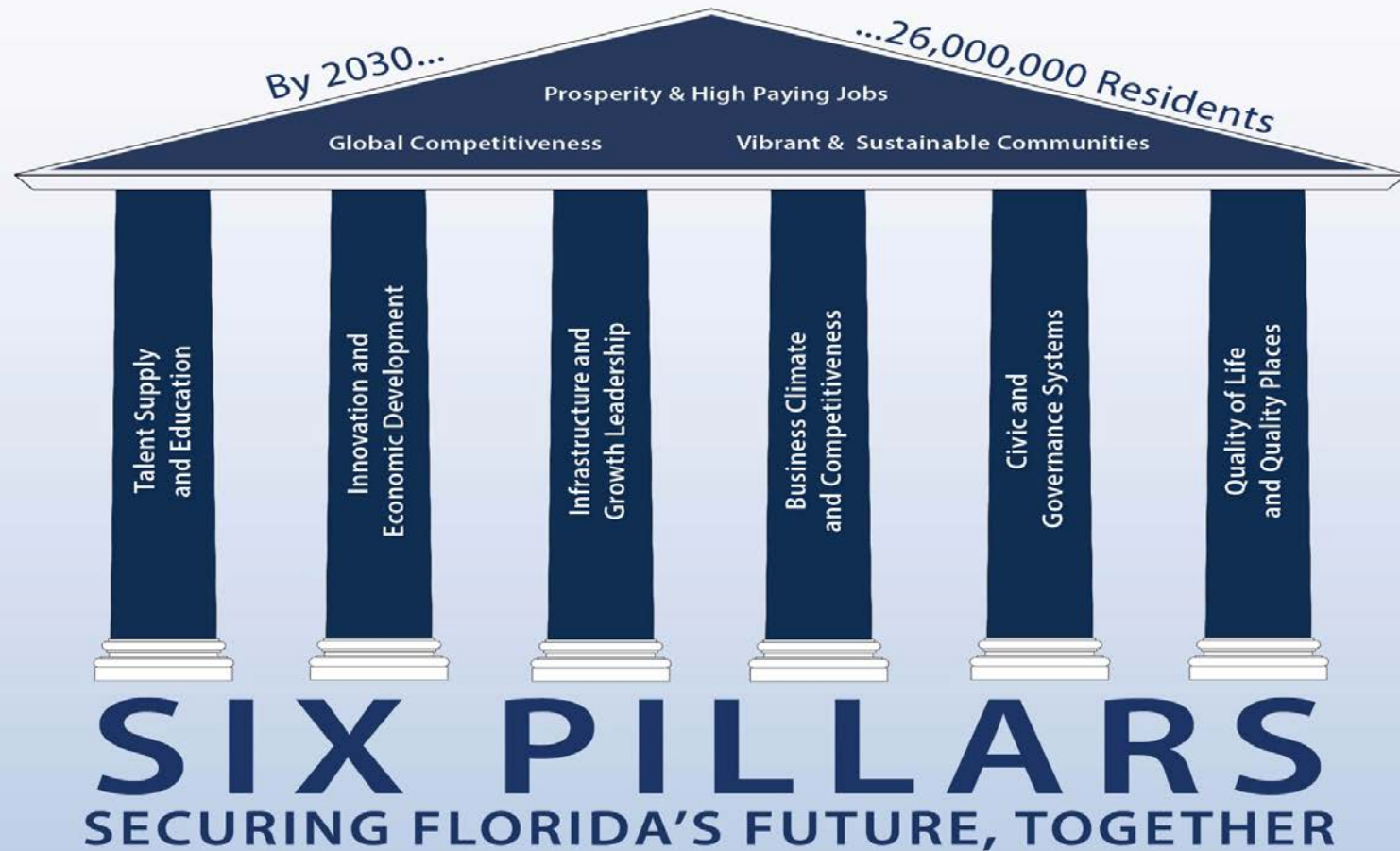




TALENT SUPPLY & EDUCATION
Advisory Committee
Meeting #4
June 15, 2017 9:00 AM-12 Noon

Today's Agenda

- **Introductions**
- What have we learned so far?
- Where do we want to go?
- How do we get there?
- Next steps



“We must plan better for the next 6 million Floridians than we did for the last 6 million”

Florida Chamber Foundation Trustees

Florida 2030
Executive Steering
Committee

Stakeholder,
Association, and
Agency Partners

Talent Supply &
Education
Advisory
Committee

Innovation &
Economic
Development
Advisory
Committee

Infrastructure &
Growth
Leadership
Advisory
Committee

Business Climate
&
Competitiveness
Advisory
Committee

Civic &
Governance
Systems
Advisory
Committee

Quality of Life &
Quality Places
Advisory
Committee

Caucus Members

Caucus Members

Caucus Members

Caucus Members

Caucus Members

Caucus Members

Committee Work Plan

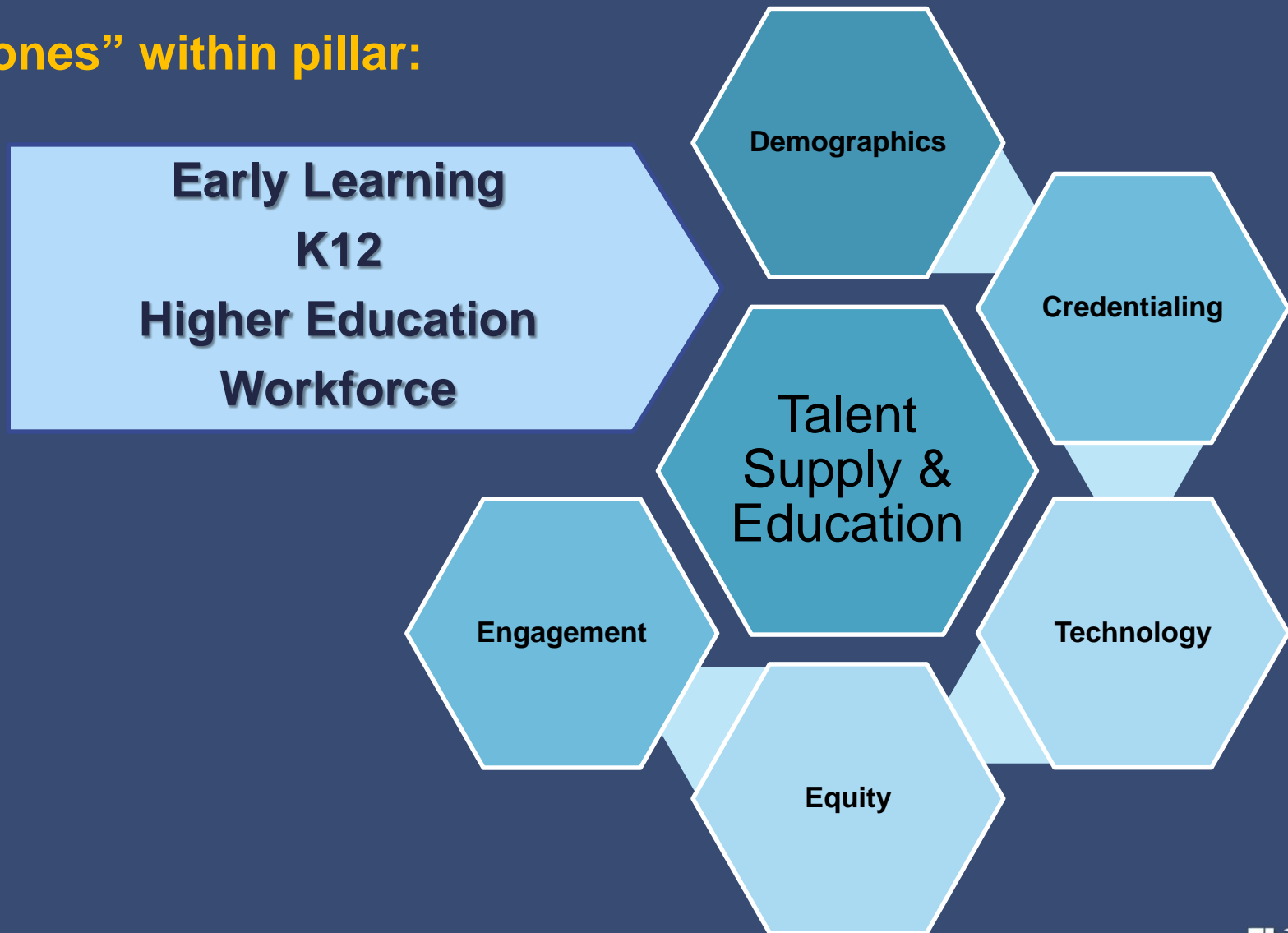
Date	Activity
March 22-23	Kickoff meeting #1 in Tallahassee
April 18	Joint call of all committees
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March 2018	Rollout of Florida 2030 report

Today's Agenda

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What Have We Learned So Far?

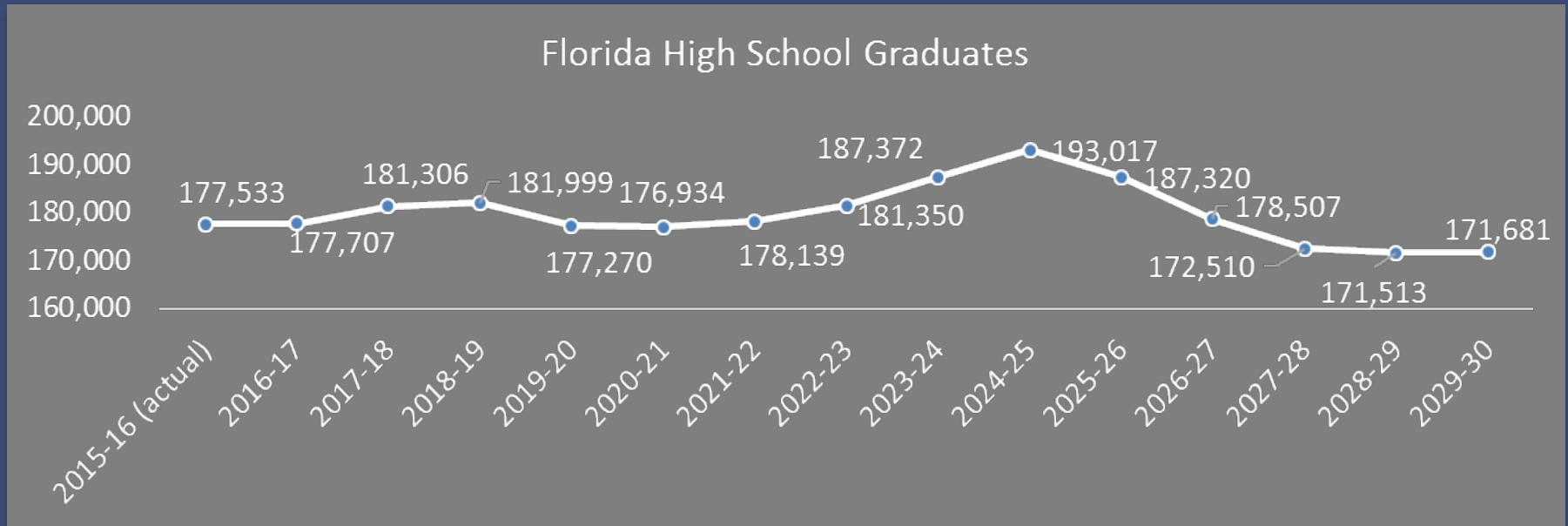
“Zones” within pillar:



Talent Supply & Education Focus Area: **Demographics**

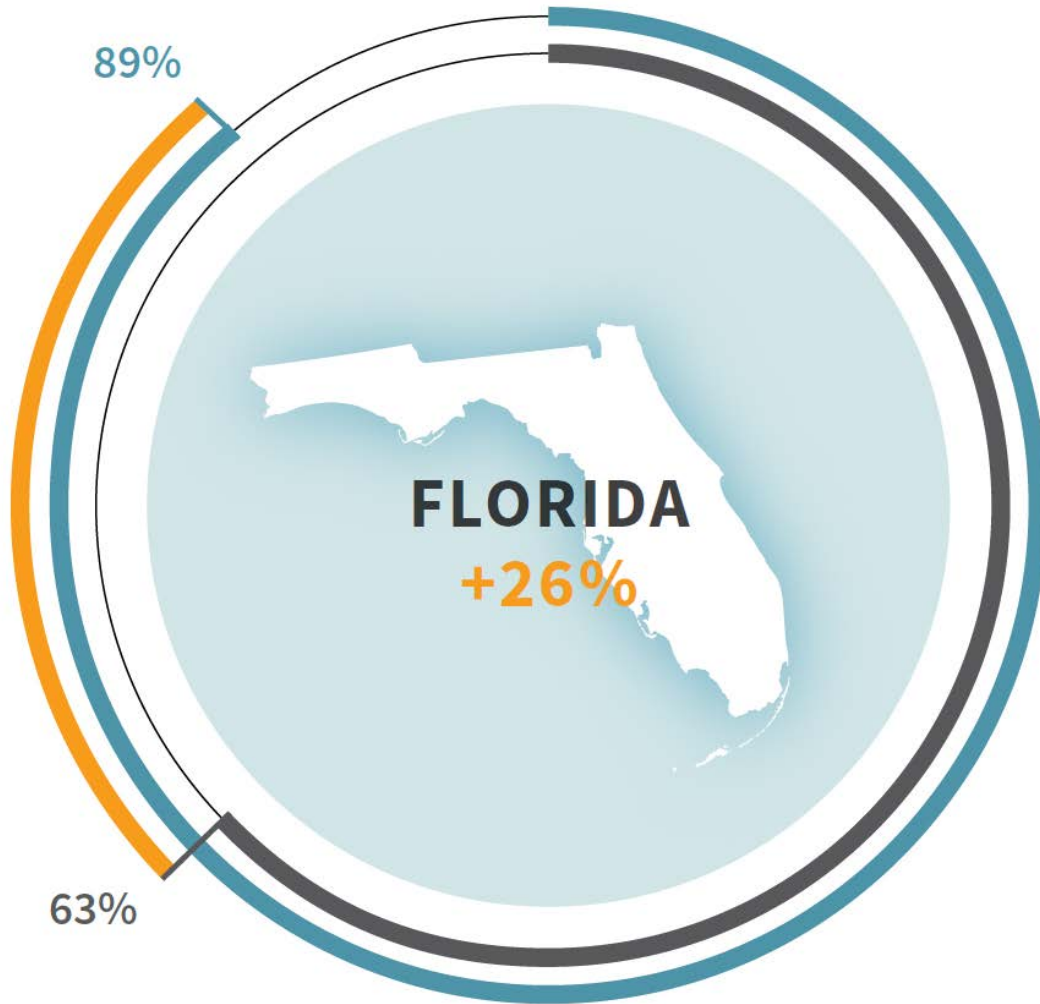


What have we learned so far? **Demographics**



Source: WICHE, 2017.

What have we learned so far? **Demographics**



**HOW MANY PEOPLE
ARE IN THE CART?**

**HOW MANY PEOPLE
ARE PUSHING IT?**

AGE DEPENDENCY RATIO* **(2010 vs 2030)**

*The age dependency ratio is derived by dividing the combined under 18 and 65-and-over populations by the 18-to-64 population and multiplying by 100.

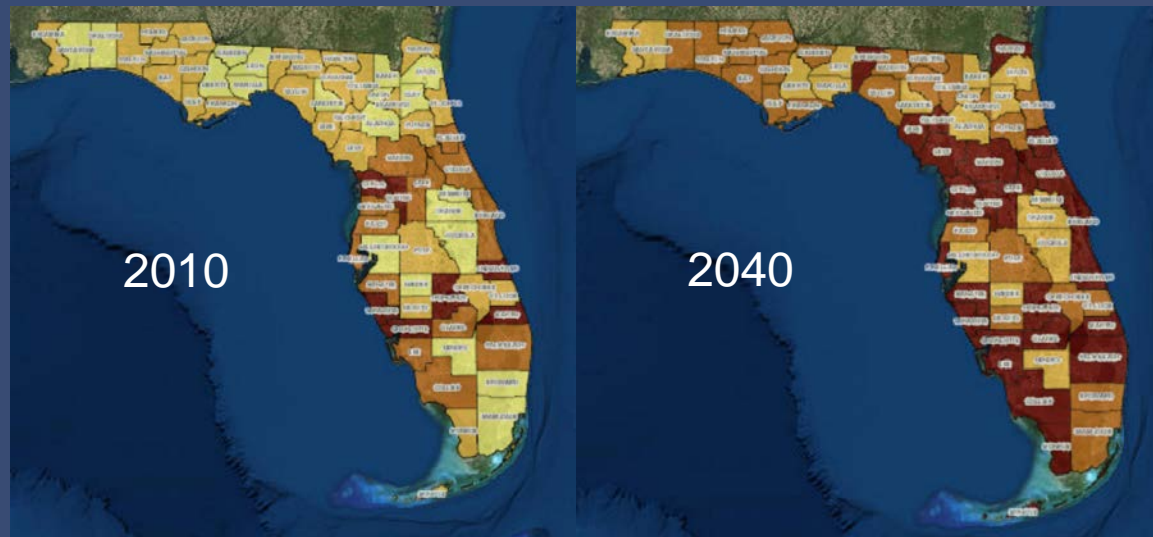
What have we learned so far? **Demographics**

- By 2029 baby boomers will be reaching retirement age which will dramatically affect the workforce of the future

% 65 and over



Source: UF BEBR



- Millennials are expected to make over 70% of the workforce by 2030
- About 30 million have some college, no degree

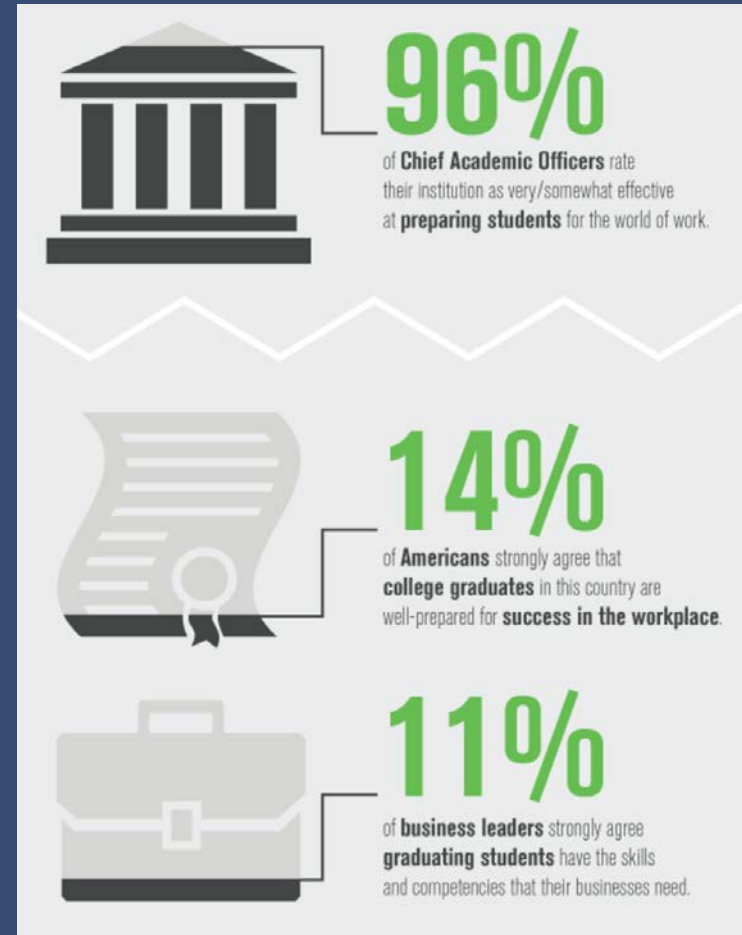
Talent Supply & Education Focus Area: **Credentialing**



What have we learned so far? **Credentialing**

Issues throughout pipeline:

- Early Learning providers are **NOT** typically trained, credentialed, supervised, evaluated
- Substantial teacher shortages in many areas:
 - Special education, ELL/ESL, Math, Science, Reading
- Gallup/Lumina poll – are college graduates prepared to start careers? Disconnect



What have we learned so far? **Credentialing**

Misaligned Degree Production vs Demand (WSJ)

The College Majors Employers Want

Employers are on the hunt for engineering, business and computer-science graduates; here's how popular those majors are among college seniors.

MAJOR	PCT. OF EMPLOYERS LOOKING TO HIRE	PCT. OF SENIORS IN MAJOR
Business/Accounting	81.3%	19.2%
Engineering	75.9%	5.2%
Computer sciences	64.3%	3.1%
Economics/Social sciences	33.9%	8.8%
Physical sciences	20.5%	1.6%
Humanities	11.6%	2.3%
Agriculture	4.5%	1.9%
Education	1.8%	4.8%
Health sciences	1.8%	11.4%

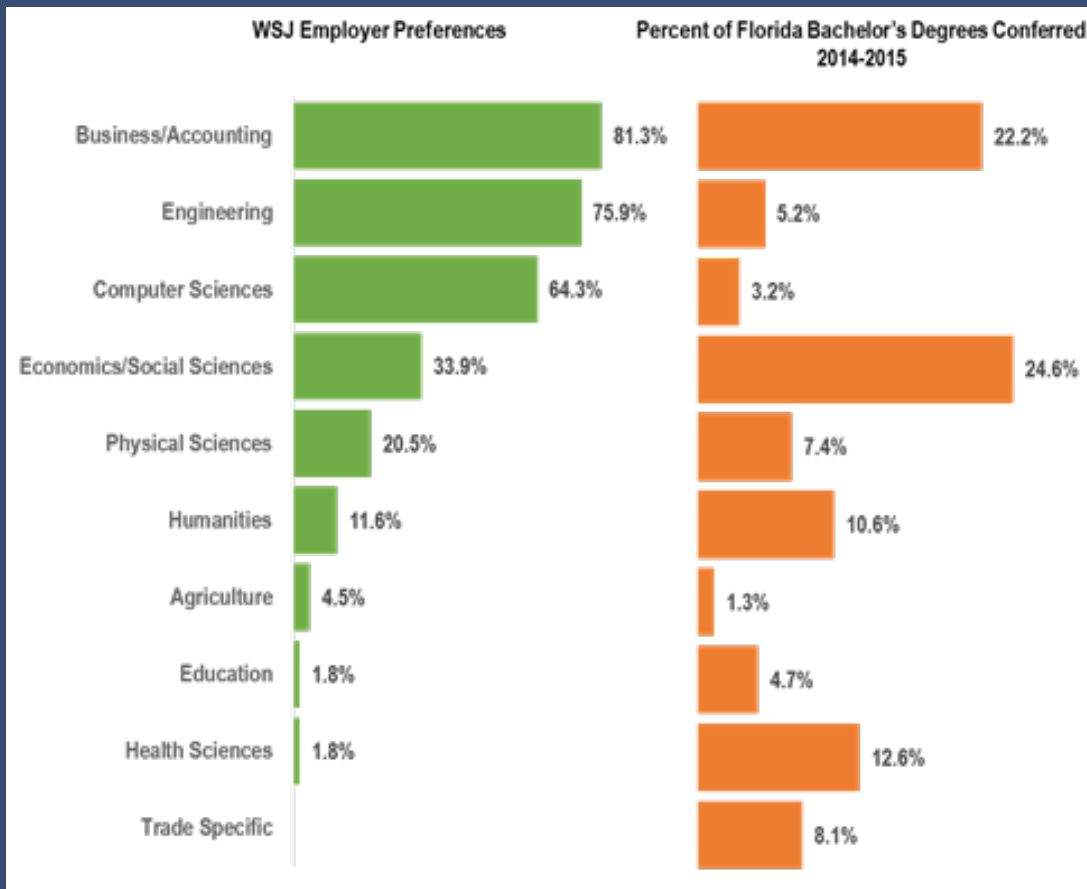
Note: Current hiring plans compared with degrees conferred in 2015

Sources: National Association of Colleges and Employers;
National Center for Education Statistics

THE WALL STREET JOURNAL.

What have we learned so far? **Credentialing**

Employer Needs vs. Florida Degree Production



FLORIDA

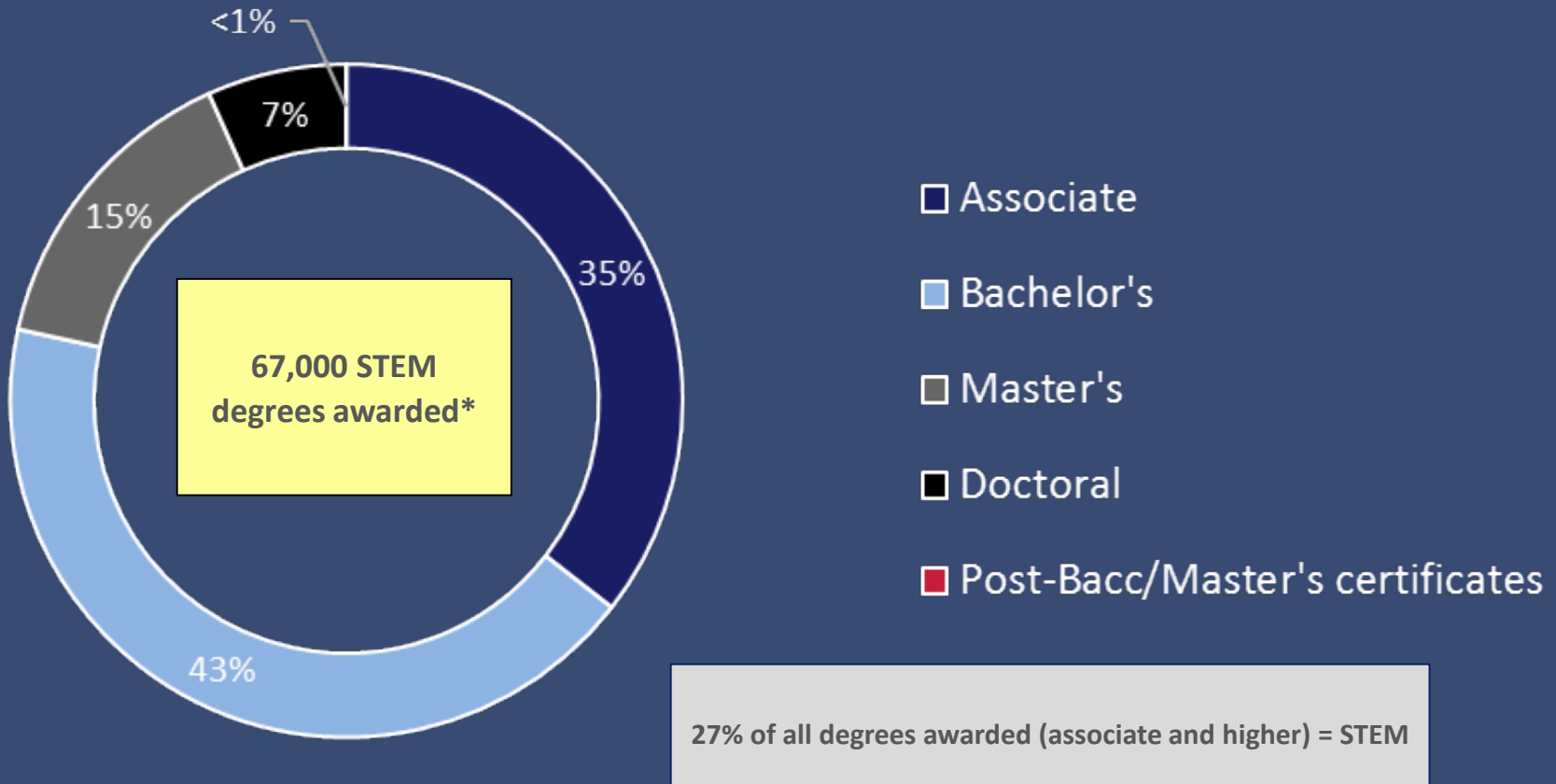
2015 STEM Degree
Output*
67,000

Annual STEM Job
Openings* to 2024
39,000

** 2-year degree or higher*

What have we learned so far? **Credentialing**

2014-15 STEM Degrees Awarded in Florida by Level

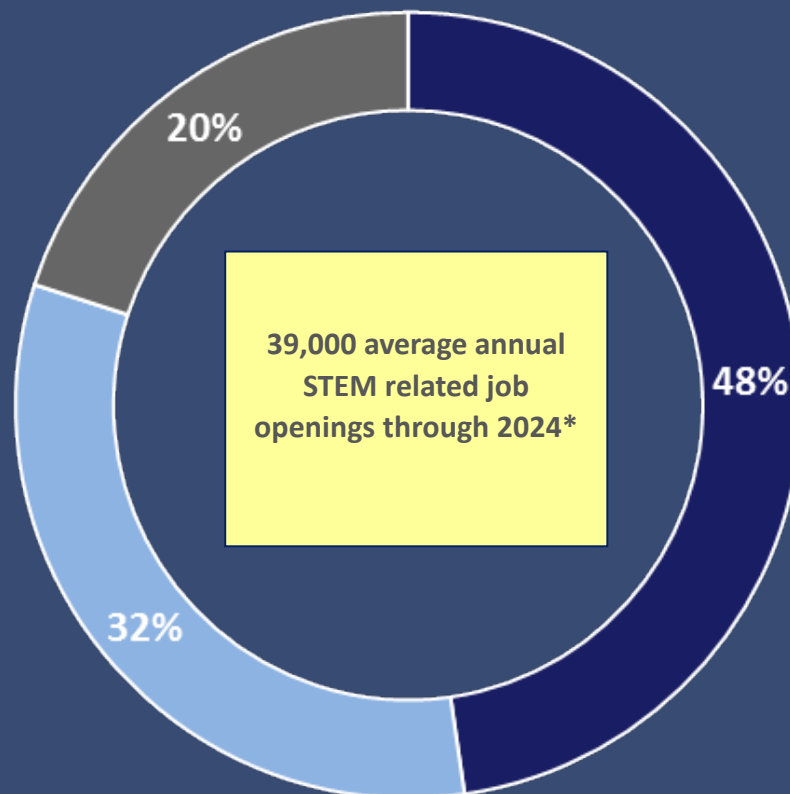


*An additional 36K post-secondary vocational certificates in STEM disciplines were awarded in 2014-15.
Source: IPEDS, 2017.

What have we learned so far? **Credentialing**

DEMAND – Florida STEM Related Job Openings to 2024
Share of Annual Openings Requiring a STEM Degree, by Level

- ☐ STEM Associate's Required
- ☐ STEM Bachelor's Required
- ☐ STEM Master's or Above Required



*An additional 20K positions requiring post-secondary vocational certification will be available annually.

What have we learned so far? Credentialing

- Demands for middle skills by vs. provider supply
 - Some with no gap (well-aligned)
 - Others with a large gap (disconnect between programs and postings)

Occupational Family (+ Top Titles)	Credentials Gap	% Job Holders with BA+ (Source: American Community Survey)	% Postings Requiring Bachelor's Degree (Source: Burning Glass)	2013 Job Postings in Middle Skills Occupations (Source: Burning Glass)
Management - Production Supervisors - Transportation, Storage, and Distribution Managers	26%	42%	68%	710,652
Office and Administrative Services - Executive Secretaries and Executive Assistants - Insurance Claims Clerks	25%	20%	45%	865,134
Business and Financial Operations - Employment, Recruitment, and Placement Specialists - Training and Development Specialists	21%	51%	72%	535,921
Computer and Mathematical - Computer User Support Specialists - Computer Network Support Specialists	21%	39%	60%	226,240
Sales and Related - Wholesale and Manufacturing Sales Representatives - Supervisors of Retail Sales Workers	13%	43%	56%	1,391,113
Architecture and Engineering - Electrical and Electronic Engineering Technicians - Mechanical Drafters	10%	26%	36%	73,431
Healthcare Practitioners - Registered Nurses - Radiologic Technologists	0%	33%	33%	888,539

SOURCE: BURNING GLASS TECHNOLOGIES

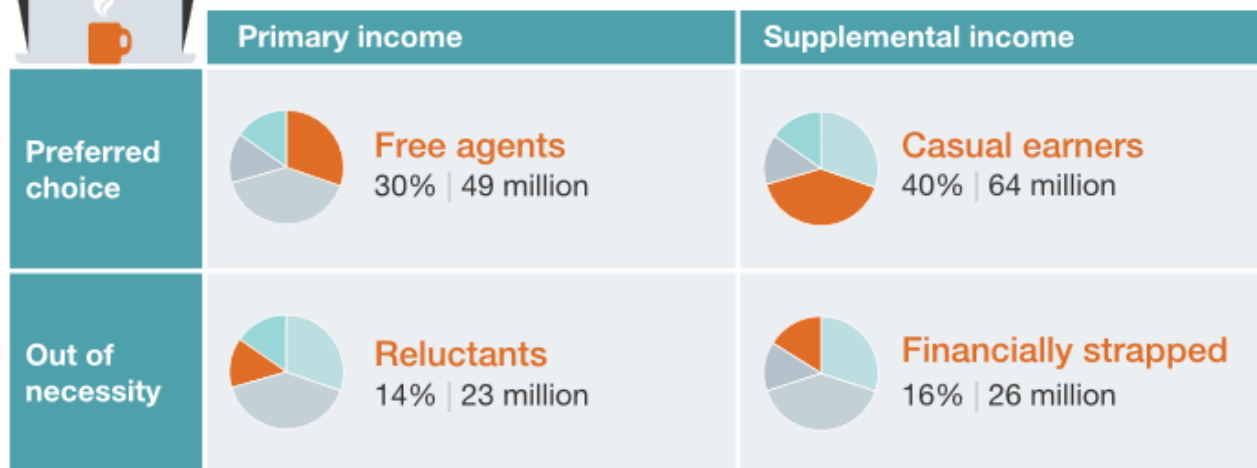
What have we learned so far? **Credentialing**

- “Gig” economy - 20-30% working age pop is independent worker (all occupations, all levels)



Independent workers generally fit into four segments.

Share of working-age population engaged in independent work



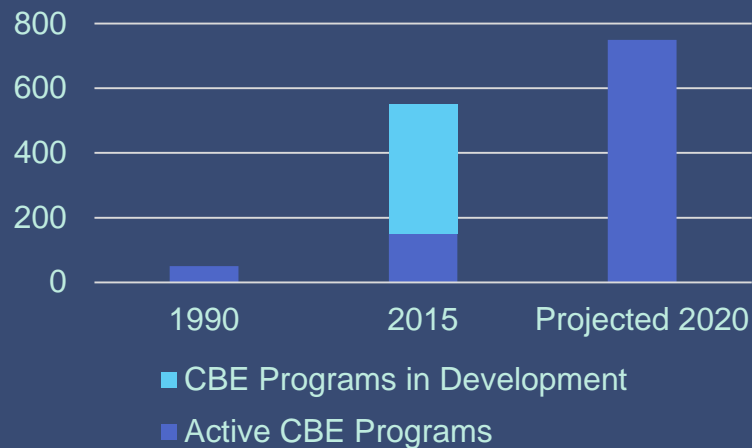
Source: 2016 McKinsey Global Institute survey of ~8,000 US and European respondents

McKinsey&Company

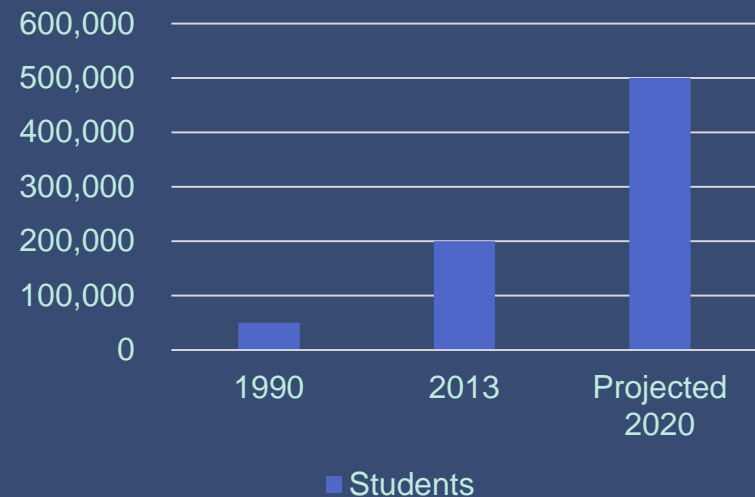
What have we learned so far? **Credentialing**

- **Competency-Based Education (CBE) rapidly expanding.**
- **Eduventures on CBE:**
 - *Mostly adults learning through self-paced programming offered wholly or mostly online. Driving this growth will be, among other things, programs designed explicitly around employer demand, which is a key driver of growth in this market.*

Postsecondary CBE Programs



CBE Enrollment



Source: Eduventures – Mapping the Competency Based Universe (2015)

What have we learned so far? **Credentialing**

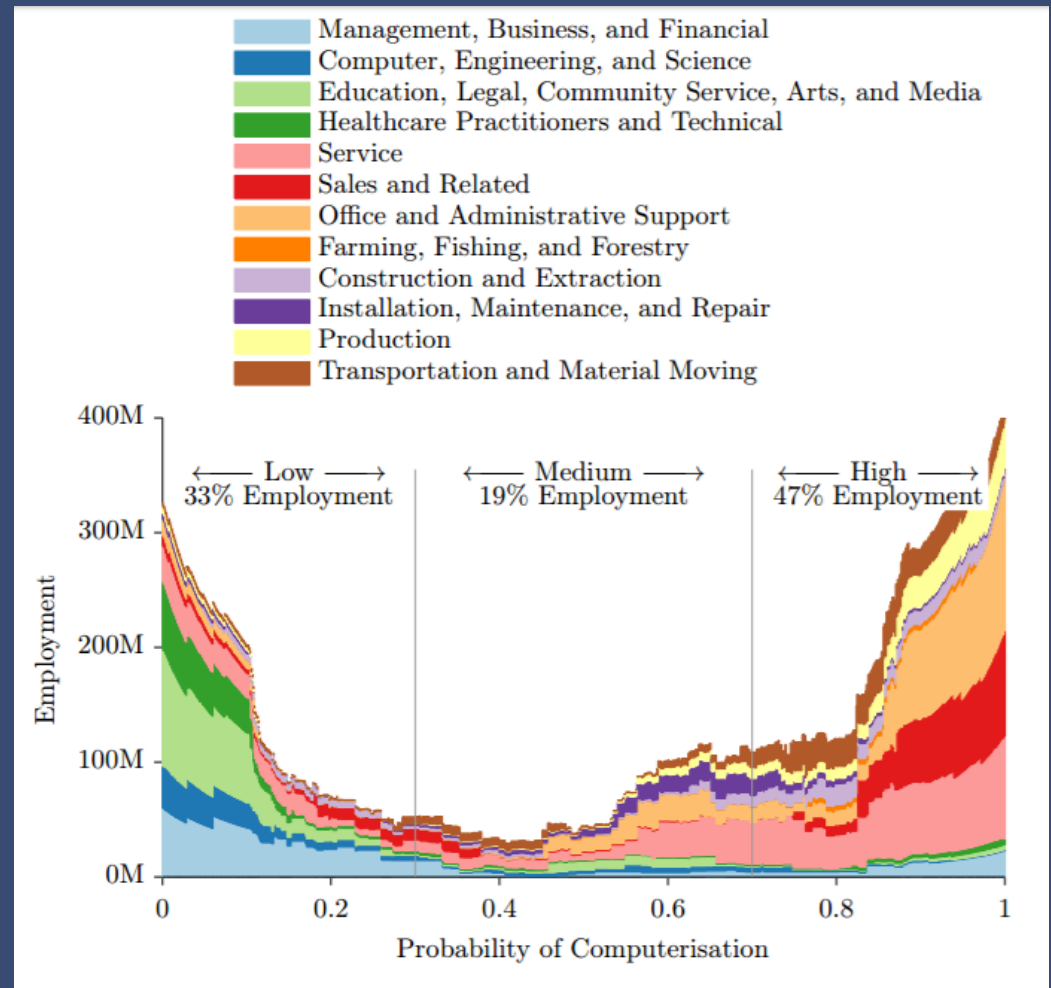
- **Workforce hiring – shifting from pedigree to competency model**
- **College degree formerly a proxy for soft skills/employability; no longer seen as such**
- **46.3 million hold professional certificates or licenses while 19.1 million have education certifications**
 - Nondegree credentials have significant impact on lifetime earnings (Institute for Higher Ed)
 - Postsecondary certificate vs. HS – 20% wage premium
 - IT certificate relative to degrees: +72% over associate degree earnings, +54% over bachelor's earnings

Talent Supply & Education Focus Area: **Technology**



What have we learned so far? **Technology**

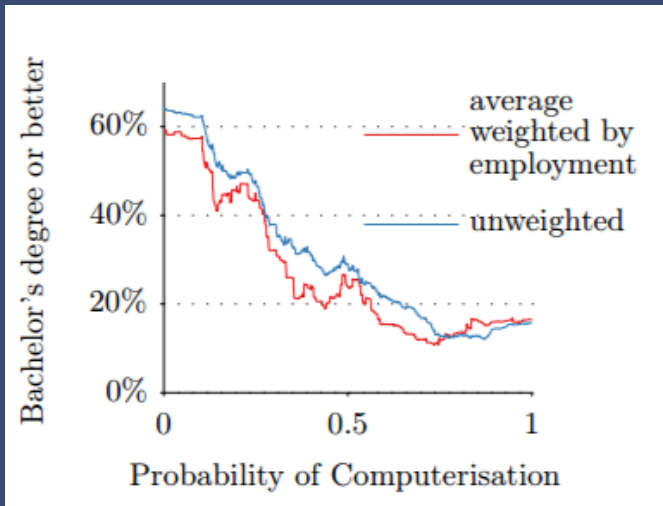
- 47% of US jobs with “high” potential to be automated in near future (Oxford)
- 45% of activities (\$15 trillion) in global marketplace could be automated by current tech (McKinsey)
- Most jobs in transportation and logistics; office and administrative support workers, and labor in production occupations at risk



Oxford University: The Future of Employment , Carl Benedikt Frey & Michael Osborne (2013)

What have we learned so far? **Technology**

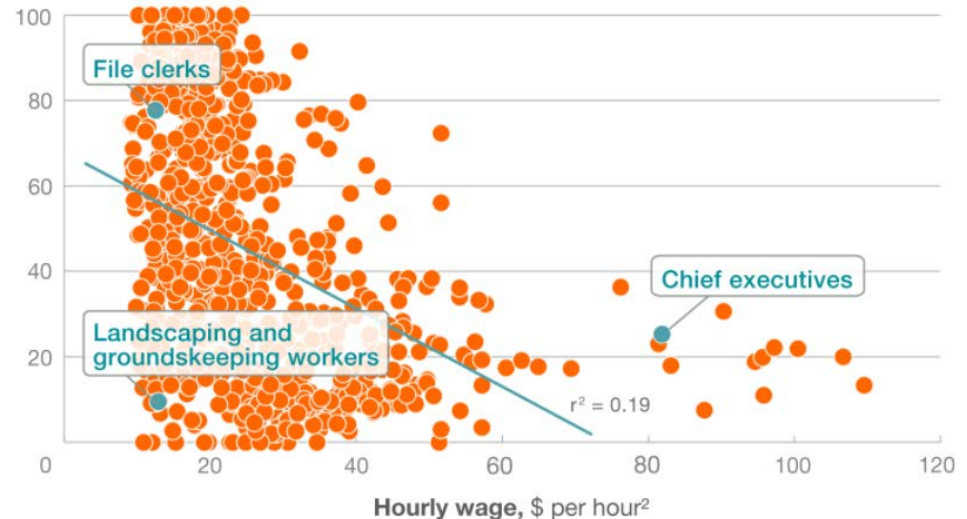
- **High wages** and **educational attainment** both exhibit a *strong negative relationship* with an occupation's probability of automation



Oxford University: The Future of Employment, Carl Benedikt Frey & Michael Osborne (2013)

Comparison of wages and automation potential for US jobs

Ability to automate, % of time spent on activities¹ that can be automated by adapting currently demonstrated technology



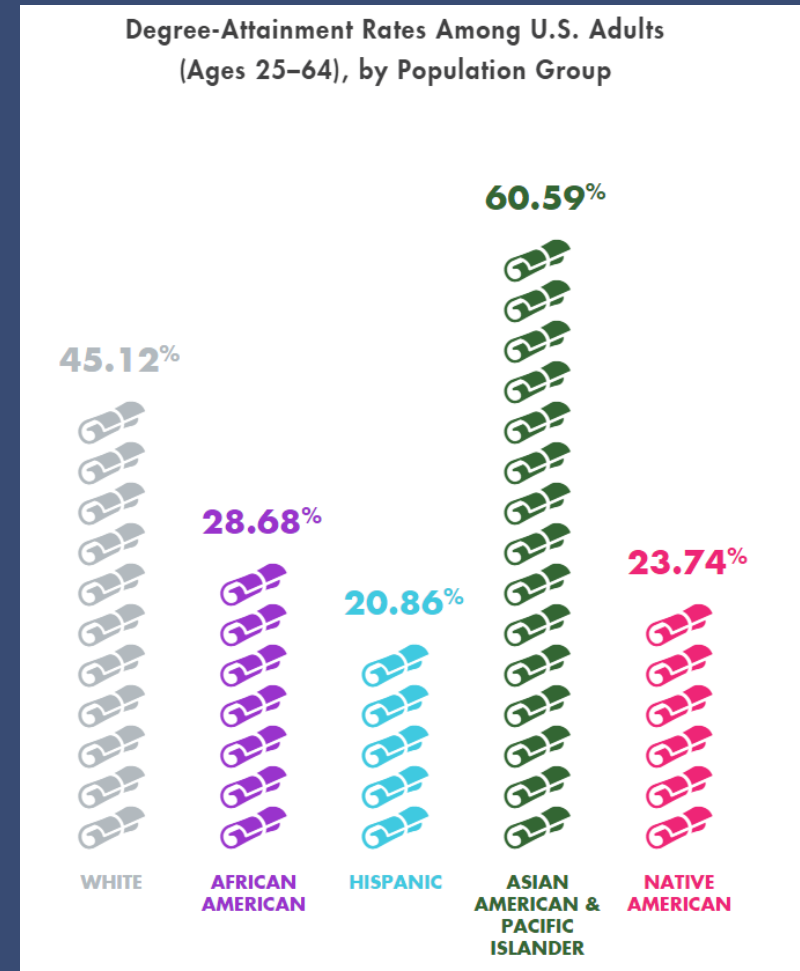
Four Fundamentals of Workplace Automation, McKinsey Quarterly November 2015

Talent Supply & Education Focus Area: **Equity**



What have we learned so far? **Equity**

- **The Great Divide** - Despite robust growth driven by strong high-tech industries there is a danger posed by a two-tiered Florida that reinforces the economic position of the “haves” and “have nots”
- **Women** make up nearly half of the workforce but continue to be paid less than men in the same jobs
- **Rural and Economically Disadvantaged** Floridians lack access and opportunity afforded by Early learning, Technology, Training



Lumina Foundation – Why Equity and Excellence Matters

Talent Supply & Education Focus Area: **Engagement**



What have we learned so far? **Engagement**

Public Policy

- Early learning, afterschool, and summer programs – despite evidence showing “derailment” of career pathways long before entry into job market, **awareness** is huge impediment to action

Industry-Education

- Substantial obstacle to solving skills gap is lack of **connectivity** and **responsiveness** between business community and higher education

Worker-Education

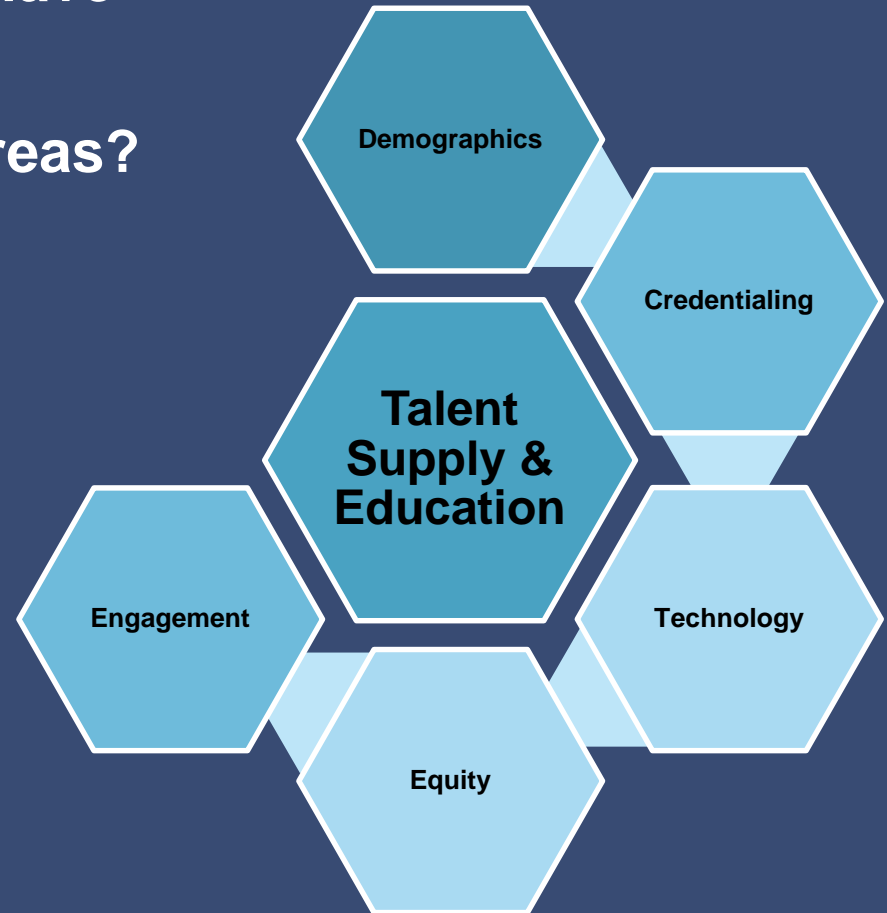
- Rapid evolution of new economy will require **unprecedented transparency** in demand and training options to allow workers to continually transition (evolve) between sectors into high-demand jobs

Where Do We Want to Go?

DISCUSSION: Other Disruptors or Key Trends

Other disruptors that should have elevated focus.....

- Within 5 identified focus areas?
- Additional focus areas?



Today's Agenda

- Introductions
- What have we learned so far?
- **Where do we want to go?**
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Where Do We Want to Go?

PRIMERS

- **Universal early learning access**
- **Colorado – CareerWise apprenticeship programs**
 - 140 HS students; 50 businesses – 2027 goal of 20k students
 - Salary + college credit
- **Finland Ed Model:**
 - Wholesale change to topic-based learning vs. subjects:
 - e.g., integrated EU lesson including geography, literature, economics, and government
 - Focus on activity, engagement, out of classroom experience
- **Denver Sustainability School**
 - Project-based curriculum, entrepreneurial opportunity
 - College and career experience throughout

Where Do We Want to Go?

PRIMERS (continued)

- **Postsecondary education:**
 - Continued transition from pedigree to competency
 - e.g., Kentucky coal miners – transition to coders
- **Stackable Credentials**
 - Vertical – traditional model
 - Horizontal - discipline related
 - Value-added - areas of expertise for specific job
- **Accreditation:**
 - Red tape creating market inefficiencies; sometimes proprietary options as sole alternative – what is a better way?
- **Expansion of “Gig” Economy – How do we support?**

Where Do We Want to Go?

PRIMERS (continued)

- Nimble and adaptive educational systems and governance – foster laboratories; identify best practice; continuous improvement; locally driven/globally connected
- Research and development – tech transfer, investment and collaboration between education/industry, incubators
- Efficient, aligned competency delivery within lifelong learning model – de-emphasize “graduation?”

Where Do We Want to Go?

BREAKOUT: Early Learning & K12

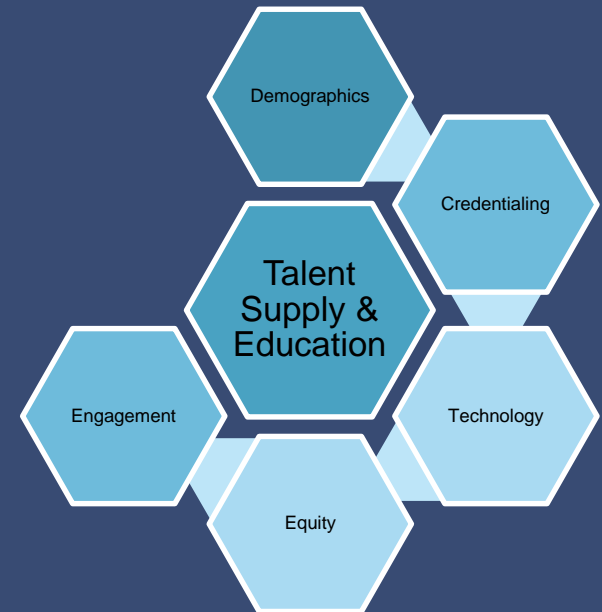
- What would this pillar look like if Florida is a top 10 economy globally by 2030?
- What would this pillar look like if we had a pathway to prosperity for all zip codes in the state by 2030?
- What would this pillar look like if Florida's communities lead the nation and world as places to live, work, and visit?
- How should we measure success in 2030?



Where Do We Want to Go?

BREAKOUT: Higher Ed & Workforce

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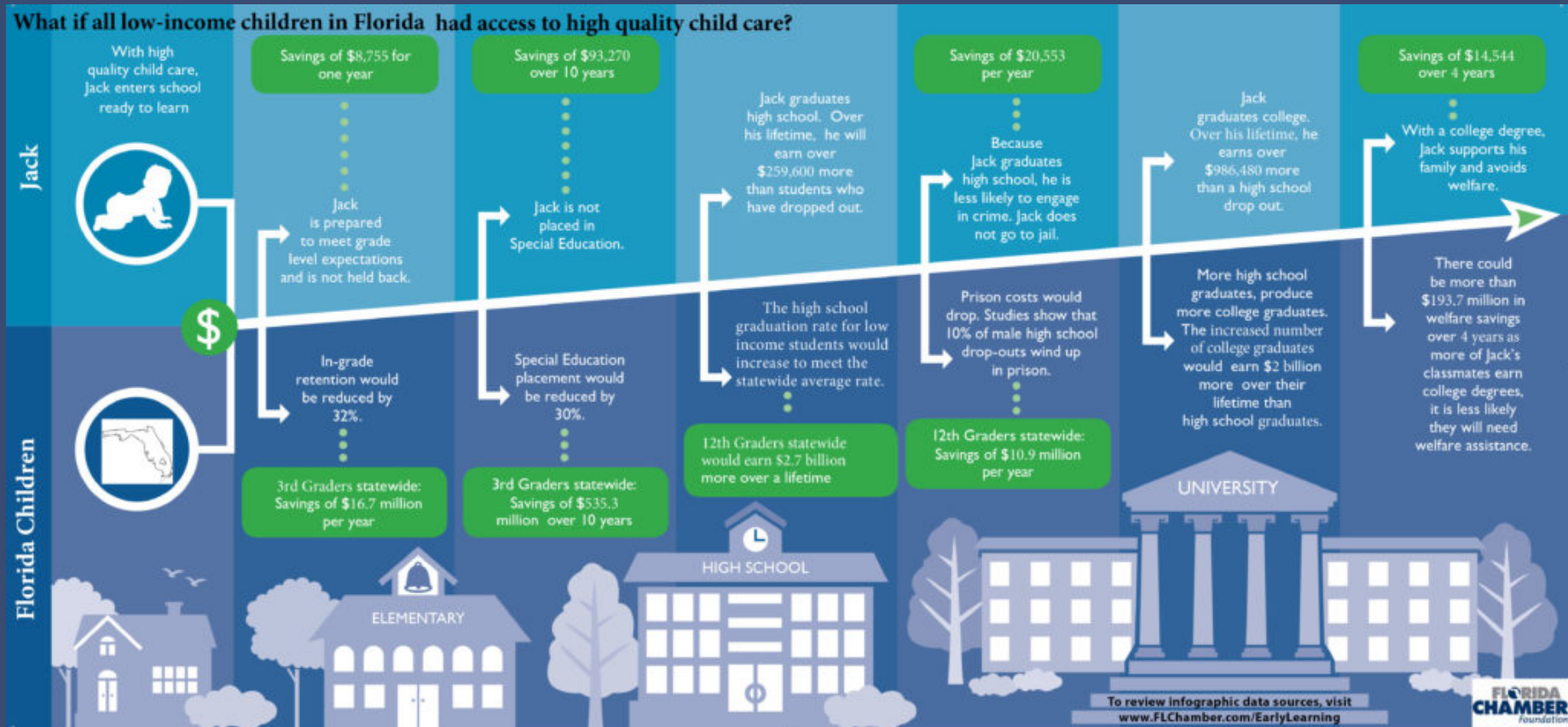
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How Do We Get There?

PRIMERS

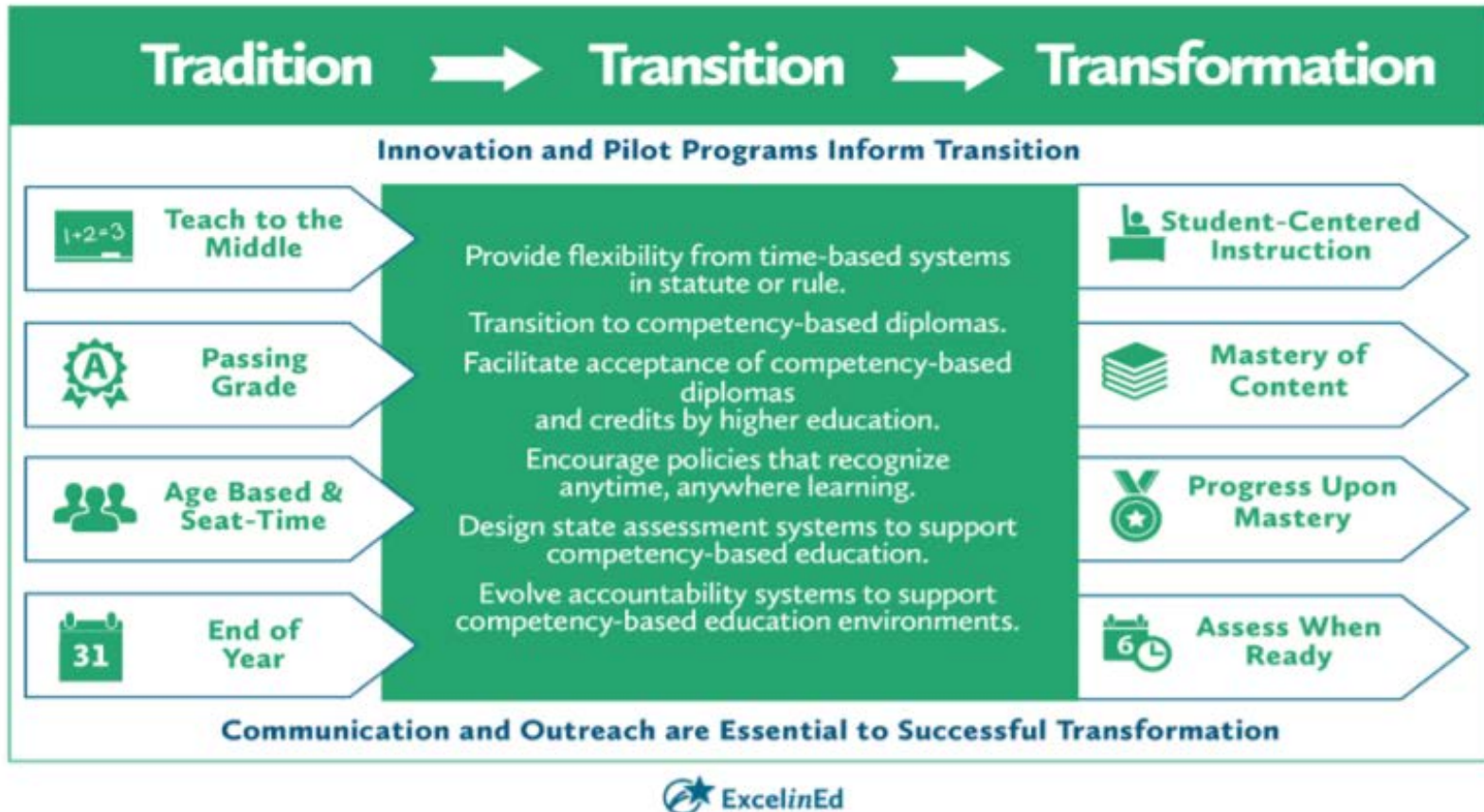
- The public must understand the ROI of Early Learning



How Do We Get There?

PRIMERS

- Competency-Based Education in K12 - ExcelinEd:

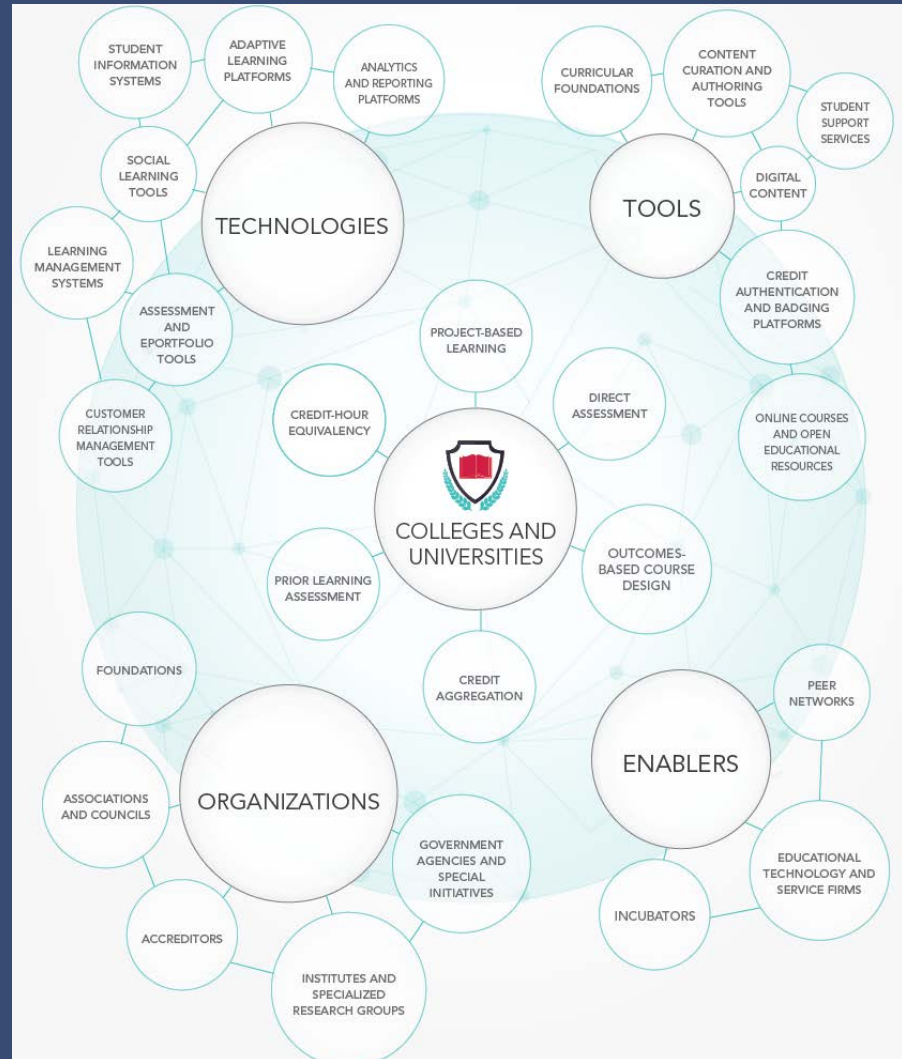


Source: ExcelinEd, Policy, Pilots, and the Path to Competency-Based Education: A National Landscape (2017)

How Do We Get There?

PRIMERS (continued)

- **Educause CBE implementation framework:**
 - Approach/delivery models
 - Alignment with enablers, entities
 - Tools & technology
- **What has to exist for education pipeline to be aligned with industry demands?**



Source: Eduventures – Mapping the Competency Based Universe (2015)

How Do We Get There?

PRIMERS (continued)

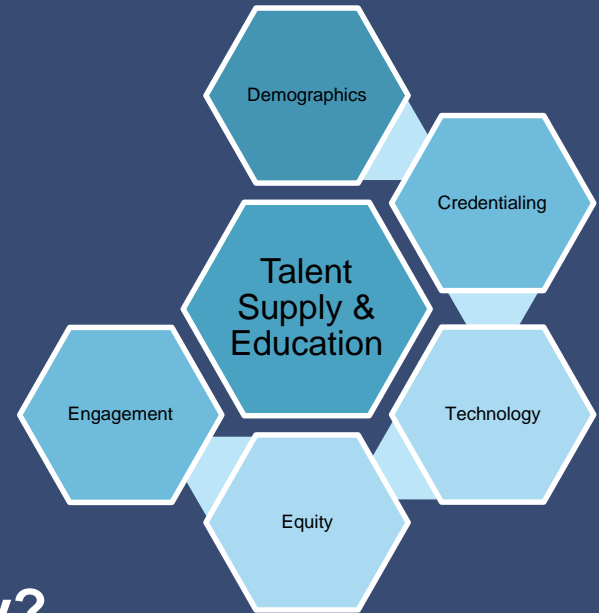
Success in the New Economy

<https://vimeo.com/67277269>

How Do We Get There?

BREAKOUT: Early Childhood & K12

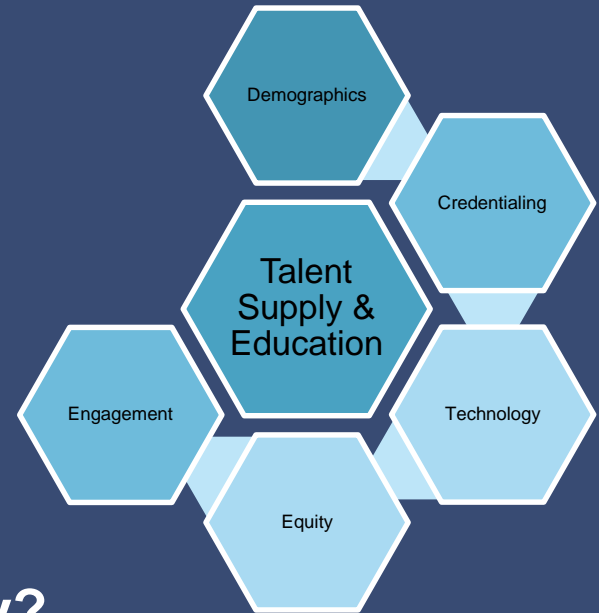
- What key issues need attention?
- What major risks do we face?
- What should we keep doing?
- What should we be doing differently?



How Do We Get There?

BREAKOUT: Higher Ed & Workforce

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Committee Work Plan

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Next Steps

- **Continued input:**
 - Pillar advisory committee interviews, online survey, follow up
 - Additional stakeholders representing each of pillar zones
 - Iterative feedback from MGT expert panel
- **Goal, strategy, metric development and refinement**
- **Communication strategy**
 - internal (advisory committee) – August web conference (TBD)
 - external (full universe of stakeholders)
- **Presentation of “draft” results at Future of Florida Forum**

1,000s of Floridians

6 Pillars

2 Years

1 Plan

FL 2030 @FLChamber.com