NORTHWEST FLORIDA
STATE COLLEGE

Florida Job Growth Grant
Application Responses Submitted July 27, 2018

1. Program Requirements
A. Provide the title and a detailed description of the proposed workforce training.

Northwest Florida State College (the College) is uniquely positioned to play an integral role in the Northwest Florida Forward regional transformation strategy, spurring economic growth, diversity and resiliency. The College's primary service district includes Okaloosa and Walton Counties, where it operates six campuses and centers. In addition to the flagship Niceville Campus, the College operates a fully combined joint campus with the University of West Florida at the Fort Walton Beach Campus and full-time educational centers: Chautauqua Center in DeFuniak Springs, Robert L. F. Sikes Education Center in Crestview, South Walton Center in Santa Rosa Beach, and Hurlburt Field Center on Hurlburt Field.

The College is establishing an Advanced Technology Center of Excellence (AT Center) to build a sustainable pipeline of skilled talent to power existing and emerging industries that drive prosperity and competitiveness for the region. The AT Center will include an Aviation Mechanic Program, a Professional Pilot Technology Program, and an Engineering Technology Program. The first two programs are career preparatory courses of study that support the industry clusters of aviation with transferrable skills to the transportation, distribution, and logistics industry cluster. The Engineering Technology Program supports the manufacturing industry cluster.

Through support from the Florida Job Growth Fund, the College will launch new workforce development training programs housed within the new AT Center targeting two industries that have strong connections through technology—**Cybersecurity and Advanced Manufacturing**. While the manufacturing industry has impacted our economy for over 250 years, the cybersecurity industry has emerged only within the last 50 years. With the technology boom, both industries are evolving rapidly and experiencing growth in jobs, massive talent shortages and significant skills gaps in the workforce. The initiative will enable the College to accelerate its workforce development efforts at the AT Center over the next two years. The College will **train 470 individuals providing industry-recognized credentials** (Six Sigma Green Belt, OSHA Safety, J-STD Soldering, CompTIA A+, CompTIA Net+, CompTIA Security+, AS9100 Quality Training, and PMI Project Management Professional) and an Industrial Maintenance College Certificate that result in individual economic mobility and provide long-term wage increases, as well as, meet the demand for high-skill workers in the region.

In industry environments like manufacturing and cybersecurity, where the skills required to do a job are quickly evolving, it's critical that both workers and companies have access to responsive training that can close the skills gap quickly. As a result, these industries have developed industry recognized credentials to connect individuals to the skills they need to enter into and advance in jobs. Industry recognized credentials identify the knowledge, skills and abilities required in jobs within the specific industries to best align education and training to career success. They provide workers and students with a career pathway toward advancement and can supplement and/or provide an on ramp to higher education credentials. They also help employers validate the knowledge and skills of potential employees saving time and money in the hiring and training processes.

Through this initiative, the College **will make Manufacturing and Cybersecurity industry-recognized credentials more accessible to residents and companies in our service area of Walton and Okaloosa counties**. Costs, location and availability are barriers to accessing the existing trainings. Options are currently limited to for-profit providers or through sister colleges/universities that provide the courses based on a set calendar rather than on demand to meet employer needs or maximize worker opportunities. The College currently does not offer any of the proposed certification programs.

Northwest Florida State College works closely with industries within the region to gain an in-depth understanding of the local economic and employment trends. The College offers a flexible mix of programs that prepares both learners entering the workforce for the first time and workers making transitions with the skills and credentials they will need to be employable, creating a robust workforce for existing and emerging industries. Closing both technical and soft skills gaps is good for employers, employees, students, and regional economies. The initiative will address the unmet hiring needs of employers and build the capacity of the College to support students in earning family-supporting wages as well as fuel economic diversification and growth in the region.

Advanced Technology Center of Excellence

A catalytic investment from the Florida Job Growth Fund, will enable the College to accelerate access to workforce development programs in the region. The College will renovate two facilities at the Crestview Technology Airpark, located at the Bob Sikes Airport, to establish the Advance Technology Center of Excellence (AT Center). When all envisioned workforce development programs are operational, the AT Center will train 540 individuals annually and providing industry-recognized credentials and degrees that result in individual economic mobility and provide long-term wage increases, as well as, meet the demand for high-skill workers and attract new businesses in the region, promoting economic diversification and resiliency. The $1.2M construction project will renovate two buildings (25,000 sq. ft. each) to include 4-Instructor offices, 6-Classrooms, 7-Lab space areas, and 1-Support (tool) room.

The College's AT Center seamlessly connects high-quality career and technical education programs, a state-of-the-art manufacturing facility, and industry partners to increase the number of graduates primed for well-paying jobs in the community. The AT Center is strategically located in Crestview (Okaloosa County) for its close-proximity to military bases, rapidly growing population, and its accessibility with the convergence of Interstate 10, State Road 85, and U.S. Highway 90. The Crestview Technology Airpark is a haven for defense and industrial Aerospace development as well as modification and conversion companies. The airpark's 8,000-foot runway and its financial independence ensure that the facility will service our program for years to come, providing a multitude of expansion opportunities for programs, training, and industry partnerships. Renovations are necessary with some build-out of classrooms, lab areas, and instructor offices required. The College has secured the facilities through a long-term lease agreement and donation of waived lease rates from Dr. Paul Hsu and the Hsu Educational Foundation.

The project timeline is as follows:
      December 2018- Detailed Architectural and Engineering plans and all permitting complete
      January 2019- Construction begins
      January 2020- Certificate of Occupancy and instructional courses begin in facility

Florida Job Growth Funding will also be used to launch new workforce development programs that provide industry-recognized credentials. While we are completing the renovation project, the College will offer the programs at alternate Northwest Florida State College locations and on site at requesting companies. The following is a description of each targeted workforce development program included in the initiative.

Manufacturing Workforce Development

The nature of manufacturing today is increasingly technology-intensive transforming the industry with greater automation that requires workers to have STEM, programming and analytical analysis skills in advanced manufacturing. In addition to the automation that happens within the manufacturing process, manufacturers are the creators, users, servicers, and installers of the Internet of Things (physical products embedded with electronics, software, sensors, actuators, and connectivity which enables them to connect and exchange data).[i] These products make homes comfortable and vehicles safer. They make offices more efficient and drive down energy costs. They increase crop yields and monitor pipelines. Billions of these connected devices are pervasive throughout manufactured products and on the shop floors where they are made. To some degree this technology has made all manufacturers into technology companies faced with the challenge of securing a skilled workforce to meet the demands of these innovations.[ii] The need to keep increasingly sophisticated machinery functioning and efficient cuts across a variety of industries and continues to drive demand for middle-skills industrial maintenance technicians at a fast rate (13.1% Northwest Florida regional growth rate compared to 11.3% national). According to the National Association of Manufacturers, while nearly 3.5 million manufacturing jobs will likely be needed over the next decade, 2 million are expected to go unfilled due to the skills gap.[iii]

The Northwest Florida Forward strategic report and the West Florida Regional Planning Council Comprehensive Economic Development Strategy identify growth in manufacturing industry sector as opportunities and priorities. The Northwest Florida Forward report specifically cites supporting **advanced manufacturing as a strategy under the business vitality goal**. Significant projected regional growth opportunities include aircraft parts and auxiliary equipment manufacturing (27% growth rate/168 jobs) and aircraft manufacturing (36% growth rate/76 jobs) as well as robotics and unmanned vehicles. In response, the College is focused on building a pipeline of middle-skilled workers in the manufacturing industry cluster that will contribute to economic resiliency. Industry-recognized credentials and Industrial Maintenance College Certificate are central to this effort.

The College has identified and will use credible third-party assessments ensuring the quality of the certification programs. The following manufacturing trainings and industry recognized credentials will be offered to respond to the demand for workers in high wage and growth jobs: **Six Sigma Green Belt, OSHA Safety, J-STD Soldering, AS9100 Quality Training**. Detailed descriptions of the transferrable skills provided through these certifications are provided in section "C" of this narrative.

In addition to the industry recognized credentials, the College will establish a new **Industrial Maintenance College Certificate** program. College certificates allow students to quickly study for a specific subject or career. The Industrial Maintenance College Certificate provides the skills and knowledge to prepare students for careers in the Manufacturing cluster and can be completed within 12 months with 30 credit hours. This competency-based learning program addresses high-order reasoning and problem solving skills with content focused on maintenance techniques, technical communications, troubleshooting and maintenance of industrial equipment, quality control and testing, and proper usage of tools and instrumentation. Student learning outcomes include:
- Demonstrate an understanding of industrial processes and material properties, electricity and electronics, programmable logic controllers.
- Understanding of industrial safety, health, and environmental requirements.
- Proficiency using tools, instruments, and testing devices as well as understand, operate, and troubleshoot industrial automation systems, and other like components and/or systems.
- Apply basic troubleshooting, communication, and math skills.

Cybersecurity Workforce Development

Technology innovations have also given birth to the cybersecurity industry. Rampant malware and ransomware attacks are holding companies and agencies hostage. Cyberattacks are growing in frequency and sophistication, yet the availability of sufficiently skilled cybersecurity professionals is falling way behind. To beat these cyberthreats requires not only the right technology but the right people. The ISACA, a non-profit information security advocacy group, predicts there will be a global shortage of two million cyber security professionals by 2019.[iv] Every year in the U.S., 40,000 jobs for information security analysts go unfilled, and employers are struggling to fill 200,000 other cybersecurity related roles, according to cybersecurity data tool CyberSeek.[v] Within the last 12 months in our region, there have been 492 unique postings for jobs that require cybersecurity credentials, all of which are on the Regional Demand Occupations List.

The College has identified CompTIA as its third-party assessment partner for the cybersecurity credentials. CompTIA (Computer Technology Industry Association) is the leading provider of vendor-neutral IT certifications in the world, and for more than 20 years, has developed training and certification exams for computing support, networking, security, open-source (Linux) development, cloud and mobility. **The following CompTIA industry-certifications will be offered through this initiative: CompTIA A+, CompTIA Net+, and CompTIA Security+**.

Within the cybersecurity sector, there is a significant demand for **Project Management Professional certification** training. In the last 12 months, there were 100 unique postings that required project management professional certification, all of which are on the Regional Demand Occupations List. Studies indicate that only one-quarter of all projects world-wide succeed in achieving quality, cost and schedule objectives. With the growing pressure to manage costs and an equally aggressive market space for quality products delivered to scheduled dates; the need for certified project managers is always increasing. The College will utilize the Project Management Institute's Project Management Professional (PMP) certification training program, which is the gold standard of project management certification. The College will offer the required 35 hours of formal project management education as well as test preparation. Recognized and demanded by organizations worldwide, the PMP validates a worker's competence to perform in the role of a project manager, leading and directing projects and teams.

B. Describe how this proposal supports programs at state colleges or state technical centers.
As part of Florida's public system of 28 state and community colleges, Northwest Florida State College offers bachelor's degree programs, associate degrees, and certificates. The College strives to provide students with a balance of transfer preparation, technical training, and adult studies. Current bachelor's programs include a Bachelor of Applied Science degree program in Project Management, Bachelor of Applied Science in Management and Supervision, a Bachelor of Science degree in Nursing, a Bachelor of Science in Education degrees, and a Bachelor of Science Degree in Early Childhood Education, Birth through Four program. In addition to more than 96 different Associate degree and certificate programs, the college also provides adult basic education, high school equivalency instruction, English as a Second Language courses, non-credit continuing education, distance learning, dual enrollment for high school students, and customized training for business and industry.

The College operates six campuses and centers in our service district include Okaloosa and Walton Counties. In addition to the flagship Niceville Campus, the College operates a fully combined joint campus with the University of West Florida at the Fort Walton Beach Campus and full-time educational centers: Chautauqua Center in DeFuniak Springs, Robert L. F. Sikes Education Center in Crestview, South Walton Center in Santa Rosa Beach, and Hurlburt Field Center on Hurlburt Field.

In 2017, the College embarked on a new strategic direction under the leadership of a new president, Dr. Devin Stephenson. The strategic plan focuses on student centered success, career pathways, innovative partnerships,

community connectivity and building the capacity of the College to be the first choice in higher education for Northwest Florida. Putting this plan into action, in 2017, the College experienced an 11% increase in headcount enrollment over the prior year and established 3 new programs. To fuel economic growth and increase educational attainment in the region, the College's strategic plan aims to establish more than 40 new programs over the next five years. These programs respond to the demand for high wage, growth industry jobs and will attract net new students into the higher education system.

The initiative is directly aligned to the College's strategic plan and supports the expansion of Northwest Florida State College's programs to spur economic growth and increase the quality of life for individuals in the Panhandle. All proposed trainings, certifications, and programs offered through the initiative will take place at Northwest Florida State College campuses or onsite at local employer facilities for incumbent workers. The College provides an onsite testing center.

The initiative also supports higher educational attainment. Some of the credentials earned are transferable into college credit within existing programs at Northwest Florida State College. Specifically, CompTIA A+, Net+ and Security+ certifications can be transferred into college credit. This awarding of credit can eliminate barriers to education by granting credit for industry experience.

C. Describe how this proposal provides participants transferable, sustainable workforce skills applicable to more than a single employer.

Educational attainment and portable skills are essential in the current economy. Today's jobs are more complex and more dependent on teams and technology. Workers are facing new challenges to upgrade their skills to keep their job and those without the skills to compete may not be finding jobs at all.[vi] The skills and credentials awarded through this initiative are completely transferable and are applicable to more than one employer. The College has selected certification programs that are applicable across multiple occupations and transferrable to additional industry clusters identified as priorities by Northwest Florida regional development entities. For example, the Northwest Florida Forward report states that "In Northwest Florida, Advanced Manufacturing cuts across a number of clusters, including Aerospace and Defense, Chemical Products, Wood Products, Construction Products, and Textiles. Its importance stems from its capacity to support other key industries in the region, to help diversify the economic base, and to provide employment opportunities for a wide range of skill levels, ranging from middle skill production workers to engineers." All of the credentials listed are either nationally or internationally recognized throughout their specific industry, and are:

- Valued and demanded by employers
- Portable – skills learned are transferable and provide broad opportunities
- Stackable – skills learned may lead to opportunities for continuous or advanced training and education
- Lead to higher wages, career advancement, and/or increased job security

In addition to the industry recognized credentials, the Industrial Maintenance College Certificate is stackable to an Engineering Technology Associate's Degree, helping students to move up the skills ladder one step at a time.

With this initiative, the College is targeting the Six Sigma, OSHA, J-STD Soldering, and CompTIA, and Project Management Professional certifications due to the high demand for workers in the region with these credentials. The following is a detailed description of the stackable and transferable skills students will gain from each certification program.

Six Sigma is a set of methods and tools to improve business processes. The practice provides a data-driven, statistical approach to identifying defects, determining their causes, and improving the process to avoid continuous

create errors and defects. Based on the past 60-plus years of quality improvement methods, Six Sigma was formalized in the 1980s for use in manufacturing. Since then it has become widely used throughout finance, healthcare, IT, the military, and more. In the 2000s, a new approach called Lean Six Sigma was formulated, which combined the Lean principles with Six Sigma to reduce variation, defects, and waste. Six Sigma Certification develops the following competencies in participants:

- Understanding of the concepts, implementation & objectives of Six Sigma
- Ability to use a structured approach to process improvement
- Ability to use DMAIC (Define, Measure, Analyze, Implement and Control) methodology
- Skill to predict, prevent and control defects in a process
- Understanding of the elements of waste
- Skills to achieve sustainable quality improvement through process improvement
- Understanding of the tools of process discovery
- Understanding of variation in processes
- Skills to reduce variation in processes and achieve predicted outcomes
- Ability to identify, measure and analyze process potential
- Usage of inferential statistics
- Usage of hypothesis testing
- Understanding when to use which Six Sigma methodology
- Ability to use Capability Analysis to control processes
- Knowledge of the interdependence of Lean tools
- Skills to prevent, identify and control defects
- Understanding and use of statistical process control
- Skills to train, document, monitor, respond and align systems

OSHA Safety

The Occupational Safety and Health Act (OSHA) of 1970 was established to ensure safe and healthy working environments and mandates training and compliance across many industries. Workers in most industries can benefit from OSHA training courses about workplace health and safety. The College will offer both the 10 and 30-hour general industry and construction OSHA training courses and certifications. Training emphasizes hazard identification, avoidance, control and prevention. The 10-hour training program is intended for entry level workers, and the 30-hour program provides workers with a greater depth of training. All outreach training is intended to cover an overview of the hazards a worker may encounter on a job site.

J-STD Soldering certification defines the requirements for Soldered Electrical and Electronic Assemblies and is the preeminent authority for electronics assembly manufacturing. Through this training and certification, students learn the industry recognized standards for materials, methods and verification criteria for producing high quality soldered interconnections. The certification emphasizes process control and supports industry-consensus requirements for a broad range of electronic products. Soldering skills can be transferred across many manufacturing industries, to plumbing, and a wide variety of metalworks. It is also stackable with the OSHA general industry trainings.

AS9100 is the international management system standard for the Aircraft, Space and Defense industry. The standard provides suppliers with a comprehensive quality system for providing safe and reliable products to the aerospace industry. AS9100 also addresses civil and military aviation requirements. Workers who participate in this training gain the skills in quality management systems that reduced costs obtained through improved product reliability, enhance process control and flow, improve documentation of processes, have greater employee quality awareness, and

reduce product scrap, rewords and rejections. This certification is transferable to all companies in the manufacturing supply chain for the Aircraft, Space and Defense industry.

Through this initiative, the College will offer CompTIA's (Computer Technology Industry Association) sequential certifications, which are widely recognized, vendor-neutral programs designed to show proficiency in the IT industry areas. CompTIA certifications are stackable toward a Cybersecurity Career Pathway to help technical specialists achieve cybersecurity mastery, from beginning to end. By providing vendor-neutral programs, workers gain portable skills that are applicable across many different systems and industries. To further illustrate the transferability of these certifications across sectors, the Florida Jobs 2030 reports notes that "while a single new mid-level occupation exists for cybersecurity, basic skills and cybersecurity knowledge are increasingly in demand in other positions, such as auditors."[vii]

CompTIA A+ is the industry standard for establishing a career in IT and lays the groundwork for specialized pathway in cybersecurity.
- the hardware common to virtually every personal computer, including: Microprocessors, RAM, Power Supplies, Motherboards
- BIOS, CMOS, Expansion Bus
- Input/Output Devises
- Installation, Organization, Maintenance and Troubleshooting different versions of Windows and Windows structures
- Installing and Troubleshooting printers
- Select, Install and Service video, Sound and Portable Computers
- Networking: Wired and Wireless
- Security
- Mobile Devices: Tablets and Smartphones.

CompTIA Network+ helps workers develop a career in IT infrastructure by validating the hands-on skills needed to troubleshoot, configure, and manage both wired and wireless networks. Through the training and certification process, IT professionals demonstrate the knowledge and skills to:
- Design and implement functional networks
- Configure, manage, and maintain essential network devices
- Use devices such as switches and routers to segment network traffic and create resilient networks
- Identify benefits and drawbacks of existing network configurations
- Implement network security, standards, and protocols
- Troubleshoot network problems
- Support the creation of virtualized networks

CompTIA Security+ is a global certification that validates the baseline skills workers need to perform core security functions and pursue an IT security career in any industry. Through the training and certification process candidates demonstrate the knowledge and skills required to install and configure systems to secure applications, networks, and devices; perform threat analysis and respond with appropriate mitigation techniques; participate in risk mitigation activities; and operate with an awareness of applicable policies, laws, and regulations.

While the CompTIA trainings and certifications are completely portable across industries, they are particularly valuable in public sector employment because the government mandated Department of Defense Directive 8140 which requires CompTIA Network+ and similar certifications to work for specific agencies. This directive affects any full or part-time military service member, contractor, or local nationals with privileged access to a Department of

Defense information system performing information assurance (security) functions -- regardless of job or occupational series. The total value of defense contracts in the region is $890M (2015). While employment growth in the cluster has declined in recent years largely due to reduced defense spending, Aerospace and Defense remains a critical sector for the region due to its integrated supply chain, specialized talent base, and high earnings per job. The top employers for workers with CompTIA certifications in the region are General Dynamics, Jacobs Engineering Group, Inc., Odyssey Systems Consulting Group, Ltd., Lockheed Martin Corporation, and Macaulay-Brown, Inc.

Project Management International's **Project Management Professional (PMP) certification** is applicable to any industry and with any methodology. Through the program, students develop skills to manage projects in a variety of settings. PMP is also stackable with more advanced project management certifications offered through the Project Management Institute (e.g. Program Management Professional, Portfolio Management Professional, Certified Associate in Project Management, Professional in Business Analysis, Agile Certified Practitioner, Risk Management Professional and Scheduling Professional). The top regional employers seeking workers with project management credentials are General Dynamics, Arma Global Corp, and Booz Allen Hamilton Holding Corp.

D. Describe how this proposal supports a program that is offered to the public?
Classes will be made available to the public through "open enrollment" scheduling, meaning anyone can register for the courses. Grant funds will be used to offset enrollment costs to reduce barriers to public participation.

E. Describe how this proposal is based on criteria established by the state colleges and state technical centers.
The initiative provides short-term trainings intended to give individuals a credential and skill to increase their employability. The curricula are based on established industry norms and regulations, (e.g. OSHA safety regulations) and validated through reputable third-party assessments where applicable. In addition, some programs (e.g. CompTIA A+, CompTIA Network+) articulate into credit that aligns with Florida's Department of Education's Curriculum Frameworks.

G. Describe how this proposal will promote economic opportunity by enhancing workforce training.

Program Completers and Success Metrics

Through this proposed 2-year initiative, the College will train 470 individuals providing industry-recognized credentials that result in individual economic mobility and provide long-term wage increases, as well as, meet the demand for high-skill workers in the region. Of the 470 participants, the College anticipates 400 completers (85% completion rate). A completer is defined as someone who receives a third-party industry-recognized certificate, Northwest Florida State College certificate or a non-credit workforce development certificate. The College will track participants and completers as the primary success metrics for the program. We will also track employment data for participants who are underemployed and unemployed and register through CareerSource Okaloosa Walton for job placement and counseling services.

The initiative will establish 10 new workforce certification programs. As a result, individuals will earn a certificate to be employed in the targeted industries, increasing their wage 300% of the minimum wage ($52,748 average annual salary for the targeted occupations vs $17,160 minimum wage). The College estimates the initiative will yield a 5:1 ROI with an $11.1M economic impact in terms of annual wage increases alone for the 2 years of the initiative (inclusive of completers only). Each completer is estimated to earn an additional $13,916 above the regional average salary for all occupations ($38,832).

The following details targets for each program aligned to target occupations:

Target Occupation	Initiative Training Program	Total
System Administrators, Network Administrators	CompTIA A+	40
System Administrators, Network Administrators	CompTIA Network+	30
Information Security Analysts, Network Administrators	CompTIA Security+	40
Computer Information Systems Managers	PMI Project Management Professional	50
Production Technicians, Maintenance and Repair Workers	OSHA 10 General Industry	100
Production Technicians, Maintenance and Repair Workers	OSHA 30 General Industry	60
Industrial Engineers, Quality Assurance	Six Sigma Green Belt	50
Electrical & Electronic Technicians, Avionics Technicians	J-STD Soldering	30
Quality Assurance, Industrial Engineers	AS9100	40
Industrial Engineers, Industrial Machinery Mechanics	Industrial Maintenance	30
	Total	**470**

Fueling Economic Opportunity through Workforce Training

The Northwest Florida region's economy is predominately concentrated in the tourism and military sectors. While these sectors are tremendous assets to the area, the region is vulnerable to economic shocks from natural disasters and retraction in military spending. Economic diversification strategies are imperative for economic growth and resiliency, and skilled workforce presents one of the most significant barriers to diversification. The Northwest Florida Forward, Florida Chamber of Commerce Foundation's Florida Jobs 2030, and West Florida Regional Planning Council's Comprehensive Economic Development Strategy (CEDS) 2018 reports all cite talent as the key driver for economic diversity. For example, the first strategy in the CEDS is "Talent Supply and Education: Create a regional workforce training and development initiative designed to meet the needs of large employers relocating or expanding in West Florida."[viii] A skilled workforce attracts new businesses and creates increased productivity and efficiencies that enable existing businesses to expand. **Without the training infrastructure to develop a skilled workforce across multiple industries, the capacity of the region to diversify its economy is reduced**.

Okaloosa and Walton Counties comprise Florida Workforce Region 2 under the CareerSource Workforce Development Board. Between 2005 and 2015, the Okaloosa and Walton Counties population grew by an estimated 12.3%.[ix] Walton County saw the greatest population growth between 2010-2015 (15.38% compared to 6.5% for the region and 7.8% for the State) and is forecasted to grow by 21% between 2015-2025.[x] In addition to population growth, both Okaloosa and Walton Counties also experienced a high skilled labor shortage (job demand exceeds supply by at least 2.5% and up to 10%). All employment in Region 2 is projected to grow 1.2% over the next ten years, with occupations typically needing a 2-year degree or certificate forecasted to grow at a faster rate than those requiring a bachelor's degree (1.4% vs 1.2% per year respectively).[xi] The average worker in the Region 2 earned annual wages of $42,195 in 2017 compared to $53,246 for the nation.[xii] **The combination of growing population (more workers in the labor pool) and growth in middle and high skilled jobs provide the region with a ripe opportunity to increase wages and diversified economic growth through education and training**.

To have the greatest economic impact with this initiative, the College is targeting the manufacturing and cybersecurity industry sectors, which have both been identified as opportunities and priorities in the Northwest Florida Forward strategic report and the CEDS. The Northwest Florida Forward report specifically cites supporting advanced manufacturing as a strategy under the business vitality goal— "Advanced Manufacturing is an important target for growth as it impacts many other clusters and offers high-wage employment growth for all areas of the region".[xiii] For the three occupational codes targeted by the initiative (industrial engineers, industrial engineer technicians, and commercial and industrial designers) there is approximately one hire for every five unique job

postings. On average, there were 46 unique job postings monthly for these targeted occupational codes within manufacturing and only nine actually hired. The average wage is $33.06 per hour compared to the regional average of $18.67 and require skills in systems engineering, corrective and preventative actions, systems integration, lean manufacturing, auditing, and aerospace basic quality system standards.

Florida is already experiencing significant demand for jobs associated with disruptive technologies. During 2015, there were over 60,000 postings in Florida that mentioned data analytics, 13,000 that mentioned cybersecurity, and nearly 5,000 that mentioned cloud computing.[xiv] The cybersecurity sector is one of the four target industries in the Northwest Florida Forward Strategy. While cybersecurity is not considered a traditional cluster, it presents promising high-wage growth opportunities due to unique assets and new supporting programs in the region.[xv] The projected average growth rate (2017-2023) in this sector for the region is 10.2%. The average hourly wage across seven occupations targeted with this initiative is $32.60 hour compared to the region average hourly wage of $18.67. The top skills advertised for these positions include: Systems Engineering, Information Systems, Information Assurance, Professional services, Vulnerability, and Cybersecurity. On average each month, there are 270 unique job postings across the cybersecurity certification program's targeted occupational codes with only 43 actually hired, resulting in approximately one hire for every six unique job postings.

The initiative will build the capacity of the College to increase educational opportunities and expand demand-driven workforce development programs that address the unmet hiring needs of employers and fuel economic diversification and growth in the region. Research demonstrates that skilled talent is the key to productivity improvements, higher wages, innovation and increased economic prosperity. Increasing workers ability to earn higher wages is especially important in the Northwest Florida region where underemployment, high cost of living, and the high prevalence of low wage jobs are significant risk factors for the long-term economic viability of the area. Florida's unemployment rate was 5.4 percent in 2015, but the underemployment rate was 11.5 percent.[xvi] Although recent county level underemployment data is not available, we can infer the rates in the counties would be high given the high concentration of jobs in the retail and tourism sectors. The Northwest Florida Forward Strategic Comprehensive Economic Development Plan Strategic Action 1.3 specifically calls out the need to address chronic unemployment among vulnerable populations and underemployment as a high priority to "Explore establishing an employer-driven workforce training initiative focused on assisting underemployed and long-term unemployed residents."[xvii] Industry certifications are linked to higher wages and career upward mobility. For example, PMI's Earning Power Salary Survey, those with a PMP certification garner a higher salary (20% higher on average) than those without a PMP certification.[xviii]

2. Additional Information
A. Is this an expansion program?
The College currently provides workforce development trainings to over 2,000 individuals annually in Industrial Engineering Technology, Welding, Precision Machining, Microsoft systems, and Leadership Development among many others. All programs included in the proposal are new areas of specialization that have not been previously offered. The initiative will increase the number of individuals completing annually by 14%.

B. Does this proposal align with Florida's Targeted Industries?
This program aligns with the Defense & Homeland Security industry by offering cyber security training in compliance with meeting DOD 8570 standards for cyber security certifications. The soldering, OSHA, Six Sigma, PMI Project Management Professional support the Aviation & Aerospace Industry as well as benefit Manufacturing across many identified sectors on the Florida Enterprise Qualified Targeted Industries List.

C. Does this proposal align with an occupation(s) on the Statewide Demand Occupations List ans/or the Regional Demand Occupations List?

This initiative aligns all of the credentials being offered to SOC codes that are listed on Regional Demand Occupation List for region 2 (Okaloosa and Walton Counties), which is our service region.

Northwest Florida State College Programs	Occupational Family	2017 Jobs (1/17-6/18 Unique Job Postings)	Est. Annual Openings 2017-23	Projected Growth Service Area 2017-23
CompTIA A+	Cyber Security	2479	63	9.8%
CompTIA Network+	Cyber Security	2015	63	8.8%
CompTIA Security+	Cyber Security	2733	114	8.9%
PMP Project Management Professional	Cyber Security	626	64	12.3%
OSHA 10 & 30 General Industry	Advanced Manufacturing/Aerospace	4060	438	5.5%
Six Sigma Green Belt	Advanced Manufacturing/Aerospace	416	45	6.2%
J-STD Soldering Training	Advanced Manufacturing/Aerospace	211	52	2.8%
AS9100 Quality Training	Advanced Manufacturing/Aerospace	1366	37	4.2%

D. Indicate how the training will be delivered (e.g. classroom-based, computer-based, other).
If in person, identify locations where the training will be available.

The training will be delivered using a multi-modal approach. Some programs (e.g. OSHA Courses, Project management, AS9100, Six Sigma) will meet synchronously in classroom settings that are flexible enough to be offered at any of our four locations (Niceville, South Walton, Defuniak Springs, Crestview, and Fort Walton Beach). By having the flexibility to offer these programs across the region, we will be better able to respond to industry demand and be able to initiate program delivery immediately while construction is underway. When a regional employer has a need to skill-up a significant number of their workforce, this program will allow us to conduct training onsite that meets the employer's immediate needs. This responsiveness helps to make the company and subsequently the region better positioned to compete for contracts and attract new business. Additionally, students in the Cybersecurity programs will have access to a virtual classroom that extends beyond their in-class participation. This courseware will be enhanced using LabSim software. The Six Sigma Green Belt certification will also offer this extended virtual classroom.

F. Indicate the length of the program (e.g. quarters, semesters, weeks, etc.), including anticipated beginning and ending dates.

The programs have flexible lengths that are customizable to each training instance. Most courses are designed to be delivered in a 40-hour block of instruction that would end with students testing for their industry credential in programs that require a test. OSHA 10 is a 10-hour program, OSHA 30 is a 30-hour program. For programs that include an extended virtual classroom (e.g. all CompTIA Courses, Six Sigma, and PMI Project Management), a 6-month limit will be established before students are required to test for certification. Anticipated start date for the first programs is August 2018 with programs having subsequent and simultaneous multiple cohorts and rolling admissions.

Training Course	Duration	Start Date	End Date
OSHA 10	10 hours	October 2018	Multiple cohorts, rolling admission
OSHA 30	30 Hours	October 2018	Multiple cohorts, rolling admission
CompTIA A+	6 Months Virtual	August 2018	Multiple cohorts, rolling admission
CompTIA Network+	6 Months Virtual	August 2018	Multiple cohorts, rolling admission

Training Course	Duration	Start Date	End Date
CompTIA Security+	6 Months Virtual	August 2018	Multiple cohorts, rolling admission
PMI Project Management Professional	40 hours classroom, 6 Months Virtual	August 2018	Multiple cohorts, rolling admission
Six Sigma Green Belt	8 weeks classroom, 6 months virtual	August 2018	Multiple cohorts, rolling admission
J-STD Soldering	40 hours classroom	August 2019	Multiple cohorts, rolling admission
AS9100	40 hours classroom	August 2019	Multiple cohorts, rolling admission
Industrial Machinery Mechanic	8 Months	August 2019	Multiple cohorts, rolling admission

G. Describe the plan to support the sustainability of the proposal.
The program is designed to be self-sustaining through the tuition and fees that are normally associated with this program. The student expenses that are included in the grant proposal are designed to support program implementation and sustain the program throughout the grant period. The grant funded period provides the College with an opportunity to establish the Center as a recognized, trusted source for these types of trainings within the community and among the business industries. The College will be able to establish a track record of successful outcomes from the trainings that can be marketed throughout the community to ensure self-sustaining tuition. The pool of program participants for the proposed trainings is self-regenerating, as many of the certifications require either re-certification or ongoing Professional Development Units that ensure continued demand and support the sustainability of the programs.

H. Identify any certifications, degrees, etc. that will result from the completion of the program.
The following certifications will be awarded through the programs: CompTIA A+, CompTIA Network+, CompTIA Security+, OSHA 10 hour-General Industry, OSHA 30-hour General Industry, OSHA 10-hour Construction, OSHA 30-hour Construction, ASQ Six Sigma Green Belt, J-STD Soldering, AS9100 Quality Training, PMI Project Management Professional, and Northwest Florida State College Certificate for Industrial Maintenance. CIP codes are not applicable.

J. Additional Information:
Workforce Development Region 2 (which includes Okaloosa and Walton Counties) is home to a significant number of veterans (16.9% of the population are veterans ages 18-64 compared to 6.1% Florida and 5.5% U.S.).[xix] Each year there are over 3,000 military men and women separating from the military and staying in the area, and an estimated 74% of the region's military retirees are employed in a second career.[xx] The College's student body is diverse including high school graduates going directly to college, active duty military, separating veterans reorienting to civilian life, and people who are changing careers or returning to the workforce. Annual enrollment is 11,864 of which 9,423 are pursuing college credit and 2,441 are earning non-college credits. Unique to the College is its significant military population, with 19% (1,604) of the student body active or retired military. The College has the highest number of students (2,537) receiving Post 9/11 GI Bill Benefits in the Florida College System (2014-15 Data). This number is almost four times the system average of 664 students per institution.

Retired and separating military personnel are a potential built-in, ready workforce due to the number of military installations located in our region; however, a survey administered by Okaloosa-Walton CareerSource from 2011-2016 for personnel separating from the military revealed that 25% of respondents were leaving the region due to lack of job opportunities. The initiative could help bridge the skills developed in the military to the needs of the local labor market. The College provides support services specific to students who are veterans and military connected.

3. Program Budget

Provide detailed budget narrative.

Facilities: $1,206,800 The facilities requested are required to increase training capacity. The funds for this facility renovation are to be applied to the Crestview Advanced Technology Center of Excellence. Costs are inclusive of architectural and engineering fees and renovation construction.

Equipment: $611,737 Equipment includes items that are necessary to support the operations of one or more of the programs being offered through this initiative. All items requested will increase the training capacity and provide students with up-to-date and state-of-the-art technology. Each equipment items will be purchased following all appropriate local and state procurement policies and guidelines.

Personnel: $267,600 Personnel (request plus cash match) includes full-time and part-time faculty, part-time grant administration, and contracted instructional staff. The personnel requested are necessary to administer and conduct initiative activities. The salaries requested are inclusive of benefits, and are reasonable, adequate, and commensurate with current pay scales for similar responsibilities.

Training Materials and Licensure/Certification Exams: $186,784. The materials requested include computers, software, and educational/consumable supplies for initiative operations, and are reasonable and adequate to support the initiative. The licensure and certification exam fees are included to remove barriers to obtaining industry credentials for students.

4. Approvals and Authority

Florida Statutes section 1001.65 defines powers and duties given to Florida College System presidents stating, "The president is the chief executive officer of the Florida College System institution, shall be corporate secretary of the Florida College System institution board of trustees, and is responsible for the operation and administration of the Florida College System institution." As provided in subsection (5), each Florida College System president shall, "Approve, execute, and administer contracts for and on behalf of the Florida College System institution board of trustees for licenses; the acquisition or provision of commodities, goods, equipment, and services; leases of real and personal property; and planning and construction to be rendered to or by the Florida College System institution, provided such contracts are within law and guidelines of the State Board of Education and in conformance with policies of the Florida College System institution board of trustees, and are for the implementation of approved programs of the Florida College System institution."

Endnotes

[i] *Http://Www.nam.org/Issues/Technology/Cybersecurity-in-the-Manufacturing-Sector/,*
www.nam.org/Issues/Technology/Cybersecurity-in-the-Manufacturing-Sector/.

[ii] Ibid.

[iii] Giffi, Craig. "The Skills Gap in U.S. Manufacturing | Deloitte US | Manufacturing Industrial Products and Services." *Deloitte United States*, Deloitte United States, 18 May 2017, www2.deloitte.com/us/en/pages/manufacturing/articles/boiling-point-the-skills-gap-in-us-manufacturing.html.

[iv] Kauflin, Jeff. "The Fast-Growing Job With A Huge Skills Gap: Cyber Security." Forbes, Forbes Magazine, 17 Mar. 2017, www.forbes.com/sites/jeffkauflin/2017/03/16/the-fast-growing-job-with-a-huge-skills-gap-cyber-security/#751e5f475163.

[v] Ibid.

[vi] Baum, S. and Payea, K. (2005) The Benefits of Higher Education for Individuals and Society. Retrieved from https://trends.collegeboard.org/sites/default/files/education-pays-2004-full-report.pdf

[vii] Lamback, S. (2016) Florida Jobs 2030 Report: A Cornerstone Series Report for the Florida 2030 Initiative. Jobs for the Future. Retrieved from http://www.flchamber.com/wp-content/uploads/2017/01/FINAL_Florida-Jobs-2030-Report-013117.pdf

[viii] West Florida Regional Planning Council. Comprehensive Economic Development Strategy 2018-2022 retrieved from http://www.wfrpc.org/wp-content/uploads/2018/01/DRAFT-FINAL-CEDS.pdf.

[ix] Economic Modeling Specialists Intl. (2018) EMSI 2018.1; QCEW, non-QCEW, Self-Employed. Available at www.economicmodeling.com

[x] Ibid.

[xi] Career Source (2017) Okaloosa Walton Economic Overview Region 2. Retrieved from http://www.chmuraecon.com/jobseq

[xii] Ibid.

[xiii] Florida's Great Northwest. (2017) Northwest Florida Forward: A Regional Strategy for Economic Transformation. Available from www.northwestfloridaforward.com

[xiv] Lamback, S. (2016) Florida Jobs 2030 Report: A Cornerstone Series Report for the Florida 2030 Initiative. Jobs for the Future. Retrieved from http://www.flchamber.com/wp-content/uploads/2017/01/FINAL_Florida-Jobs-2030-Report-013117.pdf

[xv] Florida's Great Northwest. (2017) Northwest Florida Forward: A Regional Strategy for Economic Transformation. Available from www.northwestfloridaforward.com

[xvi] Bureau of Labor Statistics, 2015.

[xvii] Florida's Great Northwest. (2017) Northwest Florida Forward: A Regional Strategy for Economic Transformation. Available from www.northwestfloridaforward.com

[xviii] Earning Power: Project Management Salary Survey 10th Edition, 2017. Project Management Institute. Retrieved from https://www.pmi.org/-/media/pmi/documents/public/pdf/learning/salary-survey-10th-edition.pdf?la=en

[xix] Career Source (2017) Okaloosa Walton Economic Overview Region 2. Retrieved from http://www.chmuraecon.com/jobseq

[xx] Ibid.