JUMPSTARTS: HIGH SCHOOL PATHWAYS THAT PREDICT POSTSECONDARY SUCCESS
Today's E3 Alliance Presenters

Susan Dawson
President & Executive Director

Rodrigo Lopez
Data Analyst

Kyle Seipp
Postsecondary Success Coordinator

Harrison Hopp
Research Analyst

Dr. Andrea Jacks
Research Director
AGENDA

• Introduction to E3 Alliance
• Pathways to Prosperity Introduction
• Pathways to Prosperity Analysis
  • The Cohort
  • The Achievements
  • The Pathways
Transforming education systems through data and collaboration so all students succeed.

E3 serves as the Central Texas regional P-16 Council
LEVERAGING DATA TO ACTION

DATA → KNOWLEDGE → ACTION
WHY SHOULD WE CARE?

12%

Young adults without a certification, credential or degree within 6 years of finishing high school have just a 12% chance of earning a living wage.
Pathways to Prosperity

Jumpstarts: Central Texas Class of 2020 Analysis
Does taking Dual Credit / Career and Technical Education (CTE) courses, receiving Industry-Based Certifications (IBC), and/or participating in Early College High School make a high school graduate more likely to:

- Enroll in postsecondary education
- Not enroll, and make $15/hr or more
- Not enroll, and make less than $15/hr
THE PROCESS
THE COHORT

• Central Texas High School Graduating Class of 2020
  • Attended a Texas HS all four years
  • Graduated on time from a CTX HS
• 19,752 Students
  • 43% Low Income, 50% Female, 8% SPED, 8% EL
  • 6% Asian, 7% Black, 43% Hispanic, 40% White
THE PROCESS
THE ACHIEVEMENTS

• Of the 19,752 CTX High School Graduates from 2020:
  • Over 17,000 students (88%) took at least one CTE course
  • Over 4,900 students (25%) took at least one DC course
  • Over 2,000 students (10%) received at least one IBC
  • Over 700 students (4%) participated in an ECHS program
IMPORTANT DUAL CREDIT POLICY CHANGES

Sec. 28.009, 2006

House Bill 505, 2014
OTHER POLICY IMPLICATIONS

• Cost of dual credit courses
  • Cost of Community College dual credit courses taken in high school varies significantly by college/geography across the state
  • Even in ACC service area, students in taxing district pay only cost of textbooks; students in service area but outside taxing district must pay both textbook and tuition costs
DUAL CREDIT DEFINITIONS

Dual Credit
DUAL CREDIT ENGAGEMENT INCREASING OVER TIME

High School Graduate Dual Credit Engagement Over Time

- Texas ($N_{avg} = 270,675$)
- Central Texas ($N_{avg} = 17,372$)

Percentage of High School Graduates Taking 1+ Hours of Dual Credit

- 2013: 15%
- 2014: 21%
- 2015: 21%
- 2016: 25%
- 2017: 28%
- 2018: 29%
- 2019: 30%
- 2020: 30%

Source: E3 Alliance analysis of PEIMS and THECB data at the UT Austin Education Research Center

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STUDENTS EARNING $\geq 13$ CREDIT HOURS STILL SMALL BUT GROWING

Source: E3 Alliance analysis of PEIMS and THECB data at the UT Austin Education Research Center

Dual Credit Hours Earned Over Time, Central Texas High School Graduates

- 2013: 68%
- 2014: 21%
- 2015:
- 2016:
- 2017:
- 2018:
- 2019:
- 2020:

- >18 Credit Hours ($N_{2020}=670$)
- 13-18 Credit Hours ($N_{2020}=712$)
- 7-12 Credit Hours ($N_{2020}=1,202$)
- 1-6 Credit Hours ($N_{2020}=2,381$)

Source: E3 Alliance analysis of PEIMS and THECB data at the UT Austin Education Research Center

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DISPARITIES BY RACE/ETHNICITY ARE GROWING

Source: E3 Alliance analysis of PEIMS and THECB data at the UT Austin Education Research Center

Dual Credit Engagement Over Time by Race, Central Texas High School Graduates

Percentage of High School Graduates

<table>
<thead>
<tr>
<th>Race</th>
<th>2013</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>89%</td>
<td>75%</td>
</tr>
<tr>
<td>Black</td>
<td>90%</td>
<td>83%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>89%</td>
<td>78%</td>
</tr>
<tr>
<td>White</td>
<td>82%</td>
<td>70%</td>
</tr>
</tbody>
</table>

1+ Hours of Dual Credit  No Dual Credit

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Thinking Time

Do the trends in dual credit engagement align with your experience or understanding?
CAREER AND TECHNICAL EDUCATION (CTE) DEFINITIONS

• Career and Technical Education (CTE) Cluster
  • Fourteen TEA-Defined groupings of CTE courses

• CTE Levels of Engagement (E3 Alliance definition)
  • Non-CTE: Student completed 0-2 semesters in CTE
  • CTE Explorer: Student completed 3-4 semesters in CTE
  • CTE Concentrator: Student completed >=5 semesters in CTE, but <5 semesters in any given cluster
  • Occupational Concentrator: Student completed >=5 semesters in a single cluster
COURSES IN ARTS, A/V TECH, & COMMUNICATION MOST FREQUENTLY TAKEN BY STUDENTS

Number of Students by CTE Cluster, 2020 Central Texas High School Graduates

* Masked due to low count (fewer than 5 students had this outcome)
Source: E3 Alliance analysis of PEIMS data at the UT Austin Education Research Center
LARGEST CHANGE OVER TIME OCCURS IN THE TWO CONCENTRATOR LEVELS

Source: E3 Alliance analysis of PEIMS data at the UT Austin Education Research Center

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EQUITY GAP IN HIGHEST TWO LEVELS OF ENGAGEMENT HAS CLOSED BETWEEN 2012 AND 2020

CTE Engagement Over Time by Income, Central Texas High School Graduates

- **Occupational Concentrator** (≥5 semesters in a single cluster)
- **CTE Concentrator** (≥5 semesters, but <5 semesters in any given cluster)
- **CTE Explorer** (3-4 semesters)
- **Non-CTE** (0-2 semesters)

Source: E3 Alliance analysis of PEIMS data at the UT Austin Education Research Center

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DATA TO ACTION
WHAT ARE THE CONNECTIONS?
## THE ACHIEVEMENTS CORE DC SUBJECTS

<table>
<thead>
<tr>
<th>Subject</th>
<th>Students</th>
<th>Low Income</th>
<th>Female</th>
<th>Asian</th>
<th>Black</th>
<th>Hispanic</th>
<th>White</th>
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<tbody>
<tr>
<td>COHORT</td>
<td>19,752</td>
<td>43%</td>
<td>50%</td>
<td>6%</td>
<td>7%</td>
<td>43%</td>
<td>40%</td>
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<tr>
<td>ANY DC</td>
<td>4,999</td>
<td>32%</td>
<td>58%</td>
<td>6%</td>
<td>5%</td>
<td>37%</td>
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<tr>
<td>ANY CORE DC</td>
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<td>5%</td>
<td>5%</td>
<td>38%</td>
<td>49%</td>
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<tr>
<td>Fine Arts</td>
<td>333</td>
<td>60%</td>
<td>61%</td>
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<tr>
<td>Spanish / Other</td>
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<td>4%</td>
<td>7%</td>
<td>56%</td>
<td>30%</td>
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<tr>
<td>13+ Hours</td>
<td>2,066</td>
<td>33%</td>
<td>61%</td>
<td>5%</td>
<td>5%</td>
<td>37%</td>
<td>50%</td>
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</table>

- Disproportionately high representation
- Disproportionately low representation
## The Achievements

### Occupational Concentrator Clusters

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Students</th>
<th>Low Income</th>
<th>Female</th>
<th>Asian</th>
<th>Black</th>
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<tbody>
<tr>
<td>COHORT</td>
<td>19,752</td>
<td>43%</td>
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<td>6%</td>
<td>7%</td>
<td>43%</td>
<td>40%</td>
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<tr>
<td>Agriculture</td>
<td>1,072</td>
<td>42%</td>
<td>54%</td>
<td>1%</td>
<td>4%</td>
<td>36%</td>
<td>56%</td>
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<tr>
<td>Architecture &amp; Construction</td>
<td>22</td>
<td>59%</td>
<td>*</td>
<td>*</td>
<td>59%</td>
<td>36%</td>
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</tr>
<tr>
<td>Arts &amp; AV</td>
<td>973</td>
<td>43%</td>
<td>33%</td>
<td>6%</td>
<td>7%</td>
<td>43%</td>
<td>40%</td>
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<tr>
<td>Business</td>
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<td>8%</td>
<td>31%</td>
<td>50%</td>
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<tr>
<td>Education</td>
<td>254</td>
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<td>91%</td>
<td>*</td>
<td>8%</td>
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<td>35%</td>
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<td>Health Science</td>
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<tr>
<td>Hospitality</td>
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<td>Human Services</td>
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<tr>
<td>IT</td>
<td>88</td>
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<td>9%</td>
<td>45%</td>
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<tr>
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<tr>
<td>Manufacturing</td>
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<tr>
<td>Transportation</td>
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<td>5%</td>
<td>*</td>
<td>3%</td>
<td>71%</td>
<td>24%</td>
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* Masked due to small cell size (fewer than 5 students have this outcome)
## THE ACHIEVEMENTS

### IBC CLUSTERS

<table>
<thead>
<tr>
<th>CTE Cluster</th>
<th>Students</th>
<th>Low Income</th>
<th>Female</th>
<th>Asian</th>
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</tr>
<tr>
<td>ANY IBC</td>
<td>2,066</td>
<td>31%</td>
<td>44%</td>
<td>10%</td>
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<td>48%</td>
</tr>
<tr>
<td>Agriculture</td>
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<td>79%</td>
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<td>5%</td>
<td>44%</td>
<td>46%</td>
</tr>
<tr>
<td>Architecture &amp; Construction</td>
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<td>13%</td>
<td>*</td>
<td>6%</td>
<td>43%</td>
<td>46%</td>
</tr>
<tr>
<td>Arts &amp; AV</td>
<td>603</td>
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<td>26%</td>
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<tr>
<td>Business</td>
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<td>7%</td>
<td>27%</td>
<td>53%</td>
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<tr>
<td>Education</td>
<td>23 **</td>
<td>**</td>
<td>*</td>
<td>*</td>
<td>65%</td>
<td>26%</td>
<td></td>
</tr>
<tr>
<td>Health Science</td>
<td>333</td>
<td>27%</td>
<td>81%</td>
<td>19%</td>
<td>7%</td>
<td>32%</td>
<td>39%</td>
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<tr>
<td>Hospitality</td>
<td>82</td>
<td>48%</td>
<td>52%</td>
<td>*</td>
<td>7%</td>
<td>51%</td>
<td>39%</td>
</tr>
<tr>
<td>IT</td>
<td>9</td>
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<td>*</td>
<td>*</td>
<td>*</td>
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<tr>
<td>Manufacturing</td>
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<td>2%</td>
<td>33%</td>
<td>53%</td>
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<tr>
<td>Public Safety</td>
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<td>40%</td>
<td>*</td>
<td>*</td>
<td>58%</td>
<td>33%</td>
</tr>
<tr>
<td>Transportation</td>
<td>89</td>
<td>64%</td>
<td>7%</td>
<td>*</td>
<td>*</td>
<td>63%</td>
<td>33%</td>
</tr>
</tbody>
</table>

* Disproportionately high representation
** Disproportionately low representation

* Masked due to small cell size (fewer than 5 students have this outcome)
** Masked due to large cell size (all but 5 or fewer students have this outcome)
**** Masked in order to prevent imputation
Thinking Time

What do you think might be driving disproportionalities in these achievements?
THE PROCESS
THE PATHWAYS

Predictors for Postsecondary

Top “Yes or No” Predictors:

1. Certified Nurse Aide/Assistant IBC
2. Taking 13+ DC* Hours
3. Taking 7+ DC* Hours
4. Taking 1+ Core DC ELA Class
5. Taking 1+ Core DC Fine Arts Class

*Core DC exhibits even greater strength

CTE Cluster:
- Heath Science Occupational Concentrator (OC), STEM OC, Taking Any 5 CTE Classes, OC in Any Cluster, Education OC, Business OC

Dual Credit:
- 13+ Core DC Hours, 13+ DC Hours, 7+ Core DC Hours, 7+ DC Hours, Core ELA, Core Fine Arts, Core Social Studies, Core Science, Core Spanish/Other, Core Math

IBC Category:
- Health Science, Business, Manufacturing

Individual IBC:
- Certified Nurse Aide/Assistant, Clinical Medical Assistant, Autodesk Certified Professional, QuickBooks Certified User, Microsoft Office Specialist Excel Certiport, Microsoft Office Specialist Word Certiport, Adobe Certified Associate Photoshop Certiport

- Practicum in Health Science, Pharmacology, Pathophysiology, and Engineering Level 4 CTE/DC Courses
- Participating in an Early College High School Program
THE PATHWAYS

Predictors for Postsecondary

Top “+1” Predictors:
1. Taking Core DC Fine Arts Classes
2. Taking Core DC Math Classes
3. Taking Core DC Science Classes
4. Taking Core DC Spanish/Other Classes
5. Taking Core DC ELA Classes

CTE Cluster:
• Heath Science Occupational Concentrator (OC), STEM OC, Taking Any 5 CTE Classes, OC in Any Cluster, Education OC, Business OC

Dual Credit:
• 13+ Core DC Hours, 13+ DC Hours, 7+ Core DC Hours, 7+ DC Hours, Core ELA, Core Fine Arts, Core Social Studies, Core Science, Core Spanish/Other, Core Math

IBC Category:
• Health Science, Business, Manufacturing

Individual IBC:
• Certified Nurse Aide/Assistant, Clinical Medical Assistant, Autodesk Certified Professional, QuickBooks Certified User, Microsoft Office Specialist Excel Certiport, Microsoft Office Specialist Word Certiport, Adobe Certified Associate Photoshop Certiport

• Practicum in Health Science, Pharmacology, Pathophysiology, and Engineering Level 4 CTE/DC Courses
• Participating in an Early College High School Program
THE PATHWAYS

Protective factors from earning less than $15/hr

• Dual Credit: 13+ Core DC Hours, 13+ DC Hours, 7+ Core DC Hours, 7+ DC Hours, Core Fine Arts, Core Social Studies, Core ELA, Core Science, Core Math, Core Spanish/Other
• Participating in an Early College High School Program
• Taking 5+ Semesters of STEM CTE Courses
• Level 4 Practicum in Health Science CTE/DC Courses
• Level 4 Engineering CTE/DC Courses
THE PATHWAYS

Predictors for earning less than $15/hr

CTE Occupational Concentrator:
- Transportation, Hospitality

IBC Category:
- Transportation, Hospitality, Agriculture

Individual IBC:
- ServSafe Manager National Restaurant Association
DATA TO ACTION
PLEASE FILL OUT THIS SURVEY

Go to
www.menti.com

Enter the code
7453 7267
THANK YOU

Visit Data.E3Alliance.org
Send research questions to ajacks@E3Alliance.org

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