## Budget

**Beavercreek City (047241) - Greene County - 2015 - Straight A Fund - Rev 0 - Straight A Fund - Application Number (32)**

**U.S.A.S. Fund #:**

**Plus/Minus Sheet (opens new window)**

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**Adjusted Allocation:** 0.00

**Remaining:** -1,000,000.00
1. Project Title:
Creating a Student-Centric, State-of-the-Art Innovation, Research, and Technology Complex

2. Executive summary: Please limit your responses to no more than three sentences.
Our vision is to be a bright star in the high-tech corridor by ensuring that our teaching and learning methodologies will harness the power of modern and emerging technologies, offering our students individualized learning opportunities through research-based applications, and partnership-based experiences in businesses throughout the community. In order to prepare our high school students for their choice of post-secondary pursuits, it is critical that we provide a strong curriculum that incorporates advanced technology tools, advancing student growth. Through the use of advanced computing and telecommunications technology, the process of learning will become significantly richer as students have access to new and different types of information, manipulate it digitally in ways never before possible, such as through digital portfolios, multi-media projects, video journals, interactive media, and animated graphics, and can communicate with their teachers, students across campus, or students around the world.

This is an ultra-concise description of the overall project. It should not include anything other than a brief description of the project and the goals it hopes to achieve.

2385. Total Students Impacted:
This is the number of students that will be directly impacted by implementation of the project. This does not include students that may be impacted if the project is replicated or scaled up in the future.

4. Please indicate which of the following grade levels will be impacted:
- Pre-K Special Education
- Kindergarten
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12

5. Lead applicant primary contact: - Provide the following information:
First Name, last Name of contact for lead applicant
Susan Hayward, Ph.D.
Organizational name of lead applicant
Beavercreek City Schools
Address of lead applicant
3040 Kemp Road
Phone Number of lead applicant
937-458-2417
Email Address of lead applicant
Susan.Hayward@Beavercreek.k12.oh.us

6. Are you submitting your application as a consortium? - Select one checkbox below
- Yes
- No

If you are applying as consortium, please list all consortium members by name on the "Consortium Member" page by clicking on the link below. If an educational service center is applying as the lead applicant for a consortium, the first consortium member entered must be a client district of the educational service center.
Add Consortium Members
7. Are you partnering with anyone to plan, implement, or evaluate your project? - Select one checkbox below

- Yes
- No

If you are partnering with anyone, please list all partners by name on the "Partnering Member" page by clicking on the link below.

Add Partnering Members

B) PROJECT DESCRIPTION - Overall description of project and alignment with goals

8. Describe the innovative project: - Provide the following information

The response should provide a clear and concise description of the project and its major components. Later questions will address specific outcomes and the measures of success.

The current state or problem to be solved; and

Technological devices provide benefits to students but are not the backbone of 21st century learning (Blair, 2012). 21st century learning requires more than buying a set of computers, interactive whiteboards, and tablets. The Partnership for 21st Century Skills (2005) addresses using technology as a tool for research, critical thinking, creative problem solving, collaboration, and communication. With the world at their fingertips, today's students are different and need teachers to re-envision the role of educational technology. There is a widening gap between the knowledge and skills students are acquiring in schools and those needed for success in the global, technology infused workplace (P21, 2005). We must embrace 21st century methodologies to transform teaching and learning. Results from our March, 2014 Community Forum revealed that our stakeholders believe technology is essential to support college and career readiness in our students: "[need the] ability to use the most recent technology available," "technology requires us to think in new ways," "computer skills are essential no matter what you do," and "[need] programming skills." Education is undergoing a dramatic paradigm shift. "With the advent of [PARCC], it is imperative that students' learning takes place in a robust digital learning environment in order for them to be successful on these new higher-order thinking assessments. Schools will have to make significant investments in infrastructure and hardware which will provide an extraordinary opportunity for extending and leveraging the use of technology to transform teaching and learning" (ISTE, 2012). Information and Communication Technology (ICT) Literacy reflects the need for students to develop learning skills that enable them to think critically, analyze information, communicate, collaborate, problem-solve (Kay & Honey, 2005). We do not have the required technology tools to best support 21st century skills and college and career readiness.

The proposed innovation and how it relates to solving the problem or improving on the current state.

The education of our students must shift from plateaus of knowing to on-going cycles of learning, recognizing that technology is at the core of virtually every aspect of our daily lives and work. We must leverage technology to provide engaging and powerful learning experiences and content, as well as resources. Infusing technology into educational opportunities creates engaging and empowering learning experiences for all learners. Infusing technology into teaching and learning will enable, motivate, and inspire all students, regardless of background, language, or disability, to achieve. Advanced technological tools are pivotal to improving student learning and developing students' 21st century skills competencies and expertise, particularly in the areas of collaboration, critical and creative thinking, and communication. As a first step to bridging the gaps outlined in the problem, the central component of this grant is the creation of the Innovation, Research, and Technology Complex (IRTC). This area will serve as the hub for high school activity, combining flexible learning spaces for students to work independently or collaboratively. The IRTC components are: Student Research Technology Telecommunications Technology Lab Research Technology Lab Knowledge Foundations Course (9-12) Student Research Technology throughout the IRTC, including laptops, tablets, collaborative technologies, will engage our students. Technology devices will be available for our students to check out and use within the IRTC during the school day, within the academic learning spaces throughout the high school, while completing school-based and off-site community partnership experiences, and at home. Additionally, use of the IRTC and the technology tools within, will be provided to our students and members of the community during the extended operating hours, allowing for evening collaboration, tutoring, and online AP courses to be offered to our students and evening technology courses for interested community members. By creating a Telecommunications Technology Lab, we will be providing our students the technology necessary for them to interact with other students, the community, and the world. Telecommunications technology, including video conferencing and live-streaming equipment, multi-media production tools (example: TV/radio), and interactive presentation tools, will enable our students to interact with students and business leaders around the world and to design, produce, communicate, and publish their research. Confirmed business partnerships include: Miami Valley Hospital, WSU, LexisNexis, and Wright-Patt Credit Union. WPAFB will provide job shadowing, internship and mentor opportunities. Within the Research Technology Lab, students will interact with emerging technology, learning to build apps for smart phones, tablets, embedded systems, and build web apps using a modular development model and considering interface, accessibility (e.g., native language support, assistive technology), human computer interaction, user-centered design, privacy, security, networking connectivity, and their product's target or presumed audience. Research projects will follow all phases of the software development life-cycle: planning, requirements analysis, design, implementation, integration, testing, deployment, and maintenance. The creation of the Knowledge Foundations course for all students will equip our students to utilize technology to organize the learning process, becoming active users with a deep knowledge base, rather than passive recipients of information. By teaching ICT Literacy skills, critical to success in the 21st century workplace, our students will learn to communicate effectively with audio, video, animation, design software tools, and a host of new environments. Students will engage in problem solving, analyze and interpret data, and understand computational modeling.

9. Which of the stated Straight A Fund goals does the proposal aim to achieve? - (Check all that apply)

Applicants should select any and all goals the proposal aims to achieve. The description of how the goals will be met should provide the reader with a clear understanding of what the project will look like when implemented, with a clear connection between the components of the project and the stated goals of the fund. If partnerships/consortia are part of the project, this section should describe briefly how the various entities will work together in the project. More detailed descriptions of the roles and activities will be addressed in Question 16.
C) SUSTAINABILITY

11. Financial Documentation: - All applicants must enter or upload the following supporting information. The information in these documents must correspond to your responses in questions 11-14.

* Enter a project budget in CCIP (by clicking the link below)
* If applicable, upload the Consortium Budget Worksheet (by clicking the link below)
* Upload the Financial Impact Table (by clicking the link below)
* Upload the Supplemental Financial Reporting Metrics (by clicking the link below)

Upload Documents
For applicants without an ODE Report Card for 2012-2013, provide a brief narrative explanation of the impact of your grant project on per pupil expenditures or why this metric does not apply to your grant project instead of uploading the Supplemental Financial Reporting Metric.

The project budget is entered directly in CCIP. For consortia, this project budget must reflect the information provided by the applicant in the Consortium Budget Worksheet. Directions for the Financial Impact Table are located on the first tab. Applicants must submit one Financial Impact Table with each application. For consortium applications, each consortium member must add an additional tab on the Financial Impact Tables. Partners are not required to submit a Financial Impact Table.

Applicants with an "Ohio School Report Card" for the 2012-2013 school year must upload the Supplemental Financial Reporting Metrics to provide additional information about cost savings and sustainability. Directions for the Supplemental Financial Reporting Metrics are located on the first tab of the document. If your organization does not have an "Ohio School Report Card" for the 2012-2013 school year, please provide an explanation in the text box about how your grant project will impact expenditures per pupil or why expenditure per pupil data does not apply to your grant project.

Educational service center, county boards of developmental disabilities, and institutions of higher education seeking to achieve positive performance on other approved fiscal measures should submit the budget information approved by an executive board or its equivalent on the appropriate tabs of the Financial Impact Table. Educational service centers should use the "ESC" tab and county boards of developmental disabilities and institutions of higher education should use the "non-traditional" tab.

12. What is the total cost for implementing the innovative project?

Responses should provide rationale and evidence for each of the budget items and associated costs outlined in the project budget. In no case should the total projected expenses in the budget narrative exceed the total project costs in the budget grid.

<table>
<thead>
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<th>1,000,000.00 State the total project cost.</th>
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* Provide a brief narrative explanation of the overall budget.

The total cost of implementing this project is $1,000,000.00. In order to provide broad and dense wi-fi coverage across our high school campus, $75,000.00 in infrastructure upgrades will be necessary. $160,000.00 will be needed to create and outfit the Telecommunications Technology Laboratory. This space will include teleconferencing and live streaming capabilities, as well as media communications apparatus and interactive presentation equipment. The Research technology laboratory, featuring the mobile and web app development equipment, will be $300,000.00 and will include the necessary specialized equipment to allow students to utilize emerging technologies. $315,000.00 will allow for the purchase of the student research technology in the Innovation, Research, and Technology Complex. Consisting of a variety of devices, including laptops and tablets, this technology will be available for students to check out for use during and after school. In order to ensure proper training for our staff on the use of the specialized equipment and how to best integrate technology into the curriculum, we will spend $75,000.00 on professional development. This investment is critical to the successful implementation of this project, as it is the quality of the teaching, not the technology, that impacts student achievement success. $50,000.00 will be used to develop and purchase the curriculum for the Knowledge Foundations course, which will be taken by all 9-12 students and will include student technology training. The final cost associated with this project implementation ($25,000.00) will be to Wright State University’s Multi-Disciplinary Evaluation Institute, who will partner with us for the grant year and the five sustainability years.

13. Will there be any costs incurred as a result of maintaining and sustaining the project after June 30th of your grant year?

Sustainability costs include any ongoing spending related to the grant project after June 30th of your grant year. Examples of sustainability costs include annual professional development, equipment maintenance, and software license agreements. To every extent possible, rationale for the specific amounts given should be outlined. The costs outlined in the narrative section should be consistent and verified by the financial documentation submitted and explained in the Financial Impact Table. If the project does not have sustainability costs, applicants should explain why.

Yes - If yes, provide a narrative explanation of your sustainability costs as detailed in the Financial Impact Table in the box below.

There are minimal recurring costs associated with this project. On-going maintenance, repairs and replacement costs for the new technology equipment within the Innovation, Research, and technology Complex is estimated to total $20,000.00 annually during the first two years of the sustainability period. During the third, fourth, and fifth years of sustainability period, we expect to replace a small percentage of the technology initially purchased with grant funds due to normal wear and tear. This is estimated to increase recurring costs by $50,000.00 during the last three years of the sustainability period, making the sustainability costs $70,000.00 annually. Total recurring costs, across all five sustainability years, will be $250,000.00.

No - If no, please explain why (i.e. maintenance plan included in purchase price of equipment) in the box below.

14. Will there be any expected savings as a result of implementing the project?

Yes

No

Applicants with sustainability costs in question 13 or seeking to achieve significant advancement in spending reductions in the five-year forecast must address this response. Expected savings should match the information provided by the applicant in the Financial Impact Table. All spending reductions must be verifiable, permanent, and credible. Applicants may only respond "No" if the project will not incur any increased costs as a result of maintaining and sustaining the project after June 30th of your grant year. The Governing Board will use the cost savings as a tiebreaker between applications with similar scores during its final selection process. Cost savings will be calculated as the amount of expected cost savings less sustainability costs relative to the project budget.
173,100.00 If yes, specify the amount of annual expected savings. If no, enter 0.

If yes, provide details on the expected savings (i.e., staff counts and salary/benefits, equipment to be purchased and cost, etc.). If no, please explain.

Through implementation of this project, we anticipate a savings of $173,100.00 annually. The savings will come from a permanent reduction in intervention materials and supplies ($8,500.00), which is anticipated as a result of the increased digitalization of the instructional process, a reduction in the current high school technology equipment purchases ($149,000.00), which are being replaced by the newer, more specialized equipment through this grant, and the elimination of support printing costs ($15,600.00) due to the improved district efficiencies. These reductions will result in an $865,500.00 reduction to the five year forecast over the course of the five-year sustainability period.

15. Provide a brief explanation of how the project is self-sustaining.

All Straight A Fund grant projects must be expenditure neutral. For applications with increased ongoing spending as documented in question 11-14, this spending must be offset by expected savings or reallocation of existing resources. These spending reductions must be verifiable, permanent, and credible. This information must match the information provided in your Financial Impact Table. Projected additional income may not be used to offset increased ongoing spending because additional income is not allowed by statute. Please consider inflationary costs like salaries and maintenance fees when considering whether increased ongoing spending has been offset for at least five years after June 30th of your grant year. For applications without increased ongoing spending as documented in questions 11-14, please demonstrate how you can sustain the project without incurring any increased ongoing costs.

For educational service centers and county boards of developmental disabilities that are members of a consortium, any increased ongoing spending at the educational service center or county board of developmental disabilities may also be offset with the verifiable, permanent, and credible spending reductions of other members of the consortium. This increased ongoing spending must be less than or equal to the sum of the spending reductions for the entire consortium.

Explain in detail how this project will sustain itself for at least five years after June 30th of your grant year.

This project is self-sustaining because it contains very few recurring costs. The savings accrued from the permanent reductions to the five year forecast ($173,100.00 annually, $865,500.00 across the five year sustainability period), significantly exceeds the recurring costs associated with the project ($20,000.00 the first two years of sustainability and increasing to $70,000.00 for the remaining three years of sustainability), ensuring that the district can sustain the project. The total cost of program implementation for our district during the initial grant year and the five years of the sustainability period is $1,250,000.00, including the $1,000,000.00 requested from the grant. The total savings as a result of reductions implemented to support this project proposal are $865,500.00. In each of the five years of the grant’s sustainability period, the expected annual savings are greater than the district’s recurring costs for maintaining the project. We anticipate a net savings to our district of $615,500.00 over the course of the grant's five-year sustainability period, with the net amount saved decreasing during the last three years of the sustainability period, as we begin to replace equipment. The grant funding will pay for all costs associated with the initial implementation. The Sustainability Year 1 net savings are $153,100.00; Sustainability Year 2 savings is $153,100.00; Sustainability Year 3 savings is $103,100.00; Sustainability Year 4 savings is $103,100.00; Sustainability Year 5 savings is $103,100.00. The specific expenditure reductions include the following: 3.03 (Purchased Services) from the elimination of support printing costs, 3.04 (Supplies and Materials) from the reduction in intervention materials and supplies, and 3.05 (Capital Outlay) from the reduction in high school stationary technology hardware. By making such significant savings reductions to our Five-Year Forecast, we will be able sustain this grant beyond the required five-year sustainability period. The costs and savings information is available in the supporting financial documents.

D) IMPLEMENTATION - Timeline, scope of work and contingency planning

16. Please provide a brief description of the team or individuals responsible for the implementation of this project, including other consortium members and/or partners.

This response should include a list of qualifications for the applicant and others associated with the grant. If the application is for a consortium or a partnership, the lead should provide information on its ability to manage the grant in an effective and efficient manner. Include the partner/consortium members’ qualifications, skills and experience with innovative project implementation and projects of similar scope.

Enter Implementation Team information by clicking the link below:

Add Implementation Team

For Questions 17-19 please describe each phase of your project, including its timeline, scope of work, and anticipated barriers to success.

A complete response to these questions will demonstrate specific awareness of the context in which the project will be implemented, the major barriers that need to be overcome and the time it will take to implement the project with fidelity. A strong plan for implementing, communicating and coordinating the project should be outlined, including coordination and communication in and amongst members of the consortium or partnership (if applicable). It is recognized that specific action steps may not be included, but the outline of the major implementation steps should demonstrate a thoughtful plan for achieving the goals of the project. The time line should reflect significant and important milestones in an appropriate and reasonable time frame.

17. Planning - Activities prior to the grant implementation

* Date Range02/2014 - 09/2014

* List of scope of work (activities and/or events including project evaluation discussions, communication and coordination among entities).

At a March, 2014 Community Forum, our stakeholders clearly identified a need for our students to utilize technology to develop critical and creative thinking skills, collaborate, and communicate. Said one, “mastery of basic skills, communication, and self-motivation are important for success, but being ‘digitally literate’ and understanding the diverse global economy in which we function is essential in today’s world.” Additional necessary skills identified: “effectively use, search, and find connections in the mass of available information,” “be digitally literate,” “ability to use [the] most recent technology available,” and “computer application and programming skills.” We lack the necessary equipment
and specialized training to prepare our students for their choice of post-secondary pursuits by providing advanced technology tools and resources. The creation of the IRTC will deepen our student's science knowledge and also increase their 21st century skills and college and career readiness levels. From February to September 2014, we will complete the technology infrastructure planning process. During this time we will consult with the district Technology Director about necessary infrastructure upgrades for the Innovation, Research, and Technology Complex and finalize the infrastructure upgrade. From August 2013 to February 2014, the District and Building Technology Committee will research specialized technology equipment and resources and in September will finalize the plans to purchase the specialized technology equipment and resources and will then create a communication plan to share the selected resources with all stakeholders. From August to September 2014 we will create PD plans for training teachers, staff, students, and community members on how to utilize the components of the Innovation, Research, and Technology Complex. A communication plan will be created to ensure all stakeholders are aware of the training opportunities.

18. Implementation - Process to achieve project goals

* Date Range 10/2014 - 06/2015

* List of scope of work (activities and/or events, including deliverables, project milestones, interim measurements, communication, and coordination).

The grant implementation has 3 workstreams: technology infrastructure upgrades; acquisition of specialized technology equipment and resources; and PD for students, teachers, and community members. Each will have three phases: Planning, Implementation, and Measuring Results. The key stakeholders for each workstream are: 9-12 students, teachers, principals, parents, community members, Curriculum & Special Education Departments, and the Superintendent. For each workstream we have milestones with a designated deadline to ensure successful implementation. Please see the supplemental "Implementation Plan" document. From October 2014 to May of 2015, we will complete the installation of infrastructure components. We will complete the upgrades prior to May 2015. From October 2014 to February 2015 we will create the course of study documents for existing technology courses and the new Knowledge Foundations courses. In February, we will purchase the specialized technology equipment and resources, making them available to teachers and students as soon as possible. We will evaluate the comprehensiveness of our equipment and resources in May 2015. Beginning in September 2014, we will provide PD to teachers in committee, staff, department, and curriculum meetings. During the second semester of the 2014-2015 school year, students will begin to receive training on the new equipment. Community members will have special workshops on the new technology equipment and laboratories in May and June 2015. In June 2015, a Technology Impact Study will be conducted.

* Anticipated barriers to successful completion of the planning phase.

The largest barrier to the planning process of this grant will be our ability to complete all tasks within the defined time period. Because of the extensive nature of this grant, including the professional development associated with the success of the grant, there is a limited amount of time that can be devoted to planning before implementation must begin. We will mitigate this barrier by working closely with our teachers and technology staff to ensure that the planning process is thorough and efficient.

19. Summative Evaluation - Plans to analyze the results of the project

* Date Range 06/2014 - 08/2015

* List of scope of work (activities and/or events, including quantitative and qualitative benchmarks and other project milestones).

Our summative evaluation will occur at the end of the first year of the Sustainability Period. This will allow us to see the initial impact of the grant on student achievement and to identify any necessary adjustments that should occur. We will contract with Wright State University's Multi-Disciplinary Evaluation Research Team to survey our stakeholders in order to collect both qualitative and quantitative data about the implementation. This evaluation will draw on a wide variety of data for both formative and summative reports. Quantitative data (standardized test results) will be used in conjunction with questionnaire and observation data, as well as with qualitative data (curriculum materials, PD records) to ensure a thorough and balanced evaluation. The surveys will collect data on student achievement, student engagement, student/teacher comfort and aptitude with technology, utilization of specialized equipment, and changes in instructional practices. We will then conduct a thorough analysis of all student achievement data, including End-of-Course Exams, SLO assessments, classroom assessments, and SAT scores. We will look at this data from the district, building, teacher, and student level in order to develop a full perspective of the impact on student achievement from the implementation of this project. Summative evaluations will continue to occur on an annual basis through year 5 of the grant's Sustainability Period, to ensure we are continuing to meet the project goals.

* Anticipated barriers to successful completion of the summative evaluation phase.

The largest anticipated barrier for the summative evaluation of this project is the time-intensive nature of developing, collecting, and analyzing the qualitative and quantitative data. We will mitigate this barrier by working closely with our partner organization, Wright State University, throughout the sustainability period.

20. Describe the expected changes to the instructional and/or organizational practices in your institution.

* The response should illustrate the critical instructional and/or organizational changes that will result from implementation of the grant and the impact of these changes. These changes can include permanent changes to current district processes, new processes that will be incorporated or the removal of redundant or duplicative processes. The response may also outline the expected change in behaviors of individuals (changes to classroom practice, collaboration across district boundaries, changes to a typical work day for specific staff members, etc.). The expected changes should be realistic and significant in moving the institution forward.

Please enter your response below:

Upon implementation of this project, significant changes in instructional design and practices will occur. Full implementation of this grant will
Therefore, the questions focus on the method of defining the problem(s) the project hopes to solve and the measures that will determine if the problem experiences of all of our students. By differentiating the utilization methods, all students will benefit from advanced technology and instruction. This innovative approach to technology integration will change instruction from being limited to traditional methodologies into authentic, research-based learning experiences in which students design and conduct research that contributes to the body of knowledge within the various courses offered within the high school. The shift toward research, technology-based experiences will challenge our technology and classroom teachers to change their instructional methodologies to be differentiated and more student-centered than they have been able to facilitate within our existing computer labs. Additionally, we anticipate an increased level of collegiality and collaboration to occur between members of our teaching staff and community/business leaders as they work together to design, develop, and implement the new technology. Students will experience a significant increase in the research, reading, and writing expectations within all courses. They will utilize critical thinking, creative problem solving, collaboration, and effective communication skills in order to develop, implement, analyze, and report the findings of their research. For this initiative, we will support our students by scaffolding instructional processes and providing additional technology support outside of the school day, as necessary.

E) SUBSTANTIAL IMPACT AND LASTING VALUE - Impact, evaluation and replication

The responses in this section are focused on the ability to design a method for evaluating the project's capacity for long-term sustainable results. Therefore, the questions focus on the method of defining the problem(s) the project hopes to solve and the measures that will determine if the problem (s) have been solved.

21. Describe the rationale, research or past success that supports the innovative project and its impact on student achievement, spending reduction in the five-year fiscal forecast or utilization of a greater share of resources in the classroom.

The response should provide a concise explanation of items which provide rationale that will support the probability of successfully achieving the goals of the project. Answers may differ based on the various levels of development that are possible. If the proposal is for a new, never before implemented project, the response should provide logical, coherent explanations of the anticipated results based on some past experience or rationale. For projects that have been implemented on a smaller scale or successfully in other organizations, the response should provide the quantifiable results of the other projects. If available, relevant research in support of this particular proposal should also be included.

Please enter your response below.

Research strongly supports to integration of technology into the educational environment. To be competitive, it is critical that schools deliver advanced technology tools to encourage sustained engagements and to give today's students and faculty the tools they need to be successful (Jenzabar, 2010). The integration of technology into education has broad-based positive outcomes in terms of financial savings, academic achievement for students, and improved efficiencies for the educational system as a whole (Greaves, et al., 2012). Educational technology has demonstrated a significant positive effect on achievement within all major subject areas and for both regular and special needs students and are recommended for wide and consistent practice (Greaves, Hayes, Wilson, Gielenia, & Peterson, 2012; Software & Informational Industry Association, 2000). Research specific to student-centered learning indicates that technology can: help diagnose and address the individual needs of students, equip students with skills essential for work and life in the 21st century global society, and provide an active learning experience for students (Nellie Mae Educational Foundation, 2011). Effective technology integration improves writing skills, digital technology skills, and increases student engagement in school, including student persistence on tasks (Fleisher, 2012; Zucker & Light, 2009). By engaging students in technology-infused, rigorous, complex, and increasingly self-directed learning, they master more challenging content while developing the skills and behaviors necessary for the 21st century (Nellie Mae Educational Foundation, 2014).

Through the use of advanced computing and telecommunications technology, learning is qualitatively different. The process of learning in the classroom becomes significantly richer as students have access to new and different types of information, can manipulate it on the computer and can communicate their conclusions in a variety of ways (Rogers, 2013). Digital literacy is essential for participating in today’s global, knowledge-based economy (US Department of Education, 2010; Wardschauer & Matuchniak, 2010). Digital technologies can support students learning by extending the repertoire of teachers and informing their teaching strategies (Lee & Gaffney, 2008). The creative use of technology engages students and develops an excitement about learning in ways that traditional teaching techniques are capable of doing (Aspen Institute, 2013). The US Department of Education (2010) has called for revolutionary transformation rather than evolutionary tinkering. Infusing technology into educational opportunities creates engaging and empowering learning experiences for all learners. It brings state-of-the-art technology into learning to enable, motivate, and inspire all students, regardless of background, languages, or disabilities, to achieve. Reductions related to the IRTC, as well as additional district-wide reductions, outlined in our supporting financial documents and the FIT, enabled us to evaluate our current financial practices and eliminate spending on unnecessary materials to shift a greater share of resources into the hands of our students, preparing them for OACS, CCSS, College and Career Readiness, and 21st Century Skills.

22. Describe the overall plan to evaluate the impact of the concept, strategy or approaches used in the project.

This plan should include the methodology for measuring all of the project outcomes. Applicants should make sure to outline quantitative approaches to assess progress and measure the overall impact of the project proposal. The response should provide a clear outline of the methods, process, timelines and data requirements for the final analysis of the project's progress, success or failure. The applicant should provide information on how the lessons learned from the project can and will be shared with other education providers in Ohio.

* Include the name and contact information of the person who will be responsible for conducting the evaluation and whether this will be an internal or external evaluation.

External Lead Evaluator: Dr. Carl Brun Wright State University 225 Millet Hall 3640 Colonel Glenn Highway Dayton, Ohio 45435-0001 (937) 775-2382 Carl.brun@wright.edu Internal Lead Evaluator: Dr. Susan Hayward Beavercreek City Schools 3040 Kemp Road Beavercreek, Ohio 45431 (937) 458-2417 Susan.Hayward@Beavercreek.k12.oh.us

* Include the method by which progress toward short- and long-term objectives will be measured. (This section should include the types of data to be
We are partnering with the Wright State University Multidisciplinary Evaluation Group to conduct quantitative and qualitative evaluation benchmark research. Quantitative data on achievement will be collected from standardized tests (OGT, SAT, AP, IB). This data will be compared to data from recent cohorts that did not utilize the new technology. Two-sample t-tests will be used to evaluate whether mean differences in scores are statistically significant. The evaluators will use a quasi-experimental design. A regression model will predict SAT and GPA scores using previous cohorts scores, after testing for collinearity between these measures. Outcomes will be compared using a paired sample t-test to determine if the outcomes from the technology differed significantly from those of traditional models. Propensity scores will be developed for each student from the comparative sample and each student will be matched to a student from the traditional schools with the same propensity score. Test scores would be compared using a paired sample t-test to determine if the grant outcomes differed significantly. Student engagement will be measured using surveys adapted from IPI. Internal consistency of these surveys will be tested using Cronbach’s alpha for reliability. Surveys will be compared to previous years’ surveys using Kolmogorov-Smirnov tests. Data from these surveys will be compared to the SAT scores using partial correlation coefficients to determine if there is a statistically significant relationship. Student motivation will be measured using the Academic Motivation Scale, which has been shown to be time- and gender-invariant with strong reliability and internal consistency. Surveys will be compared to previous years’ surveys to determine if Schools of Learning increase students’ motivation over time. Kolmogorov-Smirnov tests will be used to ascertain if these differences are statistically significant.

* Include the method, process and/or procedure by which the project will modify or change the project plan if measured progress is insufficient to meet project objectives.

If analysis of our evaluative data reveals ineffectiveness within our implementation process, we will modify our implementation methodologies. This may include necessary changes in the professional development opportunities provided for teachers and staff in order to ensure that student achievement is being attained. For example, further, purposeful professional development on how to utilize the available technology tools within individual academic disciplines may be necessary. We do not anticipate an inability to achieve the reduction in the five year forecast because we have a district commitment to implement the identified reductions with fidelity. By implementing the grant as outlined in this application, we are assured to have an increased share of resources available to our students.

23. Describe the substantial value and lasting impact which the project hopes to achieve.

The response should provide specific quantifiable measures of the grant outcomes and how the project will lead to successful attainment of the project goals. Applicants should describe how the program or project will continue after the grant period has expired.

Please enter your response below.

Through the implementation of the Innovation, Research, and Technology Complex, we hope to create a school culture dedicated to promoting authentic and relevant technology integration. We expect significant, quantifiable growth in individual student achievement in each 9-12 student. This will be evidenced by beginning and end of year assessments, End of Course Exams, PSAT, SAT, ACT, and PARCC assessments, and student, parent, and teacher surveys. Through this project, we will measure the impact of technology-infused instructional methodologies using multiple methods throughout the school year. Results will be analyzed twice a year for each student by annually analyzing fall to spring test results on standardized and locally-developed assessment results for gains. Assessment tools created through our partnership with Wright State University’s Multidisciplinary Evaluation Institute will be utilized for determining students’ engagement and achievement growth. Additionally, Student, Parent, and Teacher surveys will provide qualitative supporting evidence of the lasting impact on student achievement and the effect of increased resources to the classroom. These surveys will also provide quantifiable evidence of lasting changes in instructional design and delivery. We will continue the educational and financial investment of this project beyond the 5-year sustainability period because research states that meeting the needs of individual student achievement is the best instructional methodology. Foundational educational research clearly identifies individualizing the instructional process for students leads to increased student achievement, motivation, and engagement (Bandura, Bloom, Dewey, Reis, Tomlinson, and Vygotsky). The project framework identified within this grant proposal will allow us to continue implementing this educational initiative with fidelity. We also understand that as new educational technology delivery methodologies emerge, we will need to adapt our framework to capitalize on new opportunities.

24. Describe the specific benchmarks, by goal as answered in question 9, which the project aims to achieve in five years. Include any other anticipated outcomes of the project that you hope to achieve that may not be easily benchmarked.

The applicant should provide details on the quantifiable measures of short- and long-term objectives that will be tracked and the source of benchmark comparative data points. Responses should include specified measurement periods and preliminary success points that will be used to validate successful implementation of the project. If a similar project has been successfully implemented in other districts or schools, identification of these comparable benchmarks should be included.

* Student Achievement

We expect to demonstrate significant growth in individual student achievement in all content areas. We will evaluate this on an annual basis beginning at the end of the first year of implementation and will continue our evaluation procedures throughout the sustainability period. We expect students to show growth in their ability to access and evaluate information, use and manage information, analyze media, create media products, and apply technology effectively within each course they take. This will be measured using the following assessment tools: writing rubrics, formative and summative assessments, and surveys. Additionally, technology "sign-out" data will provide specific information related to students' motivation and engagement with the technology resources within the Innovation, Research, and Technology Complex. Student, Parent, and Teacher surveys will provide qualitative supporting evidence of the lasting impact on student achievement and the effect of increased resources to the classroom. These surveys will also provide quantifiable evidence of lasting changes in instructional design and delivery. Our district will complete an Impact Study of the Innovation, Research, and Technology Complex with two primary objectives: to gain a deeper understanding of how the Innovation, Research, and Technology Complex helps students learn, and to assess how the Innovation, Research, and Technology Complex assists teachers in their teaching and research activities. Separate surveys will be created for teachers, students, and community members to evaluate the utilization of technology resources, advancement of 21st Century Skills, the deepened understanding of content and process, empowered teaching and learning, and the networking and learning partnerships of students and teachers.
Spending Reduction in the five-year forecast
We expect annual spending reductions in the Five-Year Forecast of $173,100.00. We will evaluate our progress at two points in time: January and June. We will track this through a district-created Straight A Grant Financial Score Card. On the Score Card, we will have a list of all reduction items. We will use the Score Card to verify that all identified reductions for the grant are on target for reduction. We will involve a committee comprised of representative key stakeholders who will evaluate the short and long term benchmarks, ensuring compliance with the Straight A Grant.

Utilization of a greater share of resources in the classroom
We expect a greater share of resources to be in the hands of our students through the implementation of this grant. We will evaluate our progress toward this goal at two points in time: January and June. We will track this through collaboration between the High School Building Leadership Team, the Curriculum Department, and the Treasurer's Department. As a team, they will evaluate the level of increased efficiency of our spending to ensure we are providing our classrooms with a greater share of resources and are in compliance with the Straight A Grant.

Implementation of a shared services delivery model

Other Anticipated Outcomes
Additionally, we hope to observe other key program outcomes which may or may not be easily measured. We expect to have increased student engagement bolstered by the technology-infused environment, before and after-school access to the Innovation, Research, and Technology Complex, and unlimited virtual access to digital resources. We also expect increased teacher comfort/aptitude with digital literacy in all content areas. We expect research and instructional practices to change as teachers gain familiarity with these tools.

25. Is this project able to be replicated in other districts in Ohio?

Yes

No

If the applicant selects "Yes" to the first part of the question, the response should provide an explanation of the time and effort it would take to implement the project in another district, as well as any plans to share lessons learned with other districts. To every extent possible, applicants should outline how this project can become part of a model so that other districts across the state can take advantage of the learnings from the proposed innovative project. If there is a plan to increase the scale and scope of the project within the district or consortium, it should be included here.

* Explain your response

Our model for implementation can be fully replicated by districts. We will provide access to our working documents and grant proposal research and data, enabling any building or district to apply our processes to meet the needs of their own student population. Full access to a site visit with our grant writing team, administration, teachers, and parents would also be made available to those interested in replicating our project. In order to replicate our process, a school or district would need to research our proposal and identify their own technology capabilities, hardware and software resources, stakeholder interest, financial sustainability, and district-level commitment to the initiative. Our project implementation timeline would provide districts with the necessary framework to adapt the process to the scale of any building or district. At this time, we do not intend to increase the scope and scale of this project.

By virtue of applying for the Straight A Fund, all applicants agree to participate in the overall evaluation of the Straight A Fund for the duration of the evaluation time frame. The Governing Board of the Straight A Fund reserves the right to conduct an evaluation of the project and request additional information in the form of data, surveys, interviews, focus groups and other related data on behalf of the General Assembly, Governor and other interested parties for an overall evaluation of the Straight A Fund.

PROGRAM ASSURANCES: I agree, on behalf of this applicant, and any or all identified consortium members or partners, that all supporting documents contain information approved by a relevant executive board or its equivalent and to abide by all assurances outlined in the Straight A Assurances (available in the document library section of the CCIP).

I accept William McGlothlin, Ed.D. Superintendent, Beavercreek City Schools April 15, 2014
I accept Ernie Strawser Interim Treasurer, Beavercreek City Schools April 15, 2014
I accept Susan Hayward, Ph.D. Director of Curriculum, Beavercreek City Schools April 15, 2014
Consortium Contacts

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**Mr. Martin** has been in education over 20 years. He has been a classroom teacher and an assistant principal.

**Mr. Whitaker** has been in education over 10 years. He has been a classroom teacher and an assistant principal.

**Dr. McGlothlin** has been in education for over 30 years. He has been a classroom teacher, assistant principal, principal, Title I Coordinator, Special Education Director, Associate Superintendent, and Superintendent.

**Mr. Martin** has implemented programs/or served in the capacity of the following during his time as an administrator: OTES Building Committee, building level Leadership Team, district and building anti-bullying committee, Student Handbook committee, district and building Best Practices committee, Student Assistance Team, and is Ventures certified.

**Dr. McGlothlin** has managed federal and state grants at several school districts. He has implemented the following programs during his time as an administrator: received an after-school reading program grant (ILS); received an emergency repair grant (USV); and received a safety grant (ILS).

**Mr. Whitaker** has implemented programs/or served in the capacity of the following during his time as an administrator: OTES Building Committee, building level Leadership Team, building anti-bullying committee, building Best Practices committee, Student Assistance Team, Chair of the Building Safety Committee, and is Ventures certified.