Application Score Sheet

Proposed Project: University of West Florida, Research for Tomorrow (#323)
Proposed Project/Program County: Escambia
Board of County Commission Support:
Rural County:
Opportunity Zone:

Total Projected Project Cost: $130,204,292
Match Provided: $97,689,172
Triumph Funds Requested: $32,515,120 (25%)
Triumph Funds Recommended by Staff: $32,515,120

Score: A
ROI: $12.8 dollars in added personal income per dollar of Triumph

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Economic Analysis, Impact, and Score

The University of West Florida (UWF) is requesting $32,515,120 in Triumph Gulf Coast funding to support its "Research for Tomorrow" proposal. UWF is a regional comprehensive public university with over 14,000 students and a mission to drive innovation and workforce development in Northwest Florida. The requested funds will be deployed over a 10-year period and represent 25% of the project's total anticipated cost of $130,204,292, with UWF contributing the remaining $97,689,172 (75%). The project will expand and enhance UWF's Institute for Analytics and Industry Advancement ($(IA)^2$), the Center for Cybersecurity (CfC), and establish the new Center for Computational Intelligence (CCI).

Triumph funds will primarily be allocated toward capital improvements to UWF's research infrastructure - specifically, a $21 million to expand the new sciences and engineering building, providing additional space for the CfC and CCI, and renovating the Sciences Annex (building 58C) to house advanced computational research laboratories. In addition to critical facility expansion, Triumph resources will support the hiring of high-wage personnel over the first several years. The hires will include research scientists, data analysts, software engineers, post-doctoral associates, administrative and technical support, and key faculty members necessary for the growth of these research centers. Significant funds will also be used for specialized research equipment needed for computational biology, cybersecurity, AI, and other cutting-edge fields. UWF's plan projects 101 net new hires, with Triumph funding gradually tapering as operations become self-sustaining by the end of the 10-year period.

UWF's expanded research capacity will position the University and the region as a computational research and commercialization hub, attracting new federal, state, and industry grant funding that would not otherwise come to Northwest Florida. The applicant commits to at least $83 million in new research grant and contract expenditures by year 10, plus $14.5 million in expenditures from non-grant sources, all directly associated with the work of the expanded

centers. In addition, the project will train a new regional workforce of high-skilled professionals and produce intellectual property, potentially leading to spin-off technology companies. The project's alignment with regionally targeted industries—cybersecurity, AI, advanced analytics, and computational sciences—is expected to provide robust industry partnerships, foster innovation, and enhance workforce readiness for the defense and private sectors. While UWF has a proven record of successfully attracting grant funds, especially due to its role in hosting the Florida Small Business Development State Director's Office, this grant will grow and strengthen academic research partnerships, creating measurable economic impacts to the region.

Over the project's first ten years, UWF commits to the creation of 101 net new high-skill sustainable jobs, directly supporting the expansion of the region's research and technology workforce. Triumph funding is structured to taper over time, with long-term sustainability achieved through increased external grant and contract revenue and matching university investment. Based on UWF's projections and staff analysis, the initiative is expected to generate substantial ongoing increases in regional personal income, with an ROI of approximately $12.8 dollars in added personal income per dollar of Triumph. The transformative and lasting effect of the new UWF research and innovation focus will be to position the region as a competitive hub for advanced analytics, cybersecurity, and computational sciences. For these reasons, Triumph staff rate the project as an "A."

Project Summary (based on information provided by the applicant)

The University of West Florida (UWF) is requesting a $32,515,120 Triumph grant to expand the research activities of the Institute for Analytics and Industry Advancement ((IA)2) and The Center for Cybersecurity (CfC). The funds will be used for research building expansion and lab renovations, research equipment, research scientists, staff and support personnel. (IA)2 will establish a Center of Excellence focused on enhancing and expanding work into the cutting-edge fields of Computational Intelligence research providing predictive data analytic services and products to companies, corporations, and universities. CfC will expand cutting edge cybersecurity work leveraging the region's research, defense, and private sectors.

(IA)2 is a next generation workforce and research center expanding the boundaries and applications of Predictive and Cognitive Analytics, Big Data Analytics, Artificial Intelligence, Machine Learning, Deep Learning, Automation, and Computing. (IA)2 has two relevant distinct components; 1) the Predictive Analytics and Modeling Lab (PAM Lab), and 2) the Center for Computational Intelligence (CCI).

The CfC was established in 2014 with the vision to be the premier regional hub and national exemplar for innovative cybersecurity solutions. The Center is recognized as a leader among peer centers and institutes nationwide, and as a preferred partner in cybersecurity research, workforce education, and professional training across Northwest Florida. The project will provides space and infrastructure critical for the CfC to expand and enhance its footprint in NWFL.

(IA)2 intently focuses on advancing the collective understanding of computational models in terms of both building and applying models, and consequently, the development of interventions

that maximize successful outcomes for organizations. In the context of this proposal, Computational Intelligence is the theory, design, application, and development of computational models capable of performing complex tasks. As a subset, Predictive Analytics is the development of models with the ability to predict future events or outcomes in terms of product performance or human behaviors (such as the behavior of students, employees, or customers).

UWF has invested significant time and resources in (IA)2. The PAM Lab is the primary commercialization arm of (IA)2, with a goal to be sustainable on a software-for-commercial-service model. This model includes developing customized, in-demand analytics tools, as well as the necessary visualization. The result is an in demand trained workforce skilled in providing advanced data analytics to businesses and universities.

The PAM Lab provides descriptive and diagnostic analytics for product performance in the education, health, and product manufacturing sectors. The Triumph grant would be used to expand the PAM Lab capabilities in terms of personnel to accelerate business opportunities and, ultimately, move into industry sectors such as healthcare and energy. and student success.

The purpose of the Center for Computational Intelligence (CCI) is to enable interaction and collaboration between university faculty whose research (basic, applied, or interdisciplinary) is computational in nature. CCI's cutting-edge research will focus on the creation or application of computational models and systems capable of performing complex tasks. The computational technology developed through CCI will be investigated for commercial opportunities by the PAM Lab. The Triumph funds would be used to develop the CCI into a world-class research center of excellence sustained through grants and contracts, bringing in millions of new dollars to the regional economy. Collaborations will be leveraged to secure grant funding to establish regional innovative ecosystems encompassing researchers (from UWF and IHMC), industries and the community to create solutions with economic and community impacts.

A sample of current grants include:

- Enhancing cyber situational understanding through neuro-symbolic risk-aware deep learning decision-making; (United State Army)
- A data analytics framework for the application of pedestrian dynamics to public health; (National Science Foundation)
- A robust automated risk detection and mitigation system for network intrusion detection systems; (National Security Agency)

UWF will collaborate closely with regional entities that share a particular focus or need on data analytics within relevant segments of healthcare, biosciences, cybersecurity, engineering, environmental sciences, and education. Its expected that these collaborations, and the subsequent innovation, will create spin-off opportunities for UWF and its partners that will further drive the success of the PAM Lab and the Center and create new submarkets.

Examples of future areas of research include:

- Personalized learning: This area focuses on developing AI tools for personalized learning, tutoring, and advising while considering ethical issues, potential biases, and privacy concerns.
- Healthcare Data Integration: Analyzing diverse health data sources, including electronic health records, clinical trial events, wearable devices, and health surveys and available public data (community level vulnerability index, etc.) to advance precision medicine, and to identify environmental and behavioral trends that impact health and disease.
- Monitoring Systems: This area focuses on developing machine learning and AI tools for the monitoring of electrical systems, mechanical systems, health structures such as bridges and buildings, environmental sensors, pollution, and climate.
- Smart Grid and Energy Management: This area uses machine learning and AI to provide systems that can predict outages, load, demand, and energy consumption.
- Systems Biology: This area covers mathematical models and simulations to study complex biological systems such as neuron connections. It also covers the statistical analysis of biological data to predict properties and discover associations.
- Bioinformatics Software and Tools: Developing computational tools, algorithms, and databases for various aspects of biological data analysis including multidimensional mapping and ML algorithms to understand molecular pathobiology, health outcomes, and intervention effects.
- Embodied Intelligence: This area focuses on the development of robotic systems that can intelligently interact with the environment around them to effect change. This gives a physical body to AI algorithms, where this embodiment is believed to be a required part of creating the intelligence necessary to perform tasks alongside humans.

UWF (IA)2 and CfC provide a unique approach to establishing a computational research cluster and expand cutting edge cybersecurity growth aimed at leveraging the diverse resources of Northwest Florida's research, defense, and private sectors. The CfC's 10-year success combined with the seeding of (IA)2 will provide the personnel and technology necessary for an unprecedented approach to expanding cybersecurity infrastructure and support, computational research, and commercialization of analytics, whether predictive, prescriptive, or cognitive.

Computational research is represented by UWF and IHMC in the Northwest Florida area. However, computational technology development and commercialization is currently not present in any consolidated manner in the region. The PAM Lab and the CCI will establish the cluster necessary to create new opportunities and new potential spin off entities focusing on predictive data analytics and other areas of computational intelligence.

UWF has begun targeting, pursuing, and winning new grants/contracts that will benefit from an expanded and enhanced (IA)2. In addition, with the Triumph grant funds, (IA)2 will be able to target and win contracts/grants that it currently cannot target without the necessary personnel and the equipment and facilities necessary to conduct the research. Having (IA)2 will allow UWF to bring significantly more new federal spending to the region.

Budget and Funding

See attached

323, University of West Florida Institute for Industry Advancement & Analytics (IA)2

Budget

Estimated construction start date if applicable

Estimated education component start date if applicable

		Construction & Renovations	Furniture & Fixtures	Equipment, Supplies & Software	Personnel & Consulting	Total
Please change year # to actual year						
Project Total						
	2025	1,940,000.00	60,000.00	1,500,000.00	5,771,095.00	9,271,095.00
	2026	13,386,000.00	414,000.00	500,000.00	6,534,335.00	20,834,335.00
	2027	4,559,000.00	141,000.00	1,250,000.00	7,171,035.00	13,121,035.00
	2028	-	-	1,500,000.00	6,647,846.00	8,147,846.00
	2029	-	-	1,500,000.00	7,105,446.00	8,605,446.00
	2030	-	-	2,500,000.00	10,110,847.00	12,610,847.00
	2031	-	-	2,000,000.00	9,953,047.00	11,953,047.00
	2032	-	-	2,500,000.00	11,859,047.00	14,359,047.00
	2033	-	-	3,000,000.00	12,123,847.00	15,123,847.00
	2034	-	-	3,500,000.00	12,677,747.00	16,177,747.00
	2035	-	-	-	-	-
	2036	-	-	-	-	-
Project Total		19,885,000.00	615,000.00	19,750,000.00	89,954,292.00	130,204,292.00
Triumph						
	2025	1,940,000.00	60,000.00	-	$ 1,706,440	3,706,440.00
	2026	11,640,000.00	360,000.00	250,000.00	$ 2,535,240	14,785,240.00
	2027	3,880,000.00	120,000.00	750,000.00	$ 3,245,640	7,995,640.00
	2028	-	-	-	$ 2,138,600	2,138,600.00
	2029	-	-	-	$ 1,428,200	1,428,200.00
	2030	-	-	500,000.00	$ 1,013,800	1,513,800.00
	2031	-	-	-	$ 599,400	599,400.00
	2032	-	-	-	$ 185,000	185,000.00
	2033	-	-	-	$ 81,400	81,400.00
	2034	-	-	-	$ 81,400	81,400.00
	2035	-	-	-	-	-
	2036	-	-	-	-	-
Triumph Total		17,460,000.00	540,000.00	1,500,000.00	13,015,120.00	32,515,120.00
Grantee						
	2025	-	-	$ 1,500,000	$ 1,472,045.00	2,972,045.00
	2026	1,746,000.00	54,000.00	$ 250,000	$ 1,472,045.00	3,522,045.00
	2027	679,000.00	21,000.00	$ 500,000	$ 1,472,045.00	2,672,045.00
	2028	-	-	$ 250,000	$ 1,472,045.00	1,722,045.00
	2029	-	-	$ 250,000	$ 1,472,045.00	1,722,045.00
	2030	-	-	$ 250,000	$ 1,472,045.00	1,722,045.00
	2031	-	-	$ 250,000	$ 1,472,045.00	1,722,045.00
	2032	-	-	$ 250,000	$ 1,472,045.00	1,722,045.00
	2033	-	-	$ 250,000	$ 1,472,045.00	1,722,045.00
	2034	-	-	$ 250,000	$ 1,275,945.00	1,525,945.00
	2035	-	-	-	-	-
	2036	-	-	-	-	-
Grantee Total		2,425,000.00	75,000.00	4,000,000.00	14,524,350.00	21,024,350.00
Grants/Contracts						
	2025	-	-	-	2,592,610.00	2,592,610.00

	2026	-	-	-	2,527,050.00	2,527,050.00
	2027	-	-	-	2,453,350.00	2,453,350.00
	2028	-	-	1,250,000.00	3,037,201.00	4,287,201.00
	2029	-	-	1,250,000.00	4,205,201.00	5,455,201.00
	2030	-	-	1,750,000.00	7,625,002.00	9,375,002.00
	2031	-	-	1,750,000.00	7,881,602.00	9,631,602.00
	2032	-	-	2,250,000.00	10,202,002.00	12,452,002.00
	2033	-	-	2,750,000.00	10,570,402.00	13,320,402.00
	2034	-	-	3,250,000.00	11,320,402.00	14,570,402.00
	2035	-	-	-	-	-
	2036	-	-	-	-	-
Grants/Contracts Total		-	-	14,250,000.00	62,414,822.00	76,664,822.00
Match Source 2						
Calendar Year 1						-
Calendar Year 2						-
Calendar Year 3						-
Calendar Year 4						-
Calendar Year 5						-
Calendar Year 6						-
Calendar Year 7						-
Calendar Year 8						-
Calendar Year 9						-
Calendar Year 10						-
Calendar Year 11						-
Calendar Year 12						-
Match Source 2 Total		-	-	-	-	-