



Iowa's Economic Roadmap & STEM

Battelle - 2014

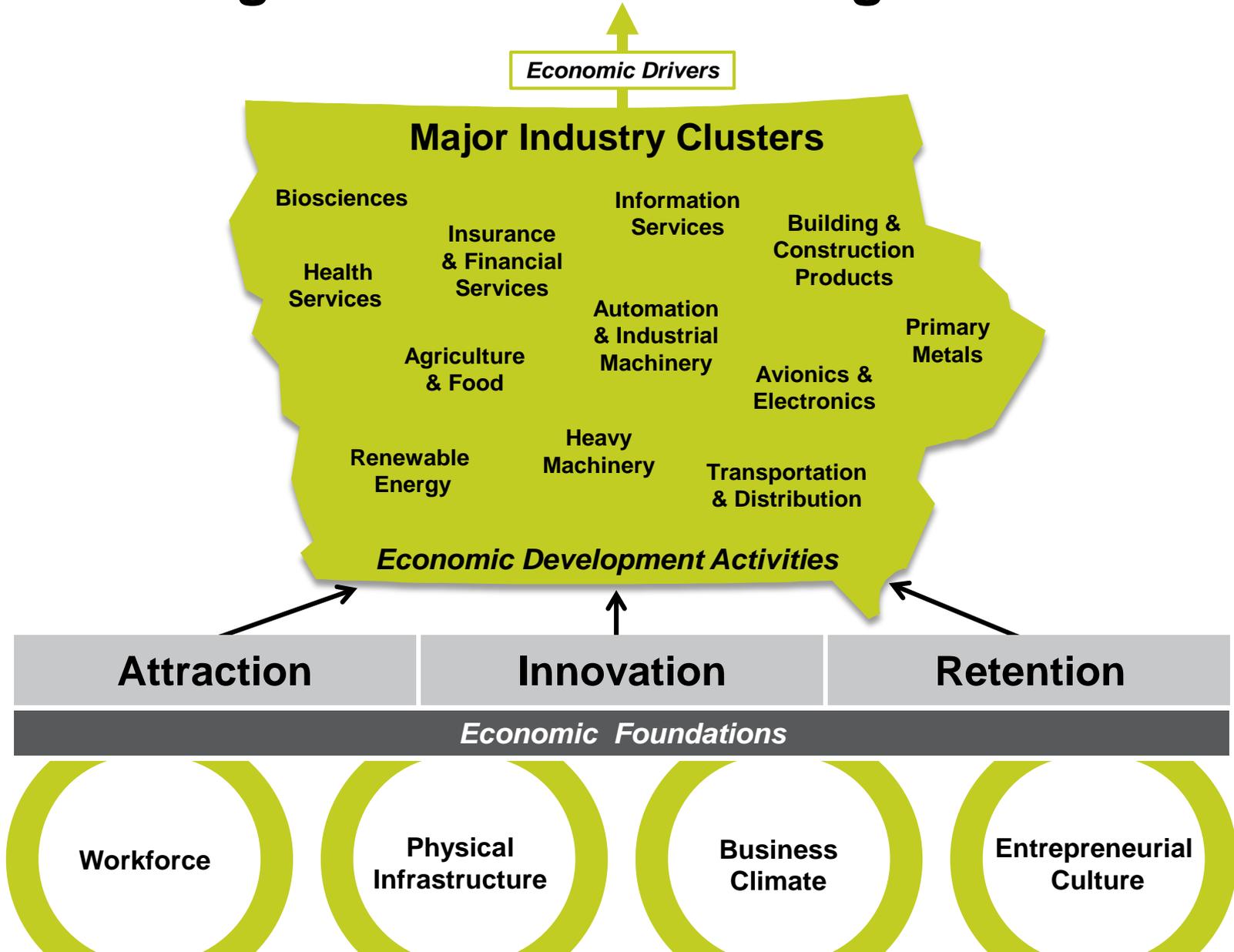
IOWA[®]
economic development

Situation Analysis

What has been done to make progress over the past few years

- Restructuring of IEDA and streamlining of funding programs
- Creating better private/public partnerships
- Better collaboration of stakeholders
- Improved marketing of Iowa and its assets

A Higher Standard of Living for Iowa



Big Picture - Current Position

- Productivity is high
- Job growth and workforce are strong
- Wages are rising
- Per capita income is growing



Business Climate

- Strengths

- § Advanced industry specialization

- § High productivity

- § Strong economic multipliers

- § Competitive job growth

- § Low overall cost of doing business

- Weaknesses

- § Non-competitive tax climate

- § Weak national job growth forecasted for Iowa's major industry clusters

Job Growth and Workforce

- Strengths

- § Middle- and high-skilled occupations growing faster than the national average
- § Producing more STEM graduates than ever before

- Weaknesses

- § Availability of skilled workers
- § Slow population growth
- § Rank last among benchmarked states for percent of total STEM degrees and certifications

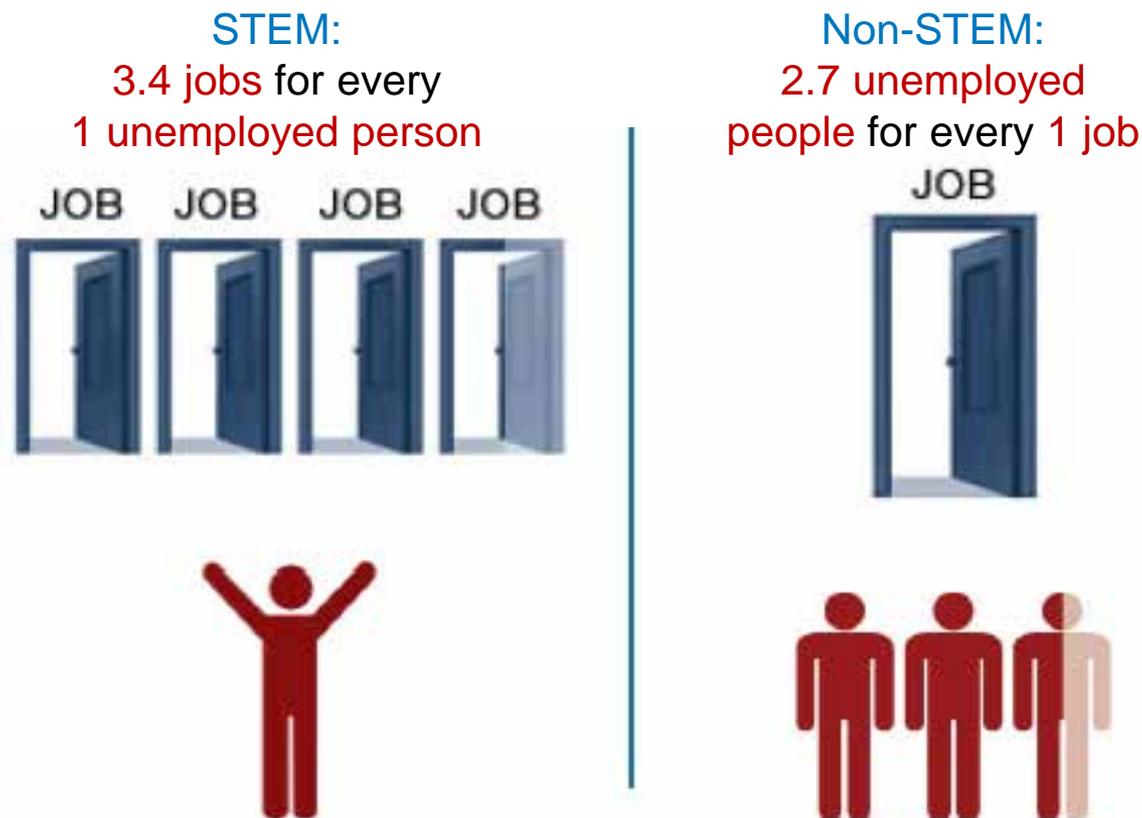
Priorities for Growth

- Build on the competitiveness and growth of Iowa's industry clusters through innovation, retention and attraction
- Generate and attract skilled workforce in demand by Iowa's businesses
- Accelerate the development of Iowa's emerging entrepreneurial eco-system
- Advance Iowa's physical infrastructure and regional development capacities to realize Iowa's economic potential

STEM Talent Pipeline

STEM SKILLS ARE IN DEMAND

In Iowa, STEM skills have stayed in demand even through the economic downturn.



Source: Change the Equation (CTEQ) VITAL SIGNS 2014

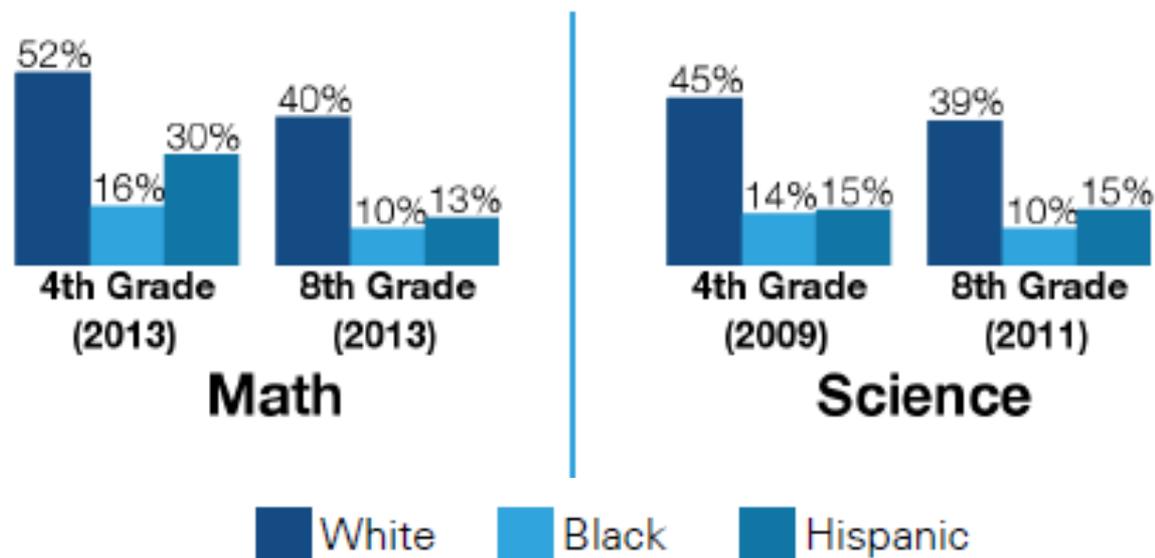
Preliminary Analysis – Do Not Distribute

STEM Talent Pipeline

Closing achievement gaps must remain a priority

No state has closed the persistent achievement gaps among racial and ethnic groups.

Percentage of Iowa students scoring at or above proficient in math and science



§ State did not participate in 4th grade science test.

* Data not available or reporting requirements not met.

Source: CTEQ VITAL SIGNS 2014



STEM Talent Pipeline

• 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, 2009-2012
		Share of all Degrees	# of Degrees	Share of all Degrees	
Iowa Total	6,172	100%	8,057	100%	31%
Community Colleges	802	13%	872	11%	9%
Private Colleges	2,212	36%	3,278	41%	48%
Public Universities	3,158	51%	3,907	48%	24%

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

STEM Talent Pipeline

Statewide Survey of Public Attitudes Toward STEM, 2012-2014*

● 2012 ● 2014

Increased Awareness & Support for Investments in STEM

From 2012 to 2014, awareness of STEM has significantly increased



Increased focus on STEM education in Iowa will improve the state economy



Advancements in science, technology, engineering, and math will give more opportunities to the next generation



Key findings:

- Increased awareness
- More support for the economic contributions of STEM
- More support for broadening STEM participation

Data source: 2012 and 2014 Statewide Survey of Adult Iowans Toward STEM

*All differences reported here statistically significant at $p < 0.001$.

STEM Talent Pipeline

Following STEM Scale-Up Program participation



Majority of students reported increased interest in STEM topics and careers following participation in a Scale-Up Program.

Data source: Scale-Up Program Student Survey, 2013-2014
Iowa STEM Monitoring Project