Meeting the Career Readiness Imperative

Defining the Role of K-12 in Career Education

Strategies for Integrating and Scaling Early Career Exposure

Superintendent Leadership Forum

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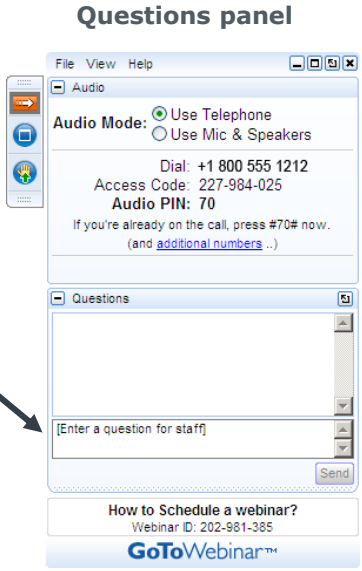

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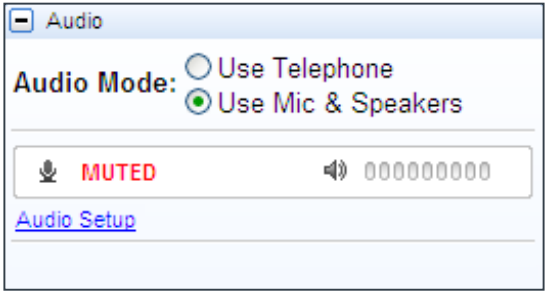

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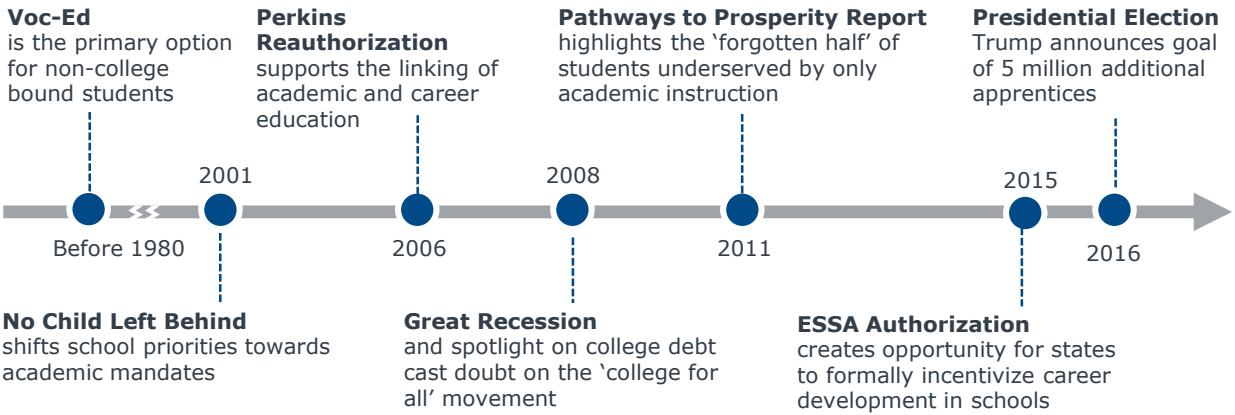
Career Education (Re-)Enters the Spotlight



From Focus on College for All...

"The US has been moving toward a policy of universal higher education. American high schools have quietly adopted a college-for-all approach, moving away from preparing students for work."

Educational Policy Institute, 2004

...To Blended Career Focus

"Given dismal post-secondary attainment numbers, a narrowly defined 'college-for-all' goal—one that does not include a much stronger focus on career oriented programs—seems doomed to fail."

Harvard's Pathways to Prosperity, 2011

Source: Harvard Graduate School of Education, "Pathways to Prosperity,": Educational Policy Institute, "College Readiness for All and The No Child Left Behind Act: Mutually Supportive Visions and Complimentary Goals," EAB interviews and analysis.

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ESSA Prompts Career-Focused Indicators

The Every Student Succeeds Act (ESSA) grants greater leeway to states in complying with federal accountability standards

School Quality/Student Success (SQSS) Indicator Requirements

- Allows for meaningful school performance differentiation
- Must be valid and reliable
- Must be used within each grade span
- Must be comparable and applicable statewide
- Must be measured and reported annually for all students

"States can use [SQSS] to set and execute a vision that provides students with multiple, meaningful opportunities to build awareness of career opportunities, provide real-world instruction and lead to credentials with labor market value."

Advance CTE, 2017

ESSA Career-Focused Plans Across States

11	Have a 'college and career readiness' measure
8	Incentivize dual enrollment
8	Incentivize credential attainment
4	Incentivize CTE coursework
4	Incentivize work-based learning

Source: "Career Readiness & the Every Student Succeeds Act: Mapping Career Readiness in State ESSA Plans – Round 1, Advance CTE; " "Identifying a School Quality/Student Success Indicator for ESSA: Requirements and Considerations," CCSSO; EAB interviews and analysis.

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Rising Federal Commitments With Minimal Support

Lots of Talk Around the Urgency for Career Education

"To strengthen our economy, we need a skilled and educated workforce. This administration is committed to supporting and highlighting career and technical education."

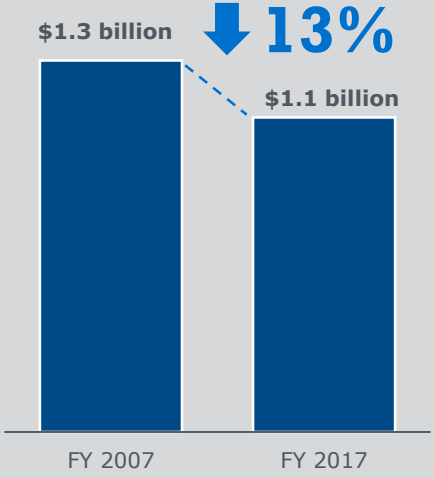
Betsy Devos

Federal Promises to Support Career Education

- Goal to have 5M new apprentices in the U.S.
- Stated support for improving CTE programs across K-12 public schools
- Stated support for increasing CTE dual enrollment programs

Yet Perkins Funding Lags Behind Political Will

Perkins Federal Investment, FY 2007 and FY 2017



Source: Association for Career and Technical Education, ", Trump Administration CTE Comments"; U.S. Department of Education, "National Assessment of Career and Technical Education"; Advance CTE, "Perkins State Grant Federal Investment: Fiscal Years 2004-2017"; EAB interviews and analysis.

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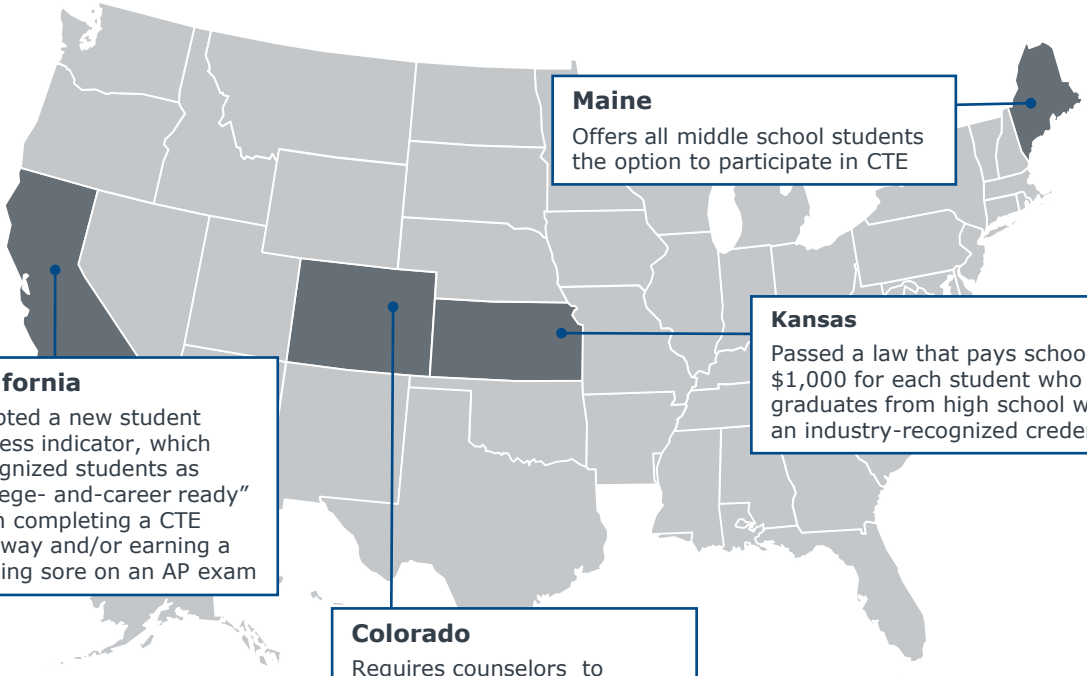
States Embrace Career Education Innovation



Maine

Offers all middle school students the option to participate in CTE

Kansas

Passed a law that pays schools $1,000 for each student who graduates from high school with an industry-recognized credential

California

Adopted a new student success indicator, which recognized students as "college- and-career ready" upon completing a CTE pathway and/or earning a passing sore on an AP exam

Colorado

Requires counselors to inform students about certificates, apprenticeships, and military options

Source: Education Week, "Growing Number of States Embrace Career Education"; ACTE, "State Profiles;" EAB interviews and analysis.

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Numerous Pilots, but Questionable Value

Many Career-Focused Initiatives Remain Limited in Proven Impact and Scale

Industry Certification Incentives

Florida's Career and Professional Education Act (CAPE) allows schools to receive additional funding based on students earning an industry credential

Easy-to-Attain Certifications, Low Market Value

Cost pressures mean that schools are not promoting higher-valued certifications in manufacturing, health, or construction

60% Of certifications are for Adobe or Microsoft products

Apprenticeships

Colorado recently launched a state-wide drive to create 20,000 apprenticeships over the next ten years

High Cost, Low Completion

- Cost averages range from $45k - $85k per apprentice
- Despite a 40% growth in the number of apprentices since 2011, the number of individuals completing apprenticeships declined by 11%

*Can we provide career preparation that is both valuable **and** widely accessible to all students?*

Source: "CAPE Industry Certification K-12 Data Summary Reports," Florida Department of Education; Peralta, K., "Apprenticeships Could Be Gateway to Middle Class," *U.S. News & World Report*, January 12, 2015; Registered Apprenticeship National Results, U.S. Department of Labor, Employment and Training Administration; EAB interviews and analysis.

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Middle Skills Gap Adds to Pressure

Employers Struggling to Fill Middle Skills Jobs

Talent Shortages on the Rise

Percentage of Employers Reporting Talent Shortages

46%

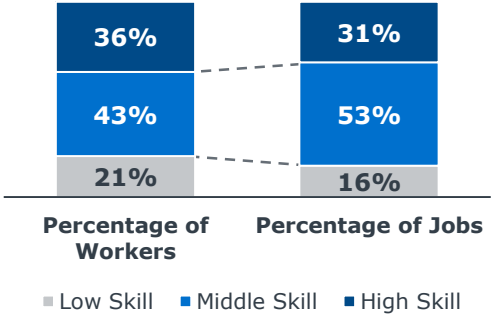
Percentage of U.S. employers reporting talent shortages in 2016, an increase from 31% of employers in 2010

Most Difficult Jobs to Fill

- *Skilled Trades*
- *Technicians*
- *Sales Representatives*
- *Machine Operators*
- *IT Personnel*

Middle Skills is Area of Highest Unmet Demand

Percentage of Workers and Jobs by Skill Level in 2015



A Real Impact to the U.S. Economy

$538B

Loss to U.S. economy by 2030 resulting from projected postsecondary degree shortfall

Source: "2016-2017 Talent Shortage Survey," ManpowerGroup, 2017; "United States' Forgotten Middle," National Skills Coalition, 2015; National Governors Association, "America Works: Education and Training for Tomorrow's Jobs," 2014; EAB interviews and analysis.

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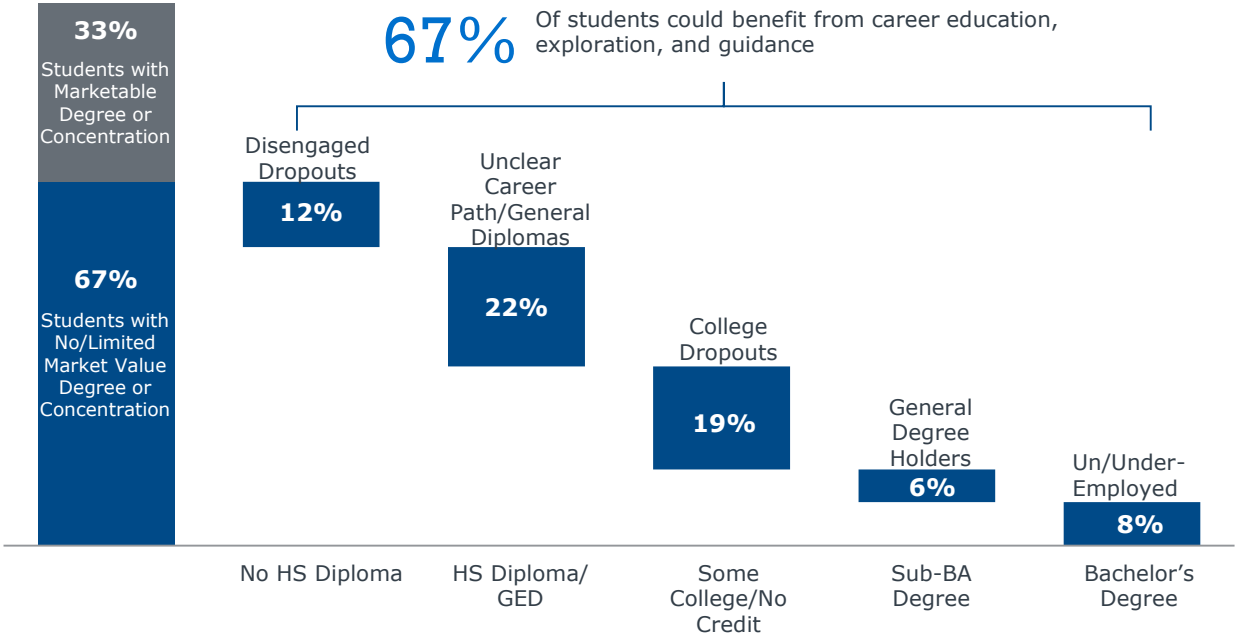
Majority of Students Not Ready for the Labor Market

Districts Best Positioned to Set Students Up for Long-Term Career Success

Large Share of Students Across Education Attainment Levels Face Difficulty Entering the Labor Market

EAB Analysis of U.S. Census Data on 25 to 34 Year Olds' Education and Employment Outcomes



Source: U.S. Census Bureau, 2015. "Education Attainment in the United States, Population Characteristics"; EAB interviews and analysis.

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Capturing the Best of Both Worlds

Finding the Middle Ground in Diverse Approaches to Career Education

Expand CTE Course Offerings

Promise

- Fits within typical high school model
- Curricula and teachers already in place
- Improves engagement and high school graduation

Marginal Changes

Barriers to Scale

- Expensive to scale within technical specialties; only 19% of students concentrate
- Difficult to persuade students and parents of value
- Limited number of studies raise questions of long-term benefits

Create an "Academy" Model Akin to Nashville

- 20% improvement in Nashville graduation rates over 10 years
- Ensures comprehensive scale and reach to all students

Full-Scale Transformation

- Politically difficult; Nashville Academies expanded when graduation rate hit record low
- Relies on extensive business partnership for equipment and programming
- Requires reorganization of high school model

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Source: EAB interviews and analysis.

The New Rules of CTE

Principles of High Quality CTE Programs

Aligns to High-Demand Sectors

Programs prepare students for careers in industries likely to offer family-sustaining wages

Includes Various Educational Off-Ramps

Program design offers baccalaureate, as well as sub-baccalaureate, off-ramps into the workforce

Incorporates Rigorous Academic and Employability Goals

Curriculum incorporates lessons on academic subjects and provides training for specific jobs

How EAB Can Help

State-Specific Labor Market Demand Profiles

Industry Futures Series

Expert Support

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Source: EAB interviews and analysis.

Integrating Academic and Career Development

Best Practices for Scaling Career Awareness and Exposure

1 Cultivate Early and Broad Career Awareness

1. Worlds of Work Middle School Expo
2. Pathways Essentials
3. Pathways Teacher Development Lessons
4. Structured Career Reflection

2 Lower Access Barriers to Career Experiences

5. Community-Sourced Project Based Learning
6. General Education Externships
7. Virtual Work-Based Learning

3 Offer Personalized and Frequent Career Decision Support

8. Career-Based Scheduling
9. Industry-Based Advisory Cohorts
10. Employer Mentorships

4 Formally Aid Workplace Transitions

11. Employer-Led Workplace Skills Intensives
12. Ethnographic Career Research
13. Curriculum-Wide Transferable Skills Call Outs
14. School-Wide Elevator Pitches
15. Career Interests Capstone Presentation
16. Student Workplace Performance Awards

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Source: EAB interviews and analysis.

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Source: EAB interviews and analysis.

Critical Time for Career Identity Development

Students Career Awareness Begins at an Early Age

Career Development Continuum by Grade Level

K-5 | 6-8th | 9-10th | 11th-12th

Awareness

- **"What Are the Possibilities?"**
  - During pre and early adolescent years (ages 5-14), students seek knowledge of career possibilities
  - Students are more concerned about their immediate future than long-term planning

Exploration

- **"What Are my Talents and Career Interests?"**
  - At the point of middle adolescence (ages 15-16), students begin to connect their individual interests to career aspirations
  - Students develop the cognitive potential to link their academic performance to future career possibilities

Preparation

- **"How Do I Get There?"**
  - By late adolescence (ages 17+), students consciously consider their long-term future roles
  - They refine their work habits and actively plan next steps toward their futures

Large Share of Students Make Uninformed Career Choices

91% Of 13 to 17 year olds believe they know what career they want to pursue

36% Of high school graduates chose majors that fit their strengths & interests

Source: Erikson, E, "Erikson Psychosocial Development Stages," (1963); Spano, S, "Stages of Adolescent Development," Cornell University, (2004); Survey of 13-17 Year Olds, Junior Achievement USA & EY (2017); Sheehy, K, "Study: High School Grads Choosing Wrong College Majors," U.S. News & World Report; EAB interviews and analysis.

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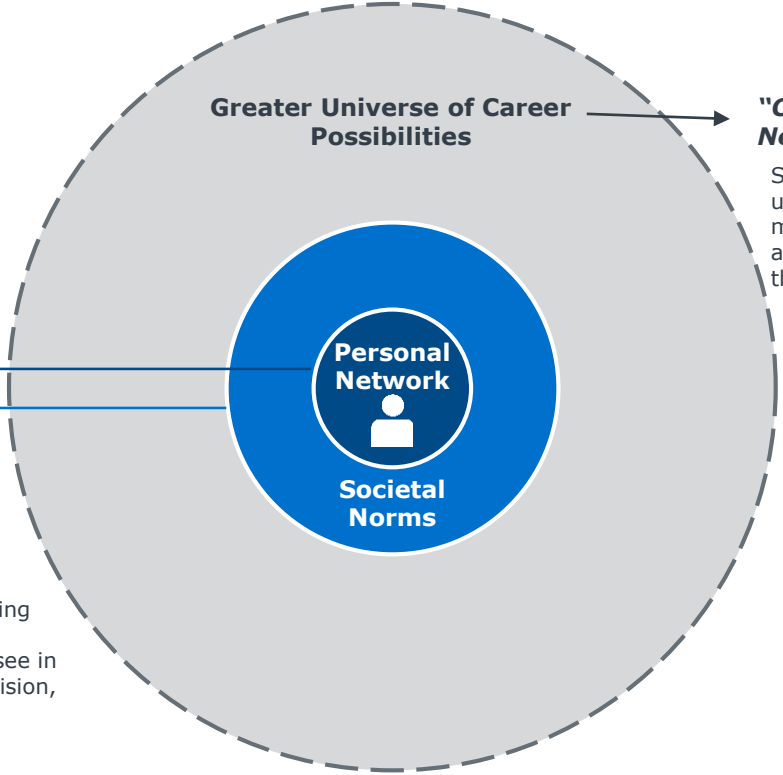
A Limited View of the World of Work

Students' Career Goals Are Limited to What They See and Know

"People I Know and Like"

Students aspire to emulate the careers of personal influencers, including teachers, family, friends, and community members



"Careers I've Never Heard Of"

Students remain unaware of the majority of jobs available and what those jobs entail

"People Who Look Like Me"

Students' understanding of available careers is based on those they see in advertisements, television, and social media

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Source: Helwig, A, "A Ten Year Longitudinal Study of the Career Development of Students," *Journal of Counseling & Development*, 82, no. 1 (2004); EAB interviews and analysis.

The Potential Consequences of a Limited Outlook

The Risk of Reinforcing Historic Patterns and Expectations

High Achieving Students Often Pressured Into Demanding Careers

- Medicine, computer science, engineering, and law are among the most popular major choices for high school students scoring high on the ACT
- But these majors are typically chosen without knowledge of what they require

> "I really don't enjoy my science classes, but my parents tell me all the time that I need to be a doctor. So I guess that's what I'll be studying in college."

Students in Rural Regions are Exposed to Few Alternatives

- Geographic disparity in local labor markets can play a more significant role in students' upward economic mobility than school quality
- These students have fewer opportunities to witness a diverse number of careers

> "Everyone in my town is involved in agriculture. My dad owns a dairy farm, and I've always done a good job helping him run it."

<30%
Of all STEM-related jobs are filled by women

11%
Of all jobs in the finance industry are filled by employees of Hispanic ethnicity

7%
Of all jobs in the computer science industry are filled by African Americans

Source: "The Condition of College & Career Readiness, ACT (2017); Cohen,M, "Education Isn't the Key to a Good Income," *The Atlantic*; "Women in STEM: A Gender Gap to Innovation," Economics & Statistics Administration, U.S. Department of Commerce (2011); "Hispanic & Latinos in Industries and Occupations," Bureau of Labor Statistics, 2015; Mason, K, "Computer Science's Diversity Gap Starts Early," *PBS*; EAB interviews & analysis.

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Career Exposure Takes Many Forms

No Shortage of School-Sponsored Awareness-Building Activities

- Job Shadowing
- Bring Your Child to Work Day
- Career Aspiration "Show and Tell"
- Online Career Planning Tools
- Career Day
- Virtual Workplace Videos
- Career Clusters Brochures

- Employer Presentations
- Career Aptitude Assessments
- Online Labor Market Self-Navigation
- Work-Based Classroom Projects
- Field Trips to Local Employers
- Career 101 Elective

- Industry-Specific After School Clubs
- Bring Your Parent to School Day
- Career Classroom Lectures
- Job Fairs
- Career-Based Research Projects
- Guest Speakers

Awareness Should Broaden Perspectives, Not Limit Them

"When you ask freshmen what they want to be it's usually a doctor, lawyer, teacher, or professional athlete. **They know very little about the hundreds of millions of jobs that are out there.** We want to connect them to their passion and expose them to more than what they see within their household and community."

Principal
Junior High School, Midwest School District

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Source: EAB interviews and analysis.

Career Fairs a 'Hit or Miss' Investment

Traditional Career Fairs Too Often Fail to Activate New Interests

Status Quo Career Fairs Underserve Students

Too Much Employer Talk

Students are bored by long lectures from guest speakers

Surface Level Career Information

Students learn little about what the job entails

No Connection to Classroom Learning

Students do not see the connection between their academics and specific careers

Meanwhile Kids Default to Being Interested in What They Know

"7th graders in Virginia are required by the state to make career plans, but **they aren't familiar with many careers other than the ones in their households and the ones visible in their society**."

Jeremy Aldrich
CTE Director
Harrisonburg City Public Schools

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Source: EAB interviews and analysis

Less Talking, More Doing

Integrate Hands-On Simulations Into Middle School Career Fairs

Integrated Career Simulations

Student-Led Projects Deepen Career Awareness and Engagement

- **Short Employer Presentations**
  Employers spend a maximum of five minutes introducing the career, related job statistics, and skill and education requirements
- **Majority of Time Spent on Student-Led Career Simulations**
  Teams of 8-10 students spend 15-20 minutes working on job-specific activities to test their interests and fit
- **District-Vetted, Age-Appropriate Activities**
  District coordinator shares sample activities with employer volunteers to inspire career simulation projects; employers submit a summary of their simulations for final approval

Profiled Institution:
Harrisonburg City Public Schools, Harrisonburg, VA

HARRISONBURG CITY Public Schools

Rapid Cycle, Student-Led Activities

Sample of Middle School Career-Simulations

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Source: EAB interviews and analysis.

Expanding Horizons for All Students

Hands-On Simulations Increase Student Engagement and Awareness

Survey Reveals Significant Impact on Students

Percentage of Participating Middle School Students Who Agreed with the Following Statements

Learned about new careers they did not know existed

Gained awareness of the day-to-day tasks and skills related to specific careers

Identified connections between career-specific skills and academic coursework

Worlds of Work Expo Makes Learning About Careers Fun

"Students were bored during middle school career fairs and didn't get much out of them. We started the Worlds of Work Expo and made the fairs more hands-on. **Students are much more engaged and excited about the event, and they seemed to learn a lot**. We are now discussing implementing a similar hands-on experience in our high school."

Jeremy Aldrich
CTE Director
Harrisonburg City Public Schools

Source: "Harrisonburg City Public School's Worlds of Work Expo Survey," 2017; EAB interviews and analysis.

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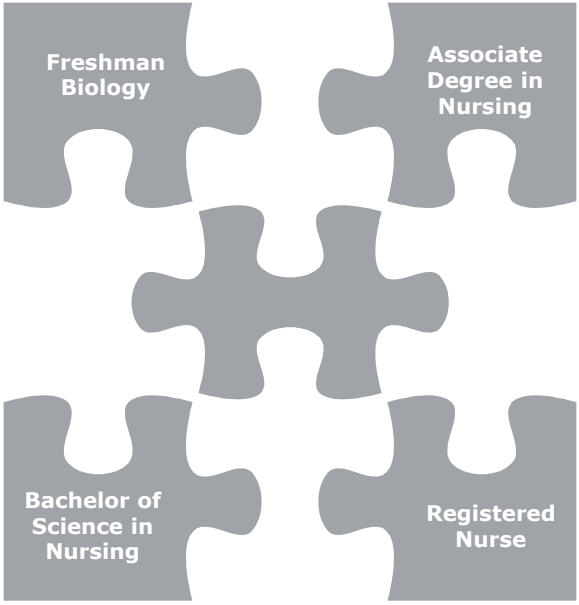
Kids Select Careers But Miss Connections

Students Rarely Receive Comprehensive Information on Career Pathways

Academic Planning Absent Career Goals…



…Can Yield Costly Missing Process Steps and Requirements

- Classes Aligned with Career Goals
- Minimum Degree Attainment Levels
- Entrance Exam Requirements
- Best Local Educational Providers
- Accurate Salary Predictions
- In-Demand & High Growth Industries

Source: EAB interviews and analysis.

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Pathways Communication is an Essential Step

Students Must See How High School Courses Connect to Future Outcomes

Unique Elements of Our Favorite Pathways Maps

Profiled Institution:
Denver Public Schools, Denver, CO

Salary Estimates Based on Education
Earnings within a career field highlighted for various educational off-ramps

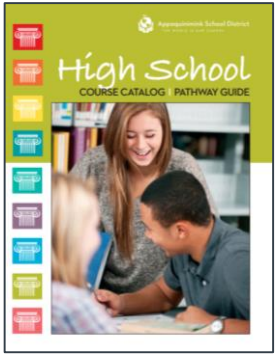
Career-Relevant Master Schedules
Course selection based not only on career cluster but also specific careers

Certification Options
Certifications & industry credentials offered by the district and any associated pre-requisites

Postsecondary Options & Requirements
Information on relevant degree programs at local postsecondary institutions

Sample Pathway Maps available in Appendix A, pg.2.

Profiled Institution:
Appoquinimink School District, Odessa, DE



Beyond CTE
Pathways for humanities and social science courses—not just CTE disciplines

Convenient Location
Pathways outlined in the high school course catalogue

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Source: EAB interviews and analysis.

Pathways-Based Professional Development

Ensure Quality Pathways Communication Through Teacher Development

D214 Internal University: Pathways and Careers Course	
Day 1	Introduction to Career Pathways
Day 2	Pathway Research Presentations
Day 3	Field Experience Reflections
Day 4	Discussion on Curriculum Projects
Day 5	Curriculum Presentations

Course syllabus and assignments available in Appendix

Profiled Institution:
Township High School District 214, Arlington Heights, IL

Communicate Pathway Information
The district facilitates an internal development course on career pathways to enhance teacher knowledge of career information

Enhance Teacher Knowledge
Teachers research a career cluster most closely aligned with their courses and present their findings to the wider class

Provide Teacher Exposure
Teachers share 'field experience' gained from attending a recent, relevant career-related event in their community

Ensure Lesson Quality and Consistency
Teachers present a full-class lesson on their pathway to colleagues and district administrators, which they are advised to then teach in orientation CTE courses

45% ↑ Increase in students who self-identified with a career cluster of interest between 2015 and 2017

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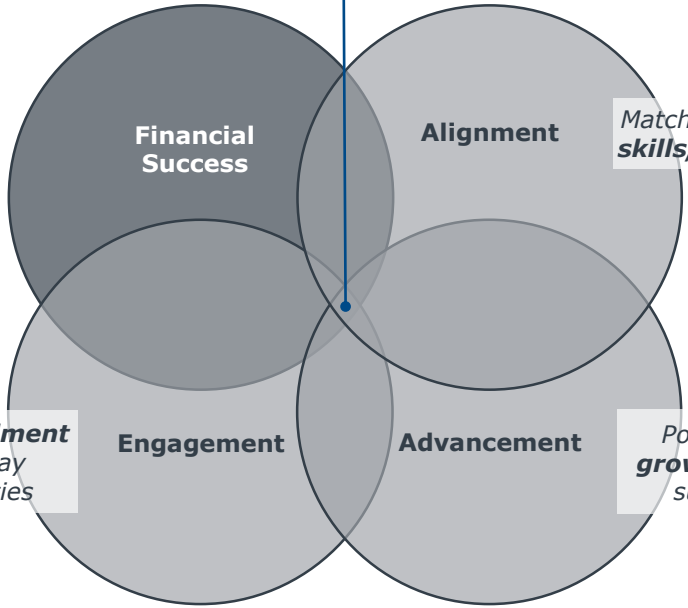
Source: EAB interviews and analysis.

Career Success Beyond Salary

Emphasizing Alignment, Engagement, and Advancement in Outcomes

Career success encompasses a family-sustaining wage, a fit between one's talents and day-to-day tasks, a feeling of responsibility, and the opportunity to advance within the career field.



Source: Alton J, "How Millennials Are Reshaping What's Important in Corporate Culture," *Forbes*; Rigoni B, Adkins, A, "What Millennials Want from a New Job," *Harvard Business Review*, https://hbr.org/2016/05/what-millennials-want-from-a-new-job;EAB interviews and analysis.

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A Home for Reflection

Career Reflection Clarifies Student Goals and Career Knowledge

Students Engage in Ongoing, Self-Directed Career Learning

Grade-specific career reflection prompts broaden awareness and facilitate thoughtful career planning

Personal career journals allow students to track progression of goal formation

Self-directed research helps students build an archive of career information relevant to their goals

Final career presentations foster student articulation of strengths, interests, and post-secondary plans

Profiled Institution:

Whitewater Unified School District
Whitewater, WI

Leveled Career Prompts

Sample Grade-Specific Reflection Themes

9th **Self-Awareness**
What do I excel at and enjoy?

10th **Broad Career Awareness**
Which careers excite me?

11th **Defined Career Interests**
Which careers are most aligned with my strengths and interests?

12th **Postsecondary Preparation**
What do I need to do after high school to accomplish my career goals?

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Source: EAB interviews and analysis.

Increased Career-Focused Time Across the District

Integrate Career Reflection into Existing Structures

Elevate Underutilized Homeroom Time

- Insert career reflection into a twenty minute homeroom period one day each week
- Ensure continuity of students and teachers in the same homeroom to foster a community of support

Set a District-Wide Expectation

- Highlight importance of student-led career reflection in strategic plan
- Communicate career reflection as a priority during teacher onboarding and professional development meetings

Support Teachers in Implementation

- Disseminate grade-specific career prompts to homeroom teachers across the district to ensure easy, but high quality integration

Sample Career Reflection Prompts available in Appendix A, pg.11.

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Source: EAB interviews and analysis.

A High Return Activity

Intentional Reflection Yields Career Confidence and Higher Graduation Rates

Significant Time Spent on Individualized Reflection…

55

Estimated number of hours each student spends on structured and personalized career reflection

…Leads to Career Clarity and Confidence

Survey of 2016 Whitewater High School Graduates

92%

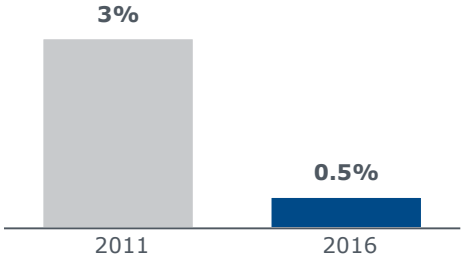
Of students felt confident in identifying careers that best align with their strengths and interests

97%

Of students felt confident in their ability to be successful in their chosen career path

Increased Career Reflection Correlated with Lower High School Dropout Rates

Percentage of Students Who Drop Out of Whitewater High Schools



"Students tell us they like the reflection activities. Students have the time to create a future that they want […] They are able to connect how their time in high school relates to their futures."

Pamela Sonmor-Wintz
Director of Guidance, Whitewater High School

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Source: Whitewater 2016 student survey; EAB interviews and analysis.

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6. General Education Externships
7. Virtual Work-Based Learning

3 Offer Personalized and Frequent Career Decision Support

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9. Industry-Based Advisory Cohorts
10. Employer Mentorships

4 Formally Aid Workplace Transitions

11. Employer-Led Workplace Skills Intensives
12. Ethnographic Career Research
13. Curriculum-Wide Transferable Skills Call Outs
14. School-Wide Elevator Pitches
15. Career Interests Capstone Presentation
16. Student Workplace Performance Awards

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Source: EAB interviews and analysis.

Upcoming Webinars

Webconference 2

"Lowering Access Barriers to Career Experiences and Boosting the Quality and Frequency of Career Advice"

Wednesday, May 16
Noon EST

Webconference 3

"Formally Aiding Workplace Transitions in an Academic Setting"

Wednesday, June 13
Noon EST

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