



# Regional Analysis of CTE OS

## Challenges and Opportunities

August 4, 2017

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# Background



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## San Diego and Imperial Counties Consortium:

- 10 community colleges
- ~250,000 community college students
- Culture of regional collaboration and planning
- Problem: unable to answer critical questions regarding student outcomes in CTE areas and sectors
- Solution: utilize CTE Enhancement funding (2014-16) to participate in CTE OS region-wide



# Process



- Regional coordination working with SRJC  
(4,709 survey responses collected in Spring 2016)
- Additional regional analysis of data combining results for 9 colleges
  - Consultant to do initial analysis
  - Regional COE for Labor Market Research to do sector analysis
- Development of briefs to highlight the findings
- Integration of results in all regional planning



# Regional Products



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## Regional summary provided by SRJC

### Career & Technical Education (CTE) Employment Outcomes Survey 2016 MiraCosta College

#### Background

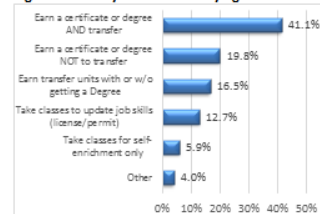
Skills-building students from MiraCosta College were surveyed if they met one of the following criteria in 2013-2014, and did not enroll in 2014-2015: earned a certificate of 6 or more units, earned a vocational degree, or earned 9+ CTE units. The survey was administered in early 2016 by e-mail, telephone and US mail. The survey addressed student perceptions of their CTE program, employment outcomes, and how their coursework and training relate to their current career.

A total of 1,602 students were surveyed and 479 unduplicated students responded, 95 of whom responded by e-mail (19.8%), 334 by telephone (69.7%), and 50 (10.4%) by US Mail, for a total overall response rate of 29.9%.

#### Results

• Respondents were asked their primary reason for studying at MiraCosta College, and the majority (61.0%) indicated earning a certificate or degree (with or without transfer). Figure 1 shows the results.

Figure 1. Primary reason for studying



• Respondents were asked why they stopped taking classes at MiraCosta College. Here are the most frequently cited reasons, in rank order of frequency:

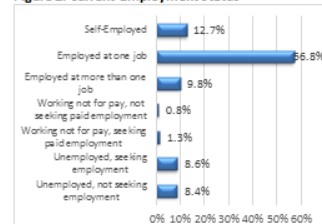
- ✓ My goals were met (215)
- ✓ I completed the program (190)
- ✓ Transferred to another school (171)
- ✓ I got a job (131)

• 64.1% of former students were "very satisfied" with the education and training they received at MiraCosta College, and 30.1% were "satisfied" for an overall satisfaction rate of 94.2%.

• 42.8% of respondents indicated they had transferred to another College or University.

• 79.3% of respondents are employed for pay. Figure 2 shows the results.

Figure 2. Current Employment Status



• Overall, statewide, students who transferred have 1.7 times the likelihood of being unemployed and not seeking employment (7.1% for not transferring vs. 12.0% for transferring), likely because they are enrolled at a four year institution.

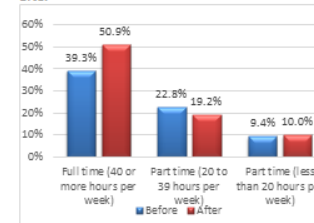
• Respondents were asked, if currently employed, how closely related their job is to their field of study at MiraCosta College. 44.3% indicated they are working in the same field as their studies and training, followed by 22.9% indicating they work in a field that is "close" to their studies and training, and 32.8% indicated their job is not related to their studies. When asked if they were actively seeking a job in another field, 6.9% of employed respondents said no.

• Of those respondents who engaged in a job search after finishing their studies, 79.6% reported finding a job and 20.4% were still looking. Of those with a successful job search, 82.6% found a job within six months (71.1% within three months).

• Of currently employed respondents, 18.2% had been employed at their current job less than six months, 18.4% between six months and one year, 22.3% between one and two years, 14.3% between two and three years and 26.2% had been employed at their current job for more than three years.

• Before their studies, 39.3% of respondents worked full time. After completing their studies, 50.9% work full time. Figure 3 shows the results.

Figure 3. Work status before studies/training and after



• The hourly wage of all respondents increased 39.1% from their hourly wage before their studies

(\$17.81) to their hourly wage after completing their studies (\$24.77). Figure 4 shows the results.

Figure 4. Earnings before studies/training and after



• Respondents, including those who had transferred, were asked what impact their coursework had on their employment. Here are the responses, listed in rank order of frequency:

- ✓ No impact on my employment (151)
- ✓ Prepared me for a possible new job (120)
- ✓ Enabled me to learn skills that allowed me to get a job at a new organization (80)
- ✓ Enabled me to learn skills that allowed me to get a promotion at my same organization (36)
- ✓ Enabled me to start my own business (36)
- ✓ Enabled me to learn skills that allowed me to stay in my current job (21)

#### Summary and Conclusions

The results of the survey showed that completing CTE studies and training – whether or not a credential is earned, whether or not a student transfers – is related to positive employment outcomes. The preponderance of respondents are employed, are working in the same field as their studies or training, and are working full time. Respondents overall posted a 39.1% increase in their hourly wage after completing their studies at MiraCosta College and the vast majority were satisfied with the education and training they received.

# Regional Products



Individual College Visualizations on SRJC CTE OS Website

- <https://cteos.santarosa.edu/>

## 2016 INDIVIDUAL COLLEGE VISUALIZATIONS

SELECT COLLEGE NAME BELOW:

MiraCosta College

### CTEOS SURVEY VISUALIZATIONS 2013 THROUGH 2016

Earnings before and after

Demographics of responders



Salary distribution before & after

Current employment status



All Graphs, Award Totals  
(Year: 2016, Transfer: All, Award: All, TOP Code: All)

HELP

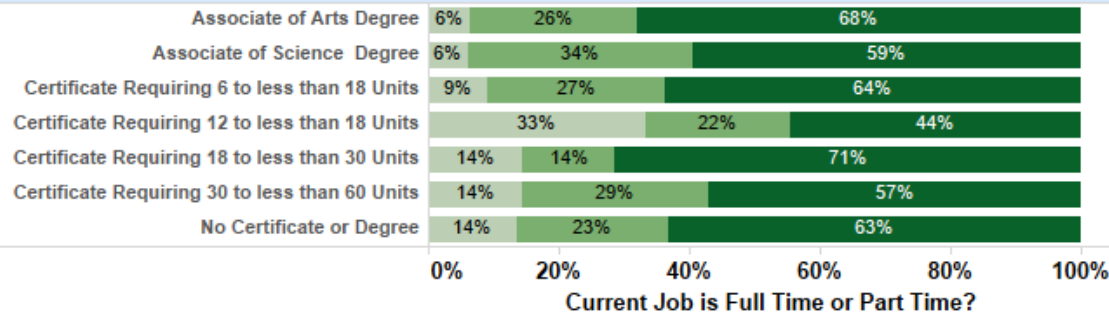
for MiraCosta College

Display Mode

Show Award Totals

All Graphs

Award Totals



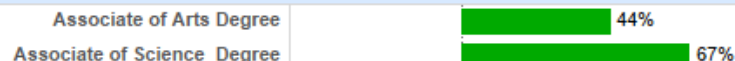
Full Time  
 Part Time (20-39 hrs)  
 Part Time (19 hrs or less)

Years

- All
- 2013
- 2014
- 2015
- 2016

Transfer

All





# Regional Products

## Regional Comprehensive Report



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### Career Technical Education Outcomes Survey (CTEOS)

San Diego/Imperial Region

Spring 2016

### Summary of Results

Prepared by:

Cathy Hasson, Ed.D. & Sam Ballard M.S.

October 2016

Examining the employment status before and after coursework by sector reveals some interesting differences. It should be noted that not all sectors had an adequate number of responses to report reliable data, so are not included in tables and analysis by sector. Of those reported, most showed decreases in part-time and temporary employment with a shift to full-time and permanent employment. Completers in the Health sector, the Retail/Hospitality/Tourism sector, and the Information and Communication Technologies sector (ICT) showed the greatest differences in employment before and after coursework. Full time employment for Health sector students increased by 30 percentage points, an 18 percentage point difference for Retail/Hospitality/Tourism sector students, a 14 percentage point difference for ICT students.

Table 3. Employment status before and after coursework by sector.

	Advanced Manufacturing		Advanced Transportation & Renewables		Energy, Construction & Utilities		Health		Information & Communication Technologies (ICT)		Retail/Hospitality/Tourism		Small Business	
	Before Enrolling	After Enrolling	Before Enrolling	After Enrolling	Before Enrolling	After Enrolling	Before Enrolling	After Enrolling	Before Enrolling	After Enrolling	Before Enrolling	After Enrolling	Before Enrolling	After Enrolling
Full time at one job (40 or more hours per week)	83%	90%	82%	88%	88%	89%	48%	78%	54%	68%	36%	57%	54%	67%
Part-time job or jobs (21 or more hours per week)	17%	10%	16%	11%	11%	8%	37%	18%	32%	33%	43%	25%	32%	31%
Part-time job or jobs (less than 21 hours per week)	0%	0%	3%	0%	2%	3%	15%	4%	14%	8%	18%	18%	14%	11%

Table 4. Employment status before and after coursework by sector.

	Advanced Manufacturing		Advanced Transportation & Renewables		Energy, Construction & Utilities		Health		Information & Communication Technologies (ICT)		Retail/Hospitality/Tourism		Small Business	
	Before Enrolling	After Enrolling	Before Enrolling	After Enrolling	Before Enrolling	After Enrolling	Before Enrolling	After Enrolling	Before Enrolling	After Enrolling	Before Enrolling	After Enrolling	Before Enrolling	After Enrolling
Permanent	13%	26%	12%	29%	13%	12%	13%	35%	19%	31%	12%	31%	15%	32%
Temporary	31%	27%	11%	8%	11%	1%	15%	5%	11%	14%	11%	7%	16%	16%
Seasonal	5%	5%	8%	5%	5%	2%	2%	0%	7%	5%	14%	7%	9%	4%

# Regional Products

## Regional Brief/Key Findings



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SPECIAL REPORT

### STUDENT EMPLOYMENT OUTCOME

Paths to Success

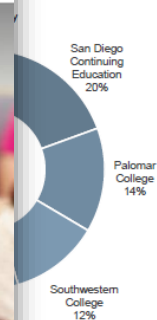


#### Student Employment Outcomes Community Colleges

Community colleges in San Diego and Imperial counties were the focus of Institutional Research and Planning at Santa Rosa Junior College.

Key findings include: high retention rates; strong program completion rates; and high employment outcomes.

#### Attended



Age	Percentage
18-24	30%
25-39	40%
40+	30%

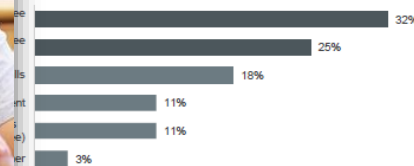
  

Average GPA	Percentage
3.0+	80%

Employment Status	Percentage
Employed	80%
Transferred after completing coursework	31%

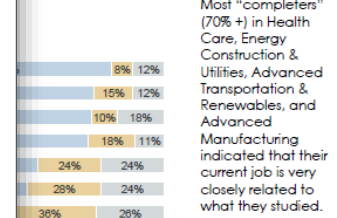
#### Top Reason for Studies



Top reasons for studies include: Career/Management, Small Business Management, Economics, Criminal Justice, Child Development/Early Childhood Education, and Network Administration, Nursing, General Education, and Health Services.

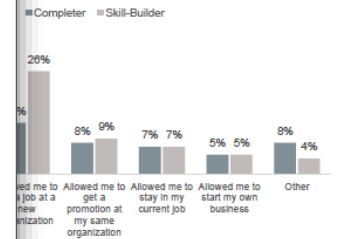
Percentage of students who earned a degree/certificate received

#### Related to your job?



Most "completers" (70%+) in Health Care, Energy, Construction & Utilities, Advanced Transportation & Renewables, and Advanced Manufacturing indicated that their current job is very closely related to what they studied.

#### How did your coursework have on your employment?



Hourly Wages  
 Before: \$17.85  
 After: \$23.61

Students who completed coursework, especially skill-builders, are more employable after completing coursework. This is closely related to their field of study, and the quality of internships and apprenticeships. The quality of the programs and instruction they received is clear, and the environment in which to succeed.

Percentage of students who earned a degree/certificate received





# Regional Products

## College Briefs/Key Findings (10)



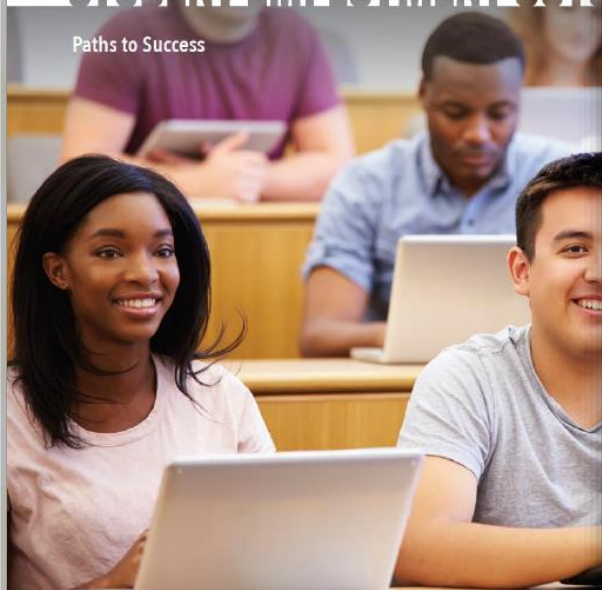
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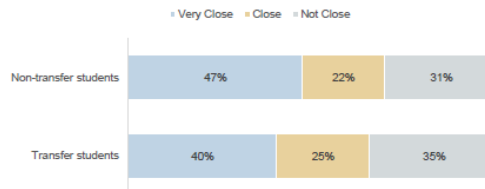
Inform Connect Advance

### STUDENT EMPLOYMENT OUTCOMES

Paths to Success



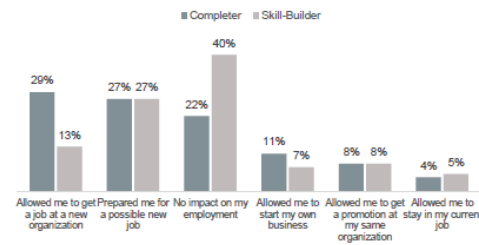
How closely related is your field of study to your job?



Transfer and non-transfer students were both likely to find work closely or very closely related to their field of study (65% and 69% respectively).

40% of "skill builders" and 39% of "completers" indicated their coursework allowed them to stay in their current job, get a promotion or prepare for a new job. Those who indicated that they were not looking/already employed was typically correlated with "no impact on my employment," as they were less likely to be searching for a job.

What impact did your coursework have on your employment?



94% of "skill-builders" and 99% of "completers" responded that they were satisfied or very satisfied with their education and training.

Hourly Wages  
 Before: \$17.81  
 After: \$24.78

#### Conclusions

- Many non-transfers indicated that their employment is closely or very closely related to their field of study
- There is strong evidence that CTE students are more employable after completing coursework
- Students perceive their coursework as helping them to get or maintain a job, or get a promotion – the perceived and actual value of a college education is clear
- Students were overwhelmingly satisfied with the quality of the programs and instruction they received, and believed that the colleges offer an environment in which to succeed

Completers = Students earned a certificate and/or degree earned  
 Skill-builders = 9+ CTE credits but no degree/certificate received

between the ten community colleges would like to thank the staff:

at Rosa Junior College for their support;

for their coordination;

by Rosa Lindstrom for providing

the opportunity to strive to provide the best

possible. Thank you to all who responded to the survey.



[miracosta.edu](http://miracosta.edu)



[doingwhatmatters.coccol.edu](http://doingwhatmatters.coccol.edu)

# Regional Products

## Regional Sector Briefs (6)



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### CAREER TECHNICAL EDUCATION STUDENT EMPLOYMENT OUTCOMES: **HEALTH SECTOR** SAN DIEGO & IMPERIAL COUNTIES COMMUNITY COLLEGES

#### About the Survey

More than 4,700 CTE students from the 10 community colleges in San Diego and Imperial counties were surveyed in Spring 2016 by the Office of Institutional Research and Planning at Santa Rosa Junior College. Of the total number of students who participated in the survey, 286 students were identified in the health sector. The purpose of the survey was to:

- Assess student employment outcomes
- Determine the students' college experiences and satisfaction

#### Student Employment Outcomes

##### HOURLY WAGES BEFORE AND AFTER COURSEWORK



##### AFTER COMPLETION



- Common certificate/license obtained:**
- Registered Nurse
  - Cardiovascular Technology Certifications (RCIS, RVT & RDCS)
  - Dental Hygienist
  - Dental Assistant
  - Emergency Medical Technician

##### TYPE OF EMPLOYMENT BEFORE AND AFTER COURSEWORK

Before starting coursework, 203 students, or 71% who took Health courses, reported full-time or part-time employment. Below is the full-time and part-time employment breakdown of those 203 students:



Before coursework, 98 students reported working full-time. After coursework, that number increased to 189, which is a 93% increase in students working full-time after coursework.

CTE OUTCOME SURVEY | HEALTH SECTOR | SDICCC

employed with at least one job.  
being self-employed.

- Medical lab technician
- Nursing assistant

##### EMPLOYMENT

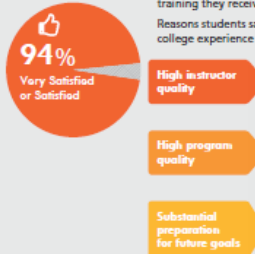
- \*Positive impact responses include:**
- Allowed me to get a job at a new organization
  - Allowed me to stay in my current job
  - Allowed me to get a promotion at my organization
  - Prepared me for a possible new job
  - Allowed me to start my own business

are closely related to their field of study.

##### EDUCATION AND TRAINING?

#### College Experience

HOW SATISFIED ARE YOU WITH THE EDUCATION AND TRAINING RECEIVED AT YOUR COLLEGE?



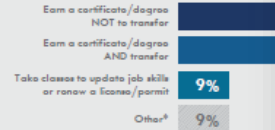
94% of students were very satisfied or satisfied with the education and training they received at their college.

Reasons students said they were very satisfied or satisfied with their college experience included:

WHAT CERTIFICATE OR MAJOR WERE STUDENTS PURSUING?

- Top certificate or major pursued by students:**
- Nursing
  - Dental
  - Medical support

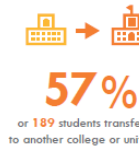
WHAT WAS THE PURPOSE OF YOUR STUDIES?



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#### College Experience

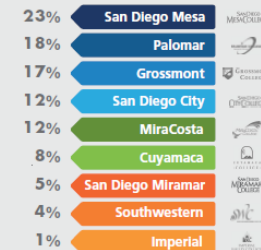
TRANSFER STATUS



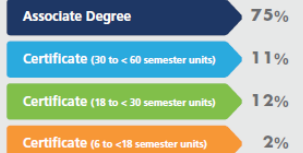
Top transfer colleges:

- San Diego State University
- California State University, San Marcos
- UC San Diego
- University of California, San Diego

WHERE DID STUDENTS ATTEND COLLEGE?



WHAT AWARD DID STUDENTS RECEIVE?



#### About This Brief

This survey is the result of regional collaboration between the 10 community colleges in San Diego and Imperial counties and the Office of Institutional Research and Planning at Santa Rosa Junior College. This brief was developed using survey results by the San Diego-Imperial Center of Excellence for Labor Market Research (coecc.net).



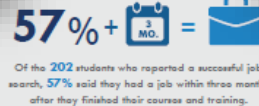
coecc.net

mylocalcc.org

myworkforceconnection.org

doingwhatmatters.ccco.edu

CTE OUTCOME SURVEY | INFORMATION & COMMUNICATION TECHNOLOGIES/DIGITAL MEDIA SECTOR | SDICCC



# Regional Sector Briefs x6



1. Small Business (n=436)
2. Information & Communication Technologies/Digital Media (n=332)
3. Health (n=286)
4. Advanced Transportation, Renewable Energy/ Energy Efficiency & Utilities (2 combined sectors, n=115)
5. Advanced Manufacturing & Advanced Technology (n=84)
6. Life Sciences/Biotechnology (n=20)
7. Global Trade and Logistics (n=4) Too small to report!

# Conclusions

- Are students working?
- How much money are they making?
- Were they satisfied with their education?





# Conclusions

CTE student are more employable after coursework



**95%**



**67%**

**Life Science/ Biotech**

**Small Business &  
ICT/Digital Media**



**Full-Time Employment**



**Part-Time Employment**





# Conclusions

More CTE students are finding permanent employment

**ALL 26%**

**Biotech 46%**

**Health 45%**

**Adv. Transportation 21%**

**Small Business 17%**

**ICT/ Digital Media 13%**

**Adv. Manufacturing 13%**



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# Conclusions

CTE students find work in their field of study



**Biotech**



**ICT/ Digital Media**

**Health 79%**

**Adv. Transportation 76%**







**Adv. Manufacturing 76%**

**Small Business 61%**



# Conclusions

## CTE student wages increased after coursework across all sectors

- Health  135%
- Life Sciences/Biotech  126%
- Adv. Transportation  84%
- Adv. Manufacturing  75%
- ICT/Digital Media  62%
- Small Business  60%



# Conclusions

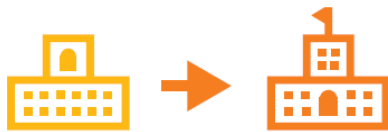


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ICT/ Digital Media & Small Business have higher proportion of transfer students



**57%**

**ICT/ Digital Media**



**44%**

**Small Business**

Other sectors: 8% to 27%

## Primary Reason for Study:

Earn Certificate/ Degree AND Transfer

ICT/DM **63%**

Small Business **59%**



# Conclusions

CTE students are overwhelmingly satisfied with their education and training

**95% to 91%**  
very satisfied or satisfied

Reasons:

- High instructor quality
- High program quality
- Gained applied experience
- Substantial preparation for future goals





# Regional Uses of CTE OS



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1. Educating regional community about the success of CTE students and making the case for community colleges

- Annual San Diego Workforce Conference in Nov 2016 (~400 participants)
- Marketing materials



# Regional Uses of CTE OS



2. Educating high school and middle school counselors on the value of CTE programs (adding to labor market data)

- San Diego Counselors Conference, Dec 2016 (~100 participants)



# Regional Uses of CTE OS



## 3. Regional strategic and initiative planning

- WIOA Regional Plan for Southern Border Region, Jan 2017
- Strong Workforce Regional Plan, Jan 2017





# Regional Uses of CTE OS

4. Sector need assessments and action planning by sector navigators and deputy sector navigators

– E.g., Life Sciences/Biotechnology



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# Lessons Learned



- The data file required quite a bit of additional cleaning
- Analysis of noncredit was tricky
- Skills-builders not assigned to programs (TOP) and sectors
- TOP codes are assigned to multiples sectors (up to 5) which creates duplication and inability to compare sectors
- 4- and 6-digit TOP code results have small sample sizes making analysis of the data on this level impossible



# More Lessons Learned

- Different values for non-responses
  - “0” = Question not responded to, but why? Skipped accidentally? Intentionally? Question does not apply?
  - “77” and “99” = Don’t know or refused to answer. Only used in phone method.
- Mail survey method yielded unusable qualitative data (634/4,709 or 14% utilized this method)
  - Example: Q2. What certificate or major were you pursuing at our college?
    - “I·NosicAPE OE51 Cz\_iME/WNZ5Bor. cu\_rOR HOrS5wB\_E Uc3A·NLARSCAPEZ”
    - “a...na. ..a.. ..\_.....lle9 . Ln. ...”
- Using self-reported job titles to bolster sectors with low survey numbers.

# Looking to the Future

- Funding from Chancellor's office to support participation in CTEOS from all 114 colleges
- Higher Participation in the survey
- Better planning by region and sector based on results



Questions?

# Group Discussion

Have you faced any challenges analyzing the data at the regional level?

How would your region utilize these products?

- Regional Consortium Chairs
- Sector Navigators & Deputy Sector Navigators
- Individual Colleges
- Students

What else would you want to know to better understand and analyze the survey responses?



# Thank You!

**Michael Goss**

Director

Center of Excellence *for* Labor Market Research

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