

Budget

Findlay City (043984) - Hancock County - 2014 - Straight A Fund - Rev 0 - Straight A Fund - Application Number (205)

U.S.A.S. Fund #:

Plus/Minus Sheet (opens new window)

Purpose Code	Object Code	Salaries 100	Retirement Fringe Benefits 200	Purchased Services 400	Supplies 500	Capital Outlay 600	Other 800	Total
Instruction		0.00	0.00	50,000.00	195,300.00	3,906,000.00	0.00	4,151,300.00
Support Services		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Governance/Admin		0.00	0.00	100,000.00	0.00	0.00	0.00	100,000.00
Prof Development		45,500.00	7,280.00	19,636.00	0.00	0.00	0.00	72,416.00
Family/Community		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Safety		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Facilities		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transportation		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		45,500.00	7,280.00	169,636.00	195,300.00	3,906,000.00	0.00	4,323,716.00
Adjusted Allocation								0.00
Remaining								-4,323,716.00

Application

Findlay City (043984) - Hancock County - 2014 - Straight A Fund - Rev 0 - Straight A Fund - Application Number (205)

Applicants shall respond to the prompts or questions in the areas listed below in a narrative form.

A) APPLICANT INFORMATION - General Information, Experience and Capacity

1. Project Title: Findlay City Schools 21st Century Classroom Technology Initiative (FCS21CCTI)

2. Executive summary: Provide an executive summary of your project proposal and which goal(s) in question 9 you seek to achieve. Please limit your responses to no more than three sentences.

Findlay City Schools 21st Century Classroom Technology Initiative (FCS21CCTI)

4057 3. Total Students Impacted:

4. Lead applicant primary contact: - Provide the following information:

First Name, last Name of contact for lead applicant: Martin White

Organizational name of lead applicant: Findlay City Schools

Unique Identifier (IRN/Fed Tax ID): 043984

Address of lead applicant: 1100 Broad Avenue, Findlay Ohio 45840

Phone Number of lead applicant: 419-425-8227

Email Address of lead applicant: mwhite@fcs.org

5. Secondary applicant contact: - Provide the following information, if applicable:

First Name, last Name of contact for secondary applicant: N/A

Organizational name of secondary applicant: N/A

Unique Identifier (IRN/Fed Tax ID): N/A

Address of secondary applicant: N/A

Phone number of secondary applicant: N/A

Email address of secondary applicant: N/A

6. List all other participating entities by name: Provide the following information for each additional participating entity, if applicable: Mention First Name, Last Name, Organizational Name, Unique Identifier (IRN/Fed Tax ID), Address, Phone Number, Email Address of Contact for All Secondary Applicants in the box below.

N/A

7. Partnership and consortia agreements and letters of support: - (Click on the link below to upload necessary documents).

* Letters of support are for districts in academic or fiscal distress only. If school or district is in academic or fiscal distress and has a commission assigned, please include a resolution from the commission in support of the project.

* If a partnership or consortium will be established, please include the signed Straight A Description of Nature of Partnership or Description of Nature of Consortium Agreement.

UploadGrantApplicationAttachment.aspx

8. Please provide a brief description of the team or individuals responsible for the implementation of this project including relevant experience in other innovative projects. You should also include descriptions and experiences of partnering entities.

The team responsible for the implementation of this project include: Martin White, Director of Information Technology, Rich Steiner, Director of Secondary Instruction and Stephanie Roth, Director of Elementary Instruction. Mr. White has over 15 years in IT managing projects from rolling out desktops to managing a 6 year, \$6.5 million SCT Banner install. Mr. Steiner has 37 years experience in education and has served as a superintendent of schools for 14 years, implementing numerous projects including the complete technology retooling of the district he previously served. Ms. Roth is in her 22nd year of education and has implemented numerous curriculum initiatives, led the accountability and change processes for FCS including OIP and Race to the Top, and currently manages all of the federal grant dollars for the district. FCS has 22 consecutive years of clean audits and has received accolades for its fiscal reporting. FCS has proven itself in its ability to implement a variety of grant-based initiatives, most recently the RitT grant.

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

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

Student achievement

Spending reductions in the five-year fiscal forecast

Utilization of a greater share of resources in the classroom

10. Which of the following best describes the proposed project? - (Select one:)

New - never before implemented

Existing and researched-based - never implemented in your district or community school but proven successful in other educational environments

Mixed Concept - incorporates new and existing elements

Enhancing/Scale Up - elevating or expanding an effective program that is already implemented in your district, school, or consortia partnership

11. Describe the innovative project.

FCS21CCTI is a fundamental shift of instructional models with the goal of accelerating learning and preparing students for college and/or 21st Century careers. FCS' goal is to fully incorporate instructional technology into the classroom and structure of the system to improve student achievement, utilize a greater share of resources in the classroom and reduce overall expenditures. To accomplish these goals FCS will implement projects in the following areas: -6th-8th Grade 1:1 Technology: This component gives students a mobile device to use in classes and at home to further their learning opportunities. The infrastructure in place allows students to bring their own device (BYOD); therefore, students have a network device in all content areas. -Increase technology access at the 3rd-5th level: Laptop carts and/or classroom sets of iPads will be purchased to ensure adequate access in every 3rd -5th classroom. Increasing technology access at the 3rd -5th level will better prepare students for the 1:1 access at the middle school, allow practice in the technology skills needed to be successful on the new assessments and allow for models of blended learning to begin at a younger age. -Blended Learning Model (BLM) 3rd -12th: Blended learning is flexible and comes in many shapes and sizes. The FCS21CCTI allows 3rd -12th students to experience multiple modes of instructional delivery throughout their educational careers. In grades 3rd-5th blended learning will include station rotation and the flipped classroom will be implemented in grades 6-8. Flipped classrooms will allow students 6th-8th the benefit of content delivery primarily online with support, practice and deepening of understanding done on classroom time. At Findlay High School (FHS), some academic courses will use the flex and self-blend models where content and instruction are delivered primarily through the Internet with a teacher of record. This method will allow a teacher to provide instruction to multiple sections/courses beyond a standard teaching load. -Middle School STEM Equipment for Science Classrooms: Investing in equipment such as Vernier Probes, Lego Kits, weather stations, digital scales, document cameras, response systems, teleconference equipment, mobile devices, is needed in order to provide a hands-on inquiry based approach to fully understand scientific concepts and to analyze real data. PD in integrating such equipment into instruction is required to get the program to the next level. -Professional Development (PD): FCS 3rd-12th teachers will receive professional development to increase their skills in 21st Century technology and learning. We will provide a 21st Century Academy in June of 2014 with a focus on blended learning, flipped classrooms and meaningful integration of technology in the classroom. -Fiber Optic Network: The district will install FCS owned private fiber optic cable to all of its buildings resulting in a \$9100 per month savings. This would give the greatest amount of flexibility in providing the fastest and most reliable data network to all of our classrooms. -Virtual Desktop Infrastructure: The district shall implement a Virtual Desktop Infrastructure (VDI), based on VMware's software and recommended architecture. This infrastructure consists of server/thin client model replacing the standard desktop structure and will provide significant cost savings over time. -Expanded BYOD (Bring Your Own Device): With full implementation of a virtual desktop infrastructure the district can move to an expanded BYOD process. This would allow teachers to purchase a laptop of their choosing every 6 years. When they connect to the district from home or at work they would receive the district's desktop image with all of the software that they need for their classrooms. This move will reduce service, maintenance,

and personnel costs.

12. Describe how it will meet the goal(s) selected above. - If school/district receives school improvement funds/support, include a brief explanation of how this project will advance the improvement plan.

Increase Student Achievement- 1:1 access has been shown to improve student achievement. 1:1 computing initiatives point to improvement in student attendance, engagement, academic rigor, individualized instruction, and adequate yearly progress (AYP) goals. Research indicates that increased access to classroom technology aligned with high quality PD results in improved student achievement that would be beyond implementation of one or the other alone. Having increased access will better prepare FCS students for Next Generation assessments. Research suggests that blended learning opportunities have a meaningful impact on students' academic achievement and retention. Blended learning activities can be more advantageous than face-to-face learning by providing more consistent learning. Students also report preferring the blended learning approach as classroom time was reduced. Studies of blended learning approaches have also shown that various models have proven to reduce faculty time, re-focus student time and to admit more students to a given academic program. The investment in middle school lab and technology equipment will improve student engagement both in the classroom and at home through hands-on inquiry based learning, flipping the classroom, real life research and problem solving, etc. Increased student engagement and ownership of the learning has been proven to increase student achievement. Increased scores on the 8th OAA and eventually Next Generation assessments will result from the integration of the equipment in classroom instruction. Increase Equity of Access to Technology and Utilization of a Greater Share of Resources in the Classroom- Components of the FCS 21st Century Classroom Technology Project will increase equity for FCS students by providing technology and resources without regard to socio-economic status and home access. 1:1 computer distribution bridges the gap of socio-economic status. The virtual desktop environment ensures universal access to the same software for all students regardless of socio-economic status. Expanding the BYOD allows for the reduction of technology support staff resulting in a savings of approximately \$73,000 a year. Implementation of the VDI project allows the district to save over \$200,000 per year in equipment replacement costs. Completion of the fiber optics project, again allows savings of \$109,200 a year. These financial savings will be redirected to support technology implementation in the classroom. Spending Reductions in the Five Year Fiscal Forecast- A significant reduction in spending will occur through FCS21CCTI. BLM will lead to greater utilization of resources in that students can receive instruction online and have a teacher as a facilitator rather than a full time instructor. This could result in cost savings by utilizing one teacher in multiple courses. BLM also can more effectively meet the needs of students by allowing for course offerings where there would normally be a small number of students and limited availability of staff to teach the course. In addition to the reallocation of funds mentioned above, implementing the VDI project will result in savings in electrical costs by reducing our electrical usage by 577kWh. Expanding BYOD will save the district the laptop replacement costs we currently expend. BLM and courses offered on line will result in savings for the district in that at least one Full Time Equivalent (FTE) could be eliminated. After the installation of the fiber optic network, technology can become a profit center as it leases dark fiber to Findlay City and Hancock County institutions in the area. With implementation of all components, we estimate a reduction in overall expenditures in the five-year forecast to be \$1,162,969 per year, with a total over five years of \$5,814,845.

C) SUSTAINABILITY - Planning for ongoing funding of the project, cost breakdown

13. Financial Documentation - All applicants must enter or upload the following supporting information. Responses should refer to specific information in the financial documents when applicable:

a. Enter a project budget

b. Upload the Straight A Financial Impact Template forecasting the expected changes to the five-year forecast resulting from implementation of this project. If applying as a consortia or partnership, please include the five-year forecasts of each school district, community school or STEM school member for review.

c. If subsection (b) is not applicable, please explain why, in addition to how the project will demonstrate sustainability and impact.

N/A

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

4,693,716.00 * Total project cost

* Provide a brief narrative explanation of the overall budget. The narrative should include the source and amount of other funds that may be used to support this concept (e.g., Title I funding, RttT money, local funding, foundation support, etc.), and provide details on the cost of items included in the budget (i.e. staff counts and salary/benefits, equipment to be purchased and cost, etc.).

The total cost of FCS21CCTI is \$4,693,716. FCS has committed \$370,000 toward VDI, therefore FCS is requesting the grant funds in the amount of \$4,323,716. Details: -1:1 Technology 6th- 8th: 1300 students x \$800/mobile device= \$1,040,000 (instructional capital outlay) -Increased Access 3rd thru 5th: 36 classroom sets of 25 mobile devices x \$800/device and cart @ \$2,000/cart = \$792,000 (instructional capital outlay) -BLM/Learning Management System initial set up cost- Blackboard, Desire2Learn, or Educator: \$50,000 (instructional purchased services) -Middle School Science Equipment: all equipment divided between two middle school buildings and 6 science classrooms per building = \$195,300 (instructional supplies) Vernier Probes- \$85,000 Lego Kits- \$10,800 Weather Stations- \$3,500 Digital Scales- \$20,000 Microscopes and Cameras- \$30,000 Document Cameras- \$13,000 Centeo System- \$23,000 Teleconference Equipment- \$10,000 -Professional Development- \$116,416 total for 21st Century Academy and Middle School Science PD 21st Century Academy- \$101,416 which includes: -55 participants @ \$812/person (PD salaries and fringes) -1 facilitator @ \$2,900 (PD salaries and fringes) -56 participants 1 day e tech conference @ \$176/person (PD purchased services) -1 mobile device per participant @ 800/device= \$44,000 (instructional capital outlay) Middle School Science- \$15,000 which includes: -9 participants @ \$580/person (PD salaries and fringes) -vendor facilitated PD \$9,780 (PD purchased services) -Fiber Optics Cable and Installation- 144 strand fiber optic cable, permits, labor, etc.- \$1,300,000 (instructional capital outlay) *This is the estimated total cost of the fiber optic project. While we have tentatively placed this total amount in capital outlay, we recognize that a portion of this total will need to be reallocated to purchased services, based on final design. Since this component requires significant planning the expenditures cannot be accurately budgeted prior to grant allocations being available to move forward. -Virtual Desktop Infrastructure- \$1,100,000 of which FCS has committed \$370,000= \$730,000 requested from grant (instructional capital outlay) Servers- \$385,640 Software- \$370,000 (FCS commitment) Switching and Storage Equipment- \$344,360 -Grant Administration (GA) and Implementation Manager/Evaluator (IM)- \$100,000 (governance/admin purchased service)

15. What new/recurring costs of your innovative project will continue once the grant has expired? If there are no new/recurring costs, please explain why.

385,250.00 * Specific amount of new/recurring cost (annual cost after project is implemented)

* Narrative explanation/rationale: Provide details on the cost of items included in the budget (i.e. staff counts and salary/benefits, equipment to be purchased and cost, etc.). If there are no new/recurring costs, please explain why.

-1:1 6th thru 8th grade- \$800/device x 440 students= \$352,000/year -LMS yearly maintenance- \$5,000 -Fiber optic network maintenance- anticipated \$10,000/year -VDI licensing- \$13,250/year

16. Are there expected savings that may result from the implementation of the innovative project?

669,979.00 * Specific amount of expected savings (annual)

* Narrative explanation/rationale: Provide details on the anticipated savings (i.e. staff counts and salary/benefits, equipment to be purchased and cost, etc.).

The FCS21CCTI will result in an expected annual savings, not including the anticipated effect on enrollment, of \$669,979. Details: -Reduce FTE through BLM- \$73,000/year -VDI (not replacing equipment yearly)- \$340,000/year -VDI- 577kWh x .06 cents per kWh x 8 hours per day x 270 days = \$74,779/year -Reduction of IT personnel (through Expanded BYOD and VDI)- \$73,000/year -Fiber Optics savings in AT&T lease cost- \$9,100 per month x 12 months = \$109,200/year Financial impact created by increased student enrollment- A 20% reduction of FCS students enrolling in other public schools (143 fewer students leaving) \$821,535/year -An 4% increase in number of students who enroll in FCS from other public schools (9 additional students)- \$51,705.00 -This equates to a 2% overall increase in student population.

17. Provide a brief explanation of how the project is self-sustaining. If there are ongoing costs associated with the project after the term of the grant, this explanation should provide details on the cost reductions that will be made that are at least equal to the amount of new/recurring costs detailed above. If there are no new/recurring costs, explain in detail how this project will sustain itself beyond the life of the grant.

The ongoing costs FCS21CCTI include purchasing of 1:1 equipment for students each year as they enter 6th grade. Some of the recurring cost will be offset by 8th grade students purchasing the (used) technology as they leave middle school. The BYOD has no recurring cost. BLM will result in a yearly maintenance cost of \$5,000/per year. There is a savings with BLM implementation in that we will reduce the overall FTE by at least one, resulting in a net savings of approximately \$68,000/year. VDI will result in an annual licensing fee of \$13,250/year. There is significant savings, however, in electricity costs, of \$74,779/year and equipment replacement costs of \$340,000/year. With the implementation of VDI and BYOD, a reduction of IT support personnel of one FTE is possible, which results in a yearly savings of \$73,000. The annual cost for maintaining the fiber optics network is anticipated at approximately \$10,000. However, the Fiber Optics project will save FCS \$109,200/year in leasing costs by owning the fiber network instead of leasing it through AT&T. Additionally, FCS could potentially profit from the Fiber Optic project by leasing portions of the cable to other city and/or county organizations and institutions. The total new/recurring expenses of this project total \$380,250. While VDI and Fiber Optics are self-sustaining, provided we receive funds to begin implementation, the other recurring expenses of 1:1 and BLM are only sustainable with the revenue/savings generated by the Fiber Optic Network. The total annual savings with full implementation is \$669,979. Therefore, the net savings to the district is \$289,729/year. This equates to a savings of \$1,448,645 over the five-year period. We anticipate the implementation of FCS21CCTI will have an impact on overall student enrollment. We believe that students will be less likely to open enroll to other neighboring districts, and that we will draw additional students from other districts due to the increased opportunities and access to technology and 21st century learning. If the project has the impact we expect it to have on overall student enrollment, there is a potential for increased revenue of \$873,240/ year coming into the district based on the net change in student enrollment.

D) IMPLEMENTATION - Timeline, communication and contingency planning

18. Fill in the appropriate dates and an explanation of the timeline for the successful implementation of this project. In each explanation, be sure to briefly describe the largest barriers that could derail your concept or timeline for implementation and your plan to proactively mitigate such barriers. In addition, the narrative should list the stakeholders that will be engaged during that stage of the project and describe the communication that occurred as the application was developed.

Describe the ongoing communication plan with the stakeholders as the project is implemented. (Stakeholders can include parents, community leaders, foundation support and businesses, as well as educational personnel in the affected entities.)

* Proposal Timeline Dates

Plan (MM/DD/YYYY): 12/18/2013

* Narrative explanation

The concepts of the FCS21CCTI project are leading edge, however, they are not new to FCS strategic planning. The directors and stakeholders have been discussing possibilities and implementation strategies for several years, but progress has been limited due to lack of financial resources. -Planning for the VDI, Fiber Optic network and the middle school science equipment has been occurring for the last three years. VDI is in place at middle schools and discussions about expansion district wide are ongoing. -Planning for 1:1 Technology, increasing access 3rd-5th, and BLM will include identifying vendors and soliciting proposals in Jan-Feb. Discussions will take place with principals, directors and teaching staff to determine current needs of each building and hardware needed. Directors will collaborate with FHS to determine the course(s) to include and evaluate blended learning models and determine the delivery model that best fits the needs of FCS. In May 2014, parents will be notified of the middle school 1:1, and the high school BLM opportunity(s) that will be afforded. Equipment will be purchased by June 1, 2014 and prepared for the 2014-15 school year. -Planning for the science equipment will be done by Jan 2014. Principals, middle school science teachers, and directors will collaborate on equipment to be purchased. Proposals from vendors will be solicited in early January and equipment purchased by June 30th in preparation for the 2014-15 school year. Discussions will take place with principals, directors, and teachers to determine current PD needs of the district as it relates to 21st century learning. Training plans and recommendations will be made in Jan 2014. Proposals from a variety of vendors and presenters will be solicited in Jan-Feb and PD will take place Spring-Summer of 2014. -Planning for the Fiber Optic Network has already begun. The district is exploring a partnership with Hanson Communications. Discussions and collaboration will continue with Hanson, Findlay Chamber of Commerce ITC Com., City of Findlay officials, FCS superintendent, IT director and staff, Hancock County IT, Blanchard Valley Hospital IT, and other companies as appropriate. Design and engineering will take place in Jan-Feb 2014, cable purchased in March 2014, installed during the summer of 2014 and operational by Sept 2014. -Vendors for the VDI project have been identified. Initial equipment purchases have been completed. If funded, the remainder will be purchased in Jan 2014 and implemented in time for the 2014-15 school year. VDI will phase in over the next several years at FCS. The first phase will begin Jan 1, 2014. Collaboration between directors, middle school principals, and IT staff will continue throughout implementation. -Planning for the expanded BYOD will include a rewrite of the FCS Acceptable Use Policy to allow personally owned technology to access the district wireless and wired networks. Discussions will take place with principals, directors, and FCS superintendent to determine the timeline, extent of implementation and process. Collaboration with the bargaining units will begin in Jan. A policy/stipend structure will be developed and proposed to the BOE for approval by June 2014. -Upon grant approval, discussions will take place with directors, FCS superintendent and treasure to develop the job description and the responsibilities for the GA and IM. The job description will be completed and posted through the Hancock County ESC in Dec 2013 with the goal of having Grant Administrator in place by Jan 1, 2014. Funds of this grant will be used to create a purchased service through ESC in order to be able to continue the position through FY15. By Feb 1, 2014 FCS will contract with a third party provider as the outside IM, to measure benchmarks collect and analyze data and evaluate grant progress measures.

Implement (MM/DD/YYYY): 06/01/2014

* Narrative explanation

-1:1 equip purchased and delivered by Aug 15. Parents will be notified and distribution to students will occur mid-Aug. Technology integration PD will be provided in July. Support will occur during implementation. A barrier is the demand on time for IT staff to have the devices ready for distribution. To mediate this barrier we will utilize tech aides to assist in the prep and distribution of the hardware. -3rd-5th grade hardware will be purchased by June 30th, and delivered to buildings for the 2014-15 school year. A barrier is the time available to the IT staff. To mitigate, the Director of Technology will hire student workers to assist IT staff in setup and delivery of equipment. -Upon selection of the appropriate BLM, LMS will be purchased, and PD provided. The online course at FHS will be developed and in place for students to enroll and begin the course(s) at the start of 2014-15. Teachers involved will receive PD and time during June-Aug to prepare. For the flipped classroom, choose teachers to participate in the 21st Century Academy held in July. Embedded PD and tech support for these teachers will occur during the school year. In the past 5 years more than 50 teachers have received 21st Century PD and implement BLM. We do not expect barriers, other than being unable to serve the demand for this PD. The science equipment will be delivered by June 30. Vendors will provide PD on integration of the equipment in July. Classrooms will be operational at the start of the school year. Support will be provided to teachers. We do not foresee barriers because it was vetted with stakeholders. -PD will be provided through the 21st Century Learning Academy. Teachers will be selected by June 1. We will expand the existing opportunity to 55 teachers and expand the workshop to 5 days in the summer plus 4 half days quarterly. Teachers will be expected to provide PD to colleagues during the school year. A barrier is our ability to meet the demand for this PD. -Working with the Hanson, FCS will engineer the fiber optic network installation. FCS will work with the City of Findlay and Chamber of Commerce TIC committee to begin the permit process and negotiate with AEP to install the fiber on their power poles. FCS will work with CSX to obtain railroad-crossing rights. Hanson will work with an installation company to install the fiber optic cable. A barrier is possible delays in acquiring the permits to install the cable on AEP poles and cross railroads. To mitigate, the FCS will work with Hanson and the City of Findlay to begin discussions with AEP and CSX ASAP. -Additional VDI equipment will be set up and installed from June-Aug. PD will be provided for staff in the use of VDI from Oct-Dec 2014. The FCS/staff owned equipment will be switched to VDI by Dec 30. Barriers are the time it takes IT staff to prepare the equipment and deliver the PD, and teacher resistance due to the perceived change in teaching environment. To mitigate, IT staff will provide training, online tutorials and group instruction. -Expanded BYOD and the stipend structure will be shared with FCS personnel by Aug 1. A barrier is possible teacher resistance to the current procedure of handing FCS staff members a district owned laptop with maintenance/support. To mitigate, FCS will allow staff to keep their district-owned laptop until it fails. This allows time to provide PD and recommendations for purchase of equipment and maintenance. -The GA will be hired in Jan 2014. The GA will solicit and review proposals to hire the IM. The district will act upon the recommendation of the GA to hire the IM. The GA, IM and FCS admin team will develop metrics, and reporting dates for compliance/completion of this project. The GA and IM will coordinate and facilitate the implementation plans and schedules with FCS directors. The GA will report regularly to FCS directors and the BOE. We anticipate no barrier other than finding a qualified individual to manage all aspects of the grant.

Summative evaluation (MM/DD/YYYY): 01/01/2014

* Narrative explanation

FCS directors the GA and IM (to be hired upon grant approval) will meet to develop milestones and establish timelines for surveys and evaluation of the project. As a minimum we expect that milestones would include the delivery and set up of equipment completed by the beginning of the school year. We expect to survey faculty and students mid year and the end of the 2014-15 school year in order to evaluate the success of the project. The magnitude of this project will require ongoing evaluation over the period of two-three years to validate the success of each of the components and phases of implementation. Additionally, the size of the project requires a multitude of evaluative measures. These measures and specific goals/outcomes will be developed in collaboration with the directors, GA and IM.

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

Instructional/classroom practices- With expanded integration and availability of technology in classrooms, we anticipate teachers incorporating and teaching 21st century technology skills at a higher rate than previously possible. With the BLM/ online courses at FHS we expect to increase the availability of course offerings and expanded opportunities for learning. Instructional practices will shift from traditional to a more hands-on, inquiry-based, problem-solving classroom environment. As a result, more engaged learning will occur at all levels and lead to an increase in student achievement. By increasing the technology in the elementary and by going 1:1 at the middle schools, the equity of access to technology will be mitigated. Students will be better prepared to take the online PARRC end-of-course assessments and more successful in 21st century careers and workplace. Teachers will be better able to gather and analyze data to differentiate instructional practices to meet the learning needs of all students and create instructional pathways aligned to individual student goals. Organizational practices- BLM environments will create more and better opportunities for teacher collaboration, enable differentiated staffing and boost meaningful professional development opportunities. As we convert to the VDI the district will no longer have to replace desktop computers every five years, saving not only capital expenditures, but the human capital that this process requires. Expanded BYOD will free IT staff to focus on development of tutorials and PD for faculty staff and students rather than spending time on break/fix. The fiber optics project allows the greatest amount of flexibility for the delivery of data and communications across the district. Additionally, it allows the district the opportunity to support local government organizations and non-profits as they utilize the available bandwidth beyond the needs of the district.

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

20. 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.

Components of FCS21CCTI have been well researched and the attached citations provide rationale and examples of success to support each portion of the initiative (see uploaded Bibliography) -1:1 Technology 6-8 and Increased Access 3-5 Research shows that 1:1 programs lead to an improved teaching and learning environment, increased student engagement, and contribute to creativity and innovation. 95% of teachers agree that classroom technology helps their students learn. Several studies of school systems implementing 1:1 have shown gains in student achievement. -BLM There are numerous examples of schools and districts that have experienced success with implementation of BLM. Research shows that the benefits of BLM include the ability to provide more enriched learning experiences, extend learning beyond the school day, support differentiated strategies that personalize students' education and learning, and increase student achievement. Additionally, researchers have discovered that the blended learning model may increase capacity for instruction, without necessarily increasing budget or staff, and has the potential to actually reduce costs. According to the 2009 report from the US Department of Education, studies have shown that blends of online learning and face-to-face instruction have been more effective than the conventional face-to-face classrooms. "Students who took all or part of their classes online, perform better, on average than those taking the same course through traditional face-to-face instruction." The flipped classroom model brings about a distinctive shift in priorities from merely covering material to working toward mastery of it, resulting in greater student achievement. -Science Equipment The purchase of additional science equipment for the middle schools will lead to implementation of inquiry-based instruction, which provides numerous benefits to students. Research demonstrates the benefits are: increased critical thinking skills, transfer of concepts to new problem questions, self-directed learning skills, the development of student ownership of their inquiry, and enhanced student interest in the subject matter. -High Quality PD In education, research has shown that teaching quality and school leadership are the most important in factors in raising student achievement. PD is the only strategy school systems have to strengthen educators' performance levels. PD is also the only way teachers can learn so they are able to better their performance and raise student achievement. Professional development is crucial to implementation of any computing initiative. PD is the link between the design and implementation of education reforms and the ultimate success of reform efforts in schools. In order for teachers to grow professionally and modify their instruction, they need to engage in adequate formal PD. Formal PD is essential for teacher learning to affect practice. -Fiber Optics The summary of research on fiber optics provides that a dark fiber strategy has been highly successful for many organizations. Its benefits include: fixed-cost pricing, increased reliability, higher levels of security, expanded scalability, and simplicity. -VDI Research indicates that the pay back from a virtual desktop environment is in the administrative and maintenance costs. VDI technology can save between 30% and 50% of the current cost for IT administrators to manage, patch, upgrade and support PCs in a client/server environment. Estimates indicate that this could cut the annual per desktop support cost from around \$530 to \$376. -Expanded BYOD Research indicates that when allowed to use their own devices, employees enjoy increased mobility, higher job satisfaction, and improvements in efficiency and productivity. An iPass survey of 1100 mobile workers showed that employees who use mobile devices for both work and personal issues put in 240 more hours per year than those who did not.

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

Yes

No

22. If so, how?

Providing the financial resources are available, this project, in its entirety, is reproducible. Some individual components of the project are easily replicated and have been implemented successfully in other

districts/organizations across the country (i.e. 1:1, BLM, BYOD). Other components are more dependent on staff skill, visionary thinking, financial resources, infrastructure, location, and/or community support (i.e. fiber optics, VDI).

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

This FCS 21st Century Classroom Technology Initiative is not intended to be a first-order change. Rather, it is intended to be a second-order change, transformational for our school system, changing the appearance and nature of how we educate our students. The goals of the FCS 21st Century Classroom Technology Initiative include increases in student achievement as measured by the state assessments and reported on the district report card. We expect to see at least a 10% increase in student achievement rates over five years. We will track the effect of this project on reducing drop out rate over five years. Research indicates that when properly implemented, 1:1 projects can lead to significant reduction in drop out rate. Currently FCS has a 91.2% graduation rate, and we expect to see this increase to at least 95% and an A rating on the state report card for this component. We anticipate FCS will see an increase in student enrollment over a five-year period as a result of this project. Currently, approximately 12% of FCS student population choose to open enroll to other neighboring and/or online schools. We believe that the changes in our instructional practices and increasing student access to technology will not only reduce the number of our own that choose to go elsewhere, but increase the number of students who choose to enroll in our district from neighboring districts. We anticipate an increase of 2% overall student enrollment and 20% decrease in number of students who choose to leave FCS. This increase will also have a positive impact on the FCS overall budget and the sustainability of this project. Spending reductions in the five-year forecast will also result. As outlined in the financial impact table submitted with this grant, we anticipate the reduction of annual overall operational costs to be \$669,979. Sustainability has been built into this project by substantially reducing the operational costs of technology over time. Those funds more than offset the additional recurring costs related to other components of the project and will be reinvested or applied to the classroom. Additionally, according to our research, we anticipate substantial and lasting impact on factors, which are more difficult to quantify, such as student engagement, improved morale, improved teacher performance, and increased parental involvement and satisfaction. (see uploaded Bibliography)

24. What are the specific benchmarks related to the fund goals identified in question 9 that 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.

Student achievement will be measured by result of state test scores and benchmarked annually in August with the release of the report card. FCS expects a 2.5% annual increase beginning with the 2014-15 report card. Drop out rate is reflected in the district report card through the graduation rate. FCS graduation rate will improve from 91.2% to at least 95% by 2018. We will benchmark this annually, expecting at least a 1% increase per year. The district student enrollment reports will be used to measure progress toward the goals related to enrollment and be benchmarked annually with the October count. FCS will increase overall enrollment by at least 2% by the 2017-18 school year. This overall increase requires retaining 20% of the FCS students who open enroll to other districts and a 4% increase in enrollment of students from other public schools. Overall Operational costs will be documented and benchmarked annually over a five-year period. By the end of FY15 we expect to have reduced expenditures \$1,038,264. In FY16 there will be an additional \$73,000 reduction. At the end of the five-year period (FY19) we expect a total reduction of \$5,814,845.

25. Describe the plan to evaluate the impact of the concept, strategy or approaches used.

* 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 collected, the formative outputs and outcomes and the systems in place to track the program's progress).

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

As previously described in item #24, the quantitative goals of this project will be measured annually through the 2017-18 school year. The methodology for measuring each goal will be: - Student achievement-state test scores grades 3-10 - Drop out rate- graduation rate reported by ODE report card - Enrollment- October Student Enrollment Report - Operational costs-annual and semi-annual treasurer reports If FCS, at annual benchmarks, finds that progress toward the final goals is not on track, the directors of technology and instruction will meet with principals and teacher leaders to determine causes and revise/augment the PD and focus on the project goals. Key stakeholders in this project will apply to the ODE to be presenters at the annual technology conference in an effort to share the successes, the challenges and lessons learned with other educational providers in Ohio. Additionally, the directors and FCS superintendent will share the project implementation plan, goals and outcomes with the Hancock County superintendents and offer guidance toward similar projects they may choose to implement.

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 timeframe. The Governing Board of the Straight A Fund reserves the right to conduct evaluation of the plan and request additional information in the form of data, surveys, interviews, focus groups, and any other related data to the legislature, governor, and other interested parties for an overall evaluation of the Straight A Fund.

PROGRAM ASSURANCES: I agree, on behalf of this applicant agency and/or all identified partners to abide by all assurances outlined in the Assurance section of the CCIP. In the box below, enter "I Accept" and indicate your name, title, agency/organization and today's date.

I Accept Martin White- Director of Information Technology, Findlay City Schools 10/25/2013 I Accept Richard Steiner- Director of Secondary Instruction, Findlay City Schools 10/25/2013 I Accept Stephanie Roth- Director of Elementary Instruction, Findlay City Schools 10/25/2013