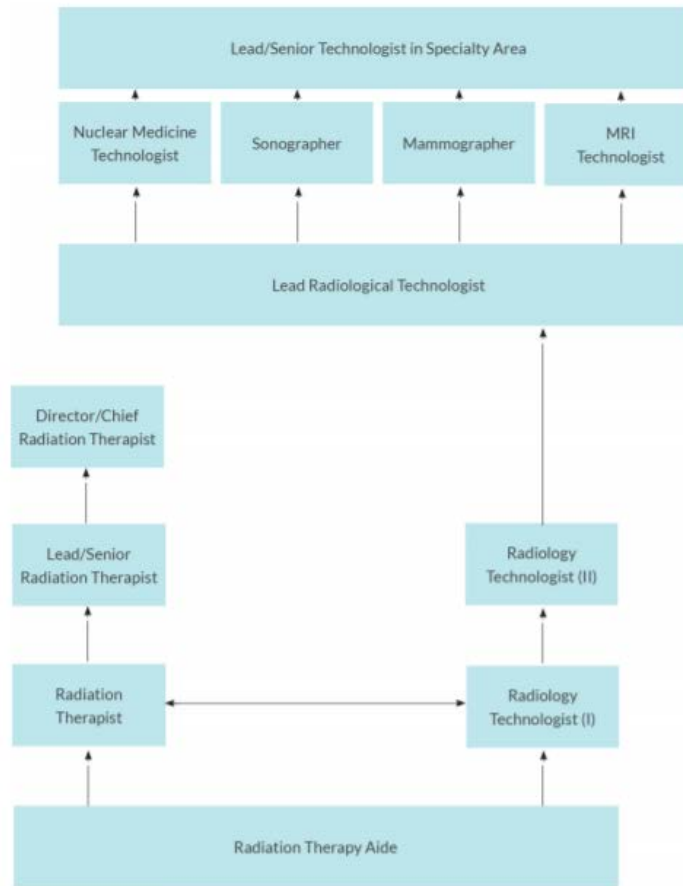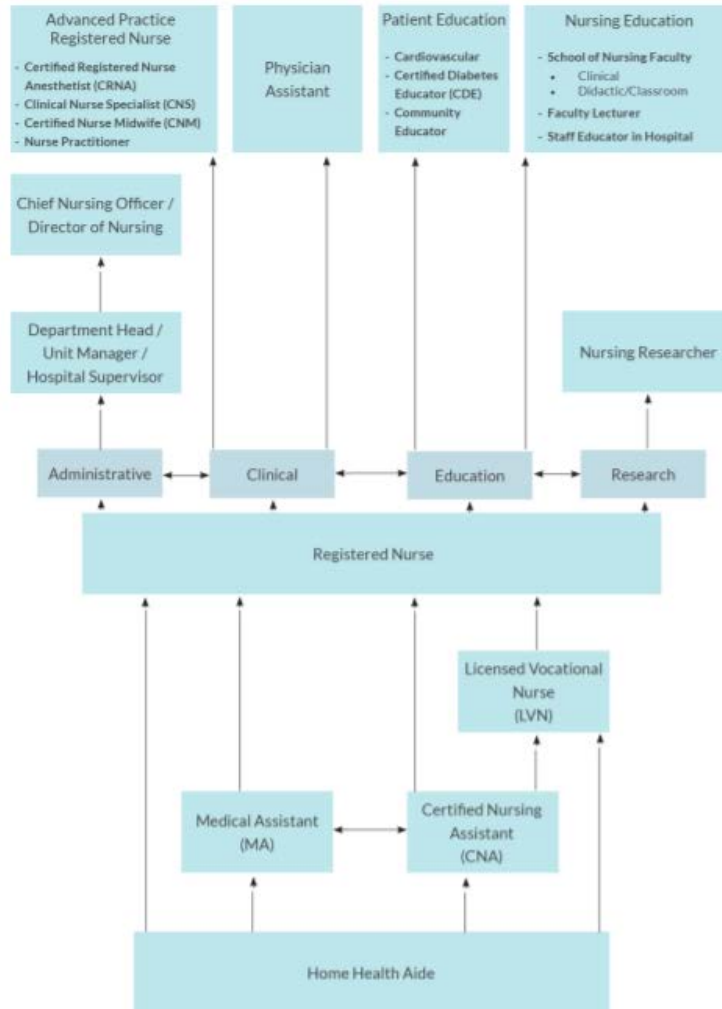**Exhibit - Examples of Health Care Career Pathways**

Exhibit - Examples of Health Care Career Pathways

Advanced Practice Registered Nurse
- Certified Registered Nurse Anesthetist (CRNA)
- Clinical Nurse Specialist (CNS)
- Certified Nurse Midwife (CNM)
- Nurse Practitioner

Physician Assistant

Patient Education
- Cardiovascular
- Certified Diabetes Educator (CDE)
- Community Educator

Nursing Education
- School of Nursing Faculty
  - Clinical
  - Didactic/Classroom
- Faculty Lecturer
- Staff Educator in Hospital

Chief Nursing Officer / Director of Nursing

Department Head / Unit Manager / Hospital Supervisor

Nursing Researcher

Administrative — Clinical — Education — Research

Registered Nurse

Licensed Vocational Nurse (LVN)

Medical Assistant (MA) — Certified Nursing Assistant (CNA)

Home Health Aide

Information & Communication Technologies & Digital Media

Based on a supply/demand gap analysis, there is a shortage of many ICT workers; however, there is a balance, or even an over-supply of workers in the Digital Media subsector. Some of the top occupations with high demand are software development, and computer support and networking. The workforce development system can assist the ICT industry by exposing students and job seekers to the variety of employment opportunities through partnerships with employers, focus on industry certifications in education and training programs, and provide the opportunity for students to attain those certifications.

While conducting research on middle-skill jobs in San Diego, a potential career pathway was captured for the **ICT sector** based on the research conducted, and was reviewed and verified by individuals working in the sector and executives from several large ICT firms in San Diego.

Exhibit - ICT Career Pathway

Information and Communication Technologies Career Pathways
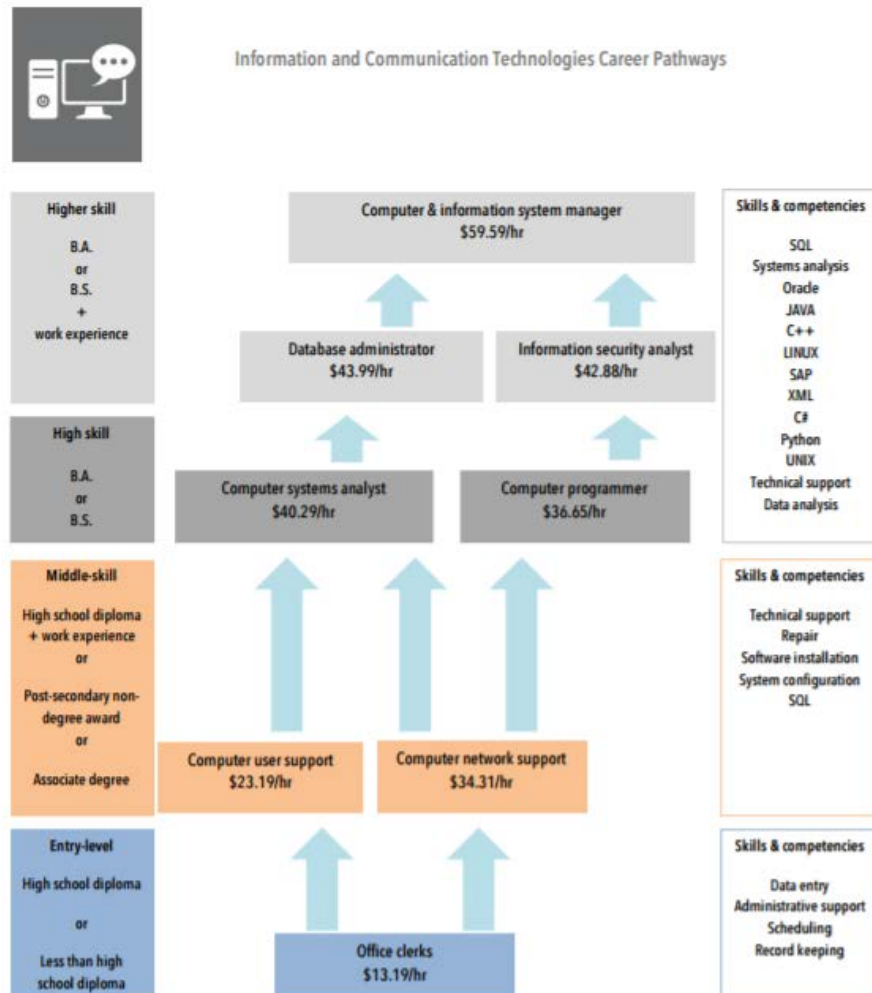
*Wages listed are the reported median hourly wages for San Diego County. Education listed is the reported educational attainment for each type of occupation. (EMSI. January 2015)

Advanced Manufacturing

Based on a supply/demand gap analysis, the San Diego region is under-supplying most advanced manufacturing jobs, especially drafting and technician roles. CNC machine tool programmers, machinists, and computer-controlled machine tool operators are the three production jobs that are hardest to fill. The workforce system can continue to shift the public image of advanced manufacturing, work with employers to develop a talent pipeline, add internship and/or work experience requirements to education/training programs, and work with employers to standardize certifications throughout the sector.

During the priority sector research collaboration, the research team worked with industry representatives to depict career pathways for many of these sectors. The **Advanced Manufacturing** career pathway (career lattice) shows many occupations with multiple paths that could be taken from one specialization to another, from lower level jobs to higher jobs with the right mix of education and work experience (see Exhibit). This career lattice was reviewed and approved by the Priority Sector report advisory committee consisting of employers and educators.

Exhibit – Advanced Manufacturing Career Pathways

Figure 20: Advanced Manufacturing Career Lattice
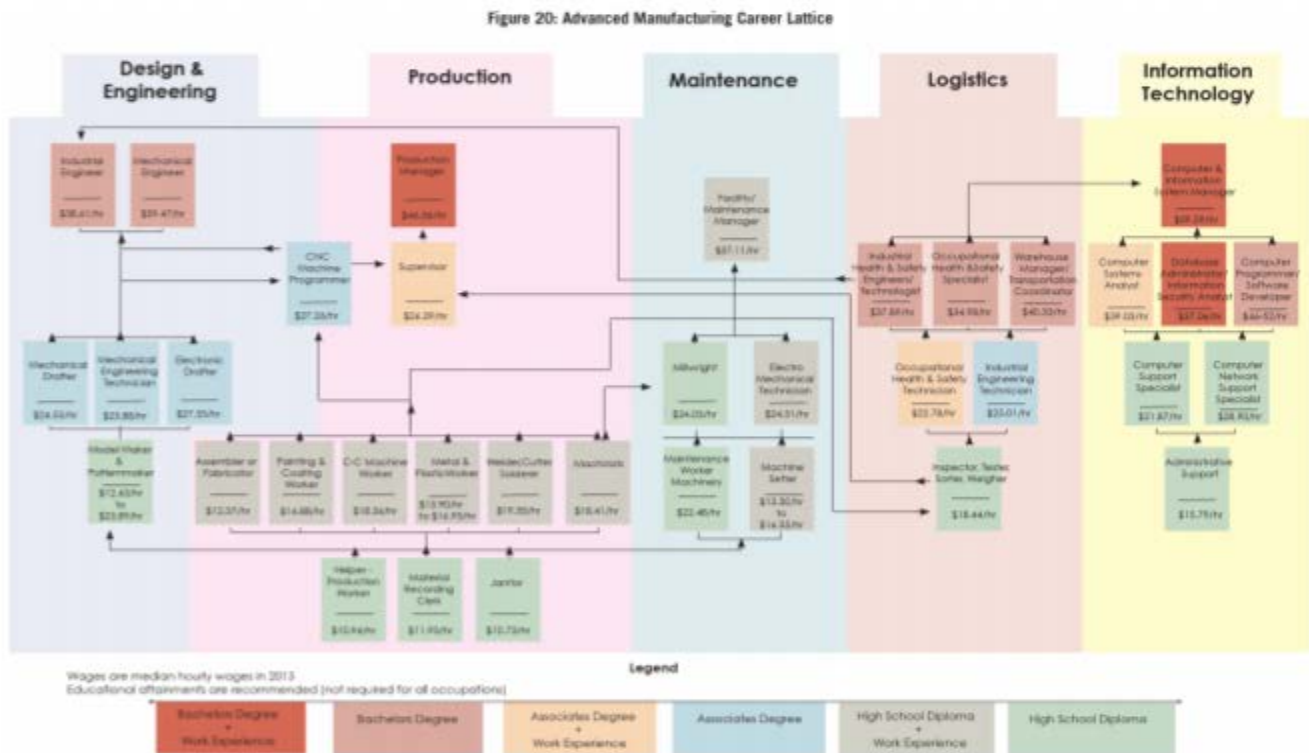
The four sectors that were chosen at the November 7 regional planning meeting (Health Care, Clean Energy/Advanced Transportation, Advanced Manufacturing, and ICT) are industries that have representation both in existing training and education programs at community colleges and partner educational institutions, as well as a presence on the region's two Workforce Development Boards. Deficiencies in the programs will be established through conversations with industry leaders in the region, which will be more easily facilitated by the creation of the planned e-portal designed to provide a single point of contact for businesses to find services and information related to the workforce system. Feedback and discussion with industry will be a central part of the development of new educational programs, allowing for the fostering of industry-recognized credentials that will truly be by, of, and for the business community of the region.

To continue closing the supply gap in these sectors, the region can continue to update the database of workforce initiatives that was started in 2015 with the release of the Priority Sector Initiatives report. Additionally, based on the findings of all the studies, programs within the database should be evaluated to determine if the existing programs are meeting the needs of employers.

There are two major regional career pathway projects that support sector-based pathway development. The San Diego County College and Career Readiness Consortium (CCRC) was launched in 2014 as a regional approach to implementing the California Career Pathways Trust (CCPT) grant. The school partners in the CCPT grant are 16 districts with high-schools, one charter school, and the region's five community college districts. The purpose of the CCPT project is to provide infrastructure investment to support the development of key components of a regional system to ensure delivery of streamlined, coordinated, sequenced career pathway curricula aligned to industry needs. Industry sectors targeted through the application include Advanced Manufacturing, Clean Energy, and Information and Communication Technologies. CCRC supports career pathway programming county-wide through: 1) A regional, online work-based learning portal to broker work-based learning opportunities, 2) Work-based learning teams to build the portal, 3) Professional development for teachers and counselors, 4) Curriculum alignment and development, 5) Marketing to students and parents, 6) Data collection and evaluation, and 7) Meaningful industry engagement with facilitation from the United Way of San Diego County. Such activities support the advancement of CCPT objectives.

For the Imperial Valley CCPT grant, Imperial Valley College is partnering with IVROP, the Imperial County Office of Education Alternative Education program and five local high school districts to offer students in their junior year of high school the opportunity to earn college credit in the fields of Administration of Justice and Allied Health. By the time they graduate from high school, students seeking careers in Administration of Justice will have 12 units of the 60 units needed for an Associate of Arts Transfer degree. Students in health fields will have the capability to obtain certification as an Emergency Medical Technician, Home Health Aide or Certified Nursing Assistant during the summer of their senior year.

As part of the planning process, the Committee reviewed a chart of workforce initiatives underway in the region and asked all other collaborators to update the chart if new initiatives needed to be included. The chart is included on the next page:

Current Regional Workforce Development Initiatives

Initiative	What it is?	Programs of Study	Status	Funder/Amount /Duration	Partners	Strong Workforce #
Community Colleges						
CTE Enhancement Fund (CTE EF)	One-time funds to create greater incentive for Community Colleges to develop, enhance, retool, and expand quality CTE offerings.	All CTE Programs	Regional work-readiness certification implemented, 580 of internships filled, industry certification centers supported, and regional career outcomes will be measured this year.	CCCCO/$4.3 million/ July 15-Dec 16	Regional Community Colleges Industry WIB	1, 6 ,17
CTE Pathways/ SB 1070	Engage K-16 in improving linkages, increasing readiness of secondary students for postsecondary education, and increasing student success by developing CTE pathways.	All Priority, Emergent & Regional Sectors	Regional policy discussion on articulation, matriculation, and dual enrollment in process. Thousands of work-based learning opportunities filled. Curriculum developed.	CCCCO/$1.3 million/ Jan 14-Dec 16	Regional Community Colleges K-12, Industry WIB Community-Based Organizations	1, 4, 5, 10, 12, 15, 18, 21
DSN SB 858 Funds (DSN SB 1070)	Support DSNs continued pathway and partnership work with the K-12 providers and regional employers.	All Priority, Emergent & Regional Sectors	Joint professional development hosted, curriculum work completed, work-based learning offered.	CCCCO/$700,000 Jan 16-Dec 16	Regional Community Colleges K-12 Industry	1
Slingshot	Creates industry-requested training opportunities for low-income individuals interested in Advanced Manufacturing	Advanced Manufacturing	San Diego and Imperial WIBs partnering. Implementation plan in development.	State WIB/$1 million Funded in March 16, timeline flexible	Regional Community Colleges WIBs East County EDC	
SDWP Job Developer	Pilot project evaluating the effectiveness of WIOA job developers in college career centers.	All Programs	Cuyamaca, MiraCosta, City College, and Southwestern all currently have a job developer.	SDWP/ in-kind personal	Regional Community Colleges WIB	
K-12						
Career Pathways Trust (CCPT)	Motivate the development of sustained K–14 career pathways programs that connect businesses, K–12 schools, and community colleges together in order to better prepare students for the 21st century workplace.	Adv. Transportation & Renewables Advanced Manufacturing ICT/Digital Media	Steering committee is active, work-based learning portal has is being tested, K-12 districts have implemented programs. Regional work with community colleges will start in year 2.	CDE/$13 million/ July 15-June 18	K-12 Regional Community Colleges Industry, WIB Community-Based Organizations	1, 3, 17, 19, 21
CTE Incentive Grant (CTEIG)	A state education and workforce development initiative with the goal of providing K-12 students with the skills necessary to transition to employment and postsecondary education.	All CTE Programs	K-12 schools are in process of implementing projects.	$600 million statewide	Determined by each LEA; Eligible grant recipients include school districts, county offices of education, charter schools, or ROCP's operated by a JPA.	
Adult Education						
Adult Education Block Grant (AEBG/AB 86)	Administer the Adult Education Block Grant to identify and understand the educational needs of adults and to support the effective provision of services to address those.	Basic Skills CTE	Consortia have transitioned from planning to implementing Adult Education plans to support more adult learners moving to careers and college.	$500 million statewide/ fiscal year	K-12/ Regional Adult Schools Regional Community Colleges Industry WIB	

Regional Economic and Background Analysis

Research was coordinated by the Community Colleges Center of Excellence for Labor Market Research, San Diego & Imperial Region; and by the Research Department, San Diego Workforce Partnership, with input from regional partners. Additional information and analysis was completed by the Southern Border's plan consultants - the California Workforce Association. Much of this information was presented in the two planning committee meetings and summarized in the all-day regional planning meeting

San Diego & Imperial Counties Demographics

The labor force in the two-county region needs to be reviewed separately. In 2016, San Diego's unemployment rate is 4.8% while Imperial Valley's rate is 22%. The two-county region does not have a large outflow-inflow deficit in terms of commute traffic, with a net outflow that amounts to 2.1% of the total employed population in the region. The two counties have a large variance in median household income, with San Diego County households generating about $64,000 and Imperial County households generating over $22,000 less per year.

The Hispanic/Latino Community comprises 35.2% of the population of the two-county region, and the Caucasian (Non-Hispanic or Latino) Community comprises 45.6% of the population. The region's population also includes 7.1% Black/African-Americans, 0.6% American Indians, 16.3% Asians, 0.6% Native Hawaiian/Pacific Islanders, and 4.9% Other/Two Races. Of the total population, 23.8% are foreign born, and 16.7% are classified as speaking English "less than very well." Veterans and individuals with disabilities also comprise large segments of the two-county region's population, with veterans totaling 7.2% and individuals with disabilities 9.7%.

Individuals with Barriers to Employment	Total
Ethnic Minorities	
Households with Cash Public Assistance or Food Stamps	85,209
Population 18 and Over with Less Than a 9th Grade Level Education	179,561
Single Parent Households	198,561
Speak English Less Than "Very Well"	524,828
Youth Ages 10 to 24	729,621

Ensuring the prosperity of the families that live in these communities is not just a good policy; it is essential to maintaining a robust economic engine in the two-county region.

The subsets of individuals with barriers to employment listed above require specialized services that are targeted to their specific barriers. The America's Job Centers of California in San Diego and Imperial Counties, along with their community college partners, are developing a customer-centered approach to serving these populations that will be discussed in depth later in the plan.

One significant hurdle to employment in the region is the educational barrier faced across populations. The total amount of otherwise-qualified individuals who have less than a high school diploma numbers 334,296 persons, which amounts to 15.2% of the overall qualified population. This segment is largely disadvantaged in the labor market, and must be given a pathway to

education and industry-recognized certifications to raise their chances at economic success. These pathways will be discussed in this plan.

Educational Attainment, 25 Years and Over	TOTAL
Less than high school diploma	334,296
High school graduate (includes equivalency)	419,691
Some college or associate's degree	692,985
Bachelor's degree or higher	747,150
Total	2,194,122

Source: U.S. Census Bureau, 2010-2014 American Community Survey, 5-Year Estimates

The two-county region houses over a million people who speak a language other than English at home, with approximately 44% of those people self-describing as speaking English "less than very well." Ensuring access to services for these large populations presents a challenge for the workforce system. The system is dedicated to meeting the challenge through targeted employment of people into the system who are members of these communities, and ensuring that the services provided are accessible to speakers of all languages in the region.

Priority Sector Analysis
In collaboration with the partners in the Data Subcommittee formed for the development of this plan, the San Diego Workforce Partnership created an inventory of the research conducted on the labor market, including industry sectors and occupations throughout the San Diego and Imperial counties. The organizations in the subcommittee recommended various sources and research to review. (The research sources recommended by the subcommittee are included in Appendix A.)

After compiling the inventory of all available research for the region, the industry sectors identified in each of those sources were analyzed and discussed among the subcommittee members. It was found that across various stakeholders or organizations, several sectors were considered "key sectors" for the region. The sectors identified by each stakeholder are shown in the exhibit below.

San Diego Workforce Partnership	San Diego and Imperial Counties Community Colleges	San Diego Regional EDC	SANDAG	Imperial County Workforce Development Office	Imperial County Comprehensive Economic Development Strategy (CEDS)	City of San Diego	North County EDC	South and East County EDC
Advanced Manufacturing	Advanced Manufacturing	Manufacturing	1. Advanced Precision Manufacturing 2. Apparel Manufacturing	Advanced Manufacturing	Specialized Manufacturing/ Assembly	Maquiladoras	Innovation and Specialized Manufacturing	Advanced Precision Manufacturing
Life Sciences	Life Sciences/ Biotechnology	Life Sciences	1. Biomedical Devices and Products 2. Biomedical Devices and Products			Biotech & Medical Devices	Biomedical Devices and Products Biotechnology and Pharmaceuticals	Biomedical Products Biotech & Pharmaceuticals
Health Care	Health Care		Healthcare	Health Care and Social Assistance	Medical and Medical Support			Specialized Health Care
Clean Energy Advanced Transportation	Clean Energy Advanced Transportation	Cleantech	Cleantech	Energy Advanced Transportation	Energy Generation Wind/Solar/Geothermal	Cleantech	Cleantech	Environmental Technology Renewal Energy
Information and Communication Technologies (ICT)	ICT & Digital Media	Information and Communications Technology	Information and Communications Technologies (ICT)			Electronics & Telecommunications Software & Web	Information, Communications and Technologies	Computer and Electronics
Small Business	Small Business			Professional and Business Services				Business Services Financial Services
Specialty Foods and Brews			Specialty Foods and Microbreweries			Food & Beverage Production		Specialty Foods
Aerospace		Aerospace	Aerospace, Navigation and Maritime Technologies					Aerospace
Blue Economy/ Maritime		Maritime	Aerospace, Navigation and Maritime Technologies			Port of San Diego		Maritime
Retail				Trade/Retail Trade				
Global Trade and Logistics*	Global Trade and Logistics		Aerospace, Navigation and Maritime Technologies		Warehouse/ Distribution/ Transportation	Logistics Warehousing & Distribution		
Government*		Defense	Uniformed Military	Government		1. U.S. Navy 2. U.S. Marine Corps 3. Defense & Security Systems		Defense
		Tourism	Entertainment and Hospitality	Leisure and Hospitality	Tourism	Hotels and Motels Beaches and Bays Amusement Parks & Museums	Connected Tourism	Travel and Hospitality Entertainment and Recreation
			1. Fruits and Vegetables 2. Horiculture	Agriculture	Agribusiness		Connected Agriculture	Agriculture & Fruit/Veg Processing
Sports and Active Lifestyle		Sports and Active Lifestyle	Action Sports Manufacturing					
			Publishing and Marketing					Communications
								Design and Creative Services
							Education	

*Research to be conducted in PY17-18

After determining all the sectors researched by the stakeholders throughout the region, the subcommittee grouped the sectors that were related to each other and found that while many sectors were named differently, they shared common traits and had similar North American Industry Classification System (NAICS) codes. NAICS is "the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy."[1] The industry sectors with similar NAICS were grouped into 18 clusters as follows:

Industry Sector Name

Advanced Manufacturing Manufacturing Apparel Manufacturing Specialized Manufacturing/Assembly Maquiladoras Innovation and Specialized Manufacturing Advanced Precision Manufacturing	Clean Energy Cleantech Energy Energy Generation Wind/Solar/Geothermal Renewable Energy Advanced Transportation	Aerospace Blue Economy/Maritime Maritime Technologies Port of San Diego	Fruits and Vegetables Horticulture Agriculture Agribusiness Connected Agriculture Agriculture & Fruit/Veg Processing
		Retail Trade/Retail Trade	Sports and Active Lifestyle Action Sports Manufacturing
Life Sciences Life Sciences/Biotechnology Biomedical Devices and Products Biotechnology and Pharmaceuticals Biotech & Medical Devices Biomedical Devices and Products Biomedical Products Biotechnology & Pharmaceuticals Biotech & Pharmaceuticals	Information and Communication Technologies ICT & Digital Media Information and Communications Technology Information and Communications Technologies Electronics & Telecommunications Software & Web Development Computer and Electronics	Global Trade and Logistics Navigation Warehouse/ Distribution / Transportation Logistics	Publishing and Marketing Communications
			Design and Creative
			Education
		Government Defense Uniformed Military U.S. Navy U.S. Marine Corps Defense & Security Systems Defense	
Health Care Healthcare Health Care and Social Assistance Medical and Medical Support Specialized Health Care	Small Business Professional and Business Services Business Services Financial Services		
	Specialty Foods and Brews Specialty Foods and Microbreweries Food & Beverage Production Specialty Foods	Tourism Entertainment and Hospitality Leisure and Hospitality Tourism Hotels and Motels Beaches and Bays Amusement Parks & Museums Connected Tourism Travel and Hospitality Entertainment and Recreation	

The subcommittee shared the analysis at the November 7 regional planning meeting, indicating which stakeholder identified certain sectors to be significant for the region, as shown in the following table.

Industry Sector Name	San Diego Workforce Partnership	San Diego and Imperial Counties Community Colleges	San Diego Regional EDC	SANDAG	Imperial County Workforce Development Office	Imperial County Comprehensive Economic Development Strategy (CEDS)	City of San Diego	North County EDC	South County EDC	East County EDC
Advanced Manufacturing Manufacturing Apparel Manufacturing Specialized Manufacturing/Assembly Maquiladoras Innovation and Specialized Manufacturing Advanced Precision Manufacturing	X	X	X	X	X	X	X	X	X	X
Life Sciences Life Sciences/Biotechnology Biomedical Devices and Products Biotechnology and Pharmaceuticals Biotech & Medical Devices Biomedical Devices and Products Biomedical Products Biotechnology & Pharmaceuticals Biotech & Pharmaceuticals	X	X	X	X			X	X	X	X
Health Care Healthcare Health Care and Social Assistance Medical and Medical Support Specialized Health Care	X	X	X	X	X	X			X	X
Clean Energy Cleantech Energy Energy Generation Wind/Solar/Geothermal Renewable Energy Advanced Transportation	X	X	X	X	X	X	X	X	X	X
Information and Communication Technologies ICT & Digital Media Information and Communications Technology Information and Communications Technologies Electronics & Telecommunications Software & Web Development Computer and Electronics	X	X	X	X			X	X	X	X

Category	1	2	3	4	5	6	7	8	9	10
Small Business Professional and Business Services Business Services Financial Services	X	X			X				X	X
Specialty Foods and Brews Specialty Foods and Microbreweries Food & Beverage Production Specialty Foods	X			X			X			X
Aerospace	X		X	X						X
Blue Economy/Maritime Maritime Technologies Port of San Diego	X		X	X			X		X	X
Retail Trade/Retail Trade	X				X					
Global Trade and Logistics Navigation Warehouse/ Distribution / Transportation Logistics	X	X		X		X	X			
Government Defense Uniformed Military U.S. Navy U.S. Marine Corps Defense & Security Systems Defense	X		X	X	X		X		X	X
Tourism Entertainment and Hospitality Leisure and Hospitality Tourism Hotels and Motels Beaches and Bays Amusement Parks & Museums Connected Tourism Travel and Hospitality Entertainment and Recreation			X	X	X	X	X	X	X	
Fruits and Vegetables Horticulture Agriculture Agribusiness Connected Agriculture Agriculture & Fruit/Veg Processing				X	X	X		X	X	X
Sports and Active Lifestyle Action Sports Manufacturing			X	X						
Publishing and Marketing Communications				X					X	
Design and Creative									X	X
Education								X		

The labor market information for each of these industry sector groupings were then analyzed based on the NAICS that they shared.

After comparing all the labor market information shown above, the industry sectors were ranked by the most number of jobs, greatest absolute growth, greatest percentage growth, greatest average earnings, and greatest number of establishments. The sectors ranked in the top ten per category are shown below.

Rank	Most Number of Jobs	Greatest Absolute Growth	Greatest Percentage Growth	Greatest Average Earnings	Greatest Number of Establishments
1	Government	Health Care	Health Care	Aerospace	Health Care
2	Tourism, Entertainment and Hospitality	Tourism, Entertainment and Hospitality	Design and Creative	Life Sciences	Small Businesses
3	Health Care	Blue Economy	Tourism, Entertainment and Hospitality	Small Businesses	Blue Economy
4	Small Businesses	Global Trade and Logistics	Education	Publishing and Marketing or Communications	Clean Energy
5	Blue Economy	Retail	Clean Energy	ICT	Retail
6	Retail	Clean Energy	Blue Economy	Advanced Manufacturing	Tourism, Entertainment and Hospitality
7	Global Trade and Logistics	ICT	Global Trade and Logistics	Clean Energy	Global Trade and Logistics
8	ICT	Advanced Manufacturing	Specialty Foods and Brews	Advanced Transportation	Sports and Active Lifestyle
9	Life Sciences	Small Businesses	Advanced Manufacturing	Government	Advanced Manufacturing
10	Clean Energy	Life Sciences	Retail	Sports and Active Lifestyle	Life Sciences

Based on these categories and rankings, the planning committee decided to focus on the following tops sectors as priority sectors for the region:

	Top 10 # Jobs in 2015	Top 10 % Growth	Top 10 Absolute Growth	Top 10 Average Earnings	Top 10 # of Establish-ments
Clean Energy	X	X	X	X	X
Health Care	X	X	X		X
ICT	X		X	X	X
Small Biz	X		X	X	X
Blue Economy	X	X	X		X
Global Trade	X	X	X		X
Tourism	X	X	X		X
Adv Mfg		X	X	X	X
Retail	X	X	X		X
Life Sciences	X		X	X	X

The San Diego Workforce Partnership and community colleges in the region represented by the San Diego and Imperial Counties Community Colleges Association (SDICCCA) initiated and implemented regional collaboration over the past three years to conduct research and produce studies with actionable findings for the region. These studies represent the first step in cooperative, sector-based strategies for workforce development. Together, regional partners conducted online surveys, in-person interviews and focus groups of regional employers from five priority sectors and collaborated on several additional sector studies:

- Advanced Manufacturing
  - Aerospace
  - Blue Tech
- Clean Energy
  - Advanced Transportation
    - Aircraft
    - Automotive
    - Motorcycle
- Information & Communication Technologies
- Healthcare
- Life Sciences
- Small Business
- Specialty Foods & Microbreweries
- Global Trade & Logistics
- Workforce Initiatives in the Priority Sectors
- Middle-skill Jobs
- Apprenticeships
- Retail
- Gig Economy

Comprehensive interviews and surveys of thousands of employers in the region gave the workforce development community an insight into the jobs that can be filled with an associate degree or postsecondary certificate. Our findings and recommendations paint a picture of today's labor market needs and potential shortages of trained workforce.

Job Quality: Middle-skill Workforce Needs

Regional partners have conducted analysis of the projected demand for middle-skill occupations and available supply of trained workers (Appendix C). The analysis showed an undersupply of workers in the region in the following occupational groups:

- Office & administrative support
- Health care practitioners and technical occupations (SD only)
- Sales & related
- Installation, maintenance and repair
- Construction & extraction
- Production (SD only)
- Transportation & material moving
- Life, physical & social science (SD only)
- Community & social services
- Legal (SD only)
- Health care support
- Personal care & service
- Education, training & library
- Food preparation & serving (Imperial only)

The region is committed to help people enter and retain employment and focuses its efforts on placement in a job providing economic security or job placement in an entry-level position that has a well-articulated career pathway or career ladder to a job providing economic security.

Cross-sector Employer Needs:

Utilizing the findings from multiple sector studies, regional partners established several cross-sector employer needs/priorities:

1. **Workers with strong soft skills are essential for businesses to succeed**. The number one skill requested by employers across all sectors are the soft skills – communication, professionalism, critical thinking, problem solving, etc.

    - Communication, both written and spoken (advanced manufacturing)
    - Teamwork, customer service, problem solving and critical thinking (health care)
    - Project management, flexibility, relationship building, listening, critical thinking (ICT/digital media)
    - Basic work skills such as basic computer skills, ability to read a tape measure, and workplace readiness (advanced manufacturing, clean energy, global trade)

2. **Soft skills make the difference in securing and retaining employment**. Like the point above, if a job candidate can prove their soft skills to an employer, they have a much higher likelihood of retaining employment.

3. **Previous work experience is key for many well-paying middle-skill occupations**. Previous work experience offers a lot of insight to employers without even meeting a candidate. It shows that the candidate has both technical and soft skills required for the position, as they have successfully held a previous position. Work experience gives a leg-up when the competition is tight in a labor market. Employers across sectors report the need for more experienced workforce.

   - Allied health occupations - employers seeks candidates with at least one year of clinical experience
   - 57% of biotech employers are having difficulty finding experienced workers

4. **Technical skills are required to respond to the latest innovations and technological changes**. With a quickly changing technologic world, it is important for workers to keep up with new technologies for companies to remain competitive in the economy. Examples of in-demand skills in priority sectors include:

   - Good manufacturing practices, quality control (life sciences/biotech)
   - Computer, data entry and validation (health care)
   - Virtualization, information security, user interface design (ICT/digital media)
   - Cell culturing, CAD, schematic diagram (advanced manufacturing)
   - Energy audit, quality control, clean energy policies and regulations (clean energy)

5. **Industry-based certifications are an indicator to employers of a job candidate's technical proficiency**. Certifications are a great way for employers to know what skills an individual possesses. Many certifications are approved through the state of California, resulting in a state-wide inventory of those individuals who possess a certain certificate or license. Examples of key in-demand certifications in the region include:

   - Phlebotomy, animal laboratory certification (life sciences/biotech)

   - Microsoft, Cisco, CompTIA (ICT/digital media)

   - Automotive Service Excellence Certification (advanced transportation)

6. **Regional employers have difficulties finding qualified employees and are interested in new ways to find and cultivate new talent**. This is especially true for small businesses who may not have a human resources department or professional. Employers do not have a lot of time to search for the perfect candidate and are open to new ideas for finding job candidates.

   - Businesses have a strong interest in partnering with the community colleges for internships and company tours (advanced manufacturing)
   - Companies are seeking workers who have strong technical skills and hands-on experience (all sectors)

- Employers are interested in hiring and promoting from within, creating strong career pathways inside a single company, providing opportunity for training incumbent workers (advanced transportation)

7. **Small businesses have few jobs posted online, and instead rely on word-of-mouth to hire new employees**. While most aspects of business have moved online, the job market is still a low-tech area. Instead of hiring an unknown individual based on a resume and interview, employers can utilize existing employees for referrals, which may be more reliable for finding new workers.

    - Networking is essential to find these small business jobs (all sectors)
    - Improved collaboration between community college and businesses to conduct job placement and ensure training programs focus on the in-demand skills (advanced manufacturing, health care)

8. **Imperial County's economy is strongly tied to the border region and cross-border trade with Mexico**. While both San Diego and Imperial Counties share a border with Mexico, and trade is an important sector in both counties, Imperial's County's economy relies on trade with Mexico to a much greater extent. This creates a unique opportunity in the area for innovative solutions:

    - Logistics, supply chain management (global trade)
    - Entry-level jobs that could be filled by graduates of community college programs (shipping, receiving and traffic clerks) (global trade, advanced manufacturing)
    - Manufacturing occupations at companies whose product is sold globally (advanced manufacturing)

9. **Many students are completing programs/graduating with degrees; however, the *quality* of the labor supply is unknown** – this is an area for further evaluation and study. The Priority Sector Initiatives report compiles nearly 500 workforce initiatives, including hundreds of education and training programs; however, their effectiveness needs to be studied to determine if training gaps have, in fact, been addressed by the initiatives, or if program improvement or new programs are necessary to fill those gaps.

Based on the findings for each sector, SDWP created an <u>inventory</u> of all workforce-related programs and initiatives and classified them by Priority Sector to determine where there were gaps between the recommendations for the research and the reality of the workforce development landscape.

> **Advanced Manufacturing:** Based on the research, five of the eight main research findings from Advanced Manufacturing are being addressed either in whole or in part by initiatives in the region. Still missing are ways to align the workforce system with employer needs, standardization of certificates, and employer knowledge of business assistance programs. 57 education and training programs are offered in San Diego County: 23 in community colleges, 10 at 4-year universities, 8 private, 5 nonprofits and 1 program through the County Office of Education.

Clean Energy: Only one of the four research findings for Clean Energy was found to be addressed by the initiatives in the region. Areas where there are still gaps include soft skill training, upskilling incumbent Clean Energy workers, and educational programs that result in professional licensures. 65 of the initiatives in Clean Energy are education and training programs in San Diego County: 31 in community colleges, 7 at 4-year universities, 20 private and 7 nonprofit programs.

Health Care: Like Clean Energy, only one of four findings for the Health Care sector have been addressed in the region. Completion rates of existing programs, alignment between employers and training providers, and soft skill training are all areas for improvement. There are 107 training and education programs in San Diego County for Health Care: 5 at adult schools, 18 in the community colleges, 33 at 4-year universities, 5 non-profits and 46 private programs.

Information & Communication Technologies: Again, the ICT sector had only one of four findings addressed by the initiatives compiled in the inventory. Still needing attention is providing relevant work experience during education/training, providing industry-recognized certifications as a part of training, and soft skills training. There are 112 ICT education and training programs in San Diego County: 2 in the K-12 system, 48 in the community colleges, 14 at 4-year universities, 2 non-profits and 46 private programs.

Life Sciences: Two of the four Life Sciences findings were addressed by initiatives in the region; however, still needing attention is a way for students to understand what working in the sector entails (it is a very fast-paced and fast-evolving sector) and investing in professional development to increase employee retention. Additionally, the research identified an under-supply of labor for the sector – 57% of employers report having difficulty finding experienced workers who have hands-on laboratory experience or training. Many workers report having to return to the community colleges after attaining a Bachelor's degree to obtain lab experience. The Life Sciences sector has 50 education and training programs in San Diego County: 14 in community colleges, 35 at 4-year universities and 1 industry association training program.

Small Business: Small business crosses all sectors, with firms with fewer than 50 employees making up 95% of all establishments in the County. While there is not a supply/demand gap analysis for Small Businesses, it is important to note that they place the highest value on previous work experience and technical skills when hiring. Workers who have multiple strengths and who are willing to "wear many hats" will grow best in small business. There are educational programs that result in business degrees, including community college pathways to 4-year schools, bachelor's degrees and MBAs in the San Diego region.

Overall, the needs in these sectors have significant overlap. Cross-sector findings that still need to be addressed include:

- STEM education in the K-12 system

- Internship or work experience as part of education/training

- Soft skills training

- Education/training programs that result in professional licensures, and

- Ensuring that education/training programs are training for the skills that employers need – meaning meeting with employers to design curriculum to match the skills they require of their employees.

The alignment of partner programs in San Diego and Imperial Counties around data and research collaboration have brought a shared understanding of the needs of business and the strengths and weaknesses of the jobseekers in the community. The commonality of data sources and outputs allow for meaningful and actionable dialogue in how to support the economy of the two counties, and a more robust and agile system in responding to the always-changing economic and workforce landscape in the Southern Border Region.

Organizations that participate in these collaborations include, but are not limited to:

- San Diego Workforce Partnership

- Imperial County Workforce Development Board

- San Diego and Imperial Counties Community Colleges Association

- San Diego Regional Economic Development Corporation

- University of California – San Diego Extension

- San Diego Association of Governments

- East County Economic Development Council

Examples of collaborations around data and research include, but are not limited to:

- In-Demand Jobs: The Occupational Outlook in San Diego County (November, 2016)

- Special Report: Apprenticeships (November, 2016)

- Essential Skills for Success (January, 2016)

- Priority Sectors: Workforce Initiatives in San Diego County (November, 2015)

- Labor Market Analysis (October, 2014)

Industry-Valued Post-Secondary Credentials/Certifications

Industry-valued Credentials/Certifications support attainment of living wage jobs and are seen as desirable by the employer community. Community Colleges and local Workforce Development Boards are working together to increase access and knowledge about the valued in-demand credentials/certifications.

The following certifications were identified by the community college Deputy Sector Navigators, Sector Navigators or other partners as desirable certifications for the corresponding sector in our region:

- **Advanced Manufacturing**: ACT-National Career Readiness Certificate (NCRC), Manufacturing Skills Standards Council (MSSC)- Certified Production Technician and Certified Logistics Technician Certification, Manufacturing Skills Institute (MSI)-Manufacturing Technician 1, National Institute for Metalworking Skills (NIMS), American Welding Society (AWS)-Certified Welder Certifications, International Society of Automation (ISA)-Certified Control Systems Technician (CCST) and Certified Automation Professional (CAP), National Center for Construction Education and Research (NCCER), North American Die Casting Association (NADCA), Fabricators & Manufacturers Association International (FMA)-Precision Sheet Metal Operator Certification (PSMO), International Fluid Power Society (IFPS), SME-Lean Certification, Packaging Machinery Manufacturing Institute (PMMI)-Mechatronics Certificate, American Society for Quality (ASQ), American Society of Transportation and Logistics (ASTL), Association for Operations Management (APICS)-Certified in Production and Inventory Management (CPIM) and Certified Supply Chain Professional (CSCP), Certified Manufacturing Technologist (CMfgT). *Certificate information provided by East County Economic Development Council*
- **Advanced Transportation/Renewable Energy**: ACT-National Career Readiness Certificate (NCRC) PV Technical Sales, PV Installation Professional, Solar Heating Installer, Small Wind Installer, California Advanced Lighting Controls Training Program (CALCTP), Electric Vehicle Infrastructure Training Program (EVITP), ASE certification (brakes, engines, electrical, diesel), North American Board of Certified Energy Practitioners (NABCEP).
- **Agriculture/Water/Environmental Technologies**: ACT-National Career Readiness Certificate (NCRC)
- **Energy Efficiency/Utilities**: ACT-National Career Readiness Certificate (NCRC)
- **Global Trade/Logistics**: ACT-National Career Readiness Certificate (NCRC)
- **Health**: ACT-National Career Readiness Certificate (NCRC),Licensed Vocational Certificate (NCLEX-PN), Nursing Assistant, Registered Nurse (NCLEX, RN), National Board for Certification in Occupational Therapy (NBCOT) Orthopedic Technology, Anesthesia Tech, Registered Dental Assistant, Certified Dental Assistant, Registered Health Information Technology, Certified Coding Specialist, Certified Coding Assistant, Registered Health Information Management, Phlebotomy, Physical Therapy Assistant, Veterinary Technician
- **ICT/Digital Media**: ACT-National Career Readiness Certificate (NCRC), C++, JAVA, Linux, Microsoft SharePoint, Oracle, Network Security, Security +, CEH (Certified Ethical Hacker), Adobe, Microsoft Office certification, Certified Web Designer Associate
- **Life Sciences/Biotech**: ACT-National Career Readiness Certificate (NCRC)
- **Retail/Hospitality/Tourism 'Learn and Earn**: ACT-National Career Readiness Certificate (NCRC), American Hotel & Lodging Association – Guest Service Gold, Convention Industry Council – Certified Meeting Planner, National Restaurant Association –

ServSafe Food Handler, National Restaurant Association—ServeSafe Food Safety for Managers, National Retail Federation – Customer Service and Sales, Professional Bartending Schools of America – Training for Intervention Procedures, Society of Wine Educators – Certified Specialist of Wine, Society of Wine Educators—Certified Wine Educator, Western Association of Food Chains – Retail Management Certificate, Comp TIA A+ Certification – Computer Retail

- **Small Business**: ACT-National Career Readiness Certificate (NCRC)

Other certifications in demand in the region across all sectors include project management (PMP), security clearance, forklift operator certificate and lean six sigma across all sectors (not just manufacturing). As the industries change, the certification courses and tests tend to follow those changes, so keeping up on industry-approved certifications will prove beneficial for job seekers in the region. Employers that participate in the region's talent networks will be contacted. Using feedback from these employers, the partners will continue to refine the list of industry-valued credentials.

Education partners will be convened on a regular basis to ensure that the credentials are being offered in a systemic manner, with credential programs being made available to as many geographic areas in the region as feasible.

Access and Inclusivity

The region is working together to determine a common starting point for conversations on how to serve communities with populations where English is not their first language, as well as identifying best practices and addressing deficiencies discovered through technical assistance and representative hiring practices and other appropriate measures.

San Diego County - Language Spoken	Speak English Less Than Very Well	Speak English Very Well	Total Persons
Spanish	44.1%	55.9%	725,000
Tagalog	39.4%	60.6%	90,200
Vietnamese	62.1%	37.9%	42,000
Chinese	49.3%	50.7%	41,100
Arabic	51.6%	48.4%	19,591
Persian	41.2%	58.8%	14,034
Korean	53.3%	46.7%	13,710
Japanese	47.3%	52.7%	12,618
African	36.2%	63.8%	11,927
Other	51.1%	48.9%	11,697
German	13.1%	86.9%	10,934
Other Pacific	38.9%	61.1%	9,809
French	17.7%	82.3%	9,216
Russian	47.4%	52.6%	8,813
Other Asian	32.4%	67.6%	8,540
Hindi	25.1%	74.9%	6,425
Laotian	54.8%	45.2%	5,936
Italian	27.8%	72.2%	5,820
Portuguese	26.3%	73.7%	5,280
Cambodian	47.9%	52.1%	4,785
TOTAL	44.0%	56.0%	1,057,435

Imperial County - Language Spoken	Speak English Less Than Very Well	Speak English Very Well	Total Persons
Spanish	43.3%	56.7%	117,200
Chinese	71.0%	29.0%	730
Tagalog	27.8%	72.2%	435
TOTAL	43.3%	56.7%	118,365

Source: U.S. Census Bureau, as reported by The Statistical Atlas at statisticalatlas.com (2015)

Almost 500,000 people in the region, 15% of the population as a whole, live in poverty. This population is eligible for TANF services, and the future health of the economy of the region depends on the incorporation of this population into the economy. The disconnection of this large segment of the population from the skilled workforce is not only a detriment to those individuals, but is a detriment to business owners and proprietors in the region, who do not have the benefit of the potential of that segment to potentially hire from and are not able to sell their products and services to the entire population. This limits growth potential for business both in hiring and spending. These populations, likewise, are less likely to produce children who will

move up the economic ladder, perpetuating the issues into a multi-generational morass that the fabric of the region's economy.

The workforce system in the Southern Border region believes that working in collaboration with TANF agencies to ensure common understanding of the benefits of each system is the starting place to deeper co-mingling of services, and this process has begun through the regional planning process, where TANF agencies are represented. The region will be moving to common intake strategies with common case management, ensuring that the customer's experience with the system is streamlined and that they do not have to duplicate efforts to access the benefits of the system. This will lead to an increase in participation by TANF customers in the programs and training provided by the workforce system, and increased entries into the regional career pathways developed by the system.

Local Boards, Community Colleges, Adult Schools, and AEBG consortia are dedicated to ensuring program and physical accessibility and participation in regional sector pathway programs, and are compliant in all physical accessibility laws and regulations as established at the federal, state, and local level. The partners will also dedicate technical assistance and training to staff in the field that ensures they are proficient in the techniques and knowledge that is needed to ensure accessibility to individuals with disabilities. The Department of Rehabilitation has been active in discussions around the formation of this regional plan, and will continue to provide technical assistance and guidance to ensure that all populations with disabilities have access to the system established by this plan.

The economy of the region will only operate to its best potential when equity exists in the opportunity to participate in that economy. Two of the three main goals of the partners in the region are to create career pathways for all San Diego and Imperial County residents and to develop a customer-centered focus to both jobseeker and business services. These commitments are central to the development of the system in the region, and includes a commitment to serve all persons, regardless of the barriers to employment they may have when entering the system.

One-stop centers in the two county region strive to streamline services for jobseekers by ensuring access to needed services, educating program staff about all of the one-stop services available to job seekers, and consolidating case management and intake procedures.

The local workforce development boards, community colleges and adult education consortia are committed to the support of career pathways for incumbent workers. Through follow-up services and education to employers about available incumbent worker training, workers may continue on their pathway while creating a value add for employers.

Regional Assessment

The Southern Border Region and its partners understand the need for collaborative tracking of training-related employment outcomes to measure the effectiveness of the training provided to the customer, as well as to gauge the usefulness of the training for the businesses who hire from our talent pool.

Training-related employment will be tracked alongside of the tracking of industry-recognized credentials. San Diego Workforce Partnership is currently building an ETPL Scorecard with their own software developers. This scorecard will match training participant job outcomes with NAICS data, giving an automated "yes/no" response as to whether the participants' job outcomes matched the industry in which they were being trained. The concept is in beta testing, with release later in 2017. The contents of these reports will include identifiers for workforce system participants who engaged in training programs, the training programs entered, their completion status, and the employment outcome as determined by reporting through the State Base Wage File.

Community Colleges use a statewide system entitled LaunchBoard to track all of their Strong Workforce metrics/student outcomes. Data is available by specific program, by college, by sector and by region. Metrics include WIOA employment outcomes - job placement, job retention, wages.

These reports will be analyzed annually to determine the effectiveness of training programs. Those programs garnering insufficient results will be reviewed by the partners, with industry engaged, to determine where deficiencies lie and to help develop a more relevant program that will result in stronger outcomes for the participants involved.

The continuous, constructive dialogue and action are the central strengths of the region's workforce development activities. The input and support of city and county governments in the region allow for the needed support to achieve the goals established by the partners in the region. The focus on continuous improvement, as outlined in executed and planned technical assistance within and between partners in the region will continue to escalate the capacity of all system partners to better serve jobseekers and businesses.

Weaknesses include a system that is still working to braid the services offered by the individual partners in the workforce development system, including in constructing a program around the assessment of work-readiness skills that businesses will find relevant to their needs across the board. As the system sees shared goals and strategies between partners, the on-the-ground execution and tracking of participant activities and business outreach remains a work in progress, though a work in progress that the region is firm in its commitment to undertake.

Appendices

Appendix A – Research and Data Resources

1. **Priority Sector Studies for San Diego & Imperial Counties**: Comprehensive demand and supply analyses using various data sources, including employer surveys.
   Available at:workforce.org/reports and coeccc.net/sandiego_imperial.asp
   - Life Sciences/Biotechnology
   - Clean Energy
   - Advanced Manufacturing
   - Information and Communication Technologies & Digital Media
   - Health Care
   - Advanced Transportation:
     - Automotive Technicians & Managers
     - Aircraft Maintenance & Piloting
     - Motorcycle Technicians
   - Global Trade and Logistics
   - Workforce Needs of Small Businesses in San Diego
   - Specialty Foods & Brews
   - Retail Industry
   - Priority Sectors: Workforce Initiatives in San Diego County

2. **In-Demand Jobs Report:** top occupations offering a living wage that are projected for growth over the next five years for San Diego County. Available at: workforce.org/reports

3. **Regional Labor Market Assessment Reports:** demand data by major occupational group and related post-secondary program data ("supply") focused on middle-skill/community college relevant occupations.
   a. San Diego County:
   http://coeccc.net/documents/Regional%20Planning%20Report%20SD%20final.pdf
   b. Imperial County:
   http://coeccc.net/documents/Regional%20Planning%20Report%20Imperial%20County%20Final.pdf

4. **Top Middle-Skill Occupations:** demand data for top middle-skill/community college relevant occupations organized by education level.
   a. San Diego County: http://coeccc.net/documents/Top%20Occupations_San%20Diego.pdf
   b. Imperial County: http://coeccc.net/documents/Top%20Occupations_Imperial.pdf

5. **EDD LMID Resources**

    a.   Southern Boarder Regional Planning Unit Summary: demographics, top industries, top 25 middle-skill occupations, top skills (http://www.labormarketinfo.edd.ca.gov/Publications/REA-Reports/Southern-Border-RPU-Summary.pdf)

6.   SANDAG. Traded Industry Clusters in the San Diego Region: 2016 Data Update. March 2016. Traded sandag.org/uploads/publicationid/publicationid_2017_20489.pdf

7.   Imperial County Comprehensive Economic Development Strategy. 2014-2015 Annual Update. Effective 2014-2015.

8.   San Diego Workforce Partnership. workforce.org/research. Publications from 2012 to 2016.

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Appendix B – Statistical Data on the Workforce of the Region

Living and Employed in the Area	Inflow	Outflow
1,034,900	231,942	253,696

Source: U.S. Census Bureau and LEHD Origin-Destination Employment Statistics (Beginning of 2nd Quarter of 2002-2014).

Median Household Income by County	Median Household Income
Imperial	$41,772
San Diego	$63,996

Poverty Status	Population	Percentage
Income in the Past 12 Months Below Poverty Level	494,790	15.1%
Income in the Past 12 at or Above Poverty Level	2,774,080	84.9%
Total	3,268,870	100.0%

Race	Population	Percentage
Hispanic or Latino	1,183,842	100.0%
White Alone	846,512	71.5%
Black or African American Alone	10,119	0.9%
American Indian and Alaska Native Alone	10,897	0.9%
Asian Alone	6,425	0.5%
Native Hawaiian and Other Pacific Islander Alone	1,003	0.1%
Some Other Race Alone	247,818	20.9%
Two or More Races	61,068	5.2%
Non-Hispanic or Latino	2,176,327	100.0%
White Alone	1,533,808	70.5%
Black or African American Alone	155,402	7.1%
American Indian and Alaska Native Alone	12,909	0.6%
Asian Alone	354,196	16.3%
Native Hawaiian and Other Pacific Islander Alone	13,492	0.6%
Some Other Race Alone	4,794	0.2%
Two or More Races	101,726	4.7%

Source: U.S. Census Bureau, 2010-2014 American Community Survey, 5-Year Estimates.

Native and Foreign Born	Population	Percentage
Native	2,558,884	76.2%
Foreign Born	801,285	23.8%
Total	3,360,169	100.0%

English Learners	Population	Percentage
Speaks English Less Than "Very Well"	524,828	16.7%
Speaks English "Very Well"	705,287	22.5%
Speaks Only English	1,906,697	60.8%
Total	3,136,812	100.0%

Source: U.S. Census Bureau, 2010-2014 American Community Survey, 5-Year Estimates.

Veteran Status	Population	Percentage
Male Veterans	218,831	90.4%
Female Veterans	23,353	9.6%
Total	242,184	100.0%

Disability Status	Population	Percentage
With Any Disability	314,053	9.7%
No Disability	2,935,691	90.3%
Total	3,249,744	100.0%

Source: U.S. Census Bureau, 2010-2014 American Community Survey, 5-Year Estimates.

Educational Attainment by Race, 25 Years and Over	White Alone	Black or African American Alone	American Indian and Alaska Native Alone	Asian Alone	Native Hawaiian and Other Pacific Islander Alone	Some Other Race Alone	Two or More Races	Total
Less than high school diploma	221,961	11,362	3,451	29,460	1,700	57,464	8,898	334,296
High school graduate (includes equivalency)	305,271	24,858	3,916	38,032	2,547	33,640	11,427	419,691
Some college or associate's degree	511,332	45,027	5,866	67,041	3,884	34,819	25,016	692,985
Bachelor's degree or higher	566,940	22,382	2,066	117,362	1,560	15,660	21,180	747,150
Total	1,605,504	103,629	15,299	251,895	9,691	141,583	66,521	2,194,122

Source: U.S. Census Bureau, 2010-2014 American Community Survey, 5-Year Estimates

Major Industry Sector	May 2016 (preliminary)	May 2012	Change	Percent	Location Quotient
Total All Industries	1,496,700	1,361,500	135,200	9.9%	-
Total Farm	25,700	22,100	3,600	16.3%	0.6
Total Nonfarm	1,471,000	1,339,400	131,600	9.8%	1.0
Mining and Logging	400	400	0	0.0%	0.2
Construction	71,600	57,000	14,600	25.6%	1.1
Manufacturing	107,300	100,100	7,200	7.2%	1.0
Trade, Transportation and Utilities	231,100	216,600	14,500	6.7%	0.9
Information	24,100	25,000	-900	-3.6%	0.6
Financial Activities	74,300	70,800	3,500	4.9%	1.0
Professional and Business Services	237,700	217,600	20,100	9.2%	1.1
Educational and Health Services	209,600	183,600	26,000	14.2%	0.9
Leisure and Hospitality	194,400	166,500	27,900	16.8%	1.2
Other Services	54,500	50,700	3,800	7.5%	1.1
Government	262,700	249,500	13,200	5.3%	1.2

Appendix C – Demand and Supply for Middle-skill Occupations

San Diego County

Major Occupational Group	Annual Demand	Annual Supply			Areas of Undersupply?
	Job Openings	CC Credit Awards (degrees & cert.)	CC Noncredit Awards	Other Postsecondary Institutions Awards	
Office and Administrative Support	3,772	653	935	99	Yes
Healthcare Practitioners and Technical	2,500	937	10	1,419	Yes
Sales and Related	1,752	114	0	4	Yes
Installation, Maintenance, and Repair	1,700	595	649	121	Yes
Construction and Extraction	1,152	256	161	62	Yes
Production	930	361	177	193	Yes
Transportation and Material Moving	630	35	0	0	Yes
Life, Physical, and Social Science	180	126	0	0	Yes
Community and Social Services	177	173	0	23	Yes
Legal	167	79	0	5	Yes
Healthcare Support	2,136	266	366	2,297	Maybe
Personal Care and Service	1,470	616	139	1,866	Maybe
Computer and Mathematical	598	297	178	343	Maybe
Education, Training, and Library	580	445	124	746	Maybe
Business and Financial Operations	1,138	1,488	243	1,040	No
Management	671	1,387	154	1,100	No
Food Preparation and Serving Related	661	192	532	290	No
Protective Service	468	677	0	178	No
Arts, Design, Entertainment, Sports, and Media	426	372	279	280	No
Architecture and Engineering	341	400	77	154	No
Building and Grounds Cleaning and Maintenance	57	55	0	93	No

Source: California Community Colleges' Center of Excellence for Labor Market Research, coeccc.net

Imperial County

Major Occupational Group	Annual Demand	Annual Supply		Areas of Undersupply?
	Job Openings	CC Credit Awards (degrees & cert.)	Other Postsecondary Institutions Awards	
Construction and Extraction	183	11	86	Yes
Office and Administrative Support	167	34	47	Yes
Installation, Maintenance, and Repair	124	33	66	Yes
Sales and Related	102	4	73	Yes
Healthcare Support	93	32	0	Yes
Personal Care and Service	70	39	0	Yes
Transportation and Material Moving	61	0	0	Yes
Education, Training, and Library	56	38	0	Yes
Food Preparation and Serving Related	21	0	0	Yes
Community and Social Services	23	13	0	Maybe
Protective Service	125	177	0	No
Healthcare Practitioners and Technical	72	99	0	No
Management	65	72	58	No
Business and Financial Operations	30	81	47	No
Production	19	40	66	No
Computer and Mathematical	7	18	0	No

Source: California Community Colleges' Center of Excellence for Labor Market Research, coeccc.net

Skill Requirements for Top 25 Middle-Skill, Middle-Wage or Higher Occupations

Occupations	Active Learning	Active Listening	Complex Problem Solving	Coordination	Critical Thinking	Equipment Maintenance	Equipment Selection	Installation	Instructing	Judgment and Decision Making	Learning Strategies	Management of Personnel Resources	Mathematics	Monitoring	Operation and Control	Operation Monitoring	Operations Analysis	Programming	Quality Control Analysis	Reading Comprehension	Repairing	Science	Service Orientation	Social Perceptiveness	Speaking	Systems Analysis	Time Management	Troubleshooting	Writing
Registered Nurses	●	●		●	●				●					●						●			●	●	●				
Computer User Support Specialists	●	●		●	●				●					●						●			●		●				●
Medical Assistants	●	●		●	●									●						●			●	●	●				●
Licensed Practical and Licensed Vocational Nurses		●		●	●				●					●						●			●	●	●		●		
Heavy and Tractor-Trailer Truck Drivers		●	●		●	●								●	●	●				●					●		●		
Preschool Teachers, Except Special Education		●		●	●						●			●						●			●	●	●		●		
Paralegals and Legal Assistants	●	●		●	●									●						●				●	●		●		●
Dental Assistants	●	●			●				●					●						●			●	●	●				●
Telecommunications Equipment Installers and Repairers, Except Line Installers	●	●	●		●									●		●			●	●	●							●	
Web Developers	●	●	●		●					●				●			●	●		●									●
Electrical and Electronics Engineering Technicians*		●	●		●								●	●						●	●				●			●	●
Dental Hygienists	●	●	●	●	●									●						●			●		●				●
Firefighters*		●		●	●				●					●		●				●			●	●	●				
Heating, Air Conditioning, and Refrigeration Mechanics and Installers*		●		●	●	●	●								●				●	●	●							●	
First-Line Supervisors of Production and Operating Workers		●	●	●	●							●								●				●	●		●		●
Medical Records and Health Information Technicians		●	●		●					●	●			●						●					●		●		●
Aircraft Mechanics and Service Technicians		●	●		●	●				●						●			●	●	●							●	
Computer Network Support Specialists	●	●	●		●					●				●						●					●	●			●
Medical and Clinical Laboratory Technicians	●	●	●	●	●						●			●						●		●			●				
Library Technicians	●	●		●	●				●					●						●			●		●				●
Massage Therapists	●	●			●					●				●						●			●	●	●				●
Veterinary Technologists and Technicians	●	●		●	●						●			●						●			●	●	●				
Computer, Automated Teller, and Office Machine Repairers	●	●	●		●		●							●		●				●	●							●	
Electrical and Electronics Repairers, Commercial and Industrial Equipment		●	●		●	●									●	●			●	●	●							●	
Environmental Science and Protection Technicians, Including Health		●	●	●	●					●			●	●						●					●				●

Source: U.S. Department of Labor's Occupational Information Network (O*NET) at www.onetonline.org.

* Skills listed for the occupation represent a specialty occupation.

Skill Requirements for Top 25 Middle-Skill, Middle-Wage or Higher Occupations

Occupations	Knowledge																												
	Administration and Management	Biology	Building and Construction	Chemistry	Clerical	Communications and Media	Computers and Electronics	Customer and Personal Service	Design	Economics and Accounting	Education and Training	Engineering and Technology	English Language	Geography	Law and Government	Mathematics	Mechanical	Medicine and Dentistry	Personnel and Human Resources	Philosophy and Theology	Physics	Production and Processing	Psychology	Public Safety and Security	Sales and Marketing	Sociology and Anthropology	Telecommunications	Therapy and Counseling	Transportation
Registered Nurses		□		□				□			□		□			□		□					□			□		□	
Computer User Support Specialists	□			□	□	□	□			□	□		□			□											□		
Medical Assistants	□			□			□	□			□		□					□					□	□				□	
Licensed Practical and Licensed Vocational Nurses				□	□			□			□		□					□	□	□			□					□	
Heavy and Tractor-Trailer Truck Drivers	□							□			□		□	□	□	□	□						□						□
Preschool Teachers, Except Special Education	□							□			□		□	□						□			□	□		□		□	
Paralegals and Legal Assistants	□			□	□	□	□				□		□		□	□							□						
Dental Assistants				□	□		□	□			□		□					□					□	□		□			
Telecommunications Equipment Installers and Repairers, Except Line Installers				□	□		□	□		□	□		□			□	□					□					□		
Web Developers	□			□	□	□	□	□	□		□		□			□										□			
Electrical and Electronics Engineering Technicians*						□	□	□		□		□	□			□	□				□	□							
Dental Hygienists		□		□	□		□	□			□		□					□					□			□			
Firefighters*	□		□	□				□			□		□		□		□					□		□					
Heating, Air Conditioning, and Refrigeration Mechanics and Installers*			□	□			□	□	□			□	□			□	□				□								
First-Line Supervisors of Production and Operating Workers	□				□		□			□	□					□	□		□			□							
Medical Records and Health Information Technicians	□				□	□	□	□			□		□		□	□						□							
Aircraft Mechanics and Service Technicians				□			□	□				□	□			□	□				□	□	□	□					□
Computer Network Support Specialists	□				□	□	□	□	□		□	□	□														□		
Medical and Clinical Laboratory Technicians		□		□	□		□	□					□			□		□				□		□					
Library Technicians	□				□	□	□	□	□	□			□			□	□												
Massage Therapists	□	□		□		□		□			□							□					□			□		□	
Veterinary Technologists and Technicians	□	□		□		□		□			□					□		□								□			
Computer, Automated Teller, and Office Machine Repairers							□	□		□	□		□			□	□				□	□					□		
Electrical and Electronics Repairers, Commercial and Industrial Equipment			□				□		□	□		□	□			□	□				□	□							
Environmental Science and Protection Technicians, Including Health		□		□	□		□	□					□	□		□					□					□			

Source: U.S. Department of Labor's Occupational Information Network (O*NET) at www.onetonline.org.

* Knowledge listed for the occupation represent a specialty occupation.

The Center for Policy Initiatives sets the living wage in the region at $13.09 per hour. The following chart specifies in-demand jobs for the region that list a median wage above that living wage. These jobs are the targets of regional sector pathway programs currently operating in the Southern Border Region, as well as in development with regional partners for future utilization

Occupation Title (SOC)	2015 Jobs	5-year Growth	Annual Openings	Median Wage	Typical Entry Level Education
Aerospace Engineers (17-2011)	1,770	10%	88	$50.02	Bachelor's degree
Anesthesiologists (29-1061)	650	14%	39	$110.75	Doctoral or professional degree
Architects, Except Landscape and Naval (17-1011)	1,463	10%	55	$34.40	Bachelor's degree
Architectural and Civil Drafters (17-3011)	1,371	7%	37	$27.57	Associate degree
Architectural and Engineering Managers (11-9041)	2,562	9%	130	$73.17	Bachelor's degree
Billing and Posting Clerks (43-3021)	4,977	12%	235	$17.51	High school diploma or equivalent
Bus and Truck Mechanics and Diesel Engine Specialists (49-3031)	1,855	12%	78	$24.45	High school diploma or equivalent
Bus Drivers, School or Special Client (53-3022)	2,426	15%	110	$18.44	High school diploma or equivalent
Bus Drivers, Transit and Intercity (53-3021)	2,086	13%	85	$14.29	High school diploma or equivalent
Business Operations Specialists, All Other (13-1199)	13,964	5%	317	$35.39	Bachelor's degree
Cargo and Freight Agents (43-5011)	755	12%	44	$19.57	High school diploma or equivalent
Compliance Officers (13-1041)	4,031	5%	99	$37.33	Bachelor's degree
Computer and Information Systems Managers (11-3021)	4,321	9%	136	$71.45	Bachelor's degree
Computer Network Architects (15-1143)	1,196	10%	45	$47.74	Bachelor's degree
Computer Network Support Specialists (15-1152)	2,342	7%	65	$34.16	Associate degree
Computer Systems Analysts (15-1121)	5,873	14%	242	$43.39	Bachelor's degree
Computer User Support Specialists (15-1151)	6,400	9%	196	$26.59	Some college, no degree
Computer-Controlled Machine Tool Operators, Metal and Plastic (51-4011)	1,043	12%	60	$20.78	High school diploma or equivalent
Construction and Building Inspectors (47-4011)	1,261	9%	60	$34.50	High school diploma or equivalent
Database Administrators (15-1141)	1,100	9%	46	$45.98	Bachelor's degree
Dental Assistants (31-9091)	3,947	8%	166	$19.06	Postsecondary nondegree award
Dental Hygienists (29-2021)	1,582	10%	60	$42.33	Associate degree
Dental Laboratory Technicians (51-9081)	680	10%	33	$18.62	High school diploma or equivalent

Occupation	Employment	% Change	Openings	Wage	Education
Dentists, General (29-1021)	1,696	8%	62	$70.95	Doctoral or professional degree
Diagnostic Medical Sonographers (29-2032)	473	25%	34	$44.36	Associate degree
Environmental Engineers (17-2081)	658	16%	41	$44.10	Bachelor's degree
Environmental Science and Protection Technicians, Including Health (19-4091)	683	8%	40	$21.60	Associate degree
Environmental Scientists and Specialists, Including Health (19-2041)	1,065	12%	61	$37.51	Bachelor's degree
Family and General Practitioners (29-1062)	1,135	13%	67	$89.26	Doctoral or professional degree
First-Line Supervisors of Mechanics, Installers, and Repairers (49-1011)	3,065	7%	109	$31.25	High school diploma or equivalent
First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators (53-1031)	1,328	7%	63	$26.36	High school diploma or equivalent
Health Diagnosing and Treating Practitioners, All Other (29-1199)	553	16%	32	$28.53	Master's degree
Health Technologists and Technicians, All Other (29-2099)	1,213	10%	38	$22.58	High school diploma or equivalent
Heavy and Tractor-Trailer Truck Drivers (53-3032)	8,283	8%	295	$18.21	Postsecondary nondegree award
Human Resources Managers (11-3121)	1,572	8%	73	$53.92	Bachelor's degree
Industrial Engineers (17-2112)	3,169	8%	148	$44.77	Bachelor's degree
Industrial Machinery Mechanics (49-9041)	1,544	14%	89	$25.24	High school diploma or equivalent
Information Security Analysts (15-1122)	815	14%	34	$46.32	Bachelor's degree
Licensed Practical and Licensed Vocational Nurses (29-2061)	5,176	16%	335	$25.78	Postsecondary nondegree award
Machinists (51-4041)	3,663	7%	169	$24.01	High school diploma or equivalent
Mechanical Engineers (17-2141)	3,152	14%	200	$42.11	Bachelor's degree
Medical and Clinical Laboratory Technicians (29-2012)	2,368	16%	140	$22.52	Associate degree
Medical and Clinical Laboratory Technologists (29-2011)	1,129	23%	83	$37.10	Bachelor's degree
Medical and Health Services Managers (11-9111)	2,595	14%	143	$52.22	Bachelor's degree
Medical Assistants (31-9092)	7,140	18%	427	$17.06	Postsecondary nondegree award
Medical Records and Health Information Technicians (29-2071)	2,009	12%	97	$19.08	Postsecondary nondegree award
Medical Scientists, Except Epidemiologists (19-1042)	3,145	15%	200	$48.70	Doctoral or professional degree
Medical Secretaries (43-6013)	7,594	13%	288	$17.66	High school diploma or equivalent

Meeting, Convention, and Event Planners (13-1121)	1,309	10%	44	$22.13	Bachelor's degree
Mental Health Counselors (21-1014)	968	10%	42	$18.84	Master's degree
Network and Computer Systems Administrators (15-1142)	3,713	8%	112	$38.76	Bachelor's degree
Nurse Practitioners (29-1171)	1,367	25%	105	$54.54	Master's degree
Nursing Assistants (31-1014)	9,184	19%	574	$13.88	Postsecondary nondegree award
Occupational Therapists (29-1122)	1,164	16%	63	$45.13	Master's degree
Occupational Therapy Assistants (31-2011)	426	24%	35	$33.84	Associate degree
Operations Research Analysts (15-2031)	1,044	18%	58	$40.91	Bachelor's degree
Opticians, Dispensing (29-2081)	792	17%	50	$20.86	High school diploma or equivalent
Pharmacy Technicians (29-2052)	2,808	7%	71	$17.42	High school diploma or equivalent
Phlebotomists (31-9097)	1,094	26%	84	$17.73	Postsecondary nondegree award
Radiologic Technologists (29-2034)	1,496	15%	75	$33.40	Associate degree
Registered Nurses (29-1141)	22,872	10%	1,067	$40.92	Bachelor's degree
Rehabilitation Counselors (21-1015)	1,346	7%	50	$13.89	Master's degree
Respiratory Therapists (29-1126)	1,368	8%	56	$35.18	Associate degree
Software Developers, Applications (15-1132)	10,050	9%	343	$48.57	Bachelor's degree
Software Developers, Systems Software (15-1133)	7,486	7%	211	$55.00	Bachelor's degree
Surgeons (29-1067)	770	14%	46	$94.08	Doctoral or professional degree
Veterinarians (29-1131)	866	16%	47	$46.39	Doctoral or professional degree
Veterinary Assistants and Laboratory Animal Caretakers (31-9096)	1,298	18%	77	$13.93	High school diploma or equivalent
Veterinary Technologists and Technicians (29-2056)	862	30%	63	$21.56	Associate degree
Web Developers (15-1134)	2,397	12%	93	$30.05	Associate degree

Source: "In-Demand Jobs Report", San Diego Workforce Partnership, November, 2016