### Budget

**Object Code**

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<th>Retirement Fringe Benefits 200</th>
<th>Purchased Services 400</th>
<th>Supplies 500</th>
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<th>Other 800</th>
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</tr>
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**Adjusted Allocation** 0.00

**Remaining** -2,299,283.00
Applications 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: Increasing PAX in Ohio

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

The first 1,000 hours of elementary school happens in first grade if the children attend school 180 days for about 5.5 hours each day in the classroom. Multiple "gold-standard" randomized, longitudinal trials show that PAX Good Behavior Game and its expanded components (PAX for short) immediately improve every indicator of school success, which then have lasting effects on all indicators of academic, behavioral, health, social or productive indicator for the next 20 years, with the highest independently audited return on investment (30-to-1) for any elementary school improvement strategy. After decades of gold-standard research following up on GBG benefits, PAXIS Institute-in cooperation with multiple national, state/provincial or local government agencies (e.g., U.S. Health and Human Services: Public Health Agency of Canada) and institutions of higher learning* in the U.S. and Canada has launched major scale-ups of PAX GBG (the commercial version of Good Behavior Game) in North America for more than 850 schools and 105,000 children with Ohio schools leading the US federally and locally funded implementations in 11 counties (Greene, Licking, Clarke, Madison, Putnam, Wood, Knox, Allen, Augaize, Hardin and now Franklin) along with earlier two demonstrations in Cuyahoga and Mahoning in the late 1990s. With the recruiting help of multiple community organizations from these and other counties (e.g., Mental Health and Recovery Boards, Nationwide Children's Hospital, United Ways, Children, Families First Councils and the Ohio Office of Prevention & Wellness), this project (partnered by Wright State University and PAXIS Institute) expands the reach and accessibility of these proven, cost-effective educational tools to 1,200 first-grade classrooms (30,000 students) in Ohio based on prior large scale ups across the US and Canada, with a previously proven rate of return on investment of $139 million that creates the foundation for sustainability. * Wright State, Johns Hopkins, Penn State, Case Western, University of South Carolina, University of Maryland, and University of Arizona in the U.S. and the University of Manitoba, University of Alberta, and University of Calgary in Canada.

30,000 3. Total Students Impacted:

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

   First Name, Last Name of contact for lead applicant: Jason Fruth
   Organizational name of lead applicant: Wright State University
   Unique Identifier (IRN/Fed Tax ID): 063123
   Address of lead applicant: 3640 Colonel Glenn Hwy
   Phone Number of lead applicant: 513-849-1430
   Email Address of lead applicant: jason.fruth@wright.edu

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

   First Name, Last Name of contact for secondary applicant: Dennis Embry
   Organizational name of secondary applicant: PAXIS Institute
   Unique Identifier (IRN/Fed Tax ID): 375144
   Address of secondary applicant: PO Box 31205
   Phone number of secondary applicant: 520-299-6770
   Email address of secondary applicant: dde@PAXIS.org

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.

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.

UploadGrantsApplicationAttachment.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 aim of this project is to create a sustainable Ohio-sited statewide training, monitoring, and professional development system so that every first-grade classroom teacher has and uses the most scientifically proven strategies (e.g., PAX GBG and its expanded components) that result lasting educational, mental, emotional, behavioral and health benefits that span at least the first 20 years of life for the approximately 150,000 Ohio children who enter first grade each year. Wright State University is expanding its existing, proven collaborations with Educational Service Districts, School Districts, Mental Health and Recovery Boards, and PAXIS Institute (along with its existing North American collaborators) to launch PAX GBG (and expanded components) in 800 new first-grade classrooms in the Spring of 2014, reaching an estimated 12,000 to 13,000 students with well-proven strategies that will have immediately measurable benefits aligned with the purposes of the Straight A RFP. This scale-up is possible, because the already have been working together and showing such scale-ups are possible in Ohio with immediately discernable benefits in Ohio that practically replicate the early findings of multiple gold-standard randomized, longitudinal studies of the benefits of the strategies inside PAX GBG. Jason Fruth, Ph.D., Assistant Professor in Special Education at Wright State University, will serve as PI and Project Manager and allocate 20% of his time to this project. His background in K-12 and teacher education and specifically in preparing teachers and school administrators to implement the PAX Good Behavior Game will be tremendously valuable to this project. As a University Supervisor, Dr. Fruth has developed a partnership between the schools involved in this study and the university through professional development projects and the supervision of Wright State University teacher candidates as student teachers in those districts. He will manage the research collection at the school sites and will also train and guide the work of all researchers monitoring projects for the scale-up. Dr. Fruth will also contribute to the dissemination of findings. Joseph Keffer, Rh.D., Professor and Associate Dean for Academic Affairs and Research at Wright State University, has over 20 years experience in Rehabilitation Counseling. He has a long history of publication in the field and coordinating federally funded projects through NIDRR. He also represents the collaborating force on the team with his roles in counseling, Wright State University research and academics, and as a member of the Mental Health Recovery Board. He will serve as the project Co-PI and Project Coordinator and allocate 5% of his time to this project. Dr. Keffer will ensure adherence to the research methods and design stated in the proposal. He will have the primary responsibility for ensuring that project goals are met by coordinating collaboration among the developers, implementers, and researchers. Dennis D. Emby, Ph.D., senior scientist, has overall oversight of the PAXIS Institute subcontract, and is directly involved in the management and implementation of this effort. He is a nationally recognized prevention scientist, and has done wide consulting and program development in Ohio since 1999. He will devote 2 months of his time to this effort. Jennifer Kitson, project manager, is one of the most senior people in the United States for managing large school-based projects on behalf of the US Federal Government, having done such project under contract with the Education Development Center. Ms. Kitson has been working with PAXIS on these type of major projects since 2012. This project is logistically complex as it spans the whole state, and Ms. Kitson had recent oversight of a national project involving PAXIS in seven states that included two Ohio Counties. Her efforts will be full time.

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:)

   - Recent - 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
12. Describe the innovative project.

Our Partnership Agreement aims to expand the enhanced PAX Good Behavior Game to reach 30,000 current First Graders and their teachers (600 classrooms in Wave 1 and another 600 classrooms in Wave 2). PAX GBG has been used practically in Ohio schools for a decade and leading the US in implementation of PAX GBG, with multiple sites having excellent case study data on outcomes. PAX GBG has now been recently replicated in hundreds of primary-grade Ohio classrooms in Greene, Licking, Knox, Madison, Clark, Putnam, Woods, Allen, Auglaize, and Hardin showing large improvements in engaged learning, reductions in off-task/problematic behaviors, as well as improvements in academic indicators. These replications were largely funded by competitive grants from various federal sources. PAX GBG equips first graders with core cognitive, emotional, and behavioral skills required for lifetime success in more than 50 studies as practical application in Ohio. PAX GBG creates the integration between the cognitive and emotional, called for by the Common Core with continuous robust measures of success. A child cannot learn to read, write, do math, and engage in higher order problem solving without developing the ability for voluntary control over attention and emotional regulation; consequently 1-year-olds can play a fundamental role in shaping the student experience, and children successfully apply knowledge at higher levels required by the Common Core without the ability to engage in prosocial or resilient behaviors with peers and teachers/mothers. That is why just the one-year-use of PAX GBG first grade is proven to increase academic success that results in larger percentage of students graduating from high school and entering college (3).

13. Sustainability - Planning for ongoing funding of the project, cost breakdown

Our proposed project has some of the best published cost-effectiveness data for any primary grade strategy designed to improve both academic outcomes as well as reduce the major non-classroom costs (e.g., student achievement, school district, county, and state budgets). Further, the published outcome data as well as case-study replications in Ohio show that the state-wide implementation will have rapid effects. Based on our local estimates, if you look, listen and reflect, you see children with the skills in the Common Core that predict lifetime success.

Dr. Jason Fruth and Dr. Joseph Keferl are PI and Co-PI and will manage the research collection at the school sites, train and guide the work of all researchers monitoring projects for the scale management in process in which every child and adult can reinforce in each other. Here is a simple description of the activities that lead to improvement in schools, classrooms, and students aligned with the PAX GBG framework.

A Fundamentally different approach to learning volume driven by multiple motivational processes.
B. Students develop delayed gratification via increased sense of belonging and perceived trust, safety and reliability of adults and other students by daily rituals or routines.
C. Students learn self-regulation and cooperation via teams that cooperate shared, commonly intrinsic activities every day.
D. Students create more time for engaged learning by cooperatively reducing their inattentive, distractible, or aggressive behaviors.
E. Students use the strategies required to engage in meaningful and challenging learning activities.
F. Specialized team or school community or school partners have the tools to see all common issues. I All of the above is reinforced by an ongoing social marketing campaign to engage parents, participate in weekly meetings, and to share classrooms with adults.

Strengths and Difficulties Questionnaire (SDQ, 25 items), which is a highly sensitive teacher report to measure the multiple impacts. $75,000 goes to advertising and recruitment costs for the 1,200 student participants in the study.

Salary and fringe for other personnel = $78,300. Teachers and PAX Partners will receive stipends to assist with data collection at $97,500 to cover 30,000 student surveys completed by teachers. Additional sections detail cost-effectiveness estimates were conducted completely separate from the developers and implementers of PAX GBG. WISPPY cites GBG as the single most cost-effective classroom strategy for K-12: http://www.wisppy.org/levels/4000.GBG.pdf

The Washington State Institute for Public Policy’s estimate of the GBG cost substantially exceeds the real-world cost, because of the efficiencies of scale that have been achieved with experimenting in implementing PAX GBG (the commercial version of the Hopkins Good Behavior Game). Maintenance costs per year are closer to $10 per child. These cost-effectiveness estimates were calculated with intervention programs from the paper (PI Partners) and an on-going web-based learning community. H. Technical assistance specialists schedule phone calls and webinars to assure that PAX GBG curriculum, teachers, administrators, allies, community personnel, and other school personnel have the tools to see all common issues. I. All of the above is reinforced by an ongoing social marketing campaign to engage parents, participate in weekly meetings, and to share classrooms with adults.

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

The templates (a) are not applicable to this type of project, which is upscale activating approximately 1,200 first grade teachers and community-based or school-based support personnel all across Ohio. That said, our proposed project has some of the best published cost-effectiveness data for any primary grade strategy designed to improve both academic grades as well as reduce the major classroom costs (costs). Teachers master these sustainable skills via scientifically tested printed materials, proven face-to-face training, as well as proven mentoring processes from coaches (called PAX Partners) and an on-going web-based learning community. If applying as a consortium or partnership, please include the five-year forecasts of each school district, community school or STEM school member for review.

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

We are supplying PAX data systems, which provide immediate measures of dose, fidelity and progress in graphic format, which cost only $32,625 for all the sites. In addition, we are providing PAXIS (an ongoing co-investigator on the Hopkins Good Behavior Game), who has high as nearly 50 years of experience in community behavior modification and project management. Our Partners will ensure that the current First Grade classrooms and their teachers (600 classrooms in Wave 1 and another 600 classrooms in Wave 2) have the resources to implement the program. We have entered our budget for Wave 1 ($32,625) and have calculated an estimate for Wave 2 ($32,625), for a total of $65,250 in funds.

We have budgeted $7,000 for venue expenses for 20 training events across the state, or for a total of $14,000. The budget includes $22,000 to mail, scan and process approximately 60,000 Strengths and Difficulties Questionnaire (SDQ, 25 items), which is a highly sensitive teacher report to measure the multiple impacts. $75,000 goes to advertising and recruitment costs for the 1,200 students. Teachers and the research team will be supported by the training and resources used in the classroom. We have entered our budget for Wave 1 ($7,000) and have calculated an estimate for Wave 2 ($7,000), for a total of $14,000 in funds.

We calculate a total cost of $200 each. We are supplying PAX data systems, which provide immediate measures of dose, fidelity and progress in graphic format, which cost only $32,625 for all the sites. We will have 20 3-day trainings for prospective PAX teachers and PAX Partners (mentors) across the state. These events include multiple accredited national trainers, materials, supports and preparation at $325 per person. Based on the recent large-scale results, we have included 1,300 technical support assistants, web access, webinars, and scheduled phone calls with PAX Partners and instructional leaders by

15. What is the total cost for implementing the new project?

2,255,883.00 * Total project cost

* Provides 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, RTIF 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.)
17. 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 implementation.

\[ \text{**Proposal Timeline Dates**} \]

- **2/13/12**: Begin Recruitment and Hiring of grad and undergrad staff. We plan to offer 12 concurrent Waves of training within each classroom for the duration of the grant, which is 24 months. Each Wave will include 100 minutes per day to only 12-18 minutes per day per student.
- **4/11/13**: Pre-launch and Conducting Destination Training: We plan to offer 12 concurrent Waves of training within each classroom for the duration of the grant, which is 24 months. Each Wave will include 100 minutes per day to only 12-18 minutes per day per student.
- **2/22/13**: 4-11/13 Launching and Conducting Destination Training: We plan to offer 12 concurrent Waves of training within each classroom for the duration of the grant, which is 24 months. Each Wave will include 100 minutes per day to only 12-18 minutes per day per student.
- **4/18/13**: Classroom Rollouts of PAX GBG: Each training event may operate one or more concurrent Waves of training within each classroom for the duration of the grant, which is 24 months. Each Wave will include 100 minutes per day to only 12-18 minutes per day per student.

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 implementation. Start by describing the overall timeline. Include a narrative explanation of your project 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 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.)

**Narrative explanation**

- **12/17/13**: After notification, turn on special web page for PAX Ohio, at the www.GoPAXLiveGame.org website being launched in two weeks, that is integrated with www.promoteprevent.org. Announce immediate need to attract and train participants for such website. Recruitment immediately. Promotion of need for opportunity for teachers and community partners to participate in lottery condition to receive PAX GBG materials, training, stipends, and supports. Multiple Mental Health and Recovery Boards, Children and Families First Councils, United Ways, and Nationwide Children's Hospital will be a major players in helping recruit schools, because of their credibility in providing school-based health services to schools in 30 counties.

**Implied Narrative**

- **1/8/14**: Week of intensive planning with key partners and staff. B. 1/13/14: Begin Recruitment and Hiring of grad and undergrad staff. C. 1/13/14: Start logistics planning for training venues and other logistics. D. 2/2/13: Begin the initial recruiting media and advertising materials. E. 3/24/13: Selection and Commitments to Dates: Random selection of teacher/sites for Wave 1 and 2 will be webcast, with publicity promoted for the school, district and community. Teacher and each collaborating community PAX Partner (ratio of approximately 1 partner to 5 teachers for Wave 1) will receive prompt notification. Preference will be given to PAX Partners who have a position that enables 3rd-party billing, which is being enabled by Ohio for PAX GBG if a student in the classroom screening positive for Adverse Childhood Experiences (trauma exposure), and the screening is not followed by a positive result, or if a student in the classroom is found to have Adverse Childhood Experiences (trauma exposure), and the screening is not followed by a positive result. F. 2/10/13 Start processes of assembling materials for trainings G. 2/17/13 Begin baseline data collection from teachers and sites H. 4/13/13 Pre-Destination Orientation: The "ticket" to the training event involves approximately 1-hour of interspersed viewing of web-based learning modules to web-based survey with randomized questions to avoid cheating. I. 2/13/13 - 4/11/13 Launching and Conducting Destination Training: We plan to offer 12 concurrent Waves of training within each classroom for the duration of the grant, which is 24 months. Each Wave will include 100 minutes per day to only 12-18 minutes per day per student. J. 2/1/13 - 4/11/13 Classroom Rollouts of PAX GBG: Each training cohort has a roughly similar, but flexible, implementation schedule over several 30 day blocks. Each classroom will operate one or more concurrent Waves of training within each classroom for the duration of the grant, which is 24 months. Each Wave will include 100 minutes per day to only 12-18 minutes per day per student.
The proximal measures in this implementation are very robust indicators of academic success that begins to be measured in 3rd grade and beyond as well as host of lifetime risks for mental, emotional, behavioral and related physical disorders. Based on thousands of classroom replications across North America, we expect to show the following in quantifiable benefit that lead to lasting impact:

- Significant improvements in daily engaged learning by 100 minutes or more.
- 9,867 fewer young men will contemplate suicide.
- 5,313 fewer young people will develop serious alcohol addictions.
- 8,349 more boys will likely graduate from high school.
- 8,000 young people already exposed to PAX GBG.
- 5,313 fewer young women will develop serious alcohol addictions.
- 7,275 fewer young women will contemplate suicide.
- 2,800 fewer young people will become regular smokers.
- 6,094 fewer young people will need for any special education services.
- 8,349 more boys will likely graduate from high school.
- 7,275 fewer young women will contemplate suicide.
- 2,800 fewer young people will become regular smokers.
- 6,094 fewer young people will need for any special education services.

The best regional trainings will set up 1/3 of the district's budgets, because their will be less need.

- Teachers will be less likely to leave the profession in five years, because of the stress of dealing with students and families.
- Teaching and learning will be more fun and productive.
- The high cost of children's mental health services will drop dramatically for Medicaid and SCHIP.
- There will be fewer late withdrawals.
- There will be less violence, bullying and guns on campus.
- The results have been replicated across many cultures.
- Everyone's health-care costs will decline.
- Employers will have much more productive employees.

And when these happier, healthier, more productive and peacefull young people have their own children, all these good things will pass on to the next generation with greater probability.

The biggest danger to this change is not that it will fail. Rather, the biggest danger is that we will be afraid or doubt that such positive changes can happen despite the mountain of peer-reviewed, published and peer-reviewed, peer-reviewed, peer-reviewed data that would take a week to read through. The nagging thought is that it cannot be simple. Yet, the very best things are simple. Consider the following:

- The very best way to prevent infectious disease is to wash our hands several times a day. PAX GBG three times a day in first grade protects children for their entire lives, and in turn protecting them protects everyone we value as humans.

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

PAX GBG is the culmination of research on a teacher-invented practice that began in 1969, by the creation of a fourth grade teacher [1] that was the first scientific test of behavioral supports for a whole classroom.

- After schools in Johns Hopkins University extensively tested the impact of GBG longitudinally [2-9]. In 1993, Dr. Dennis Emby, a child psychologist and special education teacher, designed the first whole school system of behavioral supports that was tested in a large, whole community randomized, longitudinal trial [10-13], in which the children and their teachers were the heroes of change and reported in the national press [14]. Since 1999, Dr. Emby and his colleagues at Johns Hopkins University and PAXIS Institute have carefully refined PAX GBG to benefit children and the people who love them all over North America. At this writing, there are more than 70 peer-reviewed experimental studies on the effectiveness of GBG and its components. Most of these studies are accessible at the National Library of Medicine.
- The Good Behavior Game can be used during any normal instructional activity, from teaching language arts activities or during transitions [15, 16], in the lunchroom [17], and during recess [18, 19], and during various school activities such as in the library [20]. PAX GBG teaches children self-control, self-regulation and peer cooperation that improves immediate and long-term indicators of peace, productivity, health and well-being [10, 21, 22]. PAX GBG gives teachers more time to teach and students more time to learn, which can be measured each day. GBG is a proven tool to help children learn and enjoy learning and enjoy themselves more and more, and enjoy more and more, be engaged in more and more, and enjoy more and more. GBG long-term benefits include increasing academic achievement, high-school graduation, and college entry; it also reduces the need for special education, prevents multiple psychiatric disorders including all forms of addictive behavior, averts suicide, and decreases multiple indicators of crime and violence [24]. The table below, from a recent scientific publication, summarizes major outcomes from First or Second Grade implementation:

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<tr>
<th>Outcome Measure</th>
<th>First Grade</th>
<th>Second Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading scores</td>
<td>+3 years</td>
<td>+2 years</td>
</tr>
<tr>
<td>Math scores</td>
<td>+2 years</td>
<td>+1.5 years</td>
</tr>
<tr>
<td>Behavior scores</td>
<td>+25%</td>
<td>+20%</td>
</tr>
<tr>
<td>Attendance</td>
<td>+10%</td>
<td>+15%</td>
</tr>
<tr>
<td>Suspension rates</td>
<td>-20%</td>
<td>-30%</td>
</tr>
<tr>
<td>Ongoing behavior</td>
<td>+50%</td>
<td>+30%</td>
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<table>
<thead>
<tr>
<th>Outcome Measure</th>
<th>First Grade</th>
<th>Second Grade</th>
</tr>
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<tbody>
<tr>
<td>Addictions</td>
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<td>-40%</td>
</tr>
<tr>
<td>Suicide</td>
<td>-40%</td>
<td>-30%</td>
</tr>
<tr>
<td>Criminal offenses</td>
<td>-30%</td>
<td>-20%</td>
</tr>
</tbody>
</table>

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

- Yes

**22. If so, how?**

PAX GBG (the commercial version of the researched GBG) is quickly implementable during almost any part of the school year. Since the first major randomized trial studies that make up PAX GBG were published in 1993, it is now an easy to use tool that can be taught in 15-20 minutes. The GBG is actually taught to the teacher first, after which the caller only need describe the numbers of students, their grades, and staff to be reached with PAX GBG, and when they would have to have their trainings and supports start. Interested parties may also email gbgs@paxis.org, or visit a whole new website that will be launched in September to implement PAX GBG in Putnam and Wood County, OH. Multiple videos are available on line to see the results of these and other sites around the US and Canada, plus article Ohio newspapers. Additionally, Licking County and Greene County have been using PAX GBG for more than 20 years. In the recent past, GBG has been replicated and observed in Every Grade in Ohio (EGIO) trials (not yet recognized by what might constitute a GBG by county) appear below. The numbers are observed frequency of inattentive, off-task, disruptive, or distracting behaviors in 15 minutes. These rates are not the highest observed on record, but County 1 has rather high rates compared to other school districts in the US. County 1 dropped inattentive, disruptive, and distracting behaviors in 15 minutes by 92% to 87% in 23 minutes, with more than 100,000 students and 300 schools using GBG in Ohio. GBG has been used in hundreds of schools in the United States. GBG is also very scalable across many cultures [23]. GBG long-term results have been observed in thousands of schools in districts and regions across North America.

- PBIS has used GBG as its centerpiece training for staff and students.
- GBG has been used in thousands of schools in districts and regions across North America.

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

Based on thousands of classroom replications across North America, we expect to show the following in quantifiable benefit that lead to lasting impact: Proximal quantifiable measures planned:

- Effect size changes (as = 2.5 to 5.0) on all five measures of the Strengths and Difficulties Questionnaire (SDQ) by teachers on prosocial behavior, hyperactivity/intention, conduct problems, emotional problems, and peer problems.

- Positive strength measures:
  - Teacher's report of students' academic achievement as well as protection against virtually every social, emotional, behavioral and related physical disorder.

- Proximal quantifiable measures planned:
  - 75% to 85% reduction in directly measured inattentive, off-tasking, non-engaged learning, and/or other problematic behaviors that have high predictive value in academic performance as well as resiliency and protection from lifetime emotional, behavioral, and related physical disorders.

- Increase in daily engaged learning by 100 minutes or more.

- 50% improvement in attendance - 20% to 30% reduction in need of special educational services.

**Sustainability happens at multiple levels: 1) First children carry this skill forward to future grades; 2) as soon as schools see the effects in their classrooms, halls, playgrounds, lunchrooms, etc., other teachers start asking to participate; 3) this is a leader teacher skill (not a curriculum) so that a teacher can continue to use basically with the manual and reproducibles, plus by participating in the online training community.

- PBIS has used GBG as its centerpiece training for staff and students.
- GBG has been used in thousands of schools in districts and regions across North America.

**24. What are the specific benchmarks related to the fund goals identified in question 9 that the project aims to achieve in 5 years?** Include any other anticipated outcomes of the project that you hope to achieve that may not be easily measurable.
with shy, anxious, sad behaviors but also children with trauma exposure. PAX GBG reliably reduces those behaviors by 40% to 50% in the first month or so, and drives these behaviors down to 85% of baseline after several months. These data will be collected on the PAXIS web-based data system. Computation of actual engaged teaching and learning minutes can be computed from this same system that PAX Partners and other staff at school have access to from PAXIS. The more these engaged minutes go up in First Grade, the better the lifetime learning and academic success is of a child. We will know if this is happening. The Strengths and Difficulties Questionnaire is an internationally normed 25-item questionnaire, which will be filled out at baseline and late in the school year by both Wave 1 and Wave 2 teachers. Attention/hyperactivity scale is more predictive of early reading test scores than phonemic awareness, and PAX GBG can and does move that scale. Many schools will be using benchmark-rating scores. Where we can get them, we will almost be certainly likely to show improvements based on pilot studies in the Dayton area. Other measures may or may not be available on specific sites, such as office referrals, nurse’s office’s visits, etc. All of these are documented to be sensitive to PAX GBG, but we cannot be sure that they will be available. We intend to include measures of teacher stress and burnout, since this is a major cause of leaving the profession. The above items we will be able to compare to the early and delayed training sites. Distal indicators include: Measuring the impact on costs will require examining longer-term actuarial data. The first and most important indicator will be referrals for higher levels of Response to Intervention (Level 2 or Level 3), creation of 504 plans, and referrals for full special education. Another useful indicator from our prior studies has been the reduction in vandalism, but that is minor compared to the $3 billion spent on special education in Ohio. If we get significant penetration in some areas, we may be able to see fewer emergency room care visits for children in the age group. Again, we have seen this in our related studies. In schools with serious penetration of Accountable Health Care providers like Nationwide Children's Hospital, they may be able to measure the impact on the use of health care services, particularly psychotropic medications. Also, asthma and related disorders tend to decline with more “peaceful” school settings, as the immune system is not being driven crazy by stress hormones. Because we have set this up as randomized waitlist just for logistics and related reasons, we ought be able to measure impact on the third grade English and Math scores from the standardized achievement assessments. In time, all this will allow to assess impact on classroom resources. The obvious is that teachers will be spending much less time in a whole array of student services issues, which presently consume any resources. We also hope to track teacher’s leaving the field or not, as exposed to PAX GBG. Substantial anecdotal data suggest teachers become re-energized.

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).

The implementation teams from PAXIS tend to review graphs of data weekly, and the director of IT at PAXIS is familiar with what might demand quick attention. Technical assistance specialists will make scheduled phone calls with the PAX Partners to assure progress, which is the model that was used in Wood and Putnam County with success. The partnership with Wright State is not a formality, because Wright State is the first university in the world be granted a license to teach PAX GBG as a pre-service course, which is being compared to traditional courses for behavior and classroom ecology. The analyses of the obtained observational data and SDQ data will adapt and use the analysis procedures developed for the whole province implementation of PAX GBG in Manitoba. Specifically, we will use the SPSS codes and HLM modeling strategies, since they parallel what is happening in Ohio for practical and scientific reasons. The HLM (Hierarchical Linear Models) are the most sophisticated and correct way to examine these outcomes. The analysis presently in Canada by the renown Manitoba Centre for Health Policy using three level model (e.g., child nested in classroom, nested school). The effect sizes are significant with no coaching, just training and materials. There are positive effects for ethnicity or gender, which is remarkable. Dr. Embry is also a senior scientific advisor to the Healthy Child Committee of Cabinet and to the Manitoba Centre for Health Policy. We will propose to have frequent early conversations with scientists there about this project, to increase our scientific certainty and create a stronger study. Because this has been created as a population-level waitlist design (the largest to date) for a robust, well proven evidence-based prevention and protective strategy, we also plan to seek external research funds for future follow up.

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. Dr. Jason Fruth Assistant Professor Wright State University 10/25/2013