# Strong Workforce Program
# Regional Plan Update

CALIFORNIA
COMMUNITY
COLLEGES
SAN DIEGO
IMPERIAL
COUNTIES
REGIONAL
CONSORTIUM

Winter 2019

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## SDICCCA Region

San Diego and Imperial Counties span the southern border of California. With more than 3.5 million people, our diverse population includes people from all walks of life. Urban and rural communities offer a wide range of occupations and opportunities. San Diego County includes a few of the wealthiest neighborhoods in the country and both counties have neighborhoods with high rates of poverty and unemployment. The median family income in San Diego is $63,800 a year with 12% of the population living in poverty. In Imperial, the median family income is $39,500 a year and more than 19% of the population lives in poverty.

The 10 community colleges in San Diego and Imperial offer a unique opportunity for people to access social mobility. More than 200,000 residents attend community college in the region and our students are much more diverse than the general community. While around 70% of the population in the region is white, more than 65% of our student population are students of college. More than 50% of our student population are low income. As a result, with the support of the Strong Workforce program, San Diego and Imperial Community Colleges are collaborating to lock in opportunity for more of our promising students to transform their lives through education.

COMMUNITY COLLEGES IN SAN DIEGO & IMPERIAL COUNTIES

**Our 10 Community Colleges & Continuing Education Institutions**

Cuyamaca College

Grossmont College

Imperial Valley College

MiraCosta College

Palomar College

San Diego City College

San Diego Continuing Education

San Diego Mesa College

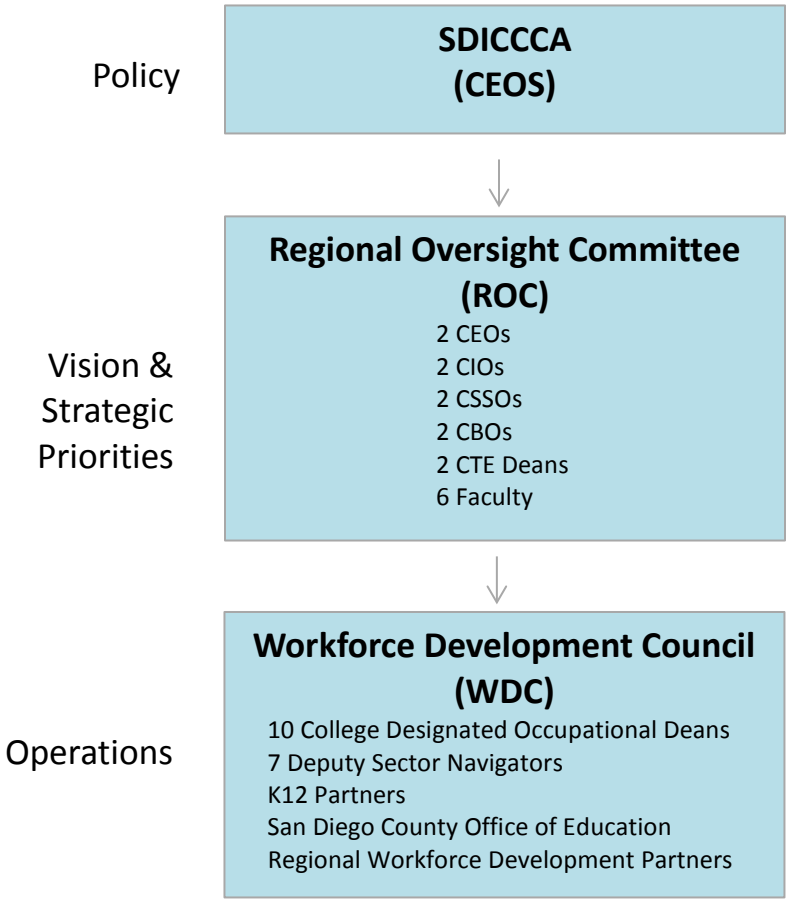
San Diego Miramar College

Southwestern College

## Regional Strong Workforce Participation and Governance

The Regional Consortium for Workforce Development for San Diego-Imperial Counties Community Colleges is the regional entity working with the 10 community colleges to implement the Strong Workforce Program (SWP). The San Diego and Imperial Counties Community College District Association (SDICCCA) represented by the region's CEOs sets the policy for Strong Workforce. The Regional Oversight Committee (ROC) represented by a wide range of constituencies on the campuses sets the vision and strategic priorities for Strong Workforce. The Workforce Development Council (WDC) is the operational arm of Strong Workforce. More than 10 work-groups implement the day-to-day operations of Strong Workforce. WDC and the work-groups have representation from all colleges, K-12, Adult Education and the workforce systems.

The fiscal agent for the San Diego Imperial Counties Regional Consortium is the Grossmont-Cuyamaca Community College District. The Regional Consortium's governance structure is shown below.



# Strong Workforce Program Implementation

*1: J. Patel, Region
K. Porter, Poway USD

*2: L. Wisdom, Region
J. Lewis, Southwestern
J. Lopez, Miramar

3: C. Estrada, Mesa
J. Ayala, Grossmont

4: B. Gamboa, Miramar
L. McLemore, Cuyamaca

5: M. Romero, Mesa
D. Brown, Mesa

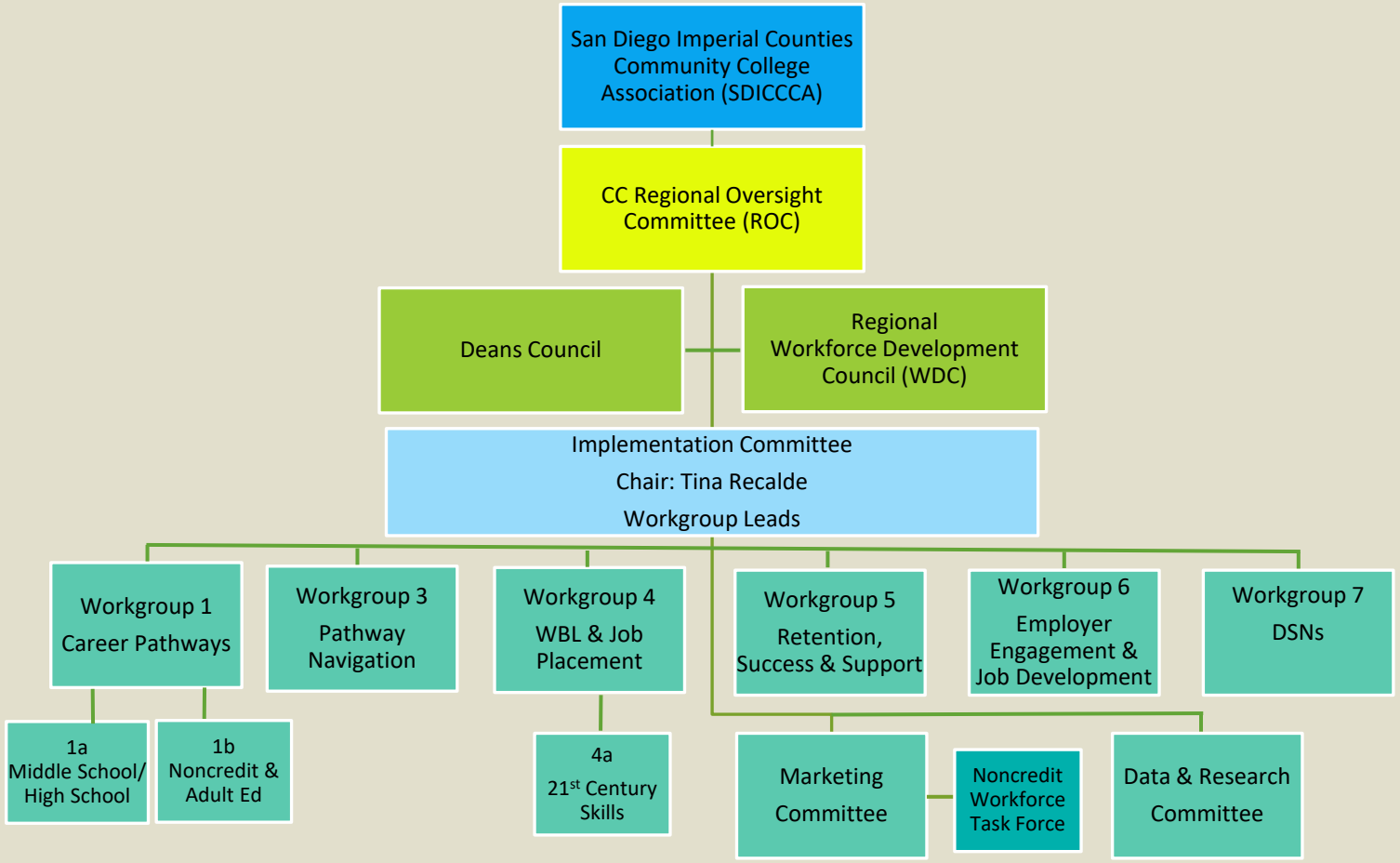
6: M. Fritch, Palomar
C. Storey, SD Continuing Ed

7: M. Smith, Region

Marketing: D. Brown, Mesa

Data/Research: Z. Lindstrom, MiraCosta
T. Ngo-Bartel, Region

*K12 Participation



# SDIC Strong Workforce Workgroup Participation

**Workgroup 1: Career Pathways**
Region: Jen Patel, DSN, Chair
Poway USD: Kathleen Porter, Co-Chair
Grossmont: Erica Olmos, CTE Program Specialist
Grossmont: Sosha Thomas, Faculty CSIS/BOT
IVC: Betsy Lane, Associate Dean
Palomar: Glyn Bongolan, General/STEM Counselor
SD City: Jeanie Tyler, Associate Dean Strong Workforce
SDCE: Kelly Henwood, Special Projects Manager
SD Mesa: Danene Brown, CE Dean SD Miramar
Southwestern: Marie Vicario, CE Faculty
San Diego County OE: Margie de Ruyter, Career Pathway/District and School Improvement
Imperial County OE: Denise Cabanilla, Director, Higher Education & Adult Learning
Region: Mollie Smith, RC Chair
Region: Leslie Wisdom, Program Coordinator
K12 Representation:
Central UHSD: Renato Mantano, Superintendent
Brawley UHSD: Simon Canalez, Superintendent
Learning Choice Academy: Jeff Fechner, Dean of Students
Carlsbad USD: Megan Arias, Director of Secondary Education
San Dieguito UHSD: Manuel Zapata, Director of Accountability and Special Programs
Alpine USD: Richard Newman, Superintendent
Cajon Valley SD: Ed Hidalgo, Chief Innovation and Engagement Officer
Grossmont Union HSD: Teri Sprecco, Director, College and Career Readiness
San Diego Unified SD: Al Love, CCTE Director
San Diego Unified SD: Lori Holland, Science Teacher

**Workgroup 2: Middle School/High School Engagement**
Region: Leslie Wisdom, Program Coordinator
SD Miramar: Jesse Lopez, CE Dean, Co-Chair
Southwestern: Jennifer Lewis, CE Dean, Co-Chair
Cuyamaca: Kate Miller, CTE Support Specialist
Grossmont: Angela Tilley, CTE Program Assistant
Grossmont: Erika Arangure, CTE Program Coordinator
IVC: Roxanne Nunez, CE Counselor
MiraCosta: Amy Pimentel, Career Education Pathways Coordinator
Palomar: Glyn Bongolan, General/STEM Counselor
SDCE: Lorie Howell, Dean GED/HS Diploma/Basic Skills
Region: Heather Cavazos, Industry Connection
Region: Monica Rosas, Industry Connection
Region: Mollie Smith, RC Chair
Region: Leslie Wisdom, Program Coordinator
Region: Jen Patel, DSN
K12 Representation:
Poway USD: Lynn McConnville, Assistant Principal
Carlsbad USD: Megan Arias, Director of Secondary Education
Cajon Valley SD: Ed Hidalgo, Chief Innovation and Engagement Officer
Grossmont Union HSD: Teri Sprecco, Director, College and Career Readiness
San Diego Unified SD: Lori Holland, Science Teacher

**Workgroup 3 Pathway Navigation**
SD Mesa: Claudia Estrada, Transfer/Career Supervisor, Chair
Grossmont: Javier Ayala, CE Dean, Co-Chair
Cuyamaca: George Dowden, CE Coordinator
Cuyamaca: Nicole Jones, M.S. Dean, Counseling Services
Grossmont: Renee Nasori, Career Services
MiraCosta: Zhenya Lindstrom
Palomar: Rosie Antonecchia, General Counselor
SDCE: Edith Quintero, Counselor
SD Mesa: Ailene Crakes, Dean, Student Development
SD Mesa: Olivia Picolla
SD Mesa: Leroy Johnson
SD Miramar: Karl Cameron, Adjunct Counselor
Southwestern: Scott Finn, Career Counselor
Region: Region: Mollie Smith, RC Chair
Region: Leslie Wisdom, Program Coordinator

**Workgroup 4 Work-Based Learning & Job Placement**
SD Miramar: Ben Gamboa, Associate Dean Strong Workforce, Chair
Cuyamaca: Larry McLemore, CE Dean, Co-Chair
Grossmont: Paolo Espaldon, Americas Promise Coordinator
IVC: Marisela Moreno, Student Success Specialist
MiraCosta: Donna Davis, Faculty
Palomar: Nicole Roe, Associate Dean
Palomar: Jason Jarviven, Cooperative Education Faculty
SDCE: Deborah West, Business and IT Faculty
SD Mesa: Shawn Fawcett, Transfer & Career Counselor
Southwestern: Laura Gershuni, CE Faculty
Region: Mollie Smith, RC Chair
Region: Leslie Wisdom, Program Coordinator

**Workgroup 5 Tutoring**
SD Mesa: Monica Romero, Associate Dean CTE, Chair
SD Mesa: Danene Brown, CE Dean, Co-Chair
Cuyamaca: Mary Graham, Faculty
Grossmont: Keith Turner, Interim Learning Assistance Center Specialist
Grossmont: Symone McDaniels, Interim LTR Supervisor
IVC: Josue Verduzco, Learning Support Services Coordinator
MiraCosta: Dr. Annie Ngo, Business Faculty
MiraCosta: Mike Fino, Dean of Math and Sciences
Palomar: Shayla Sivert, Dean, Languages & Literature
Palomar: Fari Towfiq, Director of math Learning Center
SD City: Lance Soukhaseum, Tutorial Supervisor
SDCE: Carol Wilkinson, Dean Continuing Education
SD Mesa: Mark Manasse, Tutoring Faculty
SD Mesa: Christine Balderas, Allied Health Faculty
SD Miramar: Dawn Daskin, Accounting Faculty
Southwestern: Shawna Hutchins-Williams, PSP Coordinator
Region: Molly Ash, RC Manager

**Data/Research**
MiraCosta: Zhenya Lindstrom, Associate Dean, Chair
Region: Tina Ngo Bartel, COE Director, Co-Chair
City: Rose LaMuraglia, CE Dean
Cuyamaca: Brianna Hays, Dean Institutional Effectiveness, Success and Equity
Cuyamaca: Katie Cabral, Research and Planning Analyst
Grossmont: Javier Ayala, CE Dean
Grossmont: Erika Arangure, CTE Program Coordinator
IVC: Jose Carrillo, Director of Institutional Research
MiraCosta: James Clifton, CTE Research Analyst
Palomar: Susan Garland, Senior Grants Administrative Specialist
SD Mesa: Hai Hoang, Research and Planning Analyst
SDCE: Jessica Luedtke, Research and Planning Analyst
SDCCD: Amertah Perman, Dean, Career Education and Workforce
SDCCD: Natalia Cordoba-Velasquez, Director of Institutional Research
SD Miramar: Ben Gamboa, Associate Dean Strong Workforce
Southwestern: Jessica Noel, CTE Research Analyst
Southwestern: Bill Abasolo, Director of Institutional Research and Assessment
Region: John Edwards, Research Analyst (COE)
Region: Victor Castillo, DSN
Region: Leroy Brady, DSN
Region: Mollie Smith, RC Chair
Region: Molly Ash, RC Manager

**Workgroup 6 Employer Engagement**
Palomar: Margie Fritch, CE Dean, Chair
SDCE: Cassandra Storey, CE Dean, Co-Chair
Cuyamaca: Larry McLemore
Grossmont: Paolo Espaldon, Americas Promise Coordinator
Grossmont: Erika Arangure, CTE Program Coordinator
IVC: Janeth Cruz, Internship Coordinator
MiraCosta: Nina Lovejoy
SD City: Jeanie Tyler, Associate Dean, Strong Workforce
Mesa: Katlin Choi, Assistant Professor, WBL Coordinator
Miramar: Mona Patel, Career Center Coordinator
Southwestern: Nelson Riley, Employment Supervisor
San Diego County OE: Erin English
San Diego County OE: Alex Becker
Region: Jon Kropp, DSN
Region: Jen Patel, DSN
Region: Mollie Smith, RC Chair
Region: Leslie Wisdom, Program Coordinator
Region: Tina Ngo-Bartel
Contract Ed: Kay Faulconer Boger
SDREDC: Matthew Sanford
SDWP: Scott Marchand

**Workgroup 7 DSN**
Region: Mollie Smith, RC Chair, Chair
Cuyamaca: Larry McLemore, CE Dean
Grossmont: Javier Ayala, CE Dean
IVC: Efrain Silva, CE Dean
MiraCosta: Al Taccone, CE Dean
Palomar: Margie Fritch, CE Dean
SD City: Jeanie Tyler, Associate Dean
SDCE: Cassandra Storey, CE Dean
SD Mesa: Danene Brown, CE Dean
SD Miramar: Jesse Lopez, CE Dean
Southwestern: Jennifer Lewis, CE Dean
Region: all DSNs
Region: Tina Ngo-Bartel, COE Director

**Marketing**
SD Mesa: Danene Brown, CE Dean, Chair
Cuyamaca: Anne Krueger, PIO
Grossmont: Anne Krueger, PIO
IVC: Patricia Robles, Workforce Coordinator
MiraCosta: Christina Sharp, Faculty
Palomar: Margie Fritch, CE Dean
SD City: Jack Beresford, PIO
SDCE: Jack Beresford, PIO
SD Mesa: Jack Beresford, PIO
SD Miramar: Jack Beresford, PIO
Southwestern: Lillian Leopold, PIO
Region: Tina Ngo Bartel, COE Director
Region: Mollie Smith, RC Chair
Region: Molly Ash, RC Manager

## Regional Labor Market Opportunities Regional Labor Market Opportunities

The region collaborates closely with the Centers of Excellence (COE), based at MiraCosta College. COE Director, Tina Ngo Bartel participates in the ROC and WDC. She has reported to SDICCCA regularly. She also works in close collaboration with CTE Deans and faculty around the region. A Data and Research workgroup provides the COE with support and insight on strategic priorities for the research agenda. The CEO cooperates with the two workforce development boards, the San Diego Workforce Partnership and the Imperial Valley Workforce Development Board and the San Diego Regional Economic Development Council.

As a result of the work of the Centers of Excellence, the region has more than 80 labor market briefs on occupations for the region. In addition, we have a report, "Opportunities for Career Education to Close the Middle-Skill Job Gap," for each of the counties. We have produced and distributed Priority & Emerging Sector Posters for students. We also have a Career Education Guide for high school and college counselors. These reports help drive program development for the region and individual colleges with the goal of supporting students in the educational goals, increasing access to high-wage, high-demand careers and increasing social mobility.

The inventory of Labor Market Research offered through the region is located on our website at: http://myworkforceconnection.org/lmi/.

## SDICCCA Regional Strong Workforce Investment Overview and Detail

As Strong Workforce was launched, the leaders in SDIC determined to invest regional funds in comprehensive systems reform. The focus of our efforts were on building the capacity of the region to better serve students and improving institutions with the goal of increasing access to college and careers and social mobility.

SDIC chose to spend the first year of Strong Workforce researching best practices and using evidence to identify strategies to improve student outcomes.

The region selected five priorities for Strong Workforce reflecting the call to serve **more** students and with **better** outcomes. In 2016-17 these priorities were:

**Career Pathways and Work-Based Learning**—to better prepare our students for college
**Employment Readiness and Job Placement**—to better prepare our students for careers and support them in launching their careers
**Marketing**—to increase awareness of community college career education
**Collaborative Projects**—to support shared regional program-based priorities
**Labor Market Research**—to augment the COE to ensure that the colleges had the resources they needed to make informed decisions for students

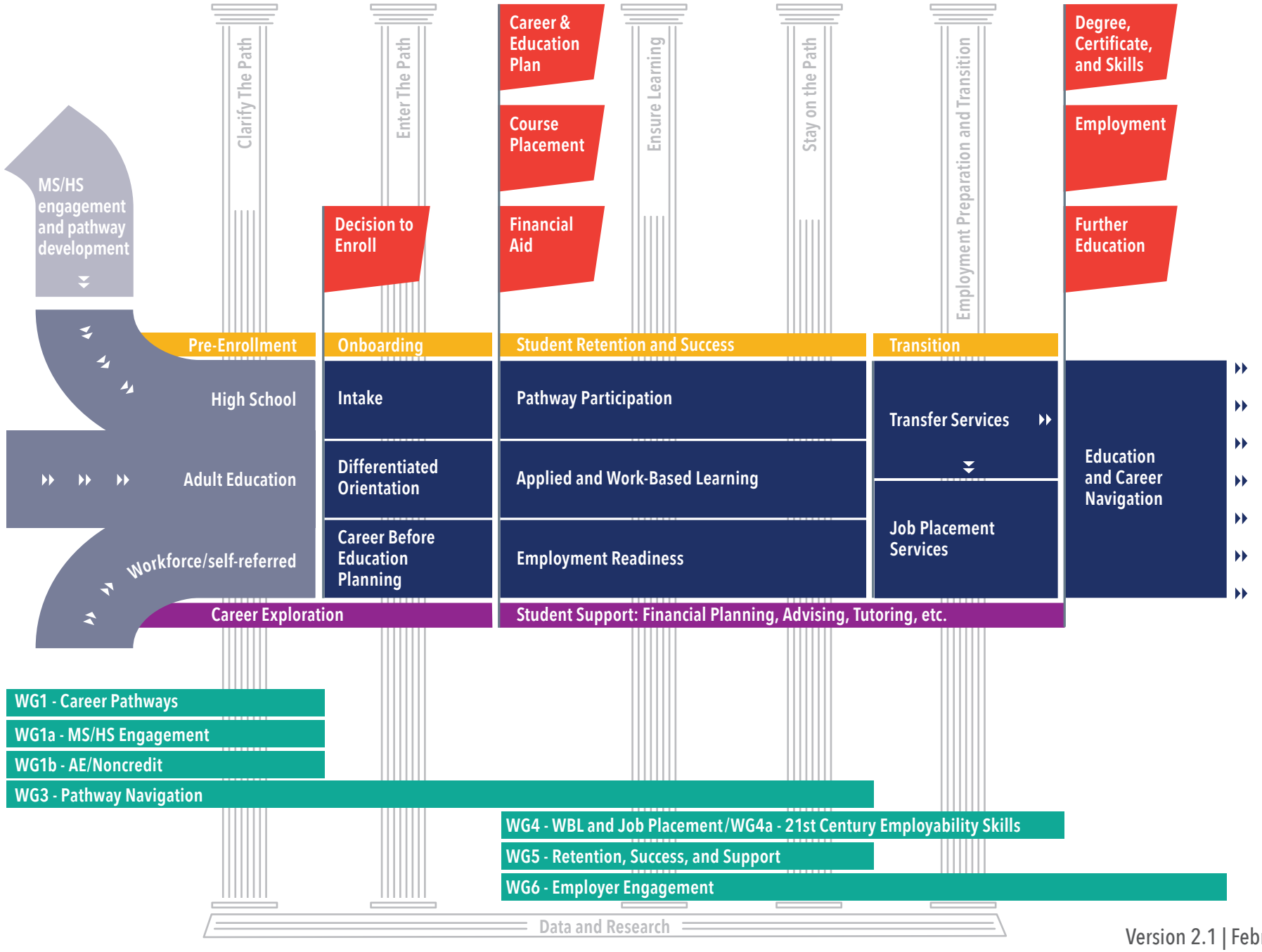
As the region finished its initial research phase these categories were adapted listed below. The Collaborative Projects category was replaced by Improving the Student Enrollment Experience based on research conducted by the region. These are the projects in the 2017-18 and 2018-19 program years.

- ✓ **Pre-College Outreach and Career Pathways**
- ✓ **Guided Career Pathways: Employment Readiness and Job Placement**
- ✓ **Marketing**
- ✓ **Improving the Student Enrollment Process**
- ✓ **Labor Market Research**

The region's approach to Strong Workforce is represented by the diagram on the next page entitled the Student Roadmap to Success. Following that document is a short summary of the projects SDIC has invested in.

SAN DIEGO & IMPERIAL COUNTIES
COMMUNITY COLLEGES

# A Community College Student's Road to Success




Version 2.1 | February 2019

# Understanding a Community College Student's Road to Success

## BIG IDEAS

- The graphic represents a student's journey, from pre-enrollment through onboarding, engagement, and transition to careers.
- This journey is aligned with the Guided Pathways pillars including a new pillar for student transitions.
- All regional SWP investments are focused on student engagement and completion.
- Representation from all ten regional colleges guide the implementation of key sections of the roadway.

## PRE-ENROLLMENT

- Entering students come from a wide variety of settings: High Schools, Adult Education, the regional WIOA-funded workforce development system, or self-referral.
- Early engagement includes services that help prospective students understand educational options, pathways, and available services, and provides information needed to facilitate enrollment.

## ONBOARDING

- Onboarding practices set students on their paths to successfully launch their college experience. They include:
  - *Comprehensive Intake.* Colleges identify interests, goals, and needs of students to facilitate referrals to pathways and programs and help ensure students engage with the college and its culture.
  - *Differentiated Orientation.* Colleges offer information about pathways, programs, and services in a way that is appropriate to each student—both online or in-person.
  - *Career Planning Before Education Planning.* Students explore their interests and career options before developing an education plan, so that their long-term goals or aspirations can inform their plans.

## STUDENT RETENTION, SUCCESS, and SUPPORT

- Three interrelated components ensure students are engaged, stay on their path, and, ultimately, succeed.
  - *Pathway Participation.* Students engage in rich integrated pathway courses that teach technical skills, academic knowledge and skills, and 21st Century skills and core competencies.
  - *Applied Learning and Work-Based Learning.* Applied learning facilitates understanding by engaging students' interests and connecting theoretical concepts to practical situations. Work-based Learning is a continuum of experiences that support career awareness, exploration, and preparation, through engagement with employers and real work opportunities.
  - *Employment Readiness*. Employment readiness includes curriculum that encompasses all the skills that students need to succeed in their careers.
- Undergirding these three components is a system of student supports that includes advising, financial planning, tutoring, and other forms of support.

## TRANSITION

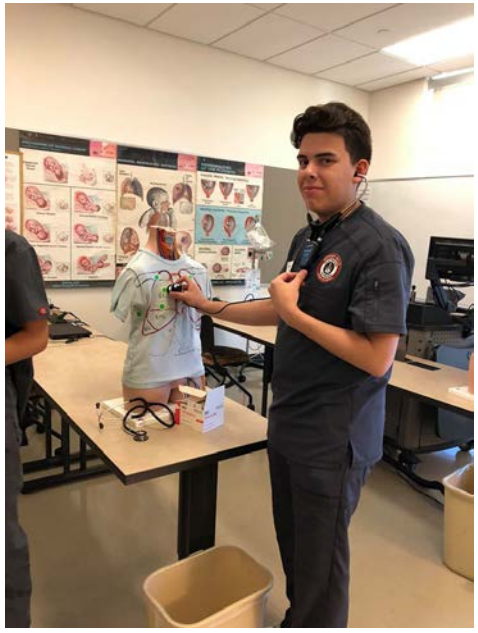
- *Transfer Services* prepare students for transferring to a four-year college or university, including application preparation, college tours, transcript services, and related services.
- *Job Placement Services* prepare students for work focusing on the tools and logistics needed to find and retain immediate employment, such as connections to employment opportunities, coaching, and mock interviews.

## EDUCATION AND CAREER NAVIGATION

- *Education and Career Navigation* is the process of making one's way through further education such as a four-year institution, upskilling opportunities, and/or a workplace and successive workplaces over time.

## Project 1. Pre-College Outreach and Career Pathways

| Project | Start Date-End Date | Budget | Metrics | Participation | Partners |
|---|---|---|---|---|---|
| Pre-College Outreach and Career Pathways | 7/17-12/21 | Cycle 1 $625,100<br>Cycle 2 $780,000<br>Cycle 3 $920,000 | 1% increase in Course Enrollments per year | All Colleges<br>All Sector | Industry<br>County Office of Education<br>K-12 Districts<br>Adult Education<br>Workforce System |
| **Activity** | | **Output** | | | |
| Middle & High School Engagement | | Approximately 1,000 pre-college students are served with enriching career exploration and enrichment activities that prepare them for community college Career Education programs. | | | |
| Professional Development for K-14 & Adult Education Staff | | Plan and conduct K-14 counselor conference.<br>Plan and conduct teacher externship opportunities and conferences around industry sector themes. | | | |



Men in Nursing Conference

More than 400 educators participated in the 2018 Counselor Conference

**Fall 2018**

1,480 High School students engaged in Career Pathways

560 Educators trained

## Project 2. Guided Career Pathways: Employment Readiness and Job Placement

| Project | Start Date-End Date | Budget | Metrics | Participation | Partners |
|---|---|---|---|---|---|
| Guided Career Pathways: Employment Readiness and Job Placement | 7/17-12/21 | Cycle 1 $3,000,000<br>Cycle 2 $5,000,000<br>Cycle 3 $5,500,000 | 1% increase enrollments, employment and living wage | All Colleges<br>All Sectors | Industry<br>Workforce System<br>Economic Development Agencies |

| Activity | Output |
|---|---|
| Improved Student Pathway Navigation | Each college implements customized improvements to their student on-boarding experience. |
| Work-based Learning Coordination and 21st Century Skills Transfer | Faculty at each college work with other faculty to improve opportunities for work-based learning on their campus.<br>More than 50 faculty are trained on the regional strategy for 21st Century Skills Transfer. |
| Employer Engagement | A comprehensive strategy for employer engagement is developed and implemented in the region. |

35,325 students in Work-Based Learning Experiences

## Project 3. Marketing

| Project | Start Date-End Date | Budget | Metrics | Participation | Partners |
|---|---|---|---|---|---|
| Marketing | 7/17-12/21 | Cycle 1 $2,000,000<br>Cycle 2 $1,500,00<br>Cycle 3 $1,336,019 | 1% increase enrollment | All Colleges<br>All Sectors | Marketing Agency<br>CCCCO |
| **Activity** | | **Output** | | | |
| Implementing a regional marketing campaign for Career Education. | | More than 10 million impressions of the Career Education brand. | | | |

In 2018, SDIC Marketing had more than 40 million impressions viewed by the public

## Project 4. Improving the Student Enrollment Experience

| Project | Start Date-End Date | Budget | Metrics | Participation | Partners |
|---|---|---|---|---|---|
| Improving the Student Enrollment Experience | 7/18-12/21 | Cycle 2 $675,000<br>Cycle 3 $450,000 | 1% increase enrollment | All Colleges<br>All Sectors | Marketing Agency<br>CCCCO |
| **Activity** | | **Output** | | | |
| Each college has the opportunity to make strategic improvements to their websites to improve the student enrollment process with the goal of increasing enrollment. | | Ten updated websites. | | | |

## Project 5. Labor Market Research

| Project | Start Date-End Date | Budget | Metrics | Participation | Partners |
|---|---|---|---|---|---|
| Labor Market Research | 7/17-12/21 | Cycle 1 $200,000<br>Cycle 2 $350,00<br>Cycle 3 $350,000 | 1% increase enrollment | All Colleges | Centers of Excellence<br>CCCCO<br>Workforce System<br>Economic Development Agencies |
| **Activity** | | **Output** | | | |
| Provide research for evidence-based decision-making for the SDIC region. | | Provide research that includes labor market, demand and supply, student outcomes data, and analysis. At least 25 scans and 2 major reports a year. | | | |

## Centers of Excellence Labor Market Briefs for San Diego County

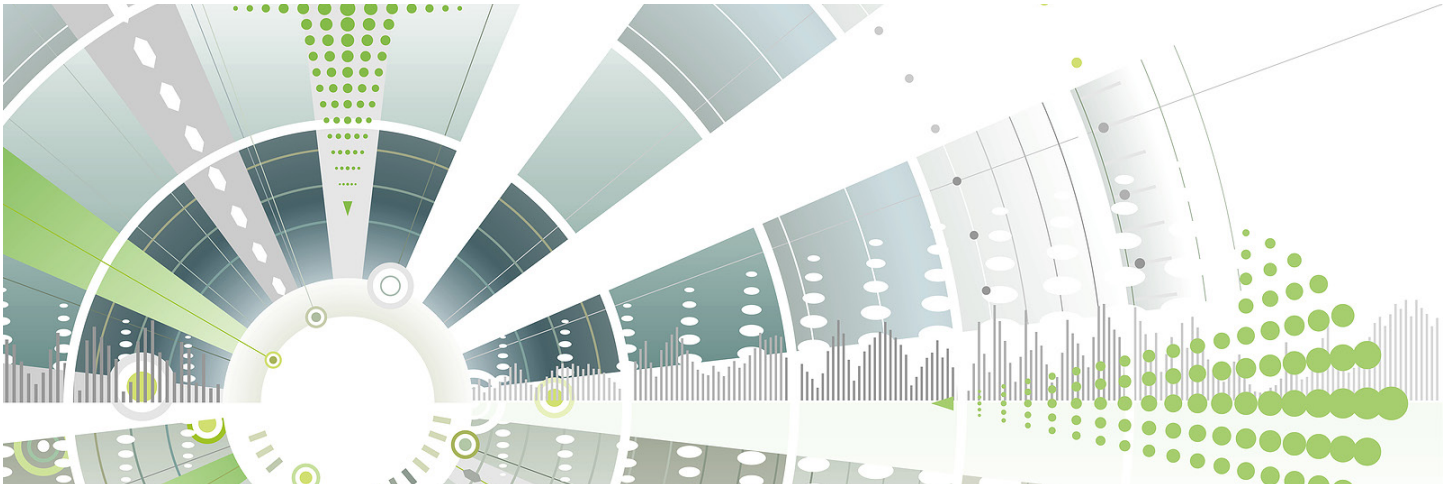
- Aircraft Structure, Surfaces, Rigging, and Systems
- Assemblers
- Audio and Video Equipment Technicians
- Automotive Body and Related Repairers
- Automotive Glass Installers and Repairers
- Automotive Service Technicians and Mechanics
- Bus and Truck Mechanics and Diesel Engine Specialists
- Carpenters
- Camera Operators, Television, Video and Motion Picture
- Certified Public Accountant Occupations
- Chemical Technicians
- Coating, Painting, and Spraying Machine Setters, Operators, and Tenders
- Commercial Dance Occupations
- Composites
- Computer Occupations, All Other
- Construction Laborers
- Dental Assistants
- Dental Laboratory Technicians
- Diagnostic Medical Sonographers
- Dispensary Occupations
- Electrical and Electronics Installers and Repairers, Transportation Equipment
- Electrical and Electronics Repairers, Commercial and Industrial Equipment
- Electricians
- Electromechanical Equipment Assemblers
- Electromechanical Technicians
- Electronic Equipment Installers and Repairers, Motor Vehicles
- Energy and Geo-Environmental Engineering Occupations
- Film and Video Editors
- First-Line Supervisors of Construction Trades and Extraction Workers
- First-Line Supervisors of Mechanics, Installers and Repairers
- Food Service Managers
- Health and Wellness Coaches (Health Educators)
- Health Technologists and Technicians, All Other
- Heating, Air Conditioning, and Refrigeration Mechanics and Installers
- Home Appliance Repairers
- Industrial Machinery Mechanics
- Insurance Appraisers, Auto Damage
- Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers
- Lodging Managers
- Makeup Artists, Theatrical and Performance
- Managers, All Other
- Medical Records and Health Information Technicians
- Meeting, Convention and Event Planners
- Mobile Heavy Equipment Mechanics, Except Engines
- Motorboat Mechanics and Service Technicians
- Multimedia Artists and Animators
- Neurodiagnostic Technologists
- Occupational Therapy Aides
- Occupational Therapy Assistants
- Ophthalmic Laboratory Technicians
- Ophthalmic Medical Technicians
- Opticians, Dispensing
- Outdoor Power Equipment and Other Small Engine Mechanics
- Painters, Transportation Equipment
- Pharmacy Technicians
- Photographers
- Podcast Occupations
- Psychiatric Technicians
- Recreational Vehicle Service Technicians
- Recreation Workers
- Registered Behavior Technicians
- Registered Dental Assistant in Expanded Functions
- Set and Exhibit Designers
- Sheet Metal Workers
- Software Developers, Applications
- Solar Photovoltaic Installer
- Sound Engineering Technicians
- Training and Development Managers
- Unmanned Aerial Vehicle (UAV) Pilots

## Centers of Excellence Labor Market Briefs for Imperial County

- Animal Control Workers
- Biotechnology Occupations
- Correctional Officers and Jailers
- Electrical and Electronic Equipment Assemblers
- Electrical and Electronic Repairers, Commercial and Industrial Equipment
- Electrical and Electronic Repairers, Powerhouse, Substation and Relay
- Environmental Engineering Technicians
- Environmental Science and Protection Specialists, Including Health
- Engineering Technicians, Except Drafters, All Other
- Hydrologists
- Information Technology Occupations
- Low Voltage Occupations
- Police and Sheriff's Patrol Officers
- Security and Fire Alarm System Installers
- Transit and Railroad Police
- Water and Wastewater Treatment Plant and System Operators

June 2018

SUMMARY



# OPPORTUNITIES FOR CAREER EDUCATION TO CLOSE THE MIDDLE-SKILL JOBS GAP

## SAN DIEGO COUNTY

C·O·E

CENTERS OF EXCELLENCE

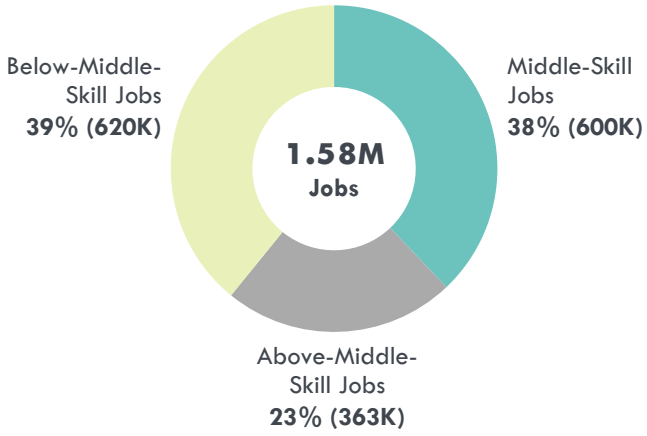
Inform Connect Advance

# THE MIDDLE-SKILL JOB MARKET IN SAN DIEGO COUNTY

This summary highlights key points from the study, Opportunities for Career Education to Close the Middle-Skill Jobs Gap. The study explores where the middle-skill job opportunities are in San Diego County and identifies job gaps that could potentially be filled with public Career Education programs.

Middle-skill jobs constitute a significant portion of the San Diego labor market. In 2017, 38% of the 1,583,115 jobs in San Diego County were middle-skill jobs.

**Jobs Breakdown in San Diego County, 2017**



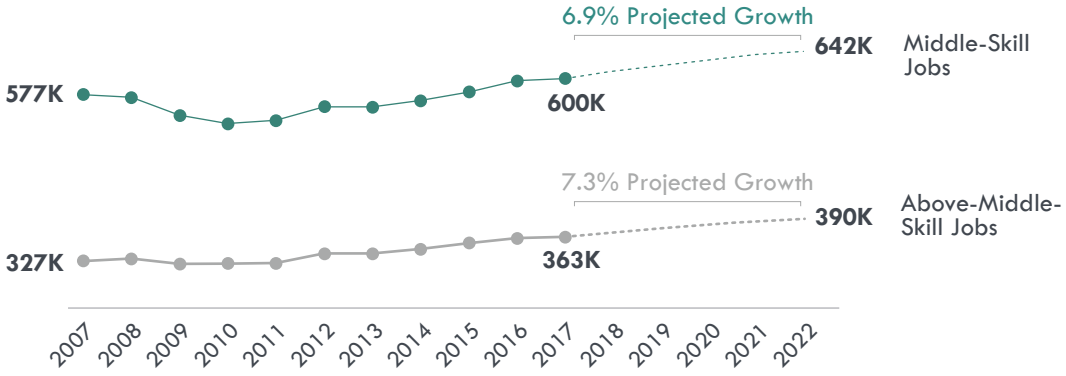

## What is a Middle-Skill Job?

A middle-skill job has the following training requirements:

- Some college coursework, a postsecondary certificate, and/or an associate degree; or
- High school diploma or equivalent with on-the-job training greater than 12 months; or
- Apprenticeship; or
- Bachelor's degree if at least 33% of workers in the occupation, age 25 or older, have completed, as their highest level of education, some college coursework or an associate degree.

Between 2017 and 2022, the number of middle-skill jobs in the region is projected to increase by 41,450 jobs or 6.9%.

**Number of People Employed in Middle-Skill and Above-Middle-Skill Jobs in San Diego County**




## TOP 100 MIDDLE-SKILL JOBS

There are approximately 300 Standard Occupational Classification (SOC) codes that define middle-skill jobs. This study analyzes the top 100 SOC codes for middle-skill jobs that have the most labor market demand, stable employment growth, and entry-level wages at or above the Self-Sufficiency Standard.[1]

**88**

The number of top middle-skill jobs with supply gaps in the region.

**45,457**

The number of job openings per year between 2017 and 2022 for the top 100 middle-skill jobs.

**29,054**

The number of awards that training providers will need to generate to close the supply gap for the top 100 middle-skill jobs.

[1] The Self-Sufficiency Standard is the hourly wage ($15.99) that a single adult (with no family) needs to earn to meet basic needs in San Diego County. selfsufficiencystandard.org

# TOP 100 MIDDLE-SKILL JOBS

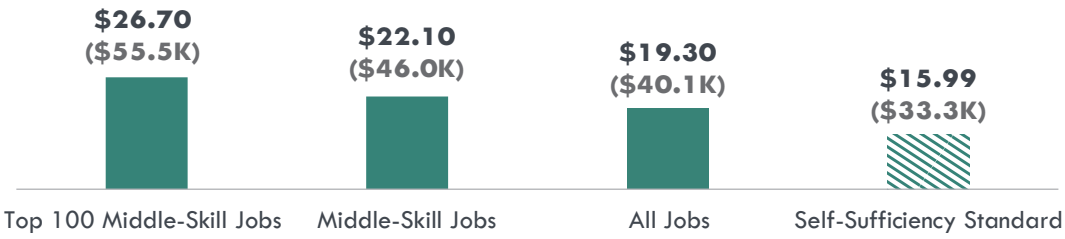
A comparison of labor market demand (annual job openings) with labor supply (program awards) from the region's educational institutions indicates that the top middle-skill jobs have supply gaps.

| | |
|---|---|
| Administrative Services Managers | Industrial Production Managers |
| Aircraft Mechanics and Service Technicians | Inspectors, Testers, Sorters, Samplers, and Weighers |
| Aircraft Structure, Surfaces, Rigging, and Systems Assemblers | Insurance Sales Agents |
| Architectural and Civil Drafters | Interpreters and Translators |
| Automotive Body and Related Repairers | Legal Secretaries |
| Bus and Truck Mechanics and Diesel Engine Specialists | Library Technicians |
| Bus Drivers, School or Special Client | Licensed Practical and Licensed Vocational Nurses |
| Business Operations Specialists, All Other | Life, Physical, and Social Science Technicians, All Other |
| Cargo and Freight Agents | Loan Interviewers and Clerks |
| Carpenters | Loan Officers |
| Chefs and Head Cooks | Lodging Managers |
| Civil Engineering Technicians | Logisticians |
| Claims Adjusters, Examiners, and Investigators | Machinists |
| Computer Network Architects | Maintenance and Repair Workers, General |
| Computer Network Support Specialists | Medical and Clinical Laboratory Technicians |
| Computer Occupations, All Other | Medical and Clinical Laboratory Technologists |
| Computer User Support Specialists | Medical Assistants |
| Computer-Controlled Machine Tool Operators, Metal and Plastic | Medical Records and Health Information Technicians |
| Construction and Building Inspectors | Medical Secretaries |
| Construction Managers | Network and Computer Systems Administrators |
| Correctional Officers and Jailers | Operating Engineers and Other Construction Equipment Operators |
| Cost Estimators | Paralegals and Legal Assistants |
| Customer Service Representatives | Payroll and Timekeeping Clerks |
| Dental Assistants | Pharmacy Technicians |
| Dental Hygienists | Phlebotomists |
| Detectives and Criminal Investigators | Photographers |
| Electrical and Electronic Equipment Assemblers | Physical Therapist Assistants |
| Electrical and Electronics Engineering Technicians | Plumbers, Pipefitters, and Steamfitters |
| Electricians | Police and Sheriff's Patrol Officers |
| Engineering Technicians, Except Drafters, All Other | Production, Planning, and Expediting Clerks |
| Executive Secretaries and Executive Administrative Assistants | Property, Real Estate, and Community Association Managers |
| Firefighters | Purchasing Agents, Except Wholesale, Retail, and Farm Products |
| First-Line Supervisors of Construction Trades and Extraction Workers | Radiologic Technologists |
| First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand | Registered Nurses |
| First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers | Reservation and Transportation Ticket Agents and Travel Clerks |
| First-Line Supervisors of Mechanics, Installers, and Repairers | Sales Representatives, Services, All Other |
| First-Line Supervisors of Non-Retail Sales Workers | Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products |
| First-Line Supervisors of Office and Administrative Support Workers | Secretaries and Administrative Assistants, Except Legal, Medical, and Executive |
| First-Line Supervisors of Personal Service Workers | Sheet Metal Workers |
| First-Line Supervisors of Production and Operating Workers | Social and Human Service Assistants |
| First-Line Supervisors of Retail Sales Workers | Structural Iron and Steel Workers |
| First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators | Surgical Technologists |
| Fitness Trainers and Aerobics Instructors | Tax Preparers |
| Glaziers | Training and Development Specialists |
| Health Technologists and Technicians, All Other | Transportation, Storage, and Distribution Managers |
| Healthcare Support Workers, All Other | Veterinary Technologists and Technicians |
| Heating, Air Conditioning, and Refrigeration Mechanics and Installers | Water and Wastewater Treatment Plant and System Operators |
| Heavy and Tractor-Trailer Truck Drivers | Web Developers |
| Human Resources Assistants, Except Payroll and Timekeeping | Welders, Cutters, Solderers, and Brazers |
| Industrial Machinery Mechanics | Wholesale and Retail Buyers, Except Farm Products |

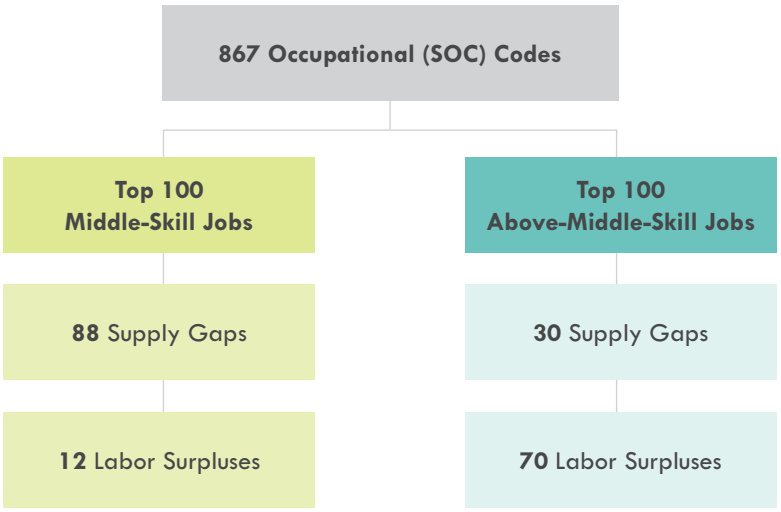
# KEY FINDINGS

**Training for the top 100 middle-skill jobs can provide job seekers with opportunities for income mobility:** The average median hourly wage of all middle-skill jobs is $22.10, the average median hourly wage of all jobs in the region is $19.30, and the Self-Sufficiency Standard is $15.99. The average median hourly wage of the top 100 middle-skill jobs analyzed in this study is $26.70, which is higher than all three.

**Median Hourly Earnings (Annual Salary) vs. Self-Sufficiency Standard**




**Of the top 100 middle-skill jobs identified in this study, 88 have supply gaps and 12 have labor surpluses (an oversupply of labor).** Comparatively, the top 100 above-middle-skill jobs have 30 supply gaps, suggesting that middle-skill jobs have more opportunities to develop programs than above-middle-skill jobs.




**The top 100 middle-skill jobs have a labor market demand of 45,457 annual job openings and a program supply of 16,403 awards.** That is a difference of 29,054 awards that could be produced by the region to meet labor market demand.

**Not all middle-skill jobs require an associate degree.** Of the 45,457 annual job openings, 16% are related to supervisorial or management roles, 17% are related to sales roles, and 17% are related to administrative or secretarial roles. The majority of these occupations require less than an associate degree as their typical entry-level education. This suggests that there are opportunities for short-term certificate programs that can fill these roles. Short-term certificate programs require less than two years to complete.

**Percentage of Annual Job Openings with Management, Sales or Administrative Job Titles[2] (Top 100 Middle-Skill Jobs)**

[2] These percentages have some overlap because an occupation may have more than one role: For example, First-Line Supervisors of Office and Administrative Support Workers are both supervisorial and administrative positions.

# RECOMMENDATIONS FOR MORE PROGRAM SUPPLY

Career Education programs can help fill labor supply gaps with short-term certificates or associate degrees. The following list of six-digit Taxonomy of Programs (TOP6) codes are recommended for increased awards to close the supply gap. The TOP system is used at the state level to collect and report information on community college programs. Existing TOP6 programs that train for occupations with a supply gap of at least 100 job openings are included below. The full list of TOP6 programs that train for occupations with supply gaps can be found in the full report. Programs with an asterisk (*) may be suitable for short-term certificate programs.

| TOP6 | TOP6 Program Title | TOP6 | TOP6 Program Title |
|---|---|---|---|
| 050400 | Banking and Finance | 095220 | Electrical |
| 050630 | Management Development and Supervision* | 095230 | Plumbing, Pipefitting, and Steamfitting |
| 050640 | Small Business and Entrepreneurship | 095250 | Mill and Cabinet Work |
| 050650 | Retail Store Operations and Management | 095260 | Masonry, Tile, Cement, Lath and Plaster |
| 050800 | International Business and Trade* | 095280 | Drywall and Insulation |
| 050900 | Marketing and Distribution* | 095500 | Laboratory Science Technology |
| 050940 | Sales and Salesmanship* | 095600 | Manufacturing and Industrial Technology |
| 050970 | E-Commerce (Business Emphasis)* | 095630 | Machining and Machine Tools |
| 051000 | Logistics and Materials Transportation* | 095640 | Sheet Metal and Structural Metal |
| 051100 | Real Estate | 095680 | Industrial Quality Control* |
| 051110 | Escrow | 095720 | Construction Inspection |
| 051200 | Insurance* | 120500 | Medical Laboratory Technology |
| 051400 | Office Technology/Office Computer Applications* | 120510 | Phlebotomy |
| 051410 | Legal Office Technology* | 120820 | Administrative Medical Assisting* |
| 051420 | Medical Office Technology | 120830 | Health Facility Unit Coordinator |
| 051440 | Office Management* | 121100 | Polysomnography |
| 070210 | Software Applications | 121200 | Electro-Neurodiagnostic Technology |
| 070730 | Computer Systems Analysis | 121400 | Orthopedic Assistant |
| 070800 | Computer Infrastructure and Support | 122000 | Speech/Language Pathology and Audiology |
| 070820 | Computer Support | 122100 | Pharmacy Technology |
| 092400 | Engineering Technology, General | 122300 | Health Information Technology |
| 093400 | Electronics and Electric Technology | 122310 | Health Information Coding |
| 093410 | Computer Electronics | 123020 | Licensed Vocational Nursing |
| 093430 | Telecommunications Technology | 123010 | Registered Nursing |
| 093440 | Electrical Systems and Power Transmission | 124010 | Dental Assistant |
| 093470 | Electron Microscopy | 124020 | Dental Hygienist |
| 094300 | Instrumentation Technology | 130320 | Fashion Merchandising* |
| 094500 | Industrial Systems Technology and Maintenance | 140200 | Paralegal |
| 094610 | Energy Systems Technology | 160200 | Library Technician (Aide) |
| 094700 | Diesel Technology | 210210 | Public Works |
| 094730 | Heavy Equipment Operation | 210510 | Corrections |
| 094740 | Railroad and Light Rail Operations* | 210540 | Forensics, Evidence, and Investigation |
| 094900 | Automotive Collision Repair | 210550 | Police Academy |
| 095210 | Carpentry | 300900 | Travel Services and Tourism* |

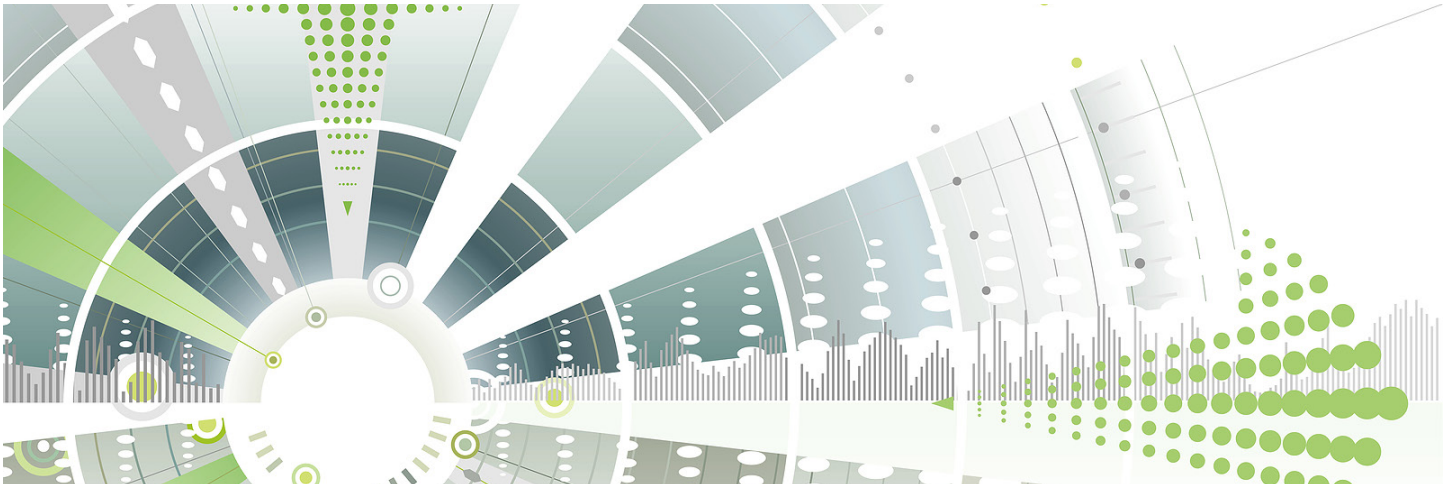
# RECOMMENDATIONS FOR FURTHER ANALYSIS

Further research coupled with this labor market study may help with decision-making in regard to programs and course offerings:

- **Conduct primary research to validate these recommendations with employers:** This study provides lists of recommended TOP codes for short-term certificate and associate degree programs. However, the recommendations have not been validated by industry or businesses. Collecting primary data directly from employers will help further confirm program recommendations.
- **Examine how well existing programs currently meet labor market needs:** While this study makes recommendations for program development based on labor market information, it lacks information about the programs themselves. By conducting a program evaluation, the community colleges can gain insight as to why so many programs exist in the region for the top 100 middle-skill jobs, but supply from each program is low.
- **Validate whether the recommended TOP codes for short-term certificate programs currently train skills-builders:** Many of the TOP codes that this study recommends for short-term certificate programs may already train for skills-builders in the region. Skills-builders are students who take higher-level Career Education courses, but do not complete a community college program or transfer to a four-year institution. These skills-builders may take a college course to obtain new skills and/or to increase their earnings, but do not need to complete an associate degree program to achieve those goals. By understanding what programs train skills-builders, colleges in the region may want to consider which courses, rather than programs, to market to students and working professionals.

June 2018

SUMMARY



# OPPORTUNITIES FOR CAREER EDUCATION TO CLOSE THE MIDDLE-SKILL JOBS GAP

## IMPERIAL COUNTY

C·O·E
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CALIFORNIA COMMUNITY COLLEGES SAN DIEGO IMPERIAL COUNTIES REGIONAL CONSORTIUM

SDICCCA
SAN DIEGO & IMPERIAL COUNTIES COMMUNITY COLLEGES ASSOCIATION
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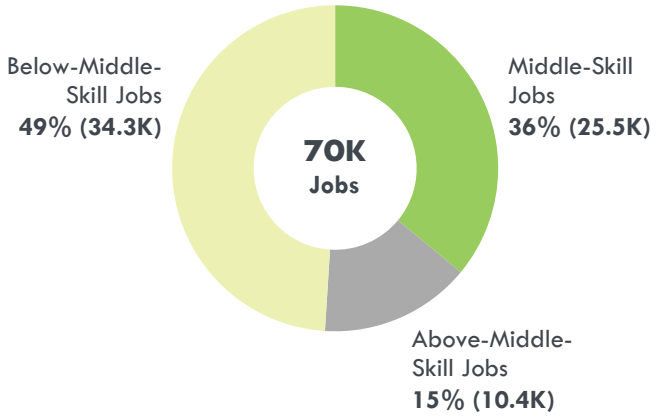
San Diego Continuing Education • San Diego Mesa • San Diego Miramar • Southwestern

# THE MIDDLE-SKILL JOB MARKET IN IMPERIAL COUNTY

This summary highlights key points from the study, Opportunities for Career Education to Close the Middle-Skill Jobs Gap. The study explores where the middle-skill job opportunities are in Imperial County and identifies job gaps that could potentially be filled with public Career Education programs.

Middle-skill jobs constitute a significant portion of the Imperial County labor market. In 2017, 36% of the 69,859 jobs in Imperial County were middle-skill jobs.

**Jobs Breakdown in Imperial County, 2017**



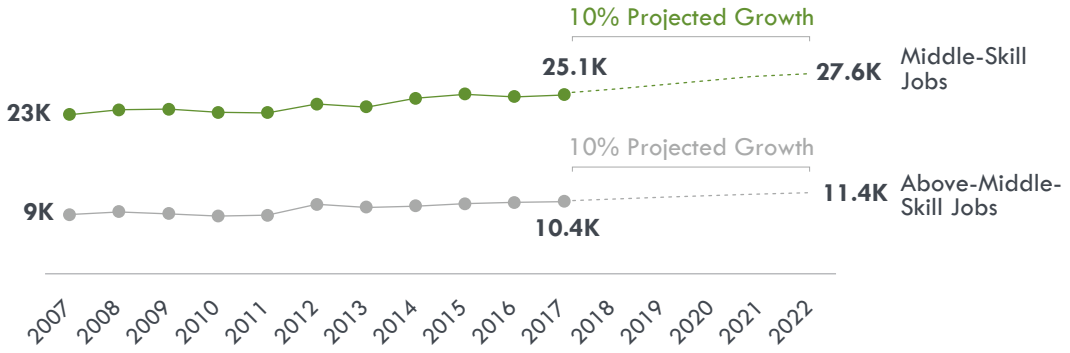

## What is a Middle-Skill Job?

A middle-skill job has the following training requirements:

- Some college coursework, a postsecondary certificate, and/or an associate degree; or
- High school diploma or equivalent with on-the-job training greater than 12 months; or
- Apprenticeship; or
- Bachelor's degree if at least 33% of workers in the occupation, age 25 or older, have completed, as their highest level of education, some college coursework or an associate degree.

Between 2017 and 2022, the number of middle-skill jobs in the region is projected to increase by 2,409 jobs or 10%.

**Number of People Employed in Middle-Skill and Above-Middle-Skill Jobs in Imperial County**




## TOP 100 MIDDLE-SKILL JOBS

There are 298 Standard Occupational Classification (SOC) codes that define middle-skill jobs. This study analyzes the top 100 SOC codes for middle-skill jobs that have the most labor market demand, stable employment growth, and entry-level wages at or above the Self-Sufficiency Standard.[1]

**90**

The number of top middle-skill jobs with supply gaps in the region.

**2,260**

The number of job openings per year between 2017 and 2022 for the top 100 middle-skill jobs.

**1,861**

The number of awards that training providers will need to generate to close the supply gap for the top 100 middle-skill jobs.

[1] The Self-Sufficiency Standard is the hourly wage ($11.32) that a single adult in a two-adult household with two children needs to earn to meet basic needs in Imperial County.

# TOP 100 MIDDLE-SKILL JOBS

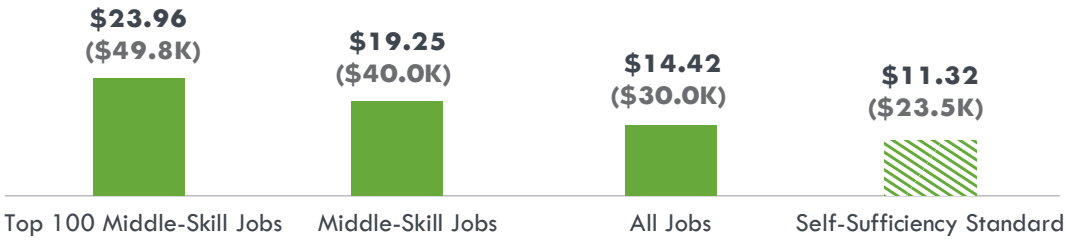
A comparison of labor market demand (annual job openings) with labor supply (program awards) from the region's educational institutions indicates that there are 91 top middle-skill jobs with supply gaps. Occupations with an asterisk (*) indicate an oversupply.

| | |
|---|---|
| Administrative Services Managers* | Heating, Air Conditioning, and Refrigeration Mechanics and Installers* |
| Automotive Body and Related Repairers | Heavy and Tractor-Trailer Truck Drivers |
| Bookkeeping, Accounting, and Auditing Clerks | Human Resources Assistants, Except Payroll and Timekeeping |
| Bus and Truck Mechanics and Diesel Engine Specialists | Industrial Machinery Mechanics |
| Bus Drivers, School or Special Client | Industrial Production Managers |
| Bus Drivers, Transit and Intercity | Insurance Sales Agents |
| Business Operations Specialists, All Other | Interpreters and Translators |
| Carpenters | Legal Secretaries |
| Chefs and Head Cooks | Library Technicians |
| Claims Adjusters, Examiners, and Investigators | Licensed Practical and Licensed Vocational Nurses |
| Community Health Workers | Loan Interviewers and Clerks |
| Computer Network Support Specialists | Loan Officers |
| Computer Occupations, All Other | Machinists |
| Computer User Support Specialists* | Maintenance and Repair Workers, General |
| Computer, Automated Teller, and Office Machine Repairers | Massage Therapists |
| Construction and Building Inspectors | Medical and Clinical Laboratory Technicians |
| Construction Managers | Medical Assistants |
| Correctional Officers and Jailers | Medical Records and Health Information Technicians |
| Cost Estimators* | Medical Secretaries |
| Customer Service Representatives | Mobile Heavy Equipment Mechanics, Except Engines |
| Data Entry Keyers | Network and Computer Systems Administrators |
| Dental Assistants | Nursing Assistants |
| Detectives and Criminal Investigators | Operating Engineers and Other Construction Equipment Operators |
| Electrical and Electronics Repairers, Powerhouse, Substation, and Relay* | Paralegals and Legal Assistants |
| Electrical Power-Line Installers and Repairers | Payroll and Timekeeping Clerks |
| Electricians | Pesticide Handlers, Sprayers, and Applicators, Vegetation |
| Emergency Medical Technicians and Paramedics | Pharmacy Technicians* |
| Executive Secretaries and Executive Administrative Assistants | Phlebotomists |
| Farm Equipment Mechanics and Service Technicians | Plumbers, Pipefitters, and Steamfitters |
| Firefighters | Police and Sheriff's Patrol Officers |
| First-Line Supervisors of Construction Trades and Extraction Workers | Power Plant Operators |
| First-Line Supervisors of Correctional Officers | Preschool Teachers, Except Special Education* |
| First-Line Supervisors of Farming, Fishing, and Forestry Workers | Production, Planning, and Expediting Clerks |
| First-Line Supervisors of Fire Fighting and Prevention Workers | Property, Real Estate, and Community Association Managers |
| First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand | Purchasing Agents, Except Wholesale, Retail, and Farm Products |
| First-Line Supervisors of Housekeeping and Janitorial Workers | Radiologic Technologists |
| First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers | Real Estate Sales Agents |
| First-Line Supervisors of Mechanics, Installers, and Repairers | Registered Nurses |
| First-Line Supervisors of Non-Retail Sales Workers | Sales and Related Workers, All Other |
| First-Line Supervisors of Office and Administrative Support Workers | Sales Representatives, Services, All Other |
| First-Line Supervisors of Personal Service Workers | Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products |
| First-Line Supervisors of Production and Operating Workers | Secretaries and Administrative Assistants, Except Legal, Medical, and Executive |
| First-Line Supervisors of Protective Service Workers, All Other | Social and Human Service Assistants |
| First-Line Supervisors of Retail Sales Workers | Telecommunications Equipment Installers and Repairers, Except Line Installers |
| First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators | Tellers |
| Fitness Trainers and Aerobics Instructors | Training and Development Specialists |
| Forest and Conservation Technicians | Transportation, Storage, and Distribution Managers |
| Graphic Designers | Water and Wastewater Treatment Plant and System Operators* |
| Health Technologists and Technicians, All Other | Welders, Cutters, Solderers, and Brazers |
| Healthcare Support Workers, All Other | Wholesale and Retail Buyers, Except Farm Products |

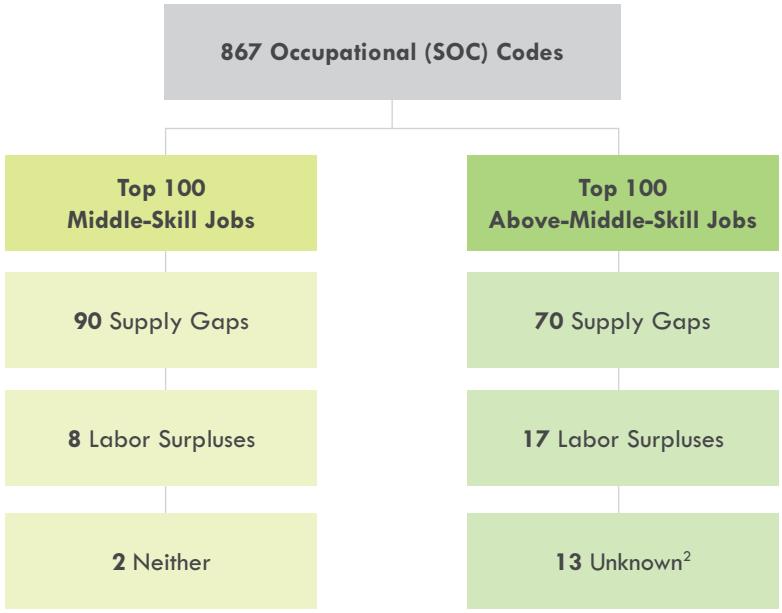
# KEY FINDINGS

**Training for the top 100 middle-skill jobs can provide job seekers with opportunities for income mobility:** The average median hourly wage of all middle-skill jobs is $19.25, the average median hourly wage of all jobs in the region is $14.42, and the Self-Sufficiency Standard is $11.32. The average median hourly earnings of the top 100 middle-skill jobs analyzed in this study is $23.96, which is higher than all three.

**Median Hourly Earnings (Annual Salary) vs. Self-Sufficiency Standard**




**Of the top 100 middle-skill jobs identified in this study, 90 have supply gaps, 8 have labor surpluses (an oversupply of labor), and 2 have neither.** Comparatively, the top 100 above-middle-skill jobs have 70 supply gaps, suggesting that middle-skill jobs have more opportunities to develop programs than above-middle-skill jobs.




**The top 100 middle-skill jobs have a labor market demand of 2,260 annual job openings and a program supply of 399 awards.** That is a difference of 1,861 awards that could be produced by the region to meet labor market demand.

**Not all middle-skill jobs require an associate degree.** Of the 2,260 annual job openings, 18% are related to supervisorial or management roles, 15% are related to administrative or secretarial roles, and 13% are related to sales roles. The majority of these occupations require less than an associate degree as their typical entry-level education. This suggests that there are opportunities for short-term certificate programs that can fill these roles. Short-term certificate programs require less than two years to complete.

**Percentage of Annual Job Openings with Management, Sales or Administrative Job Titles[3] (Top 100 Middle-Skill Jobs)**

[2] There is insufficient data to calculate the supply gap for 13 occupational codes in the above-middle-skill jobs category

[3] These percentages have some overlap because an occupation may have more than one role: For example, First-Line Supervisors of Office and Administrative Support Workers are both supervisorial and administrative positions.

## RECOMMENDATIONS FOR MORE PROGRAM SUPPLY

Career Education programs can help fill the supply gaps with short-term certificates or associate degrees. The following list of six-digit Taxonomy of Programs (TOP6) codes are recommended for increased awards to close the supply gap. The TOP system is used at the state level to collect and report information on community college programs. TOP6 programs that train for occupations with a supply gap of at least 5 job openings are included below. Programs with an asterisk (*) may be suitable for short-term certificate programs.

| TOP6 | TOP6 Program Title | TOP6 | TOP6 Program Title |
|---|---|---|---|
| 010300 | Plant Science | 095220 | Electrical |
| 010310 | Agricultural Pest Control Adviser and Operator (Licensed)* | 095230 | Plumbing, Pipefitting, and Steamfitting |
| 010930 | Nursery Technology* | 095600 | Manufacturing and Industrial Technology |
| 011400 | Forestry | 095630 | Machining and Machine Tools |
| 011600 | Agricultural Power Equipment Technology | 095650 | Welding Technology |
| 050200 | Accounting | 095700 | Civil and Construction Management Technology |
| 050400 | Banking and Finance* | 120510 | Phlebotomy* |
| 050630 | Management Development and Supervision* | 120800 | Medical Assisting |
| 050640 | Small Business and Entrepreneurship | 120810 | Clinical Medical Assisting |
| 050650 | Retail Store Operations and Management* | 120820 | Administrative Medical Assisting* |
| 050800 | International Business and Trade* | 120830 | Health Facility Unit Coordinator* |
| 050900 | Marketing and Distribution* | 122000 | Speech/Language Pathology and Audiology* |
| 050920 | Purchasing | 122300 | Health Information Technology* |
| 050940 | Sales and Salesmanship* | 122310 | Health Information Coding* |
| 050970 | E-Commerce (Business Emphasis)* | 122500 | Radiologic Technology |
| 051000 | Logistics and Materials Transportation* | 123000 | Nursing |
| 051100 | Real Estate* | 123010 | Registered Nursing |
| 051110 | Escrow | 123020 | Licensed Vocational Nursing |
| 051200 | Insurance* | 123030 | Certified Nurse Assistant |
| 051400 | Office Technology/Office Computer Applications* | 124010 | Dental Assistant |
| 051410 | Legal Office Technology* | 126200 | Massage Therapy* |
| 051420 | Medical Office Technology* | 130600 | Nutrition, Foods, and Culinary Arts* |
| 051440 | Office Management | 130630 | Culinary Arts* |
| 086000 | Educational Technology | 130710 | Restaurant and Food Services and Management* |
| 093430 | Telecommunications Technology | 140200 | Paralegal |
| 093440 | Electrical Systems and Power Transmission | 160200 | Library Technician (Aide)* |
| 094500 | Industrial Systems Technology and Maintenance | 210400 | Human Services* |
| 094700 | Diesel Technology | 210440 | Alcohol and Controlled Substances* |
| 094720 | Heavy Equipment Maintenance | 210510 | Corrections |
| 094730 | Heavy Equipment Operation | 210540 | Forensics, Evidence, and Investigation* |
| 094740 | Railroad and Light Rail Operations | 210550 | Police Academy |
| 094750 | Truck and Bus Driving* | 213300 | Fire Technology |
| 094900 | Automotive Collision Repair* | 213350 | Fire Academy |
| 095200 | Construction Crafts Technology | 219900 | Other Public and Protective Services* |
| 095210 | Carpentry | 300700 | Cosmetology and Barbering* |

## RECOMMENDATIONS FOR FURTHER ANALYSIS

Further research coupled with this labor market study may help with decision-making in regard to programs and course offerings:

- **Conduct primary research to validate these recommendations with employers:** This study provides lists of recommended TOP codes for short-term certificate and associate degree programs. However, the recommendations have not been validated by industry or businesses. Collecting primary data directly from employers will help further confirm program recommendations.
- **Examine how well existing programs currently meet labor market needs:** While this study makes recommendations for program development based on labor market information, it lacks information about the programs themselves. By conducting a program evaluation, the community colleges can gain insight as to why so many programs exist in the region for the top 100 middle-skill jobs, but supply from each program is low.
- **Validate whether the recommended TOP codes for short-term certificate programs currently train skills-builders:** Many of the TOP codes that this study recommends for short-term certificate programs may already train for skills-builders in the region. Skills-builders are students who take higher-level Career Education courses, but do not complete a community college program or transfer to a four-year institution. These skills-builders may take a college course to obtain new skills and/or to increase their earnings, but do not need to complete an associate degree program to achieve those goals. By understanding what programs train skills-builders, colleges in the region may want to consider which courses, rather than programs, to market to students and working professionals.

# Middle School Career Development Continuum

## In-School: Standards-Based Curriculum

## Self Awareness

**Learning about ONESELF**

Build awareness of strengths, interests and values and connect this information to future purpose and c**aree**r through reflection and related metacognitive activities.

**Classroom and School**

- Curriculum and tools to identify strengths, interests and values and connections to career
- Personalized learning experiences and activities to unlock students' strengths and potential
- Building students' sense of themselves as "college and career bound"

## Career Awareness

**Learning ABOUT a wide variety of careers**

Build awareness of the variety of careers available and the preparation required to obtain a career; broaden student options.

**Classroom and School**

- Career contextual instruction
- Exposure to career pathways
- Projects
- Building skills and habits of mind needed for HS, college, career, and life success, including social-emotional and "21st Century" skills
- Building a "love of learning"
- Building respect for all work

## Career Exploration

**Learning ABOUT work and exploring, research and planning for career**

Explore career and post-secondary options for the purpose of motivating students and to inform their decision making in secondary school through postsecondary education.

**Classroom and School**

- Courses, experiences and clubs
- Pathway exploration
- Integrated curriculum
- Classroom simulations
- Career-focused projects, assignments and assessments
- Building skills and habits of mind needed for HS, college, and career, and life success, including social-emotional and "21st Century" skills

## Career Preparation

**Learning THROUGH work**

Apply learning through practical experience that develops knowledge and skills necessary for success in careers and postsecondary education.

**Classroom and School**

- Core academic preparation
- Career technical courses and programs
- Career-related project-based learning
- College and career portfolio that carries forward from year to year
- Building skills and habits of mind needed for HS, college, and career, and life success, including social-emotional and "21st Century" skills

# Middle School Career Development Continuum

## In-School: Career Research & Planning Activities

## Self Awareness

**Learning about ONESELF**

Build awareness of strengths, interests and values and connect this information to future purpose and career through reflection and related metacognitive activities.

**Classroom and School**

- Curriculum and tools to identify strengths, interests and values and connections to career
- Career Interest/strength/values assessment
- Personalized learning experiences and activities to unlock students' strengths and potential

**Family Engagement**

- Exposure of parents and guardians to the concept of career and educational options through self-awareness

## Career Awareness

**Learning ABOUT a wide variety of careers**

Build awareness of the variety of careers available and the preparation required to obtain a career; broaden student options.

**Classroom and School**

About Careers

- Web Research
- Use of valid, reliable, and reputable career interest/strength/values assessments, supported by qualified career advising
- Exposure to career pathways

About Postsecondary Education

- College awareness and building expectations about future college attendance

**Family Engagement**

- Parent/guardian career workshops and review of career pathway maps, with focus on engaging parents/guardians meaningfully through their own experiences and completion of career assessments as appropriate
- Labor market information provided to parents to help guide and support students in the exploration of their interests

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## Career Exploration

**Learning ABOUT work and exploring, research and planning for career**

Explore career and post-secondary options for the purpose of motivating students and to inform their decision making in secondary school through postsecondary education.

**Classroom and School**

About Careers

- Career plan development
- Financial literacy

About Postsecondary Education

- College exploration

**Family Engagement**

- Parent/guardian review of career pathway maps to facilitate children's pathway selection; guidance on how to coach their children
- Labor market information provided to parents and guardians to help guide and support students in the exploration of their career pathway interests.
- Guidance to parents and guardians on college and career resources

## Career Preparation

**Learning THROUGH work**

Apply learning through practical experience that develops knowledge and skills necessary for success in careers and postsecondary education.

**Classroom and School**

About Careers

- Career plan development
- Financial literacy
- College and career portfolio that carries forward from year to year

About Postsecondary Education

- College exploration
- Introduction to education planning

**Family Engagement**

- Engagement of parents and guardians in decisions about career pathway selection
- Participation of parents and guardians in pathway activities
- Guidance to parents and guardians on how to coach their children in preparation for postsecondary
- Engagement of parents and guardians in decisions about postsecondary options in view of children's career interests

# Middle School Career Development Continuum

Out-of-School: Work-Based Learning

## Self Awareness

**Learning about ONESELF**

Build awareness of strengths, interests and values and connect this information to future purpose and career through reflection and related metacognitive activities.

**Experiences might include:**

- Industry tours
- Guest speakers
- Adult role models
- Role model observation
- Progression of responsibility
- Service activities

## Career Awareness

**Learning ABOUT a wide variety of careers**

Build awareness of the variety of careers available and the preparation required to obtain and succeed in a career; broaden student options.

**Experiences might include:**

- Guest speakers
- Industry tours
- Career Fairs
- Visit parents at work

## Career Exploration

**Learning ABOUT work and exploring, research and planning for career**

Explore career and post-secondary options for the purpose of motivating students and to inform their decision making in secondary school and postsecondary education.

**Experiences might include:**

- Informational interview
- Job shadow
- Virtual exchange with a partner
- Professional mentor through a industry focused student organization
- Civic engagement/community service

## Career Preparation

**Learning THROUGH work**

Apply learning through practical experience that develops knowledge and skills necessary for success in careers and postsecondary education.

**Experiences might include:**

- Integrated project with multiple interactions with professionals
- Student-run enterprise with partner involvement
- Virtual experiences with industry
- Projects with partners through industry focused student organization
- Service learning and social enterprises with partners

# Middle School Career Development Continuum

Out-of-School: Postsecondary Engagement

## Self Awareness

**Learning about ONESELF**

Build awareness of strengths, interests and values and connect this information to future purpose and career through reflection and related metacognitive activities.

**Experiences may include:**

- Experiencing self as ”belonging” among those who attend college, by seeing and speaking with peer role models in college
- Guest speakers from postsecondary
- Links to community-based organizations and clubs that expose students to postsecondary opportunities in areas of interest

## Career Awareness

**Learning ABOUT a wide variety of careers**

Build awareness of the variety of careers available and the preparation required to obtain a career; broaden student options.

**Experiences may include:**

- Guest speakers from postsecondary

## Career Exploration

**Learning ABOUT work and exploring, research and planning for career**

Explore career and post-secondary options for the purpose of motivating students and to inform their decision making in secondary school through postsecondary education.

**Experiences may include:**

- Guest speakers from postsecondary
- Interviews with college students
- College tours

## Career Preparation

**Learning THROUGH work**

Apply learning through practical experience that develops knowledge and skills necessary for success in careers and postsecondary education.

**Experiences may include:**

- Guest speakers from postsecondary
- Interviews with college students
- College tours
- College fairs, including interviews with college admissions officers

# High School Career Development Continuum

## In-School: Standards-Based Curriculum

## Self Awareness

### Learning about ONESELF

Build awareness of strengths, interests and values and connect this information to future purpose and career through reflection and related metacognitive activities.

**Classroom and School**

- Curriculum and tools to identify strengths, interests and values and connections to career
- Personalized learning experiences and activities to unlock students' strengths and potential
- Building students' sense of themselves as "college and career bound"

## Career Awareness

### Learning ABOUT a wide variety of careers

Build awareness of the variety of careers available and the preparation required to obtain a career; broaden student options.

**Classroom and School**

- Career contextual instruction
- Exposure to career pathways
- Projects
- Building skills and habits of mind needed for HS, college, career, and life success, including social-emotional and "21st Century" skills
- Building a "love of learning"
- Building respect for all work

## Career Exploration

### Learning ABOUT work and exploring, research and planning for career

Explore career and post-secondary options for the purpose of motivating students and to inform their decision making in secondary school through postsecondary education.

**Classroom and School**

- Career pathways, courses, experiences and clubs
- Integrated curriculum
- Simulated environments
- Career-focused projects, assignments and assessments
- College and career portfolio that carries forward from year to year
- Building skills and habits of mind needed for HS, college, and career, and life success, including social-emotional and "21st Century" skills

## Career Preparation: Practicum & Internships

### Learning THROUGH work

Apply learning through practical experience that develops knowledge and skills necessary for success in careers and postsecondary education.

**Classroom and School**

- Freshman transition courses
- Core academic preparation
- Career technical courses and programs
- Career-related project-based learning
- Advanced level courses related to career
- Building skills and habits of mind needed for HS, college, and career, and life success, including social-emotional and "21st Century" skills
- Occupational certifications
- Work-ready certification/"21st century" skills

## Career Training

### Learning FOR work

Train for employment and/or postsecondary education in a specific range of occupations.

**Classroom and School**

- Work-ready certification/"21st century" skills
- Occupational certifications

# High School Career Development Continuum

## In-School: Career Research & Planning Activities

## Self Awareness

### Learning about ONESELF

Build awareness of strengths, interests and values and connect this information to future purpose and career through reflection and related metacognitive activities.

**Classroom and School**

- Curriculum and tools to identify strengths, interests and values and connections to career
- Career Assessment Interests/Skills/Values
- Personalized learning experiences and activities to unlock students' strengths and potential

**Family Engagement**

- Exposure of parents and guardians to the concept of career and educational options through self-awareness

## Career Awareness

### Learning ABOUT a wide variety of careers

Build awareness of the variety of careers available and the preparation required to obtain a career; broaden student options.

**Classroom and School**

About Careers

- Web Research
- Use of valid, reliable, and reputable career interest/strength/values assessments, supported by qualified career advising
- Exposure to career pathways

About Postsecondary Education

- College awareness and building expectations about future college attendance

**Family Engagement**

- Parent/guardian career workshops and review of career pathway maps, with focus on engaging parents/guardians meaningfully through their own experiences and completion of career assessments as appropriate
- Labor market information provided to parents and guardians to help guide and support students in the exploration of their career pathway interests

## Career Exploration

### Learning ABOUT work and exploring, research and planning for career

Explore career and post-secondary options for the purpose of motivating students and to inform their decision making in secondary school through postsecondary education.

**Classroom and School**

About Careers

- Career plan development
- Financial literacy
- Resume, interview, application support
- College and career portfolio that carries forward from year to year

About Postsecondary Education

- Researching post-secondary education appropriate for chosen pathway
- Building "college knowledge"
- Complete college entrance exams

**Family Engagement**

- Parent/guardian review of career pathway maps to facilitate children's pathway selection; guidance on how to coach their children
- Labor market information provided to parents and guardians to help guide and support students in the exploration of their career pathway interests

## Career Preparation: Practicum & Internships

### Learning THROUGH work

Apply learning through practical experience that develops knowledge and skills necessary for success in careers and postsecondary education.

**Classroom and School**

About Careers

- Career plan refinement
- Financial planning
- Job seeking skills training

About Postsecondary Education

- College exploration
- Introduction to career and academic education planning
- Building "college knowledge"
- Support for informed and purposeful college decision-making
- Complete college entrance exams

**Family Engagement**

- Engagement of parents/guardians in decisions about career pathway selection (if not selected)
- Participation of parents/guardians in pathway activities
- Guidance to parents and guardians on how to coach their children in preparation for postsecondary transition

## Career Training

### Learning FOR work

Train for employment and/or postsecondary education in a specific range of occupations

**Classroom and School**

About Careers

- Planning for future career transitions

About Postsecondary Education

- Planning for further education
- Planning for future occupational certifications

# High School Career Development Continuum

Out-of-School: Work-Based Learning

## Self Awareness

**Learning about ONESELF**

Build awareness of strengths, interests and values and connect this information to future purpose and career through reflection and related metacognitive activities.

**Experiences might include:**

- Industry tours
- Guest speakers
- Adult role models
- Role model observation
- Progression of responsibility
- Service activities

## Career Awareness

**Learning ABOUT a wide variety of careers**

Build awareness of the variety of careers available and the preparation required to obtain and succeed in a career; broaden student options.

**Experiences might include:**

- Guest speakers
- Industry tours
- Career Fairs
- Visit parents at work
- Online tools

## Career Exploration

**Learning ABOUT work and exploring, research and planning for career**

Explore career and post-secondary options for the purpose of motivating students and to inform their decision making in secondary school and postsecondary education.

**Experiences might include:**

- Informational interview
- Job shadow
- Virtual exchange with a partner
- Professional mentor
- Civic engagement/community service

## Career Preparation: Practicum & Internships

**Learning THROUGH work**

Apply learning through practical experience that develops knowledge and skills necessary for success in careers and postsecondary education.

**Experiences might include:**

- Integrated project with multiple interactions with professionals
- Student-run enterprise with partner involvement
- Virtual enterprise or other extended online interactions with partners
- Projects with partners through industry focused student organization
- Service learning and social enterprises with partners
- Internship connected to curriculum

## Career Training

**Learning FOR work**

Train for employment and/or postsecondary education in a specific range of occupations.

**Experiences might include:**

- Internship
- Internship required for credential or entry to occupation
- Apprenticeship
- Clinical experience
- On-the-job training
- Work experience

# High School Career Development Continuum

Out-of-School: Postsecondary Engagement

## Self Awareness

**Learning about ONESELF**

Build awareness of strengths, interests and values and connect this information to future purpose and career through reflection and related metacognitive activities.

**Experiences may include:**

- Experiencing self as ”belonging” among those who attend college, by seeing and speaking with peer role models in college
- Guest speakers from postsecondary
- Links to community-based organizations and clubs that expose students to postsecondary opportunities in areas of interest

## Career Awareness

**Learning ABOUT a wide variety of careers**

Build awareness of the variety of careers available and the preparation required to obtain a career; broaden student options.

**Experiences may include:**

- Guest speakers from postsecondary

## Career Exploration

**Learning ABOUT work and exploring, research and planning for career**

Explore career and post-secondary options for the purpose of motivating students and to inform their decision making in secondary school through postsecondary education

**Experiences may include:**

- Guest speakers from postsecondary
- Interviews with college students
- College tours

## Career Preparation: Practicum & Internships

**Learning THROUGH work**

Apply learning through practical experience that develops knowledge and skills necessary for success in careers and postsecondary education

**Experiences may include:**

- Guest speakers from postsecondary
- Interviews with college students
- College tours
- College fairs, including interviews with college admissions officers
- Support for application, financial aid, and scholarship process
- Dual and concurrent enrollment
- CE coursework leading to certificates and associate degrees
- Preparation for transition to postsecondary

## Career Training

**Learning FOR work**

Train for employment and/or postsecondary education in a specific range of occupations

**Experiences may include:**

- Core academic preparation
- Support for application, financial aid, and scholarship process
- Dual and concurrent enrollment
- CE coursework leading to certificates and associate degrees
- Preparation for transition to postsecondary

## Workforce Tenets and Priorities

San Diego Imperial County Community College Association, Imperial Workforce Development Board, San Diego Workforce Partnership

*From the 2017 Southern Border Regional Workforce Development Plan*

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 ALL residents of San Diego and Imperial Counties through better-defined career pathways:*** 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.

**Top Priorities**. In November 2016 a regional meeting of community colleges, partners and stakeholders was held. The participants agreed that three of these regional workforce development priorities should be addressed first. These priorities and action items to execute on the priorities include:

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

  - ✓ Action Item: Develop an e-portal for work-based learning opportunities for youth and young adults, 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

  - ✓ Action Item: 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

  - ✓ Action Item: Focus on one sector and from a regional perspective, describe the career pathway/career ladder for K through adult participants, involving all partners including industry and resulting in a clear understanding of access and upward mobility

  - ✓ 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.

  - ✓ Action Item: Provide human-centered design training for all partnering agencies in 2017-18

## Strong Workforce Taskforce Recommendations

**STUDENT SUCCESS**

1. Broaden and enhance career exploration and planning, work-based learning opportunities, and other supports for students.
2. Improve CTE student progress and outcomes.

**CAREER PATHWAY**

3. Develop and broadly publicize industry-informed career pathways that prepare students for jobs needed within the regional labor market.

**WORKFORCE DATA & OUTCOMES**

4. Create common workforce metrics for all state-funded CTE programs and expand the definition of student success to better reflect the wide array of CTE outcomes of community college students.
5. Establish a student identifier for high school students and those enrolled in postsecondary education and training programs to enable California to track workforce progress and outcomes for students across institutions and programs.
6. Improve the quality, accessibility, and utility of student outcome and labor market data to support students, educators, colleges, regions, employers, local workforce investment boards, and the state in CTE program development and improvement efforts.

**CURRICULUM**

7. Evaluate, strengthen, and revise the curriculum development process to ensure alignment from education to employment.
8. Evaluate, revise and resource the local, regional, and statewide CTE curriculum approval process to ensure timely, responsive, and streamlined curriculum approval.
9. Improve program review, evaluation, and revision processes to ensure program relevance to students, business, and industry as reflected in labor market data.
10. Facilitate curricular portability across institutions.
11. Develop, identify and disseminate effective CTE practices.
12. Clarify practices and address issues of course repetition for CTE courses when course content evolves to meet changes in skill requirements.

**CTE FACULTY**

13. Increase the pool of qualified CTE instructors by addressing CTE faculty recruitment and hiring practices.
14. Consider options for meeting minimum qualifications to better integrate industry professionals who possess significant experience into CTE instructional programs.
15. Enhance professional development opportunities for CTE faculty to maintain industry and program relevance.
16. Explore solutions to attract industry professionals in high-salaried occupations to become CTE faculty in community colleges.

**REGIONAL COORDINATION**

17. Strengthen communication, coordination, and decision-making between regional CTE efforts and the colleges to meet regional labor market needs.
18. Clarify and modify, as appropriate, state regulations to allow colleges to regionalize course articulation along career pathways utilizing regional or state curriculum models.
19. Develop regional leadership and operational partnerships among community college, industry, labor, and other workforce and economic development entities to improve the delivery of all CTE efforts.
20. Develop robust connections between community colleges, business and industry representatives, labor and other regional workforce development partners to align college programs with regional and industry needs and provide support for CTE programs.
21. Create a sustained, public outreach campaign to industry, high school students, counselors, parents, faculty, staff, and the community at large to promote career development and attainment and the value of career technical education.
22. Establish a sustained funding source to increase community colleges' capacity to create, adapt, and maintain quality CTE courses and programs that are responsive to regional labor market needs.
23. Create a predictable, targeted, and sustained funding stream that leverages multiple local, state, and federal CTE and workforce funds to support an infrastructure for collaboration at the state, regional and local levels; establish regional funding of program start-up and innovation; and develop other coordination activities.
24. Review, analyze, and modify, as needed, laws and regulations related to student fees for disposable and consumable materials and CTE facilities.
25. Create incentives and streamline processes to maximize public and private investment in support of CTE programs.