



2016 Future Ready Iowa Alliance





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Future Ready Iowa Alliance

October 28, 2016

12:00 p.m. to 3:30 p.m.

Greater Des Moines Botanical Garden

909 Robert D. Ray Drive

Des Moines, Iowa



12:00 p.m. **Welcome** – Beth Townsend, Director of the Iowa Workforce Development

12:02 p.m. **Introductions** – Future Ready Iowa Alliance Members

12:10 p.m. **Iowa's Biggest Challenge: Closing the Skills Gap** – Gov. Terry Branstad

12:15 p.m. **Our Charge** – Lt. Gov. Kim Reynolds

12:20 p.m. **The Role of Business and Industry** – Dan Houston, Chairman, President, & CEO, Principal

12:25 p.m. **Lunch** – Pick Up Box Lunches for Working Lunch

12:35 p.m. **The Work So Far and the Work Ahead:**

- Beth Townsend, Director, Iowa Workforce Development Department
- Ryan Wise, Director, Iowa Department of Education
- Debi Durham, Director, Iowa Economic Development Authority
- Bob Donley, Executive Director, Iowa Board of Regents
- Dr. Liang Chee Wee, President, Northeast Iowa Community College

1:30 p.m. **Preview Future Ready Iowa Portal** – Ryan Murphy, Iowa Workforce Development, and Paula Nissen, Iowa Department of Education

1:45 p.m. **States Racing to Create Stronger Talent Pipelines** – Lara Couturier, Director, HCM Strategists, with Lumina Foundation Strategy Labs

2:30 p.m. **Future Ready Iowa Alliance Discussion of Objectives and Working Groups**

- I. Review objectives (Beth Townsend)
 - a. Get Iowans Ready
 - b. Get Iowans Credentialed
 - c. Get Iowans Hired
- II. Discussion to establish working groups (Lt Gov Reynolds)
 - a. Members volunteer for working groups as interested and help identify subject matter experts.
 - b. Working groups hold at least one meeting to kick-off work before Jan. 3 Alliance meetings
- III. Next Steps (Dan Houston)
 - a. Gather initial input from colleagues and community leaders industry to:
 - b. Gather perspective and data on skills gap challenge, including hot/in-demand jobs and careers in their industry and/or other key industries.
 - c. Begin identifying best practices taking place in Iowa and elsewhere to address the skill gap that can be considered for Future Ready Iowa deliberations.
 - d. Begin identifying gaps and alignment opportunities in Iowa's talent development pipeline.

3:25 p.m. **Closing Remarks** – Lt. Gov. Kim Reynolds & Dan Houston, Chairman, President, & CEO, Principal



Vision:
A Future Ready Iowa that prepares individuals for dynamic careers and lifelong learning, meets employer needs, grows family incomes and strengthens communities.

Future Ready Iowa helps more Iowans attain the "new minimum" of high-quality education and training beyond high school by aligning education, workforce, and economic development resources.





Goal

70% of Iowans in the workforce will have education or training beyond high school by 2025



Growth

Reaching this goal is critical to the economic viability of Iowa

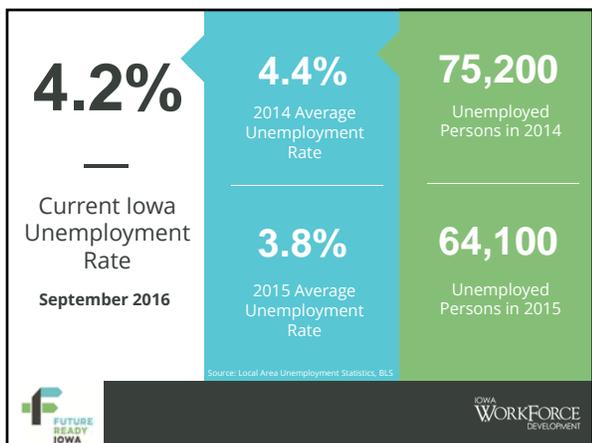


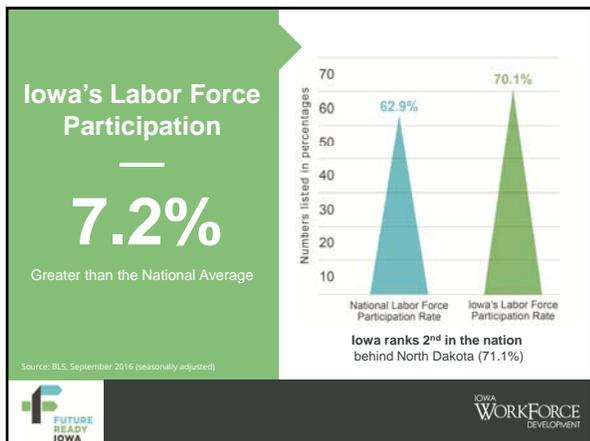
FUTURE READY IOWA **IOWA WORKFORCE DEVELOPMENT**

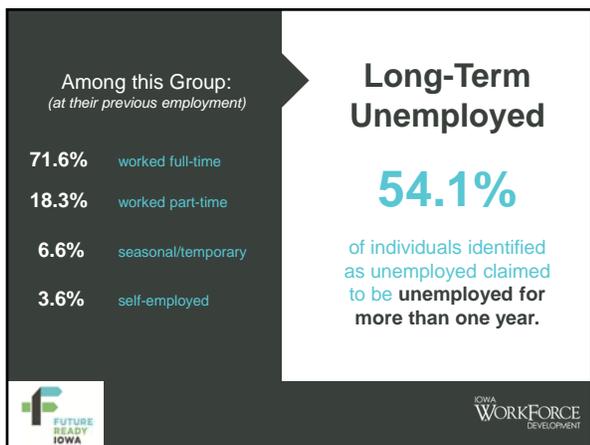
Workforce Demographics

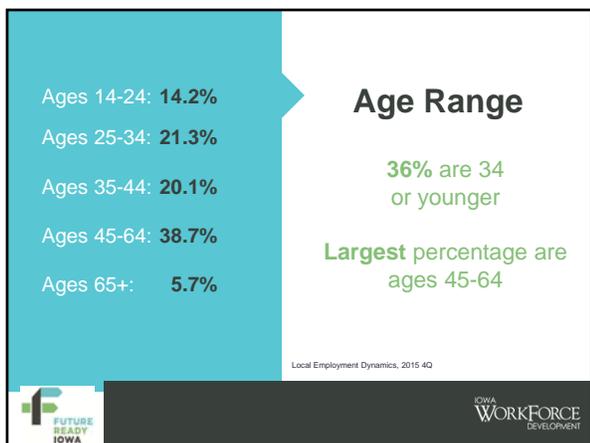


FUTURE READY IOWA **IOWA WORKFORCE DEVELOPMENT**



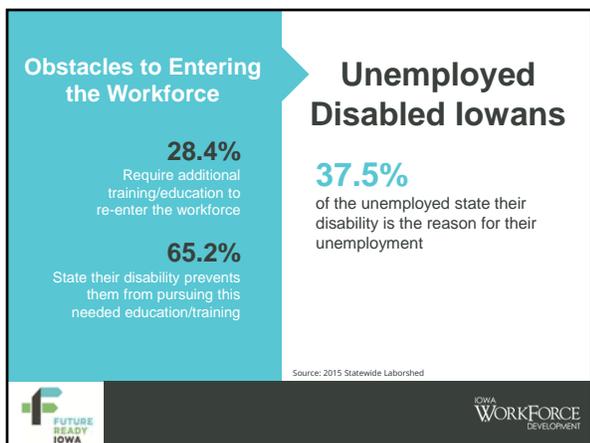


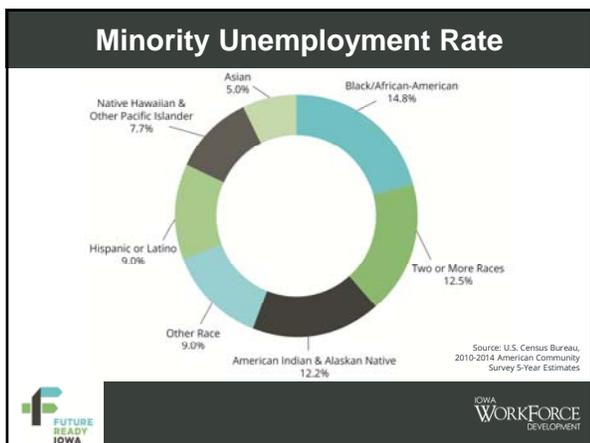




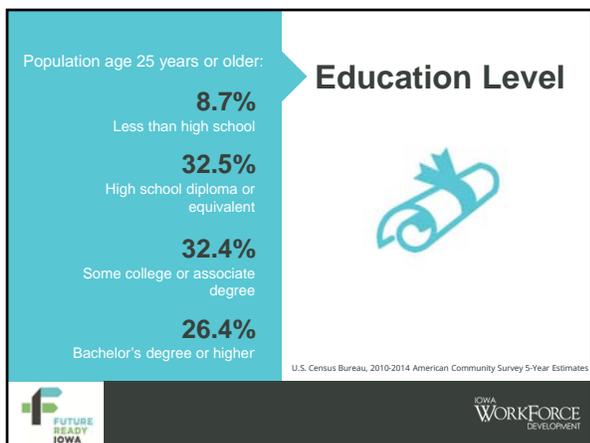


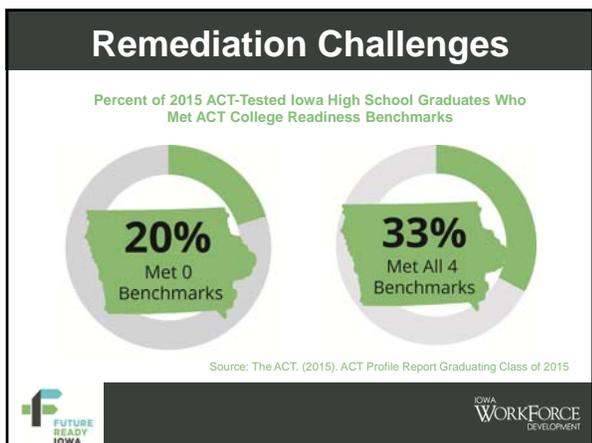


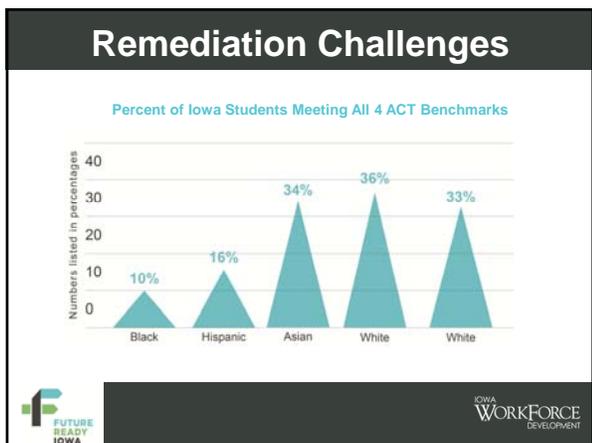


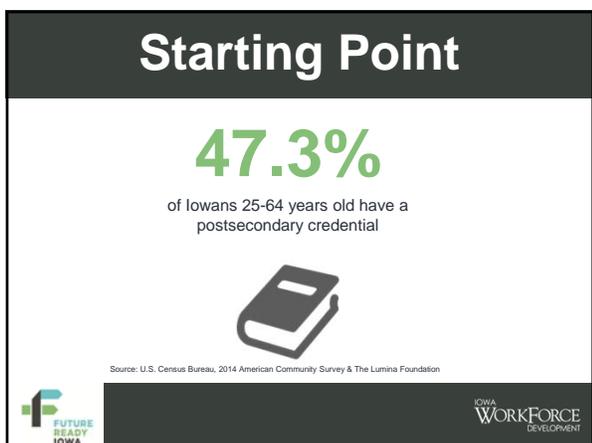


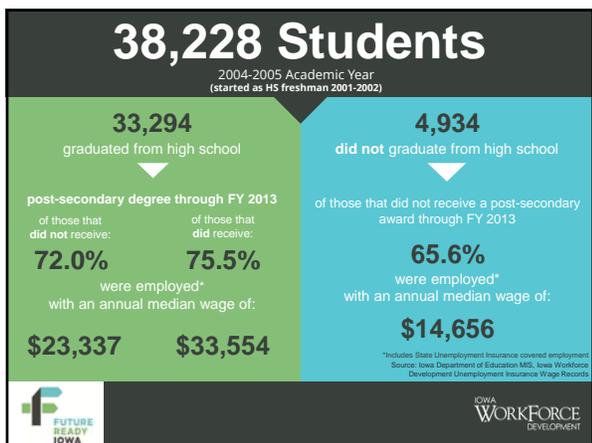
















Total Number of Baby Boomers in Iowa

624,780
are between **50 & 64** years old

270,272
55 to 64 years old are in the workforce

Baby Boomer Generation (1946-1964)

Currently 52 to 70 years old

Continual retirements are likely to cause skill shortages that will need to be replaced.

U.S. Census Bureau, 2015 American Community Survey 1-Year Estimates
Local Employment Dynamics, 2015 4Q



Sectors with the largest concentration of older workers

30%
Educational Services
53.5% are 45 or older

30%
Utilities
58.9% are 45 or older

Middle Skill Jobs in Iowa, 2015
Iowa Workforce Development
Local Employment Dynamics, 2015 4Q





Bridging the Skills Gap



What are Middle-Skills Jobs?

Jobs that require: more than a high-school diploma but less than a bachelor's degree

Jobs that pay: family-sustaining wages and provide pathways to advancement

Jobs that are diverse: electricians, police officers, radiologic technicians, paralegals, cable installers, computer support specialists, welders, occupational and physical therapist assistants, truck drivers, carpenters, plumbers and many others



Middle-Skill Jobs

Have a mean annual average wage between \$30,000 and \$60,000



Over 1/2 of Iowa Jobs are Middle-Skill

49% of Replace Jobs are Middle-Skill

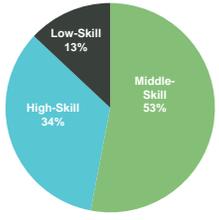
Middle-Skill Jobs in Iowa, 2015
Iowa Workforce Development



IOWA'S JOBS BY SKILL LEVEL

53% are Middle-Skill Jobs

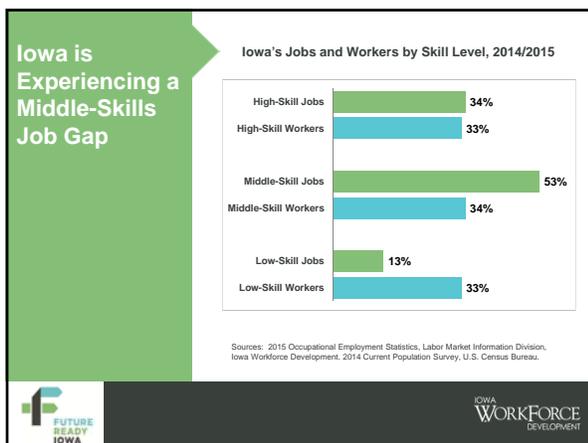
Iowa's Jobs by Skill Level, 2015



Skill Level	Percentage
High-Skill	34%
Middle-Skill	53%
Low-Skill	13%

Source: 2015 Occupational Employment Statistics, Labor Market Information Division, Iowa Workforce Development





HR Professionals are Experiencing the Gap

69% of HR executives say: their inability to attract and retain middle-skills talent frequently affects their firm's performance¹

32% of surveyed employers say: they do not think job applicants fulfill all necessary requirements for the job²

¹From "Bridge the Gap: Rebuilding America's Middle Skills," a study by Harvard Business School in partnership with Accenture and Burning Glass Technologies
²Workforce Needs Assessment, Iowa Analysis 2015, Iowa Workforce Development



High Demand Skill-Sets Needed

-  Active Listening
-  Critical Thinking
-  Speaking Skills





Future Ready Iowa Alliance

Task: Create a strategic plan by October 31, 2017, to reach ambitious goal of 70% of Iowa's workforce having education or training beyond high school by 2025

FUTURE READY IOWA | **IOWA WORKFORCE DEVELOPMENT**

Apprenticeships
Iowa Statistics as of 9/30/2016

- 764 Active Registered Apprenticeship Programs
- 104 Number of New Registered Apprenticeship Programs
- 1,348 Completed Apprentices FY to Date
- 8,240 Total Number of Active Apprentices
- 4,606 Number of New Registered Apprentices FY to Date

Category	Value
Average Starting Salary	\$14.32
Average Completion Salary	\$21.81

FUTURE READY IOWA | **IOWA WORKFORCE DEVELOPMENT**

Registered Apprenticeships

Iowa recently received a **\$1.8 mil** grant to expand Registered Apprenticeship Opportunities

Aligns with **Future Ready Iowa Initiative**

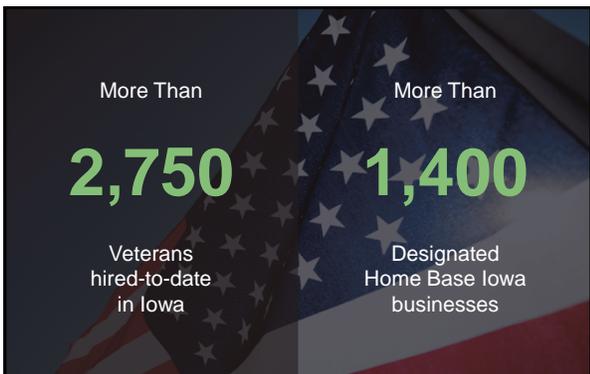


- Goal: To **double the number of registered apprentices in Iowa** over the next five years
- New opportunities in diverse industries:
 - Health care
 - Advanced manufacturing
 - Information technology
- Focus on diverse populations:
 - Women
 - Minorities
 - Underrepresented Iowans



More Than **2,750** Veterans hired-to-date in Iowa

More Than **1,400** Designated Home Base Iowa businesses



Fast-Track STEM Careers

STEM is officially and proudly joining the Future Ready Iowa movement with the launch of Fast-Track STEM Careers

79% of STEM jobs require an education beyond high school



iowastem.gov



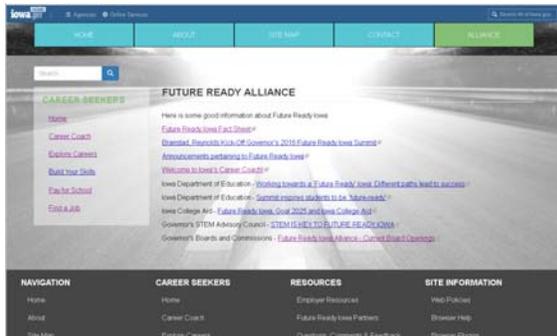
Future Ready Iowa Website

- Full website launches in January 2017
- Will feature links to comprehensive educational and career resources in Iowa
- Goal is to make it easy for Iowans to learn what jobs are needed in Iowa and the education/training required for those jobs



futurereadyiowa.gov

IOWA WORKFORCE DEVELOPMENT



futurereadyiowa.gov

IOWA WORKFORCE DEVELOPMENT

Career Coach

The Future Ready Iowa website will feature the Career Coach tool which will allow you to:

- find a job
- research a career
- learn about available opportunities
- compare wages
- explore education & training opportunities
- take a career assessment
- build a resume
- and more



futurereadyiowa.gov

IOWA WORKFORCE DEVELOPMENT

2nd Largest
Work-ready pool of employees behind Iowans with disabilities

92%
of those currently incarcerated will be released

Offender Re-Entry

According to the Department of Corrections, the most important factor in reducing recidivism is employment.



Economic Development Focus

- Challenge: Finding skilled workers to meet the demands of our growing and thriving businesses
- Opportunity: Connecting the dots for learners of all ages to plug into rewarding careers in Iowa's businesses

- Debi Durham, Director, Iowa Economic Development Authority



Board of Regents Focus

- Challenge: Current strategies in Access, Affordability, and Student Success
- Opportunity: Future strategies and initiatives to support increased postsecondary enrollment, degree attainment, and career pathways

- Robert Donley, Executive Director, Board of Regents

Overview of key strategies and focus of the Board of Regents Strategic Plan (2016-2021)



Education Focus

- Challenge: Ensuring all Iowans develop the foundational knowledge, skills and abilities they need to have access to education and training beyond high school.
- Opportunity: Emerging alignment of initiatives both inside the Department of Education and across stage agencies, which are now working toward a common goal.

– Ryan Wise, Director, Department of Education

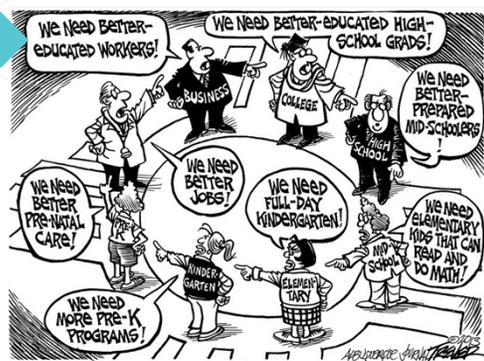


Community College Focus

- Challenge: Low population growth hinders number of available students for training at community colleges.
- Opportunity: Community colleges continue to partner with K-12 schools to provide career pathway opportunities to their students and to educate parents about the career opportunities awaiting their children.

- Dr. Liang Chee Wee, President, Northeast Iowa Community College





Our Charge

- How can we best utilize your time and talents to develop a clear strategic plan with actions?
- How do we make sure we listen, analyze and adopt recommendations from all of our stakeholders?
- How do we make sure that we address those lowans with barriers to employment and education?

— Kim Reynolds, Lt. Governor

- How do we align interests of business and classroom?
- Can we have an honest conversation about these subjects?
- Can we identify gaps as well as how to fill them?

— Dan Houston, Chairman, President and CEO, Principal Financial Group





GO CUBS!

Thank You

Follow IWD's Director
on Twitter
[@BethTownsendIWD](#)
[#FutureReadyIA](#)



Initiatives Related to Future Ready Iowa

Future Ready Iowa is a **commitment to collaboration** with a variety of stakeholders to help close the skills gap by better **aligning our education, economic development and workforce development initiatives**. Future Ready Iowa **establishes a shared vision and goal** that 70% of Iowans in the workforce will have education and training beyond high school by 2025. The Future Ready Iowa Alliance will help accelerate this important work.

There is a need for programmatic and messaging alignment. The communications directors of the relevant agencies have begun coordinating on messaging. This document focuses on relevant initiatives and policy areas relevant to programmatic alignment discussions. Additional programmatic gaps will likely be identified that will also inform policy and resource discussions.

Programmatic Alignment:

- 1) **Iowa's early literacy initiative** aims to help all children learn to read well by the end of third grade. The focus is early identification of struggling readers and intensive assistance. Preliminary results for 2015-16 show no progress in the share of students reading proficiently by the end of third grade: 76.1 percent. Yet some districts, such as Denison, Benton and Urbandale are making significant progress. We are looking at how to share the best practices they use and how to better utilize the teacher leadership system to improve literacy instruction. Nearly 25 percent of students not reading proficiently by the end of third grade is one of the first signs of the skills gap in Iowa.
- 2) **The Chronic Absenteeism Advisory Council** is charged with making at least one recommendation by November 2016 on how to help school districts better address chronic absences in kindergarten through third grade. Good attendance is an essential good habit to establish early and means students are more likely to read proficiently by the end of third grade.
- 3) **The Governor's STEM Advisory Council**, with the mission of increasing student interest and achievement in STEM subjects and careers. Providing high-quality STEM education to students across the state, growing school-business STEM partnerships and better supporting educators teaching STEM is paying off in growing STEM momentum across the state. The STEM externships have been a prominent part of the work-based learning discussions in the state.
- 4) **Iowa's teacher leadership system**, which you and Governor Branstad proposed and the Legislature adopted in 2013, is now in all 333 school districts. With about 25 percent of teachers in leadership positions, such as instructional coaches, Iowa is positioned to better carry other key reforms, such as high state academic standards and new, better-aligned tests. This will lead to more students graduating from high school genuinely prepared for college or career training.

- 5) **Computer science legislation** is being put together by you and Governor Branstad to build a strong foundation in elementary and middle school and assure all high school students have the opportunity to take at least one high-quality computer science course. Computer science education builds foundational skills that are important for future careers and digital citizenship.
- 6) **Iowa Apprenticeship Act** is now entering its third year and has helped Iowa become one of the fastest growing apprenticeship states. However, significant opportunities exist to align apprenticeship efforts across agencies and programs and to grow the number of apprentices and diversify the types of apprenticeship programs and several states seem further along in advancing pre/youth apprenticeships to better connect the front end of the talent pipeline.
- 7) **Career and Technical Education (CTE)** and more generally better integrating **work-based learning** into the K-12 system is a promising strategy to improve career preparedness and make learning more interesting and relevant. The goal is to provide high-quality, more equitable training that aligns the needs of students, employers, and the state's economy by engraining career guidance into a student's educational experience so he or she can make informed decisions about future postsecondary and career plans. The CTE reform aims to expand student access to coordinated work-based learning opportunities, including through regional partnerships. Opportunities exist to better scale high-quality work-based learning across the state – from career awareness to internships to registered apprenticeships. Further, connecting the broader **Career Pathway** work underway to the K-12 system will be very important.
- 8) The **Future Ready Iowa Portal** will be a key connection point for various initiatives and driving alignment of messaging. The portal will help better connect demand side and supply side information and serve as an important tool for students, parents, and educators.
- 9) **Iowa's scholarship programs** help individuals take the step into post-secondary education, but opportunities exist to better align those programs to high-demand career opportunities and highest-need individuals.
- 10) **A variety of intermediary programs** (iJAG, GEAR UP, community college intermediaries, United Way personnel, school counselors, Elevate ambassadors, etc.) can help provide key guidance and support with individuals with barriers and low expectations, but efforts are not consistently coordinated across the state, and results of such efforts are not well-documented and benchmarked.
- 11) **Talent recruitment efforts**, including Home Base Iowa, are also relevant to filling talent pipeline gaps.



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Overview of Future Ready Iowa Alliance Working Groups

The following working groups will be established from volunteer Alliance members, subject matter experts and relevant business, education and community leaders. All groups will ensure alignment to high-demand employer needs and include recommendations to overcome barriers to educational achievement and career success to ensure all Iowans have access to the middle class and beyond. The work of the groups will focus on accomplishing the three objectives of the Alliance:

- 1. Get Iowans Ready**
- 2. Get Iowans Credentialed**
- 3. Get Iowans Hired**

The following five proposed working groups will structure the work to deliver the three outlined objectives:

College and Career Readiness Group

Relevant Objective: Get Iowans Ready

Postsecondary Enrollment and Completion Group

Relevant Objective: Get Iowans Credentialed

Upskilling Group

Relevant Objective: Get Iowans Hired

Business & Industry High-Demand Careers Alignment Group

Relevant Objective: Get Iowans Ready, Get Iowans Credentialed, Get Iowans Hired

Communications & Outreach

Relevant Objectives: Get Iowans Ready, Get Iowans Credentialed, Get Iowans Hired

DRAFT

Future Ready Iowa Alliance Working Group Worksheet

GET IOWANS READY WORKING GROUP

Relevant Objective: Get Iowans Ready.

Description: **Get Iowans Ready -- College and Career Readiness Group** – This group will focus on ensuring that high school graduates are ready for college or career training by identifying proven approaches and best practices to improve academic achievement and career readiness in the K-12 system. The group, as part of its overall work, should identify strategies and actions to address socioeconomic, ethnic, racial, and other achievement gaps. This should include finding additional ways to make classes more relevant to the career opportunities students may want to pursue someday and clarify career pathway information, including more work-based learning opportunities. Measures of success will include increasing college and career training applications, increasing post-secondary enrollment and increasing industry-recognized credentials and dual high school and college credits earned in high school, and reducing college remediation numbers. Strategies will include actions to increase opportunities to individuals with barriers to college and career readiness.

Proposed Membership: Business and industry representatives, preschool through high school teachers, students, school board members, school administrators, guidance counselors, public university, independent college and community college leaders, Iowa College Student Aid Commission, Early Childhood Iowa, Al Exito, the Iowa-Nebraska NAACP and Embarc, as well as representatives of other nonprofit and other community advocacy organizations, labor leaders, and other interested stakeholders.

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Future Ready Iowa Alliance Working Group Worksheet

GET IOWANS CREDENTIALLED WORKING GROUP

Relevant Objective: Get Iowans Credentialed.

Description: Get Iowans Credentialed -- Postsecondary Enrollment and Completion Group – This group will focus on dramatically increasing the completion rate of education, training and certification programs and ensuring that students who enroll have the resources necessary to start and finish the programs. Measures of success will include increases in two-year and four-year degrees and other credentials of high-value, including registered apprenticeship completions. Strategies will include actions to increase opportunities to individuals with barriers to credential attainment. Group will include specific actions to help minority communities and other individuals with barriers to career success gain training, certification, and up-skilling to bolster opportunities and outcomes in these communities. The group will also address how to increase graduation rates in minority communities which are also generally lower.

Proposed Membership: Proposed Membership: Business and industry leaders, college and university leaders, representative from Iowa College Student Aid Commission, Iowa Student Loan and the Iowa College Access Network, iJAG, labor leaders, students, and other interested stakeholders.

DRAFT

Future Ready Iowa Alliance Working Group Worksheet

RECONNECT IOWANS WORKING GROUP

Relevant Objective: Get Iowans Hired.

Description -- Upskilling Group - This group will develop plans to help adult Iowans who want to increase their level of training and education find pathways to do so either through registered apprenticeships, a return to community college, university, or other training provider, including employer training. Measures of success would include reducing the number of unemployed and underemployed Iowans. Additional focus will be on reducing minority unemployment rates, and other individuals with barriers, and determining best practices for outreach to those communities to accomplish goals of this working group within those communities.

Proposed Membership: Community leaders, business and industry, community college, independent college and public university leaders, representatives of nonprofits and other community advocacy organizations, economic developers, and other interested stakeholders.

DRAFT

Future Ready Iowa Alliance Working Group Worksheet

DEMAND DRIVEN WORKING GROUP

Relevant Objective: Get Iowans Ready; Get Iowans Credentialed; Get Iowans Hired.

Demand-Driven Group - Business & Industry High-Demand Careers Alignment Group – This group will develop policy proposals to identify and prioritize high-demand occupational needs and careers across business and industry, identify current staffing and upcoming challenges in maintaining and increasing available workforce. Work includes policies designed to tie education and training attainment targets to high-demand jobs including expansion of pre-apprenticeship and apprenticeship programs, expansion of high school and college STEM internships, including in the computer science field; enhanced need-based college scholarships more closely aligned with workforce needs, college mentoring, and scaling robust career pathways.

Proposed Membership: Business, industry and labor leaders, community college, independent college and public university leaders, K-12, nonprofits, economic developers, and other interested stakeholders.

DRAFT

Future Ready Iowa Alliance Working Group Worksheet

COMMUNICATIONS AND OUTREACH WORKING GROUP

Relevant Objectives: Get Iowans Ready; Get Iowans Credentialed; Get Iowans Hired.

Communications and Outreach – This group will develop communications and outreach to support broader public understanding and support for the state attainment goal. It will plan and implement outreach to ensure maximum exposure of Future Ready Iowa and the Alliance strategic plan. This group will develop strategies and best practices for outreach to populations with barriers to educational attainment and employment, including outreach to minority communities to elevate educational attainment and employment rates. Additionally, the group will focus on plans to educate parents regarding high demand career fields and opportunities for students after high school graduation besides a four-year college. Further the group will help develop targeted outreach to help close achievement gaps and drive equity across various populations.

Proposed Membership: Communication experts, marketing experts, education marketing specialists, community leaders, non-profits.



Future Ready Iowa Alliance Overview

Future Ready Iowa Vision: A future ready Iowa that prepares individuals for dynamic careers and lifelong learning, meets employer needs, grows family income and strengthens communities. It will help more Iowans attain the “new minimum” of high-quality education and training beyond high school by aligning education, workforce, and economic development resources.

Future Ready Iowa Goal: 70% of Iowans having education or training beyond high school by the year 2025.

Future Ready Iowa Alliance (Alliance) Mission: Develop strategic plan to reach Future Ready Iowa goal.

Strategies: Future Ready Iowa Alliance will meet for one year to develop, recommend and prioritize key strategies, policy steps, and metrics to reach the 70% goal. Recommendations will be made to Gov. Terry Branstad by October 31, 2017.

Structure:

- Lt. Gov. Reynolds & Dan Houston, Chairman, President & CEO Principal Financial, co-chairs.
- Director Beth Townsend, Iowa Workforce Development, facilitates alliance in close collaboration with Director Ryan Wise (Iowa Department of Education) and Director Debi Durham (Iowa Economic Development Authority) and Governor’s office personnel.
- Members include leaders from business and industry; education leaders (K-12, community colleges, Regents universities, private universities), non-profits, community leaders, economic developers, apprenticeship program leaders, labor representatives, STEM champions, and above referenced state agencies in addition to Departments of Vocational Rehabilitation, Human Rights and Human Services. The Governor will designate an executive committee from the general Alliance membership.
- The Executive Order that established the Alliance can be found at: governor.iowa.gov/2016/08/branstad-reynolds-announce-future-ready-iowa-alliance and individuals interested in serving can apply at www.openup.iowa.gov.

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Potential Areas of Policy Focus Include:

- Reducing the socioeconomic, ethnic and racial achievement gaps K-12
- Increasing equity in postsecondary enrollment and attainment among both traditional and post-traditional students.
- Improving K-12 student outcomes to ensure Iowa achieves greater equity when devising post-secondary education and training attainment targets.
- Better aligning workforce development programs to reduce overlap/duplication and address identified gaps in delivery model; better alignment of resources such as use of dual enrollment and remedial education in college.
- Creating and supporting more effective career pathways tied to high-demand careers.



General Membership Expectations: Individuals and organizations that volunteer to serve are expected to commit to collaborate with industry/institutional partners to ensure the work of the Alliance has broad input and support. Senior leaders (executives who have policy and budget making authority) from organizations that are directly impacted by the skills gap and have demonstrated a leading practice in closing the skills gap in their community are strongly encouraged to apply. Individuals commit to attending at least a strong majority (preferably all) of the scheduled meetings and will ideally bring other perspectives and resources from their own organization into the work of the Alliance.

Scheduled Meetings: All meetings will be held at Greater Des Moines Botanical Garden Center, DuPont West Conference Room, 909 Robert D. Ray Dr., Des Moines, IA 50309

October 28, 2016 – Kick Off Event

12:00 pm to 3:30 pm

January 3, 2017

10:00 am to 2:00 pm

March 14, 2017

10:00 am to 2:00 pm

May 2, 2017

10:00 am to 2:00 pm

July 11, 2017

10:00 am to 2:00 pm

September 12, 2017

10:00 am to 2:00 pm

October 17, 2017

10:00 am to 2:00 pm

Contact Information:

Beth Townsend

Director, Iowa Workforce Development

1000 E. Grand Ave.

Des Moines, IA 50319

Ph: 515-281-5365

beth.townsend@iwd.iowa.gov


State of Iowa
Executive Department

IN THE NAME AND BY THE AUTHORITY OF THE STATE OF IOWA
EXECUTIVE ORDER NUMBER EIGHTY-EIGHT

WHEREAS, closing the skills gap will secure a more prosperous future for all Iowans; and

WHEREAS, the economic vitality of our state depends on more skilled workers; and

WHEREAS, many students need more support to meet the expectations of world-class schools and complete 12th grade adequately prepared for college or career training; and

WHEREAS, such support should focus on reducing the socioeconomic, ethnic and racial achievement gaps in elementary and secondary schools and increasing equity in the attainment of a postsecondary degree or other workforce credential; and

WHEREAS, many adults would benefit from additional education or training, including workers with some college credit who want to complete their college degree or another workforce credential; and

WHEREAS, increasing the education and employment of parents or guardians of children living in or near poverty would improve opportunities for their children; and

WHEREAS, many employers throughout Iowa have difficulty hiring enough skilled workers, and Iowa would benefit from better alignment of education, workforce and economic development systems to develop more robust career pathways; and

WHEREAS, it is essential postsecondary institutions produce the credentials employers need and put more Iowans on a path to the middle class and beyond.

NOW, THEREFORE, I, Terry E. Branstad, Governor of the State of Iowa, declare Iowa will be well-served by establishing the goal of 70 percent of our workforce having education or training beyond high school by the year 2025. This is called the Future Ready Iowa Initiative. To develop and recommend the strategic plan to accomplish this goal, I hereby order the creation of the Governor's Future Ready Iowa Alliance.

1. **Purpose:** The Future Ready Iowa Alliance will develop and recommend a strategic plan to accomplish the Future Ready Iowa goal of 70 percent of Iowa's workforce having education or training beyond high school by the year 2025, including postsecondary degrees, certificates and other high-quality credentials. The plan shall be submitted to the Office of the Governor by October 31, 2017.
2. **Organization:** The Alliance shall be comprised of members appointed by the Governor. Each member will serve at the pleasure of the Governor without compensation and in an advisory capacity.
 - i. **Members:** The Governor may appoint any of the following individuals to the Alliance:
 1. Representatives committed to strengthening Iowa's workforce to enhance opportunities for students, adults, employers and communities, including but not limited to the following: business and industry; labor; preK-12 and higher education, including the State Board of Education, career-technical education and school counselors; students; apprenticeship programs; vocational rehabilitation programs; veterans programs; student financial aid

agencies; human resources professionals; human services agencies; human rights agencies; public health agencies; economic development organizations; chamber organizations; community leaders; technology associations; workforce boards; nonprofit organizations; and state and local governments.

2. Two members of the Iowa Senate to serve as non-voting, ex-officio members, one majority party member and one minority party member.
 3. Two members of the Iowa House of Representatives to serve as non-voting, ex-officio members, one majority party member and one minority party member.
 4. Any other individuals that the Governor may appoint.
- ii. **Co-chairs:** The Alliance shall be co-chaired by the Lt. Governor of Iowa and another member of the Alliance selected by the Governor. The co-chairs may direct the Alliance to form subcommittees to address particular issues within the mission of the Alliance. The makeup and nature of each subcommittee shall be determined by the co-chairs.
 - iii. The Department of Iowa Workforce Development, in coordination with the Iowa Economic Development Authority and the Iowa Department of Education, shall provide staff support to the Alliance, as needed, to enable the Alliance to fulfill its responsibilities. All agencies, departments and boards of the State of Iowa shall cooperate fully with the Alliance. The Alliance may seek the expertise and services of individuals and entities outside its membership for research, advice and other needs, as required to accomplish its mission.
3. **Executive Committee:** The Alliance shall be led by an Executive Committee appointed by the Governor. The Executive Committee may include the following members appointed by the Governor, or their designees:
 - i. Lt. Governor of the State of Iowa;
 - ii. Director of the Iowa Economic Development Authority;
 - iii. Director of the Iowa Department of Education;
 - iv. Director of the Iowa Department of Workforce Development;
 - v. Six representatives of employers, including at least one with an apprenticeship program;
 - vi. Labor union representative with an apprenticeship program;
 - vii. President of one of the Regent institutions;
 - viii. President of a community college;
 - ix. President of an independent college;
 - x. Representative of prekindergarten through 12th grade education;
 - xi. Executive Director of the Iowa Board of Regents;
 - xii. Executive Director of the Governor's STEM Advisory Council; and
 - xiii. Any other individuals the Governor may appoint.
 4. **Goals and duties:** The Future Ready Alliance shall have the following goals and duties:
 - i. Hold regular meetings to develop and recommend a strategic plan by October 31, 2017, to accomplish the goal of 70 percent of Iowa's workforce having education or training beyond high school by the year 2025; and
 - ii. Determine metrics and benchmarks on a time line to demonstrate progress toward the 70 percent goal. Those key measurements shall include, but not be limited to:
 1. Progress toward reducing the socioeconomic, ethnic and racial achievement gaps in kindergarten through 12th grade and increasing equity in postsecondary enrollment;
 2. Progress toward increasing the percent of traditional-age students and adult learners who earn postsecondary degrees, certificates, or other credentials; and

3. How well post-secondary degrees, certificates and other credentials awarded by Iowa postsecondary institutions align with high-demand job needs, and job-placement rates.
 - iii. Reach other goals and objectives as requested by the Office of the Governor.
5. This Order shall apply prospectively as of the date of the signing of this Order. This Order shall be interpreted in accordance with all applicable laws. It is not intended to supersede any law or collective bargaining agreement.
6. If any provision of this Order, or the application of such provision to any person or circumstance, is held to be invalid, the remaining provisions, as applied to any person or circumstance, shall not be affected thereby.
7. This Order is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity, by any party against the State of Iowa, its Departments, Agencies, or Political Subdivisions, or its officers, employees, or agents, or any other person.



IN TESTIMONY WHEREOF, I have hereunto subscribed my name and caused the Great Seal of Iowa to be affixed. Done at Des Moines this 29th day of August, in the year of our Lord two thousand sixteen.

TERRY E. BRANSTAD
GOVERNOR

ATTEST:

PAUL D. PATE
SECRETARY OF STATE

OFFICE OF THE GOVERNOR
Governor Terry E. Branstad ★ Lt. Governor Kim Reynolds

FOR IMMEDIATE RELEASE: Monday, October 24, 2016

CONTACT: Governor's Office 515-281-5211

**Gov. Branstad, Lt. Gov. Reynolds, Director Townsend Announce
Future Ready Iowa Alliance Membership and First Meeting**

Alliance will first meet on Friday, Oct. 28 during public meeting

(DES MOINES) – Today, Gov. Branstad, Lt. Gov. Reynolds and Director of Iowa Workforce Development Beth Townsend announced that the Future Ready Iowa Alliance membership has been set and will meet for the first time on Friday, Oct. 28 at 12:00-3:30PM at the Botanical Gardens in Des Moines.

In August at the Career Academy of Pella, Gov. Terry Branstad, Lt. Gov. Kim Reynolds and other leaders announced creation of the Future Ready Iowa Alliance by signing [Executive Order 88](#). Executive Order 88 charges the Alliance with developing and recommending a strategic plan by October 31, 2017, to accomplish the [Future Ready Iowa](#) goal of 70 percent of Iowa's workforce having education or training beyond high school by the year 2025. The Alliance will also determine metrics and benchmarks on a time line to demonstrate progress toward the 70 percent goal. Those key measurements shall include:

- Progress toward overall college and career readiness for all Iowans and reducing the socioeconomic, ethnic and racial achievement gaps in kindergarten through 12th grade and increasing equity in postsecondary enrollment.
- Progress toward increasing the percent of traditional-age students and adult learners who earn postsecondary degrees, certificates, or other industry-recognized credentials.
- How well degrees, certificates and other credentials awarded by Iowa postsecondary institutions align with high-demand job needs, and job-placement rates.

Branstad also announced that Lt. Gov. Reynolds and Dan Houston Chairman, President, and CEO of Principal will lead the Future Ready Iowa Alliance as co-chairs, with the Alliance made up of representatives who are committed to strengthening Iowa's talent development to enhance opportunities for students, adults, employers and communities.

The members have been appointed by the Governor and include representatives from business and industry, labor, preK-12 and higher education, workforce development advocates, economic development professionals, students, non-profits, and various other community leaders that will help take steps to close the skills gap and empower Iowans with rewarding careers and Iowa employers with the workforce they need to grow and innovate. Members will serve from 25 Iowa counties helping to ensure this important dialogue continues in communities across the state.

The full membership can be found [here](#).

“I’m pleased that the Future Ready Iowa Alliance includes key stakeholders from across the state and that the group is ready to get to work,” said Branstad. “In a competitive, knowledge-based economy, reaching our Future Ready Iowa goal is critical to assure Iowans have great career opportunities, and employers can hire enough of the skilled workers they need. Iowa needs to build on the work already under way to design a dynamic, 21st century education-to-employment system to help more students and adults prepare and advance, with an emphasis on high-demand jobs.”

Reynolds said, “I am honored to serve as a co-chair of the Future Ready Iowa Alliance, and eager to get to work with passionate Iowans. I want to thank all who have stepped forward and given their time to addressing the critical issue of filling the skills gap. The commitment of this Alliance is essential to accomplishing Iowa’s goal of having 70 percent of the workforce having education or training beyond high school by the year 2025.”

Houston added, “I am honored to be named as a co-chair of this significantly important statewide initiative. To say that a prepared workforce for jobs in Iowa is critical is an understatement. We all need to have a shared understanding of how to connect the classroom to jobs in Iowa and create a coordinated system of education and training to employment that works for everyone. I look forward to working with the Alliance and stakeholders across Iowa on this initiative.”

“I am humbled to be helping Lt. Gov. Reynolds and President Houston lead the effort because the Future Ready Iowa Alliance and initiative are something we firmly believe is necessary in order to develop the workforce we are going to need in the next 10 years,” said Director Townsend.

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MEMBERS

<u>First Name:</u>	<u>Last Name:</u>	<u>Organization:</u>
Mary	Andringa	Chair of the Board, Vermeer Corporation
Dr. Bob	Donley	Executive Director, Iowa Board of Regents
Dr. Chris	Duree	President, Iowa Valley Community College District
Debi	Durham	Director, Iowa Economic Development Authority
Dr. Angela	Franklin	President, Des Moines University
Bruce	Harreld	President, University of Iowa
Ruby	Herrera	Teacher, Goodrell Middle School
Dan	Houston (Co-Chair)	Chairman, President, & CEO, Principal Financial Group
Benjamin	McLean	CEO, Ruan Transportation Management Systems
Dr. Mark	Putnam	President, Central College
Lt. Gov. Kim	Reynolds (Co-Chair)	Lt. Governor, State of Iowa
Andy	Roberts	Business Manager, UA Local Union 33
Erin	Rollenhagen	Software Developer, Entrepreneurial Technologies
Lori	Schaefer-Weaton	President, Agri-Industrial Plastics
Charles	Sukup	President, Sukup Manufacturing
Beth	Townsend	Director, Iowa Workforce Development
Dr. Jeff	Weld	Executive Director, Governor's STEM Advisory Council
Dr. Ryan	Wise	Director, Iowa Department of Education
Jim	Anderson	President & CEO, Schebler Company
Chris	Anderson	Superintendent, Woodbine School District
Michelle	Bahr	Board Member, Glenwood School District
Mike	Bearden	Professional Engineer, CGA Consultants, State Board Member-State Board of Education
Dr. Lon	Butikofer	CEO, Manchester Regional Medical Center
Dr. Liang	Chee Wee	President, Northeast Iowa Community College
Senator Mark	Chelgren	Iowa Senate
Ian	Coon	Student, Wartburg College
Marvin	De Jear	Director, Evelyn K. Davis Center for Working Families
Dr. Jerry	Deegan	President, Dowling Catholic High School
General Drew	DeHaes	Deputy Adjutant General, Iowa National Guard
Dr. Rob	Denson	President, Des Moines Area Community College
Kristin	Dietzel	Vice President of Workforce Solutions, Greater Dubuque Development Corporation
Senator Bill	Dotzler	Member, Iowa Workforce Development Board

Steve	Dust	President & CEO, Greater Cedar Valley Alliance & Chamber
Representative Mary	Gaskill	Iowa House of Representatives
Steve	Gilbert, Jr.	President, Gilbert Enterprises
Representative Mary		
Ann	Hanusa	Iowa House of Representatives
Mayor Quentin	Hart	Mayor, City of Waterloo
		Iowa School Counselor Association President-Elect & Monticello Community School District Counselor, Monticello School District
Aimee	Hospodarsky	Attorney and Senior Vice President, Shuttleworth & Ingersoll, PLC
Mark	Hudson	Student, Des Moines East High School
Safie	Jackson	Executive Director, O'Brien County Economic Development Corporation
Kiana	Johnson	Student, Iowa Central Community College
Ben	Kenobbie	Chairman & CEO, Kent Corporation
Gage	Kent	Vice President, MidAmerican Energy
Kathryn	Kunert	President, Iowa State University
Dr. Steven	Leath	
Karen	Misjak	Executive Director, Iowa College Student Aid Commission
Dave	Mitchell	Administrator, Iowa Vocational Rehabilitation Services
Daniel	Oh	President & CEO, Renewable Energy Group
Aiddy	Phomvisay	School Director, Des Moines Central Campus
Senator Herman	Quirnbach	Iowa Senate
Jerald	Riibe	Superintendent, Muscatine School District
Representative Walt	Rogers	Iowa House of Representatives
Paul	Schickler	President, Dow DuPont Pioneer
Gary	Schmit	President, Henkel Construction Company
Mary	Sellers	President, United Way of Central Iowa
Brent	Siegrist	Executive Director, Iowa Area Education Agencies
Lupe	Vasquez	Owner, North Construction & Guadalajara Restaurant
Jim	Wohlpart	Interim President, University of Northern Iowa
Dr. Susan	Wood	President & CEO, VIDA Diagnostics

- **Bold indicates Future Ready Iowa Alliance Executive Committee Member.**



Iowa:

Education and Workforce Trends through 2025



COMMUNITY COLLEGES

GEORGETOWN UNIVERSITY



Center
on Education
and the Workforce

McCourt School of Public Policy

The Georgetown University Center on Education and the Workforce (CEW) in collaboration with the Iowa Department of Education has compiled this report in support of the Iowa Governor's Office projections of long-term education goals. As part of the National Governors Association's work on Iowa's talent pipeline, we have utilized information on industry and occupational trends to identify long-term education goals and workforce development needs that will be necessary to achieve the state's economic development goals. Education needs are based on projections of traditional industry growth, new horizon industries, and forecasts of occupational needs to fill those industries. The education goals serve to inform postsecondary institutions and K-12 schools of the enrollment, completion, and graduation objectives necessary to fill potential job positions, while taking into account net migration of skilled labor from other states. Education projections are also especially important in determining the appropriate future government investments in education and informing government allocations.

By 2025, the Georgetown University Center on Education and the Workforce projects that 68 percent of jobs in Iowa will require education and training beyond high school – 3 percentage points above the national average of 65 percent.¹

Since the 1980s, education or training beyond high school has become the new minimum threshold for Americans to earn a living wage and attain middle class status. In 1973, only 28 percent of U.S. jobs required education beyond a high school diploma; by 2025, almost two out of three jobs in the nation will require at least some postsecondary education or training. Iowa's economy reflects this national trend and demonstrates a steady increase in the demand for postsecondary education and training in the industries that form the mainstay of the national economy.

¹ The 2025 projections presented here largely reflect Georgetown University Center on Education and the Workforce 2020 projections of education and employment in Carnevale, Smith, and Strohl, *Recovery: Job Growth and Education Requirements through 2020*, 2013. Due to slow growth and protracted economic recovery, we do not foresee 2025 employment trends to be substantively different from our initial 2020 projections.

By education:

The Georgetown University Center on Education and the Workforce's analysis of industry and occupational requirements projects that by 2025 68 percent of jobs in Iowa will require postsecondary education or training beyond high school.

The breakdown is as follows:

- 32 percent of jobs will require a high school diploma or less. These jobs tend to be largely in blue-collar;² food service; and some healthcare support occupations. Even in these categories, however, the trend is increasingly toward upskilling, especially for blue-collar production occupations in advanced manufacturing.
- 39 percent of jobs will require at least some college⁵ or an Associate's degree. These "middle-skills" jobs may require education and training beyond a high school diploma, but not a Bachelor's degree or above. These include Associate's degrees, postsecondary vocational certificates, occupational licenses and professional certifications, apprenticeship programs, and some college credits. In Iowa, the breakdown of requirements for middle-skill jobs is projected to be:
 - > 12 percent Associate's degrees;
 - > 5 percent postsecondary vocational certificates;
 - > 5 percent occupational licenses and professional certifications;
 - > 3 percent apprenticeship programs; and
 - > 14 percent some college credits that have market value including noncredit courses with market value.
- 21 percent of jobs will require a Bachelor's degree.
- 8 percent of jobs will require a graduate degree.

² Blue-collar jobs are those types of jobs defined by tasks that are largely manual in nature. While many blue-collar jobs are distributed across numerous industries, the majority are found in agriculture, manufacturing, quarrying, and construction industries. CEW includes the following categories of both skilled and unskilled occupations as blue collar: farming, fishing, and forestry; construction and extraction; installation, maintenance, and equipment repair; production; and transportation and material moving.

By industry:

Through 2025, Iowa's economy will add nearly 250,000 net new jobs over the 2010 base year:

In terms of both output – contribution to the state's gross domestic product (GDP) – and employment, Iowa's largest industries are manufacturing; healthcare and social assistance; and finance and insurance.

The industries that have the largest numbers of job opportunities and will contribute the most job growth are: healthcare and social assistance (40,000 jobs); finance and insurance (27,000 jobs); and administrative and support and waste management and remediation services (23,000 jobs). Together, these industries will account for close to one in four of all new openings in the state. Healthcare especially has weathered the storm, even during the financial collapse of 2007, and remained one of the few industries that continued to add jobs when others showed decline. For the nation, one in every five dollars spent is devoted to healthcare – a trend that will continue through 2025.

Manufacturing, Iowa's largest industry, will grow substantially, adding nearly 19,000 jobs – an 11 percent increase through 2025.

The fastest-growing industries will be quarrying³ (33% growth); administrative and support and waste management and remediation services (31% growth); and management of companies and enterprises (30% growth). However, these three industries combined account for just 6 percent of all employment in Iowa. This is not surprising as relatively smaller industries – by number of employees and contribution to state GDP – are often able to grow faster than larger, more mature industries.

By occupation:

Blue-collar jobs will account for nearly 60,000 new jobs, followed by 50,000 new sales and office support jobs, and 40,000 food and personal services jobs.

The fastest-growing jobs will be healthcare support jobs (31% growth); healthcare professional and technical jobs (22% growth); and science, technology, engineering, and mathematics (STEM) jobs (22% growth).

³ This National American Industry Classification System (NAICS) defines the mining, quarrying, and oil and gas extraction industry as a broad category. However, both mining and oil and gas extraction activities are minor in Iowa.

Table 1. By 2025, 68 percent of jobs in Iowa will require at least some education or training beyond high school, making Iowa 18th among the states in the share of jobs that will require postsecondary education or training beyond high school.

Rank	State	Share of jobs (%)	Rank	State	Share of jobs (%)
1	Minnesota	74	26	Maine	66
2	Colorado	74	27	Alaska	66
3	Massachusetts	72	28	Vermont	66
4	North Dakota	72	29	Georgia	65
5	Rhode Island	71	30	South Dakota	65
6	Kansas	71	31	Florida	65
7	Nebraska	71	32	Wyoming	65
8	Oregon	71	33	Ohio	64
9	Illinois	70	34	Oklahoma	64
10	Washington	70	35	Utah	64
11	Michigan	70	36	Delaware	63
12	Connecticut	70	37	New Mexico	63
13	Hawaii	70	38	Pennsylvania	63
14	Montana	69	39	Alabama	63
15	Maryland	69	40	Texas	62
16	New York	69	41	Indiana	62
17	Arizona	69	42	Wisconsin	62
18	Iowa	68	43	Nevada	62
19	New Jersey	68	44	Kentucky	62
20	New Hampshire	68	45	South Carolina	62
21	Idaho	68	46	Mississippi	61
22	California	67	47	Arkansas	59
23	North Carolina	67	48	Tennessee	59
24	Virginia	67	49	Louisiana	56
25	Missouri	66	50	West Virginia	55
	United States	65			

Source: Carnevale, Smith, and Strohl, *Recovery: Job Growth and Education Requirements through 2020*, 2013.



BATTELLE REPORT SUMMARY

INTRODUCTION

The 2014 Battelle report presents the results of a year-long effort to set a future strategic direction for economic development in Iowa. The report was initiated and led by the Iowa Partnership for Economic Progress (IPEP), an industry-led, CEO-level advisory board established by Governor Branstad in 2011. The mandate of IPEP is to continuously identify and study economic growth issues facing Iowa and recommend solutions and policy alternatives.

In initiating this statewide strategic planning effort, IPEP set out three guidelines for approaching the re-envisioning of Iowa's economic development roadmap.

- 1st** Engage a broad range of economic development stakeholders from private industry, economic development and higher education to ensure broad-based input.
- 2nd** Complete a comprehensive analysis of Iowa's industry clusters, development resources and economic assets.
- 3rd** Review and recommend the programs necessary for Iowa to strengthen its existing industry clusters and capitalize on opportunities for growth.

The full report is a comprehensive resource containing a wealth of useful data about Iowa's economy and a set of recommendations for future action intended to preserve and improve Iowa's position in a globally competitive economy. Key guiding principles emerged from the analysis, including:

- Appropriate measures of economic success must go beyond traditional measures of jobs and economic activity and should include the quality of jobs and improvements in the standard of living.
- The state's 12 major industry clusters are driving its top-line economic performance and will remain critical to economic growth in the future.
- A balanced and integrated economic development plan must focus on innovation, retention and attraction for the state to keep pace with the challenges of a global economy.
- Providing sufficient resources is necessary if the state is to impact key areas such as workforce, innovation, entrepreneurship, broadband, transportation infrastructure and business climate.

IOWA'S CURRENT POSITION: AREAS OF STRENGTH

Because a complete understanding of our current position is necessary before future direction can be charted, the report discusses in detail the state's areas of economic strength. These strengths represent the foundation upon which future growth can be built.

The Big Picture: Measuring Recent Economic Gains

Iowa has made substantial economic progress over the last decade, resulting in positive trends in Iowa's top-line measures of success:

- Economic growth is high. As of 2013, Iowa's economic output, in real, inflation-adjusted terms, was 5.9% higher than the pre-recession levels of 2007, outpacing the national growth of 4.7% during the same period.
- Quality job growth is strong. Iowa outperformed the nation in the growth of both middle and high-skilled jobs. At the same time, the number of low-skill jobs has actually declined as both employers and employees transition to a more skilled workforce.
- Wages are rising. Iowa substantially outpaced national gains in private sector average wages. This is consistent with the rising workforce skill levels in Iowa and an increase in the number of higher quality jobs.
- Per capita income is growing. While record farm incomes have driven a substantial increase in per capita income during the last decade, from 2007 to 2013, Iowa's nonfarm personal income also grew 20%, eclipsing national growth of 14% over the same period.

Drilling Down: Iowa's Leading Industry Clusters are driving Economic Gains

The big picture economic gains of the last decade indicate that the major industry clusters driving Iowa's economy are robust, diverse and have statewide impacts. The report identifies 12 major industry clusters in Iowa that are outperforming national growth in their sectors. Taken together, these clusters establish a diverse regional economy, and their broad distribution supports growth in every part of the state. Nearly all of Iowa's top 50 employers fall within these major industry clusters. *(See Table I on page 3)*

Economic growth in Iowa is driven by these industries because they serve customers and markets outside the state. In addition, having strong local economies means goods and services don't have to be imported from elsewhere, further retaining wealth locally. These industry clusters do not stand alone within the state or its regional economies. Rather, they are part of complex, interconnected networks of related industries and the supply chains that service them.

The report examined the connections among Iowa's traded sector industries by analyzing supply chain relationships, shared markets, and shared technology areas. This examination revealed four factors contributing to the strength of Iowa's leading industry clusters:

- Advanced industry specialization. Nine of the 12 industry clusters have a significantly higher concentration of employment relative to the national average. The more specialized an industry cluster is relative to the nation, the greater its competitive advantage. This level of specialization is represented by an industry cluster's "location quotient" which measures an industry cluster's share of employment in Iowa relative to its share of that industry cluster nationally. A quotient greater than 1.0 indicates a level of specialization greater than the national average. Iowa's location quotients for insurance and finance, agriculture and food production, heavy machinery, biosciences, and renewable energy, among others, stand out among peer industry clusters nationally.

Table I:

Middle- and High-skilled Occupational Groups and Job Growth Relative to the U.S., 2004-13

Industry Cluster	Specialization (Location Quotient; 1.0 = U.S. average)	Productivity Level Relative to the U.S. (100% = U.S. Level)	Economic Multipliers: Effects of a \$1M Increase in Direct Output (Sales)	Employment Trend Relative to the U.S., 2007-12 (IA change minus U.S. change)
Agriculture & Food Production	2.02	127%	\$650,215	6.0%
Automation & Industrial Machinery	1.59	102%	\$390,944	-4.4%
Avionics & Communications Electronics	0.85	105%	\$599,887	21.6%
Biosciences	1.29	107%	\$518,478	0.3%
Building & Construction Products	1.77	105%	\$529,840	1.1%
Health Services	0.95	79%	\$632,049	-5.8%
Heavy Machinery	4.10	179%	\$377,980	15.8%
Information Services, Digital Media & Technology	0.76	72%	\$615,322	-10.7%
Insurance & Finance	1.42	112%	\$503,259	6.8%
Primary Metals Manufacturing	1.81	72%	\$483,770	7.9%
Renewable Energy	5.90	101%	\$305,379	79.1%
Transportation, Distribution, & Logistics	1.18	81%	\$574,019	6.8%

- High productivity. Eight of the 12 industry clusters have a higher level of output per worker compared to the same clusters nationally. A more productive workforce offers employers added value and represents another competitive advantage for the state. While average productivity across all private industries does not outperform national productivity, productivity within Iowa’s leading industry clusters substantially outperforms peer industry clusters nationally.
- Strong economic multipliers. Eight of the 12 industry clusters generate substantial economic multiplier effects. Led by agriculture and food production, which has an extensive footprint across Iowa, and avionics and electronics, which boasts the state’s highest average annual wages, Iowa’s leading industry clusters create ripple effects in retail, health care, housing, and other local markets that support the state’s diversified economy.

- Competitive job growth. Nine of the 12 industry clusters performed better than the U.S. average from 2007 to 2012. While some of Iowa’s leading clusters saw declines from pre-recession job levels, in general those declines were less than peer industry clusters nationally, and six of Iowa’s leading industry clusters saw real growth over that time.

Without these 12 leading industry clusters, Iowa’s recent economic gains would not have been achievable.

Drilling Down: Job Growth and Workforce are Strong

The number of middle-skill and high-skill occupations being created in Iowa is growing faster than the national average, and this growth is happening across a number of skill sets.

Table II:

Middle- and High-skilled Occupational Groups and Job Growth Relative to the U.S., 2004-13

High-Skilled Occupational Groups		Middle-Skilled Occupational Groups	
Occupations	IA Growth Exceeding U.S., 2004-13	Occupations	IA Growth Exceeding U.S., 2004-13
Physical Scientists	✓	Legal Support	✓
Life Scientists	✓	Healthcare Support	✓
Postsecondary Teachers	✓	Other Education, Training, & Library	✓
Health Diagnosing & Treating	✓	Sales	✓
Life Science Technicians	✓	Transportation & Material Moving	✓
Computer-Related	✓	Installation, Maintenance, & Repair	✓
Engineering Technicians	✓	Arts, Design, & Entertainment	✓
Management	✓	Personal Care & Service	
Arts, Design, & Entertainment	✓	Health Technologists & Technicians	
Community & Social Services	✓	Health Diagnosing & Treating	
Engineers	✓	Production	
Other Health Related		Drafters & Mapping Technicians	
K-12 Teachers		Protective Service	
Business & Financial Operations		Office & Administrative Support	
Social Scientists		Construction & Extraction	
Medical & Clinical Lab Technicians			
Math Science			
Personal Care & Service			
Sales			
Other Education, Training, & Library			

Source: Battelle analysis of Bureau of Labor Statistics, Occupational Employment Statistics Data; data shown for skilled groups with at least 1000 jobs.
 *Note: Battelle takes a more refined or focused approach to identifying middle-skilled workers by requiring that those jobs requiring a High School diploma only have at least a requirement for an apprenticeship and/or moderate or long-term on the job training; those jobs requiring a High School diploma and short-term training only have been designated as low-skilled. This is a more stringent requirement than that used in many analyses of the middle-skilled workforce.

Table III:
STEM-related Postsecondary Degree Graduates from Iowa Institutions, 2009-12

Institution Type	STEM-related Degrees, 2009		STEM-related Degrees, 2012		Change in Number of STEM-related Degrees, 2009-12	Change in STEM Share of All Degrees, 2009-12 (%Points)
	# of Degrees	Share of all Degrees	# of Degrees	Share of all Degrees		
Iowa Total	6,172	100%	8,057	100%	31%	-2.2 % pts.
Community Colleges	802	13%	872	11%	9%	-1.0 % pts.
Private Colleges	2,212	36%	3,278	41%	48%	-2.3 % pts.
Public Universities	3,158	51%	3,907	48%	24%	1.3 % pts.

Source: Battelle analysis of National Center for Education Statistics, IPEDS database.

Note: Includes Associate's degrees and above. Degree fields include: computer and information sciences; engineering and engineering technology; biological sciences; physical sciences; agricultural sciences; math and statistics.

Iowa is producing many more graduates in the fields of science, technology, engineering, and math (STEM) than it has in the past. From 2009 to 2012, Iowa saw a 31% increase in the number of STEM-related postsecondary degrees granted in the state. Of particular note here is the success of Iowa's private colleges which increased the number of STEM graduates by 48% during that time period.

Drilling Down: Innovation and Entrepreneurship will drive Future Gains

In recent years, Iowa has seen strong gains in both industry and university research and development. From 2009 to 2012, Iowa substantially outpaced the nation and its peer states in the growth of such research and development.

Table IV:
Iowa's Standing in Growth and Relative Level of Industry and University R&D Activities vs. U.S. and Key Comparison States

Measure	Definition	Iowa	U.S.	IA Ranking vs. 14 Comparison States (1st to 15th)
Industrial R&D	Industry R&D Expenditures per \$10M GSP, 2011	\$151,801	\$188,932	8th
	Percent Change, 2009-11	52%	31%	1st
University R&D	University R&D Expenditures per \$10M GSP, 2012	\$45,828	\$40,075	5th
	Percent Change, 2009-12	24%	14%	1st

Benchmark States Include: IL, IN, MI, MN, MO, NE, NC, ND, OH, OK, SC, SD, TX, WI.

Source: Industrial R&D – National Science Foundation (NSF) Business R&D and Innovation Survey. University R&D – NSF Survey of R&D Expenditures at Universities and Colleges.

Iowa's 24% increase in university-based research led its group of comparison states and outpaced the national increase of 14%. Even more impressive, Iowa's industrial research and development during the period 2009 to 2011 increased by 52%, also first among the comparison states during that period and substantially outpacing national growth of 31%. The intellectual property, technological advances, and prototypes developed from this research will launch the next generation of businesses and products for existing businesses – ensuring the competitiveness of Iowa's industry clusters that drive its economic performance.

The commercialization of such products and technologies is critical to creating new growth both within and outside of existing industry clusters.

IOWA'S CURRENT POSITION: AREAS OF WEAKNESS

Any analysis of Iowa's current position is incomplete without addressing areas of weakness, which the report also identifies in detail. These areas of weakness represent points of emphasis for stakeholders and opportunities for policymakers to effect positive change. They are where future actions, both tactical and strategic, must be directed if Iowa is to remain globally competitive.

Challenges and Solutions: Business Climate

Despite its strong recent performance, Iowa still needs additional gains if it is to be ranked among the most economically successful states in the nation. As of 2013, even after the strong gains of recent years, Iowa ranked only 23rd in the nation in per capita income – perhaps the most meaningful measure of how a state's economy is doing in generating a high standard of living for its residents. In terms of the share of high-skilled jobs, while Iowa has grown faster than the nation in recent years, it remains below the U.S. average in the overall number of such jobs, with 23% of Iowa's workforce employed in high-skilled jobs compared to 26% for the nation in 2013. In terms of average wages, which is in part reflecting this lower level of high-skilled workers, Iowa's average earnings for private sector workers stood at just \$40,489 in 2013, a full 23% below the national average of \$49,700.

Of particular concern for Iowa is that its leading industry clusters are not expected to be strong job generators at the national level over the next 10 years. For example, 10 of the 12 industry clusters in Iowa are expected to see job growth nationally of less than 1% per year from 2012 to 2022. This means that for Iowa to continue to outpace the rate of national growth in the state's leading industry clusters, it must continue to raise productivity within those clusters while also pursuing any high growth opportunities presented by Iowa's existing and emerging core competencies and specific strengths.

The implications for Iowa are significant. **A strategic priority for Iowa must be to build on the competitiveness and growth of Iowa's industry clusters through innovation, retention and attraction.** By pursuing two specific objectives in advancing the competitiveness of its industry clusters, Iowa can exceed the growth levels expected nationally. First, Iowa can achieve higher growth and competitiveness of its existing industry clusters through maintaining and growing higher productivity within these industries. This will not be easy as each of the existing industry clusters is expected to generate higher output per employee by 2022 in the national Bureau of Labor Statistics (BLS) forecasts –further forcing Iowa to increase its own pace of growth in productivity to outperform national levels. Secondly, Iowa can realize higher potential by focusing on growing and emerging markets within each of its leading industry clusters. This requires a forward-looking assessment that considers Iowa's current and emerging strengths across detailed product markets, as well as an assessment of core technology competencies identified in Iowa, and how that aligns with potential growth markets in each industry cluster. It is these opportunities that differentiate Iowa and establish a platform from which Iowa can compete on a national and even global scale.

Recommended tactics proposed in the report include:

- Create an initiative to assist Iowa manufacturers to stay on the cutting edge of their industry, positioning them to be globally competitive.
- Increase resources in the Strategic Infrastructure Fund to address competitive industry cluster development needs in a collective and collaborative way and target growth opportunities led by industry consortium.

- Address Iowa's non-competitive tax environment to reduce the complexity of the system and simplify the structure and rates.

Challenges and Solutions: Workforce

In today's global, knowledge-based economy, from a competitive standpoint, states and local communities are increasingly differentiated based on their ability to educate, train and recruit a qualified workforce that meets the needs of industry. Even as middle and high-skilled jobs grow in Iowa, the availability of a skilled workforce is a major area of concern to Iowa businesses. Combined with Iowa's weak population growth, this workforce problem is likely to plague Iowa for many years to come. While positive trends have been identified in attracting skilled workers to Iowa and in generating more STEM-related graduates at the post-secondary level, the resources and efforts devoted to these positive trends must be significantly increased before substantial improvement is noticed in labor markets across Iowa.

Against the comparison states, Iowa's gains in STEM-related graduates stand out. Still, there is room for improvement since despite this strong growth in STEM-related degree generation across Iowa's post-secondary institutions, Iowa is well below the national average in the share of total degrees awarded in STEM-related fields. Iowa had only 10.1% of its post-secondary degrees awarded in these STEM-related fields compared to the national average of 14.8%. This level ranked Iowa last among the benchmark states.

The most troubling issue for the Iowa workforce is its low population growth. From 2000 to 2012, Iowa grew just 5.1% in population compared with 11.5% for the U.S. Iowa's population growth has been lower across all age groups, but the nearly flat growth among Iowa's youngest population group (24 and younger) stands out as a long-term threat to Iowa's future competitiveness.

To achieve the level of economic success desired, Iowa must generate and attract the skilled workforce demanded by Iowa's businesses. While the state can work toward attraction of workers from elsewhere, its future lies in the current and future generations of Iowa students. Improvements to Iowa's education system, development of career awareness and training, and additional marketing of the viable career paths offered in Iowa will create a robust and predictable pipeline of talent ensuring the state's businesses can compete at the highest levels.

The strategic roadmap recommends the following tactics to drive the availability of skilled workers:

- Create incentives for recent graduates, veterans and high-skilled workers to take positions in Iowa in specific industry clusters with critical worker shortages.
- Advance workplace learning through colleges, continuing education and retraining involving small- and mid-sized employers, including further development of internship programs and apprenticeship opportunities.

Challenges and Solutions: Entrepreneurial Eco-system

In recent years, Iowa has made strong gains in industry and university research growth. Currently, Iowa's university technology transfer and commercialization activities are sizable, but there is room for improvement, even compared to other Midwestern states. One limitation facing university technology commercialization is the lagging performance of Iowa's overall entrepreneurial culture.

Iowa remains well off the national pace and compares poorly to benchmark states in measures of entrepreneurial activity in the population, new company birth rates, job creation by new businesses and

the presence of fast-growing small companies. Iowa is also well behind the nation in Small Business Innovation Research (SBIR) awards. Over the 2009-2012 period, on a per 10,000 population basis, Iowa averaged \$18,885 annually in SBIR awards compared to \$72,343 for the nation.

Table V:

Iowa’s Standing in Statewide Entrepreneurial and New Company Formation and Growth Measures vs. U.S. and Key Comparison States

Measure	Definition	Iowa	U.S.	IA Ranking vs. 14 Comparison States (1st to 15th)
Entrepreneurial Activity	Kauffman Foundation’s Index of Entrepreneurial Activity, Entrepreneurs Per 100,000 Population, 2013	110	280	15th
New Company Birth Rate	Average Annual Rate of New Business Establishment Formation as a Percent of All Establishments, 2007-2011	8.4%	10.4%	13th
Job Creation by New Company Births	Average Annual Job Creation from New Business Establishments, 2007-2011	3.6 jobs	5 jobs	14th
Presence of Fast-Growth Companies	Number of Companies on the Inc. 5000 List of Fastest Growing Private Companies, 2013	28	n/a	12th

Benchmark States Include: IL, IN, MI, MN, MO, NE, NC, ND, OH, OK, SC, SD, TX, WI.

Sources: Entrepreneurial Activity – Kauffman Foundation; New Company Birth Rate and Job Creation by New Births – U.S. Census of Business Dynamics; High-Growth Companies – Inc. Magazine.

Much work has been done to advance Iowa’s innovation and entrepreneurial culture across the state over the past decade. Results from individual programs have been promising, however, there is a clear imperative to advance Iowa’s entrepreneurial culture and support system. A strategic priority for Iowa must include accelerating the development of Iowa’s emerging entrepreneurial eco-system.

Specific tactics recommended to achieve results include:

- Expand entrepreneurial services offered through Innovation Iowa (IIC/IEDA) to include mentoring services and access to business resources, as well as programming to entrepreneurs to promote better utilization of SBIR programs.
- Create an effective angel investor tax credit that eliminates the waiting period, increases the tax credit percentage and makes the credits transferrable to attract broader investor interest.
- Reassess public-private research partnerships to promote strategic collaboration among academia, government and industry, including the creation of post-doctoral and graduate entrepreneurial education tracks.
- Expand the state’s economic gardening program, Advance Iowa, for mid-sized growth companies.

Challenges and Solutions: Physical Infrastructure

Physical infrastructure remains a prerequisite for economic development. In fact, in Site Selection magazine's 2014 Survey of corporate real estate executives, "Transportation Infrastructure" ranks first on site selectors' list of the most important location criteria. The declining condition of Iowa's highways and reduced availability of highway improvement funding through the existing gas tax is now among the top concerns of industry executives across the state.

At the same time, significant concerns about the speed and reliability of Iowa's broadband infrastructure that directly impact industry have been identified. Nearly one-third (13,000) of Iowa businesses surveyed by Connect Iowa want higher broadband speeds that cannot be supported at their current locations. Even more disconcerting is that only 21% of Iowa businesses have redundant broadband services, making their business operations vulnerable to stoppages due to downtime in service.

Finally, a third physical infrastructure concern relates to the need for more livable communities to retain and to attract young families. This is a frequently noted concern by regional economic development stakeholders across Iowa's smaller communities.

For all these reasons, it's clear that advancing Iowa's physical infrastructure is imperative to realizing the state's economic potential. Recommended tactics proposed in the report include:

- Address highway improvement funding by advancing a hybrid approach that balances the need for stable and predictable revenue by retaining a fixed per gallon fee but at a lower rate, and adding a sales tax component that provides a means to allow for revenue growth as the price of fuel increases.
- Support Iowa Department of Transportation's (IDOT) targeting of high-value transportation improvements using information gleaned through the Freight Optimization Study. The study, by applying supply chain network design and optimization techniques used in the private sector, will allow Iowa to advance a comprehensive approach to prioritize investment for advancing the state's freight transportation capacities.
- Develop incentives for broadband investment that creates a comprehensive approach to spur broadband development that can be depended upon over time.

CONCLUSION: STRATEGIC DIRECTIONS

The report also proposes “strategic directions” which are intended to orient policy makers toward the most promising long-term goals, so they can align future policies accordingly. These are in addition to “tactics” which represent specific actions that can be taken in the short-term.

The strategic directions recommended in the report include the following:

For growth in leading industry clusters:

- Develop focused policy initiatives that capture the most promising emerging growth opportunities.
- Promote regions that are economically connected in order to facilitate collaborative initiatives.

For attracting a skilled workforce:

- Create a K-20 industry-driven career development partnership with the education community.
- Scale-up ongoing efforts demonstrating success in technical education for advanced manufacturing workforce development of new and incumbent workers.

For supporting innovation and entrepreneurship:

- Facilitate the transfer of university research and development to industry startups.
- Increase the amount of venture capital and seed-stage funding available to allow startups to grow locally.

For maintaining and improving physical infrastructure:

- Explore innovative methods of financing infrastructure improvements, including the use of public-private partnerships.
- Focus on intermodal transportation infrastructure and other infrastructure improvements to support export economy and livable communities.

Together, the tactics and strategies recommended in this report hold the potential for transformative economic growth in Iowa. This report serves as a reminder that Iowa has the resources to attract, retain and expand the businesses of tomorrow and the know-how to increase the level of innovation that is the driver of economic growth. By reinforcing Iowa’s strengths and addressing the state’s weaknesses as outlined in this report through a comprehensive and connected economic development strategy, Iowa is positioned to take its place as a global leader.



The 2016 Condition of **Higher Education in Iowa**

Ensuring college is accessible, attainable and affordable.



EXECUTIVE SUMMARY



MESSAGE FROM THE EXECUTIVE DIRECTOR

The Iowa College Student Aid Commission (Iowa College Aid) is the only state agency that focuses on providing resources to Iowans to make education after high school possible. We offer programs and services for students and families who need help planning, understanding the necessity of education or obtaining financial support. This report is meant to provide a snapshot of higher education in Iowa.

We believe that “College Changes Everything,” but with recent reports about student loan debt and defaults, we hear the question “Is college worth it?” We invite anyone who asks that question to look at the whole benefit of higher education and to reconsider the definition of college. It’s not limited to two- and four-year degrees. It also includes certificates, licenses, apprenticeships and military training—any training that advances your knowledge and salary. Earnings for an Iowan with a bachelor’s degree are 60 percent higher than for an individual with only a high school diploma. For Iowans with less than a high school education, the poverty rate is six times higher.



In the past, the federal government and states focused on access to college; now the shift is to completion of college. Students who start college but don’t finish and incur debt without the means to pay it back are more likely to default on student loans. Research finds those individuals who complete their education are more likely to repay their student loans.



Degrees and credentials that have value are critical to the individual and to Iowa’s economy. As stated throughout this report, Governor Terry Branstad’s administration has adopted the goal that by 2025, 70 percent of all Iowans will have education or training beyond high school. To meet this goal, Iowa adults who started college and did not finish or never enrolled will need to advance their education. With an increase of low-income students in Iowa, we will have to acknowledge barriers and understand that they have fewer resources than other students.

We hope this report helps show how we can identify and redirect resources to help students succeed. It is no longer enough to get students through high school and enrolled in college. We have to make sure that once they enroll they are successful and will complete. It will take all of us to accomplish this task.

Karen Misjak

Karen Misjak
Executive Director, Iowa College Aid

IOWA'S 2025 EDUCATIONAL ATTAINMENT GOAL

Governor Terry Branstad called for 70 percent of lowans in the workforce to complete postsecondary education or training by 2025.

In 2014, 60 percent of lowans over age 25 had completed education or training beyond high school.¹ Between 2005 and 2014, the growth of jobs held by lowans that required postsecondary education outpaced jobs requiring high school or less, with the number of jobs in the latter declining by 14 percent.² Job projections show that by 2025, 68 percent of careers in Iowa will require education or training beyond high school.³

Low-income and minority lowans are less likely to enroll and graduate from college than higher-income and white lowans.

The educational attainment of minorities in Iowa is discrepant from the attainment level of the total population. Only 56 percent of black⁴ and 36 percent of Hispanic⁵ lowans have some postsecondary education or training. An educational attainment gap also exists between low- and high-income populations. In the U.S., an individual from a high-income family is five times more likely to hold a bachelor's degree than a low-income individual.⁶

STUDENT PREPAREDNESS FOR POSTSECONDARY EDUCATION

Although Iowa has the highest high school graduation rate in the nation, many students are not prepared for the academic rigor of college.

Of all Iowa students who participated in the 2015 ACT exam, only one third scored at or above the college readiness benchmarks on all four subject tests. Only 16 percent of Hispanic and 10 percent of black students met all four test benchmarks.⁷ Nationally, students from high-income families were three times more likely to meet test benchmarks than students from low-income families.⁸

Students who are not prepared for college often take remedial (or developmental) coursework. Remedial courses do not count as credit toward a degree, but students still pay tuition to take them. Over half of all remedial courses at Iowa community colleges are taken by minority students.⁹ Remedial coursework increases the time needed to complete a degree. Less than half of Iowa community college students who earn an associate degree do so in two years, and one out of four students takes four years to complete.¹⁰

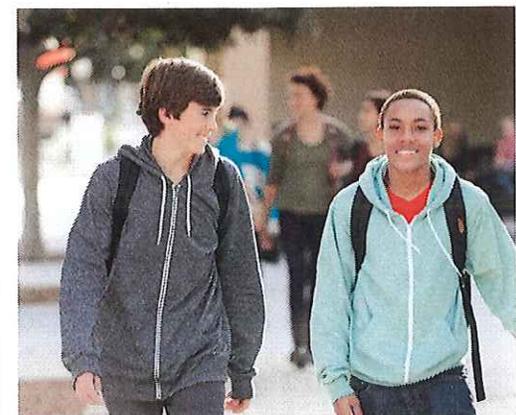
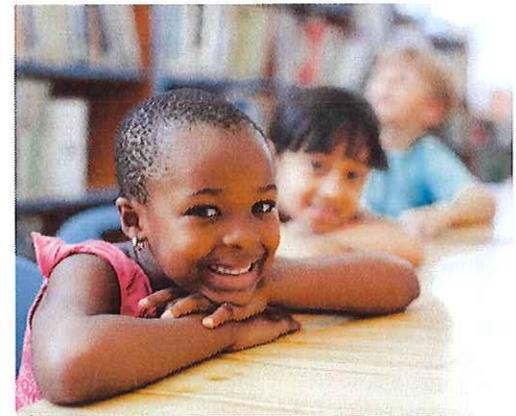
HIGHER EDUCATION OUTCOMES

Lowans who pursue education beyond high school have higher salaries.

Lowans with a bachelor's degree earn approximately 60 percent more than those with no more than a high school diploma and 106 percent more than lowans who never earned a high school diploma. Iowa's most educated counties also have the highest median incomes in the state.¹¹

Many lowans have substantial student loan debt.

Iowa ranks eighth in the nation for the highest average student loan debt with 68 percent of lowans completing college with debt.¹² Students attending private, for-profit institutions are three to four times more likely to accumulate debt than students attending public universities to acquire the same type of degree.¹³ Private, for-profit institutions and community colleges have the lowest graduation rates.¹⁰ Students who acquire student loan debt at these institutions are less likely to see the financial benefits of education and more likely to default on loans.¹⁴





CONTACT LIST

Name	Email	Telephone
Beth Townsend, Director, Iowa Workforce Development	Beth.townsend@iwd.iowa.gov	(515) 281-5364
Doug Hoelscher, Executive Officer 5	Doug.hoelscher@iowa.gov	(515) 802-1196 (202) 624-5479
Linda Fandel, Executive Officer 4	Linda.fandel@iowa.gov	(515) 725-3522
Diana Sisler, Executive Secretary	Diana.sisler@iwd.iowa.gov	(515) 281-5365
Shelly Evans, Paralegal	Shelly.evans@iwd.iowa.gov	(515) 725-4042