

## **Application Score Sheet**

Proposed Project: Project Lead the Way, Partnership to Transform STEM Education in the Panhandle (#105)

Proposed Project/Program County: The Eight County Region  
Board of County Commission Support:

Total Projected Project Cost: \$4,250,195.00

Match Provided: \$645,000.00

Triumph Funds Requested: \$3,605,195.00

Score: C

Date: 11/29/18

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### **Economic Impact Analysis and Score**

Project Lead the Way (PLTW) is a 501c3 organization in Indianapolis, IN that provides a transformative learning experience for K-12 students and teachers across the U.S., with a mission of empowering students to thrive in an evolving world. PLTW has five distinct programs in computer science, engineering, and biomedical science, in more than 10,500 schools nationwide.

PLTW is requesting \$3,605,195 in Triumph funding to support activities in school districts across the Triumph service area. PLTW proposes to contribute “up to \$645,000” in resources to the project, including on-site project staffing, service and support for participating districts and schools, along with grant management resources, marketing and communications resource, and promotional event resources. PLTW notes that participating school districts will offer additional support.

The PLTW program proposes to use Triumph dollars to match local school district dollars to bring the PLTW curriculum materials to students and teachers. Local school districts would apply to participate in PLTW programs and Triumph dollars would help fund that participation. The PLTW program would use Triumph funding to provide districts with funding for PLTW participation fees, needed materials and supplies, technology including computers and tablets, and training stipends, salaries and professional

“PLTW proposes a project entitled “Partnership to Transform STEM Education in the Panhandle.” Through this project, school districts and post-secondary institutions in the eight-county area; Triumph Gulf Coast, Inc.; and PLTW will partner to transform education in the Panhandle by expanding student and teacher access to PLTW’s K-12 curricular pathways – in computer science, engineering, and biomedical science – and PLTW’s accompanying teacher professional development. PLTW proposes making these offerings available throughout the Triumph Gulf Coast region, providing every district and school the opportunity to implement PLTW programming.”

In assessing the economic benefit of PLTW activities, it seems both more workable and more desirable to have school districts working with Triumph staff directly to obtain funding to use PLTW curricula and services. Applications for funding to support acquisition of science, technology, engineering and math (STEM) curriculum materials, including PLTW materials, can already be submitted by school districts should they choose to do so. The Triumph Board has already opined unfavorably on delegating authority for funding decisions to other organizations.

For these reasons, staff score the project as a “C” and do not recommend that the PLTW proposal be brought to the Board for consideration.

### **Project Summary (based on information provided by the applicant)**

Project Lead The Way (PLTW) requests \$3,605,195 in funding from Triumph Gulf Coast to accelerate and expand student access to PLTW’s curriculum and programs by removing initial cost barriers to implementation for schools. PLTW is a nonprofit organization that provides a transformative learning experience for K-12 students and teachers across the United States. PLTW’s mission is to empower students to thrive in an evolving world.

Through PLTW’s proposed project, *Partnership to Transform STEM Education in the Panhandle*, school districts and post-secondary institutions in the eight- county area would partner with PLTW and Triumph to transform education in the Panhandle.

This would be done by expanding student and teacher access to PLTW’s K-12 curricular pathways – computer science, engineering, and biomedical science – and PLTW’s accompanying teacher professional development. PLTW proposes making these offerings available throughout the Triumph Gulf Coast region, providing every district and school the opportunity to implement PLTW programming.

PLTW will provide up to \$645,000 in resources throughout this project, including on-site project staffing, service and support for participating districts and schools, grant management resources, marketing and communications resources, and promotional event resources. Participating school districts will offer additional support.

To participate and access Triumph Funds, schools would submit a readiness application. PLTW would work with the schools to be sure they are ready to implement the program. Schools would then register for the programs they intend to implement. The Triumph Funds would be used for:

- PLTW Participation Fees – which range from \$750 per school at the elementary and middle school level to \$3,000 at the high school level
- Materials and supplies needed for the hands-on curricular programs
- Technology, such as computers and tablets
- Training stipends, salaries, and professional development costs for teachers

In addition to funding PLTW program implementations/expansions, PLTW also proposes that districts and schools in the eight-county region can access funds to provide all teachers with access to PLTW’s professional development, regardless of whether they intend to teach a PLTW

course in their classrooms. These “standalone” teacher professional development offerings include activity-, project-, problem-based (APB) learning training modules and STEM career literacy training modules.

PLTW began in 1986 when a high school teacher in Upstate New York saw an engineering-related talent shortage growing in his community. He started pre-engineering courses at his school to prepare students for the demand. A decade later, the success of the teacher’s courses caught the attention of a local foundation, and in 1997, Project Lead The Way was born, with the PLTW Engineering program (as it is now known) spreading to a dozen Upstate New York high schools.

Today, with five distinct programs in more than 10,500 schools nationwide, PLTW offers students and teachers seamless K-12 pathways in computer science, engineering, and biomedical science. PLTW programs can be found in all types of schools – public, private, charter, and specialized academies – in urban, rural, and suburban settings. Across the country, 42,000 PLTW-trained teachers in active PLTW schools serve millions of PLTW students. Over the past three years, the organization has experienced an average program growth rate of over 20 percent per year.

PLTW has partnered with districts and schools in Florida since 2003 and in the Panhandle since 2007. Schools throughout Florida currently offer more than 450 PLTW programs. PLTW has trained more than 1,500 teachers in Florida, which has impacted hundreds of thousands of PLTW students to date. Additionally, PLTW and its partners have invested more than \$2.5 million in grants awarded to Florida districts and schools. These partners include ArcelorMittal, Atlas Holdings, Georgia-Pacific, Lockheed Martin, Verizon, and many more. Furthermore, PLTW has relationships with several institutions of higher education throughout the state including the University of Florida, Embry-Riddle University, Florida Gulf Coast University, as well as several community colleges.

For the purpose of this project – and through current PLTW program agreements – PLTW proposes to partner with Bay, Escambia, Okaloosa, and Walton school districts. With the exception of Walton County, all have at least one PLTW program and have expressed interest in expanding PLTW K-12. PLTW will also partner with Santa Rosa, Wakulla, Franklin, and Gulf school districts, as well as any charter schools and private schools that are interested in this initiative.

Additionally, PLTW will partner with the HSU Foundation and FSU-Panama City to help address both in-school and out-of-school STEM opportunities.

PLTW would provide curricular programs that engage, inspire, and empower students and teachers. The curriculum includes transformative classroom experiences across computer science, engineering, and biomedical science pathways. Teacher resources include day-by-day lesson plans, formative and summative assessments, videos, ongoing program support.

Furthermore, PLTW would provide teacher professional development in the Panhandle to minimize travel costs, and the organization would also hire additional staff members to allow for a dedicated director of school engagement for the eight counties.

With the support of partners, PLTW has, over the last three years (FY15, FY16, and FY17), awarded nearly 2,000 grants totaling nearly \$30 million. Over 94 percent of the awards supported the implementation of new PLTW programs. Schools receiving funds to implement PLTW programs demonstrate a high retention rate of PLTW programs. For example, programs supported by PLTW partner Lockheed Martin have a retention rate of 96 percent following their grant period.

The cornerstone of PLTW programs is the organization's activity-, project-, and problem-based (APB) instructional design, which centers on hands-on, real-world activities, projects, and problems that help students understand how the knowledge and skills they develop in the classroom may be applied in everyday life. The APB approach scaffolds student learning through structured activities and projects that empower students to become independent in the classroom and help them build skill sets to apply to an open-ended design problem. This approach also provides students with opportunities to work collaboratively, identify problems, persevere through challenges, lead their own learning, and find unique solutions to real-world challenges.

Independent research validates the effectiveness of PLTW's approach: Studies show that PLTW students outperform their peers in school, are better prepared for post-secondary studies, and are more likely to consider careers as scientists, technology experts, engineers, mathematicians, healthcare providers, and researchers compared to their non-PLTW peers.

## Funding and Budget (as provided by the applicant)

5. Please provide a Project/Program Budget. Include all applicable costs and other funding sources available to support the proposal.

### A. Project/Program Costs:

Category	PLTW Contribution	New Programs	Expand Programs	Staff/Other	Total	PLTW Launch	PLTW Gateway	PLTW Engineering	PLTW Computer Science	PLTW Biomedical Science	Program Total
Escambia		\$1,120,000	\$ 30,000	\$ 195,195	\$1,345,195	31	9		7	2	49
Bay		\$ 335,000	\$ 45,000		\$ 380,000	3	3	1	2	2	11
Okaloosa		\$ 85,000	\$ 30,000		\$ 115,000	3	1				4
Walton		\$ 490,000			\$ 490,000	7	4	2	2	2	17
Wakulla			\$ 30,000		\$ 30,000						
Santa Rosa			\$ 15,000		\$ 15,000						
FSU-PC		\$ 20,000			\$ 20,000	1					1
Other New Programs					\$ 575,000						
PD4All					\$ 237,500						
District-Level Trainings					\$ 47,500						
Evaluation					\$ 350,000						
PLTW Contribution	\$ 645,000				\$ 645,000						
Total Request		\$2,050,000	\$ 150,000		\$3,605,195	45	17	3	11	6	82
<b>Total Project Budget</b>					<b>\$4,250,195</b>						

### B. Other Project Funding Sources:

Other \$645,000.00 (PLTW Contribution)

**Total Other Funding: \$645,000.00**

**Total Amount Requested: \$3,605,195**

**Letters of Support**