

## 2018 ENDOW Legislative Action

In 2017, the Wyoming Legislature worked with Governor Matt Mead to pass legislation authorizing ENDOW (Economically Needed Diversity Options for Wyoming), a 20-year initiative to make lasting and meaningful gains in diversifying and growing Wyoming's economy.

During the 2018 Budget session, legislators passed a series of bills in support of recommendations from the ENDOW Executive Council to address barriers to, and opportunities for, economic diversification. This includes legislation to expand air service, improve broadband, provide workforce training, support blockchain and virtual currency and encourage entrepreneurialism and innovation.

Detailed below are ENDOW measures passed by the legislature in 2018.

### **SENATE FILE 40, COMMERCIAL AIR SERVICE IMPROVEMENT**

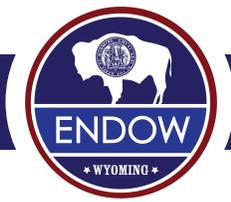
Senate File (SF) 40 will support the Wyoming Department of Transportation's (WYDOT) 10-year Commercial Air Service Plan (CASP) to create a reliable and affordable option for air service in Wyoming. CASP would enable the WYDOT Aeronautics Division to contract with one airline to provide commercial air service to a major hub airport, such as Denver or Salt Lake City. Local communities and the state would be able to determine the fares, flight times and potentially share in the profits.

#### *Funding*

\$15 million from the Legislative Stabilization Reserve Account (LSRA) to support the CASP and \$1 million from the LSRA to the Air Service Enhancement Program.

#### *Next Steps*

- Governor Matt Mead will appoint nine members to the Wyoming Commercial Air Service Improvement Council (WCASIC).
- By August 1, 2018, the WCASIC will submit a commercial air service improvement plan to the Governor and Joint Minerals, Business and Economic Development Interim Committee.
- In order to implement the approved CASP, the Wyoming Legislature will need to provide authorization to use funds.



### *Background*

Commercial air service is a significant limiting factor to expanding and diversifying Wyoming's economy. According to William Swelbar, Chief Industry Strategist, Delta Airport Consultants, Inc., "With the exception of Jackson, Casper, and Gillette (and potentially Cody), Wyoming commercial air service is vulnerable by virtually any metric that is important to sustainable air service." Wyoming fares are 28 percent higher (\$106) than the national average. Colorado fares by comparison are 20 percent below the national average. Multiple pressures within the aviation industry have forced many states to compete for a limited number of opportunities to solve this problem.

According to WYDOT's budget projections, SF 40 will cost the department less money than is currently spent in supporting air service in Wyoming. Over the past ten years, the state has invested nearly \$23 million in air service support, with local communities contributing over \$11 million. Under SF 40, WYDOT projects over the next ten years the state will invest \$12.2 million and local communities a little over \$8.1 million while establishing a predictable, reliable and affordable option for air service in Wyoming.

## **SENATE FILE 119, WORKFORCE DEVELOPMENT-PRIORITY ECONOMIC SECTOR PROGRAM**

SF 119 will establish a dedicated fund for workforce training in priority economic sectors to ensure Wyoming citizens have the skills they need to meet the workforce needs of existing and emerging industries. This will ensure a sustainable source of workforce training funds to target long-term economic diversification successes.

### *Funding*

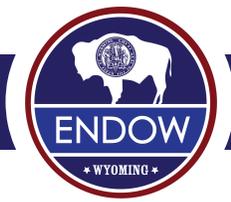
\$3.5 million from the LSRA and \$1.5 million from prior appropriation.

### *Next Steps*

- The ENDOW Executive Council will identify priority economic sectors in its 20-year comprehensive economic diversification strategy, which will guide use of funds available in the Priority Economic Sector Program.
- The Wyoming Department of Workforce Services (DWS) will develop and adopt rules and regulations to implement the Priority Economic Sector Program. It is anticipated that the program will be available for application by September 1, 2018.

### *Background*

Workforce is Wyoming's single greatest inhibitor – and opportunity – for growth and stability. Addressing workforce training is critical to all economic diversification efforts.



It is estimated that by 2025, 60 percent of America’s workforce will need education beyond high school (for example: an industry or workforce certificate, a degree, or some other high-quality credential). Wyoming’s rate of higher education attainment is 45.8 percent, which is equal to the national rate. Governor Mead has established an aggressive higher education attainment rate of 67 percent by 2025 (Colorado and Utah have established goals of 66 percent).

To build a sustainable, diversified, value-added economy, workers will need to develop skills to support Wyoming’s existing, new and emerging sectors, while some may need to return to school to upgrade their skills. Access to effective workforce training programs will be an integral part of Wyoming’s “toolbox” and better position Wyoming when an existing or new employer needs trained and talented employees.

SF 119 will foster partnership between business, the state and a training provider to provide employees with education and training. This is a matching program – with funding up to \$5,000 for each full-time position and \$2,500 for each part-time position.

## **SENATE FILE 29, EDUCATION-COMPUTER SCIENCE AND COMPUTATIONAL THINKING**

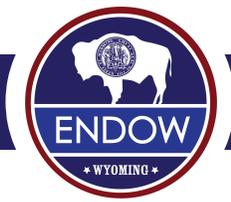
SF 29 will add computer science to the state educational program – making Wyoming the first state in the country to require its schools to offer computer science education. The legislation also provides that computer science courses may satisfy certain high school graduation requirements and certain Hathaway scholarship requirements and includes a date by which the state board of education must adopt uniform content and performance standards.

### *Funding*

None.

### *Next Steps*

- The Wyoming State Board of Education, in consultation and coordination with local school districts, prescribe uniform student content and performance standards for computer science to be effective beginning with the 2022-2023 school year.
- The Wyoming Department of Education (WDE) will conduct an analysis of the changes and costs necessary to implement this Act in all school districts in the State by October 31, 2018.
- The WDE will develop a computer science endorsement for elementary, middle and high schools that can be implemented in every district in the state.



### *Background*

A qualified workforce requires literacy in computer science, including the study of both computer hardware and software design. Computer science has many branches, including artificial intelligence, software engineering, programming and computer graphics. The need for literacy in this discipline has grown as computers have become integrated into our day-to-day lives and technology continues to advance.

It is estimated that 71 percent of new science, technology, engineering and math (STEM) jobs will be in computer occupations between now and 2024, and only 8 percent of college graduates currently receive degrees in computer science. There are 500,000 computing related job openings in the United States but only 50,000 computer science graduates. It is projected that 1.1 million programming jobs will go unfilled up to 2022. These jobs are in every industry and every state and are projected to grow at twice the rate of all other jobs. In May 2017 only five out of forty-eight school districts in Wyoming offered computer science classes.

## **SENATE FILE 100, ECONOMIC DIVERSIFICATION-BROADBAND SERVICES**

SF 100 will establish a broadband coordinator position, a broadband advisory council and a Wyoming broadband grant fund to help ensure every community in Wyoming has the opportunity to connect with the world through reliable high-speed internet.

### *Funding*

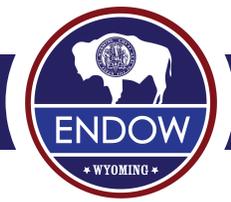
\$10 million from the LSRA to establish a Wyoming broadband grant fund and \$350,000 from the LSRA to establish a broadband coordinator position and broadband advisory council.

### *Next Steps*

- The Wyoming Business Council (WBC), in consultation with the ENDOW Executive Council and Governor, establish a broadband advisory council and broadband coordinator.
- The WBC will develop and adopt rules and regulations to implement a broadband funding program, including minimum broadband speeds and definitions. It is anticipated that the program will be available for application by September 1, 2018.
- The WBC will adopt a state broadband enhancement plan by September 1, 2018.

### *Background*

Access to high-quality business and residential broadband is essential to developing, growing and attracting businesses, improving academic performance, supporting healthcare, promoting



innovation and entrepreneurship, attracting investment, educating the workforce of the future, quality of life, and improving Wyoming's position as a global competitor.

The Federal Communications Commission has established that, having “advanced telecommunications capability” requires access to actual download speeds of at least 25 Mbps and actual upload speeds of at least 3 Mbps. Wyoming ranks 46<sup>th</sup> in connectivity in the United States with an average of 17 Mbps. Residents of rural Wyoming areas are limited by access.

### **SENATE FILE 118, KICKSTART WYOMING-ECONOMIC DIVERSIFICATION**

SF 118 will build out Wyoming's entrepreneurial network through the *Startup:Wyoming* program, which will:

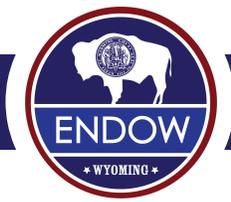
- Foster more connectivity between entrepreneurs, investors, mentors and talent;
- Provide advance resources to help businesses succeed, including mentoring, marketing, legal, and other business coaching services;
- Promote space and infrastructure, including developing incubators, accelerators, co-working spaces and makerspaces; and
- Manage *Kickstart:Wyoming* Grants (\$5,000 - \$50,000), Small Business Innovation Research Matching Program (grants from \$1 - \$250,000), and Wyoming Research and Innovation Program (matching grants).

#### *Funding*

\$5 million from the LSRA for Startup:Wyoming and \$6 million to establish and fund a Wyoming Research and Innovation Program.

#### *Next Steps*

- The ENDOW Executive Council will identify priority economic sectors in its 20-year comprehensive economic diversification strategy, which will guide use of funds available in the Priority Economic Sector Program.
- The WBC, in consultation with the ENDOW Executive Council and University of Wyoming, will develop and adopt rules and regulations to implement the *Startup:Wyoming* and Wyoming Research and Innovation Program.
- The WBC, in coordination with the EDNCOW Executive Council, will prepare a proposal to invest in high growth startup businesses which provide opportunity to advance the entrepreneurial ecosystem in Wyoming.
- The WBC will prepare a proposal to assist businesses in obtaining state, local and federal permits and licenses, which the ENDOW Executive Council will include in its 20-year comprehensive economic diversification strategy and first action plan.



### *Background*

Wyoming's innovation economy is limited by absence of a statewide startup ecosystem. ENDOW seeks to accelerate the development of an entrepreneurial ecosystem in Wyoming by creating a dedicated organization called *Startup:Wyoming*.

Wyoming is at or near the bottom in state rankings for access to capital. Forty-six states have some sort of state sponsored capital access program for startup companies – South Dakota, Vermont, West Virginia and Wyoming do not. Utah has at least six programs and Colorado's program, Advanced Industries Accelerator, has invested nearly \$50 million in startups. A state sponsored capital access program will grow Wyoming's entrepreneur ecosystem and attract private follow-on venture funding investment in Wyoming-based startups.

Entrepreneurship is important to Wyoming's economy for many reasons:

- Entrepreneurs create new businesses and jobs;
- Entrepreneurial ventures generate new wealth;
- Entrepreneurs offer new goods and services;
- Entrepreneurs advance research and commercialize innovation; and
- Entrepreneurs attract and nurture other entrepreneurs.

Wyoming's entrepreneurial ecosystem will benefit from an organized, statewide network, enabling enhanced and shared programming and allowing for cross-state collaboration.

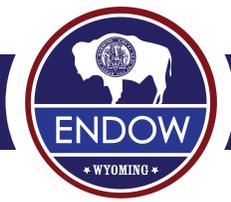
### *Case Studies*

#### **COLORADO ADVANCED INDUSTRY ACCELERATOR PROGRAM**

The Advanced Industry Accelerator Program (AIAP) was created in 2013 to promote growth and sustainability in the aerospace, advanced manufacturing, bioscience, electronics, energy and natural resources, infrastructure engineering, and technology and information industries by driving innovation, accelerating commercialization, encouraging public private partnerships, increasing access to early-stage capital and creating a strong infrastructure that increases the state's capacity to be globally competitive. Over \$40 million from the AIAP has been granted since the inception of the program in 2013. These funds have helped technologies acquire an additional \$200 million in grants and investments to further commercialize these advanced technologies.

#### **UTAH TECHNOLOGY COMMERCIALIZATION AND INNOVATION PROGRAM**

The Technology Commercialization and Innovation Program (TCIP) supports the growth and commercialization of promising technologies developed by private sector entrepreneurs and by students and faculty of Utah's higher education communities. TCIP provides smaller, frequent funding opportunities to a wide range of projects at critical points in their product life cycle.



Grant awards are for \$100,000. More than 150 companies and university teams submitted applications for the FY 2016 grant cycle. Grants were awarded to 24 technologies, for a total of \$2.4 million in funding.

Past TCIP grant recipients include successful homegrown companies such as Myriad Genetics, BioFire and Enve Composites. GoReact, a web-based presentation feedback service, spun out of Brigham Young University after receiving a TCIP grant in 2011. Founder and CEO Ken Meyers credits the grant with the company's success in closing a \$250,000 seed funding round that same year. GoReact recently closed on \$4 million in venture capital funding, and the company has grown to include 30 employees.

#### UTAH SCIENCE TECHNOLOGY AND RESEARCH INITIATIVE

The Utah Science Technology and Research (USTAR) Initiative was established in 2006 through the vision of Utah's governor, Legislature and business community to leverage science and technology to expand and diversify the state. USTAR is the State of Utah's technology catalyst, accelerating the growth of the innovation ecosystem from invention through product development. Guided by Utah's economic clusters, USTAR supports technology entrepreneurs and innovators through training, funding and incubator and accelerator programs; brokering technology transfer by connecting capital, management and industry, addressing market gaps in Utah's technology ecosystem and strengthening the state's research capacity.

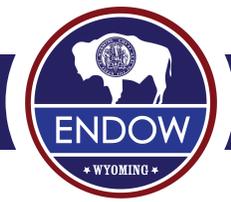
USTAR was established in 2006 by the Utah Legislature, which allocated \$179 million, \$15 million in ongoing annual funding to support research teams and \$4 million to support economic outreach programs. In FY 2017 alone, USTAR funded more than 70 grant projects across the state, providing funding in critical stages in technology development to help researchers, entrepreneurs and scientists move their projects toward commercialization.

#### **SENATE FILE 108, ECONOMIC DIVERSIFICATION & DEVELOPMENT**

SF 108 will expand the state's agriculture marketing program and provide for an international trade representative to promote and sell Wyoming products. SF 108 also modified the ENDOW Executive Council's leadership and membership.

#### *Funding*

\$400,000 from the general fund to provide for an international trade representative and \$2,000,000 to agricultural diversification marketing.



### *Next Steps*

- The WBC will employ or contract with a foreign trade representative for Wyoming services and products and commodities.
- The WBC, in consultation with the ENDOW Executive Council, will develop a strategy to promote the development of the agriculture industry in Wyoming.
- The ENDOW Executive Council, in consultation with the University of Wyoming, community colleges, WDE, DWS, and WBC, review existing career technical education programs and develop recommendations to better coordinate programs.

### **BLOCK CHAIN & VIRTUAL CURRENCY LEGISLATIVE SERIES**

House Bill (HB) 70, Open blockchain tokens exemptions, HB 101, Electronic corporate records, HB 126, Limited liability companies-series, and HB 19, Wyoming Money Transmitter Act-virtual currency exemption and SF 111, Property taxation-digital currencies, will all help drive a new industry here in Wyoming – virtual currencies and blockchain technology – positioning Wyoming to be a national leader in this growing field.

### *Funding*

None.

### *Background*

Virtual currency is a digital representation of value that is used as a medium of exchange, unit of account, or store of value; and does not have legal tender status as recognized by the United States or another government. Wyoming, Hawaii and Minnesota are the only three states where regulatory policy makes it effectively impossible to operate a virtual currency business. Wyoming residents must use unregulated, frequently offshore, virtual currency exchanges to buy, sell, and hold virtual currency.

These technologies offer an incredible opportunity for Wyoming to become an international hub for innovation in the field of financial technology and blockchain technology. The package of bills passed by the legislature could bring a cottage industry of cyber security experts, cryptographers, database managers, big data entrepreneurs and virtual currency miners to Wyoming. Wyoming is opening its doors to these innovators and can empower tremendous leaps in technology by welcoming these start-up founders and business owners.

By remaining nimble and open-to-innovation Wyoming is about to go from a regulatory framework that is hostile to blockchain technology to an inviting regulatory framework that encourages innovators and entrepreneurs working in this budding technology space.