COLLEGE AND CAREER READINESS

Deep Dive: CareerResidency Youth Apprenticeship

November 2017
AGENDA

▪ Discuss the complexity of College and Career Readiness

▪ Review what we mean by “Redesigning the High School Experience”

▪ Explore CareerResidency Youth Apprenticeship Program Year 1 Pilot
  • Review strategy and lessons learned from pilot.
  • Learn from school leaders on how the apprenticeship pilot is being implemented in their schools.
  • Hear perspectives from student apprentices and participating business partners.
  • Discuss five-year vision and next steps for the program.
GRADUATION RATE TRAJECTORY TO 2020

Denver Plan 2020 Goal: By 2020, the four-year graduation rate for students who start with DPS in ninth grade will increase to 90%.

The ninth-grade cohort base includes:
- Students who entered DPS as ninth graders four years prior to their graduating AYG year
- Approximately 71-77% of the total AYG class

The ninth-grade cohort base excludes:
- Students who entered DPS in later grades (e.g. 10th grade)
- Students who were first-time ninth graders in other districts
- Students who transfer out of DPS
Denver Plan 2020 Goal: By 2020, we will double the number of students who graduate college- and career-ready, as measured by the increasing rigor of the state standard (remediation-free).

Benchmark for Advanced Placement test is currently set to a passing score of three. The Accuplacer math benchmark was adjusted to 61 in 2016-17.
Denver Plan 2020 Goal: By 2020, the graduation rate for African-American and Latino students will increase by 25%.
DPS believes students can be college AND career ready.

**Challenge 1:** How do we ensure that students entering high school who are off-track-to-graduate and/or are not proficient are supported to pursue any/all IKF-R competency menu options?

**Challenge 2:** How do we ensure equally rigorous menu options that result in viable opportunities for all graduates?

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**Strategy to increase on-time graduation and proficiency**

**GRIT multiple pathways strategy**
We are redesigning the high school experience by implementing *multiple, permeable pathways* to college and career readiness for all DPS students.

This requires a comprehensive strategy that:

- Meets the needs of all students in an equally rigorous manner, including new graduation requirements
- Emphasizes core subject competency
- Accelerates access to college courses and the acquisition of college knowledge
- Provides exposure to the world of work with viable pathways to career readiness.
DIPLOMA OF POSSIBILITY 2021
The Journey to College and Career Readiness

Foundations for Early Literacy → 3rd Grade PARCC Success → MS Math and Literacy PARCC Success

COURSEWORK + COMPETENCY + INDIVIDUAL CAREER AND ACADEMIC PLAN → College & Career Ready

The High School Experience

GOAL #3 Ready for College and Career
## DIPLOMA OF POSSIBILITY 2021
### New Graduation Requirements Competency Menu

<table>
<thead>
<tr>
<th>Competency Option</th>
<th>English Minimum Score</th>
<th>Math Minimum Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuplacer – college</td>
<td>95 (Sentence Skills)</td>
<td>61 (Elementary Algebra)</td>
</tr>
<tr>
<td>American College Testing (ACT) – college</td>
<td>18</td>
<td>19</td>
</tr>
<tr>
<td>ACT WorkKeys National Career Readiness Certificate – career</td>
<td>Bronze or higher</td>
<td>Bronze or higher</td>
</tr>
<tr>
<td>Advanced Placement (AP) – college</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Armed Services Vocational Aptitude Battery (ASVAB) – career</td>
<td>31 (composite)</td>
<td>31 (composite)</td>
</tr>
<tr>
<td>Concurrent Enrollment (CE) – college</td>
<td>C- or higher in eligible course</td>
<td>C- or higher in eligible course</td>
</tr>
<tr>
<td>District Capstone – college</td>
<td>District-approved</td>
<td>District-approved</td>
</tr>
<tr>
<td>Industry Certificate – career</td>
<td>District-approved</td>
<td>District-approved</td>
</tr>
<tr>
<td>International Baccalaureate (IB) – college</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Scholastic Aptitude Test (SAT) – college</td>
<td>470</td>
<td>500</td>
</tr>
<tr>
<td>Standards-based assessment – college</td>
<td>Statewide scoring criteria</td>
<td>Statewide scoring criteria</td>
</tr>
</tbody>
</table>
Large gaps exist between college-ready rates for students of color and their white peers.

College Ready Rate* for all 2016-2017 Graduates under new graduation requirements

- Overall: 50%
- White: 76%
- Asian: 71%
- Two or More Races: 64%
- Native Hawaiian: 60%
- Hispanic: 42%
- Black or African American: 37%
- American Indian: 18%

Includes all graduates in 2016-2017 (4 Year, 5 Year, 6 Year, etc.). These college ready rates cannot be compared directly to on-time graduation rates.
WORKSTREAMS TO ADDRESS THE CHALLENGES
Emerging work in the Division of Secondary Education

College and Career Readiness Programs
- Creating Early College high schools, P-Tech and Early College academy options to expand college and career programming to more students.
- Scaling the CareerConnect CareerResidency Youth Apprenticeship effort to include more student apprentices.

Curricular Alignment and College Readiness Prep:
- Accuplacer prep strategy.
- Secondary math 2020 plan.

Career Readiness Pathways:
- As part of CareerConnect, create a Capstone portfolio that includes a viable career path and incorporates technical college admissions benchmarks, industry certifications and workplace competencies.
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REDESIGNING THE HIGH SCHOOL EXPERIENCE
Unifying Components of Strategy

College Coursework + Competency + Individual Career and Academic Plan

Career Ready Experiences
Student Engagement
Instructional Excellence

Capstone E-Portfolio
CAREERRESIDENCY
YOUTH APPRENTICESHIP

Designing and Scaling an Immersive Career Pathway
DENVER HAS THREE STUDENT OUTCOME CHALLENGES

High School Graduation

- 85% graduate high school*
- 45% are college ready

College Entry & Graduation

- ~5/10 HS grads enroll in college
- < 2/3 of those graduate <6 years

Skills gap

- Jobs requiring postsecondary
- 70%
- "Colorado Paradox" Homegrown talent can’t fill workforce demand
- DPS grads w/postsecondary
- <33%

*CO data using current graduation requirements

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## CAREERCONNECT: ADDRESSING STUDENT OUTCOME CHALLENGES

<table>
<thead>
<tr>
<th>Grades</th>
<th>K-8</th>
<th>Grade 9</th>
<th>Grade 10</th>
<th>Grade 11</th>
<th>Grade 12</th>
<th>Grades 13/14*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>School-Based Learning</strong></td>
<td>Exploratory STEM Courses</td>
<td>Introductory &amp; Survey Courses</td>
<td>Foundational Courses</td>
<td>Advanced Level 1 Courses</td>
<td>Advanced Level 2 Courses</td>
<td>Post-Secondary Level Courses</td>
</tr>
<tr>
<td><strong>Work-Based Learning</strong></td>
<td>CareerSpark Middle School STEM Exploration Event</td>
<td>CareerX Industry Exploration Event</td>
<td>CareerCoach Mentoring Program</td>
<td>CareerLaunch Internship Program</td>
<td>CareerLaunch Internship Program</td>
<td>CareerLaunch Internship Program</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CareerResidency</th>
<th>Optional 3-year immersive pathway</th>
</tr>
</thead>
</table>

*For students who opt into the CareerResidency
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DPS CAREERCONNECT

Programs of study

- **ACEConnect**
  A DPS CareerConnect Program

- **EngineeringConnect**
  A DPS CareerConnect Program

- **TechConnect**
  A DPS CareerConnect Program

- **BusinessConnect**
  A DPS CareerConnect Program

- **HospitalityConnect**
  A DPS CareerConnect Program

- **PublicSafetyConnect**
  A DPS CareerConnect Program

- **CreativeConnect**
  A DPS CareerConnect Program

- **MakerConnect**
  A DPS CareerConnect Program

- **EdConnect**
  A DPS CareerConnect Program

- **MedConnect**
  A DPS CareerConnect Program

**GOAL #3** Ready for College and Career
GOAL #3 Ready for College and Career

APPRENTICESHIP PROGRAM
Innovative Pilot Based on International Learnings

**High school diploma**
- All students receive high school diploma at end of the apprenticeship.
- Graduation requirements met via high school courses and concurrent enrollment of college-level courses.

**Meaningful work experience & wages**
- Students work 2-3 days per week at a specific company in their desired industry.
- Jobs secured through a competitive application process.

**Professional training through college-level credits**
- Students complete one of three possible college-level course paths in a field related to their work:
  - 2-years of an academic four-year degree
  - 2-year applied associates degree
  - 1-year applied technical degree
THE APPRENTICESHIP PROGRAM IS A RADICAL RETHINKING OF THE TRADITIONAL HIGH SCHOOL EXPERIENCE

## HIGH SCHOOL VS. APPRENTICESHIP TIMELINES

<table>
<thead>
<tr>
<th>Trad. HS Path</th>
<th>Grade 11</th>
<th>Grade 12</th>
<th>Grade 13</th>
<th>Grade 14</th>
</tr>
</thead>
<tbody>
<tr>
<td>11th. grade start</td>
<td>High school courses</td>
<td>High school courses + post-secondary concurrent enrolment</td>
<td>2-days per week paid work</td>
<td>HS diploma</td>
</tr>
<tr>
<td>12th. grade start</td>
<td>High school courses</td>
<td>High school courses + post-secondary concurrent enrolment</td>
<td>2-days per week paid work</td>
<td>HS diploma + 2 years of college courses</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Post-secondary education</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3-days per week paid work</td>
<td></td>
</tr>
</tbody>
</table>

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STUDENTS WHOSE INTERESTS CHANGE DURING AN APPRENTICESHIP ARE ABLE TO SWITCH PATHS – THOUGH IT COSTS TIME AND DOLLARS
CAREERESIDENCY HUB SCHOOLS

Pilot Schools – School year 2017-18
- Career Education Center Early College
- High Tech Early College
- Abraham Lincoln High School
- Denver School for Innovation and Sustainable Design

Additional Schools – School year 2018-19
- West Leadership Academy
- West Early College

On-Deck Expansions – School year 2019-20
- John F. Kennedy High School
- Thomas Jefferson High School

Launch new RFP in 2018
- School year 2019-20 implementation
- School year 2020-21 implementation
PILOT INCLUDES THREE PATHWAYS; OFFERINGS WILL EXPAND OVER TIME

- **Pilot pathways**
  - Business
  - Tech
  - Maker

  3 pilot pathways represent majority of jobs in Denver; priority is to expand these (apprenticeships available, credentials offered etc.)

- **Likely to be launched next**
  - Education
  - Med

  Ed and Med pathways have high potential for apprenticeships and credential availability

- **Others**
  - ACE
  - Engineering
  - Creative
  - Hospitality

  May require more heavy lifting to secure apprenticeships and post-secondary credentials

Criteria for choosing pathways include:

- Volume of mid- and high-skilled new jobs represented
- Student interest
- Post-secondary credential availability and fit
- Ease of execution

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KEY LESSONS LEARNED: APPRENTICESHIP PILOT

- **Include a planning phase, prior to recruitment, for new schools**
  - At least 1 semester prior to recruiting, ideally 1 year.
  - Develop culture and buy-in; adjust schedules and budget.

- **Recruit students earlier and ensure parents/guardians are engaged**
  - Start recruitment no later than the fall *prior* to year 1 implementation.
  - Create multiple opportunities for parents/guardians to learn about the program.

- **Develop a culture of advising and comprehensive communications plan**
  - Support students toward being “college ready” upon starting the program.
  - Provide ongoing information and support to students and families.
  - Train and equip *all* staff regarding the program.
SCHOOL LEADER PANEL

- Jeff Barratt, Emily Griffith Technical College
- Jamie Lofaro, CEC Early College
- Stacy Parrish, High Tech Early College
- Zack McDowell, West Early College
STUDENT/BUSINESS PARTNERSHIP PANEL

- Angelina Wright, Junior, DSISD; Dept. of Human Services
- Judah Bolz-Weber, Junior, DSISD; HomeAdvisor
- Gregor Owens, Senior, East High School; Mile High United Way
- Richard Fox, Mile High United Way
- Mark Tapy, Pinnacol Assurance
- Gretchen Morgan, President, CareerWise Colorado
LONG-TERM PLAN: SERVE ~50% OF DPS STUDENTS WITH THE APPRENTICESHIP PROGRAM

- Pilot: ~50 students per cohort, ~2%
- 5-year view: ~1000 students per cohort, ~20% DPS penetration
- 10-20 year destination: ~2500 students per cohort, ~50% DPS penetration

GOAL #3 Ready for College and Career
# GOAL #3 Ready for College and Career

**APPRENTICESHIPS WILL LAUNCH STUDENTS TOWARD A CHOICE-FILLED FUTURE**

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**By age 19-20**

<table>
<thead>
<tr>
<th>A CareerResidency Youth Apprenticeship student will have…</th>
<th>VS. …an average high school grad</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Meaningful <strong>work experience</strong></td>
<td>• Most often, <strong>low-skill, low-wage</strong>, low growth jobs</td>
</tr>
<tr>
<td>• Relevant <strong>credential</strong> geared towards chosen profession</td>
<td>• <strong>Potentially some</strong> college credits</td>
</tr>
<tr>
<td>• <strong>No debt</strong></td>
<td>• Likely <strong>accumulated debt</strong>, no degree</td>
</tr>
<tr>
<td>• <strong>Choices</strong> including work and/or continuing education</td>
<td>• <strong>Limited</strong> post-secondary opportunities</td>
</tr>
</tbody>
</table>

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26
Six Major Implementation and Scaling Challenges Exist

- CareerResidency Youth Apprenticeships require a **significant mindset shift** around what success after high school looks like.
- The program needs to be **market-driven** and industries must significantly **expand apprenticeship opportunities** in order to reach scale.
- We need to do a better job **preparing our students** for these opportunities.
- In the long-term, the program needs to be **financially sustainable** to become embedded in the ecosystem.
- DPS will have to **manage the complexity** from the interdependencies of many stakeholders.
- CareerResidency Youth Apprenticeships need to be **prioritized by the district** in order to generate the mandate for change.
APPENDIX
APPRENTICESHIP PILOT DEMOGRAPHICS

THE CR PILOT IS LARGE REPRESENTATIVE OF THE DPS STUDENT DEMOGRAPHIC

- Native American: 80%
- Other Asian: 91,429
- Black: 79%
- White: 5%
- Hispanic: 5%

% of Students

APPLICANTS HAVE AN AVERAGE GPA OF 3.3

% of students by GPA

- >4: 2%
- 3.5 - 4: 3%
- 3 - 3.5: 4%
- 2.5 - 3: 7%
- 2 - 2.5: 29%
- <2: 50%

THE MAJORITY OF APPLICANTS ARE ON-TRACK TO GRADUATE HIGH SCHOOL

- At Risk: requiring some remediation
- Not on-track: requiring extensive remediation
- On Track: 80%

** As of June 1, 2017

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EXAMPLE: STUDENT INTERESTED IN A JOB THAT REQUIRES A TWO-YEAR APPLIED DECREE WOULD BENEFIT FROM AN APPRENTICESHIP

Student Interest

I want to be a surgical technician

10th-grade student

Advising

- Meets with counselor and learns he needs a ~60 credit associate’s degree to practice as a surgical technician
- Currently not ready to begin college coursework in 11th grade; will start CR in 12th grade after receiving Math and English remediation
- Signs paperwork with counselor committing to a 3-year residency

Student Experience

- Starting in grade 12 splits week between school and the apprenticeship
- Gains valuable work experience with a local employer and works toward a HS diploma and associate’s degree
- Receives ongoing case mgmt. support to ensure he is on track with his classes and job

Student Outcomes

- At the end of 3-year residency / grade 14, receives HS diploma and AAS in Surgical Technology from CCD
- Immediate next step to work as a surgical technician at apprenticeship or other employer
- ~15 of the AAS credits can be applied to a 4-year degree down the road

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EXAMPLE: STUDENT FOCUSED ON FOUR-YEAR COLLEGE COULD BENEFIT GREATLY FROM TWO-YEAR VERSION OF APPRENTICESHIP

Student Interest

I have a passion for computer science and want to go to a 4-year college

10th-grade student

Advising

- Meets with counselor and expresses a desire to obtain a degree in computer science from a 4-year college
- Counselor advises her to pursue a technical certificate to get work experience and exposure to college without delaying graduation or impacting the full 4-year college experience

Student Experience

- Starting in grade 11 splits her week between school and apprenticeship
- Gains valuable work experience with a local employer and works toward a HS diploma and technical certificate
- Receives ongoing case mgmt. support to ensure she is on track with her classes and job

Student Outcomes

- Starting in grade 11 splits her week between school and apprenticeship
- Gains valuable work experience with a local employer and works toward a HS diploma and technical certificate
- Receives ongoing case mgmt. support to ensure she is on track with her classes and job

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