## TN

## Department of Education

## Institute for <br> CTE Educators

## STEM Data Session

## Number of students who concentrate in CTE continues to increase

## $■$ 2012-13 ■ 2013-14 $\quad$ 2014-15 ■ 2015-16


TN

Students who concentrate in CTE

## Grade when students in the 2012 freshman cohort attained concentrator status



ConcentrationYear
9th grade
10th grade
11th grade
12th grade

## Program of Study offerings, 2013-14 through 2015-16



## TN

# Students who Concentrate in CTE Programs of Study 

## District breakdown of concentrator types for 2012 cohort

## 100 <br> Career Cluster Program of Study



## Concentrator Trends

|  | 14-15 PoS | 14-15 CC | \% PoS | 15-16 PoS | 15-16 CC | \% PoS | Change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AG | 2863 | 2471 | 53.7\% | 3455 | 1779 | 66.0\% | 12.3\% |
| CONS | 2309 | 1335 | 63.4\% | 2408 | 490 | 83.1\% | 19.7\% |
| ARTS | 1246 | 932 | 57.2\% | 1797 | 439 | 80.4\% | 23.2\% |
| BUS | 1234 | 1745 | 41.4\% | 1410 | 1207 | 53.9\% | 12.5\% |
| EDU | 204 | 145 | 58.5\% | 295 | 101 | 74.5\% | 16.0\% |
| FIN | 555 | 368 | 60.1\% | 372 | 214 | 63.5\% | 3.4\% |
| HS | 5389 | 2699 | 66.6\% | 6302 | 1703 | 78.7\% | 12.1\% |
| HOSP | 1225 | 362 | 77.2\% | 1442 | 127 | 91.9\% | 14.7\% |
| HUSV | 2921 | 3370 | 46.4\% | 3685 | 1768 | 67.6\% | 21.1\% |
| IT | 848 | 622 | 57.7\% | 972 | 246 | 79.8\% | 22.1\% |
| LAW | 593 | 1428 | 29.3\% | 1235 | 923 | 57.2\% | 27.9\% |
| MANU | 314 | 231 | 57.6\% | 1199 | 343 | 77.8\% | 20.1\% |
| MKT | 545 | 1046 | 34.3\% | 986 | 802 | 55.1\% | 20.9\% |
| STEM | 993 | 501 | 66.5\% | 1314 | 240 | 84.6\% | 18.1\% |
| TRANS | 1823 | 596 | 75.4\% | 2172 | 252 | 89.6\% | 14.2\% |

## Percentage of CTE Concentrators who concentrated in a Program of Study

Transportation, Distribution \& Logistics
Hospitality \& Tourism
Education \& Training Manufacturing Science, Technology, Engineering, \& Mathematics Architecture \& Construction

Health/Science/Tech Arts, Audio/Visual Technology, \& Communications Information Technology

Finance
Agriculture, Food, \& Natural Resources Human Services

Marketing
Law, Public Safety, Corrections \& Security Business Management \& Administration

| $92.1 \%$ |
| :---: |
| $90 \%$ |
| $88.8 \%$ |
| $85.1 \%$ |
| $83.6 \%$ |
| $81.4 \%$ |
| $79.3 \%$ |
| $76.5 \%$ |
| $73.9 \%$ |
| $72.6 \%$ |
| $67.8 \%$ |
| $67.3 \%$ |
| $55.4 \%$ |
| $54.9 \%$ |
| $49.5 \%$ |

## CTE Concentrators in STEM



## Definition of a Student Who Concentrates in CTE

- Beginning with the 2017-18 School Year:
- A student who concentrates in CTE will complete three or more courses within a program of study


## 2016 Graduating Class:

 ACT Achievement
## Students who concentrated in CTE and who met ACT benchmarks

■ 2012-13 ■ 2013-14 ■ 2014-15 - 2015-16

(Benchmarks: 50\% chance of obtaining a B or higher or about a $75 \%$ chance of obtaining a C or higher)

## ACT overview for graduates in the 2012 cohort

## All Students <br> CTE

Concentrators
Average ACT
19.8
19.0

## Percent 21 or above

Percent below 19
39.5\%
45.4\%

## Distribution of ACT scores for 2012 cohort



## Distribution of ACT scores for 2012 cohort by economic disadvantage



## Distribution of ACT scores for 2012 cohort by economic disadvantage and concentrator status



## ACT by Career Cluster for 2012 cohort

## Career Cluster

Agriculture, Food, \& Natural Resources
Architecture \&
Construction
Arts, Audio/Visual
Technology, \&
Communications
Business Management \&
Administration
Education \& Training
Finance
Health/Science/Tech
Hospitality \& Tourism

Average Percent 21 ACT or above
$18.3 \quad 28.6 \% \quad 64 \% \quad 4505$
$17.7 \quad 25 \%$
$19.4 \quad 38.3 \% \quad 54.1 \% \quad 1845$

| 19.7 | $41.3 \%$ | $51.9 \%$ | 2418 |
| :---: | :---: | :---: | :---: |
| 18.8 | $33.7 \%$ | $59.9 \%$ | 359 |
| 20.8 | $50.5 \%$ | $42.5 \%$ | 664 |
| 20.4 | $46.2 \%$ | $45.1 \%$ | 7494 |
| 17.8 | $22.6 \%$ | $70.3 \%$ | 1318 |

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## ACT by Career Cluster for 2012 cohort

| Career Cluster | Average <br> ACT | Percent 21 <br> or above | Percent <br> below 19 | Students <br> tested |
| :--- | :---: | :---: | :---: | :---: |
| Human Services | 17.6 | $22.1 \%$ | $71.5 \%$ | 4947 |
| Information Technology | 20 | $43.8 \%$ | $48.8 \%$ | 1332 |
| Law, Public Safety, | 19 | $33.7 \%$ | $56.8 \%$ | 1800 |
| Corrections \& Security | 19.4 | $22.6 \%$ | $72.7 \%$ | 954 |
| Manufacturing | 17.4 | $43.7 \%$ | $47.9 \%$ | 1635 |
| Marketing | 20.1 |  |  |  |
| Science, Technology, <br>  <br> Mathematics | 21.2 | $51.2 \%$ | $41.9 \%$ | 1528 |
| Transportation, <br> Distribution \& Logistics | 16.3 | $13.5 \%$ | $81.8 \%$ | 1820 |

TN

## Seamless

 PostsecondaryEnrollment

## Postsecondary enrollment by CTE concentrator status (seamless enrollment within 16 months of graduation)

Non-CTE concentrator


CTE concentrator

|  |  |  |  |
| :---: | :---: | :---: | :---: |
| $38.7 \%$ | $37.5 \%$ | $35.1 \%$ |  |
| $3.9 \%$ | $4.1 \%$ | $4.4 \%$ | Institution Type <br> Did not enroll <br> Technical College <br> Community College |
| $25 \%$ | $26.4 \%$ | $32 \%$ | Four-year University |
| $32.3 \%$ | $31.9 \%$ | $28.5 \%$ |  |
| 2009 | 2010 | 2011 |  |

## Postsecondary enrollment for 2011 cohort by Career Cluster



## Postsecondary enrollment for STEM

## Postsecondary enrollment for STEM



## Entrance requirements vs. average ACT

## UT: 24

Hope: 21
MTSU: 22 TN Tech: 21


## 71,403 Students <br> 2008 Cohort of High School Freshmen

Students who graduated from high school and entered the workforce and earn an average salary of \$9,161 annually, far below the poverty line.

Did not graduate from high school

Graduated from high school only

Enrolled in postsecondary


## Questions and Discussion



Department of
Education

Institute for
CTE Educators

Districts and schools in Tennessee will exemplify excellence and equity such that all students are equipped with the knowledge and skills to successfully embark on their chosen path in life.

Excellence | Optimism | Judgment | Courage | Teamwork 27

