

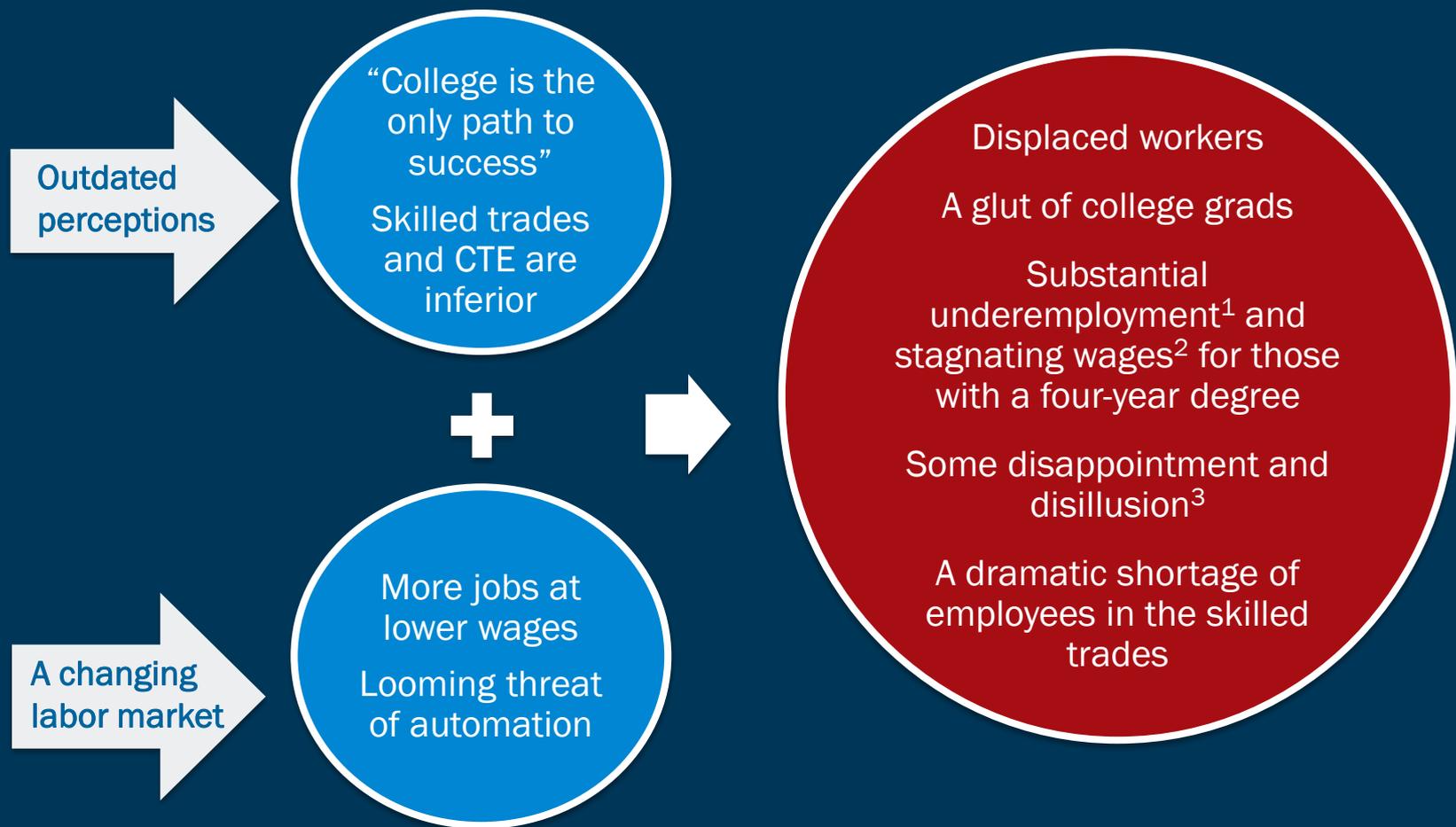
# ACTE Region I Conference 2018



**The New Smart - What Educators and Parents Need  
To Know:  
1-2-7**

*Dr. Steven Coyle, National Director Counselor and Academic Relations*

# Overview – A Changing Landscape



1. Richard Vedder, Christopher Denhart, and Jonathan Robe, Why are Recent College Graduates Underemployed, January 2013.

<http://centerforcollegeaffordability.org/uploads/Underemployed%20Report%202.pdf> (observing data suggests approximately 48% of college graduates are in jobs that don't require a college degree).

2. Josh Zumbrun, Is Life Better Than It Was Decades Ago? For Trump Voters, Maybe Not. April 11, 2016. <http://blogs.wsj.com/washwire/2016/04/11/is-life-better-than-it-was-decades-ago-for-some-voters-probably-not/>

3. See: March 2016 Consumer Reports survey of 1,550 Americans with student debt, reported in Aug. 2016 edition. <http://www.consumerreports.org/student-loan-debt-crisis/degrees-of-debt-and-regret/>

# The Rise of the Skilled Trades

Of the **20** jobs with the highest projected total job openings over the next decade, only **3** require a college degree.



**1-2-7: WHAT  
DOES IT MEAN?**

# The Theory of 1-2-7

For every 10 career pathways today;

1 – Requires an Advanced Degree

2 – Require a Bachelor's Degree

7 – Require a Competency Based Credential

Average time to earn a BS degree is 5.2 years

Average time to earn a CBC is 1.4 years

Average cost of a BA is 75% higher than the  
average cost to earn a CBC

Average life time earnings of a BA degree holder is  
no higher than the average life time earnings of a  
CBC holder.



# Most Difficult Jobs to Fill - 2015

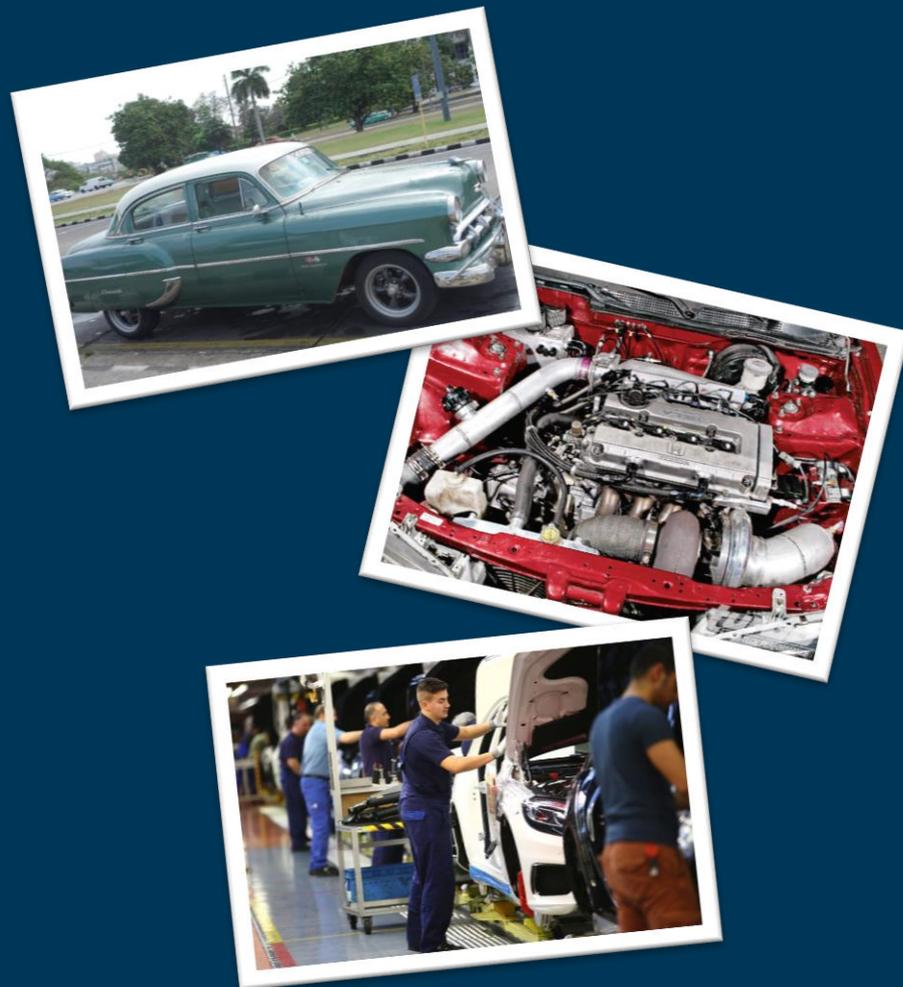
Rank	Job
1	Skilled Trades
2	Drivers
3	Teachers
4	Sales Representatives
5	Secretaries, Office Support Staff etc.
6	Management/Executives
7	Nurses
8	Technicians
9	Accounting & Finance Staff
10	Engineers



# Greater Complexity, More Customization

## ➔ Continued “upskilling”

- Growing product complexity and customization
  - + More precise, technical work to build, service and repair
  - + Greater need for post-secondary education
  - + Higher wages
- Examples
  - + Auto technicians
  - + CNC machinists
  - + Electricians



# Shifting Perceptions – The New Smart

Career-focused  
education  
Competency-based  
credentials

# UTI vs. College

- ➔ Students who attend quality technical education programs, like UTI's, can earn more, on average, than students of four-year liberal arts colleges, 10 years after entering school.

Institution type <sup>1</sup>	Median annual earnings, 10 years after starting school <sup>2</sup>	Graduation rates <sup>3</sup>
Doctoral universities	\$48,490	62%
<b>UTI of Arizona</b>	<b>\$43,500<sup>4</sup></b>	<b>63%<sup>5</sup></b>
Liberal arts colleges	\$42,642	66%
Two-year public colleges	\$29,412	22%

<sup>1</sup> Based on revised Carnegie classifications (15-17 for doctoral universities; 21 for liberal arts colleges; 1-9 for associate's colleges). A "public" control filter was used on associate's colleges to obtain a proxy for community colleges. <sup>2</sup> <https://collegescorecard.ed.gov> Calculated by determining the median earnings of former students, who received federal financial aid, at 10 years after entering the school, regardless of whether they graduated from the school. Earnings are defined in the College Scorecard as the sum of wages and deferred compensation from all W-2 forms received for each individual, plus self-employment earnings.

<sup>3</sup> <https://collegescorecard.ed.gov/> Rates represent College Scorecard's methodology for first-time, full-time students graduating within 150% of program length. <sup>4</sup> College Scorecard does not show earnings for the UTI Arizona campus alone. Instead, the number shown is for the four campuses that were operating in 2001-2003 (Arizona, Rancho Cucamonga, NASCAR Technical Institute and Glendale Heights) that are included in the Office of Postsecondary Education Identifier (OPEID) assigned to UTI of Arizona. The OPEID number is assigned by the U.S. Department of Education to identify schools that have program participation agreements (PPAs) so its students are eligible to participate in federal student financial assistance programs under Title IV regulations. <sup>5</sup> <https://collegescorecard.ed.gov/> 63.1% rate represents the College Scorecard methodology for UTI's Arizona campus. The most recent graduation rate for UTI Avondale reported on the Integrated Postsecondary Education Data System (IPEDS) for students who began in 2012-13 is 59% (first-time, full-time graduation rate within 150% of program length). The most recent national consolidated graduation rate reported in 2015 using our accreditor's (ACCSC) standards across all 12 UTI campuses was approximately 63% (all graduates within 150% of program length). The graduation rate for two-year public colleges excludes students who transfer and graduate from a four-year college.



# UTI vs. Most Selective Liberal Arts Colleges

College	10-Year Median Earnings
Washington and Lee University	\$72,900
Harvey Mudd College	\$67,200
Claremont McKenna College	\$66,400
Wellesley College	\$56,500
Amherst College	\$56,300
Williams College	\$54,200
Carleton College	\$49,500
Vassar College	\$49,300
Skidmore College	\$43,000
Oberlin College	\$40,300
Reed College	\$35,200

UTI-Arizona—\$43,500

Source: College Scorecard, <https://collegescorecard.ed.gov/>. Calculated by determining the median earnings of former students, who received federal financial aid, at 10 years after entering the school, regardless of whether they graduated from the school. Earnings are defined in the College Scorecard as the sum of wages and deferred compensation from all W-2 forms received for each individual, plus self-employment earnings. College Scorecard does not show earnings for the UTI Arizona campus alone. Instead, the number shown is for the four campuses that were operating in 2001-2003 (Arizona, Rancho Cucamonga, NASCAR Technical Institute and Glendale Heights) that are included in the Office of Postsecondary Education Identifier (OPEID) assigned to UTI of Arizona. The OPEID number is assigned by the U.S. Department of Education to identify schools that have program participation agreements (PPAs) so its students are eligible to participate in federal student financial assistance programs under Title IV regulations. This subset of *most selective* (as identified by top 50 highest SAT scores) liberal arts colleges was selected for comparison purposes only.

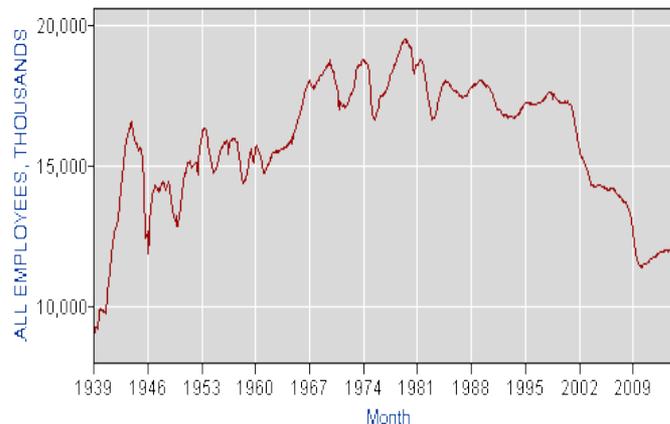


What's driving  
these trends?

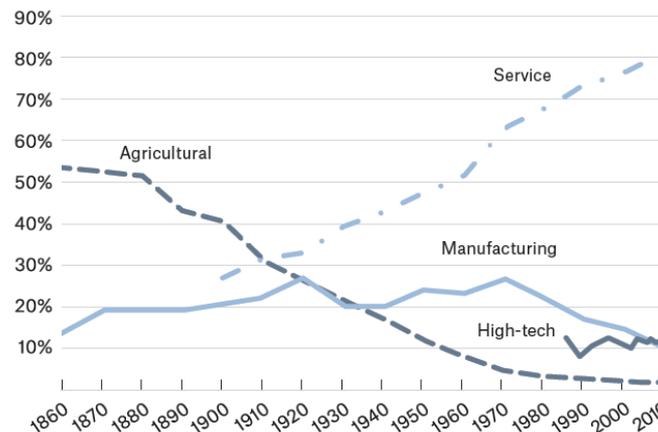
# The Labor Market – Fundamental Change

- ➔ Escalating competition
  - + Globalization
  - + The influence of private equity
  - + Smart technology driving new business models
- ➔ Increasing cost pressures
  - + Offshoring
  - + Automation
  - + Efficiency
- ➔ Changes in the job market
  - + 5.8 million manufacturing jobs lost from 2000 to 2009
  - + Replaced by service jobs, which now make up 80 percent of the workforce
  - + Upskilling due to technology

U.S. Manufacturing employment: 1939-2015: 1



U.S. Workforce by Sector: 1860-2012 2

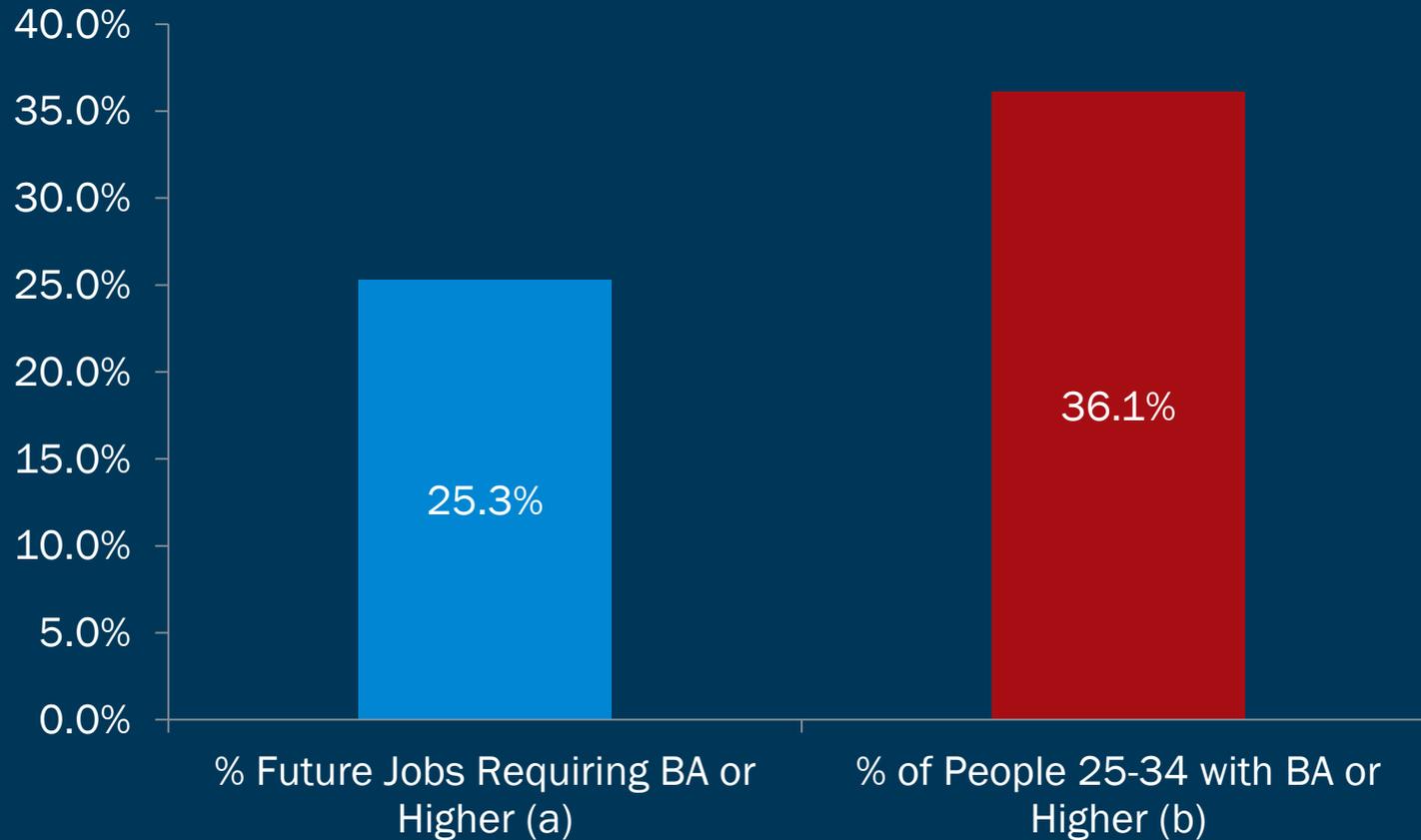


<sup>1</sup> Bureau of Labor Statistics, <http://data.bls.gov/timeseries/CES3000000001>

<sup>2</sup> Ronald Inglehart, *Inequality and Modernization*, Foreign Affairs, Jan/Feb 2016. <http://www.foreignaffairs.com/articles/2015-12-14/inequality-and-modernization/>



# College Grads – Growing Competition for Fewer Jobs



(a) Source: BLS. Total expected jobs (including replacement) 2014-2024. [http://www.bls.gov/emp/ep\\_table\\_104.htm](http://www.bls.gov/emp/ep_table_104.htm)

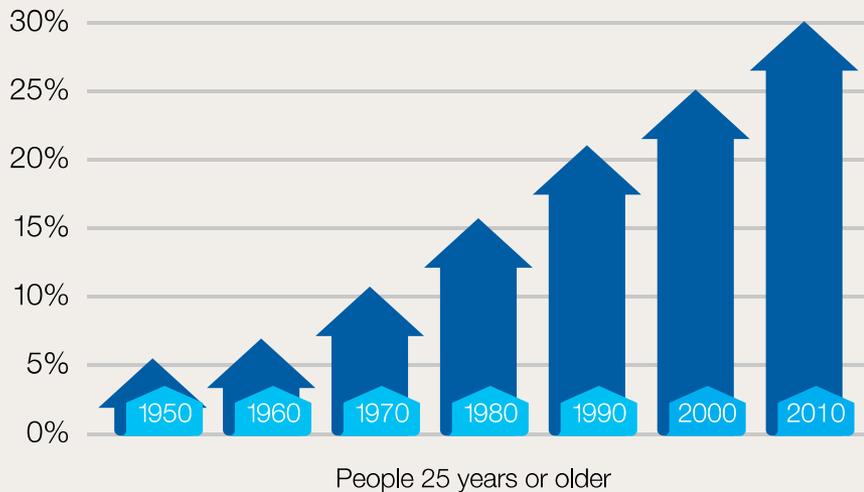
(b) For people 25-34. Source: Camille L. Ryan and Kurt Bauman, *Educational Attainment in the United States: 2015*, March 2016  
<https://www.census.gov/content/dam/Census/library/publications/2016/demo/p20-578.pdf>



# Nearly 50% of College Grads are Underemployed

## Supply of College Grads Exceeds Demand

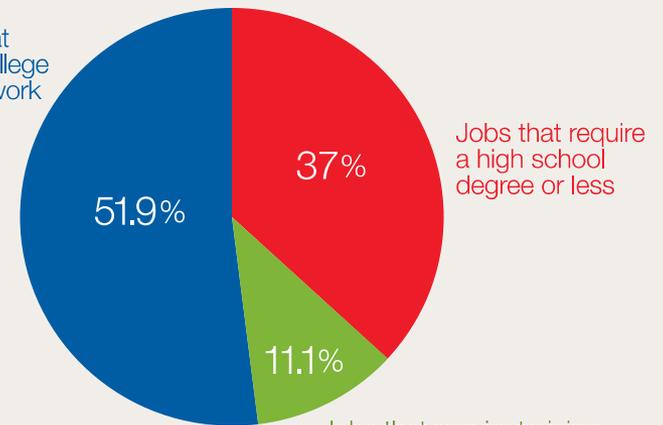
College Degrees  
1950-2010



Source: Richard Vedder, Christopher Denhart, and Jonathan Robe, January 2013.

Where four-year college grads work  
Nearly 50% of all college grads are underemployed

Careers that put their college degree to work



Source: BLS. Total expected job openings (due to growth and replacements) 2014-2024.

Jobs that require training after high school, but not a college degree



# Personal Income Flattened in 2000



Source: St. Louis Fed. Real median personal income 2015: \$30,240. <https://research.stlouisfed.org/fred2/series/MEPAINUSA672N>



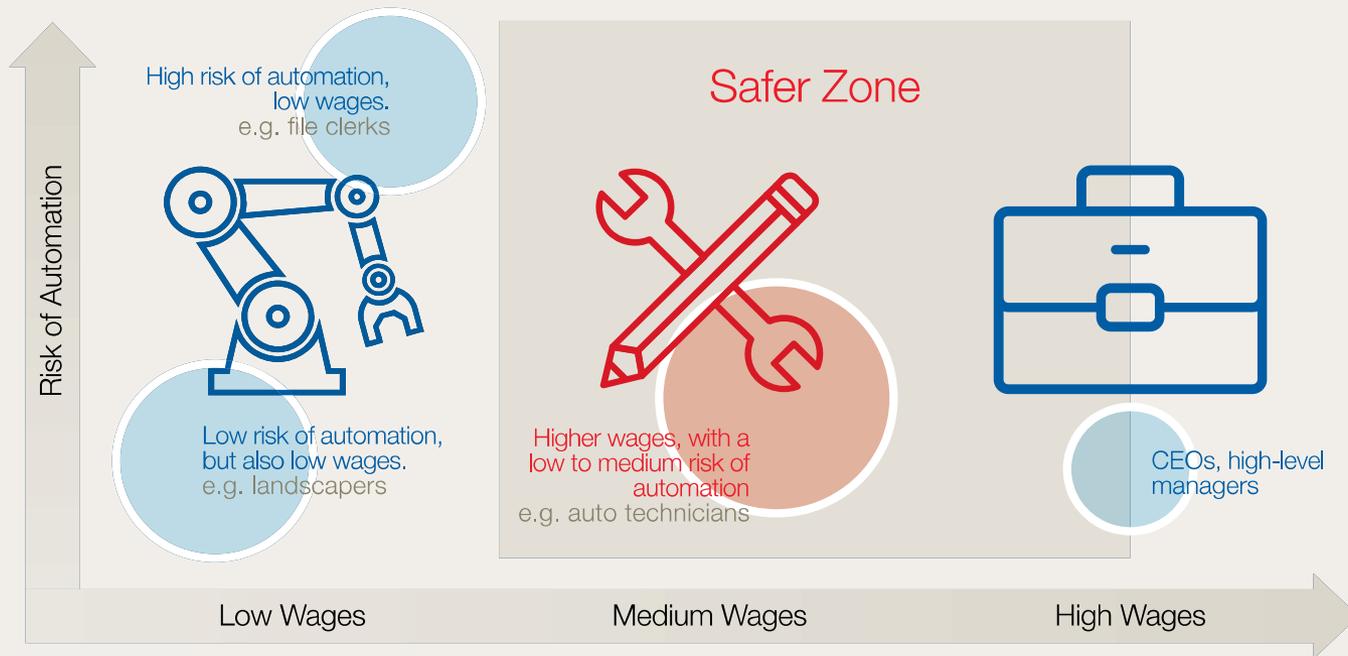
# What the future holds



# The Growing Threat of Automation

## The Age of Automation

Which jobs are safer?



# Who Wins? – The New Artisans

“We predict that the middle-skill jobs that survive will combine routine technical tasks with abstract and manual tasks in which workers have a comparative advantage — interpersonal interaction, adaptability and problem-solving. Along with medical paraprofessionals, this category includes numerous jobs for people in the skilled trades and repair: plumbers; builders; electricians;...; **automotive technicians**; customer-service representatives....”

– David H. Autor and David Dorn, *How Technology Wrecks the Middle Class*, *The New York Times*



What should  
parents do?

# Career-Ready vs. College Ready

## Creating career-ready students: A new success model.



<sup>1</sup>Richard Vedder, Christopher Denhart, and Jonathan Robe, [Why are Recent College Graduates Underemployed](http://centerforcollegeaffordability.org/uploads/Underemployed%20Report%202.pdf), January 2013.

# Summary

- Skilled trade jobs are among the most difficult to fill
- Career-focused education and competency-based credentials are becoming increasingly valuable
  - American businesses calling for job-focused, industry- driven education
  - UTI's 10-year median earnings compare favorably with top-ranked liberal arts colleges and doctoral universities
- The labor market has undergone fundamental change and will become more difficult
  - Increased global competition and automation mean more wage polarization (more high wage and more low wage jobs, but fewer middle jobs)
  - Many college graduates are underemployed
  - Middle-skill jobs combining routine technical tasks with interpersonal interaction, adaptability, and problem-solving are more resistant to job automation
- We must help parents and students consider career readiness as a viable occupational strategy rather than only focus on college readiness.





**THANK YOU**

Questions/Feedback/Requests for presentations:

email: [prepare4success@uti.edu](mailto:prepare4success@uti.edu)

Download whitepaper: [uti.edu/scorecard](http://uti.edu/scorecard)

# References

- *Classifications based on Carnegie classifications 15-17 for research universities; 21 for liberal arts colleges; 1-8 for public Associates degrees/community colleges.*
- *10 year median earnings are calculated by determining the median earnings of former students, who received federal financial aid, at 10 years after entering the school, regardless of whether they graduated from the school. Earnings are defined in the College Scorecard as the sum of wages and deferred compensation from all W-2 forms received for each individual, plus self-employment earnings.*
- *The graduation rate after six years for schools that award predominantly four-year degrees and after four years for all other schools. These rates are only for full-time students enrolled for the first time.*
- *The College Scorecard does not show earnings for the UTI Avondale campus alone. Instead, the number shown is for the five UTI campuses, including Arizona, which are part of the same UTI OPEID grouping.*
- *Source: College [Scorecard.ed.gov](http://scorecard.ed.gov). 68.6% graduation rate represents College Scorecard's methodology (first-time, full-time graduation rate within 200% of program length) for the UTI Avondale campus. The most recent graduation rate for UTI Avondale reported on the Integrated Postsecondary Education Data System (IPEDS) for students who began in 2011-12 is 61% (first-time, full-time graduation rate within 150% of expected time of completion). The most recent national consolidated graduation rate reported in 2015 using our accreditor's (ACCSC) standards across all 12 UTI campuses was approximately 63% (all graduates within 150% of program length).*
- *Richard Vedder, Christopher Denhart, and Jonathan Robe, Why are Recent College Graduates Underemployed, January 2013. <http://centerforcollegeaffordability.org/uploads/Underemployed%20Report%202.pdf>;*
- <http://www.bls.gov/news.release/pdf/ecopro.pdf>
- <http://www.usatoday.com/story/news/nation/2014/09/30/job-economy-middle-skill-growth-wage-blue-collar/14797413/>
- [http://mckinseysociety.com/downloads/reports/Education/Education-to-Employment\\_FINAL.pdf](http://mckinseysociety.com/downloads/reports/Education/Education-to-Employment_FINAL.pdf)
- *Carl B. Frey and Michael A. Osborne, The Future of Employment: How Susceptible are Jobs to Computerisation?, September 17, 2013*
- *(for only 25% of future jobs will require a B.A. or higher graphic): **Source:** BLS. Total expected job openings (due to growth and replacements) 2014-2024. [http://www.bls.gov/emp/ep\\_table\\_104.htm](http://www.bls.gov/emp/ep_table_104.htm). The BLS assigns a 'typical education needed for*

