The Proof is in the Pudding: Post-Secondary Case Studies on CTE Student Articulation

2016 Connections to Education Conference
Ohio Association for Career Technical Education (OACTE)
Wednesday, July 27, 2016; 9:15a.m. – 10:15a.m.
Hilton-Easton, Columbus, Ohio
Regents Ballroom 2
Presenter Information

- Carl Brun, Ph.D, Assistant Vice President, Wright State University
- Mark Cubberley, Wright State University Lake Campus
- Chris Dorsten, Registrar, Tri-C
- Joanna Duvall, Director of MIS, Marion Technical College, duvallj@mtc.edu
- Mark Hicks, Student Records Functional Analyst, Lorain Community College
- Chad Atkinson, Ph.D, Manager of Research, Sinclair Community College
- Jim Lavery, Registrar, Marion Technical College, laveryj@mtc.edu
- Sun Jamerson, Associate Registrar, Lorain County Community College
- Roslyn Perry, Associate Registrar, The Ohio State University
- Jamilah Tucker, Director of Career Technical Transfer Initiatives, Department of Higher Education, jjones@highered.ohio.gov
Purpose of Today’s Presentation

What you can expect

• Brief review of the State of Ohio’s statewide CTE articulation efforts
• Results and key findings of localized studies
  – Six Ohio campuses
• Synthesis of lessons learned and best practices
• Information on next steps
• Question and answer
Ohio Articulation and Transfer Policy: Core Belief, Promotion, and Outcomes

Core Belief:
Student Focused, Faculty Driven

Promotes:
• Equitable treatment for transfer and native students
• Ohio’s Course Equivalency System improves transfer credit articulation and reduce undesired variability in the transfer credit evaluation process

Outcomes:
• Annual savings, conservatively estimated at: 78 Million Dollars

OATN Policy Manual (Revised Document, Approved by OATN Oversight Board December 2015) :
https://www.ohiohighered.org/transfer/policy/overview
Articulation In the State of Ohio
Why these studies?

• Opportunity for post-secondary education (PSE) institutions to review baseline data on CTE Articulation Students
• Opportunity for PSE Leadership, Registrars, and Institutional Researches to dialog with ODHE from an informed, data-driven standpoint on the progress and needs of the CTE and CTAG population.
Institution: Sinclair Community College

• Sinclair Community College, Southwestern Ohio
  ▪ Last year’s HEI student enrollment (HC): 33,408
  ▪ Large/Urban/Multi-Campus
  ▪ Serving: Montgomery, Warren, and surrounding counties
  ▪ IPEDS degree completion rate (150% time to complete): 17%
Research Question: How are CTAG students performing relative to a group of similar students at Sinclair?

- Performance was assessed with GPA, course completion, credit and credential attainment, and subsequent enrollment
- The similar group of students were selected using **propensity score matching**, which is a process where we identify a set of characteristics in our CTAG population and then assemble a comparison group that is similar across those factors
  - Matching variables: gender, age, total credits, Pell eligibility, minority/non-minority
Results: Sinclair Community College

- About our CTAG students:
  - 322 students earned CTAG credits in 1,027 courses
  - IT and Automotive courses were the most popular
  - After earning CTAG credit and taking Sinclair Courses in the following year, 77.6% of the college courses they took resulted in a passing grade.

### Popular CTAG Courses at Sinclair

<table>
<thead>
<tr>
<th>Popular CTAG courses:</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+ Operating Systems Troubleshooting</td>
<td>130</td>
</tr>
<tr>
<td>Introduction to Software Applications</td>
<td>126</td>
</tr>
<tr>
<td>Network Fundamentals</td>
<td>120</td>
</tr>
<tr>
<td>Enterprise Desktop Support Technician</td>
<td>105</td>
</tr>
<tr>
<td>Introduction to Operating Systems</td>
<td>98</td>
</tr>
<tr>
<td>A+ Certification IT Technician</td>
<td>72</td>
</tr>
<tr>
<td>CAD Concepts using AutoCAD</td>
<td>50</td>
</tr>
</tbody>
</table>

### CTAG Students Grades

<table>
<thead>
<tr>
<th>Grade</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>585</td>
</tr>
<tr>
<td>B</td>
<td>554</td>
</tr>
<tr>
<td>C</td>
<td>420</td>
</tr>
<tr>
<td>D</td>
<td>150</td>
</tr>
<tr>
<td>F</td>
<td>311</td>
</tr>
<tr>
<td>W</td>
<td>181</td>
</tr>
<tr>
<td></td>
<td>2,201</td>
</tr>
</tbody>
</table>
CTAG Student V. Comparison Group - GPA

CTAG GPA = 2.76
Control GPA = 2.50
CTAG Student V. Comparison Group: Accumulation of Credit Hours

<table>
<thead>
<tr>
<th>Threshold</th>
<th>CTAG Students</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Passed Threshold</td>
<td>Students</td>
<td>Percent</td>
</tr>
<tr>
<td>12 Hours</td>
<td>No</td>
<td>112</td>
<td>42.26%</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>153</td>
<td>57.54%</td>
</tr>
<tr>
<td>24 Hours</td>
<td>No</td>
<td>181</td>
<td>68.30%</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>84</td>
<td>31.70%</td>
</tr>
<tr>
<td>36 Hours</td>
<td>No</td>
<td>238</td>
<td>89.81%</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>27</td>
<td>10.19%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Threshold</th>
<th>Control Students</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Passed Threshold</td>
<td>Students</td>
<td>Percent</td>
</tr>
<tr>
<td>12 Hours</td>
<td>No</td>
<td>98</td>
<td>36.98%</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>167</td>
<td>63.02%</td>
</tr>
<tr>
<td>24 Hours</td>
<td>No</td>
<td>154</td>
<td>58.11%</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>111</td>
<td>41.89%</td>
</tr>
<tr>
<td>36 Hours</td>
<td>No</td>
<td>220</td>
<td>83.02%</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>45</td>
<td>16.98%</td>
</tr>
</tbody>
</table>
CTAG Student V. Comparison Group: College Readiness (Remediation Needs)

<table>
<thead>
<tr>
<th>Group</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4 or more</th>
<th>no placement</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTAG</td>
<td>29</td>
<td>137</td>
<td>28</td>
<td>36</td>
<td>18</td>
<td>12</td>
</tr>
<tr>
<td>Control</td>
<td>7</td>
<td>66</td>
<td>42</td>
<td>26</td>
<td>74</td>
<td>50</td>
</tr>
</tbody>
</table>
Results and Key Findings (CTAG earners vs. comparison group)

- CTAG students tended to have a higher first semester GPA
- CTAG students come to Sinclair more ready for college level coursework
- CTAG students were much more likely to maintain satisfactory academic progress
- CTAG students completed credit hour thresholds (12/24/36 hours) more slowly
- Subsequent enrollment patterns, second semester GPA, and rates of credential attainment were not markedly different among CTAG students and the comparison group.
Institution: The Ohio State University

- The Ohio State University, Columbus, Ohio
  - Enrollment (Autumn 2015): 45,289 (Columbus Campus) and 6,521 (Regional Campuses and ATI)
  - Large/Urban/Multi-Campus/Public Research Institution
  - Regional Campuses: Mansfield, Marion, Newark, and Wooster (ATI)
Purpose of the Study:

This study was conducted to determine the number of career-technical students receiving transfer credit at The Ohio State University (OSU) for coursework taken at an Ohio public secondary or adult career-technical institution. Researchers also investigated the type of credit awarded, and investigate best practices going forward.
Results: The Ohio State University

• About our CTAG students:
  ▪ 222 total CTAG credits were awarded to 66 students between 2013 and 2015 for an average of 3.31 credits per student.
  ▪ 2013, 2014, 2015 Cohorts: Of those only 2 students have graduate so far, both this past spring 2016 term

<table>
<thead>
<tr>
<th>Student Cohorts (HC)</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>21</td>
<td>21</td>
<td>24</td>
<td>66</td>
</tr>
</tbody>
</table>

CTAN Popularity:
CTIT – Information Technology
CTED – Education (Introduction to Education)

However:
The Most Popular Major of CTAN Students:
Engineering
Results Continued: The Ohio State University

2013-2015 Cohorts Students by Campus

Top 5 CTAG Feeder Institutions 2013-2015
## Results: CTAN Student Cohorts Average GPA

<table>
<thead>
<tr>
<th>COHORTS</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Students</td>
<td>21</td>
<td>21</td>
<td>24</td>
<td>66</td>
</tr>
<tr>
<td>Combined/Averaged GPA</td>
<td>2.7</td>
<td>3.07</td>
<td>3.02</td>
<td></td>
</tr>
</tbody>
</table>

Note: 5 students throughout the three cohorts dropped out
Results, Key Findings, and Future Research

• Future research might provide comparison of cohorts against native, first time students.
• Extraction of data was labor intensive.
• OSU Process Improvements:
  • Set up a “CTAG” student group in our student system
  • Screen appropriate transcripts using specific information
  • Career-Technical Transcripts will now route directly to the Imaging Center and will have a uniform tag of “CTAG.”
  • Career-Technical transcripts will now flow through OnBase, the University’s document imaging system. This process will give us consistency when querying documents if necessary.
• The Student Group in SIS comment section will capture feeder HS
Institution: Wright State University

- Wright State University, Dayton, Ohio
  - Fall 2015 Enrollment: 18,059 (Dayton and Lake Campuses)
  - Undergraduate Enrollment: 13,710
  - 6 Year Graduation Rate – 2007 Cohort: 43%
  - 3 Year Graduate Rate - 2011 Cohort: 15%
Research Question: What is the overall success of students who transfer career-technical credit to WSU?

- Quantitative analysis of academic success
- Qualitative, open-ended interviews
  - 24 FAS students
  - 4 Introduction to Education students
  - 3 high school/career technical center counselors
Results: Career-Technical Credit at WSU

- 15 CTAG courses
- 3 Bilateral agreement courses, all in Food & Agricultural Science (FAS)
- From AU 2010 through AU 2016:
  - 76 students
  - 331 credit hours
  - FAS – 32 students (42%)
  - Unknown – 25 students (33%)
  - Introduction to Education – 14 students (18%)
  - Medical Terminology – 5 students (7%)
Results: Academic Outcomes

- Increase in career technical credit awarded

- Between au2010 and au2015
  - 98% (56/57 students) were awarded credit
  - 91% (51/56 students) attended at least one term at WSU
Results: Academic Outcomes Cont.

- The average GPA after their first semester at WSU (n=51) was 2.87.
- The average cumulative GPA after their second semester at WSU (n=46) was 2.90.
- The average cumulative GPA as of SP 2016 (n=51) was 2.82.
- The average number of years enrolled as of SP 2016 (n=51) was 1.65 years.
- The average number of credits earned at WSU as of SP 2016 (n=51) was 43.20 semester hours.
- The number of students receiving a degree from WSU as of SP 2016 was 12/51 (24%); all but 1 were Associates degrees.
Results, Key Findings, and Future Research

- Assertive advising for FAS students
- Educate more high school/CTE counselors of the process
- Submit more CTAG courses (WSU)
- Connect with students who receive the credit
- Follow-up with students and counselors
- Create a cohort group for support

A Lasting Sentiment of the Qualitative Interviews:
“Career tech course was a good way to know if this was a good major for me.”
Institution: Marion Technical College

- Marion Technical College, Central Ohio
  - Enrollment average: 2,400 – 2,700
  - Rural/Small
  - Serving: Marion, Morrow, and Wyandot counties
  - Degree completion rate: 14%

- Study Research Questions
  - How are CTAG students performing?
  - How aware are our frontline staff on articulation?
Results: Marion Technical College

- **About our CTAG credit earning students:**
  - FY13-FY16 - 187,411 native credits earned by students, additional 60,478 alternative credits, of those 498 credits (28%) were CTAG credits.
  - 18 students were identified for potential inclusion in the study
    - Earned articulated credit in an approved CTAN
    - Secondary student
## Results: HS Enrollment During the Cohort Year and CTAN Approval Cycle AND Number or Articulated Credits Awarded

<table>
<thead>
<tr>
<th>CTAG /Technology Approved at MTC</th>
<th>Enrollment in CTAG-related Program at MTC Between Fall 2012-Spring 2016 who are graduates of high school between the years 2010-2015</th>
<th>Number of Students Receiving ANY Articulated Credit Fall 2012-Spring 2016 (STUDY Participants, N=18)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criminal Justice - Spring 2015</td>
<td>3</td>
<td>1</td>
<td>Credit earned prior to Criminal Justice CTAN approval through a local articulation agreement</td>
</tr>
<tr>
<td>Engineering* – Spring 2013/Autumn 2012</td>
<td>109</td>
<td>9</td>
<td>Credit earned through local articulation; should have been CTAN. Earned early in the CTAN process (Fall 2012); no verification forms</td>
</tr>
<tr>
<td>Information Technology - Autumn 2012</td>
<td>38</td>
<td>4</td>
<td>2 Students were selected; had CTAN verification forms. 2 Students earned credits through local articulation agreement; no verification form</td>
</tr>
<tr>
<td>Nursing* – Autumn 2012</td>
<td>256</td>
<td>4</td>
<td>1 student earned credit through articulation with Hondros College 1 student earned credit through articulation with Tri-Rivers 2 students earned credit through LPN</td>
</tr>
</tbody>
</table>

*Only 3 CTE-HS have full or provisional PN Board approved program in the State of Ohio (MidEast Career Center, Zanesville Campus HS-Full & Willoughby – Eastlake HS Division – Prov; Wayne County Smithville, Ohio - FULL) [http://www.nursing.ohio.gov/PDFS/Education/PN_Program_List.pdf](http://www.nursing.ohio.gov/PDFS/Education/PN_Program_List.pdf)*
Results: Student Outcomes and Interviews

• 2 of 18 received CTAN credit. One (1) additional earned credit but was excluded from the study because the student was dropped for non-payment prior to completing MTC coursework.

• While the numbers are low, both CTAN earners graduated with an Associate Degree within 2 years of HS graduation (100%).

• 38% of all other articulation types graduated during the same time period (numbers are too low to make comparisons).

• GPAs 2.91 and 3.29 respectively

• Both felt they were well-prepared for subsequent course work, both earned a “B” in the next course in the sequence of course, were CTAN credit had been awarded for the first course on the plan of study.
Results: Staff Interview “How aware are our frontline staff on articulation?”

• 21 staff members interviewed

Q1: What are CTAGs

<table>
<thead>
<tr>
<th></th>
<th>Admission</th>
<th>Fin Aid</th>
<th>Registrar</th>
<th>Academic</th>
<th>1st Yr. Adv.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knows</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Not Know</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Results Continued: Staff Interview “How aware are our frontline staff on articulation?”

Q2: Have you ever had a discussion with a student about CTAGs?

<table>
<thead>
<tr>
<th></th>
<th>Admission</th>
<th>Fin Aid</th>
<th>Registrar</th>
<th>Academic</th>
<th>1st Yr. Adv.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>No</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Q3: Have you ever had a discussion with a MTC employee about CTAGs?

<table>
<thead>
<tr>
<th></th>
<th>Admission</th>
<th>Fin Aid</th>
<th>Registrar</th>
<th>Academic</th>
<th>1st Yr. Adv.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>No</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>
Results Continued: Staff Interview “How aware are our frontline staff on articulation?”

Q4: Have you ever had a discussion with a secondary or career center faculty about CTAGs?

<table>
<thead>
<tr>
<th></th>
<th>Admission</th>
<th>Fin Aid</th>
<th>Registrar</th>
<th>Academic</th>
<th>1st Yr. Adv.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>2</td>
<td></td>
<td>4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

Q5: Have you ever directly or indirectly received communication from ODHE about CTAGs?

<table>
<thead>
<tr>
<th></th>
<th>Admission</th>
<th>Fin Aid</th>
<th>Registrar</th>
<th>Academic</th>
<th>1st Yr. Adv.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>6</td>
</tr>
</tbody>
</table>
Results, Key Findings, and Future Research

• Communicating and awarding CTAN credits should be simplified
• Increasing awareness and internal communication about CTAGs is necessary
• Extracting the data was cumbersome
  – Updated process for handling CTAN Verification form
  – Added a CTAG tracking code for articulated courses
• Needing state leadership in tracking students who qualify for and earn all types of articulated credit
• Participating enabled MTC to improve its understanding and processes
Institution: Cuyahoga Community College

- Cuyahoga Community College, Northeast Ohio
  - Enrollment: 55,000 credit and non-credit students annually
  - Urban/Multi-Campus/Large
  - Serving: Cuyahoga County and surrounding communities
  - Degree completion rate: 9.3%

- Study Research Questions
  - Since May 2012 how many students have been awarded CTAG credit?
  - Which Career Technical schools are the main feeder schools?
  - What were the CTAG students’ first and second term GPAs?
  - How many CTAG students have completed a degree or certificate?
  - Which degrees/certificates were most frequently awarded to CTAG students?
Results: Cuyahoga Community College

- **About our CTAG credit earning students:**
  - 109 students have earned CTAG credit since May 2012
  - 1,205 credits have been awarded across 15 subject areas
  - Top three feeder schools - Parma City Schools (27%), Polaris Career Center (20%), Cuyahoga Valley Career Center (20%)

- **Results and key findings:**
  - 84% of CTAG awardees enrolled at the college
  - 72% enrolled in a major related to the CTAG subject area
  - Average GPAs after CTAG award
    - 1\textsuperscript{st} Term GPA 2.70 (Institutional Average 2.40)
    - 2\textsuperscript{nd} Term GPA 2.93 (Institutional Average 2.51)
  - 26% of CTAG awardees completed one or more degrees/certificates (Institutional grad rate 9.3%)
Results Continued: Cuyahoga Community College

Top Performing Degrees and Certificates Awarded:

- 43% - AAS Nursing
- 19% - Hospitality Management related degrees & certificates
- 10% - AAS Electrical / Electronic Engineering Tech (Computer Networking Hardware)
- 7% - Associate of Arts
Results Continued: Cuyahoga Community College

- Limitations:
  - Within the past year, 42 additional students were not awarded due to one or more reasons:
    - Students had not applied to the college
    - High school transcript had not been submitted
    - Required certificates of completion had not been included
    - Verification form was incomplete or incorrectly completed
- Lessons Learned:
  - Enhanced communication procedures with our partner Career-Technical Schools and students
  - Improved outreach to students
    - CTAG inclusion in publication, “Ways You Can Earn College Credit Prior to Attending”
Example of The Publication

CAREER-TECHNICAL CREDIT TRANSFER

CAREER-TECHNICAL ASSURANCE GUIDES - OHIO REVISED CODE 333.162

CTAG=Career Technical Assurance Guide (pathway/degree), C2=Career Technical Credit Transfer (process), C2AN=Career Technical Assurance Number (course number)

The Ohio Department of Higher Education (ODHE) and the Ohio Department of Education (ODE) collaborated to ensure students at secondary or adult career-technical institutions could transfer agreed-upon technical courses to Ohio's public two- and four-year institutions that offer curriculum aligned to a CTAG (Non-credit to Credit).

TO RECEIVE CREDIT AT TRI-C, A STUDENT MUST:

- Apply for admission and enroll at Tri-C.
- Successfully complete the program/courses and all assessments, as required.
- Fill out Part I of the Verification Form and submit it to the career-technical institution from which they graduated (verification form can be found at www.ohiohighered.org/transfer/c2/how-to-access-c2-credit).
- Have the career-technical institution complete Parts II and III and send the completed form to Cuyahoga Community College Office of the Registrar PO Box 5995 Cleveland, OH 44101.
- Meet with the Tri-C counselor and bring all relevant certificates, licenses or credentials with them to this meeting.

Students cannot hand carry this document to the College in some cases the career-technical institution or student must provide end-of-program assessment scores (e.g., Intro to Education Portfolio Score, IT exams or OECTA/WeDo2.0).

For more information, contact Becky Barnes at 216-987-3028 or becky.barnes@tric.edu.
Institution: Lorain County Community College

• Lorain County Community College, Northeast Ohio
  – Enrollment average: 10,000 – 12,000
  – Rural/Suburban
  – Serving: Lorain and Adjacent Counties
  – Degree completion rate: 14%

• Study Research Questions
  – How many students earned CTAG credits?
  – How CTAG credit students performed compared to general population cohort and other non-traditional credit students?
Results: Lorain County Community College

- About our CTAG credit earning students:
  - 218 students earned 1,394 credits between academic year 2011-2012 to 2014-2015
  - 86% enrolled and completed LCCC courses
  - 18 students have not completed processes to earn credits

- Results and key findings:
  - 40% declared same major as CTAG area
  - 55% completed at least one credential
  - 71% developmental education placement
  - Higher term-to-term and year-to-year persistency rates
  - First and Second term GPA was lower than the general population cohort
Results Continued: Lorain County Community College

Credential Completion Rate

- CTAG
- General Population Cohort
- Adult Articulation Credits
- Exam Credits
- Military Credits
- Prior Learning Credits
Results Continued: Lorain County Community College

One Year DevEd Completion Rate

<table>
<thead>
<tr>
<th>Category</th>
<th>Referred</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTAG</td>
<td>71%</td>
<td>7%</td>
</tr>
<tr>
<td>General Population Cohort</td>
<td>58%</td>
<td>5%</td>
</tr>
<tr>
<td>Adult Articulation Credits</td>
<td>80%</td>
<td>0%</td>
</tr>
<tr>
<td>Exam Credits</td>
<td>35%</td>
<td>17%</td>
</tr>
<tr>
<td>Military Credits</td>
<td>64%</td>
<td>8%</td>
</tr>
<tr>
<td>Prior Learning Credits</td>
<td>49%</td>
<td>5%</td>
</tr>
<tr>
<td>Success Measure</td>
<td>General Population</td>
<td>CTAG Credit Earning Students</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>--------------------</td>
<td>------------------------------</td>
</tr>
<tr>
<td>Avg. First Semester Credit Earned</td>
<td>5.4</td>
<td>6.8</td>
</tr>
<tr>
<td>% Persisting Term to Term</td>
<td>61%</td>
<td>84%</td>
</tr>
<tr>
<td>%Persisting Year to Year</td>
<td>46%</td>
<td>58%</td>
</tr>
<tr>
<td>Completion Rate</td>
<td>14%</td>
<td>55%</td>
</tr>
<tr>
<td>%Placed in DevEd</td>
<td>58%</td>
<td>71%</td>
</tr>
<tr>
<td>1st Year DevEd Completion Rate</td>
<td>5%</td>
<td>7%</td>
</tr>
<tr>
<td>Avg. First Semester GPA</td>
<td>2.74</td>
<td>2.09</td>
</tr>
<tr>
<td>%Successfully Completing Subs Major Course</td>
<td>90%</td>
<td>81%</td>
</tr>
<tr>
<td>Transfer Out Rate</td>
<td>45%</td>
<td>0%</td>
</tr>
<tr>
<td>Avg. Terms to Reach 12 Credit Hours</td>
<td>2.2</td>
<td>2.0</td>
</tr>
<tr>
<td>Avg. Terms to Reach 24 Credit Hours</td>
<td>3.6</td>
<td>3.3</td>
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</table>
Summary

- CTE articulation students tended to persist at greater rates among multiple campus studies
- Results are mixed in term of GPA comparison groups, but still positive
- CTAG articulation use is on the rise at most campuses, with FY16 yielding more numbers of students

Best Practices

- Increase college going rates of CTE students
- Improve student understanding and advising on CTAG process
- Data: tracking/disaggregated alternative credit tables = improved institutional analysis
Next Steps FY 17 - ODHE

- Additional CTAN Releases
- Video Modules to Communicate to Administrators and Students on the CTAG process.
- Investigation into data and transcription of articulated credit versus other types of credit
Where Can I Find CTAGs that Are Available to the State

- Home » Educators » Credit Transfer » Career-Technical Credit Transfer (CT)²

- Information included at this site:
  - All CTAG Documents
  - All Alignment Guides
  - Date of Release
  - Affirmation Form Directly Linked Below (Notes as Needed)
CTAG Chart

- Home » Educators » Credit Transfer » Career-Technical Credit Transfer (CT)^2 » SCTAI

New SCTAI CTAGs

<table>
<thead>
<tr>
<th>Technical Area</th>
<th>CTAN</th>
<th>ODE Course #</th>
<th>Review Requirements</th>
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<tbody>
<tr>
<td>Air Transportation</td>
<td>CTAR001-Air Transportation</td>
<td>177020</td>
<td>Full Review</td>
</tr>
<tr>
<td></td>
<td>CTAR002-Aircraft Ground Operations</td>
<td>177014</td>
<td>Full Review</td>
</tr>
<tr>
<td></td>
<td>CTAR003-Aviation Meteorology</td>
<td>177019</td>
<td>Certificate of Affirmation Form</td>
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<tr>
<td></td>
<td>CTAR004-Introduction to Aviation</td>
<td>177013</td>
<td>Full Review</td>
</tr>
</tbody>
</table>

SECONDARY Submission Model

1. Program Accreditation or Charter
   - Programs are deemed equivalent through industry/district criteria in order to demonstrate a minimum of 90-120 credits
   - Institutions or districts have been fully reviewed and approved

2. Full Course Review by Panel/Program Approval
   - Students are deemed equivalent through review of a narrative description of a course level and its course description
   - Full course description

3. Upfront Course Alignment ODE or ODHE/Affirmation
   - Institutions are deemed equivalent through a state-to-state alignment
   - Individuals are deemed equivalent through a state-to-state alignment
   - Individuals are deemed equivalent through a state-to-state alignment
   - Institutions are deemed equivalent through a state-to-state alignment

Ohio Department of Higher Education

OhioHigherEd.org
Starting With The End in Mind

Transfer Career-Technical Credit

The Transfer to Degree Guarantee helps career and technical students transfer credits to community college or four year degree programs.

Visit these pages to learn how your credits can transfer:

- College and University Credit
- High School Advanced Placement Credit
- Military Credit
- Career-Technical Credit

Use our simple four-step process to see if your credits transfer. In order to view the applicable credit hours for your Career-Technical courses, check out the "Just the Facts" PDF available on this page.

1. What was your program?
   - Select All-

2. What school district did you attend?
   - Select All-
   - Unsure of your school district?

3. When did you take the program?
   - Select All-

4. What college will you attend?
   - Select All-

SEARCH
Where to Find Help

Jamilah Tucker, Director (CT)^2
614-446-0543
jjones@highered.ohio.gov

(CT)^2 Help Desk
614.752.9474
For issues related to submissions, CEMS, and website.
Questions