Become A Career Advisement Champion:
Tools and Resources to Support Students' Career Goals

American School Counselors Association

July 13 – 14, 2018

Welcome

- Background & Overview
- Materials
- Parking Lot
- Breaks
- Logistics

Pre-Workshop Survey

Introductions

- Name
- Where are you from?
- Grade level?
- One major challenge you face in your school/community that affects students' interest and participation in Career Technical Education?

IA: What is Post-High School Success?

- How would you define success for a student after high school?

Resources

- ASCA Mindsets & Behaviors for Student Success
- ASCA Mindsets & Behaviors: Program Planning Tool
- Career Ready Practices
- ASCA Position Paper on Career Development
- ACTE CTE: Readiness for all Careers

IB: Perceptions of CTE

- CTE can have positive impact on these descriptors of student success

- Activity: Workbook
  - List three words or phrases that come to your mind when you hear "CTE"?

- https://youtu.be/nmmYOAUeoUM

CTE: From Past to Present

Vocational Education (The Past)	Career Technical Education
High School Focused	**Links Secondary, Postsecondary and Workforce**
6 to 7 Program Areas	**16 Career Clusters with 79 Career Pathways**
In Lieu of Academics	**Supports and Reinforces Academic Learning**
Tracked	**Fully Integrated**
Terminal	**Continuous, Lifelong Learning**

Myth vs. Fact

Myth:

Only non-college bound students take CTE classes

Fact:

CTE Provides a seamless pathway to postsecondary education

- The graduation rate for students who take a concentration of CTE courses is about 93%, 10 percent higher than the national average.
- 78% of CTE concentrators enroll in postsecondary education full-time immediately after graduating
- CTE students have many opportunities to earn college credit in high school through dual and concurrent enrollment

http://s3.amazonaws.com/PCRN/docs/NACTE_FinalReport2014.pdf

Myth vs. Fact

Myth:

CTE is jobs training

Fact:

CTE empowers learners to explore multiple career options

- CTE programs of study start broad before providing career pathway specific knowledge and skills
- CTE provides hands-on training mentoring and internships to expand professional networks
- Students understand real-world value CTE provides

Myth vs. Fact

Myth:

CTE serves only "disadvantaged" students

Fact:

CTE is for all learners

- 92% of high school students take some form of CTE
- 33% of students in the highest socio-economic status quartile took three or more CTE credits
- 91% of parents of CTE students were satisfied with the way CTE helps their children get a leg up on future careers

http://www.nrccte.org/sites/default/files/publication-files/nrccte_cte_typology.pdf

https://cte.careertech.org/sites/default/files/CTE_Myths_and_Facts_2017.pdf

Myth vs. Fact

Myth:

CTE doesn't build academic skills

Fact:

CTE blends academic and technical skills to enhance the learning experience

- CTE programs, technical coursework reinforce core academics, enabling learners to strengthen their academic studies with real-world learning
- 45% of students say CTE provides them with real-world examples that help understand academic classes

CTE Prepares Students for Careers of Their Choice

Career Technical Education is an educational option that provides learners with the knowledge, experiences and skills they need to be prepared for college and careers.

CTE gives purpose to learning by emphasizing real-world skills and practical knowledge within a selected career focus. Students in CTE pathways take specialized courses, in addition to required core courses, at the secondary and postsecondary/adult levels.

Workbook Activity

Reflection- Page 5

- What do audiences need to know?
- What data points do you need?
- Where can you find this information?

Individual state data available: *https://careertech.org/state-snapshots*, *https://cte.ed.gov*

IC: "The Value and Promise of CTE: Results from a National Survey of Parents and Students"

Reasons for National Survey

- Limited Awareness of CTE
- Outdated Perceptions of CTE
- Enrollment in CTE stagnant
- Demand soars for skilled employees

Strategies for Attracting Students to High-quality CTE

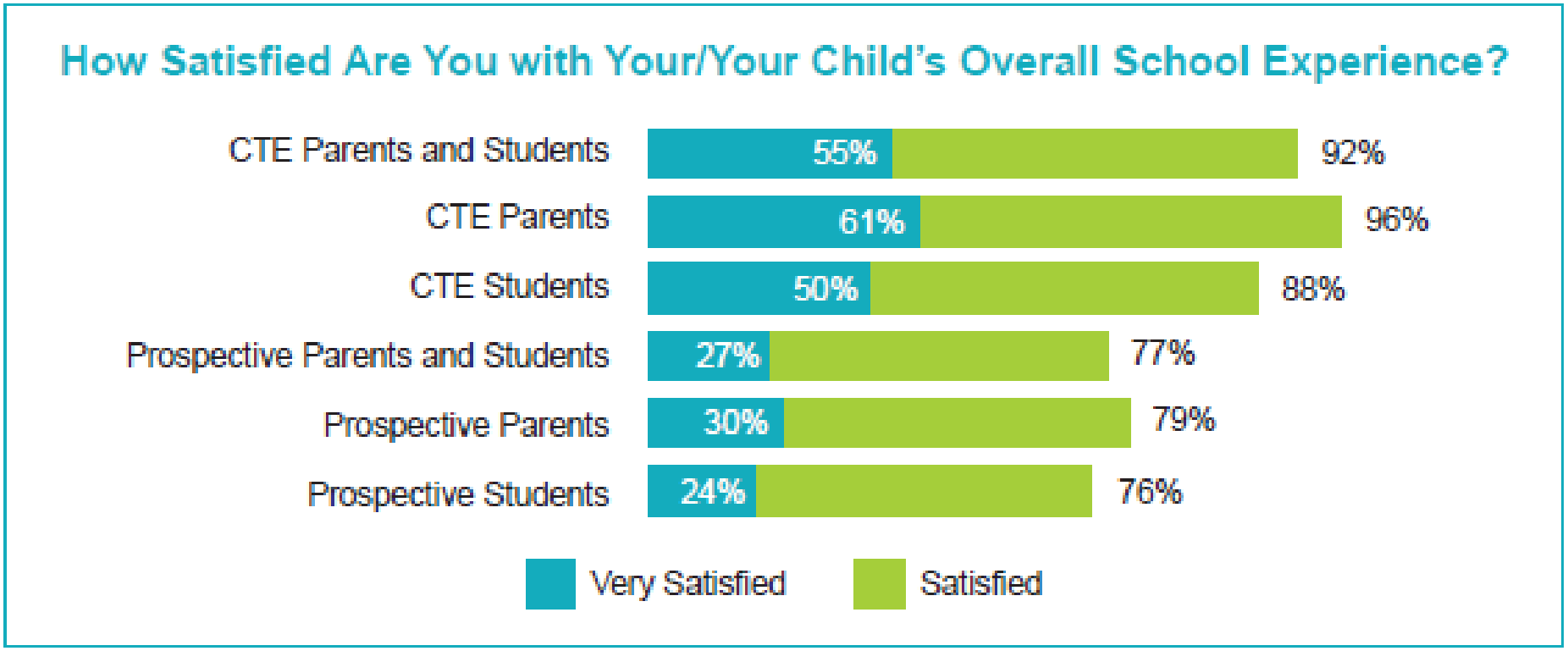
Advance CTE, supported by the Siemens Foundation:

- Commissioned focus groups
- Conducted a national survey
- Explored attitudes of parents and students currently involved in CTE
- ***Terminology***: "Prospective parents and students" – not currently involved but demonstrating some degree of interest after hearing a brief description of CTE

Research Goals

- Explore what middle & high school parents and students know and think about CTE
- Understand motivators and barriers to enrolling in a CTE program
- Determine which messages are most compelling to consider a CTE program and which are not
- Identify trusted decision-makers and effective communication channels for CTE

What is most compelling to you?



Workbook Activity

Small Group Activity - Analyzing Parent and Student Attitudes – Pages 6 - 9

College and Career Success Are Both Important for Parents & Students

70% of Parents & Students *strongly agree:* **finding a career that I/ my child feels passionate about is important**
93% agree in total

*"The goal is not just to have a good job but to be **happy in what they do**." – MD prospective parent*

60% of Parents & Students *strongly agree:* **getting a college degree is important**
85% agree in total

*"High school is something we need to get through to **get to college**." – MS prospective student*

56% of Parents & Students *strongly agree:* **it's important that I/ my child has a job that pays well**
87% agree in total

*"I want to make stable living and want to have a good **job that pays well."** – OH prospective student*

Prospective Parents and Students Attracted to "**Real World**" Benefits of CTE

Focus groups say "real world" skills is unmet need

"In school we learn certain things but not all the necessities to be responsible adults."
–MS focus group prospective student

86% of prospective parents & students surveyed **wish they/their child could get more real world knowledge and skills during high school**

Most Effective Message: **Preparation for the Real World**

CTE gives purpose to learning by emphasizing **real-world skills and practical knowledge.**

Students receive **hands-on training, mentoring, and internship**s from employers in their community. They also learn how to develop a resume and interview for a job.

These additional tools and experiences make school **more relevant**, and **ensure students are ready** for the real world.

Real World Message Entices Everyone

- Top-ranked message across ALL audiences, by race, ethnicity, education level, income level and geographic distribution
- All subpopulations selected CTE's ability to offer students real-world skills as one of the three most important elements of their education.

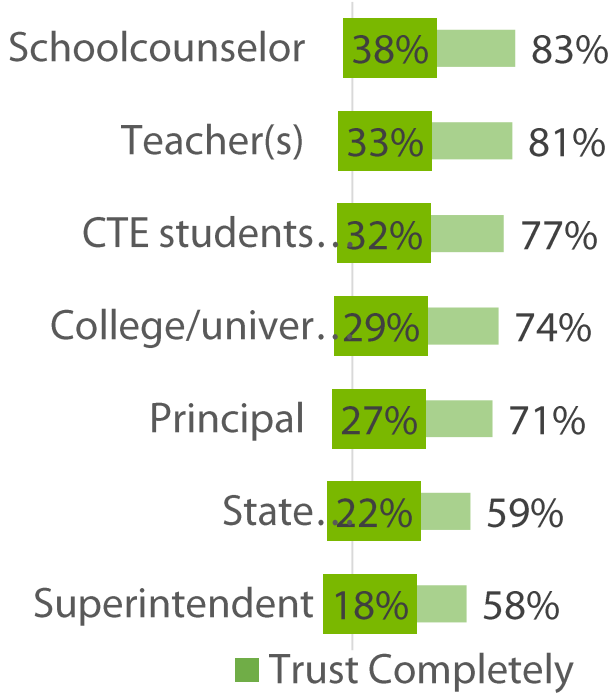
CTE Awareness Is Moderate

Just **47%** of prospective parents and students have heard of "Career Technical Education" compared to…

- *68% Vocational Education*
- *54% Career Center*
- *45% Career Education*
- *30% Career Academy*

School Counselors Are Best Messengers

How much do you <u>trust</u> each for learning more information about CTE?



48% of prospects want to hear information about CTE from their **school counselor**

Educational website (46%);
Open house at CTE school /program (44%)

High school career fair (40%);
Brochure/pamphlet mailed (40%)

E-mail school/principal (23%);
A school assembly (22%);
Social media (21%)

2017 PDK Poll of Public Attitudes Toward Public Schools

- 82 percent of Americans support job or career skills classes even if that means students might spend less time in academic classes.
- 86 percent say schools in their community should offer certificate or licensing programs that qualify students for employment in a given field.
- 82 percent say that it is highly important for schools to help students develop interpersonal skills, such as being cooperative, respectful of others, and persistent at solving problems.

http://pdkpoll.org/results

2017 State of the Skills Gap: Perceptions of the Role High School Plays in Preparing Students for Success in Careers

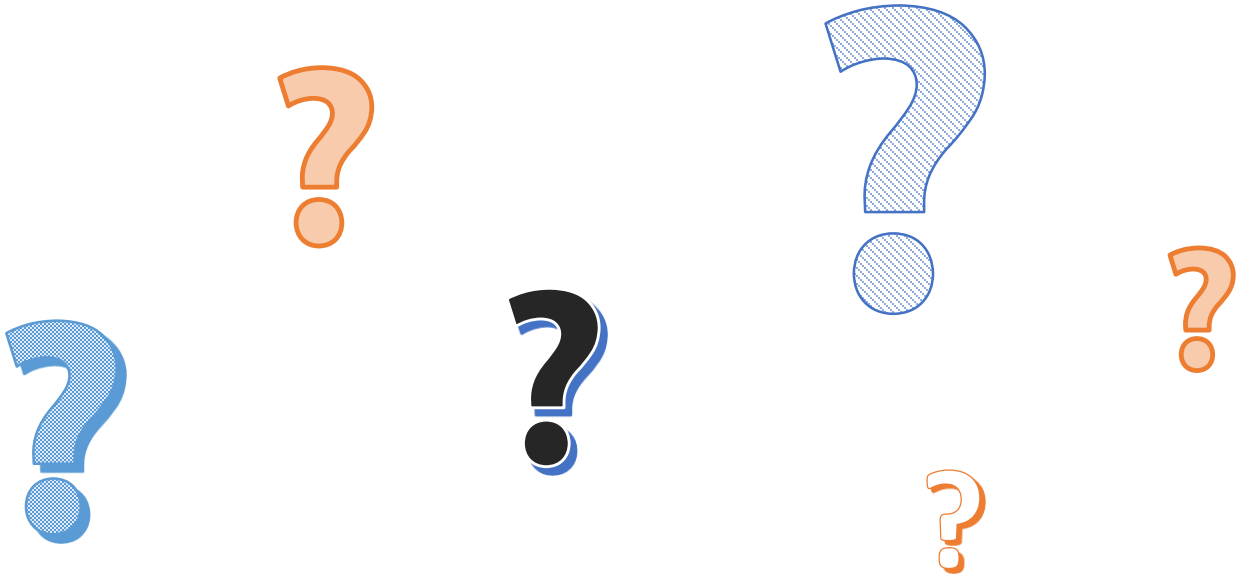
- 90% of Americans agree that CTE should be offered in every high school.
- 82% of respondents indicated that young people and those entering the workforce today are not equipped with the skills they need to succeed in the jobs available.
- 76% of parents say middle or high school is the right time to explore careers

https://www.k12.com/career-technical-education.html

Need for Messengers

- Counselors are most trusted source for information
- WE NEED YOU!
- Need to communicate high-quality CTE

Questions/Comments



BREAK

IIA: High-Quality CTE Programs of Study

National Career Clusters® Framework

PATHWAYS TO COLLEGE & CAREER READINESS

Career Clusters

Career Clusters Framework

- Provides a vital structure for organizing high-quality CTE programs
- Organizing tool for curriculum design and instruction
- Guide in developing programs that bridge secondary and postsecondary
- Helps students discover their interests and passions and choose an educational pathway

Variability Among States

Examples:

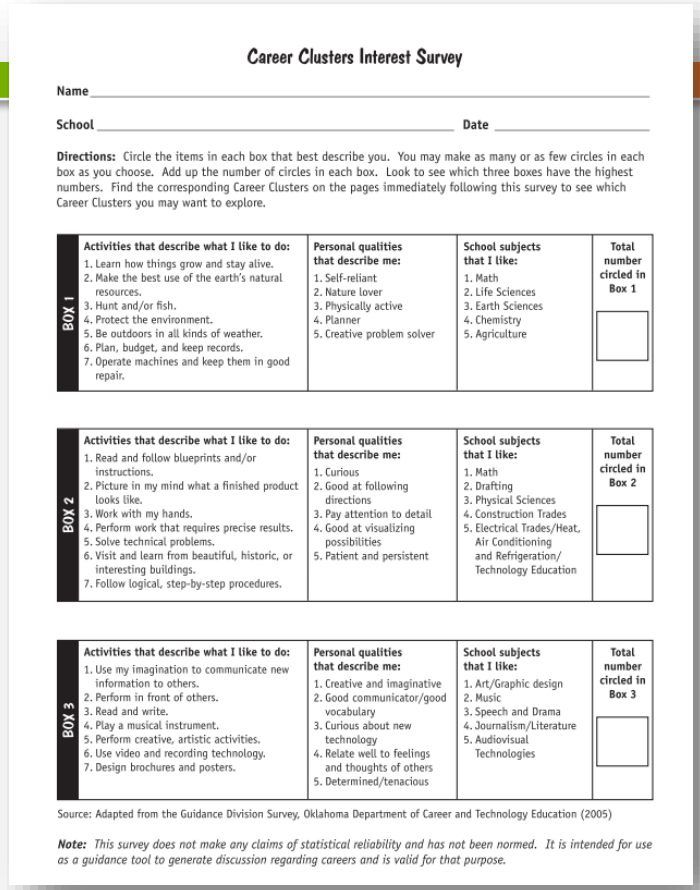
- Montana is implementing 11 Career Clusters
- Colorado, Florida, Georgia and Michigan added "Energy" as a 17th Career Cluster
- Nebraska, Kansas and Colorado rearranged the 16 Career Clusters into six career fields
- **California, 15 Career Clusters**
  - Unique to Career Clusters: Fashion and Interior Design

Career Cluster Interest Survey

- Found on Careertech.org
- English:
  - https://cte.careertech.org/sites/default/files/StudentInterestSurvey-English.pdf

Spanish:

- https://cte.careertech.org/sites/default/files/StudentInterestSurvey-Spanish.pdf



Career Clusters Interest Survey

Name _____

School _____ Date _____

Directions: Circle the items in each box that best describe you. You may make as many or as few circles in each box as you choose. Add up the number of circles in each box. Look to see which three boxes have the highest numbers. Find the corresponding Career Clusters on the pages immediately following this survey to see which Career Clusters you may want to explore.

	Activities that describe what I like to do:	Personal qualities that describe me:	School subjects that I like:	Total number circled in Box 1
BOX 1	1. Learn how things grow and stay alive. 2. Make the best use of the earth's natural resources. 3. Hunt and/or fish. 4. Protect the environment. 5. Be outdoors in all kinds of weather. 6. Plan, budget, and keep records. 7. Operate machines and keep them in good repair.	1. Self-reliant 2. Nature lover 3. Physically active 4. Planner 5. Creative problem solver	1. Math 2. Life Sciences 3. Earth Sciences 4. Chemistry 5. Agriculture	

	Activities that describe what I like to do:	Personal qualities that describe me:	School subjects that I like:	Total number circled in Box 2
BOX 2	1. Read and follow blueprints and/or instructions. 2. Picture in my mind what a finished product looks like. 3. Work with my hands. 4. Perform work that requires precise results. 5. Solve technical problems. 6. Visit and learn from beautiful, historic, or interesting buildings. 7. Follow logical, step-by-step procedures.	1. Curious 2. Good at following directions 3. Pay attention to detail 4. Good at visualizing possibilities 5. Patient and persistent	1. Math 2. Drafting 3. Physical Sciences 4. Construction Trades 5. Electrical Trades/Heat, Air Conditioning and Refrigeration/ Technology Education	

	Activities that describe what I like to do:	Personal qualities that describe me:	School subjects that I like:	Total number circled in Box 3
BOX 3	1. Use my imagination to communicate new information to others. 2. Perform in front of others. 3. Read and write. 4. Play a musical instrument. 5. Perform creative, artistic activities. 6. Use video and recording technology. 7. Design brochures and posters.	1. Creative and imaginative 2. Good communicator/good vocabulary 3. Curious about new technology 4. Relate well to feelings and thoughts of others 5. Determined/tenacious	1. Art/Graphic design 2. Music 3. Speech and Drama 4. Journalism/Literature 5. Audiovisual Technologies	

Source: Adapted from the Guidance Division Survey, Oklahoma Department of Career and Technology Education (2005)

Note: *This survey does not make any claims of statistical reliability and has not been normed. It is intended for use as a guidance tool to generate discussion regarding careers and is valid for that purpose.*

Workbook Activity

Reflection – Page 13

The questions in your workbook on page 13 will help in understanding what information you need about Career Clusters in your state and community.

Program of Study

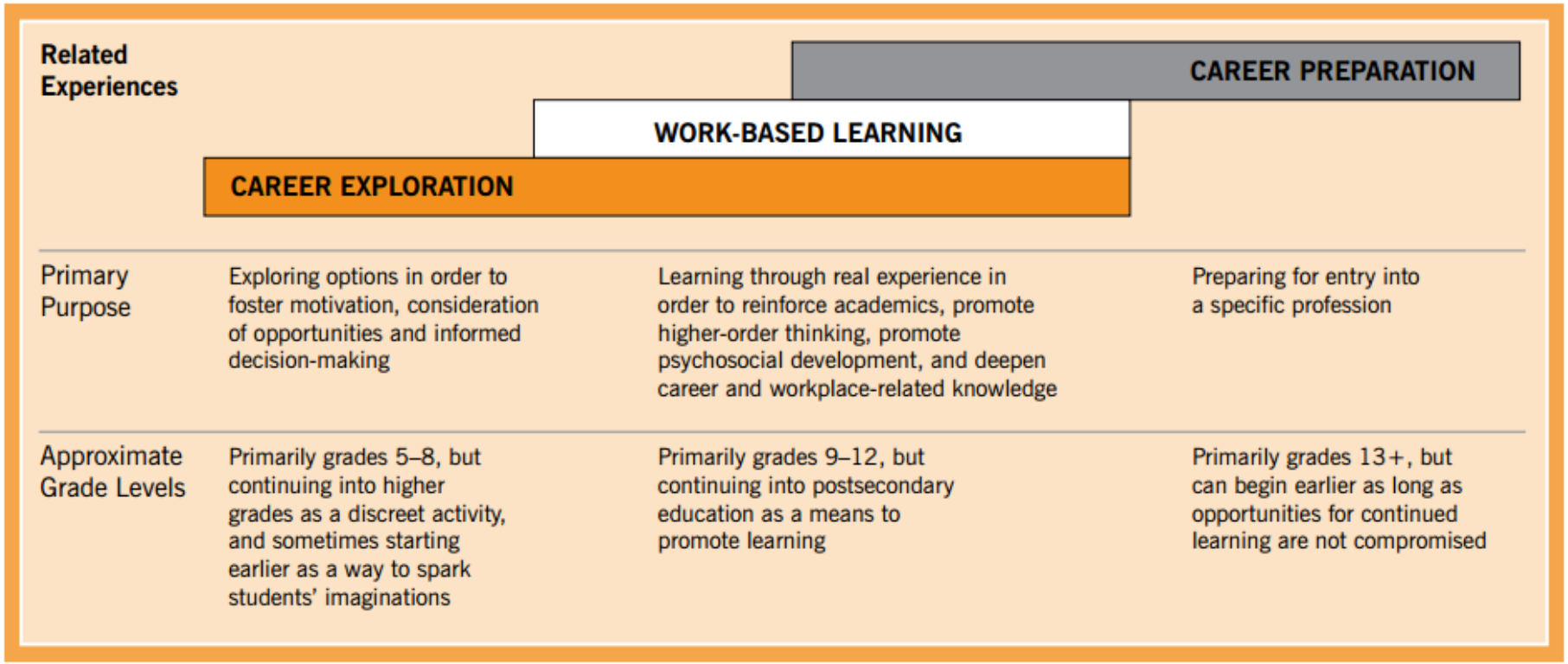
Defined by Carl D. Perkins Career and Technical Education Act of 2006

"A program of study is a non-duplicative sequence of academic and technical courses that include secondary- and postsecondary-level content and opportunities for high school students to earn postsecondary credit, and culminate in industry-based credentials and/or postsecondary degrees."

Key Components of a High-Quality CTE Program of Study

- Work-based Learning
- Credentials
- Early Postsecondary Opportunities
- Career and Technical Student Organizations (CTSO)

Defining Work-based Learning



https://www.wested.org/online_pubs/workbasedlearning.pdf

Work-based Learning

A continuum of experiences beginning in early grades through middle and high school – and into postsecondary that builds students awareness of careers. Types of work-based learning include:

- Job shadowing
- Mentoring
- School-based enterprises
- Internships
- Youth apprenticeships
- Registered apprenticeship

Credentials

A credential is a signal for what individuals know and can do. Credentials can be earned in secondary or postsecondary and precise definitions may vary across states. Types of credentials include:

- Badges
- Certificates
- Certifications
- Degree
- Industry-Recognized Credentials
- Licenses

HUMAN SERVICES & RESOURCES

FIRE SCIENCE

STACKABLE CREDENTIAL

Undergrad	Bachelor of Science in Fire Science
Certification	National Fire Protection Association Certification
Undergrad	Fire Department Academy
Undergrad	Associate of Applied Science in Fire Science
Certification	ASHI Blood Borne Pathogen Awareness
Certification	NIMS National Incident Management System 100, 200 and 700

High school students may graduate with industry certifications and/or dual enrollment credit toward a college certificate and/or degree.

Certification HS	ASHI CPR American Safety and Health Institute (earned in HS)
Certification HS	ASHI Basic First Aid (earned in HS)
High School	Dual Enrollment

CTE CAREER & TECHNICAL EDUCATION WORKS
PEORIA UNIFIED SCHOOL DISTRICT

STACKABLE CREDENTIALS

A series of industry certifications and education earned through career focused programs of study during and after high school

Early Postsecondary Opportunities

- Courses and/or exams that give students the chance to obtain postsecondary credit while still in high school. Types may include:
  - Dual enrollment/dual credit
  - Articulated Credit
  - Transcribed Credit
- Dual Enrollment is fairly prominent in CTE:
  - 1.5 million high school students participate in dual enrollment courses
  - Over 600,00 dual enrollment credits were earned in CTE courses (1/3 of all dual enrollment credits earned)

**NCES Data*

Value of Early Postsecondary Options

- Helps students realize that they can handle college-level work
- Studies found that dual enrollment programs have positive effects on postsecondary degree attainment, college access and enrollment, credit accumulation, high school completion and academic achievement.
- Especially relevant for underserved populations, including first generation college seekers.
- Saves students time and money

https://ies.ed.gov/ncee/wwc/Docs/InterventionReports/wwc_dual_enrollment_022817.pdf

Career Technical Student Organizations (CTSO)

- Enhance student learning through contextual instruction, leadership development and personal development
- Integral component of classroom curriculum
- Builds on employability and career skills
- Career development competitive events

National Coordinating Council for Career and Technical Student Organizations (NCC-CTSO)

- Business Professionals of America (BPA)
- DECA
- Educators Rising
- Future Business Leaders of America-Phi Beta Lamba (FBLA-PBL)
- National FFA Organization (FFA)
- Family, Career and Community Leaders of America (FCCLA)
- Future Health Professionals (HOSA)
- SkillsUSA
- Technology Student Association (TSA)

Workbook Activity

Jigsaw Activity - Page 17

Four groups:

- Table 1: Work-based learning
- Table 2: Credentials
- Table 3: Early Postsecondary Opportunities
- Table 4: CTSO

Additional Resources

- Credentials of Value: https://cte.careertech.org/sites/default/files/files/resources/Credentials_of_Value_2016_0.pdf
- Connecting Classroom to Careers: A Comprehensive Guide to the State's Role in Work-based Learning: https://cte.careertech.org/sites/default/files/files/resources/WBL_Guide_2016_0.pdf

Learning that Works Resource Center

IIB: CTE Delivery System

- Comprehensive high schools
- Technical/Vocational high schools
  - Primarily or solely offer CTE programs
- Area technical centers
  - Shared-time; full time
  - May serve high school students and adult learners
  - Delivered to students from one or more local districts

CTE Delivery System

- Career Academies
  - Stand alone schools or "schools within schools"
  - Prominent career academy models
  - A quarter of all public high schools offer specialized career academies
- Community and Technical Colleges
  - Two-year educational institutions
  - Programs lead to associate degrees, diplomas, certifications
  - Technical colleges more likely to focus on career-focused programs

Workbook Activity

How is CTE Delivered in Your State/Community?

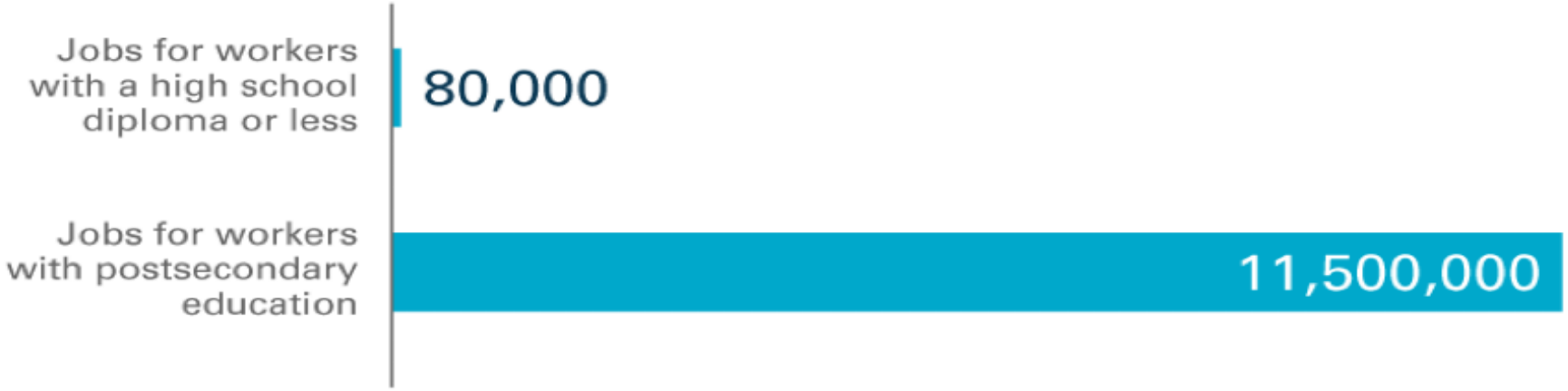
Table Discussion on pros and cons – Page 22

IIC: Current and Emerging Workforce, Labor Market Information & CTE

Workforce Changes

- High school diploma is not sufficient
- Rooted in global shift from industrial to knowledge economy
- Increased need for postsecondary credentials
- High-skill, high-wage and high-demand careers
- There were 800,000 jobs lost in 2008 and the majority of jobs created since the Great Recession require education/credentials beyond high school

New Jobs Added in U.S. Since 2011



"A Stronger Nation" Lumina Foundation (strongernation.luminafoundation.org)

Skills Gap in the U.S.

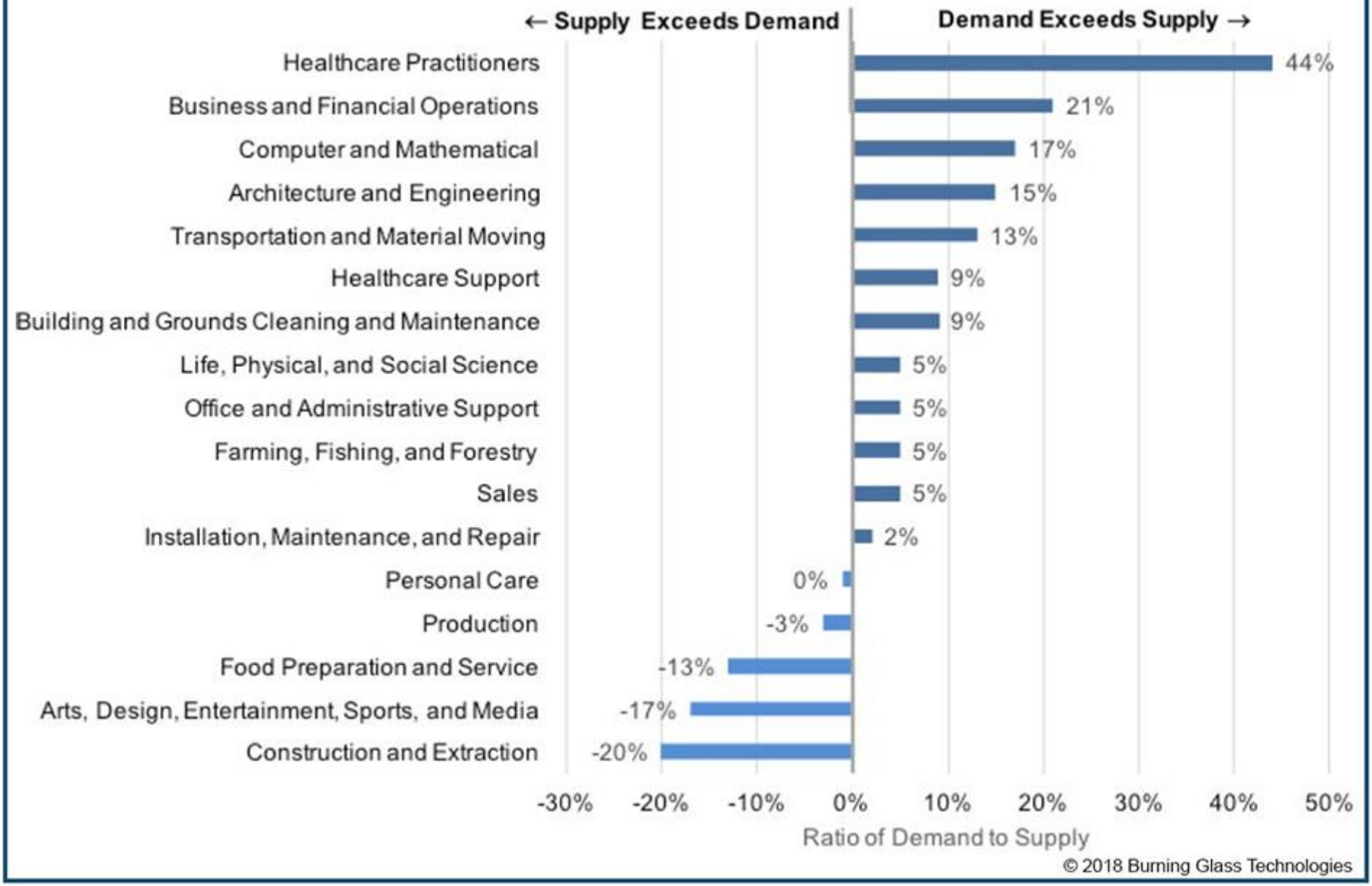
- A growing gulf between the skills workers possess today and the skills businesses say they need
- 53% of all jobs in US today require more than a high school diploma but less than a four-year degree
- Many in technical fields such as health care, information technology and advanced manufacturing
- Only 43% of workers have these skills

State of the Skills Gap: Perceptions of the Role High School Plays in Preparing Students for Success in Career. (2017). Edge Research and K12 Inc. Retrieved from https://www.k12.com/career-technical-education.html

High-Wage, High-Skill & High-Demand

- **Labor Market Information** is used by businesses, workers, students, jobseekers, education and training providers, policymakers, and others, to make informed decisions in areas such as hiring and advancement, career choice, curriculum development and investments in training.
- **High-Skill** refers to the technical and employability skills necessary for careers that align with labor market needs.
- **High-Wage** refers to careers that provide individuals with a living wage that can be used to support themselves and their families. Generally wages that are equivalent to the state's median wage or above.
- **High-Demand** refers to careers aligned with labor market needs. These occupations appear to be growing, based on fluctuations in employment patterns.

DEMAND/SUPPLY RATIO BY OCCUPATION



Is the Goal to Get into College?

- 60% of students who began seeking a bachelor's degree at a four-year institution in Fall 2010 completed that degree within six years
- The six-year graduation rate was higher for females than for males (63% vs. 57 %).

https://nces.ed.gov/programs/coe/indicator_ctr.asp

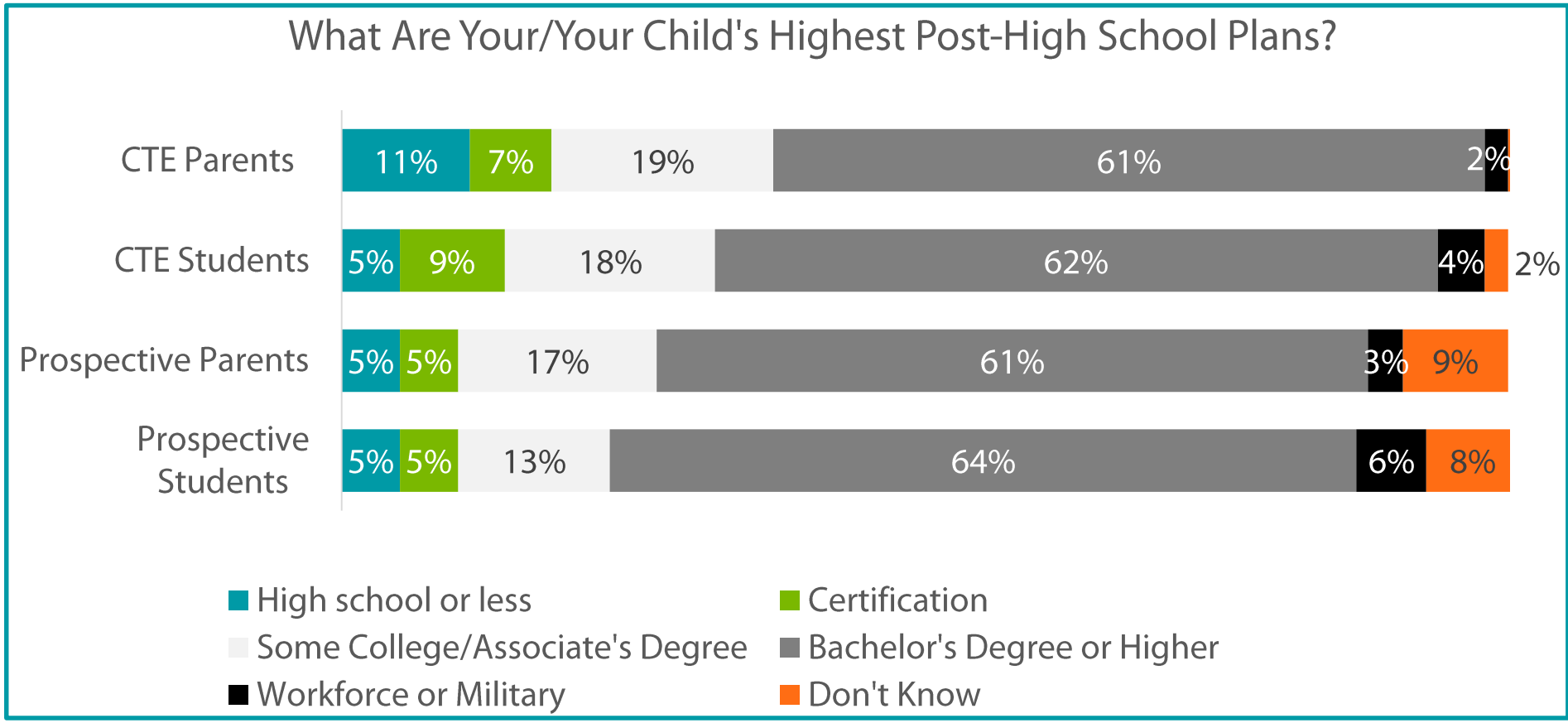
Does Bachelor's Degree = Workforce Ready?

- $1.4 trillion in national student debt: https://www.federalreserve.gov/releases/g19/HIST/cc_hist_memo_levels.html
- Half of U.S. adults regretting the degrees they earned, the institutions they attended and/or their fields of study: http://news.gallup.com/poll/211529/half-adults-change-least-one-education decision.aspx?g_source=Education&g_medium=newsfeed&g_campaign=tiles
- About 6 million jobs at risk for so-called degree inflation by employers: https://www.hbs.edu/managing-the-future-of-work/Documents/dismissed-by-degrees.pdf

College is Broader than Four-Year Institutions

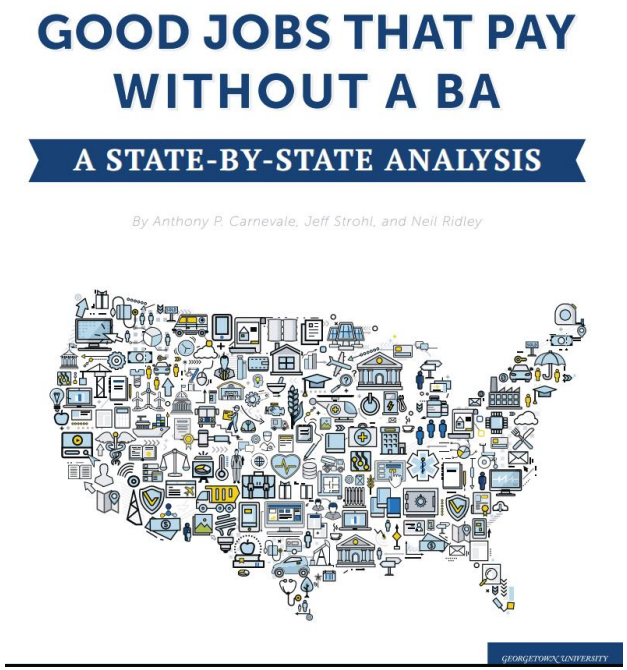
- Community college and technical college are both "college"
- Institutions that award postsecondary credentials or degrees
- Apprentices are increasingly earning postsecondary credits and community/technical colleges serving as education providers for industry partners

“College” is the Goal for All



https://careertech.org/resource/value-and-promise-of-cte-results-from-a-national-survey

Georgetown University: Goodjobsdata.org



- Georgetown University Center on Education and the Workforce, Good Jobs That Pay without a BA: A State-by-State Analysis, 2017

Good Jobs Without a Four-Year Degree

- Good jobs pay an average of $55,000 per year, and a minimum of $35,000
- New good jobs are going to workers with some college education and associate's degrees rather than workers with high school diplomas
- There are 30 million good jobs that pay for workers without a BA and 36 million for those with a BA or higher
- The manufacturing, transportation, and utilities industries remain a major source of good jobs for workers without a BA

https://goodjobsdata.org/wp-content/uploads/Good-Jobs-wo-BA.pdf

Good Jobs State Data by Industry & Median Earnings

- Delaware – Health Care Practitioners/Technical, $57K
- Indiana – Manufacturing/Production, $57K
- Montana – Natural Resources, $75K
- Missouri – Transportation, $53K
- Louisiana – Construction & Extraction, $66K
- Massachusetts – IT/Financial/Real Estate, $63K

May also be in management and office support within these industries

https://goodjobsdata.org/wp-content/uploads/Good-Jobs-States.pdf

State-specific Analysis

- Wyoming, New Jersey and Maryland have the largest share of good jobs for workers without BAs
- States in the West and northern Plains saw the largest gains of good jobs in skilled-service industries
  - Arizona, Montana, Idaho, North Dakota
- Associate's degree holders in Minnesota increased their share of good jobs by the largest margins

https://goodjobsdata.org/wp-content/uploads/Good-Jobs-States.pdf

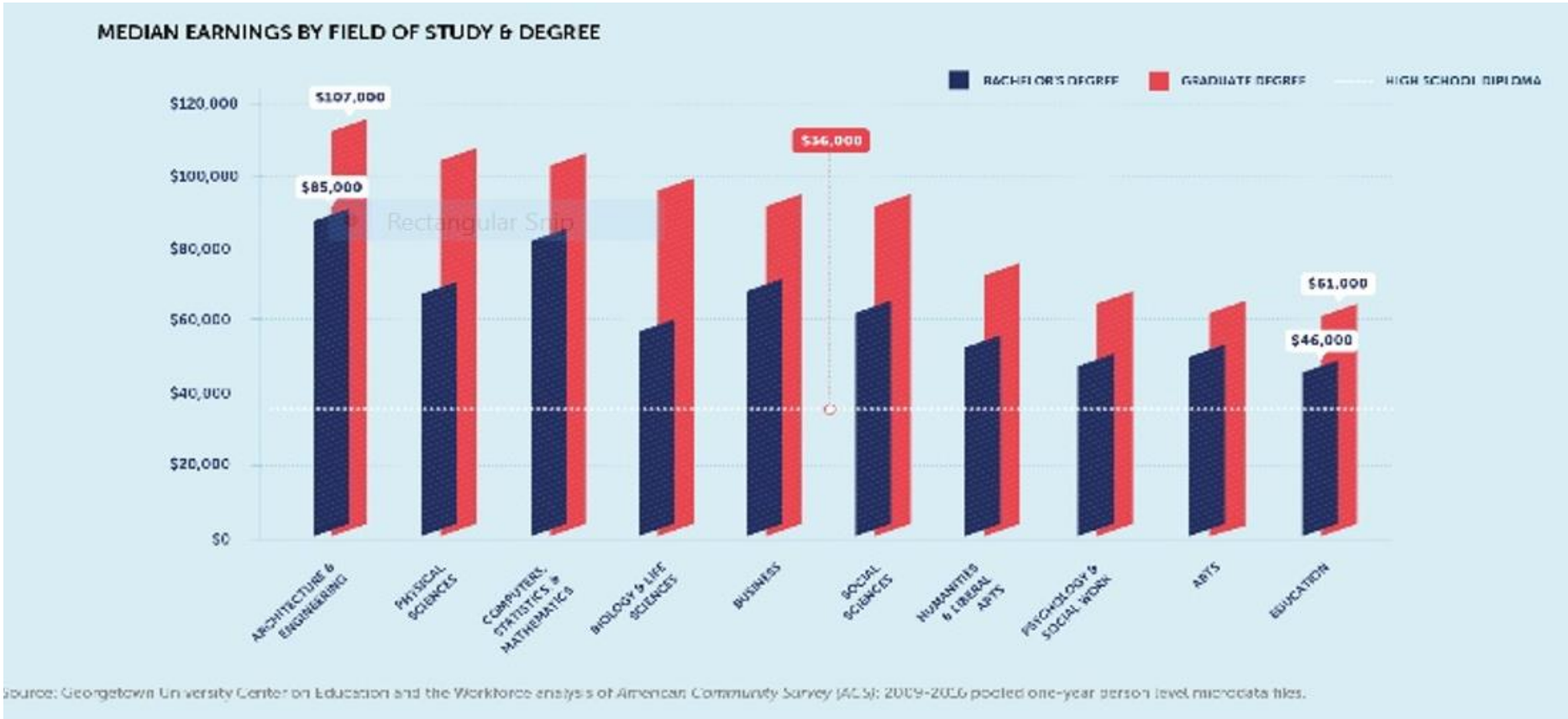
More Education is Usually Better

- Median earnings increase with each level of educational attainment
- Median earnings of a high school diploma holder is $36,000, while a BA holder makes $62,000 and graduate degree $80,000

https://cew.georgetown.edu/cew-reports/5rules/

Majors Matter

The difference in annual median earnings between the highest and lowest paying majors is $39,000



Less Education Can be Worth More

- 28% of associate's degree holders and many workers with one year certificates, earn more than the average BA holder
- Some bachelor's degree holders earn more than the average worker with a graduate degree
  - Associate's degree holders in STEM and Health earn more than bachelor degree holders in liberal arts

Five Rules of the College and Career Game (May 2018): https://cew.georgetown.edu/cew-reports/5rules/

IIC: Understand State and Regional Data/Trends

State Specific Key Industries

New Jersey Key Industry Clusters

New Jersey has a richly diverse population; proximity to major metropolitan areas and a history of invention and innovation; from electronics and pharmaceuticals to biotechnology research; that impressively continues to grow. New Jersey's commitment to investment, collaboration and talent development supports growth in key industry clusters that drive economic expansion. In the Garden State, these key clusters have found an ideal location – within a day's drive of 40.0 percent of the US population; a talented, productive and highly educated, workforce with a high density of residents with advanced degrees and 52 colleges and universities. Here is a brief look at some key industry clusters.

Bio/Pharmaceuticals and Life Sciences Industry Cluster

- The bio/pharma life sciences cluster accounted for $23 billion (nearly 5.0%) of New Jersey's Gross Domestic Product in 2009.
- New Jersey's bio/pharma life sciences employment totaled 125,965 in 2009, or 4.0 percent of the state's private sector workforce. Nationally, the proportion is just 2.0 percent.
- New Jersey's bio/pharmaceutical and life sciences cluster employment is comprised of three primary components: pharmaceutical sector (44.2%), biotechnology (34.1%) and medical device manufacturing (21.6%).
- Over the past five years, this cluster's establishments have expanded by 15.9 percent in New Jersey, outpacing the nation by 6.0 percentage points.
- New Jersey bio/pharma life science employers paid more than $14 billion in wages during 2009, or 8.1 percent of the state's total wages.
- New Jersey's highly educated workforce is profoundly seen in this cluster as nearly two thirds of its workers hold at least a Bachelor's (33.1%), Master's/Professional (23.0%), or Doctoral (8.2%) degree.

Transportation, Logistics, Distribution Industry Cluster

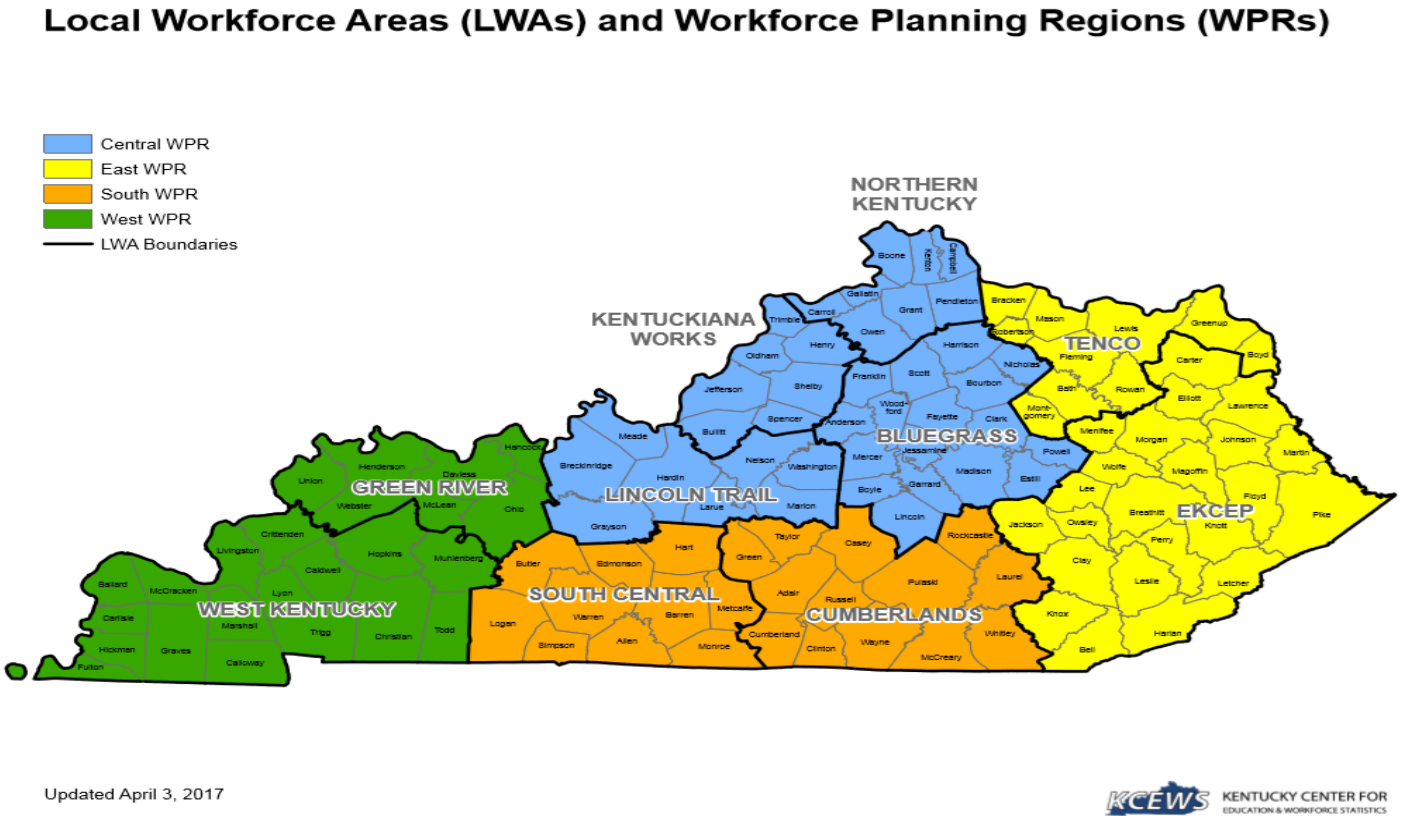
- In 2009, transportation, logistics and distribution (TLD) employed 364,429 workers in New Jersey. The cluster employed 11.9 percent of the state's private sector workers, a higher percentage than for the nation (8.9%).
- TLD contributed 48.6 billion dollars to the state's Gross Domestic Product (GDP) in 2009.
- In 2009, employers in the state's TLD industry cluster paid a total of $22.9 billion in wages.
- The dense population (1,195 persons per square mile) and higher income level ($50,221 2009 median household income) of New Jersey and the region surrounding it make the Garden State a prime location from which to distribute goods to consumer outlets.
- Located between New York City and Philadelphia, New Jersey is within a day's drive of 40 percent of the US population who purchase $2 trillion in merchandise yearly.
- The state offers access to the nation's freight rail network and the state's commuter rail network and is also home to several key transportation facilities necessary for a strong TLD industry cluster including three major seaports and a large international airport.

Finance Industry Cluster

- Despite a relatively small employment base (5.2% of total employment in 2010) finance and insurance contributed $39.4 billion or 8.4 percent to the state's Gross Domestic Product in 2009.
- Twenty-two of New Jersey's top 25 financial services employers are located within 40 miles of Manhattan. The state's competitive real estate rates, lower corporate tax rates, lower utility costs and highly educated talent pool make it a desirable location.
- Financial services relies heavily on information and technology. New Jersey has remained in the forefront of technological advancement by becoming a national leader in developing data centers to support the industry.
- New Jersey's financial services sector lost 7.9 percent of its employment base from 2007 to 2010; there were approximately 199,000 finance and insurance jobs in the state in 2010.

http://www.state.nj.us/state/planning/docs/dfplan_industrysectors.pdf

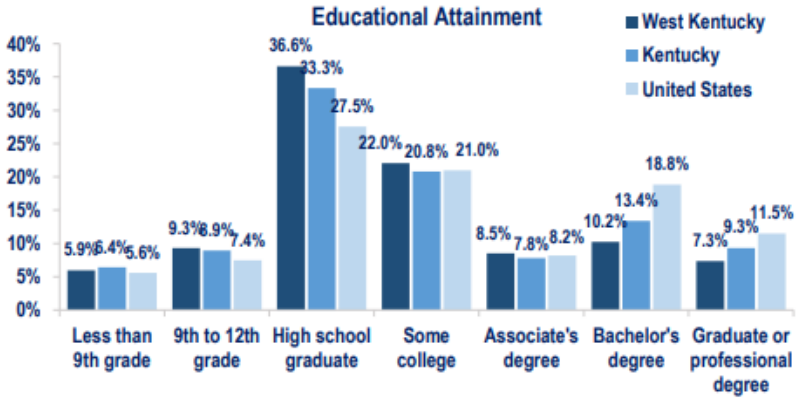
Kentucky Regions



https://kcews.ky.gov/KYLMI/Index/

EDUCATIONAL ATTAINMENT

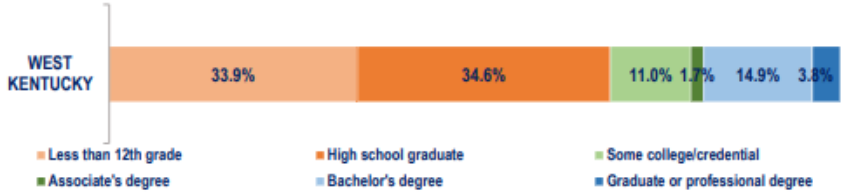
West Kentucky has lower rates of postsecondary attainment when compared to the state and nation. Relatively more people in West Kentucky choose not to pursue education beyond high school. The residents who attended some college is slightly greater than the state and nation averages.



Source: American Community Survey (ACS 2012-2016) Annual Education Attainment for the Population Ages 25+. U.S.Census Bureau.

PROJECTED WORKFORCE DEMAND

The chart below shows the credentials required for the projected jobs between 2017 - 2021. These demand projections are conservative estimates created with Labor Market Information data and supplemented with data from the Bureau of Labor



Source: Kentucky Center for Education and Workforce Statistics, Kentucky Future Skills Report, 2017

18.7%

of the projected jobs require a ***BACHELOR'S DEGREE*** or higher by 2021

KEY INDUSTRY SECTORS

Key Sectors are composed of industries with the **most projected job openings (including growth and replacement) over the next five years** and have an **average annual salary** of **at least $35,000 per year** for the entire sector. These industries are classified using the North American Industry Classification System (NAICS). Some sectors may be a combination of multiple industries and are described in the visual to the right. The Key Sectors are ordered by the highest projected 5-year demand. Estimated current employment and average wage are also provided. The Health Sciences is highest in projected demand and annual employment. Business and IT services has the third highest projected 5-year demand and highest average wage. Finally, Construction and

Health Sciences (Avg. Wage: $46,290)
- NAICS* Code: 62
- Projected 5-Year Demand: 3,670
- 2017 Average Annual Employment: 19,832

Advanced Manufacturing (Avg. Wage: $42,986)
- NAICS* Codes: 31-33
- Projected 5-Year Demand: 2,798
- 2017 Average Annual Employment: 16,496

Business and IT Services (Avg. Wage: $48,707)
- NAICS* Codes: 42, 51, 52, 54
- Projected 5-Year Demand: 2,595
- 2017 Average Annual Employment: 17,443

Transportation and Logistics (Avg. Wage: $46,253)
- NAICS* Codes: 48-49
- Projected 5-Year Demand: 1,197
- 2017 Average Annual Employment: 6,994

Western Kentucky Regional Data

@CTEWorks

It's Not About Discouraging a BA

- Lifelong learning
- Jobs that have career trajectory
  - CNA → LPN → RN → BSN → Advance Practice
  - Stackable Information Technology credentials
- Occupations are growing and/or declining based on automation/technology

School Counselor Role

- Marry personal interests and skills with where there are opportunities
- How can skills be applied across multiple occupations/careers?
- Which industries and occupations are growing in your state?
- Need to be nimble

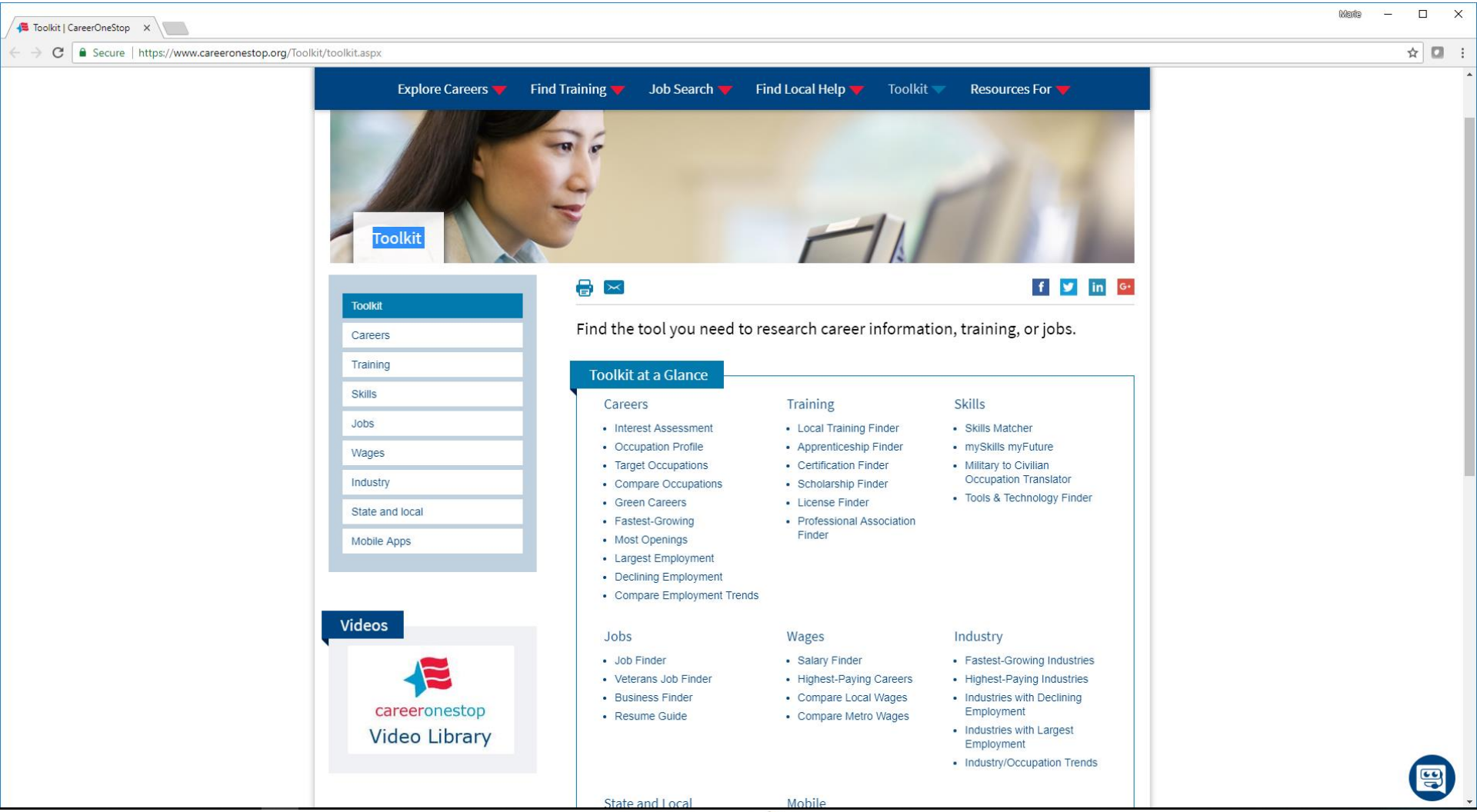
Workbook Activity

Small Group Discussion – Page 23

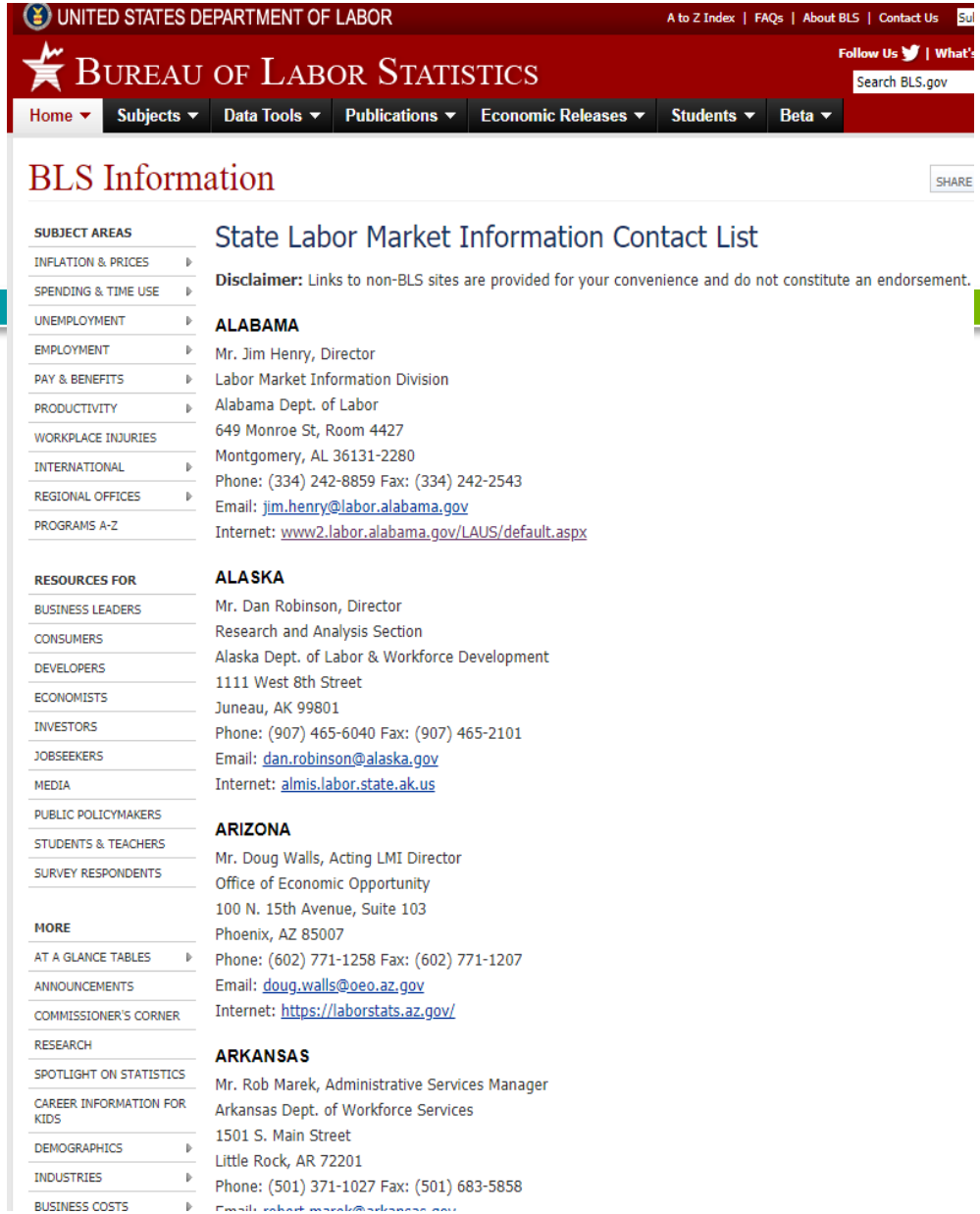
- What resources do you currently use to provide labor market information to help students understand career opportunities in your community?
- What ideas do you have about how you could you use labor market information and other resources to assist students and their families about understanding career opportunities?

Common LMI Resources

CareerOnestop.org



www.onetonline.org



US Bureau of Labor Statistics State Contacts

https://www.bls.gov/bls/ofolist.htm

Part III: Career Exploration & Development

Career Exploration & Career Development

- CTE needs messengers
- Counselors are a trusted source
- Goal is to empower students to make informed decisions

What impact can and do school counselors have on the career exploration process?

Physicist: The usual suspects

Which one is the physicist?

Adapted from Women in Science, Engineering and Technology Initiative presentation by E. Haines and A. Maguire

Physicist - the usual suspects

98 percent of the public couldn't tell which of these people is a physicist . . .
did you get it right?

Who Do you Visualize?

- Computer Programmer
- Nurse
- Welder
- Systems Engineer
- Early Childhood Teacher
- Automotive Technician

IIIA: Implicit Bias

- Attitudes **or stereotypes** that affect our understanding, actions, and decisions in an **unconscious** manner. These biases, which encompass both favorable and unfavorable assessments, are activated **involuntarily** and without awareness or intentional control.
- Implicit biases are **malleable** and can be unlearned, reshaped, or changed over time.

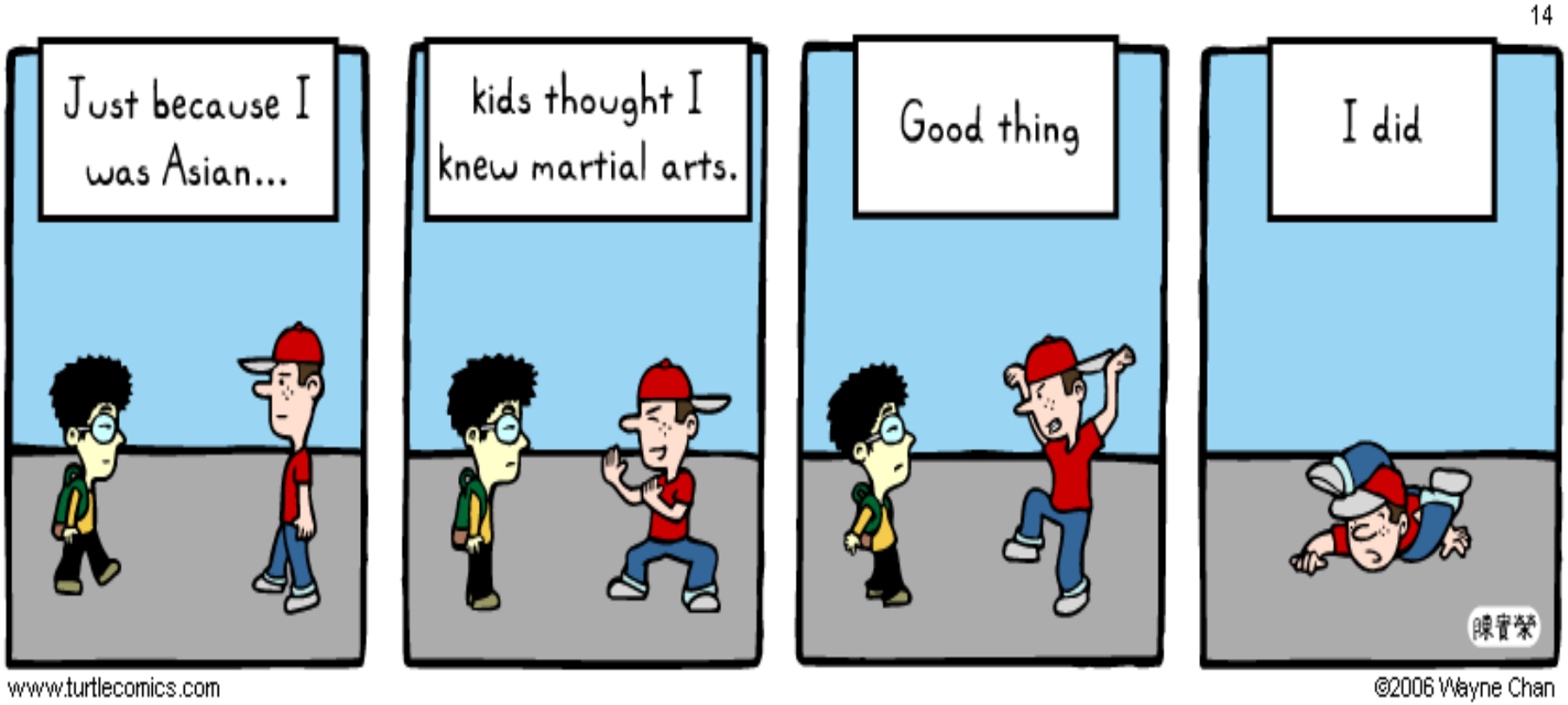
http://kirwaninstitute.osu.edu/wp-content/uploads/2017/11/2017-SOTS-final-draft-02.pdf

Implicit Bias Based On

- Race, gender, ethnicity
- Socio-economic status
- English language learners
- Students with disabilities

Implicit bias impacts everyone – School Counselors, Students, Parents, Employers

Implicit Bias - Example



Unconscious/Implicit Bias

In the blink of an eye, our brain processes a person's race, gender, style of clothing, height and weight, all without our awareness. Based on these irrelevant factors, we make associations about how similar someone is to us, or how different someone is from us.

http://kirwaninstitute.osu.edu/wp-content/uploads/2017/11/2017-SOTS-final-draft-02.pdf

Stereotypes and Implicit Bias

- Who is good with their hands?
- That career is too dirty for girls
- He's too smart to do that
- He is too poor to achieve that goal – we don't want to set him up for disappointment
- His family wouldn't want that for him/her

Other examples

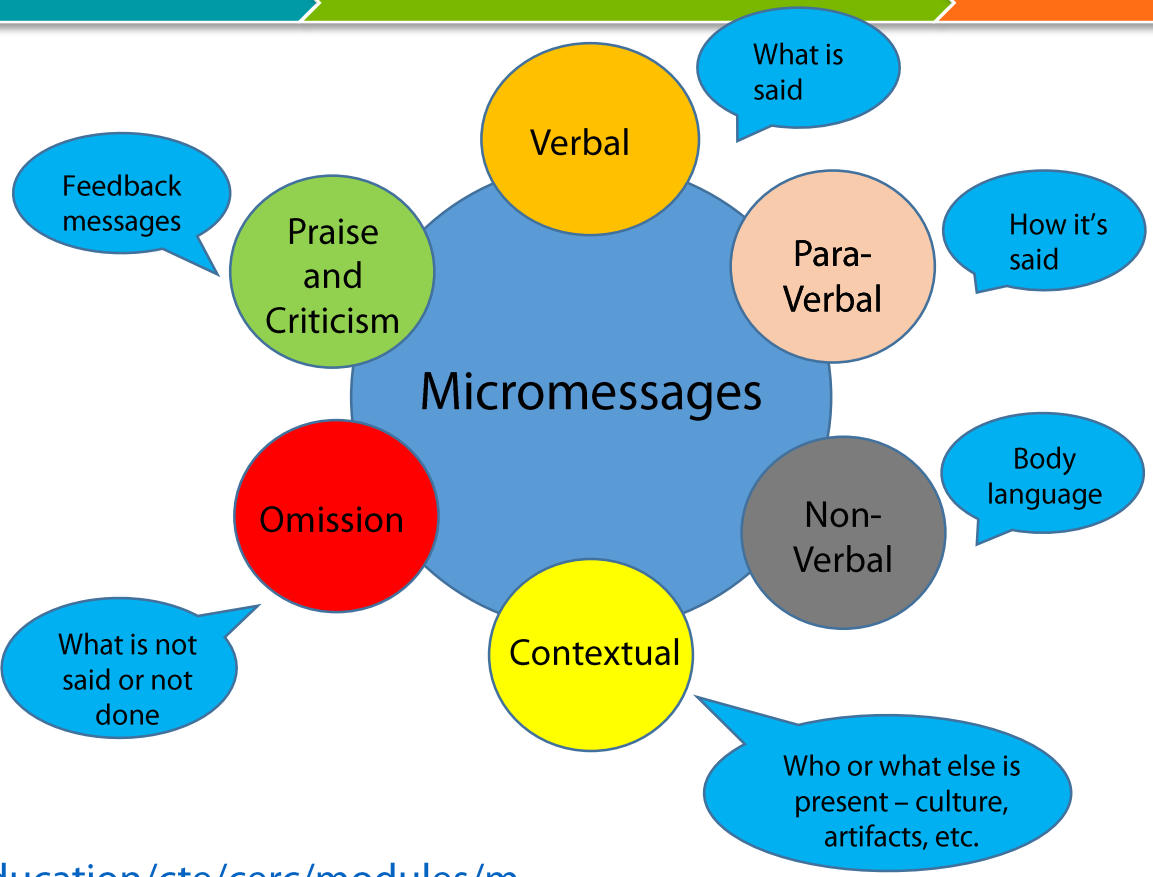
- Assuming that a student with a disability will be unable to complete a lab course or other class activity
- Offering unrequested adjustments or support to a student with a disability because of an assumption that they will not perform well in a class
- Assuming a female will not want to be involved in a class that only males have historically enrolled in, for example, auto mechanics
- Assuming that a student enrolled in many Advanced Placement courses would have no interest in CTE programs

Micromessages

Those small, subtle, **universally understood messages** that we send and receive through words, gestures, body language, tone of voice, and facial expressions whenever we interact with others.

- **Can be positive** and **negative**
- Most often **unconscious** or **unintentional**

Six Key Elements of Micromessaging



www.nj.gov/education/cte/cerc/modules/micromessaging.ppt

How to address Implicit Bias

- Awareness: First step is to admit that, like everyone else, we are biased
- Speak up when you see actions that imply unintended bias
- Model equity in your actions
- Be conscious of micromessaging
- Know the body language do's and don'ts
- Highlight and share positive, accomplished persons in the category of your bias with your students and other educators/counselors
- Educator professional development training on addressing bias

Who is This?

Who is This?

The Blind Audition: The Voice

Workbook Activity

Page 25 - Describe examples of how unintended, unconscious, and/or implicit bias can impact on students' decisions related to career exploration and career decision making.

Reflection and Reminders

- Feedback
- Tomorrow: 8 a.m. – 10 a.m.
- Sign in to receive PPT
- Post Survey from ASCA

Day Two:
IIIB: Career Exploration & Career Development

Successful Career Advising and Development System

- Responds to learners' interests
- Provides career awareness and exploration for all
- Encompasses a range of career pathways
- Seamlessly spans the continuum from elementary through postsecondary
- Includes wraparound services
- Connects with local employers and community partners
- Ensures smooth transitions into the labor market

Workbook Activity

Small group – Page 25

- Each person at their table identifies one strategy (no repeats) that they are using for career advising/development at middle and high schools
- Recorder for each group puts strategies on flipchart

The State of Career Technical Education: Career Advising and Development

- Need for information on effective state-level and school-level strategies for career advising and development
- Advance CTE partnered with ASCA to conduct survey research
- Responses from 45 State CTE Directors, 10 State School Counseling Directors and 647 school counselors
- School counselors represented all 50 states and District of Columbia, as well as all grade levels

Small Group Activity

Small group activity – Pages 27 – 30

Two groups:

- Elementary and Middle School
- High School

- Review findings of the respective group and answer questions in workbook

Recommendations

- Ensure that school counselors have up-to-date information on CTE pathways and programs of study available in their schools and communities, as well as information on work-based learning opportunities.
- Ensure that career advising and development is a school- and community-wide effort, with effective coordination between school counselors and school administration and active participation from classroom instructors and community organizations.
- Develop career awareness strategies specifically for elementary school students that are embedded in students' daily experiences.

Recommendations

- Align efforts at the elementary, middle and high school levels so that learners experience seamless progression from career awareness and exploration to career advising and development.
- Facilitate community-wide conversations that provide opportunities for community and industry partners to engage directly with school counselors so they can better understand career options and the world of work.
- Explore partnerships between secondary and postsecondary systems and institutions to both gather more data on existing strategies and implement new strategies as appropriate.

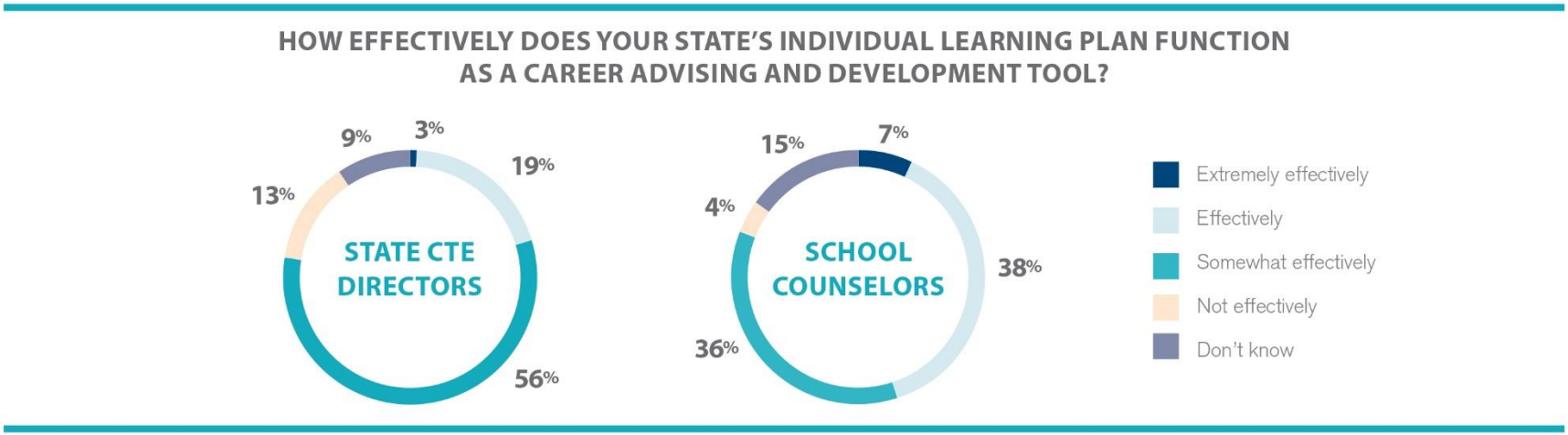
Recommendations

- Examine if and how school counselors are using labor market data, making sure that the data are easily available to school counselors and that school counselors are well prepared to use them.
- Improve the effectiveness of Individual Learning Plans (or equivalent) by scaling up innovative practices, including having students begin them in middle school, encouraging more participation in CTE and other career exploration activities, and working with school counselors to ensure that ILPs are integrated into a broader career development process.

Individual Learning Plans as Career Advising Tool

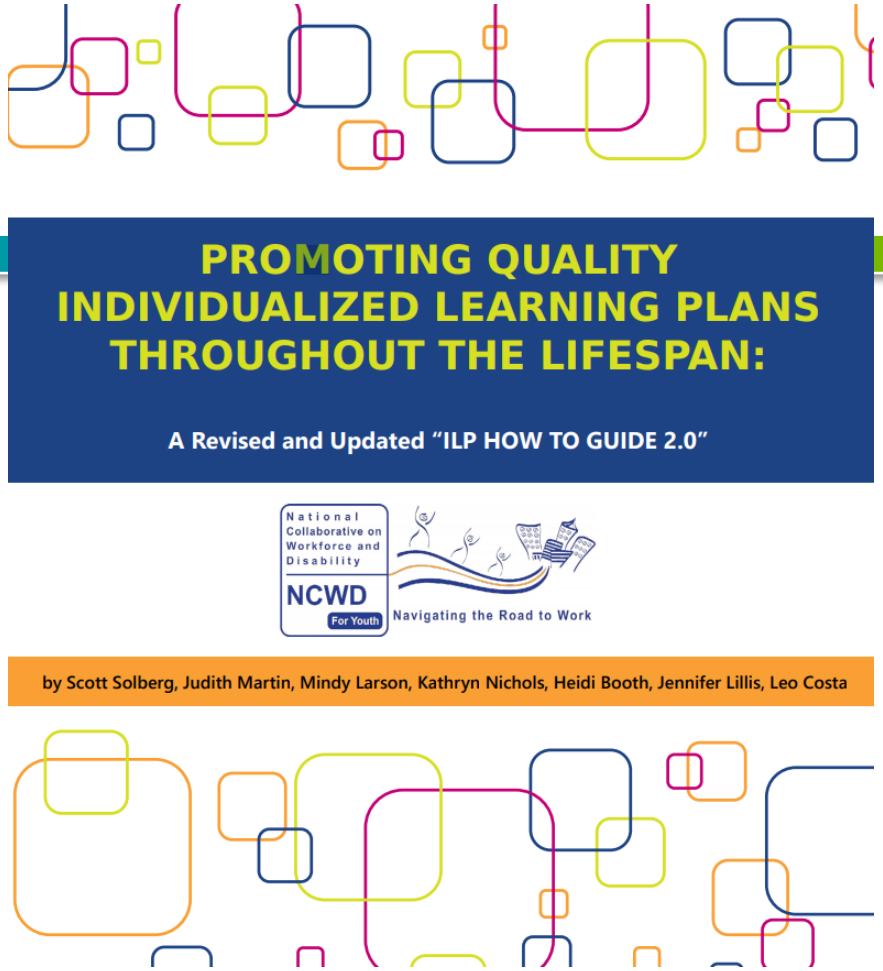
- Academic and Career Planning Tool
- According to USDOL, 38 states use ILPs but only 21 mandate use for all students
- Effectiveness varies
- Disconnect between state-level and local-level
- Value in beginning plans in middle school
- Engage with parents, guardians and teachers

ILPs can be an effective career advising tool



ILPs can be used more effectively by:

- Beginning them in middle school
- Including them as part of a wider conversation and process
- Being clear and strategic about connections made to career pathways and CTE opportunities



Valuable Resource for Implementing ILPs

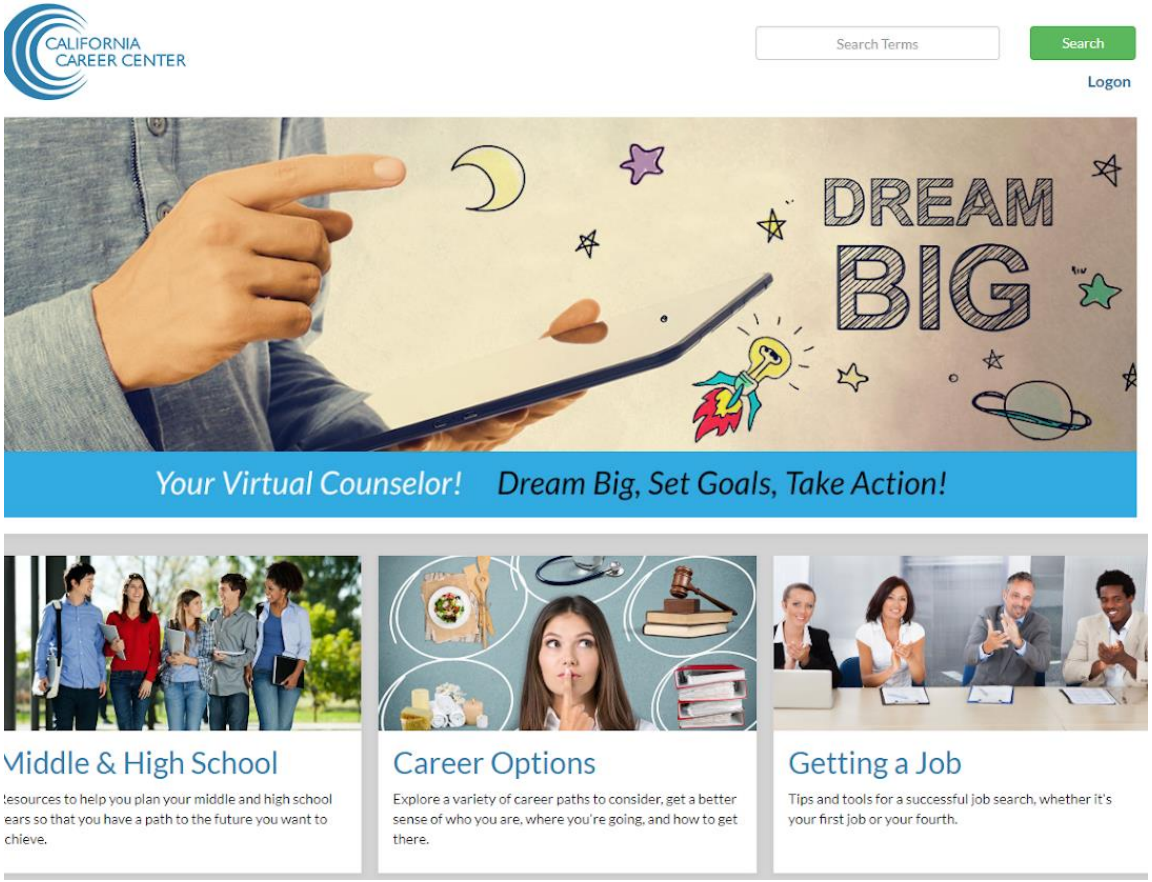
http://www.ncwd-youth.info/wp-content/uploads/2018/03/Promoting-Quality-ILPs-Throughout-the-Lifespan-WEB.pdf

Wisconsin

4-Year Plan (Traditional)	ACP (The Vision)
Product-based	Process-based
Some or select students (CTE, Special Ed)	All students
Acts as a 4-year plan of courses	Acts as a navigational tool for students grade 6-12 and beyond
Career application in elective CTE classes	Career application in all classes
Career development in elective courses or not at all	Career development infused throughout all courses
Student "on own" for its development	Student-driven with collaboration (mentor and parents)
HS Graduation = End point	HS Graduation = Check point
Career development is only the school counselor's job	Career development is a systematic, whole-school responsibility

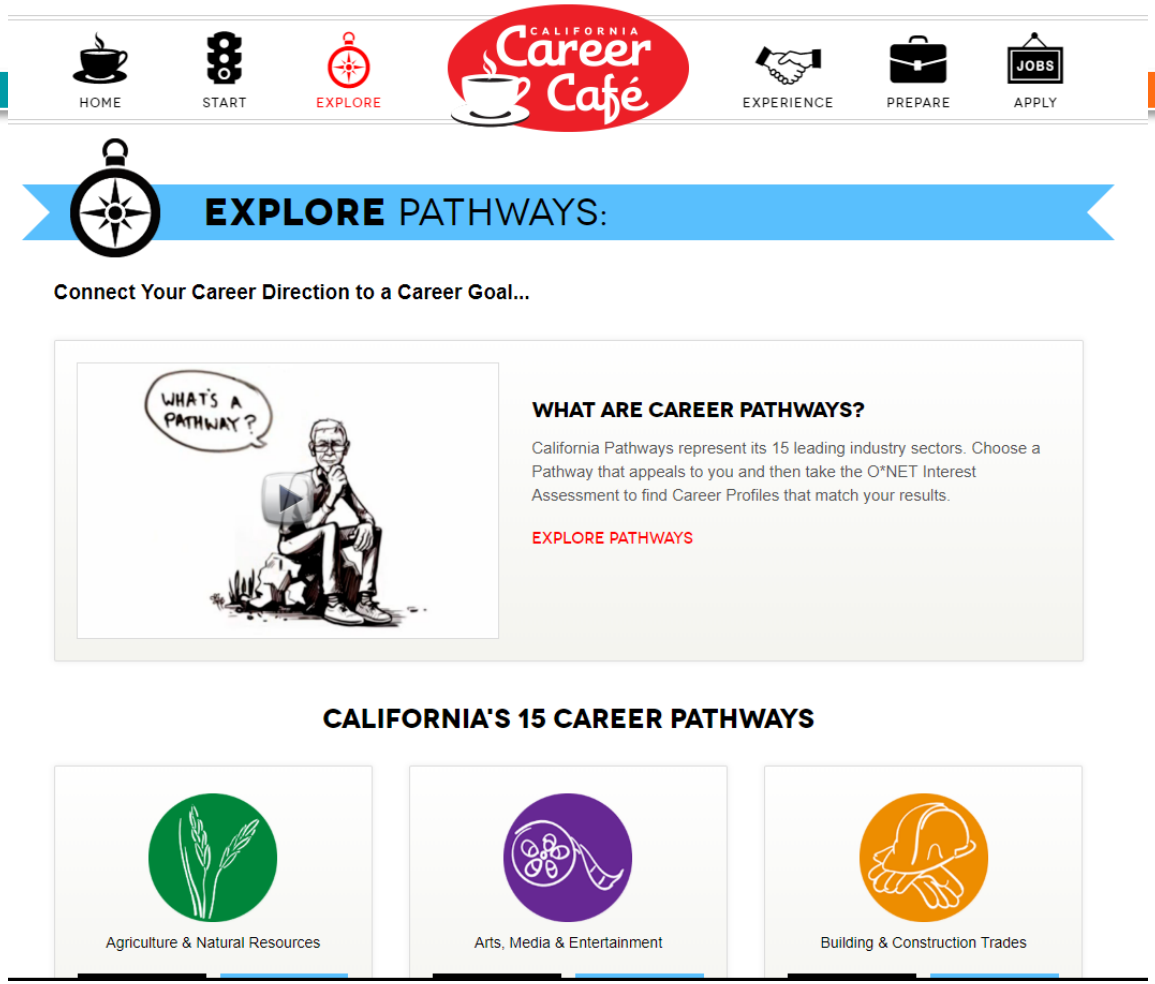
https://dpi.wi.gov/sites/default/files/imce/acp/DPI%20Guide%202016%20FINAL%20web.pdf

California



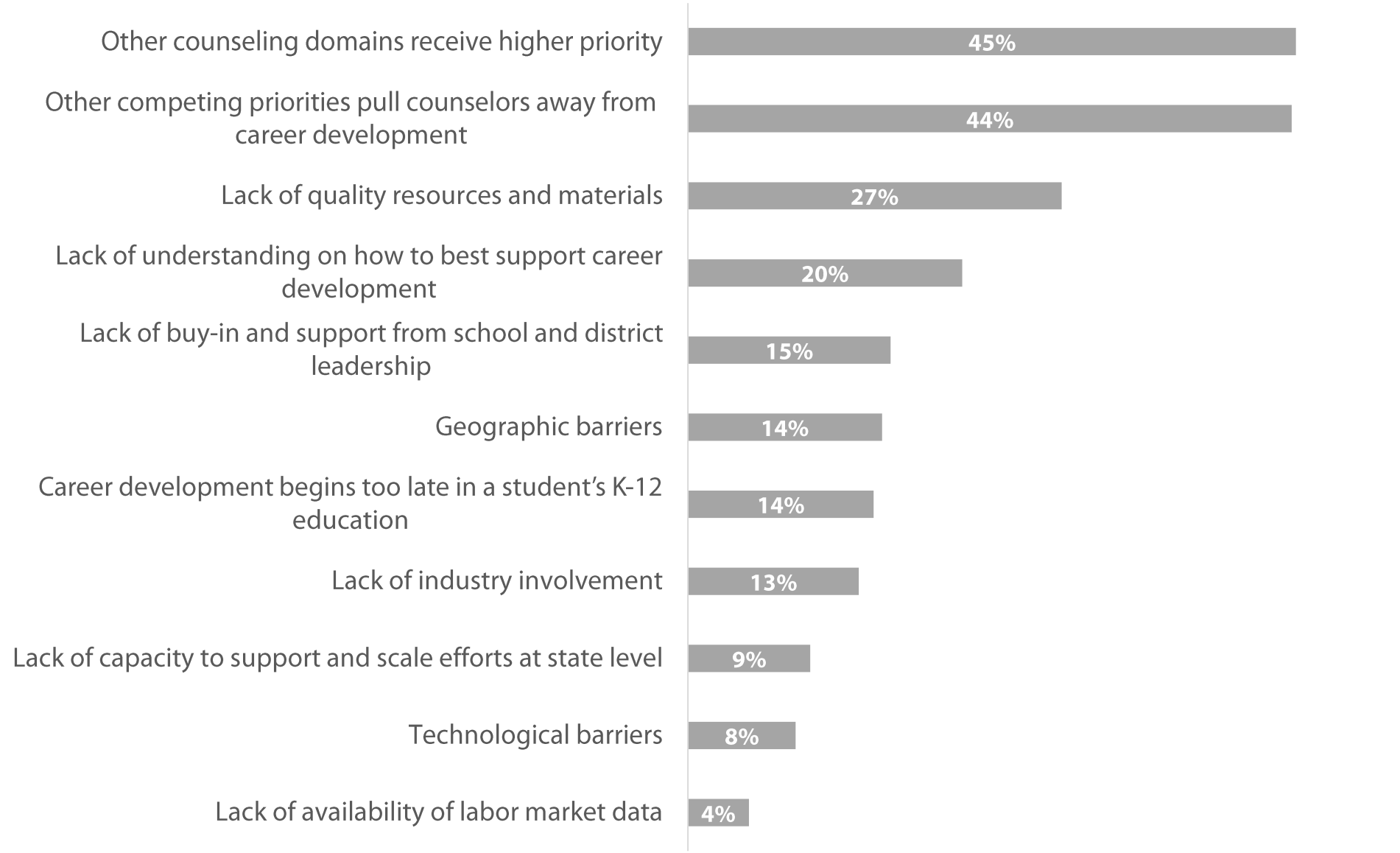
https://www.calcareercenter.org/

California

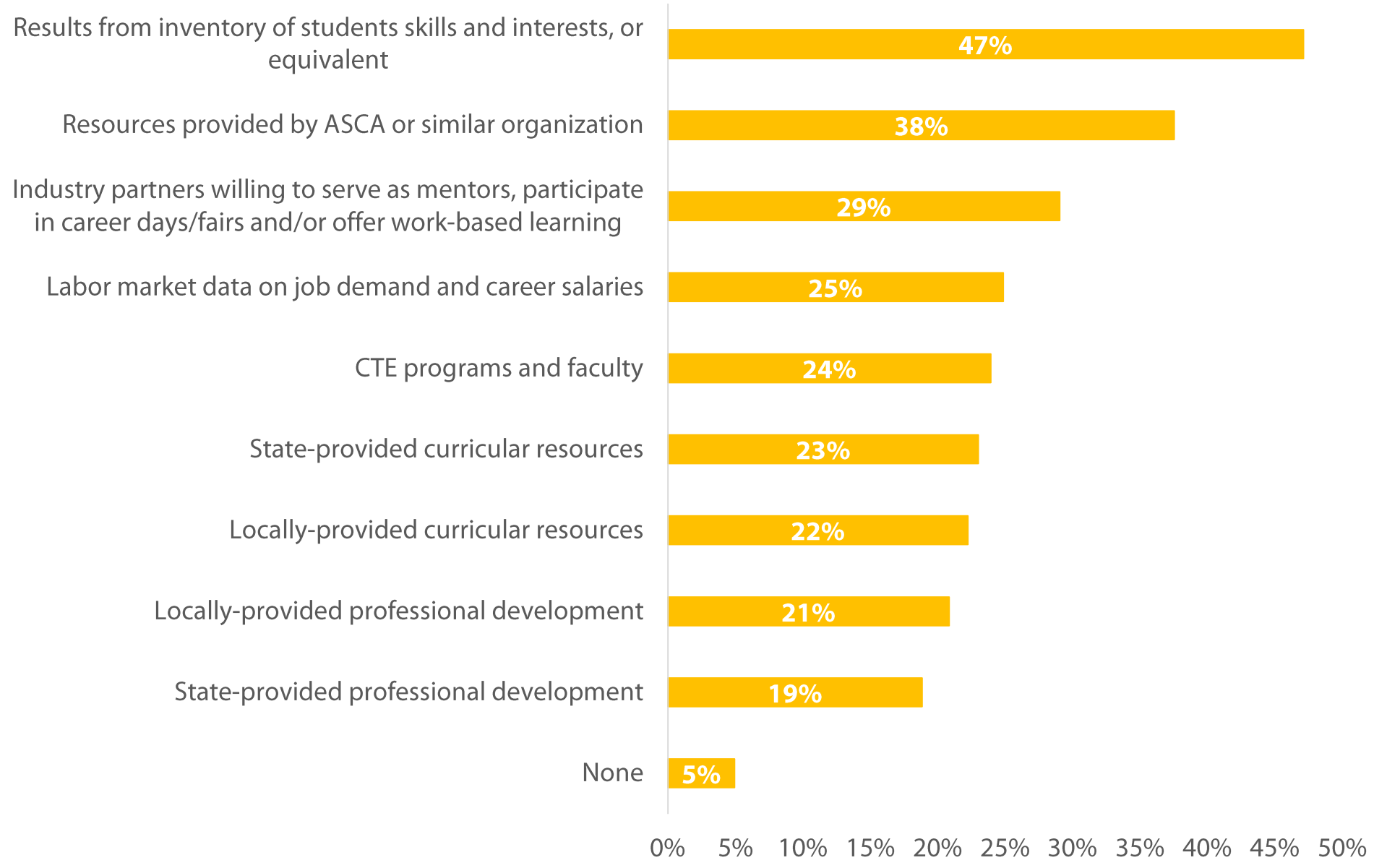


http://www.cacareercafe.com/explore/

What barriers do you face in providing effective career development services?



What resources do you use to support career development efforts?



Workbook Activity

Reflection – Page 31- Which recommendations would be of value to your school/community and help address potential gaps in your local career development system?

IIIC: Core Messages for CTE

Core Messages for CTE

- CTE needs messengers to address awareness and perception challenges
- Opportunities to incorporate CTE messaging into career advisement for students and parents
- Consider new activities to address communication of CTE to other various stakeholder groups

Core Messages – Core Motivators

Real Options for College and Rewarding Careers

Real High School Experience with More Value

Real-World Skills

Sample Supportive Statements

- CTE programs allow students to explore a range of options for their future – inside and outside of the classroom.
- CTE provides the skills and confidence students need to pursue career options, discover their passions and get on a path to success.
- CTE takes students even further during their high school experience – providing opportunities for specialized classes, internships, and networking with members of their community.

How to Use the Messages

Parent and student aspirations for career passion opens the door for a conversation about CTE.

Emphasize opportunities to explore options, develop interests and get a jump start on both **college and a career**.

Real-world skills and hands-on experience are a distinct value add.

Current families value these, and prospects say these are missing. Showcase **real-world skills** and hands-on experiences.

CTE isn't a replacement for traditional schooling, but an enhancement.

Students are **more** satisfied, **more** focused, **more** prepared, **more** apt to graduate.

How Not to Communicate About CTE

- ***DON'T position CTE and college as an "either/or"*** – Remember to talk about CTE as a pathway to college and a wide range of post-high school options, and reinforce that students can earn college credits, scholarships, certifications and more through CTE. Don't frame CTE as the "non-college" option, since that directly conflicts with parent and student aspirations.
- ***DON'T put down high school*** – Having a traditional high school experience is important to parents and students.
- ***DON'T leave out all the other great high school experiences students can have while participating in CTE*** – CTE is a part of high school and doesn't take away from students' opportunities to participate in other activities they enjoy, such as sports
- ***DON'T forget to include employers in the conversation*** – Students want the leg up CTE can give them and highly value the opportunity for mentors, internships and networking with local employers. When describing your programs, talk about these experiences and the specific businesses that are involved.

Workbook Activity

What challenges do you need to address? – Page 33

Revisit list of challenges identified from beginning of the day

- Are there additional challenges to add to the list?

Workbook Activity

Who do you need to reach and what do they need to know?– Page 33

- Who is the main audience based on your main challenges? Who do you need to reach?
- What does your audience need to know more about? Are they aware of the CTE options in your school and community?
- What does your audience need to understand about the CTE value in general?
- How can you utilize these messages to reach students, parents, and other stakeholders?

How Can You Reach your Audience?

- One-on one meeting
- School communication and/or social media
- School assemblies
- Teacher in-service
- Student ambassadors
- After school programs
- Other

CTE Social Media Campaign in Maryland

- Pilot a CTE Social Media Campaign in Two School systems (Charles and Talbot Counties)
- Develop Messages for Counselors, Parents, and Students Using Various Media
- Develop a "How To Guide"
- Branding of Maryland State Department of Education Publications

Maryland Sample Messages

You Retweeted

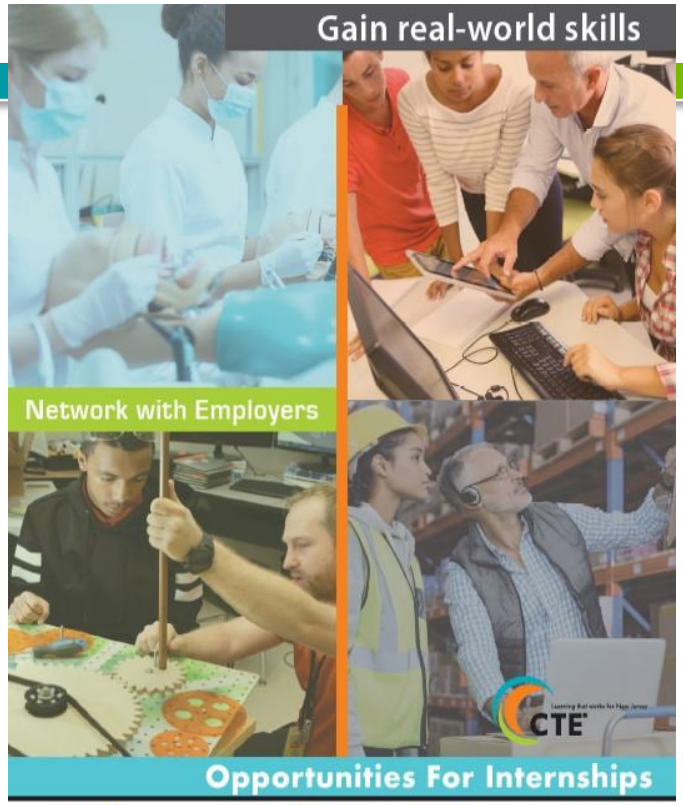
CTE Charles County @CTECharles · Sep 1

We know the #challenge of choosing a career path. Talk to your counselor about #CTE so they can #explorepossibilities early!

CTE Charles County @CTECharles · Sep 27

Robert D. Stethem Pharmacy Tech students begin their senior year internships! Explore your #career and #college possibilities with #CTE

New Jersey


Gain real-world skills
Network with Employers
Opportunities For Internships
Talk to your School Counselor
to help guide you on your
CAREER PATH

Hable con sus hijos para ayudar a
guiarlos en la elección de su
CARRERA

Insights & Recommendations

- Be consistent in your messages
- Communicate the success of a program through current and past student success stories
- Localize your examples, and make it relevant. Don't forget the details
- Emphasize that CTE is a pathway towards college and a career
- Share tangible benefits of CTE – networking, internships, college credit, certifications, etc.
- Engage educators, counselors, the business community and postsecondary partners as your messengers.
- Keep it positive!

www.careertech.org/recruitmentstrategies

Workbook Activity

Small Group – Page 34

Break into groups based on Challenge and Audience

- **What** are the core messages and facts or supporting statements that this stakeholder group (audience) needs to hear about CTE?
- **How** could you deliver these messages?

IIID: Action Plan Development

Getting Strategic & Specific

Strategic Action

- What is the challenge/problem you want to address?
- What is the goal?
- Which stakeholder groups do you need to communicate with?
- What facts, data, stories and messages do you need to share?
- What information/resources do you still need to address this gap/challenge/problem?

What Strategic Actions Can Be Accomplished?

Examples:

- **To further engage school counselors, administrators and teachers:** Provide a presentation at a staff meeting that addresses some specific aspect of CTE and/or share CTE programs and student outcomes in their community.
- **To engage parents and families:** Host a series of career events that include parents and families along with students that describes various career pathway options available in your school and/or community.
- **To engage students:** Provide information about in demand careers and related CTE programs in your community and invite employers to speak to students
- **To inform school counselors of resources:** Coordinate an in-service training for school counselors on the importance of labor market information and include your local workforce member and/or labor market specialist from your state or region.

Workbook Activity: Complete Action Plan

What are you going to do within the next two months to communicate the value of CTE to stakeholder group(s) and enhance career advising for students?

Next Steps:

- Who is responsible?
- Who else needs to be involved?
- Resources
- Timeline

Complete Post-Workshop Survey