

## ENDOW – IMPLICATIONS FOR WYOMING’S COMMUNITY COLLEGES

### The Good

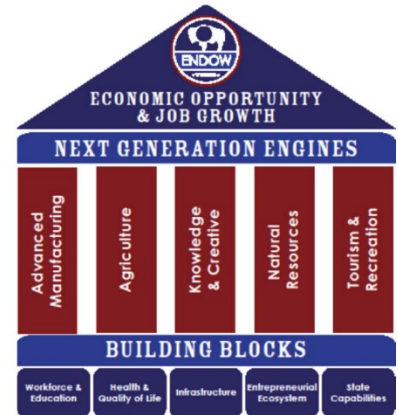
- Wyoming ranks among the top ten states in annual K-12 per-pupil spending (currently about \$17,000 per student).
- More than 92% of Wyomingites 25 and older have earned at least a high school diploma - #1 nationally.
- #2 nationally in the percentage of population with an associates.
- Wyoming ranks first in the nation in classroom broadband connectivity – 100%.
- Wyoming has one of the largest sovereign wealth funds in the world– 33<sup>rd</sup> largest in the world.

### The Bad

- Historically, 70 percent of revenue collected by the State comes from the energy and mineral industry.
- Of all workers 18 years of age, only 40 percent are still working in Wyoming ten years later.
- Wyoming lost 5,595 residents between July 2016 and July 2017, the second consecutive year Wyoming’s population dropped and the largest decline since 1989.
- On a percentage basis, we graduate fewer students with bachelor’s degrees (ranked 38<sup>th</sup> nationally).
- Wyoming ranks 46th in the United States for internet with an average speed of 17 Mbps.
- Wyoming is at or near the bottom in state rankings for access to capital.

### The House of ENDOW

- Next Generation Engines (ENDOW Priority Sectors)
- Building Blocks
  - Workforce & Education
  - Health & Quality of Life
  - Infrastructure
  - Entrepreneurship
  - State Capabilities



### Workforce and Education – Aspirations

1. By 2025 we aspire for 67% of Wyoming’s working population between the ages of 25-64 to hold a higher education credential. This goal increases to 82% by 2040.
2. By 2038 we aspire for ALL of Wyoming’s youth have access to quality early childhood education.
3. By 2028 we aspire to decrease youth outmigration (18-24) from 60% to 42% and then to 30 percent 2038. It is estimated that 60% of Wyoming’s youth leave annually.

### Workforce and Education – Action Steps Pertinent to CC’s

- Determine whether Wyoming’s education and workforce training delivery systems are capable and flexible enough to support Wyoming’s economic diversification objectives.
- Ensure all Wyoming children have access to quality early childhood education to provide a foundation for lifelong learning success - Increasing education attainment starts with early childhood education. Currently, only 50 percent of children entering kindergarten are prepared for success.
- Promote and incentivizing industry to create modern apprenticeship and training programs – starting in high school and ending with college and career success – for both new and seasoned workers.
- Increase post-secondary educational attainment - Executive Order 2018-1
  - Research and design an adult need-based financial aid program to encourage college attendance and address achievement gaps (like **Rediscover LCCC**)

- Developing portable and stackable credential programs by local school districts, community colleges and the University of Wyoming that are recognized by employers.
- Evaluate the effectiveness of Wyoming’s current governance and policy setting framework for higher education to ensure it is capable and flexible enough to support WY in accomplishing its economic diversification goals.
- Identify gaps in certificate/degree programs offered at Wyoming’s community colleges and the UW. This analysis should consider the effectiveness (how to do this most efficiently), quality and expertise (who can actually do the work), and capacity/readiness to respond (who is best positioned to deliver).
- Expand the presence of the University of Wyoming beyond Laramie to ensure all Wyoming residents have access to bachelor degree programs in their community of residence or within 100 miles.
- Expand the *Wyoming Grown* program to include an “intern or apprentice in Wyoming” program to connect workers to businesses across the state.
- Increase the retention of graduates in Wyoming - It is estimated that of all workers 18 years of age, only 40 percent are still working in Wyoming ten years later.

### Other Items of Note

- Health & Quality of Life: Invest in arts education and Wyoming’s arts and cultural industry.
- Infrastructure: Develop Wyoming’s communities by investing in local amenities and infrastructure (transportation, water and waste, telecommunications, **civic and cultural, open space, etc.**).
- Infrastructure: Support shared infrastructure, including Federal and university laboratories, which could be easily accessed by small and medium-sized firms and would facilitate significant productivity gains by allowing those companies to rapidly prototype, test and produce new products.
- Entrepreneurial Ecosystem
  - Develop public and private learning and doing spaces, such as incubators, accelerators, co-working spaces and makerspaces (e.g., Gillette College’s Area 59)
  - Provide matching grants for an “entrepreneurial leave” or “intrapreneurship” program for the public (e.g., University of Wyoming, community colleges) and private sector.
  - Encourage and reward faculty innovation and entrepreneurship at the University of Wyoming and community colleges by instituting new policies and providing incentives.
  - Establish high-impact entrepreneurship programs at high schools, community colleges and UW.
  - Maximize Kickstart Wyoming, Startup-Wyoming Investments, and larger, more industry targeted capital programs.

### Next Generation Engines – Priority Economic Sectors

- Advanced Manufacturing
  - We aspire for Wyoming to be ranked in the 1st quartile of states in the number of science, engineering and technology graduates (associate’s and bachelors) per 1,000 individuals ages 18-24 years old. Wyoming was ranked in the 1st quartile for associate’s degrees and 4th quartile for bachelor’s degrees in 2013 (National Science Foundation).
  - We aspire to create over 1,000 apprenticeships in advanced manufacturing occupations by 2023 and over 7,000 by 2038.
  - We aspire, at a minimum, for one makerspace, co-work space, incubator and/or accelerator to be established in every Wyoming county by 2023.
  - Clusters/Sectors
    - Industrial Equipment Manufacturing
    - Energy and Energy Storage (e.g. battery storage) Manufacturing

- Recreational Goods (firearms and ammunition, outdoor products) Manufacturing
  - Advanced Composites and Textiles Manufacturing
  - Aerospace Manufacturing
  - Medical Device Manufacturing
  - Pharmaceutical Manufacturing
- Advanced Natural Resources
  - Wind power generation is increased 5x to 7.5 GW. This equals Oklahoma's current capacity.
  - Solar power generation is increased so that Wyoming is ranked 11th in the country. This equals Wyoming's national ranking for solar generation potential.
  - At least two wind or solar energy component manufacturers are located in Wyoming.
  - Emphasis on manufacturing facilities and businesses.
  - Clusters/Sectors
    - Solar – development and manufacturing
    - Wind – development and manufacturing
- Knowledge and Creative
  - Create a second 4 year university for the State of Wyoming OR convert one/two community colleges to four year institutions.
  - Develop full-tier Medical Education Facilities (Medical School, PA School, Additional opportunities for Nursing, Aids, etc.).
  - Become a Top Tier State for Investment in Arts & Cultural Infrastructure
  - Clusters/Sectors
    - Data Sciences - Data mining, data processing, data analysis.
    - Blockchain/Crypto/Token - Utility token development, crypto development, storage and mining.
    - Artificial Intelligence/Machine Learning - Advanced AI software, AI services, machine and applied operations.
    - Software Industries - Software development, application development, technical services.
    - Creative Technology - Marketing, Web Development, creative and design services.
    - Data Centers - Managed data storage, co-location, hosted IT services.
    - Telehealth/Telemedicine
    - Health and Medical Innovation - Medical Device Development, Drug and Pharmaceutical Industries, BioScience, Population Health
    - Accounting, Insurance, Legal services, Trustee services, Banking, Wealth management, Marketing and Business consulting.
    - Creative - Creators: artists, musicians, writers, etc. Arts and Culture Service: marketing and promotion firms, graphic designers, etc., Arts Support: arts administrators, curators, etc.