



Fairbanks North Star Borough

Comprehensive Economic Development Strategy (CEDS) Update

IMPLAN Analysis: Arctic Emergency Services Center

An economic impact analysis of constructing a modern University of Alaska emergency services development training center in Fairbanks.

Prepared for the Fairbanks North Star Borough

by Northern Economics and Agnew::Beck Consulting



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Key Takeaways

The proposed project involves building a modern, year-round facility for emergency services training and technology development that will not only economically benefit the Fairbanks region but will also provide a valuable educational resource for other regions in Alaska. The proposed facility, known as the *Arctic Emergency Services (AES) Center of Excellence*, is envisioned to be a state-of-the-art development and training facility that will meet the current and projected statewide demand for trained and licensed emergency services workforce.

The facility is estimated to be a \$53 million capital investment with operational and maintenance costs of approximately \$1.4 million per year. This investment is projected to generate the following near-term and long-term economic benefits:

- In the near term, the design and construction of the proposed facility are projected to support a total of 440 jobs over a period of 26 months, contribute \$33 million in total labor income, and generate \$64 million in total business sales in the region.
- In the long term, year-round operations and maintenance of the facility will generate \$2.2 million in business sales, 11 long-term jobs, and \$800,000 in total labor income.
- Finally, the creation of the facility would put the Fairbanks region in a position to be the hub for emergency services education and training in the state, attracting workers and trainees from all parts of the state and generating additional economic activity in the region. With more than 200 firefighters and paramedics, 500 police officers, and many more emergency dispatchers needed statewide in the next five years, the proposed project would be instrumental in meeting Alaska communities' workforce needs in law enforcement, fire, and emergency services.

Project Description

The proposed project involves the creation of the *Arctic Emergency Services (AES) Center of Excellence* in Fairbanks. The proposed infrastructure will help meet the immediate and future demand for emergency services workforce in Alaska.

Currently, the University of Alaska Fairbanks' (UAF) Community and Technical College (CTC), College of Rural and Community Development (CRCDC), and its baccalaureate security and emergency management program provide the educational and workforce development program needs of every emergency services agency in the Fairbanks region and many other communities in the state. The University is now in need of a new year-round facility that would accommodate the high statewide workforce demand for emergency services, and additional instructors (UAF, 2022). According to UAF, in the next five years, Alaska's emergency services will need between 200 to 250 firefighters and paramedics, 500 estimated police officers (factoring in attrition), and many more emergency dispatchers (UAF, Office of the Chancellor, 2022). Construction of the proposed facility and the creation of additional educational programs and workforce training would help meet the immediate and long-term public safety workforce needs in law enforcement, fire, and emergency services (EMS/paramedicine) in the state.

The proposed project will involve construction and operations of a living laboratory for student emergency responders with classrooms and laboratories adjacent to a fully functional emergency services station. The facility will contain apparatus bays and support spaces for fire and EMS,

firefighter/medic living quarters for on-duty members, and training laboratories and classrooms for emergency services (UAF, 2022).

Near-Term Economic Benefits of the Construction Project

The proposed *Arctic Emergency Services (AES) Center of Excellence* will create a short-term economic stimulus in the Fairbanks region during the construction activities. The design and construction of the facility is anticipated to take approximately 26 months to complete. During this period, local spending associated with the project will benefit businesses across various economic sectors in the region including companies involved in construction, engineering services, and logistics, as well as other businesses that supply goods and services to these companies and their workers. Currently, a local architectural firm is involved in assisting with the concept designs and cost estimation. Local contractors are available and well qualified to work on the construction project. Note however that not all capital costs would be spent locally as some of the laboratory equipment, materials, and specialized services are not available locally and will be imported from outside the region. As typical of construction projects of this nature about 20 percent of the costs, particularly for specialty engineers or construction trades are anticipated to be sourced from outside the region.

The economic stimulus from direct local construction spending is projected to generate about \$64 million in total economic output or local business sales. Construction activities are estimated to support 310 direct construction jobs and 130 indirect and induced jobs over the course of the construction phase. These short-term construction phase jobs will generate about \$33 million in labor income.

The proposed construction project's estimated economic impacts are summarized in the table below.

Table 1. Projected Economic Benefits of the Construction of the Proposed Arctic Emergency Services Center

Indicator	Direct ¹	Indirect ²	Induced ³	Total
Economic Output/Business Sales (2020\$ millions)	\$42	\$6	\$16	\$64
Employment (# of Jobs)	310	30	100	440
Labor Income (2020\$ millions)	\$26	\$2	\$5	\$33

Source: Northern Economics estimates based on construction cost estimates provided by the project proponent and the IMPLAN⁴ input-output model for the Fairbanks North Star Borough.

Operations Phase and Long-Term Economic Benefits of the Facility

The proposed facility is designed to provide year-round emergency services training and technology development. The operations and maintenance of this new infrastructure which is estimated to cost

¹ Direct effects refer to the new economic activity that can be tied directly to the proposed project. In this table, direct effects include spending for construction of the facility, and the direct jobs and labor income associated with the construction activities.

² Indirect effects are those associated with a change in economic activity due to spending for goods and services tied to the new facility. During construction, these are the changes in the local economy occurring because construction firms purchase goods (e.g., cement, wood, and nails) and related services (e.g., landscaping, accounting, and legal). As construction firms make purchases, this creates an increase in purchases across the supply chain.

³ Induced effects are those associated with a change in economic activity due to spending by the employees of businesses (labor) and by households. These are economic changes related to spending by people directly employed to construct the facility. Once operations begin, spending by employees of the facility will drive induced effects. Induced effects also include household spending related to indirect effects.

⁴ IMPLAN is a predictive input-output model of local/regional economies and is widely used to measure the economic impact of industries and industrial/commercial development. IMPLAN uses borough level employment and payroll data to define linkages between industries in the local economy and multipliers that predict the total impact of an economic stimulus.

about \$1.4 million per year is expected to create additional economic activity in the region and generate long-term year-round jobs and associated labor income. Local businesses (such as those providing facility maintenance, utilities, insurance, and other services) and workers will benefit from the year-round operations of the new facility.

The estimated annual economic benefits of the proposed project during its operations phase are provided in Table 2 below.

Table 2. Projected Annual Economic Benefits of the Operations and Maintenance of the Proposed Arctic Emergency Services Center

Indicator	Direct	Indirect	Induced	Total
Economic Output/Business Sales (2020\$ millions)	\$1.4	\$0.4	\$0.4	\$2.2
Employment (# of Jobs)	7	2	2	11
Labor Income (2020\$ millions)	\$0.5	\$0.1	\$0.1	\$0.8

Source: Northern Economics estimates based on cost estimates provided by the project proponent and the IMPLAN⁵ input-output model for the Fairbanks North Star Borough.

In the long-term, the Fairbanks region would benefit from the continuous in-flow of new instructors, trainees and students from other communities in Alaska which will generate additional economy activity in the area. As the destination for job candidates and personnel from other areas, particularly from rural communities to receive safety services training, the project will not only benefit the economy of the Fairbanks region but will also provide a valuable educational resource for Alaska.

References

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- University of Alaska Fairbanks (UAF). 2022. Estimated construction and operations and maintenance costs. Data provided to Northern Economics.