

PROJECT EXPLORATION

YOUTH PROGRAMS EVALUATION



August 2006



**Copies of the full Youth Programs Evaluation
can be downloaded from www.projectexploration.org**

COVER PHOTOS

Left: Junior Paleontologists Marco Mendez and Shureice Kornegay Photo P. Sereno.

Center: All Girls Expedition Photo C. Barnes.

Right: Laurie Parker with Sisters4Science students Photo A. Patel.

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CONTENTS

EXECUTIVE SUMMARY	i
SECTION 1: INTRODUCTION	1.1
1.1 The role of evaluation in Project Exploration’s mission	1.1
1.2 Overview of Project Exploration’s Youth Programs	1.1
1.3 Goals of the Formative Performance Evaluation effort	1.2
SECTION 2: METHODOLOGY	2.4
2.1 Program Assessment Rating Tool (PART) methodology	2.4
2.2 Field alum outcome/output analysis methodology	2.5
2.3 Focus group methodology	2.6
2.4 Summary of data examined	2.6
2.5 Summary of document analysis/coding scheme	2.6
SECTION 3: RESULTS AND FINDINGS	3.7
3.1 Program Assessment Rating Tool (PART) one page summary	3.8
3.2 Detailed Program Assessment Rating Tool (PART) findings	3.9
3.3 Field alum output/outcome analysis	3.15
Characteristics of Students Served as of January 2006	3.15
Characteristics of Relationships Maintained	3.15
Characteristics of Schools Served	3.15
Students Graduating from High School	3.17
Students Enrolling in College	3.17
Students Majoring in Science	3.18
3.4 Comparison to other science education programs	3.20
SECTION 4: IMPLICATIONS FOR STRATEGIC AND EVALUATION PLANNING	4.24
4.1 Overview and process	4.24
4.2 Strategic goals for Project Exploration’s youth programs	4.24
4.3 Outcome-based performance goals, measures, and targets	4.25
4.4 Efficiency-based performance measures	4.25
4.5 The Five Tiered Approach to comprehensive outcomes-based evaluation	4.26
SECTION 5: NEXT STEPS AND RECOMMENDATIONS	5.28
5.1 Next steps in evaluation process	5.28
5.2 Next steps in strategic planning process	5.28
5.1 Next steps in evaluation process	5.28
5.2 Next steps in strategic planning process	5.28
APPENDIX A: DEFINITION OF KEY TERMS	A.29
APPENDIX B: LIST OF DOCUMENTS REVIEWED	B.31
APPENDIX C: FOCUS GROUP TRANSCRIPTS	C.36
C.1 Focus Group 1	C.36
C.2 Focus Group 2	C.42
APPENDIX D: STUDENT INTERVIEWS	D.49
APPENDIX E: PART ITEM DESCRIPTIONS AND INSTRUCTIONS	E.68
I. PROGRAM PURPOSE AND DESIGN	E.68
II. STRATEGIC PLANNING	E.71
III. PROGRAM MANAGEMENT	E.78
IV. PROGRAM RESULTS/ACCOUNTABILITY	E.82
APPENDIX F: RAW DATA UTILIZED FOR EVALUATION	F.86
APPENDIX G: DRAFT PROGRAM GOALS, MEASURES AND TARGETS	G.87
Performance Goal A: Access and Equity	G.87
Performance Goal B: Efficacy & Engagement	G.88
Performance Goal C: Concepts & Skills	G.89
BIBLIOGRAPHY AND SOURCES	90

EXECUTIVE SUMMARY

AUGUST 2006

Project Exploration is a nonprofit science education organization that works to make science accessible to the public—especially minority youth and girls—through personalized experiences with science and scientists. We believe learning is based in relationships, and our youth programs are designed to develop in-depth, long-term relationships. Our youth programs are devoted to students in Chicago Public Schools (CPS); they target students who may not do well in school, but who are curious and open-minded.

Despite wide acknowledgement of an alarming shortfall of Americans qualified in science and technology, and the dramatic under-representation of women and minorities in this workforce, little is known about the ability of educational programming or recruitment strategies—either in or out of school—to impact a student’s choice of major in college. Furthermore, lack of longitudinal data for college enrollment in Chicago—i.e., school based data that outlines who goes to college and majors in science—adds a significant hurdle to interpreting program impact.

Given this context, there are three remarkable findings from this Youth Programs Evaluation regarding students engaged in Project Exploration’s flagship science field programs:

- 1) 92% graduate high school
- 2) 57% enroll in a four-year college
- 3) 25% of all students and 33% of females major in science

The net impact of participating in a Project Exploration field experience is a dramatic increase in the likelihood that a given student will attain an undergraduate degree in science. Although lack of rigorous school-based college enrollment data from Chicago Public Schools means that the following calculation is somewhat tentative, **putting it all together, a Project Exploration student is approximately 10 times more likely to graduate from high school, go to college and major in science than a typical Chicago Public School student from the same school.**

PURPOSE

To evaluate Project Exploration’s youth programs and determine the extent to which programs these programs have achieved their objectives.

Project Exploration’s youth programs remain aligned with its mission of making science accessible to minority youth and girls. Through strong management practices, close attention to participant needs, and continual refinement of program activities, Project Exploration has built a suite of three youth programs that are highly complementary. Each program offers unique experiences customized to meet the needs of a particular subgroup

YOUTH PROGRAMS BY THE NUMBERS

- Project Exploration served over 500 students ages 12-17 from 45 communities across Chicago between 1999-2005.
- Approximately 85% of students are from low-income families.
- Program serve a diverse group that reflects Chicago Public Schools demographics: 65% of students are African American, 25% are Latino, 10% are Caucasian.
- 73% of students are girls; 27% are boys.
- 81% of students maintain a relationship with Project Exploration after their first field experience.
- Junior Paleontologists to date: 84
- Dinosaur Giants to date: 150, compiling over 3,000 community service hours
- Sisters4Science to date: 274
- Over 60 women scientists are regularly assisting with Sisters4Science sessions.
- An average of 80 7th-9th grade girls participate in the Girls’ Health and Science Day conference annually.

within the target audience.

As a result of this evaluation, Project Exploration has made significant progress towards establishing desired outcomes and identifying performance measures capable of capturing progress towards its goals. Evaluation and improvement of programs is a serious concern at Project Exploration. In addition to staff involvement, a board-level program evaluation committee has been established in order to maintain attention to and forward progress on this work.

METHODOLOGY

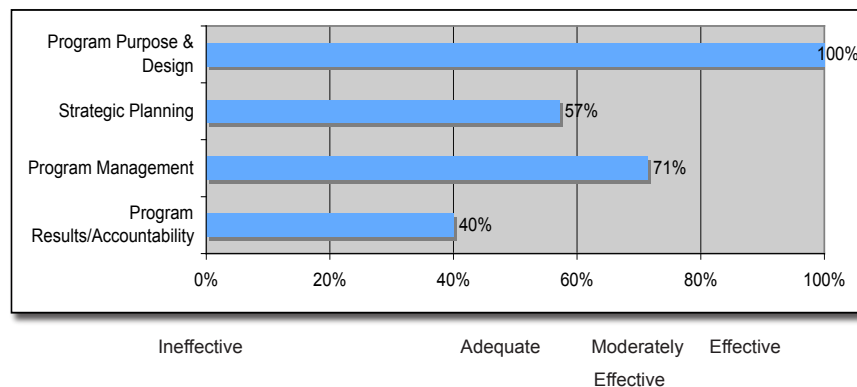
1) Qualitative techniques. A third-party evaluation consultant worked with Project Exploration staff to convene two focus groups of student participants. In addition, five current students interviewed a Project Exploration alumnus of their choosing. In this way the organization was able to capture the thoughts, reflections, and reactions to students' experiences with Project Exploration. Students' perspectives on what was important in the programs allowed the organization to establish meaningful benchmarks and begin to establish measurable objectives that reflect program design and intentionality.

2) U.S. Federal Office of Management and Budget's Program Assessment Rating Tool (PART). PART emphasizes four areas: program purpose and design, strategic planning, program management, and program results/accountability. PART was selected as the most appropriate tool for conducting the evaluation because it conforms to governmental and academic evaluation standards, permits rapid high-level assessment of multi-faceted programs, and allows for a degree of customization.

GENERAL PART FINDINGS

Results strongly indicate that Project Exploration's programs are well designed and implemented. In comparison to other, more well-established informal education programs that utilized the PART evaluation tool, Project Exploration performs very competitively. Lack of clear outcomes and baseline data is problematic for many agencies regardless of size or budget. Although these factors also play a role in a young organization such as Project Exploration, preliminary analysis clearly indicates that Project Exploration has a substantial positive impact on youth participants. Key strengths, weaknesses, and opportunities for program improvement as identified by an external evaluator, are outlined below:

Project Exploration Overall PART Ratings



STRENGTHS

- Project Exploration youth programs have a unique and consistent approach to addressing the demonstrated need among female, minority, and low-income students for science education.
- Programming is built on strong interpersonal relationships with peers and adults.
- Project Exploration's executive staff proactively anticipates problems and takes concrete, tangible steps to address known deficiencies in areas of planning and evaluation.

- Project Exploration’s PART rating compares favorably to much larger programs such as NASA’s Office of Education and the Department of Education’s 21st Century Community Learning Centers, both of which also received overall ratings of “Adequate.”

WEAKNESSES

- Despite a strong purpose at the agency level, Project Exploration’s youth programs have historically lacked clearly defined performance goals, measure, and targets.
- Measurable performance goals, where they do exist, tended to focus on *outputs* such as participant counts rather than *outcomes* such as improved academic performance or growth in the science industry.
- Limited baseline data is available, and data was collected inconsistently.

GOALS AND OUTCOMES

As a result of the evaluation, Project Exploration worked to define an appropriate set of outcomes and measurements for its youth programs. Two types of goals were developed: *strategic goals* are statements of purpose that create a clear connection between program activities and the broader mission, and *performance goals* are statements of desired outcomes that include *measurable objectives* against which baseline data can be collected and, over time, achievement compared.

Three draft performance goals were developed through the course of the year-long evaluation process; however, program staff began to feel that goals should be more closely aligned to the program design model of “*getting* kids interested in science, *keeping* them interested in science, and *equipping* them with what they need to graduate high school and consider college—and science—as career options.”

Beginning in fall 2006 Project Exploration staff will begin to collect baseline data and develop performance targets in an attempt to improve programs, align activities with longitudinal benchmarks, and see an improvement in the overall PART rating.

FIELD ALUMNI IMPACT DATA

To date, Junior Paleontologists is the only one of Project Exploration’s three youth programs that has a baseline of outcome-driven evaluation data; in addition, data was kept for other “field alumni,” such as Advanced Paleontologists. This data provided the primary source for this evaluation. Even taking into account uncertainty caused by inconsistent data collection, preliminary findings show that **Project Exploration field alumni graduate from high school, enroll in college, and choose to major in science at rates significantly above the expected average for their peers.** The following findings are particularly notable given the fact that few models exist for creating programs with a demonstrated capacity to significantly impact collegiate and career choice.

Students Graduating from High School

Ninety-two percent of students who participate in Project Exploration field experiences graduate high school. When compared to the graduation rate of students attending the same schools, Project Exploration field alumni graduate high school at a rate 18% higher than their peers. Because academic achievement

“I already feel successful. Participating in Project Exploration] feels like an accomplishment already. If I can do this, what else can I do? I think I have a future in science. Before, I didn’t really think much about it.”

-Hasson, 16, current student, one year with Project Exploration

“Project Exploration was one of the main points in my college essays. I went to this college summit and we were told to focus on something important. And even though I was moving around a lot, I always kept coming back to [Project Exploration], one of the only places that I kept on going to. I kept on changing schools, but I always came back....There is a sense of family here.”

-Charlita, 17, alum, five years with Project Exploration

“The stuff that I have learned in biology and anatomy, I learned [at Project Exploration] first. We learn more here than what they teach us in school. We get more in-depth and hands-on”

-Angie, 21, alum, two years with Project Exploration

is not a requirement for selection into Project Exploration programs, students have a wide variety of academic success levels. Therefore, it is not known whether the students are exactly representative of their respective schools. Additional data is needed to increase confidence in this measure.

Students Enrolling in College

Fifty-seven percent of the graduating seniors who participated in at least one Project Exploration field experience are known to have enrolled in a four-year college. An additional 22% also enrolled in college, although it is not currently known whether they entered two- or four-year degree programs. In 2004, the only year for which Chicago Public Schools data exists, only 27% of public high school graduates went on to enroll in four-year colleges. Taking into account that a Project Exploration student is both more likely to graduate from high school and more likely to enroll in a four-year college, the net impact is that **a Project Exploration student is 3.4 times more likely to enroll in a four-year college degree program than a typical CPS student.**

Both graduation and college enrollment rates vary depending on which high school a student attends. Whereas the CPS graduation rates used were adjusted for the specific schools that PE students attended, college enrollment rates were not adjusted due to lack of available data.

Students Majoring in Science

Twenty-five percent of all students and 34.8% of all girls who graduate from high school as Project Exploration field expedition alumni will go on to major in science in college. Although no comparison data is available, those numbers are certainly well above expected norms. Looking only at those students who later attend four-year colleges, Project Exploration alumni are three times more likely to choose a science major than a typical college student. The results are more pronounced for girls than for boys. Girls from Project Exploration's programs choose science majors at 5.3 times the national average rate, whereas boys choose science at 2.2 times the national rate.

The net impact of participating in a Project Exploration field experience is a dramatic increase in the likelihood that a given student will attain an undergraduate degree in science. Although lack of rigorous school-based college enrollment data from Chicago Public Schools means that the following calculation is somewhat tentative, **putting it all together, a Project Exploration student is approximately 10 times more likely to graduate from high school, go to college and major in science than a typical Chicago Public School student from the same school.**

RECOMMENDATIONS AND OPPORTUNITIES FOR IMPROVEMENT

A full-scale, longitudinal assessment of the program's impact is the logical next step in the evaluation process, pending the availability of appropriate funds. Little precedent exists for much of what Project Exploration aims to accomplish. If Project Exploration can sustain a longitudinal evaluation effort and produce compelling evidence of impact, the organization will be in a unique position to contribute to the national dialogue on two critical issues: (1) out-of-school time program development and (2) advancement initiatives in science, technology, engineering, and math. The following recommendations are to be considered if Project Exploration to become a voice at a national level:

- Conduct PART evaluations annually or bi-annually.
- Establish systematic data collection and analysis procedures using defined measurable targets.
- Invest in database software and information architecture.
- Analyze whether incoming students are representative of Chicago Public Schools with respect to socioeconomic and academic characteristics.
- Strengthen record-keeping related to recruitment practices and incoming student characteristics.
- Develop and execute baseline performance measure evaluations for all three youth programs.
- Use baseline results from performance measures to create both short- and long-term targets for all three youth programs.
- Develop efficiency measures appropriate to strategic planning needs (efficiency measures are designed to capture the *cost* of achieving particular goal).

SECTION 1: INTRODUCTION

1.1 The role of evaluation in Project Exploration's mission

The objective of this report is to provide a strategic overview of Project Exploration's out-of-school time science education programs, all of which provide direct services to students. Programs that service schools and the general public have been excluded. The following four areas of analysis will be emphasized: (1) program purpose and design, (2) strategic planning, (3) program management, and (4) program results/accountability.

For many community-based organizations, rigorous evaluation of out-of-school time programming—particularly with regards to science programs—is uncharted territory. Because of its newness, relatively little is known about out-of-school time best practices, program implementation, cost-effectiveness, and impact compared to formal in-school curricula and programs. However, in these times of decreasing public resources and increasing and competing demands for public investments, funders, policymakers, and their constituents want to know which investments are effective and how programs can be improved. This situation makes it imperative that leaders implementing out-of-school time programs also implement systems and methods to document their progress and demonstrate results. In other words, programs need to begin to grapple with the complex issues of evaluation and measurable impact. Yet, in this age of accountability, all programs, not just flagship ones, are being asked to conduct some form of evaluation to help guide their program and demonstrate results. Given this context, it is imperative that all programs implement low-cost, high-yield evaluations as part of their strategic planning process (Little, DuPree, and Deich, 2002).

On a similar note, relatively little is known about the ability of educational programming, either in-school or out-of-school, to show a demonstrable impact on students' likelihood to choose a college major in a field related to science, technology, engineering, or mathematics (STEM). This becomes surprising when considered in the context of a widely recognized shortfall of American workers qualified for science and technology careers in an increasingly technical global labor market, and in light of well documented evidence that minorities (specifically women, African Americans, Latinos, and Native Americans) are greatly underrepresented in the STEM workforce. The need for improved access to science education has been clearly established in recent literature. The National Academies report *Rising Above The Gathering Storm: Energizing and Employing America for a Brighter Economic Future* (2006) summarizes over a decade of data on the state of STEM education in America and concludes that dramatic educational reforms are needed if the United States is to maintain its place at the forefront of the global economy. Yet despite this urgency, few if any programs have established a reliable track record of promoting STEM careers among underrepresented students. Even large federal research agencies (such as NASA) that face an aging workforce and have invested many hundreds of millions of dollars in promoting recruitment and retention to STEM careers have little or no notion of the effectiveness of their efforts (OMB, 2005).

This report outlines an evaluation program for an **out-of-school time** organization that is rigorous, consistent with national program evaluation guidelines, and explicitly focused on achieving outcomes related to STEM career expansion for minorities and women. If this effort can be sustained and compelling evidence of impact is eventually produced, Project Exploration will be in a unique position to contribute to the national dialogue on issues of both **out-of-school time** program development and STEM career advancement.

1.2 Overview of Project Exploration's Youth Programs

Project Exploration's youth programs seek to provide personalized experiences with science and scientists to students otherwise unlikely to have such opportunities. The target audience for these programs includes students from groups traditionally underrepresented in science, low income students, students from schools and neighborhoods with few out-of-school time science options, and students with academic records that do not qualify them for merit-based scholarships in typical science enrichment programs. Project Exploration's primary goal is to afford these students access to dynamic experiences with science, including science career

path experiences and academic support to encourage college attendance—which they otherwise might not have available.

To fulfill its mission of making science accessible to the public—especially minority youth and girls—Project Exploration provides the following three youth programs:

- *Junior Paleontologists (JP)* is an immersive, ongoing program that involves two weeks of intensive classroom sessions at the University of Chicago, followed by a week-long paleontology field research expedition to the Badlands of Montana. Once the students return, they receive ongoing year-round mentoring, tutoring, evaluation, and leadership development opportunities through high school graduation. Project Exploration recruits 13 new students every year into the JP program. To date 84 students have participated in the JP program.
- *Sisters4Science (S4S)* is an after-school and weekend program that combines science exploration with leadership development for minority girls in middle and high school. In addition to providing hands-on science activities chosen by program participants, S4S exposes girls to a wide variety of women scientist role models. The program maintains an ‘open door policy’ where any girl from the school can come to any session. Currently the program is run in partnership with three schools—Barbara Sizemore Academy, Young Women’s Leadership Charter School and Nettelhorst School. Sessions are held weekly at each school site and typically involve 12-20 girls per session. To date 274 students have participated in the S4S program.
- *Dinosaur Giants Team (DG)* trains high school students to serve as docents to the public at exhibitions and enables them to fulfill their service learning requirements toward graduation. These students are recruited city-wide from Chicago Public Schools. They participate in a seven-hour training program where they learn the scientific history and facts about the exhibit and how to interpret that information for the public. Then, they serve a minimum of 12 hours as interpretive exhibit facilitators—leading tours, answering questions, and running interactive programs for exhibits such as **GIANTS: African Dinosaurs** at the Garfield Park Conservatory. To date 150 students have participated in the DG program.

All three of Project Exploration’s youth programs are built on a social-constructivist theory of learning. Project Exploration pedagogy is grounded in the belief that participants’ interests should drive curriculum, and that students learn best when learning occurs in the context of personal relationships that draw students into a community of practice. Project Exploration’s beliefs about learning are instantiated in a three-part design model that underlies the design of all three programs:

- Stimulate *curiosity* with programs that are taught by scientists and that provide access to emerging discoveries.
- Ensure *continuity* with ongoing access to programs and opportunities for one-on-one support.
- Build students’ *capacity* to learn and pursue their passions through training, skill building, and access to resources.

1.3 Goals of the Formative Performance Evaluation effort

The goal of this Formative Performance Evaluation is to provide a strategic overview of Project Exploration’s out-of-school time science education programs. This evaluation provides a broad, shallow snapshot of program functioning and address the extent to which programs have demonstrated the ability to achieve their objectives, expressed as measurable performance standards. This report will help to identify youth program strengths and weaknesses in order to inform funding and management decisions aimed at making the programs more effective. The following four areas of analysis will be emphasized: (1) program purpose and design, (2) strategic planning, (3) program management, and (4) program results/accountability.

This report has numerous objectives:

- Identify broad areas of strength and weakness in the purpose, planning, and management of Project Exploration's youth programs.
- Assist Project Exploration's leadership in using evaluation results to refine short and long-term performance goals for youth programs.
- Analyze existing output and outcome data with respect to Project Exploration's youth program goals and objectives.
- Identify gaps in existing data collection and propose strategies for implementing measures capable of gauging progress towards the achievement of performance goals.
- Gather preliminary focus-group feedback from participants regarding perceived strengths, weaknesses, and outcomes of Project Exploration's youth programs.
- Situate Project Exploration's strengths and weaknesses within the context of national science, technology, mathematics, and engineering (STEM) education efforts.
- Communicate the purpose, process, and results of the evaluation effort to internal and external stakeholders as defined by Project Exploration leadership.

SECTION 2: METHODOLOGY

2.1 Program Assessment Rating Tool (PART) methodology

The Program Assessment Rating Tool (PART) is a publicly available performance evaluation instrument created by the White House Office of Management and Budget (OMB). A PART review helps identify a program’s strengths and weaknesses to inform funding and management decisions aimed at making the program more effective. The PART therefore looks at all factors that affect and reflect program performance including program purpose and design; performance measurement, evaluations, and strategic planning; program management; and program results (www.omb.gov/part). Because the PART includes a consistent series of analytical questions, it allows programs to show improvements over time, and allows comparisons between similar programs. The instrument is flexible enough to accommodate a wide range of programs that provide direct services to the public, including Project Exploration.

The PART was selected as the most appropriate tool for conducting the Formative Performance Evaluation of Project Exploration’s youth programs because the instrument

- conforms to governmental and academic evaluation standards;
- is publicly available;
- permits rapid high-level assessment of multi-faceted programs (such as Project Exploration’s youth programs);
- allows for some degree of customization;
- captures information regarding all four areas of interest to this study—program purpose, planning, management, and effectiveness;
- includes built-in analysis mechanisms; and
- takes into account the possibility of insufficient data in some areas of the analysis.

The questions that comprise the PART are generally asked in a *Yes/No* format. They require the user to clearly explain the answer and include relevant supporting evidence, such as agency performance information, independent evaluations, and financial information. Responses must be evidence based and not rely on impressions or generalities. A Yes answer must be definite and reflect a high standard of performance. No single question will determine Project Exploration’s assessment, and in some instances, *Not Applicable* may be an appropriate answer.

The PART is a series of questions that assess different aspects of program performance. The PART is divided into four sections (see Table 2.1.1). Answers to questions in each of the four sections result in a numeric score from 0 to 100 for the section. These numeric scores are tallied and translated into qualitative ratings: Effective, Moderately Effective, Adequate, Ineffective, and Results Not Demonstrated.

Table 2.1.1: Components of the PART

Section	Description	Weight
1. Program Purpose & Design	to assess whether the program’s purpose and design are clear and sound	20%
2. Strategic Planning	to assess whether the program has valid long-term and annual measures and targets	10%
3. Program Management	to rate program’s management, including financial oversight and program improvement efforts	20%
4. Program Results/Accountability	to rate program performance on measures and targets reviewed in the strategic planning section and through other evaluations	50%

As a default, individual questions within a section are assigned equal weighting. However, the user may alter the question weighting to emphasize key factors of the program. In some cases, if a question is not relevant to the program, the question may be deemed Not Applicable. In these cases, the user must assign a weight of zero to the question and provide an explanation of this response.

The answers to specific questions in the PART translate into section scores that are in turn weighted to generate an overall score. Unlike individual question weighting that can be customized, section weighting cannot be altered. Overall PART scores are translated into qualitative ratings based on the ranges below. **It is important to note that the overall quantitative scores could suggest a false degree of precision, and that generally only the qualitative ratings are made available to the public.**

Table 2.1.2: PART overall scoring guide

Overall Score (generally not made public)	Rating (available to the public)
85 - 100	Effective
70 - 84	Moderately Effective
50 - 69	Adequate
0 - 49	Ineffective

Results Not Demonstrated: Regardless of overall score, a rating of Results Not Demonstrated is given when programs do not have agreed-upon performance measures or lack baselines and performance data. Specifically, a program that has not been able to establish long-term and short-term performance measures or does not have baseline data to indicate how it has been performing under established measures will receive a rating of Results Not Demonstrated.

2.2 Field alum outcome/output analysis methodology

As an integral component of administering the PART, quantitative analysis was carried out to determine the extent to which valid conclusions could be drawn from Project Exploration’s existing student tracking records for the Junior Paleontologist program; data was also utilized from similar field programs, such as Advanced Paleontologists, which is no longer offered. (No data was available for Dinosaur Giants or Sisters4Science). A series of efforts were made to improve data integrity. Gaps in Project Exploration’s records were filled in by consulting with current and former employees who have personal knowledge of program participants and their activities. ***Where gaps in the data continued to persist, conservative assumptions were made to avoid the possibility of overstating results.*** In all cases, only students definitively known to have achieved a desired outcome (graduate high school, enroll in college, declared a science major, etc.) were counted towards the relevant total. All unknowns were assumed to be negative. For example, there were 12 students who were known to have graduated high school but for whom no post-graduation data was available. Because they were not definitively known to be in college, it was assumed that 12 participants were not in college.

No comparison group was established nor was a quasi-experimental study design in place at the time Project Exploration’s data was collected. However, after improving the data integrity an effort was made to compare Project Exploration students to their peers by mining public databases to determine characteristics of the peer cohort. Outcome measures of interest included high school graduation rate, college enrollment rate of high school graduates, and the fraction of college students who choose to major in science. For this analysis, the comparison cohort was assumed to have the following characteristics:

1. It was assumed that students in the comparison cohort attend the same CPS high schools as Project Exploration students and graduate high school at the average rate for their school.

2. It was assumed that students in the comparison cohort who complete high school go on to enroll in college at the average rate for Chicago public high school graduates.
3. It was assumed that students in the comparison cohort who go on to college choose to major in science at the national average rate based on their gender.

The following factors all introduce uncertainty into the comparison: underlying assumptions may be inaccurate; Project Exploration's data is incomplete and inconsistent; publicly available data on Chicago Public School students is limited; and many variables known to be significant (e.g. family involvement in education, race, language, family income, parents' level of education, etc.) have been omitted from the calculations. However, this research is only a first attempt to characterize the impact of Project Exploration's field expeditions. Although comparison results of this nature are inherently limited, as Project Exploration's evaluation efforts gain sophistication, the organization will refine the cohort characteristics and control for additional variables. As a result, Project Exploration will be able to hone in on a more accurate measurement of the impact of its interventions.

2.3 Focus group methodology

Prior to implementing other evaluation efforts, a third-party evaluation consultant worked with Project Exploration staff to convene two focus groups of student participants. Each focus group consisted of a mixed sample of students drawing participants from a variety of grades, schools, and Project Exploration programs (although the sample was not strictly representative). A ten-question protocol was developed jointly by the Project Exploration staff and the evaluator in order to capture students' thoughts, reflections, and reactions to their Project Exploration experiences. Data from that focus group has been incorporated into the PART analysis and has played a significant role in determining youth program goals and outcomes.

See Appendix B: Focus Group Transcripts

2.4 Summary of data examined

Data examined for this analysis consisted entirely of documentation received from Project Exploration and clarifying conversations with executive and program managerial staff. The following categories of documents were analyzed:

- Strategic planning documents
- Funding proposals/reports
- Program reports and prior evaluation data
- Student records and statistics
- Annual reports
- Operational documents
- Participant feedback surveys
- Participant focus group transcripts

See Appendix D: List of Reference Documents

2.5 Summary of document analysis/coding scheme

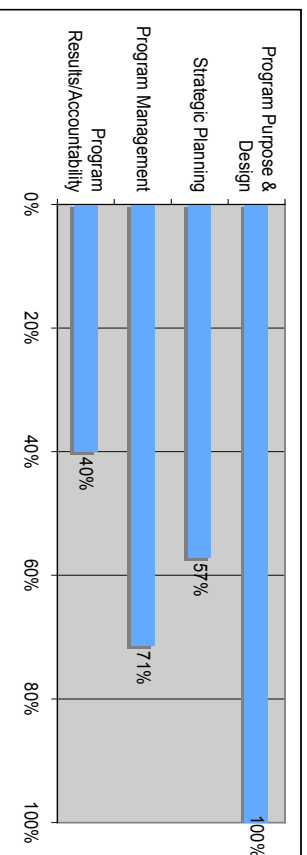
Consistent with recommended PART methodology, extensive documentary evidence was gathered for each question. Although no formal qualitative coding scheme was used to systematically determine the weight of evidence for a given answer, sections of text were coded as pertaining to specific questions. The coded sections were then aggregated by question and examined as a body to determine an appropriate answer.

SECTION 3: RESULTS AND FINDINGS

[See next page]

3.1 Program Assessment Rating Tool (PART) one page summary

Overall Rating: Adequate



Key Performance Measures	Year	JP Targets	JP Actual
Program participants enroll in advanced science courses at an above average rate for their high school. (% above peer group average)	2005	Baseline	unknown
	2006	Under dev	
	2007	Under dev	
Program participants graduate high school at a higher rate than their peers. (% above peer group average)	2005	Baseline	18%
	2006	Under dev	
	2007	Under dev	
Program participants who graduate high school enroll in college at higher rate than their peers. (% above peer group average)	2005	Baseline	190%
	2006	Under dev	
	2007	Under dev	
Program participants who attend college major in science at higher rate than their peers. (% above peer group average)	2005	Baseline	290%
	2006	Under dev	
	2007	Under dev	
Staff to student ratio needed to sustain meaningful relationships with program participants.	2005	Baseline	unknown
	2006	Under dev	
	2007	Under dev	
Percentage of students who participate in leadership opportunities over the lifetime of the program.	2005	Baseline	43%
	2006	Under dev	
	2007	Under dev	

Program Type: Direct Service

Last Assessed: NA

Summary:

Five years after its initial founding, Project Exploration's youth programs remain tightly focused on the core mission of making science accessible to urban minorities and women. Through strong management practices, close attention to participant needs, and iterative refinement of program activities, Project Exploration has built a suite of three youth programs that are complementary and not redundant. Each program provides a different type of access to science experiences and offers unique services customized to meet the needs of various subgroups within Project Exploration's target audience.

Although these programs are thoughtfully designed and well implemented, insufficient attention has been paid to setting clear and measurable performance goals that define desired outcomes in terms of their impact on the lives of participants. To-date, the only youth program with a baseline of outcome-driven evaluation data is the Junior Paleontologists (JP) program. A more thorough evaluation based on clearly defined goals and systematically collected data is needed before impacts can be accurately assessed.

Specific findings include:

- Although data integrity is low, early analyses indicate that alumni of the Junior Paleontologist program appear to graduate from high school, enroll in college, and choose to major in science at rates significantly above the expected average for a cohort of their peers (see 2005 performance data at left).
- Performance information is not collected on a regular basis for all programs, nor is this information made available to the public.
- Project Exploration's executive staff has proactively anticipated problems and taken concrete, tangible steps to address known deficiencies in areas of planning and evaluation.
- No efficiency measures are in place to track the cost of achieving given outputs or outcomes.
- Little precedent exists for much of what Project Exploration aims to accomplish. A sustained, longitudinal evaluation that produces compelling evidence of impact will significantly advance the national dialogue on designing informal education and promoting careers in science.

Project Exploration Youth Programs Operating Budget		
2005 (actual)	2006 (estimate)	2007 (estimate)
\$294,800	\$262,807	\$286,317

3.2 Detailed Program Assessment Rating Tool (PART) findings

See Appendix E for full description of each PART item including all of the criteria for a yes answer and a discussion of what can count as acceptable evidence.

OMB Program Assessment Rating Tool (PART)

Year of Questions: 2005
 Evaluation Type: Direct Service Program (PART Type = Direct Federal)
 Name of Program: Project Exploration Youth Programs
 Year Completed: 2005

Section I: Program Purpose & Design (YES,NO)	Questions	Ans.	Explanation	Question Weighting	Score
1.1	Is the program purpose clear?	YES	Project Exploration's Youth Programs' mission to make science accessible to minority youth and girls is clearly defined in the Strategic Plan and other documents.	20.00%	20.00%
1.2	Does the program address a specific and existing problem, interest or need?	YES	Female and minority participation in science, technology, engineering, an mathematics (STEM) fields is a well documented problem, as is the need to engage low income urban youth long-term, mentored relationships with both peers and adults. Project Exploration's focus on providing under served, underperforming, urban youth with a long-term, personalized experience and an intimate connection with scientists sets it apart from other science outreach programs.	20.00%	20.00%
1.3	Is the program designed so that it is not redundant or duplicative of any other Federal, state, local or private effort?	YES	Project Exploration's approach to youth programs is closely aligned with education research. There is no evidence that another approach or mechanism would be more efficient or effective to achieve the intended purpose.	20.00%	20.00%
1.4	Is the program design free of major flaws that would limit the program's effectiveness or efficiency?	YES	The Youth Programs' mission to make science accessible to minority youth and girls is clearly defined in the Strategic Plan and other documents.	20.00%	20.00%
1.5	Is the program effectively targeted, so that resources will reach intended beneficiaries and/or otherwise address the program's purpose directly?	YES		20.00%	20.00%

Section I Score

100.00%

100.00%

Section II: Strategic Planning (YES, NO, NA)

Question Number	Questions	Ans.	Explanation	Question Weighting	Score
2.1	Does the program have a limited number of specific long-term performance measures that focus on outcomes and meaningfully reflect the purpose of the program?	YES	New long term, outcome-based measures created as part of this evaluation process. Development of a timeline for establishing targets and baseline data is underway.	14.29%	14.29%
2.2	Does the program have ambitious targets and timeframes for its long-term measures?	NO	Baseline data does not exist for all measures. Baseline data on outputs (program participation and audience characteristics) exist, but only limited outcome baseline data has been collected to-date.	14.29%	0.00%
2.3	Does the program have a limited number of specific annual performance measures that can demonstrate progress toward achieving the program's long-term goals?	YES	Annual performance measures have been put in place by board PEC and this evaluation process.	14.29%	14.29%
2.4	Does the program have baselines and ambitious targets for its annual measures?	NO	As with 2.2 above, baseline data gathered to-date focus more on outputs than outcomes. Plans for collecting baseline data are underway.	14.29%	0.00%
2.5	Do all partners (including grantees, sub-grantees, contractors, cost-sharing partners, and other government partners) commit to and work toward the annual and/or long-term goals of the program? Are independent evaluations of sufficient scope and quality conducted on a regular basis or as needed to support program improvements and evaluate effectiveness and relevance to the problem, interest, or need?	NA	Partner organizations (specifically museums and schools) to not appear to participate on a level at which it would be appropriate for partner organizations to measure and report performance related to the program goals.	0.00%	
2.6	Are independent evaluations of sufficient scope and quality conducted on a regular basis or as needed to support program improvements and evaluate effectiveness and relevance to the problem, interest, or need?	NO	Although plans for independent evaluation are underway, current planning documents to not provide enough detail regarding quality, scope, and frequency of the evaluation to warrant a "yes" for this item.	14.29%	0.00%
2.7	Are Budget requests explicitly tied to accomplishment of the annual and long-term performance goals, and are the resource needs presented in a complete and transparent manner in the program's budget?	YES	Historical budget request as demonstrated in grant documents are tied to primarily output oriented goals/ measures that were in place at the time (primarily #s of students served). FUTURE BUDGETS MUST BE TIED TO NEW PROGRAM GOALS TO MAINTAIN "YES" IN THIS AREA.	14.29%	14.29%
2.8	Has the program taken meaningful steps to correct its strategic planning deficiencies?	YES	Concrete steps (including this work with this evaluator) have been and will be taken to address the primary strategic planning deficiency: lack of outcome-oriented goals and measures for the Youth Programs. The need for baseline data and a robust, long term, on-going evaluation strategy has also been recognized at the executive level and is mentioned in draft strategic planning documents.	14.29%	14.29%

Section II Score

100.00% 57.14%

Section III: Program Management (YES,NO)

Question Number	Questions	Ans.	Explanation	Question Weighting	Score
3.1	Does the agency regularly collect timely and credible performance information, including information from key program partners, and use it to manage the program and improve performance?	NO	The program has not collected baseline performance data necessary to set meaningful, ambitious performance targets for all Youth Programs as is required by this "yes" standard for this item. Note that other requirements for a "yes," particularly using program feedback to adjust priorities; allocate resources, and take management actions, have been successfully demonstrated.	14.29%	0.00%
3.2	Are Federal managers and program partners (including grantees, sub-grantees, contractors, cost-sharing partners, and other government partners) held accountable for cost, schedule and performance results?	YES	Program management responsibility is clearly defined in grant application documents. Managers are held directly accountable to the agency executive for the results of their programs.	14.29%	14.29%
3.3	Are funds (Federal and partners') obligated in a timely manner and spent for the intended purpose?	YES	Reports to funders, budget documents, and the presence of an external audit support a yes for this item.	14.29%	14.29%
3.4	Does the program have procedures (e.g. competitive sourcing/cost comparisons, IT improvements, appropriate incentives) to measure and achieve efficiencies and cost effectiveness in program execution?	NO	Review of documentation did not produce any efficiency measures with baseline and target info as required for a "yes" on this item. (Note that an efficiency measure is defined as a per-unit cost of an output or outcome.)	14.29%	0.00%
3.5	Does the program collaborate and coordinate effectively with related programs?	YES	Youth programs have an established track record of long-term, on-going relationships with museums, external scientists, as well specific CPS schools, administrators, and teachers .	14.29%	14.29%
3.6	Does the program use strong financial management practices?	YES	See audit reports.	14.29%	14.29%
3.7	Has the program taken meaningful steps to address its management deficiencies?	YES	Primary management deficiencies center around lack of baseline and target performance data. As noted in 2.8 above, processes are in place to acquire that information.	14.29%	14.29%

Section III Score

100.00% 71.43%

Section IV: Program Results/Accountability (YES, LARGE EXTENT, SMALL EXTENT, NO, NA)

Question Number	Questions	Ans.	Explanation	Question Weighting	Score
4.1	Has the program demonstrated adequate progress in achieving its long-term performance goals?	SMALL EXTENT	Answer is constrained by items 2.1 and 2.2 and reflects lack of agency-wide performance data rather than data indicating poor performance. Measure that are in place for some programs (such as HS graduation rate, college enrollment, and declared major for JP alumni) all point to very substantial progress.	20.00%	6.60%
4.2	Does the program (including program partners) achieve its annual performance goals?	LARGE EXTENT	Historical data on program enrollment, participant demographics, and unanalyzed participant feedback all point to achievement of historical performance goals. Performance against new, outcomes based measures and targets will impact future evaluation of this item.	20.00%	13.40%
4.3	Does the program demonstrate improved efficiencies or cost effectiveness in achieving program goals each year?	NO	Answer is constrained by 3.4. No efficiency measures exist.	20.00%	0.00%
4.4	Does the performance of this program compare favorably to other programs, including government, private, etc., with similar purpose and goals?	LARGE EXTENT	Project Exploration Youth Programs take explicit steps to address known deficiencies in comparable programs and available data indicates that Project Exploration has developed effective solutions for those known problems.	20.00%	13.40%
4.5	Do independent evaluations of sufficient scope and quality indicate that the program is effective and achieving results?	SMALL EXTENT	As noted above, some evaluation data does exist but it is not of adequate scope or quality.	20.00%	6.60%

Section IV Score

100.00% 40.00%

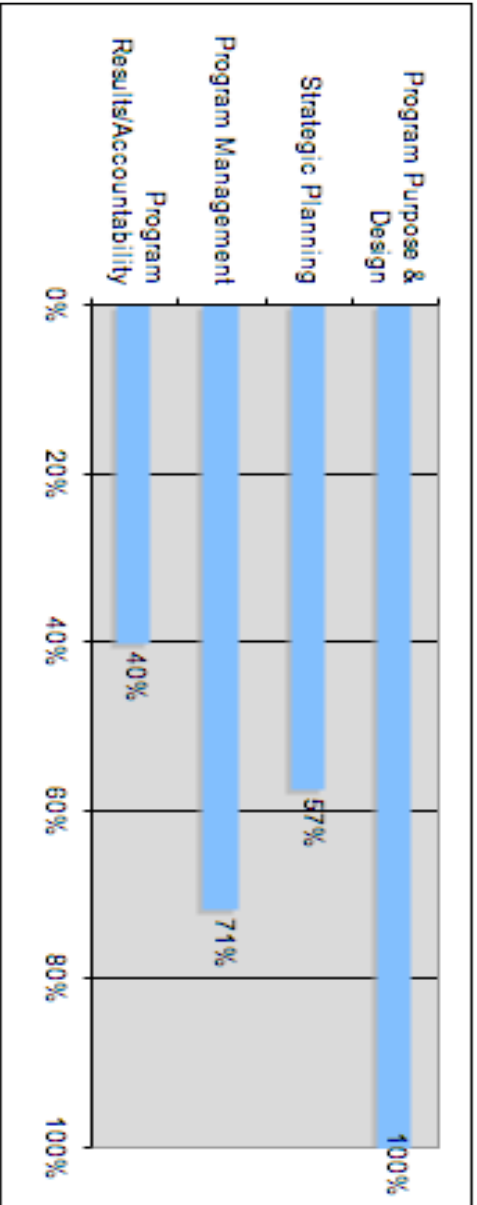
Program Assessment Rating Tool (PART) Summary

Project Exploration Youth Programs

Section	OMB Weight	Score	Weighted Score
Program Purpose & Design	20%	100%	20%
Strategic Planning	10%	57%	3%
Program Management	20%	71%	10%
Program Results/ Accountability	50%	40%	8%
Total Program Score	100%		41%

Overall rating: ADEQUATE

Despite strong scores in Program Purpose & Design and Program Management, as a 5-yr old agency Project Exploration does not have a well established record of outcome-based performance data. Nor does it have complete baselines measures, performance targets, and timelines. Plans are in place to fill this gap, and a follow-up evaluation in 12-18 months should produce more demonstrable results.



**Program Results/
Accountability** 40%

Program Management 71%

Strategic Planning 57%

Program Purpose & Design 100%

3.3 Field alum output/outcome analysis

OUTPUTS

Characteristics of Students Served as of January 2006

Number of individual students who have been in the field	101	
Number of total field experiences provided	136	
Students with 1 time in the field	74	73.3%
Students with more than 1 time in the field	27	26.7%
sum	101	100.0%
Mean number of field experiences per student	1.35	
Gender of individuals in field		
Male	46	45.5%
Female	55	54.5%
sum	101	100.0%
Race/ethnicity of individuals in field		
Black	55	54.5%
White	7	6.9%
Latino	28	27.7%
Other	11	10.9%
sum	101	100.0%
Minimum grade at time of first field experience	7	
Maximum grade at time of first field experience	12	
Mean grade at time of first field experience	9.47	
Mean grade level of pre-college students currently in active contact with Project Exploration	10.73	

Characteristics of Relationships Maintained

Active relationships	82	81.2%
Inactive relationships	19	18.8%
sum	101	100.0%
Mean length of contact before high school graduation		2 to 3 years

Characteristics of Schools Served

Number of schools attended by PE students	37	
Number of high schools	29	78.4%
Number of middle schools	8	21.6%
sum	37	100.0%
Average CPS city-wide high school graduation rate 1999-2004 (CPS data from www.catalyst-chicago.org and based on ISBE new formula)		68.1%
PE high schools with above average graduation rate	20	69.0%
PE high schools with below average graduation rate	5	17.2%
PE high schools with no data available	4	13.8%
sum	29	100.0%

Average graduation rate for high schools attended by PE students weighted by number of expected PE grads from each school (CPS data from http://research.cps.k12.il.us and based on ISBE new formula)	77.7%
Difference between weighted average graduation rate for PE schools and city-wide average Calculation: $77.7 - 68.1$	9.6%
Difference expressed as percent of city-wide average Calculation: $(77.7 - 68.1) / 68.1$	12.3%

OUTCOMES

Students Graduating from High School

Number of expected high school graduates	48	
Expected high school graduates known to have graduated	44	91.7%
Average of graduation rate for high schools attended by PE students (weighted by number of expected PE grads from each school)		77.7%
Increase in high school graduation rate for PE students		
Calculation: $91.7 - 77.7$		14.0%
Size of impact i.e. percent gain above comparison group		
Calculation: $(91.7 - 77.7) / 77.7$		18.0%

Statement of Impact: Students Graduating from High School¹

91.7% of students who participate in Project Exploration field experiences graduate high school. When compared to the average graduation rate of students attending the same schools, Project Exploration field experiences generate a 14-point gain; that represents an 18% increase in the number of high school graduates.

Students Enrolling in College

PE students known to have graduated high school	44	
Project Exploration high school graduates known to have enrolled in college (either 2- or 4-year)	32	72.7%
Project Exploration high school graduates known to have enrolled in a 4-year college	25	78.1%
Project Exploration high school graduates known to have enrolled in a 2-year college	2	6.3%
Project Exploration high school graduates known to have enrolled in college but for whom no additional information exists	5	15.6%
	sum 32	100.0%
Mean CPS 2- or 4-year college enrollment rate for seniors graduating in class of 2004		67.0%
Mean CPS 4-year college enrollment rate for seniors graduating in class of 2004		27.0%
<i>(CPS data from www.consortium-chicago.org/mediacontacts/citations/050905_chicagotribune.html)</i>		
Increase in 2- or 4-year college enrollment rate		
Calculation: $72.7 - 67$		5.7%
Size of impact i.e. percent gain above CPS city-wide average		
Calculation: $(72.7 - 67) / 67$		8.5%
Increase in 4-year college enrollment rate		
Calculation: $78.1 - 27$		51.1%
Size of impact i.e. percent gain above CPS city-wide average		
Calculation: $(78.1 - 27) / 27$		189.4%
Net gain in 4-year college enrollment factoring in increase in high school graduation rate		
Calculation:		241.5%
$\frac{(\text{PE HS grad rate} \times \text{PE college enroll rate}) - (\text{adjusted CPS HS grad rate} \times \text{CPS college enroll rate})}{(\text{adjusted CPS HS grad rate} \times \text{CPS college enroll rate})}$		

Statement of Impact: Students Enrolling in College²

Twenty-five students, representing 56.8% of the graduating seniors who participated in at least one Project Exploration field experience, are known to have gone on to enroll in a 4-year college. An additional 7 students (21.9% of graduated seniors) also enrolled in college, although it is not currently known whether they entered 2- or 4-year degree programs. In 2004, the only year for which CPS data exists, only 27% public high school graduates went on to enroll in 4-year colleges.

Taking into account that a Project Exploration student is both more likely to graduate from high school and more likely to enroll in a 4-year college, the net impact of participating in PE's field program is that a PE student is 3.4 times more likely to enroll in a 4-year college degree program than a typical CPS student.

Students Majoring in Science

Gender of college enrollees:

Female	19	59.4%
Male	13	40.6%
sum	32	100.0%

Declared college science majors

Declared college science majors	11	34.3%
Declared non-science majors	1	3.1%
Undeclared or unknown majors	20	62.5%
sum	32	100%

Female declared college science majors

8

Male declared college science majors

3

Percent of Project Exploration students enrolled in college (2- or 4-year) who choose science as a major:

Total	11/32	34.4%
Female	8/19	42.1%
Male	3/13	23.1%

College science majors as a percentage of all Project Exploration high school graduates:

Total	11/44	25.0%
Female	8/23	34.8%
Male	3/21	14.3%

Percent of Project Exploration alumni who attend 4-year college and are majoring in science:

Total	8/25	32.0%
Female	6/15	37.5%
Male	2/10	20.0%

Nation-wide percentage of bachelors degrees awarded in science 1994-2001:

Total	8.1%
Female	7.1%
Male	9.2%

(National data from <http://www.nsf.gov/statistics/wmpd/underdeg.htm>)

Increase in science majors at 4-year colleges:	
Total	Calculation: 32 - 8.1 23.9%
Female	Calculation: 37.5 - 7.1 30.4%
Male	Calculation: 20 - 9.2 10.8%
Size of impact i.e. percent gain above national average:	
Total	Calculation: (32 - 8.1) / 8.1 295.1%
Female	Calculation: (37.5 - 7.1) / 7.1 428.2%
Male	Calculation: (20 - 9.2) / 9.2 117.4%

Rough estimate of net gain in college science majors produced by

Project Exploration:

Total	1249.3%
Female	1785.4%
Male	697.5%

Calculation:

$$\frac{(\text{PE HS grad\%} \times \text{PE college enroll\%} \times \text{PE sci major\%}) - (\text{adjusted CPS HS grad\%} \times \text{CPS college enroll\%} \times \text{Nat'l sci major\%})}{(\text{adjusted CPS HS grad \%} \times \text{CPS college enroll\%} \times \text{Nat'l sci major \%})}$$

Statement of Impact: Students Majoring in Science³

25% of all students and 34.8% of all women who *graduate from high school* as Project Exploration field expedition alumni will go on to major in science in college. Although no comparison data is available, those numbers are certainly well above expected norms.

Looking only at those students who go on attend 4-year colleges, Project Exploration alumni are 3 times more likely to choose a science major than a typical college student. The results are more pronounced for women than for men. Women choose science majors at 5.3 times the national average rate, whereas men choose science at only 2.2 times the national rate.

Taking into account that field expedition alumni are more likely to graduate from high school, more likely to attend a 4-year college, *and* more likely to major in science, the net impact of participating in a Project Exploration field experience is a dramatic increase in the likelihood that a given student will attain an undergraduate degree in science. Although lack of school-based college enrollment data from CPS guarantees that this calculation is overstated, a PE student is approximately 10 times more likely to graduate, go to college, and major in science than a typical CPS student from the same school.

3.4 Comparison to other science education programs

It is completely understandable for informal education and out-of-school time programs to seek out a means by which they can compare themselves to peer organizations and recognized leaders in the field. Unfortunately, the differences between programs often outweigh the similarities, making direct comparisons anything but straightforward. Different pedagogical approaches, desired outcomes, target audiences, social contexts, access to resources, and funding levels all combine to make it very difficult to meaningfully equate two programs. These difficulties are often compounded by the fact that most informal and out-of-school time programs do not conduct regular evaluations, and, when they do, differences in evaluation methodology further complicate attempts at comparisons. Furthermore, when evaluation data does exist, it is generally not made available to the public in sufficient detail for others to make meaningful use of the information.

Nonetheless, limited comparisons between programs and agencies can be useful. Although these comparisons are inherently complex, important insights can be gleaned by examining the successes, failures, and struggles of peer organizations.

Looking first to the out-of-school time community, the Smith College Summer Science & Engineering Program (SSEP) (<http://www.smith.edu/summerprograms/ssep/>) is considered a national leader in motivating girls to pursue careers in science, technology, mathematics, and engineering. This 17 year-old program provides an intensive, research-oriented, summer program that has been cited by the National Council for Research on Women's 2001 *Balancing the Equation* report as the exemplary model for encouraging girls to choose careers in science.

The table below provides a head-to-head comparison of the Smith program and Project Exploration's Junior Paleontologist program. The table includes all of the evaluation variables available on the SSEP website at the time this report was written (January, 2006): one outcome variable and five output variables describing student characteristics. Comparable statements regarding the JP program are provided alongside the Smith data.

Table 3.4.1: Comparison between Smith College's Summer Science & Engineering Program and Project Exploration's Junior Paleontologists program

	Smith College Summer Science & Engineering Program	Project Exploration Junior Paleontologists Program
Outcome	"Sixty-seven percent of the girls who go through SSEP major in science, engineering, or technology in college."	Thirty-three percent of the girls who go through Project Exploration's <i>JP</i> program major in science in college.
Output	One hundred percent of participants are girls.	Fifty-five percent of participants are girls.
Output	"The SSEP has a selective admissions process, based on academic performance in middle and/or high school, a written essay and a teacher recommendation."	"Students are selected based on their interest level, rather than grades or test scores. The program targets students [sic] may not be academically successful, but who are curious and open minded." (www.projectexploration.org/jps.htm) Selection is based on a teacher's recommendation and an interview.
Output	"Nearly half of the participants in the 2005 SSEP identified themselves as students of color."	Ninety-three percent of participants in the <i>JP</i> program identified themselves as students of color.

Although both programs rely on similar outcomes to measure success, a side-by-side comparison of performance is not easy. In this example, the outcome variables are similar but not identical. Where SSEP focuses on science, engineering, and technology, Project Exploration focuses only on science in its JP program. In order to equate these two variables, they must both be expressed as a change relative to some fixed baseline. One approach might be to determine the fraction of students who were interested in pursuing these majors *before* the intervention, determining the increase in interest generated by the intervention, then comparing the size of the impact. Another equally valid approach might be to compare program alumni with cohorts of similar students and determine how many *additional* science majors were created as a result of the intervention. Either option would require substantially more evaluation information than what is provided on the program website. Furthermore, significant differences in program and audience characteristics would still raise questions about the validity of even a robust comparison. Perhaps the best possible approach for direct comparisons would be to create two categories of out-of-school time science programs: one category for fee-based programs that target high academic achievers, and another category for no-cost programs that target academically at-risk students.

The very complex nature of this task is one of the primary justifications for using the PART assessment. As an evaluation tool, PART affords apples-to-apples comparisons between a diverse set of public service programs. Instead of head-to-head comparisons of individual outcomes, the PART shifts the focus towards addressing broader questions such as whether or not the program meets a demonstrated need, whether or not the program has set appropriate goals, and to what extent the program has demonstrated the ability to meet its goals. While acknowledging the fact that each program is by definition unique (redundancy is in fact a hallmark of poor performance), PART provides a much needed piece of common ground where programs with shared goals and/or modus operandi can meet and learn from each other.

Of the hundreds of federal programs for which PART data exists, the two programs below were selected for comparison due to the fact that they both share several key goals with Project Exploration. (Note: Most of the federal programs assessed by PART have remarkably little in common with Project Exploration).

NASA Education Enterprise—a STEM education program with a clear emphasis on promoting science careers, particularly among minorities and women.

Department of Education 21st Century Community Learning Centers—a domain general out-of-school time program dedicated to increasing in-school academic performance.

While the differences in operating budget between Project Exploration and a public sector agency are several orders of magnitude, it is interesting to note that in many ways the federal programs are facing the same challenges as Project Exploration:

- Neither federal agency was able to score above *Adequate* on the PART overall rating.
- Incomplete or inadequate collection of performance data is common regardless of budget size.
- Design of data collection and monitoring systems is challenging.
- Outcome-based efficiency measures are not cited by either federal program.
- NASA finds that definitive measures of program impact on participants' career decisions are difficult to establish.
- NASA has not yet been able to establish baseline data on career impacts of STEM education programs.
- Department of Education's target percent of students in out-of-school time programs that expected to show improvement on academic measures (standardized test scores) is relatively low (<10%), while the target percent expected to show improvement on social/emotional measures (classroom behavior) is relatively high (>75%).
- Department of Education finds that assistance is required to identify and disseminate promising and proven instructional practices for out-of-school time programs.

Program: Education

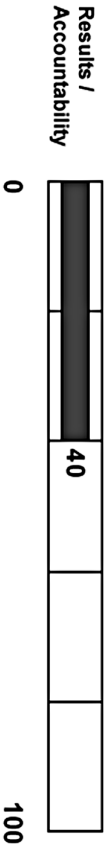
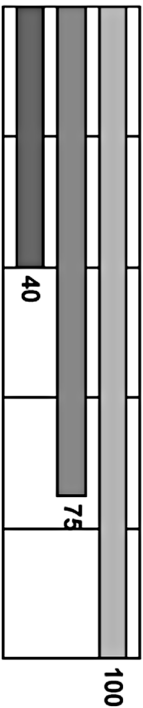
Agency: National Aeronautics and Space Administration
Bureau: Education Enterprise

Rating: Adequate

Program Type: Competitive Grant

Program Summary:

NASA's Education Program supports the Agency's goal "to inspire the next generation of explorers." The program's K-12, higher education, informal education, e-education, and minority programs are designed to attract a diversity of students to careers in NASA-related science and technology disciplines, provide opportunities for higher education faculty to engage in NASA research, and allow the public to better understand the nature and value of NASA's work.



Key Performance Measures from Latest PART

Long-term Measure:	Year	Target	Actual
Percentage of NASA higher education student participants who are studying or working in space-related fields five years after their involvement has ended and claim their NASA education experience influenced or reinforced their career decisions	2005	Under dev	
	2006	Under dev	
	2007	Under dev	
	2008	Under dev	
Long-term Efficiency Measure: Number of people reached via e-education technologies per dollar invested	2005	Under dev	
	2006	Under dev	
	2007	Under dev	
	2008	Under dev	
Annual Efficiency Measure: Percentage of grants awarded on a competitive basis	2005	Under dev	
	2006	Under dev	
	2007	Under dev	
	2008	Under dev	

The assessment found that, despite a heavily earmarked budget and other management challenges, the Education Program's offerings have the potential to attract students to science and technology careers. Specific findings include:

- While many of the Program's dozens of research and grant programs have existed for years without being reviewed for their effectiveness and value to the Agency, managers are beginning to conduct regular program reviews to determine whether to continue, modify, or terminate programs within the portfolio.
- Over half of the Program's budget is dedicated to minority education programs.
- The Program does not collect performance information on a regular basis for all of its programs or make this information available for public review.
- NASA lacks complete data on the effectiveness of its education programs, namely the degree to which program participants have (1) been offered and accepted jobs with NASA and (2) gone on to pursue other science and technology careers.
- The Program's GPRA performance measures do not meaningfully reflect the desired outcomes of the program.

In response to these findings, the Administration will:

1. Continue to perform regular program reviews to ensure that only effective, relevant programs are funded.
2. Require all programs to report annually on accomplishments and make these data available to the public.
3. Require programs to perform self-evaluations including, as appropriate, solicitations of student feedback and collections of longitudinal data on student career paths.
4. Fill the Agency's workforce needs by making a stronger effort to consider eligible Education program participants for and facilitate their entry into jobs at NASA.
5. Develop appropriate performance measures, baselines, and targets.

Program Funding Level (in millions of dollars)

2004 Actual	2005 Estimate	2006 Estimate
230	217	167

Program: *21st Century Community Learning Centers*

Centers

Agency: *Department of Education*

Bureau: *Office of Elementary and Secondary Education*

Rating: *Adequate*

Program Type: *Block/Formula Grant*

Last Assessed: *1 year ago*

Key Performance Measures from Latest PART

Long-term Measure:	Year	Target	Actual
Percentage of regular program participants whose achievement test scores improved from not proficient to proficient or above on State assessments (Note: In 2003, approximately 25 to 33 percent of all participants scored below proficient).	2002		4%
	2006	6.5%	
	2008	7.5%	
	2010	8.5%	
Annual Measure: Percentage of regular program participants whose math/English grades increased from fall to spring.	2002		41%/44%
	2005	45%	
	2006	46%	
	2007	47%	
Annual Measure: Percentage of students with teacher-reported improvements in student behavior.	2001		73%
	2005	77%	
	2006	78%	
	2007	79%	

Recommended Follow-up Actions

Status

Ensure that the program has a data collection and evaluation system that will allow Education to analyze whether State and school district performance goals are being met. Completed

Hold States accountable for meeting program performance goals. Action taken, but not completed

Implement a technical assistance strategy to identify and disseminate promising and proven instructional practices in academic areas. Completed

Update on Follow-up Actions:

Action steps ED has taken to promote accountability include a new monitoring system and an online data collection system. ED developed an online evaluation/assessment system to collect data on academic achievement and behavioral outcomes. In September 2003, ED began rigorous 4-year evaluation of two academic interventions for after-school programs, one for math and one for reading. ED provides technical assistance on improving academic achievement through after-school programs through its annual summer institutes and a project to identify and disseminate information on high quality after-school programs in reading, math, science, and the arts.

Program Funding Level (in millions of dollars)

2004 Actual	2005 Estimate	2006 Estimate
999	991	991

SECTION 4: IMPLICATIONS FOR STRATEGIC

4.1 Overview and process

Project Exploration undertook the evaluation project in recognition of the fact it lacked clear outcomes for its youth programs. Using the PART Performance Measurement Guidelines (OMB, 2005) and reflecting on the history of the program, Project Exploration management and the evaluator worked together to define an appropriate set of outcomes and measurements for the youth programs. (Targets were not set due to lack of baseline data.)

Consistent with PART guidelines, two types of goals were developed for Project Exploration youth programs. **Strategic goals** were selected as statements of purpose that, although not easily measurable, created a clear connection between youth program activities and the broader Project Exploration mission. In addition, **performance goals** were drafted as statements of desired outcomes (or outputs) and included **measurable objectives** against which baseline data could be collected and over time actual achievement can be compared.

4.2 Strategic goals for Project Exploration's youth programs

Project Exploration's strategic goals are embedded in the "Pedagogy and Model" section of the Project Exploration Strategic Plan (released in October 2005). Quoting from that document:

"We have developed an educational model organized around three interrelated elements that are designed to provide access to science and scientists:

- We stimulate curiosity with engaging programs that are taught by dynamic scientists and that provide access to emerging discoveries.
- We ensure continuity with ongoing programming and opportunities for people to get involved with science (and in particular one-on-one support for students in our youth programs).
- We provide training, skill building, and resources to support participants' capacity to learn more and pursue their passions."

Strategic goals are statements of purpose or mission that organizations often include in a strategic plan. Strategic goals might not be easily measurable, but to the greatest extent reasonable they should be used to develop specific, operational performance goals. In other words, agency employees, partners, and program participants should be all able to readily perceive direct connections between high-level strategic goals and operational performance goals.

Future program planning should benefit from clear and explicit links between daily youth program activities and the appropriate strategic goals. For example, staff interacting with youth should be aware of the goals, understand their significance, and be able to classify each of their job activities as contributing to one or more of the strategic goals.

In addition, this set of strategies amounts to a statement of general design principles that may eventually be applicable in novel educational contexts. As such, these strategic goals allow Project Exploration to build local programs that may have meaning beyond a local context. If proven to be effective, a strategic focus on curiosity, continuity, and capacity has the potential to eventually form the core of a nationally reproducible model for out-of-school time youth programming. Careful documentation of successes, failures, and lessons learned in pursuit of these strategic goals will be critical to any future effort to transform Project Exploration's youth programs into a nationally relevant model for others to learn from or even replicate.

4.3 Outcome-based performance goals, measures, and targets

Throughout the evaluation project, staff and a board-led Program Evaluation Committee developed draft performance goals, measures, and targets to begin to establish a framework of shared goals across Project Exploration's youth programs.

In depth discussion revealed that all three of Project Exploration's youth programs share the same desired outcomes. Variation occurs not in the performance goals themselves, but in the extent to which a particular program seeks to achieve a particular outcome; they are variations in degree rather than in kind. For example, all Project Exploration youth programs seek to promote self efficacy, but high intensity, field-based programs expect to have a much more significant impact than low intensity school-based programs.

Three draft performance goals areas were established— Access and Equity, Efficacy and Engagement, and Concepts and Skills—with draft measures and targets for each goal. These goals represented Project Exploration's initial attempts to create outcome areas and measurable goals. However, through the course of working through the year-long evaluation process, program staff began to feel that goals should be more closely aligned to the program design model of “*getting* kids interested in science, *keeping* them interested in science, and *equipping* them with what they need to graduate high school and consider college—and science—as options.” Project Exploration staff will begin to consistently record key longitudinal benchmark data (demographics, high school graduation, participation, etc.) in the summer of 2006 but anticipate reworking program areas and goals in the fall of 2006.

See Appendix E: Draft Performance Goals, Measures and Targets

4.4 Efficiency-based performance measures

Efficiency measures are designed to capture the cost of achieving a particular goal. These measures are particularly useful for programs seeking to grow and expand their services to a wider audience.

As with the other performance measures, Project Exploration's efficiency measures would be gathered separately for each of the youth programs. Ideally, each performance goal would be linked to at least one efficiency measurement. Given Project Exploration's overall status as generally lacking baseline data and systems for collecting and analyzing new inputs, it is not currently realistic to attempt to implement efficiency measures for desired performance goals. As a starting point for future work, Goal B: Efficacy & Engagement might be selected as an appropriate place to begin efficiency measurements.

Efficiency Measures for Performance Goal B: Efficacy & Engagement

Output efficiency measures:

- Full cost accounting of staff time
- Cost per contact hour of field, classroom, and lab experiences for students
- Mean and variance of field and non-field contact hours per student

Outcome efficiency measures:

- Expected change in high school graduation rate per contact hour of field and non-field experience
- Expected change in academic self-efficacy score per field and non-field contact hour
- Staff-to-student ratio needed to sustain meaningful relationships with program participants

As a proxy for strong efficiency measures for all goals, Project Exploration could consider linking budget plans to the new youth program performance goals.

4.5 The Five Tiered Approach to comprehensive outcomes-based evaluation

The Harvard Family Research Project has established a general model describing accepted best-practices for comprehensive outcomes-based evaluation of out-of-school time programs. This model is very useful as a strategic planning tool.

Table 4.5.1: Five Tiered Approach to outcomes-based evaluation (Little, Dupree & Deich, 2002)

Project Exploration	TIER	PURPOSE	TASKS
complete	Tier One: Pre-Implementation Planning	<ul style="list-style-type: none"> • To document the need for a particular program in the community. • To demonstrate the fit between community needs and the proposed program. • To provide “data groundwork” or baseline information. • To identify indicators of change that are of interest to various stakeholders. 	<ul style="list-style-type: none"> • Describe program vision, mission, objectives, goals, and characteristics. This step can involve the development of a logic model to articulate the program’s theory of change. • Conduct community needs assessment to support establishment of the program. Establish baseline status on key indicators.
complete	Tier Two: Service Documentation	<ul style="list-style-type: none"> • To document and examine a program’s use, entrenchment, or penetration in the target population. • To justify current expenditures. • To increase expenditures. • To build a constituency. • To begin to elicit and examine questions about early implementation. 	<ul style="list-style-type: none"> • Accurately describe program participants and services provided; provide accurate cost information. • Build organizational capacity for self-assessment and program modification.
complete	Tier Three: Program Clarification	<ul style="list-style-type: none"> • To provide information to program staff to improve the program. • To re-examine and modify, if necessary, the theory of change, and the short-term indicators and results. • To prepare, if resources permit, for tiers four and five. 	<ul style="list-style-type: none"> • Question basic program implementation and outcome assumptions. • Examine implementation. • Clarify and restate program’s mission, goals, objectives, strategies, and relationships with cooperating providers and the community. • Examine evidence of change on indicators. • Continue to build a culture of a learning organization.
in process	Tier Four: Program Modification	<ul style="list-style-type: none"> • To modify the theory of change, if necessary, and to provide information to staff to improve the program. • To document and report changes in participant status, examine effectiveness, and build accountability. 	<ul style="list-style-type: none"> • Examine progress on short-term outcomes. • Develop measurable indicators of success for outcomes. • Decide on data analysis procedures. • Assess differential effectiveness among individual clients. • Assess community views and program awareness.

Project Exploration	TIER	PURPOSE	TASKS
	<p>Tier Five: Program Impact</p>	<ul style="list-style-type: none"> • To potentially modify the theory of change and provide information to improve the program. • To document changes in participants, examine effectiveness, and build accountability. • To model a learning organization and effective practice. • To contribute to knowledge development and theories of change in the substantive field of interest, or to the refinement of evaluation practices. • To document program effectiveness. • To produce evidence of differential effectiveness among program approaches. • To suggest program models worthy of replication. 	<ul style="list-style-type: none"> • Develop and execute impact or outcome evaluation. • Delineate specific impact outcomes that are to be achieved. • Identify measures that can assess enduring or participant lifestyle changes. • Develop comparison standards (internally within core programs and externally with other youth development programs) • Conduct analysis and write up reports. • Work with stakeholders to develop reporting strategy for diverse audiences.

First, a post-hoc comparison of Project Exploration’s evaluation activities with the model reveals the Project Exploration is well on the way to establishing a comprehensive system for ongoing evaluation. Project Exploration has complete tasks associated with the first three (of five) tiers in the Harvard model, and is in the process of completing components of tier four.

Second, the model provides a roadmap for future evaluation work. Again, Project Exploration’s evaluation plans are well aligned with accepted best practices.

Lastly, the Harvard Five Tiered Approach provides an education-oriented counterpoint that balances the government-oriented PART evaluation. Unlike the PART, which was designed as a very general instrument, the Five Tiered Approach is a framework developed specifically for the informal education community. Alignment to this model *in addition to* PART ensures that Project Exploration is engaged in evaluation activities that are both appropriate for an out-of-school time program and relevant within the broader context of public service programs.

SECTION 5: NEXT STEPS AND RECOMMENDATIONS

5.1 Next steps in evaluation process

- Conduct PART evaluations annually or bi-annually.
- Establish systematic data collection and analysis procedures using defined measurable targets.
- Invest in database software and information architecture.
- Correct inconsistencies and fill gaps in existing datasets.
- Analyze whether incoming students are representative of Chicago Public Schools with respect to socioeconomic and academic characteristics.
- Strengthen record keeping related to recruitment practices and incoming student characteristics.
- Develop and execute baseline performance measure evaluations for all three of the youth programs, not just Junior Paleontologists.
- Use baseline results from performance measure evaluation to create both short and long term performance measure targets for all three youth programs.
- Frequently examine progress on short-term performance measures.
- Develop measurable indicators of success for long-term outcomes.
- Develop efficiency measures appropriate to strategic planning needs.
- Assess differential effectiveness among individual programs.
- Identify measures that can assess enduring and systemic changes.
- Develop comparison standards (e.g., experimental or quasi-experimental design).
- Continue data mining to better understand characteristics of both the Project Exploration student body and the cohort of their peers.

5.2 Next steps in strategic planning process

- Create clear and explicit links between daily youth program activities and one or more of the strategic goals (curiosity, capacity, and continuity).
- Continue to refine program design model (curiosity, capacity, and continuity) by carefully documenting successes, failures, and lessons learned.
- Identify funding opportunities consistent with newly defined strategies and outcomes.
- Begin to use efficiency measures to make data-driven decisions about growth such as adding staff or expanding services.
- Enhance accountability by explicitly linking budget plans to performance goals.
- Adjust program planning and partnerships, as needed, in response to assessment and evaluation results.
- Create opportunities for stakeholders to come together and learn from and make decisions based on the data about the program.

APPENDIX A: DEFINITION OF KEY TERMS

The terms below are used repeatedly throughout this report.

- *Formative Evaluations* are conducted during program implementation in order to provide information that will strengthen or improve the program being studied. Formative evaluation findings typically point to aspects of program implementation that can be improved for better results, for instance how goals are set, how programs are designed and managed, how staff are trained, or how decisions are made.
- *Performance vs. Program Evaluation*

Table A.1: Performance vs. Program Evaluation (Little, 2002)

Purpose	Provides a broad, shallow snapshot of program functioning. Typically answers the question of whether a program has achieved its objectives, expressed as measurable performance standards.	Provides a narrower, deeper examination of program functioning. Typically answers questions of why a program worked, unintended benefits or consequences of a program, and how a program might be improved or changed.
Components	Identification of program goals or outcomes, indicators to measure progress, and regular collection and reporting of data.	Collection of broader range of information on program performance and its context. Information often includes both qualitative and quantitative data.
Scope	Usually involves data collection from all sites.	Usually involves data collection from only a subset of sites.
Timeframe	Annually, or at least at pre-determined intervals.	As needed.
Uses	To examine progress over time, to compare sites, to understand progress toward pre-established outcomes. Can serve as an early warning system to management and a tool for improving accountability to the public.	The more in-depth nature of program evaluation allows for an overall assessment of whether the program works and identification of adjustments that may improve its results. Program evaluation is also used to determine whether a program “caused” outcomes to be achieved.

- *Strategic Goals* are statements of purpose or mission that organizations may include in a strategic plan. Strategic goals might not be easily measurable. For example, the strategic goal of the Federal Head Start program is to “...deliver a range of services, responsive and appropriate to each child’s heritage and experience, that foster healthy development and increase the school readiness of young children in low-income families” (www.acf.hhs.gov/programs/hsb/about/index.htm). To the greatest extent reasonable, strategic goals are used to develop specific, operational, measurable performance goals.
- *Performance Goals* are target levels of performance expressed as a measurable objective, against which actual achievement can be compared. Performance goals can be stated as outcomes, outputs or efficiencies (see below), but to be complete they should include targets, measures, and timeframes.
 - *Performance Measures* are the indicators or metrics that are used to gauge program performance.
 - *Performance Targets* set the thresholds (qualitative or quantitative) for a specific performance measure and define what a program must achieve in order to make progress towards its goal.

- *Outputs* are a way of describing the internal activities of a program (i.e., the products and services delivered). In other words, what does the program do and/or how much of it do they produce? Outputs can include the numbers of classes taught, students served, materials developed, trainings offered, etc. Outputs also include measures of participant satisfaction.
- *Outcomes* are a way of describing changes in the target populations (e.g. students) that come about as a result of program strategies and activities. Outcomes often reflect changes in knowledge, skills, attitude, or behavior.

Outcome measures are generally more informative than outputs, because outcomes are the ultimate results of a program's benefit to the public. Below are some generic examples of outputs vs. outcomes for a hypothetical adult literacy program:

Table A.2: Examples of outputs and outcomes for a hypothetical adult literacy program

Outputs	Outcomes
Number of participants who enroll in an adult literacy program.	Increases in reading ability for participants as a result of instruction received.
Number of adult literacy courses offered in a particular community.	Change in the adult literacy rate of the community in which the courses are offered.
Number of participants who complete the literacy program.	Increase in percentage of participants who complete the program.
Number of guest speakers brought in to serve as role models for success.	Increase in percent of participants who go on to enroll in other adult education programs.
Percent of participants who are satisfied with the program.	Percent of participants who report gains in self-image as a result of the program.
Average income of program participants.	Average percent gain in participants' income a result of literacy training.

- *Efficiency* is a means for demonstrating the ability of a program to implement activities, achieve results, and make the best use of resources (e.g., time, effort, money). Efficiencies are sometimes expressed as a ratio of inputs to outputs/outcomes. Ideally, efficiency measures will capture improvements in program outcomes for a given level of resource use.

APPENDIX B: LIST OF DOCUMENTS REVIEWED

Board Documentation

1. board-job-description-fy05.doc
2. development-committee-job-description-fy05.doc
3. earned-revenue-task-force-job-description-fy05.doc
4. executive-committee-job-description-fy04.doc
5. finance-committee-job-description-fy04.doc
6. nominations-committee-job-description-fy05.doc
7. program-evaluation-committee-job-description-fy05.doc

College Interview Web Piece

8. assignments.doc
9. interview Ashleigh to Andres.doc
10. interview Dantawn to Shureice.doc
11. interview Kaitlin to Susan.doc
12. interview Kaitlin to Susan.htm
13. interview Kris to Kit.doc
14. interview overview.doc
15. interview questions.doc
16. interview Ryan to Elena.doc
17. interview Ryan to Elena.htm
18. interview-Dantawn-to-Shureice-edited.doc
19. The Interview.doc

Evaluation Models and Templates

20. afyt working evaluation design.doc
21. evalbook DATA GATHERING TOOL.doc

Event Evaluations FY05

22. Blank-eval.doc
23. College-Fair-eval-fy05.doc
24. DG-Career-Fair-eval-fy05.doc
25. Engineering-Conference-eval-fy05.doc
26. Focus-Groups-eval-fy05.doc
27. GHSD-eval-fy05.doc
28. Holiday-Party-eval-fy05.doc
29. Reptile-Fest-eval-fy05.doc
30. Science-its-everywhere-eval.doc
31. Wired-NextFest-eval-fy05.doc

Final Reports and Annual Participant Evaluation Reports

College Fair

32. CF_evaluation-results-fy05.doc
33. CF_final-report-fy03.doc
34. CF_participant-stats-fy03.xls
35. CF_short-report-fy05.doc
36. CF_students-in-college-fy05.xls
37. CF_survey-results-fy05.doc

Dinosaur Giants

- 38. DG_evaluation-results-fy02.xls
- 39. DG_final-numbers-fy04.doc
- 40. DG_final-report-fy04.doc
- 41. DG_participant-stats-fy02.xls

Educator's Breakfast

- 42. EB_evaluation-results-04.doc
- 43. EB_survey-summary-fy03.doc

Girls' Health and Science Day

- 44. GHSD_evaluation-results-fy02.doc
- 45. GHSD_evaluation-results-fy05.doc
- 46. GHSD_evaluations-compiled-04.doc
- 47. GHSD_final-report-fy01.doc
- 48. GHSD_final-report-fy02.doc
- 49. GHSD_follow-up-transcript-fy05.doc
- 50. GHSD_short-report-fy05.doc

Junior Paleontologists

- 51. JP_final-report-02.doc
- 52. JP_final-report-03.pdf
- 53. JP_paleofellow-report-04.doc
- 54. JP_participant-stats-03.doc
- 55. JP-evaluation-results-fy04.doc

Sisters4Science

- 56. S4S_evaluation-results-fy04.doc
- 57. S4S_evaluation-results-fy05.doc
- 58. S4S_final-report-fy00.doc
- 59. S4S_final-report-fy05.pdf
- 60. S4S_interest-sheet-results-fy01.doc

Writing Workshop

- 61. WW_evaluation-results-fy05.doc
- 62. WW_survey-results-fy05.doc

Girl's Best Friend Training

- 63. Focus Group Protocol-Hyams.doc
- 64. GBF eval training notes from newsprint - Cluster B.doc
- 65. GBF eval training Operationalizing the Research Questions.doc
- 66. Operationalizing the Research Questions by program.doc

Grants and Reports to Foundations

67. 00-GBF-cover-ltr.doc
68. 00-GBF-proposal.doc
69. 01-Annenberg-loi.doc
70. 01-GBF-program-update.doc
71. 02-chester-youth-report.doc
72. 02-GBF-report.doc
73. 02-prince-cover-ltr.doc
74. 02-prince-proposal.doc
75. 03-Annenberg-ydi-final-report.doc
76. 03-GBF-proposal.doc
77. 03-GBF-summary-sheet.rtf
78. 03-GVF-cover-letter.doc
79. 03-GVF-cover-sheet.doc
80. 03-GVF-exec-summary.doc
81. 03-GVF-interim-report-051404.doc
82. 03-GVFworkplan.doc
83. 03-prince-cover-ltr.doc
84. 03-prince-proposal.doc
85. 04-06-GBF-s4s-workplan.doc
86. 04-GBF-final-report.doc
87. 04-GVF-cover-ltr.doc
88. 04-GVF-cover-sheet.doc
89. 04-gvf-executive-summary.doc
90. 04-GVF-funder-prospects-attachment.xls
91. 04-GVF-loi.doc
92. 04-GVF-proposal-attachement-1.doc
93. 04-GVF-workplan-v2.doc
94. 04-prince-final-report.doc
95. 05-brinson-application-draft 1.doc
96. 05-gbf-proposal.doc
97. 05-gbf-workplan.doc
98. 05-lehman-foundation.doc
99. 05-lehmann-gen-op-ltr.doc
100. 05-speh-proposal.doc
101. 05-speh-report.doc
102. 05-speh-youth-programs-budget-report-actuals.xls
103. 06-brinson-cvr.doc
104. 06-program-strategies-chart.doc
105. BPBudget FINAL.doc
106. Copy of youth-budget-lehman.xls
107. Field Cover Letter 1.05.doc
108. Field Proposal 1.05.doc
109. GBF-Proposal Summary Sheet 2004-05.doc
110. Prince-interim-report.DOC
111. S4S 06 Budget template.BP.doc

Personnel Management

- 112. orgnizational-chart-9-18-05.xls
- 113. personnel-evaluation-form.doc

Project Exploration Student Stats

- 114. college choice chart.doc
- 115. Fun-summer-stats-fy05.doc
- 116. PE Indicators1.doc
- 117. student-ethnic-breakdown-fy05.xls
- 118. student-statistics.xls
- 119. student-statistics2-fy06.xls
- 120. student-statistics2.xls
- 121. Students-in-college-roster-fy06.xls
- 122. youth program stats.doc

Program Goals

- 123. DINOSAUR GIANTS TEAM[1].doc
- 124. FY02 PEEducationGoals3.doc
- 125. FY03 goals.programs.doc
- 126. JUNIOR PALEONTOLOGISTS PROGRAM[1].doc
- 127. s4s-goals.doc
- 128. SISTERS4SCIENCE[1].doc
- 129. YouthDevelopmentGoals.61505.doc
- 130. YouthDevelopmentGoals.doc
- 131. YouthDevelopmentGoals.ledermandraft.52505.doc
- 132. YouthDevelopmentGoals.ledermandraft.61505.doc
- 133. YouthDevelopmentGoals52505.doc
- 134. YouthDevelopmentGoals52505[1].doc

Sisters4Science Evaluation Project

- 135. FACILITATED DAY overview.doc
- 136. fy04-s4s-evaluation-group-invite.doc
- 137. Grls feedback.doc
- 138. PASSENGER.doc
- 139. project ex eval.xls
- 140. S4S Eval Project Overview.doc
- 141. S4S project NOTES.doc
- 142. s4s-eval-meeting-draft.doc
- 143. This evaluation reflects the investigation of two main areas.doc

Strategic Planning & Mission

- 144. DRAFT-strategic-plan-introduction-organizational-goals-7-19-05.doc
- 145. Final draft-strategic plan-Nov10 2005.doc
- 146. project-exploration-strategic-plan Sept 2002.doc
- 147. Project Exploration - Mission, Pedagogy, Impact.doc
- 148. Project Exploration-FY 2006 Programs.doc
- 149. youthp&l083105gabe.xls

Student Focus Group FY05

- 150. FOCUS GROUP NOTES-FY05.doc
- 151. pe-focus-group-thoughts.doc

Workplans

- 152. program-workplan-fy04.xls
- 153. program-workplan-fy05.xls
- 154. program-workplan-fy06.xls

APPENDIX C: FOCUS GROUP TRANSCRIPTS

Prior to implementing other evaluation efforts, a third-party evaluation consultant worked with Project Exploration staff to convene two focus groups of student participants. Each focus group consisted of a mixed sample of students drawing participants from a variety of grades, schools, and Project Exploration programs (although the sample was not strictly representative). A ten-question protocol was developed jointly by the Project Exploration staff and the evaluator in order to capture students' thoughts, reflections, and reactions to their Project Exploration experiences. The following transcripts provide a record of the two focus groups that were conducted on January 17, 2005.

C.1 Focus Group 1

QUESTION 1

What interested you in participating in Project Exploration?

Dantawn

Mother wanted me to be in a summer program and I liked science, but not so much that I would be in a program to go and study it for two weeks. But then she mentioned the trip, and I like to travel. So I looked at the website and got interested.

Hasson

My science teacher asked me, and I like to travel. I was also interested in learning what lived before us. And I was told that the trip will involve digging for fossils.

Edna

I was in 6th grade and was the girl whose parents didn't allow me to do anything, always inside the house and lived in a box. My English teacher had mentioned the program, and I was thrilled by learning about dinosaurs because it is something that I'm interested in, but never been able to learn in detail at school. Then she said that you get to study it for two weeks and get to go to Montana. And at that moment I remember thinking that it's not going to happen—my parents are not going to let me do it. Mom said no, and I kept on bothering her about it for three weeks. After they talked to another girl's [who had participated in the program] mom, they explained it how it was supervised and I wasn't going to die. So my mom really considered it, and she thought it would be a great opportunity for me because it was educational and it doesn't come along everyday.

Andres

I heard about it through my older brother, who had previously participated and came back with fossils and pictures and got me interested in the program. I also heard about *Dino Giants* through school.

Elsa

I either got information in the mail, or my sister brought it home. My sister wanted me to do something for the summer. Was not interested initially but liked science and I got to go away from home. I decided to do the *Advanced Paleontologists* program and liked paleontology.

QUESTION 2

Describe a situation where you had to talk about participating. What did you say? Who were you talking to?

Hasson

I talked about it with Mom after the interview at PE. I told her about the program. I have also talked about it at school in class and some of the students want to go next year.

Dantawn

I talk about it all the time. I have a lot of friends, and after I came back from the trip they were all asking me what I did, and I just can't say that I went to Montana with Project Exploration. So I have to explain the whole thing. I have also told my teachers about it. My science teacher was talking about it in class and I told her that I was in the program. Last year when I was in Chemistry, I saw the fax that Conor had sent my teacher and it was just sitting there for weeks. So I was like, "We have to stop the class" and explained it to the whole class. I told them that you get to do out of the ordinary things. You get to meet different people not from your same surroundings, and you get new opportunities, and they also work with you through your high school years so you get to do a lot of different things like service learning hours. It is a unique program. I tell people how I climbed the Rocky Mountains.

I also tell people that you really have to want to do the program.

Elsa

I talked about the program after summer. I told people that I went to Wyoming on an expedition looking for fossils. I also tell people that I want to study paleontology in college. I talked about it to a lot of people after I came back from Wyoming. My Dad does not believe in dinosaurs. He thinks the fossils were just placed there.

Edna

I tend to talk about it in class. There are special moments where I talk to the entire class. Sometimes I get into spontaneous conversations. People ask me about PE when they see me in the shirts. There was this one kid who said "you are smarter than me and I don't like it". Then he saw the PE shirt and asked me about PE, and that sparked a conversation. I told him we dig for fossils and learn science and other things that we don't get to learn in class. Then he started being more friendly, and he got interested. So I gave him Conor's number.

QUESTION 3

Tell us a story about the biggest challenge you faced while at Project Exploration.

Hasson

Walking down the mountains was scary. I also learned to be patient and tolerate the singing.

Andres

It was challenging to live with different people for a few weeks and getting along with them.

Dantawn

Writing and taking notes. Now I like to write more. I hated writing. PE instills in you to write. Now I also take better notes and know how to take notes. I also like to write essays, which I did not like to write before. And it's all because of Project Exploration. 2004 was better for me, because I already knew about it.

Elsa

I did not like reading out loud from my journals because I didn't like what I wrote. But I got better at it.

Edna

I think of it as birth. You come into the program and you don't know anyone. You are basically put in a classroom for three weeks and you have to make it work. There is no way out of it [PE]—like family. It makes you appreciate people and get to know them and coping with what you have and what you have to do as a group. Another thing that was difficult for me was thinking outside of the box. And I remember warm-ups being very helpful. You learn how to think outside of the box. There are so many possibilities to solving problems that you can apply to life outside of PE.

Andres

I always had the fear of public speaking. With Project Exploration you have to get out of it. I learned how to get used to it. Now it is not as bad as it was in the beginning.

QUESTION 4

What was the one thing that happened to you at Project Exploration that you didn't expect or anticipate?

Hasson

Cows—there were lots of cows there. I didn't expect to live in Montana. Never thought that I would like a small town. Everyone knows each other. Feels like a family.

Edna

I didn't expect it to be more than a summer program. The summer program has led to so many other things that I got to do in the year. I got to paint for a museum, an internship, and I got to do *Dinosaur Giants*. I didn't expect these to happen for like five years. I thought that these are the things that took a really long time to do. But they came so fast and so easily.

When we were on our way back in 2003, I was upset. I thought are we not going to keep in touch with each other and we did. But then I realized that we can always come back to the office and say hello, and we also do a lot of different programs. And I had not thought that I would be the one to come back and be a team leader.

Hasson

When I first came here, I didn't want to get attached.

Edna

You think its just a summer thing, and your parents live so far away from each other. You don't think that there's a reality to keeping in touch. You hear, once a JP always a JP. Didn't think that was true.

QUESTION 5

How does PE compare to other programs? How does PE impact other activities? How are we similar or different?

Dantawn

I'm not really involved in many other activities. Now I am trying to get into the National Honor Society and Boy Scouts, although it is hard on the weekends. I am also trying to get into the yearbook committee. I just come in here after school and keep in touch. I depend on this program to get me other things. If it was up to me, I wouldn't want to do any other program.

Hasson

I have joined martial arts classes, but it is changing rapidly. Here it is nice, and nothing is changing rapidly. The intimacy is nice. If there were 600 kids that went to Montana every year, it would be too big. There would be no attention to you. How would they get to know you? How will they call you if they don't know where you live?

Edna

I have been involved in Marwen, an organization on art and how you can make a living off of art. I didn't like it. I took classes, and the teacher was nice. There was a bigger scale of students and it loses something. There is lack of actual connection with instructors. They didn't know students by name. I wasn't paid any attention.

At PE, you know Gabe, you know Paul. They know you by name. I like that here at PE they know you and who you are and you family and where you live. Marwen felt like another class, and you don't get to know them. You don't get to know the kids like you get to know the *JPs*. You don't have warm-ups and journal sessions, and you don't get to know them.

Elsa

At school I am in the Italian Club, soccer team, and National Honor Society. On the weekends on Saturday, I go to the Merit School of Music and the early outreach program at UIC. The soccer team is closest to PE because of the unity. We know each other really well and it feels like family, which is what I get at PE. The staff really cares about everyone. If you need something they really help you, and they take you under their wing.

QUESTION 6

How—if at all—has Project Exploration changed your attitudes about science?

Elsa

I have always wanted to study science in college as a future career, but didn't know what. PE gave me the idea that I wanted to study paleontology. I knew that I wanted to study science and the discovery and endless possibilities fascinated me.

Dantawn

During AP environmental science class, we were talking about Yellowstone National and talked about forest fire. I knew about it and talked to my teacher about the program. She told me that I should look into environmental engineering. The program influenced me and the class. I'm still interested in the class and the teacher sees it in me.

Hasson

Now I can pick up a science book and read from any chapter. I even like to read history.

Edna

I learned that you can do two things at once. For me that was important. I like art and science and was having a hard time to choose. PE really helped me learn that I can combine the two and make scientific illustrations. That has helped me focus on what I want to do and how I want to do it. There is no question about it that it's what I'm going to do. It's like the "sky opened up."

Andres

Before PE, I didn't know exactly what to do. But I started to like science a lot more, specially paleontology. Now my major is geology, because I can't major in paleontology.

Was anybody not so successful at science in school and did PE help?

Edna

I used to like science here at PE, but got a D on my report card. That brought me down a lot. And I could not understand why. It made me mad and I felt incompetent. I felt like I couldn't show everyone that I'm not a D student. Then Gabe got me a tutor, and when Elena explained it to me, I used to get it. It wasn't my fault that I wasn't getting it. The class was too fast and my personal pace was not working.

Hasson

My first year of physics was bad because I missed a lot of days. I got a C in physics and bad grades in other classes. It feels a lot easier now.

Dantawn

I am getting a C in environmental science, not because it is hard but I have to read the book because the multiple choice questions are from the book. I learn from discussion, but I am reading the book now.

QUESTION 7

In what ways—if any—do your experiences with PE connect to what you are learning in school?

Elsa

I took an earth, space and science class, which was a breeze because of the summer program. I am taking AP biology now, and I am looking forward to it.

Hasson

I write better essays now, and I try to make my handwriting less sloppy.

Edna

I get more confident and make friends and can be social. Every year you meet new people. More satisfied with who you are and not self-conscious about who you are and people not going to like me.

Dantawn

I got to know more people and can talk to people easily and be friends. I can be there for people who need someone to talk to also. In school I take notes automatically and when I read a book I also jot down notes.

QUESTION 8

If PE were to earn a national award for its high quality programs, what would it need to

Keep doing...

Start doing...

Stop doing...

Avoid doing...

KEEP DOING

Journals

Trips

Personal Connections- getting to know students

Keeping in touch

Constant connections—“we know where you live”

Holiday party—seeing everyone and meeting people from other programs

Helping and resource

Guidance

T-Shirts/clothing line

Food

The programs and size

Admission process

START DOING

Bigger senior send-off

More programs during school year (break, weekends, spring break and winter break)

Jobs- offer jobs and offer help with getting jobs

Internships (lab jobs and all kinds of jobs)

Get more science opportunities in the lab and office

More exposure to other scientists

Promote PE---have it on TV so everyone can know about the program

Have more programs, but keep small size

Have a science job day and career fair

Dissections

Work with us more as a group

Talk about making college decisions, like having a support group

Make connections between the field and classroom.

AVOID DOING

Loosing touch with students

Getting too many people

Picking wrong students

Charging

QUESTION 9

How—if at all—has Project Exploration changed the way you think about yourself and your future?

Hasson

I already feel successful. This feels like an accomplishment already. If I can do this, what else can I do? I think I have a future in science. Before I didn't really think much about it. I didn't think that I can't put food on the table unless I became a doctor.

Dantawn

It helps me think I want to do something. I love math, and I am starting to love science because of PE. It's all coming together, and it is steering me on a math and science track.

Edna

Opened me up to discovery and wanting me to learn more about science and other things that didn't know existed. And has helped me choose a path for a future career. If you want to learn you can really do it.

Andres

Before I was very intimidated and very shy person. Now I accept challenges. I don't like talking to a lot of people, but I have to. I am also studying geology.

Edna

I feel like I have something to go for. More focused on what I want and what I need to do to get it. I have thoughts and goals organized well enough to know that I'm not going to graduate high school and not know what I'm going to do with my life.

Elsa

I was able to write good college essays based on my experience at PE.

Hasson

A lot of people like nature and didn't know it.

Dantawn

I can't stress how much the program has impacted me because I have a lot to show.

C.2 Focus Group 2

QUESTION 1

What interested you in participating in Project Exploration?

Angie

My chemistry teacher asked me to apply because it would open me up more because everyone knows that I'm shy. And I looked at the website--- It was about science and paleontology, so I applied.

Eddie

I was interested because I liked history and ancient things and dinosaurs.

Ryan

Something came in the mail with summer programs at University of Chicago. My parents pushed me because it was about science, and I liked science; it has been one of my favorite subjects in school.

Charlita

The first time I heard about it was in my freshman biology class; the teacher had made the class very interesting. I was getting straight A's in her class, and she pointed it [*Dinosaur Giants* program] out to me. She really wanted me to do it and I applied for it and got it.

Carleen

I don't really remember how I first heard about it. I remember my 7th grade teacher having something to do with it and recommended it. I really didn't like science that much. I like the hands on part about it, but I didn't really like learning about it. She recommended it because she had heard that it might be more hands on than just classroom stuff.

QUESTION 2

Describe a situation where you had to talk about participating. What did you say? Who were you talking to?

Charlita

When I asked my sophomore year teacher for a recommendation letter, I had to tell him about it. I also told my coach and other teacher. After my coach heard about it, I had to tell my principal. After talking to my teachers, other people wanted to hear more about it, like the principal. I told them how I got into it and the *Dinosaur Giants* experience and what the *Junior Paleontologists* were doing and what we were all about it. Project Exploration was one of the main points in my college essays. I went to this college summit, and we were told to focus on something important. And even though I was moving around a lot, I always kept coming back to you, one of the only places that I kept on going to. I kept on changing schools, but I always came back to you.

Carleen

I talked about Project Exploration last night to my mom's co-worker. And they were asking me what I might do for a career in college. I told them that I wanted to study paleontology. They were like 'wow, that's kind of random.' And I explained how I got interested in it through Project Exploration. I just told that you were a nonprofit organization and that they basically they help kids learn about science and get interested in science.

Angie

My senior year, I was my counselor's secretary, and I was always talking about PE. And I told him that it was a nonprofit organization, and this program made me open-up more and made me like science more. I always loved science, but I never got the feel of being with real doctors and scientists and getting hands-on. And never got the chance to ask questions that I needed to be answered, and I got to travel. I just opened up more. I was always to myself and never really talked, was just really shy. I told him [counselor] that the program made me open up more and made me have an interest in science more, just because of the way the people are and the students there were just like me.

Ryan

I talked about Project Exploration at an interview at Georgetown University. When I was asked what do I do in my spare time and what are my extra-curricular activities, and I brought up PE. I was like it's this nonprofit organization based in Chicago, and they help minority kids and girls from the city get interested in science and learn to appreciate it more. Programs where they send students out to the field to look for dinosaur fossils. And where students are docents for dinosaur exhibits. And the he was like, "So it's science based, so why are you going into to social sciences?" Then I remembered at one of the gala nights, when people were asking me what I wanted to major in, I was like "political science," and almost everyone at PE has a degree in social science, but works in science.

Eddie

I talk to a lot of people about PE. When I ask for recommendation letters and tell them about things that I have been in, PE comes up a lot. It's a program that helps minority students learn about science.

QUESTION 3

Tell us a story about the biggest challenge you faced while at Project Exploration.

Angie

My biggest challenge was public speaking and presentation, speeches because it is so hard. But I'm starting to get better at it. I know I can do it now; it's not as hard.

Ryan

My hardest challenge was opening up to people I didn't know and introduce myself and talking to strangers. Whenever I'm around strangers, I just go into this little ball and box myself from the rest of the world. Now after PE, I've gotten over that, and whenever I go somewhere and there are people I don't know, I feel more comfortable going up to them and starting conversations.

Charlita

The biggest challenge was being physical. I don't like being dirty and touching things. I always had to wash hands...and for me it was getting over being dirty.

Carleen

My biggest challenge was also physical and waking up early to come to class and getting here on time. Conor telling me to be here on time helped.

Eddie

Opening up to people. Having to do it often helped get over the challenge of opening up to people.

QUESTION 4

What was the one thing that happened to you at Project Exploration that you didn't expect or anticipate?

Angie

So many pictures. Every five minutes there were pictures, and Conor loves her camera.

Charlita

Journals everyday after *DG*, and you had to write a whole page and what if the day wasn't as eventful. I like to write, but they were hard like writing about people arguing. It was kind of the same thing everyday. So reflections were surprising.

Ryan

Summer science—I just didn't expect to get seriously yelled at if anything happens. And then Gabe yells at me.

Carleen

When we were at the All Girls Expedition, and I was the TA and they had asked if I wanted to be a ranch intern in Wyoming with Arlene. A few days before we came back, she asked if I could stay and help them out.

Eddie

It was more fun than expected. Sitting outside and seeing the sunset.

QUESTION 6

How does PE compare to other programs?

How does PE impact other activities? How are we similar or different?

Angie

Most programs end and this program never ends. Once a *JP*, always a *JP*.

Carleen

You guys keep in touch with us; it's kind of mutual. With other programs that I have been involved in, you have to keep in touch with them. I have done a couple things with church and stuff like that. And they all end at after a certain time.

Charlita

I'm involved with College Summit, pom pom team, education talent search, newspaper, etc. With Project Exploration you get exposed to a lot of different things, and things that you don't expect to do. Other programs, you just do what they are set to do. Like dance, you dance. College Summit is college. But PE does college, speech, and exercise, too. It's a lot of different aspects.

What has kept you in touch with us?

There is a sense of family here. I've never been in one place for more than a year.

Ryan

I'm involved with a lot of programs. I do this program called peer jury, and we meet once a month where teenagers sit on a panel and listen to cases of other teenagers that have gotten arrested. And we come up with a sentence that fits their crime, like do community service, write an essay and do a report. It's the same thing day in and day out. You go and sit down and listen to the case and you leave. On a completely different level, with PE there always something new to do. There is always something more spectacular than just sitting in a room. You get to go to new states and you get to experience new things you haven't experienced.

Eddie

I am involved in track and swim team.

QUESTION 7

How—if at all—has Project Exploration changed your attitudes about science?

Carleen

Initially I didn't like the classroom part of science. After my first program, I really liked it because in the first year we did a little biology. And I had learned it in my freshman year. And I liked it because I could tie it in together. I just liked science a lot after that. And also learning about paleontology. I didn't know anything about it. It just opened my eyes to a different perspective.

Charlita

Just being able to talk about it in class. I have never taken environmental science before and I'm taking it for the first time and to know what you are talking about. I aced the test. It makes it more interesting. I'm making the connections, which makes it interesting. My science teacher loves the binders and he asked me to bring one in.

Eddie

I have learned most of my science stuff at Project Exploration, so I'm ahead in my classes and it has helped me get better grades.

Angie

The stuff that I have learned in biology and anatomy, I learned it here first. We learn more here than what they teach us in school. We get more in depth and hands-on.

QUESTION 8

In what ways—if any—do your experiences with PE connect to what you are learning in school?

Charlita

I used the time-line of world used in history class. Writing or study skills, too.

Angie

I write more. You get so used to writing in the summer and all the other programs that PE has. So when you have an essay or any type of writing that you have to do, you think about it more. Because PE somehow gives you questions that you wouldn't think about or wouldn't know how to actually answer. So when you compare that with your essays and you try to go more in depth. So it makes you think deeper.

Ryan

All the journal sessions and reflections made you think from the top of your head and it has helped me improve my writing skills. Usually I get a paper every week or two for. I can actually come up with a 3-4 page paper in about an hour just right out the top of my head. Things just flow out of my finger tips. When I go and read it, it's so well written. It reads like a paper that might have taken someone a week or two. But since there is so much training at PE, it just comes out in a matter of an hour.

Carleen

Reading during journal sessions has helped me put personal stuff out there in my creative writing class and they require you to read out your work out loud.

Eddie

I feel easier about writing and can write about anything.

QUESTION 9

If PE were to earn a national award for its high quality programs, what would it need to

Keep doing...

Start doing...

Stop doing...

Avoid doing...

KEEP DOING

Being different

Journals/ journal sessions so we can learn how to write better

Binders and handouts

Nice people

Keeping in touch

It close

Hands-on

Brainteasers, games, and warm-ups

Hands-on learning, engaging and fun

Sincere

Unique (small, students, structured)

The mix of student's interest levels, academically and enthusiasm

Retention/relationships

START DOING

Do program for younger kids to get them interested in science to get them at a younger age.

Adult programs

Adult student interaction

College fair and essay writing workshops earlier in the school year

Something that brings us back together during the school year

STOP DOING

More structured reflections

AVOID DOING

Too big

Being like school

Teach an agenda, passionless

Boredom

Not making us have to do it---but making us want to do it.

QUESTION 9

How—if at all—has Project Exploration changed the way you think about yourself and your future?

Charlita

I always wanted to become a lawyer or Navy girl. Now I want to come back and do something like you all are doing, like help kids out in the community, to make sure they got the same opportunities that I got.

Angie

When I become a doctor, I want to come back and help out. Hopefully, if Project Exploration will be around, I would come back on the weekends and talk to the kids and help out.

Carleen

A couple weeks ago, I was talking to my physics teacher, and in the beginning of the class I wasn't doing too well. And he saw a change, and towards the end I did better. And he asked me how I was doing in school and about summer. I explained about Project Exploration, and he saw how excited I got about it. He said that I should pursue a career in it, because not many kids get the opportunity to do things like that. That made me feel good that he noticed something besides the way I act in school. Made me feel good that he noticed the enthusiasm about the stuff that we do. Before I wanted to be a doctor, but now maybe I would be a paleontologist.

Ryan

Before I wanted to be a lawyer and go into politics. After this past summer being a TA for Conor, I actually want to go into teaching. I'm taking an earth science right now, and the first few weeks of school we did the same thing that we did in the geology class. It has given me another path that I would not go off on if it were not for PE. [At Project Exploration] I found out who I really am. It has steered me in such a straight path.

Eddie

Project Exploration opened up opportunities for people. Now I know I can go into many different fields just from what you have learned. Makes me feel better that I have something I can do in my spare time.

Angie

PE is the only positive things or one of the positive things that has been going on in most of our lives that keeps us coming back.

Charlita

It made me realize that we have to take care of the earth. I used to litter, and you notice that it's just not a rock, but a sand stone. It's not what it appears; it's something bigger.

Any thing else that you want us to know about how Project Exploration has impacted to you?

Angie

Makes me feel happy

Carleen

Something to look forward to in the summer.

Ryan

I think one of the things it that PE is always going to be there for us no matter what we are going through. If something happens, and there is no one we can get in touch with, you guys are here. I think its great that you guys will always be there for us, no matter what we have going on either today, tomorrow, or five years from now.

Angie

That's true, because on my birthday I talked to Conor, and she made me feel a little like I was at home.

Charlita

Makes you talk to people you wouldn't talk to [i.e. underclassmen]. I feel like you make lifetime friends.

APPENDIX D: STUDENT INTERVIEWS

School's Not Going to End

By: Ashleigh Muhammad

Andres Buitron is a 19 year old young man who is in love. He has been in love for like four or five years. He's become really attached to her. I know for a fact that he feels very passionate about this special little lady. They have come a long way. He worked with her in labs, he took an internship to be with her and tell others about her. He even flew to another state to be with her. You want me to tell you who she is? I don't know.....ok I'll tell you. Her first name is Pale (pay-lee), her middle name is N (she just has an initial for middle name) and her last name is Ta'logy.

Paleontology, get it?

Corny, huh? But he loves her.

It started in his freshman year when Andres was attending Perspective Charter School. His teachers told him to sign up for a science program called Project Exploration. They were having a science program of their own called *Dinosaur Giants* in 2000. He decided and signed up. He said "it was like prep labs". So that is how he became interested and he's been hooked ever since. He's been involved in other programs with Project Exploration. He went on an expedition as a *Junior Paleontologist (JP)* in Montana in 2002. He was also an intern in the University of Chicago in the Dino labs. He later went back to Montana in 2003/2004 to intern at the Old Trail Museum. He is now attending the University of Montana. This is how the interview went..... here it goes:

AM: Hey Andres

AB: Hey

AM: Umm....this is Ashleigh Muhammad from PE and I chose to do an interview with you. Is this a good time?

AB: Yea

AM: Ok.....so I read you were an intern at the University of Chicago. How was that?

AB: It was fun. I like prep work and working with fossils.

AM: Ok.....so I also read that you love fossils. Is that true and what you start being interested in them?

AB: Yea, I started liking them in the prep work. That they actually were living and once had blood running through them. That's what got me interested.

AM: So how old are you?

AB: I'm 19.

AM: What neighborhood do you live in?

AB: I don't really know.....I live near Curie High School.

AM: What year are you in College?

AB: I'm a freshman

AM: Ok now I'm going to ask you about the college application admission process.....what was that like for you?

AB: Like, it shouldn't be hard if you know what you are doing. If you take time out to do it. At times, it was hard because the applications were needed on different days. The recommendations were needed too. Like our school had this thing and they would ask for them a week in advance and I would find out a week later. I had to rush.

AM: What college do you attend?

AB: The University of Montana

AM: How is college?

AB: College is nice. It was what I was expecting.

AM: What's your major?

AB: Geology

AM: Do you have a minor?

AB: No.

AM: Why did you choose that major?

AB: Because I was interested in paleontology, but the University on Montana doesn't have it. If they did offer it, I would take it.

AM: So what are your classes and what are they like?

AB: I have two classes because I'm going to school part-time. It's a geology and math class. The geology is like a lecture class it has like 200 students in it.

AM: Are you serious?

AB: Yes, in my math class there are more students and teacher involvement---like one on one. If you're having a problem they will help you. My math class had like 20 students in it. My high school was small, like 150 total students.

AM: Wow, did you get a lot of one on one with your teachers in high school?

AB: Yea, a lot of one on one.

AM: So what are your professors like? Especially, your science teacher?

AB: I feel more comfortable in my math class.

AM: Why?

AB: Because it's smaller than my geology class. My geology teacher is young. He gets along with everybody. He's not like those old bent over teachers. I don't know what else you want me to say. I mean.....he's not like those teachers you see on TV.

AM: Do your teachers make you read like a lot of chapters in books and then give you a quiz on what you've read?

AB: Well my geology teacher doesn't really go from the book, kind of.....sometimes he does and then uses power points and then we'll have a test on the power point, but in my math class we use the books most of the time. Like, everyday when we're in class.

AM: Ok....well, what about student life.....like what kind of extracurricular activities/clubs/work/etc?

AB: I don't do much of it. I do work on campus. I work in the library. We work in groups. I'm in this group called Powers. We hang out like once a week.

AM: How do you balance it all? Well, is it hard to work and go to school at the same time?

AB: My job gives us schedules we prefer. I do to school part-time. I'll start going full-time next year. They won't let me go over 19 hours. But I'm a work-study. I found hours to work. I mean.....I could work over my hours but I won't get paid.

AM: How was it in the beginning? Was it hard for you to balance it all then?

AB: It wasn't hard and its not so hard now since I have a schedule. I have days when I work and days that I'm able to have to myself.

AM: What was the biggest challenge you had so far, being on college?

AB: For me, being more open and talking to the professors to get the help that I need. Like, in high school and I needed help and they would be like forget it since I'm already passing.

AM: How has PE changed you or influenced you?

AB: PE is the reason I'm in Montana. Before, I didn't have any interest or passion. I mean.....I used to have a passion writing short stories and music, but I'm in Montana because of PE.

AM: What skills/experience with PE have you used in college?

AB: They helped me like, have people skills. You know working at the library, when people ask me a question or me asking other people questions. Its not so much a big deal anymore. I felt nervous on the spot. Like when I was at a gala talking to everybody, I was like only did it when I have to.

AM: How much do you pay for college?

AB: I pay \$4,000 for each semester. It's \$20,000 because I'm out of state. I have to get a residency in Montana to get in-state tuition.

AM: Do you think school will become harder for you?

AB: It's easy now. Like most of the time, but the same time I have to put in more. Also when I start to fail, it might be harder because I will have more classes. It might be more stressful.

AM: Do you have any scholarships?

AB: Yes, I have two scholarships. The Feista del Sol for \$500 and the Chicago Scholars for \$1,000. These are the only two I've gotten so far.

AM: Have you taken out loans?

AB: Yea, I've taken loans. Perkins loans.

AM: What are you passionate about?

AB: Just passionate about geology.

AM: Just geology?

AB: Yes.

AM: Why do you only go to school part-time?

AB: Because there's not a lot of money. My dad lost his job before I was accepted into college, before we had the money for college.

AM: Dang, that's what happens to a lot of people.

AB: Yea.

AM: Were you disappointed by that?

AB: I was disappointed because he (the father) didn't have the skills to get a job real quick. He was working at his job for like 20 years. And then he loses his job. He was born in Mexico and his English is limited. His education is only 1st grade and not many people are looking for that. My brother is going to college and I have a brother that is already in college. He has to take out loans. So money is real tight right now.

AM: So what is next for you? What's in the future for you?

AB: Going to School. Getting a Masters, PhD in geology. School is not going to end. I plan on teaching college level.

AM: No high school?

AB: I'll probably have to, but primarily college level.

AM: Alright.....so that's it. Thank you.

AB: Okay

The reason why I chose Andres to interview because I thought he was interesting. When I first met him, he didn't really say much. He was quiet. At some point I went up to him and said "wass up Andres?" he said "wass up" back, but he had this do I know you look on his face. When Conor was talking about him that was when I became interested in him. The more she said the more interested I became. When she talked about how he was attending school part-time, I was like "man, I really need to interview this dude." When I finally did interview him and he told me about his financial situation, I was like "man, this is not fair to him or his or his family. I mean he was to go to school."

The best part of the interview was then Andres said "school is not going to end." Man, I thought that was really something else. It didn't mean schools going end a days, to me it meant that he is going to continue his education. No matter what. That's something to have a lot of pride in. I'm proud of him and hope that he's proud of himself.

Note:- My name is Ashleigh Muhammad. I'm 16 yrs old. I'm a junior at Young Women's Leadership Charter School. I too have been in PE programs such as *S4S* and *AGE*. I plan on continuing on participating with PE for my love of science. Thank you for reading this article.

Elena Schroeter

By: Ryan Mulvaney

Elena Schroeter graduated from Curie High School, located on Chicago's west side, in 2002. She is now in her third year at the University of Chicago at the age of twenty-one. She has been involved with Project Exploration for the past six years. Elena was a *Dino Giants Team* member in 1999 and took part in the 2000 *Advanced Paleontology* program. I recently spoke to Elena about her college experience at the University of Chicago.

Can you describe how the college application/admissions process was for you?

It was stressful and hard to fill out the college applications. I actually had my mom helping work on them. I carried around a folder that had all my college applications, and only my college applications. I tried to keep my things very organized, but it was very hard to get copies of my applications. As a high schools senior, it's not easy getting access to a copy machine.

My recommendation letters were very good though. My science teacher, Mrs. Rucker, wasn't liked by many of the students. They made fun of her in many ways because they would always get in trouble and never get good grades. I didn't have that problem with her; I got good grades and behaved well in class. I read the letter she wrote for me and it was the best recommendation that I had received.

The one part that I think was most stressful was filling out the financial aid forms. They were very tricky and complicated to do, but I eventually worked through them with help from others. I actually remember sending in the deposit for housing and I received my financial aid statement and I was receiving a lot less than I expected. I found I checked the box for commuter student instead of a residential student. I wrote them a letter saying that things were hard enough filling out college applications without me making stupid mistakes. They ended up saying it happens a lot and not to worry about it because they would fix the problem. I ended up receiving my financial aid statement again and I got \$8,000 more than I was told the first time. Overall it was a big learning experience for me.

Why did you choose to attend the University of Chicago?

I plan on going into Paleontology later on and the U of C offers many classes to help me get there. They offer a Geophysical Science course, a course that is not offered at many schools, and the department for Geophysics is great. Paul (Serenio) is there, so that's also a plus. I wanted to go to a big name school, but I didn't want to leave Chicago to go to the Ivy League schools. I fell in love with the campus and wanted to live in the dorms. The school is close enough to home for me to go back if something comes up, but it is far enough for me to be independent. One good thing about living so close to home is that I can go there for holidays, and if my friends don't have enough to go home for the holidays they come over. My mom cooks for twenty people and we end up eating on the floor and hanging out. I guess you can say I chose the school because of its reputation, its Geophysics department, and the convenience.

Why did you decide to major in Geophysical Science?

I want to go into Paleontology, but I didn't want to major in Biology and have classes with all the Pre-Med students. I wanted a class that was challenging and where I could learn, but I didn't want it to be surrounded with cutthroat Pre-Med students. I wanted to take classes that would help me enjoy school and not worry about other people.

Do you have a minor?

No, but I am trying to get my B.S. degree in Geophysics instead of a B.A. This means I have to take extra science and math courses, but I planned on doing that anyway.

Can you describe your classes and professors?

First there are you core classes that are basic and pretty easy to understand. They are the basic math, science, social studies, humanities, etc. They are fun classes and make you well rounded and open your eyes to things you never would think of. I actually took an art class taught by a grad student. It was good because he was old enough to be experienced as a teacher, but young enough to understand where we [the students] were coming from. The class made me see art in a different way, and it was very interesting.

Then there are hard classes. These classes are very demanding and require a lot of work. My lab classes actually had me going into the lab on my spare time to work on experiments. The teachers are very good in these classes, but there is just a lot of hard work to be done to do well in school.

Then there are the weird classes that have good teachers, but the teachers are sometimes just a little weird. My mineralogy class was one of these weird classes. The class was very good and I learned a lot, but the teachers grading system was very weird. He would ask a question and I would give an answer and he would say, "That's right, but I was actually looking for this," and he wouldn't give me any credit for a right answer. The class was good and he was a good teacher but his way of grading was just weird. All my Geophysics classes are great because everyone is so nice and close knit because it's so small.

I haven't had any mean teachers but I did have a Calculus teacher who didn't help me very much. I would ask for help and he would turn the question back on me and all I could say was I didn't know. He didn't give me any help at all; I guess you can say this was the closest to a mean teacher that I have had.

What are your extra curricular activities?

I really don't have much free time because of all my labs that I have to do for class, but I do try to get a little in on the side. I work at Project Exploration 15 hours a week, sometimes a little more and sometimes a little less. I almost joined the Rugby team but didn't have enough free time to join an actual sports team. I try to fill my time with unorganized activities like going to the gym or playing intramural sports. I like playing intramural sports because there are only 5-6 games a quarter and I only have to show up for games that I can play. There is no commitment to the team and it doesn't take up a lot of time. I was actually asked to play a volleyball game once because they would have to forfeit if they couldn't find one more girl to play, so I played the volleyball game. I try to get to the Geophysics Department meetings whenever I have free time. I'm going to try to go to more of those this quarter. One thing I really like doing is reading paleontology newspapers. A few of us from school get together and read these newspapers and discuss them whenever we can.

How do you balance all this into your schedule?

I had a full schedule last quarter so it was hard to do a lot on the side. I don't want to be as busy next quarter either. I had two lab classes that would run late, labs that had extra class days, and labs that had me coming in on my spare time. I didn't have keys to the lab so I had to work my lab time around people who did have keys to the lab. One thing I make sure to do is set time aside to myself at the end of the day, at least an hour or two. I would usually just sit around with a friend and watch TV and eat junk food. One piece of advice I want to give anyone going into college is that you have to make sure everything gets done and then set aside time for yourself. If you don't set time aside for yourself you will die.

What was your biggest challenge in college?

My biggest challenge in college would be accepting failure. I never got bad grades in high school, so when I went into college I had to learn to accept getting bad grades. I remember calling my mom and telling her I got a bad grade on a test or in class and she would say, "Oh, you got a bad grade on a test how sad. Are you feeling okay?" I just had to realize that it was okay to do bad in school, I'm only human so I can make mistakes.

How has Project Exploration influenced your college life?

Project Exploration is part of my schedule because I work there. It doesn't really affect my schedule because I pick my classes and PE helps me setup my work schedule around my class schedule. In a way PE has influenced me to take certain classes because I want to go into Paleontology. PE has helped me reflect on the past, so I am able to change for the present. I have bank account under my name that I'm completely accountable for. I have learned to manage my own money without help from others. PE has given me responsibility and the feeling that I am an adult.

Are there any skills/experiences from Project Exploration that you use or have helped you in college?

Being in programs with other kids I didn't know helped me become comfortable with other people my age. I used to be very outspoken when it came to class, interviews, and conversations with older people, but when it came time to talk to my own peers I was very uncomfortable. The U of C has a very different background that what she is used to. PE helped me become more comfortable when I was thrown in with people I didn't know much about. It has also made me very comfortable talking on the phone. My house wanted t-shirts and they didn't have anyone to order them so I volunteered. I got all the information and materials and made the order since I was used to doing it at work. When the shirts came everyone was surprised because they didn't think I would actually do it.

What's next for you in life?

I plan on getting a car next because I just got my license a few days ago. I really want a car because I think it's the next step to independence. Everything is so much more easily accessible. I don't have to worry about waiting for the bus when I want to go somewhere. I can just get in my car and go. I think the best thing about me having a car is that I would be able to visit old friends I normally don't get to see because I have to take the bus and train everywhere. With a car I can go almost everywhere that I want.

I also want to go to grad school when I graduate. I don't know where I want to go yet for that. I want to go to the U of C grad school but I also want to keep my possibilities open at the same time. I want to raise my GPA from a B+ to an A- so that's also something I want to do.

How do you pay for college?

Most of the money used to pay for school comes from financial aid (3/4). It costs me \$41,000 a year to go to the U of C. I would say that scholarships and financial aid make up \$30,000 - \$31,000 of tuition. There is also a loan from the school in my name and one under my parents' name. I use the money from work to pay for my schoolbooks though.

What are you most passionate about?

I'm actually very into writing. I'm writing a fiction book with one of my friends in my dorm. I use the free time I set aside everyday to work on the book. I love writing but I don't see myself pursuing it as a career choice. I love to read for fun, but I don't read regular novels. I actually have read Dante's Inferno a few times. I like geology a lot too, but it never seems to come up in any of my daily conversations. I do correct people when I hear them say something wrong. That's how I get to talk about geology and stuff I normally get to talk about everyday. I love the outdoors the most though. I love riding my bike outside and just being outdoors. I'm actually going on a hike in New Mexico this summer, so I'm very excited about that. While in Montana this past summer, I was told about how one of the farm hands got all his scars. He told me he got them from trapping wild cougars that were a problem in town. I actually thought that it would be cool to do that if I wasn't going into paleontology. I would actually like to trap wild cougars and relocate them. I just love the outdoors though; I love going on hikes and getting outside and being in the dirt.

Kit Cabello

By Kristopher Leja

Kit Cabello became a *Junior Paleontologist* in 1999 and continued on to graduate from Perspective Charter High School in 2003. After graduation he enrolled in Columbia College. After a semester there, he decided to join the Marine Corps. Kristopher Leja, a *Junior Paleontologist* in 2003, talks to Kit about his life so far.

Why did you choose the Marines?

I saw it as a chance to learn about leadership and self-improvement. I also am a proud patriot of my country. I love this country and I wanted to serve it.

Describe the application process for you.

I really felt confident about getting in to college. I got plenty of letters of recommendation and they were really easy to get because I had lots of help. I wasn't overwhelmed with what to do. I just took it very easy as something that I could do.

Why did you choose Columbia College?

It was offering what I wanted to do, which was communication and video. I also like their journalism courses. Columbia was in-state so I also considered that.

What was your major and why?

Unfortunately, due to the short time I was at Columbia I wasn't able to choose a major. But I also decided to join the Marines.

Describe your classes and professors.

At Columbia the environment was good and open. I walked in knowing that I could do the work. The classes weren't hard and I felt confident about succeeding. The professors were good and helped me out if I needed it. They knew what they were doing and could help easily.

What extracurricular, work, or clubs did you participate in?

I didn't do any extracurricular programs at school. I just did my work, I felt like getting done with my required college courses. But I did exercise regularly. I ran eight miles, sit-ups, weights, and boxing. When I was done school I liked to exercise or do some reading. I am interested in history, sciences, and architecture.

How did you manage your time?

First, I had my priorities from school so I would try to take care of that first. After that I would like to relax with exercising and reading. I wasn't working during my time at Columbia, so it wasn't as stressful.

Describe the biggest challenge for you in college.

I can't really say, I didn't have any challenges or anything to set me back. I just knocked everything out of the way.

What about the Marines? What challenges you there?

Learning to be adaptive and survive. Adapting to change was hard because one day we would be doing something and the next day it would be something totally different, from weathering to storms to making sure we had plenty of water.

How has Project Exploration influence you?

They showed me that if you look at things and calculated possibilities, anything is possible. I owe Gabe and Paul a lot, their really good people and glad I got involved and know them.

What skills/experience with Project Exploration did you use in college?

Know your knowledge. Then being organized, like we did in PE with data, fossils, and other things. It has helped me out in college and in the Marines.

How did you pay for college?

It doesn't really apply to me, at least not yet. I didn't stay that long so I only paid for the first semester. With the help of my family and myself it wasn't a problem.

What's next for you now?

Really don't know. Right now I am serving and really can't tell what's in store for the future, hopefully nothing but positive. I also want to go back to school sometime and finish what I started.

Susan Silva

By Kaitlin Judkins

Kaitlin Judkins graduated from North Kenwood Oakland Charter School in 2003, the same year she entered the *Junior Paleontologist* Program. Kaitlin is currently a sophomore at Jones College Prep High School and hopes to become a lawyer. She chose to interview Susan Silva, a *Junior Paleontologist* in 2000 and currently enrolled at Robert Morris College.

What's your full name?

Susan Silva

Where did you go to high school?

I went to Amundsen high school and graduated in 2003.

Where do you currently go to college?

Robert Morris

Where do you live?

Rogers Park

What PE programs were you involved in? What age were you when you came into the program?

I was a *JP*, SuperCroc delegate, and I did a lot of internships in Montana and Wyoming. I was 15 years old when I came into the program.

How old are you now?

I am 20 years old

What year are you in, at your college?

I am in my senior year.

What were your feelings or thoughts towards college while you were in your junior and senior year?

Junior year I was excited about being a senior, but I was also very nervous about going to college. I did more preparing in my junior year for college than I did in my senior year, which was a bad choice. Hopefully though, I had very supportive people surrounding me like Project Exploration, family, and friends.

What advice do you have to students who are in high school about thinking and preparing themselves for college?

The most important advice I have is to get focused and organized because during your junior and senior years there is a lot of important decisions you have to make, and a lot of important things you have to do. So it is very important to learn how to manage your time. Another thing that's important to do is to know what you want, and to realize that if you don't take advantage of your opportunities or go out looking for them, you will never get anything accomplished. It's always great to take a chance and have a positive attitude about what you're doing or what you're trying to accomplish. Because at first I didn't go through with the college application process the way I should have but I had a lot of people surrounding me like my family and definitely Project Exploration who stood by my side and coached me through my whole college application process until I got in.

What sorts of things should students be thinking about and doing before they even go through the application process?

Managing their time. Time can get away from you so fast if you let it, and during your junior and senior year time goes even faster! It's a good thing to surround yourself with as much support as you need, I always went to my guidance counselor and always had Project Exploration to go and get help or advice from.

What types of things were you scared or hesitant about when thinking of college, and how did you deal with those feelings when you got closer to your senior year?

I was very nervous because I was scared I wasn't going to make it to college. I dealt with my fears by talking to Gabe and Conor and I either received information from them or my guidance counselor. I also procrastinated a lot which was very bad. I almost didn't end up graduating from my senior year in high school, but I thought about certain things that inspired me a great deal to move on like my family and the fact that I had a lot of support so I eventually made the decision to pull through and overcome my fears.

When did you start filling out college applications? And what process did you go through? Where did you get your applications?

I started filling out my college applications during my senior year, but what ended up happening was that I never sent any of them off. Gabe kept pushing me to stay focused and do what I had to do so I finally got back on track and was able to get into my college. A lot of colleges ask for your original transcript, test scores, and they require you to do essays. But the application that I think is awesome is the common application! Once you fill out that application you can use it for almost any college. I got my applications from my counselor or Gabe. You can also visit colleges and get their applications.

Why did you choose the college that you attend now?

Well, my college kept calling me and harassing me to come to their school, so after a while I just gave in because I figured it was a good school to start off in for my education. And I am glad I chose the school because the teachers are great and they really know what they're doing.

Were you interested in any other colleges?

The other colleges that I was interested in were Northern Illinois University and UIC.

What are some of the things that were difficult for you while filling out the applications? And what was easy?

What was difficult about filling out the applications was when they asked me for my GPA score because my senior year I did not do well at all. The applications also require you to give your test scores and your original transcript, and to write a few essays. I enjoyed writing the essays because I love to write, and I am a good test taker so writing down my test scores wasn't as bad as writing down my GPA. The best part about the college application process was filling out the commons application because I could use that application for any school and not have to worry about filling out different applications out over and over.

How were you feeling around this time of filling out college applications? And how did you cope with your feelings?

Around this time I was feeling anxious and nervous because I felt like I couldn't go through with the process it took to get into college. If it weren't for the people who stayed by my side and supported me constantly I would not have probably been where I am today. That's why I stress that it's always good to surround yourself with people who care for you and are interested in helping you.

In your two most important junior and senior years how did you manage your time and organize your self?

I kept a journal and pocket notebook, and wrote down the schools that I was interested in and the applications that I had sent off, and then I checked off the applications to the colleges I had already got a response to. So I just organized every important piece of information in my notebook, because if you're not organized you pass up important due dates and meetings and just important things that can really make a big difference in whether or not you get accepted in certain colleges or not.

How did you prep for the ACT and SAT?

My high school Amundsen did a really good job in making sure the students practiced and prepared for the SAT and ACT test. Sometimes they would just dedicate days for learning about how to prepare for the test. I went to the counselor's office and got a practice workbook from her so from time to time I would study and do practice problems which helped me a lot. I also took Saturday ACT prep classes, and those classes were really nice because they were small and had great tutors in there to help me with any problems I had. I heard about the classes through my counselor, any information you want or need it is great to go to your school counselor, social worker or someone you trust.

What other methods did you use to help you with grades in high school and studying for important test?

I remember Gabe telling me to try and surround myself with smart people, and that advice helped a lot because when I sat with the smart people they were able to inform me about certain things that the teacher couldn't inform me about. Also, by talking to others who were at a high level than me I was able to challenge myself to see where I was suppose to be or if I was right where I needed to be.

What is your college like?

It is a private college, not that many students kind of reminds me of my high school. The school focuses on primarily business because it's a business school.

Are you happy at the college you attend?

Yes. I am happy at the time because the atmosphere is great but it's just that I know I want to move on to bigger and better universities because I want to go into the medical field.

What was hard for you and easy for you during your first year?

What was hard for me during my first year was adapting to a new environment and adjusting to the work because the work was much different than what I was accustomed to in high school.

How was the work different in college than in high school?

I guess it wasn't the work. It was just the different rubric in college, because in college you get all your homework and stuff ahead of time so that you know what you have to turn in at a certain time. The transition from high school to college is just a little weird at first because you're becoming more and more independent and you're learning how to handle different situations in different ways. You have to know when the best time for doing homework is, when the best time for taking breaks is, doing homework and most importantly studying for tests.

How did you adjust to your surroundings, and college life?

I really wasn't worried to much about making friends because I was so focused on doing what I had to do to become successful. I was quiet and didn't want to be distracted. I got a lot of advice from my family members; Project Exploration and old friends from high school that I graduated with. As time went on I became more comfortable with my schedule. I always kept in touch with counselors still because in college there are a lot of people who will support you if you go to them for help.

What's the difference between high school and college?

The major difference is that you become more independent. For example, your teachers are not going to make sure you turn in your homework or hunt you down to make sure you're doing what you're suppose to do. In college you have to make your own decisions and they have to be the ones that you feel most comfortable with. They can not be decisions made based on what other people want because if you don't pay attention to yourself first, you will find yourself in a lot of stressful situations that sometimes you might not be able to get out of.

Are you involved in any extra-curricular activities, clubs, athletics etc?

Yes, I was heavily involved with Project Exploration. And I also did a lot of volunteer work at medical clinics for my career. I joined the medical assistant club at my school and did internships at clinics. Networking is very important when you get in college because that is how you get closer and closer to what you want to do in life. For example, I was talking to my little brother's pediatrician and I told her about my interest in the medical field so she was able to get me an internship with a medical clinic. That opportunity helped me out a great deal in getting to know what profession I really want to go in.

Do you have a job? If so where do you work?

No, I do not have a job right now other than doing lots of volunteer work and internships.

How do you balance your time?

Balancing time is not that big of an issue for me right now because I just do whatever I have to do to prepare myself.

Is your school tuition high? If so what types of aid helped you in paying the tuition?

My tuition is \$4,500 a semester, which is high to me. Again, schools are always willing to help you get any assistance you need whether it's financially, academically or even socially. The admission advisors at different colleges are always good people to communicate with; they can give you information about financial aid, loans, scholarships and much more.

Are there any websites or other information that you can refer to students for scholarship and financial aid info?

Yes some good websites that I remember were www.makingitcount.com, www.fastweb.com and www.yourfuture.com. Project Exploration gave me a lot of excellent resources too.

Do you have a major? If so what is your major?

Yes, I major in medical assistance.

How did you decide upon your major?

I was interested in the medical field before I even got to college so I immediately knew what I wanted to get involved with. I wasn't sure about what exactly I wanted to do in the medical field so medical assisting was a comfortable position for me to observe and learn the basics about the medical field.

Do you have to choose your major and minors in college right away during your first year? Or do you have to choose them during other years?

No, you don't. Whenever you decide to take classes that you are interested in for your career then you can sign up for them. The college is going to ask you what types of classes are you interested in, and then you're schedule will be create from that decision. The decision is also never permanent; you can change your mind thousands of times through out your years, but just always try to be ware of what profession that you are interested in.

What is your curriculum or schedule?

I go to school from 10:00am – 4:00pm four days a week I have 4 classes that are everyday classes that are 50min to 1hr. long. And mostly in those classes I learn lots of medical terminology, study anatomy and different things like that.

How did you go about choosing what schedule was right for you?

I didn't have a job or anything like that so it just made more sense to take the day schedule. Usually the evening schedule is for students who have jobs and other things to do during the day.

What are the college professors like?

The professors are really nice. They are always available to tutor me whenever they can. And Robert Morris is cool because the teachers use power points to visually explain what they're teaching. Now for other schools with larger class sizes and rougher teachers, using a tape recorder to record lecturing is always helpful to me.

How do you receive any tutoring from professors? What are the best hours to meet them?

It's good to see the professors after class hours when they're not busy because then you can communicate with them one on one

Where are the most effective places for you to study at your school or anywhere else?

There is a center at my school called the Labata so I go there to study and get tutored. Another place where I like to study is at the library and on the train because I have a 40min train ride to and from school.

What subjects do you use a lot of in college that you were exposed to in high school and even elementary school?

English and mat are two subjects that you really use a lot in college. So it's good to get an early start in high school, so that you can be prepared for college work because the work is the same its just harder.

I've heard in college that you are exposed to a lot of different people and different types of peer pressures? What types of peer pressures do you observe in college?

The peer pressures are not like the peer- pressure in high school at my school its not an issue of drugs or stuff like that its more about making the right decisions for yourself.

How do you handle them?

I just think about my future and where I want to be and try to stay focused.

Was it easy to make friends?

At first it wasn't easy because I didn't have any old friends there from high school but now I know more students in my different classes who I hang out with. Paul always told me that it's good to have friends in college because you can't go through college or life in general without people to support you and help you along the way.

What is the most important thing to realize when you're faced with social problems going through college?

It is always best to know what you want. Think about yourself, your values and always know when there's a time to study and a time to have fun too.

Is it important to look a certain way when you attend college (dressing casual, name brand clothes or any other appearances that could affect your image)?

When I started college I started dressing more casual because when I am dressed casual or dressed-up I always feel more positive and confident about myself. At my college it just depends on how you want to dress, and how you want to look to the public eye.

What techniques do you use today from PE programs?

The major techniques that use are my communication skills because Gabe really exposed me a lot to public speaking. And because I want to into the medical field I use a lot of science which I was exposed to also in the PE programs.

Describe the biggest challenge for you in college now.

The biggest challenge for me now in college is just staying on track because I always know that I can easily fall off track.

What is next for you?

I am currently transferring to a new medical clinic, so I have to change my schedule probably to nights. So I just want to adjust properly to that schedule and still stay on track while doing so.

What do you see yourself doing in the future?

I see myself in the medical field at UIC or Northern Illinois University.

Shureice Kornegay

By Dantawn Nicholson

Dantawn Nicholson is a junior at Kenwood Academy. Dantawn was a *Junior Paleontologist* in 2003 and returned in 2004 as a Team Leader. He was recently chosen to participate in the Earthwatch Institute's Student Challenge Awards Program and he will spend this summer in the Bahamas studying tropical ecosystems. Dantawn chose to interview another intrepid explorer—Shureice Kornegay. Shureice, a *Junior Paleontologist* in 1999, is an anthropology major at Northern Illinois University and she will be joining Dr. Sereno's next expedition to Niger.

Dantawn: What is your name?

Shureice: My name is Shureice Kornegay.

What school do you go to?

I went to Amundsen. Before that I went to my local school, but then I went to Amundsen. Now I go to Northern Illinois University.

And what community do you come from?

I came from the North side.

What PE programs have you been involved in?

I was in the Junior Paleontologist program, the Old Trail Museum internship program, and the Advanced Paleontology program.

How old are you?

I'm 20.

What year are you in college?

I'm a junior.

Now I'm going to ask you some questions on the college application and admission process. Describe the college application process for you.

The college application process?

What did you have to go through during your application process?

To be honest, I had it kinda had it easy, because I had a good counselor and I think that's important having and counselor you like and are comfortable with. It's the truth. You need to have someone you're real comfortable asking questions, because they help you get through this. They can get you waivers, and all types of stuff that you wouldn't know if you were doing it by yourself. So it's important to have someone who knows the process better than you so that you'll know. I had a good counselor, so when I had to fill out my applications I didn't have to go through to much.

You didn't have to do the essay?

I didn't have to do anything but fill out the application, fill out the waiver, sign on the dotted line. I was lucky, I don't know. But I still got in. Ha.

Okay. So why did you choose the college you chose?

I spoke with some of my mentors, and I had a choice between Northern and Southern. Honestly I thought that Southern was a party school, that's why I didn't go. But then I went to Northern and found out that it was a party school too. Ha ha. But, yeah, I ended up choosing Northern.

Alright. Now I'm going to ask you some questions about college academics. Like classes and stuff. Do you have a major?

Yes. I'm Anthropology major.

Why did you choose Anthropology?

Because I love science and I like people. And I like studying about culture. I like, I'm interested in not just what people do, but why they do it. I'm interested in behaviorology and... I want to know why. That's all I asked when I was little, "Why? Why? Why?" My momma got tired of me. It's science and I want to go into because I'm good at asking questions and I think that science is for me. And anthropology is something that I'm really interested in and I think that it'll work for me. I hope I can keep it up.

Okay. Describe your college classes that you take or the professors, especially in the science classes that you take.

Professors?

Yeah. The classes overall. Like, big, small, how's your schedule and stuff like that.

I have big classes and small classes. I mean, there's this hall called "Coe Hall." Coe Hall is the biggest auditorium hall ever. I mean, you could have your best friend in that class and not see him until the last day before the class is over with. I'm serious. There are 300 people at least in that classroom on a slow day. Personally I don't like big classes. Like, this one time I got into it with the teacher in front of the whole class. You don't have to put this down, but like... The teacher was like, "Scientists believe that big brains equal intelligence." Which is garbage because Neanderthals had bigger brains than us. It's like, it's so uncomfortable asking questions in a huge class. It just is to me. So I don't prefer big class rooms. I like feeling that I can talk to my teachers, and I don't feel like that when it's a big class.

So you like more like high school sized classes?

Yeah, honestly I do. When there's like 20 some students.

Okay. Describe some of the professors you have.

Professors? I have decent professors. One of my favorites is Dr. D. He taught my Comp class. He's really cool. The teachers, they come in and let you see who they really are instead of coming in and being all "this is this, that is that," that's not cool. I would like a teacher to be more open, so that you could feel like that's a person you could talk to if you had a question about something. You don't have to feel scared standing up in front of the class and talking to the teacher. So a teacher that's really cool is easier to approach. So I prefer a professor that's really cool. They crack jokes and stuff. That's someone you can approach.

Could you in a little bit more detail describe some of your science classes? Like, your anthropology class?

Okay. Next semester I'm taking up this human paleontology class and physical anthropology. I think it's gonna be challenging, but at the same time, this is what I wanna do, and I can't forget that. And last semester I had this one class, I think it was "The Rise of Civilizations". I really loved that class. The teacher showed films and brought specimens. It was a lot about participation instead about just studying, because science is something you have to participate in. It's something you have to be a part of. You just can't read a book and be a scientist. They go out and look for knowledge. So I think that's important too. But my teachers are pretty cool and I like my classes.

I'm going to ask you questions about college life now. Campus life and stuff. Not too personal, just some basic questions. What extra curriculums are you involved in? Clubs, athletics, jobs? What do you do on campus on a daily basis?

My biggest is my Tae Kwon Do Class. I go there and I get my butt kicked. Next semester I'm joining the fencing club. I'm really interested in learning how to fence. Fencing is sword fighting.

Like, when you wear the masks and stuff?

Yeah. That's real cool. Yeah and I'm involved in theater too. They've got a real good theater club. And it's a lot of fun. And it's important to have other stuff outside of school, it's just really important. I can't stress the importance of how serious it is to just have a life. That's what makes college. Having fun and having good friends as well.

So how's your life? What do you on a daily basis when you're not in class?

When I'm not in class? Oh man, I call my friends. We chill, we go out to eat, we go bowling, we go to the movies – we got a theatre out there that only costs two dollars to get in. And it's pretty cool. We go to Wal-mart – and it's really cheap there, I love it. It's ridiculous, I'm serious. But we ride around, go shopping, play pranks on people a lot, it's a lot of fun. That's fun. And sometimes I'm studying. But when I'm not studying, I watch a lot of cartoons. Ha ha! I am the only one in my dorm that watches a lot of cartoons. I get the work done though.

How do you balance the school work with the rest of your life?

It's all about priorities. What do you find is the most important to you? You get the important stuff out of the way and then you go have fun. I think that's how it is. School is number one. That's why you're in DeKalb, surrounded by corn. Because you wanna go to school. That's how I see it. It's like, I volunteered, and I can't forget that. So, school #1 and then everything else after that. Once I'm done with my school work. I can do anything.

Describe the biggest challenge of being in college.

The biggest challenge of being in college is being in college because I'm a home body. I like being home, I like being around my family, to the point where I get on their nerves and they get on my nerves sometimes. And it's kinda hard by myself sometimes. But, I'm getting used to it, it's more fun now, being independent. And it's dawning on me more and more that like, I love being at home but there's going to come a time when I'm not going to be at home, so I better enjoy it now. Like being on campus is like being away from my friends and family at all times. And that's hard on me sometimes. Like if life or my teachers are crazy I can go to my mom and be like, "Mom look what happened!" I have to suck it up and deal with it. And it makes you stronger. And that's the toughest part, becoming stronger, and coming into your own. It's crazy, but it's worth every penny.

How has PE impacted you? What did they help you with, or what knowledge or skill did they give you to help you in your college life?

Alright, let me say this. When I was a *JP*, I used to get on people's nerves. I was a non-listener. People had to pull me aside and say, "You know what, Shureice?" But what it's taught me is that you're gonna grow. Eventually, everything's gonna work out, no matter how many times you get pulled aside, you're gonna get back on track. And everything's gonna be okay if you just stick it out. I mean there were a lot of times when we were on a trail or something and people were tired or wanted to slow down, but we couldn't. Or when were in the van about to go over this cliff...but you've got to be strong and you've got to be brave. And that's what PE taught me... going into the unknown. Doing something that, like, only you have done, out of the ordinary, teaches you a lot about life. How many people can say, "I've hiked the Rockies," or "I've worked with so and so?" That's what you do in life. And like Paul, he had a hard time in school too, and I had a hard time in school. But coming to PE they helped me through. And I was on the detention list, but I was on the honor roll too when I graduated. I pulled it together. When it's time, things are going to work out. That's what PE taught me. Yeah, I talk a lot.

What is next for you?

Right now, I'm really beat, let me tell you. But I wanna get serious about my music. That's what's next for me. That and being a scientist are the two most important things in my life right now. Focusing, and coming into my own and being my own person and standing on my own feet. I want to get to Africa and I want to be useful. I want to make friends by the time we leave. I'm so lucking I got on the Collaboration with All Natural. I heard myself online yesterday, and that feeling, it can't be taught. When you're doing what you're meant to do and you're doing it right. So what's next is figuring out what really makes me happy and sticking to it.

Do you sing or do you rap?

I sing and rap. I sung in a group for a while but I stopped that. It was crazy. But I'm a solo artist now. I collaborate with a bunch of artists in Chicago. We started in July and are just now getting our tracks together. I'm so..you should hear my song it's actually pretty good. And it's coming together SO well. Science and music. I think that's it for me. Alright, turn it off, I talk too much.

APPENDIX E: PART ITEM DESCRIPTIONS AND INSTRUCTIONS

Following is the Office of Management and Budget's complete instructions for the Programs Assessment Rating Tool (PART). The document is also located on the OMB's web site at www.whitehouse.gov/omb/budget/fy2005/pdf/bpm861.pdf

I. PROGRAM PURPOSE AND DESIGN

This section examines the clarity of program purpose and soundness of program design. It looks at factors including those the program, agency, or Administration may not directly control but which are within their influence, such as legislation and market factors. Programs should generally be designed to address either an efficiency matter, such as a public good or externality, or a distributional objective, such as assisting low-income families in the least costly or most efficient manner. A clear understanding of program purpose is essential to setting program goals, measures, and targets; maintaining focus; and managing the program. Potential source documents and evidence for answering questions in this section include authorizing legislation, agency strategic plans, performance plans/performance budgets, and other agency reports.

Options for answers are *Yes* and *No*. Design flaws in the underlying legislation can and should be considered and supported by evidence and are grounds for a *No*. For R&D programs, most of the questions in this section help address program "relevance," one of the three fundamental issues of the R&D Investment Criteria.

1.1 *Is the program purpose clear?*

Purpose of the question: to determine whether the program has a focused and well-defined mission. Determining this purpose is critical to determination of useful performance measures and targets.

Elements of a *Yes* answer: A *Yes* answer would require a clear and unambiguous mission. Considerations can include whether the program purpose can be stated succinctly. A *No* answer would be appropriate if the program has multiple conflicting purposes.

Not Applicable is not an option for this question.

Evidence/Data: Evidence can include a statement of the purpose and supporting objectives from the program's authorizing legislation, program documentation, or mission statement.

1.2 *Does the program address a specific and existing problem, interest, or need?*

Purpose of the question: to determine whether the program addresses a specific problem, interest, or need that can be clearly defined and that currently exists.

Elements of a *Yes* answer: A *Yes* answer requires all of the following:

- A relevant and clearly defined interest, problem or need exists that the program is clearly designed to address.
- The program purpose is still relevant to current conditions (i.e., that the problem the program was created to address still exists).

The explanation should describe the problem, interest or need that the program is designed to address. Considerations could include, for example, whether the program addresses a specific market failure.

A *No* should be given if there is no clear need for the program.

Programs may receive a *Yes* to question 1.1 and a *No* on question 1.2 and vice versa.

Not Applicable is not an option for this question.

Examples: Housing and Urban Development's HOPE VI program had a clear purpose with a goal of demolishing 100,000 of the most severely distressed public housing units. However, the program has surpassed this goal and addressed the need for which the program was originally created. Therefore, the program received a *Yes* in 1.1 and a *No* in 1.2. In addition, the Department of Education Vocational Education program had an unclear mission caused by multiple and overlapping objectives. It was able to document, however, that a significant number of students are graduating from high school and community college without the necessary academic and technical skills. Therefore, the program received a *No* for 1.1 and a *Yes* for 1.2.

Evidence/Data: Evidence should include relevant documentation that demonstrates the existence of the problem, interest, or need. An example could be the number and income levels of uninsured individuals for a program that provides care to those without health insurance.

1.3 Is the program designed so that it is not redundant or duplicative of any other Federal, State, local or private effort?

Purpose of the question: to determine whether the program is designed to fill a unique role or whether it instead unnecessarily duplicates or even competes with other Federal or non-federal programs.

Elements of a *Yes* answer: A *Yes* answer would require that the program does not excessively overlap with other Federal or non-federal efforts, including the efforts of State and local governments or the private and nonprofit sectors.

A consideration can include whether the program serves a population not served by other programs. Answers should address redundancy and duplication at all levels—Federal, State, local and private sector efforts. If there are no similar programs at certain levels, state so in the answer.

Similar programs might be justified in receiving a *Yes* if a strong case can be made that fixed costs are low and competition is beneficial (e.g., perhaps multiple laboratories) or if more than one service delivery mechanism is appropriate (e.g., block grants for base activities and competitive grants for demonstration projects). Also, the standard of evidence to receive a *Yes* should be higher where Federal programs overlap with each other than where a Federal program overlaps with private, local, or State programs.

A *No* answer should be given when there is more than one program that addresses the same problem, interest, or need, regardless of the size or history of the respective programs. For programs that partially overlap with others, a *No* should be given when major aspects of the program, such as its purpose, targeted beneficiaries, or mechanisms, are duplicative. If there are two programs that significantly overlap and one is large and another is small, both programs should receive a *No* for this question.

Not Applicable is not an option for this question.

Examples: Two Federal programs that address substantially similar training needs would face a high standard to receive a *Yes* to this question. In contrast, a *Yes* could be given to a Federal program that addressed indigent medical care across the nation, even though there are many local and private programs that also address indigent medical care. The key would be whether the gaps in the non-Federal provision are large enough to warrant a Federal program and whether the Federal program is well designed to mesh with non-Federal efforts and responsibilities.

Evidence/Data: Evidence should identify duplicative programs and their total expenditures and/or descriptions of efforts supported by those programs that address a similar problem in a similar way as the program being evaluated. Evidence could include documented statements of programs' missions or activities, other program reports or products, and stakeholder feedback.

1.4. Is the program design free of major flaws that would limit the program's effectiveness or efficiency?

Purpose of the question: to determine whether there are major design flaws in the program that limit its efficiency or effectiveness.

Elements of a Yes answer: A yes answer requires all of the following:

- The program is free from major design flaws that prevent it from meeting its defined objectives and performance goals.
- There is no strong evidence that another approach or mechanism would be more efficient or effective to achieve the intended purpose.

A consideration could be whether the government would get the same or better outcome by expending fewer total resources through a different mechanism. For example, there may be evidence that a regulatory program to ensure public safety would be more effective than a grant program. Analysis should consider whether the program structure continues to make sense given changing conditions in the field (e.g., changing threat levels or social conditions). Other considerations could include whether the program extends its impact by leveraging funds and contributions from other parties. If there is no evidence that a different approach or mechanism would be more effective or efficient given the changing conditions in the field, then the program should get a *Yes*.

Not Applicable is not an option for this question.

Evidence/Data: Evidence demonstrating efficient design can include cost effectiveness studies comparing alternative mechanisms (e.g., regulations or grants) with the current design (e.g. direct federal provision). Evidence on the relative benefits and costs of the activity are also useful.

Evidence for determining whether the threshold for capital programming has been met should include the documented program-relevant agency or bureau capital programming policies, directives, instructions, manuals, and assignment of authorities and responsibilities to agency personnel and organizational units.

1.5 Is the program design effectively targeted so that resources will address the program's purpose directly and will reach intended beneficiaries?

Purpose of the question: to determine whether the program is designed so that: 1) program resources are used in a manner that directly and efficiently supports the program's purpose; 2) program resources or outcomes will reach the intended beneficiaries efficiently; and 3) to avoid unintended subsidies.

Benefits can be the outcomes of program efforts or direct assistance such as grant funding. *Beneficiaries* refers to those who benefit from the favorable outcome of the program.

Reach refers to the distribution of program benefits (i.e. program outcomes, grant funding, etc.).

Unlike Question 1.4, which addresses examination of alternatives to achieve a program's goals, this question asks whether program resources under the *chosen* alternative are oriented toward the effective achievement of the program's purpose.

Elements of a Yes answer: A *Yes* answer requires all of the following:

- The program is designed in a manner that ensures resources are being used directly and effectively to meet the program’s purpose.
- The program resources or outcomes (benefits) are adequately reaching the intended beneficiaries.
- The program can demonstrate that the right beneficiaries are being targeted.
- Activities that would have occurred without the program are not subsidized (or receive only warranted levels of subsidies).

Acceleration of activities due to Federal funding can be grounds for a *Yes*, but there should be evidence that the acceleration warrants the subsidy or application of funding. Acceleration of an activity that increases profits for a business—that the firm would or could have undertaken eventually without the subsidy or application of funding—would not generally qualify for a *Yes*, unless there are significant external (i.e., social) benefits from the activity.

Not Applicable is not an option for this question.

Evidence/Data: Evidence should support the existence of an adequate process for determining the proper set of intended beneficiaries that is flexible enough to adjust as the pool of possible beneficiaries or market conditions change. Evidence should also show that the program is designed to 1) reach the highest practicable percentage of target beneficiaries, and 2) have the smallest practicable share of funds or other program benefits going to unintended beneficiaries. Regarding item 1, a small program may only be able to reach a small number of beneficiaries, but it should be well targeted on some merit basis. On item 2, programs not designed to avoid unwarranted shares of funding or other program outcomes going to beneficiaries who do not need or merit the benefits should receive a *No* answer. Programs that are designed in a way that is likely to result in significant levels of erroneous payments should also receive a *No*.

II. STRATEGIC PLANNING

This section focuses on program planning, priority setting, and resource allocation. Key elements include an assessment of whether the program has a limited number of performance measures with ambitious—yet achievable—targets, to ensure planning, management, and budgeting are strategic and focused. Potential source documents and evidence for answering questions include strategic planning documents, agency performance plans/performance budgets and reports, reports and submissions from program partners, evaluation plans, and other program documents.

Options for answers are *Yes*, *No* or *Not Applicable*. While it is recognized that some programs may have greater difficulty than others in developing quantitative performance goals, programs must have meaningful and appropriate methods for demonstrating results. OMB and agencies should work together to develop approaches for programs where it is difficult to develop quantitative measures, and where qualitative, expert-review, or other measures are more appropriate. For R&D programs, most questions in this section help address the *prospective* aspects of the R&D Investment Criteria.

2.1 Does the program have a limited number of specific long-term performance measures that focus on outcomes and meaningfully reflect the purpose of the program?

Purpose of the question: to determine if the program has long-term performance measures to guide program management and budgeting and promote results and accountability that meet the requirements of the PART and Government Performance and Results Act (GPRA). This question seeks to assess whether the program measures are salient, meaningful, and capture the most important aspects of program purpose and appropriate strategic goals.

Elements of a Yes answer: A *Yes* requires that the program have two or three specific, easily understood long-term outcome measures that directly and meaningfully support the program’s purpose. “Long-term” means a long period relative to the nature of the program, likely 5-10 years, and consistent with time periods for strategic goals used in the agency’s GPRA strategic plan.

The performance measures should focus on outcomes, although in some cases output measures are permissible. The measures may be those developed to comply with GPRA, so long as they meet the “Performance Measures” section of this document. Otherwise, OMB and agencies should revise the measures to fully meet GPRA and PART standards. A *Yes* answer can also be given if OMB and the agency have reached agreement on a limited number of long-term measures that will be added to the 2006 GPRA strategic plan or performance plan/performance budget. Significant changes to the GPRA *strategic plan* may require stakeholder consultation.

Output measures only meet the standards of a *Yes* answer if the program can produce sound justification for not adopting outcome measures. Whenever output measures are proposed, the program must clearly show how such measures reflect progress toward desired outcomes. For more detailed discussion on when output measures may be used as proxy measures for outcomes, please see “Selecting Performance Measures” section of the PART guidance or visit OMB’s website at <http://www.omb.gov/part/>

A *No* must be given for long-term measures that do not directly and meaningfully relate to the program’s purpose or are unnecessarily focused on outputs and lack adequate justification. A program must not receive a *No* for having too many measures, if it has identified a few high-priority ones that represent important aspects of the program.

Not Applicable is not an option for this question.

Examples: A program that is exclusively focused on processing applications **and** is unable to adequately define a quantifiable outcome measure may use output measures that focus on increases in accuracy and/or timeliness of service delivery. An example of an unacceptable long-term measure is a housing program that is proposing using a measure of “number of housing units constructed.” In this case, such an output is unacceptable as the program is expected to articulate and measure progress toward achieving outcomes (e.g., increases in homeownership rates, increases in housing equity in low-income communities).

Performance measures should be listed in the Measures tab/screen of the PART. Only measures that meet the standards for a Yes should be entered in the PART.

Evidence/Data: Evidence will include the long-term measures established for the program either in the existing agency GPRA documents or other program documents or as agreed to by OMB and to be included in the 2006 GPRA documents. In the case of new measures, if targets and baselines are not defined, a plan for their development (i.e., timeline, methods for data collection, responsible office and/or staff) must be agreed to by the agency and OMB.

2.2 Does the program have ambitious targets and timeframes for its long-term measures?

Purpose of the question: to determine if the program has challenging but realistic quantifiable targets and timeframes for the long-term measures.

Elements of a Yes answer: To receive a *Yes* answer:

- The program must have specific quantified targets for measures evaluated in Question 2.1. (Where

targets are not “quantitative,” they still must be verifiable, e.g., through a clean audit or outstanding ratings by an expert panel).

- The program is strongly encouraged to have clear baselines from which to measure targets and changes in performance for outcome measures
- The program must have baselines for output measures.
- All targets and timeframes must be ambitious—that is, they must be set at a level that promotes continued improvement within achievable efficiencies.
- Where relevant, the program must define an appropriate end target.

A *No* is appropriate if quantified targets or timeframes are not included for key measures or if the targets or timeframes are not ambitious or challenging. A *No* is also appropriate where required baselines have not been established.

Not Applicable is not an option for this question.

If the program received a No in Question 2.1, the program must get a No for this question.

Targets must be listed in the Measures tab/screen of the PART.

Evidence/Data: Evidence will include targets in existing agency GPRA documents or other program documents or as agreed to by OMB and to be included in the 2006 GPRA documents.

2.3 Does the program have a limited number of specific annual performance measures that can demonstrate progress toward achieving the program’s long-term goals?

Purpose of the question: to determine whether a limited number of annual performance measures have been identified that directly support the long-term goals evaluated in Questions 2.1 and 2.2. The measures should be logically linked to the long-term goals in a manner that enables them to demonstrate progress toward achieving those long-term goals.

Elements of a Yes answer: A *Yes* answer requires all of the following:

- A limited number of discrete, quantifiable, and measurable annual performance measures have been established for the program.
- Annual performance measures adequately measure the program's progress toward reaching the long-term goals evaluated in Questions 2.1 and 2.2.
- Annual performance measures focus on outcomes. Measures may focus on outputs if the program can adequately justify why it is unable to define a satisfactory quantifiable outcome measures. The explanation must clearly state how the outcomes helps achieve the long-term goals of the program.

The annual performance measures may be those developed by the agency to comply with GPRA, if the performance measures meet the criteria listed above.

Programs must have at least one efficiency measure as part of their annual measures. Credit for efficiency measures is given in Question 3.4.

Not Applicable is not an option for this question.

If the program received a *No* in Question 2.1, an explanation of how annual performance goals contribute to desired long-term outcomes and the purpose of the program must be provided to receive a *Yes* for this question. Performance measures should be listed in the Measures tab/screen of the PART. Only measures that meet the standards for a *Yes* should be entered in the PART.

Evidence/Data: Evidence will include the annual measures established for the program in the agency GPRA performance plan/performance budget or other program documents, or they may be new measures as agreed to by OMB and which will be included in the 2006 GPRA performance plan/performance budget. Evidence for capital asset acquisition programs includes agency acquisition and project management working documents, contract performance measures and metrics, and business cases (OMB Circular A-11 Exhibit 300s).

2.4. Does the program have baselines and ambitious targets for its annual measures?

Purpose of the question: to determine if the program has baselines and challenging, but realistic, quantified targets for the annual measures.

Elements of a Yes answer: A *Yes* answer requires all of the following:

- Baselines have been established for most of the annual measures evaluated in Question 2.3.
- Specific annual targets, in almost all cases quantified, have been developed for most of the program's annual measures evaluated in Question 2.3. These targets provide a specific value with which performance can be compared.
- All targets are ambitious – that is they must be set at levels that ensure continued improvement and realization of efficiencies. They also should be within reason for the program to achieve.

A *No* answer would be appropriate if quantified targets or timeframes are not included for most measures or if the targets are not ambitious or challenging.

Not Applicable is not an option for this question.

If the program received a *No* in Question 2.3, the program must get a *No* for this question. Targets should be listed in the Measures tab/screen of the PART.

Evidence/Data: Evidence will include targets in the agency GPRA performance plan/performance budget or other program documents or as agreed to by OMB and will be included in the 2006 GPRA performance plan/performance budget.

2.5. Do all partners (including grantees, sub-grantees, contractors, cost-sharing partners, and other government partners) commit to and work toward the annual and/or long-term goals of the program?

Purpose of the question: to determine whether program efforts carried out by program partners also support the annual and long-term performance goals of the program.

Elements of a Yes answer: A *Yes* answer would require that program managers strive to ensure the following:

- partners support the overall goals of the program;
- partners measure and report on their performance as it relates to accomplishing the program’s goals.

Examples: The most obvious example of a partner is an entity receiving program funding. A program that requires all grant agreements and contracts to include performance measures that will help the program achieve its goals and monitor those measures would receive a *Yes*.

While a program cannot always control the activities of its partners, it can exert influence through a number of various mechanisms. If a program does not link partners’ activities to the program’s goals through a performance requirement or some other means then a *No* would be appropriate.

If the program received a *No* for both Questions 2.1 and 2.3, the program must receive a *No* for this question

Evidence/Data: Evidence can include contracts and other documents that tie contractor performance to program goals, as well as other procedures the program uses to get partners to commit to, measure, and report on performance related to the program’s goals.

2.6. Are independent evaluations of sufficient scope and quality conducted on a regular basis or as needed to support program improvements and evaluate effectiveness and relevance to the problem, interest, or need?

Purpose of the question: to ensure that the program or agency conducts non-biased evaluations on a regular or as-needed basis to fill gaps in performance information. These evaluations should be of sufficient scope to improve planning with respect to the effectiveness of the program.

Elements of a Yes answer: A *Yes* answer requires that a program have evaluations that meet all the following criteria, described in detail below:

- high quality
- sufficient scope
- unbiased, independent
- conducted on a regular basis

Not Applicable is not an option for this question; given the flexibility in determining what constitutes an evaluation, all programs should undergo an evaluation that meets the following elements of quality, scope, and independence.

Quality. Evaluations should be sufficiently rigorous to provide information on the effectiveness of the program. For programs that support or employ a range of services and approaches, evaluations should also provide information on the effectiveness of the various services and approaches. To receive a *Yes*, agencies must demonstrate that they have chosen and applied evaluation methods that provide the most rigorous evidence of a program’s effectiveness that is appropriate and feasible. A program may satisfy this criterion if the agency and OMB determine that the program is in the process of developing new evaluation approaches that will provide the most rigorous evidence possible by a specified future date.

The most significant aspect of program effectiveness is *impact*—the outcome of the program, which otherwise would not have occurred without the program intervention. A number of evaluation methodologies are available to measure the effectiveness of programs. Some, such as randomized controlled trials, are particularly well suited to measuring impacts. However, these studies are not suitable or feasible for every program, and a variety of evaluation methods may need to be considered. Other types of

evaluations, including well-designed quasi-experimental studies, may provide useful information about the impact of a program and/or can help address *how* or *why* a program is effective (or ineffective) and should be considered when determining a yes or no answer. Quasi-experimental studies should be scrutinized given the increased possibility of an erroneous conclusion.

Overall, *evaluations must be appropriate to the type of program*. Agencies and OMB should consult evaluation experts, in-house and/or external, as appropriate, when choosing or vetting rigorous evaluations.

In order to receive a *Yes*, a brief description of the nature of the evaluation, including the methodology used and why it is sufficiently rigorous to provide evidence of the effectiveness of the program must be provided.

Supplemental guidance on evaluations that can provide strong evidence of a program's effectiveness can be found in Appendix B of this document or on the web at: http://www.whitehouse.gov/omb/part/2004_program_eval.pdf

Scope. Evaluations must be sufficiently comprehensive to provide information on the effectiveness of the entire program rather than just certain aspects of the program or selected site implementations. In cases where a comprehensive evaluation is unnecessary based on the known and recently-demonstrated effectiveness of a program, evaluations that fill in gaps in the knowledge about a program's effectiveness can meet the elements of a *Yes* answer. In the absence of a single evaluation of sufficient scope, a group of evaluations may be used to demonstrate a program's effectiveness, provided that each evaluation meets the standards for quality and independence and the group of evaluations together meet the standard for scope. A program may satisfy this criterion if the agency and examiner determine that existing evaluations are inadequate, but the program is in the process of developing an appropriate evaluation to be completed by a specified future date.

R&D programs also should undergo independent reviews of relevance to their agencies, fields of science or technology, or customers, in addition to assessing questions of performance. These reviews should conclude with reports documenting the findings and recommendations. A "customer" may be another program at the same or another agency, an interagency initiative or partnership, a firm, an organization from another sector or country, or the general public. Industry-relevant programs may be expected to use industry cost-sharing of associated projects as an indicator of market-relevance, and they should incorporate industry in planning and prioritization. Reviews should be rigorous and methodical and be a critique of the program's methods, results and findings by others in the field with requisite training, expertise, and independence.

Independence. To be independent, non-biased parties with no conflict of interest should conduct the evaluation. Evaluations conducted by the program itself should generally not be considered "independent;" however, if the agency or program has contracted out the evaluation to a third party this may qualify as being sufficiently independent. Evaluations conducted by an agency's Inspector General or program-evaluation office might also be considered "independent." OMB examiners and agency staff will determine if a specific evaluation can be considered "independent" for this question.

The explanation must describe how the party conducting the evaluation is unbiased and has no conflict of interest with the program for the program to receive a *Yes*.

Frequency. Without regular updates, program evaluations become less relevant as the information on which they were based becomes older. In order to capture a program's impact over time, evaluations must be conducted on a recurring basis. The period of time between evaluations should be chosen based on the needs and resources of the specific program, but all programs should have plans to repeat evaluations on a regular basis with a specified interval between assessments.

A program may satisfy this criterion for a *Yes* if OMB and the agency agree that the program is developing or about to conduct a new program evaluation in the near future.

A program must have evaluations that satisfy all four criterion described above to receive a *Yes*.

Evidence/Data: Evidence should include a program evaluation plan or schedule of program evaluations and program documentation describing the type of evaluation, including scope and quality, and the criteria for selecting an independent evaluator.

2.7. Are Budget requests explicitly tied to accomplishment of the annual and long-term performance goals, and are the resource needs presented in a complete and transparent manner in the program's budget?

Purpose of the question: to establish whether the performance-planning and budget-planning processes are integrated so that 1) resource allocation decisions reflect desired performance levels (given resource constraints) and 2) the effects of funding and other policy changes on results are clear.

Elements of a *Yes* answer: A *Yes* answer requires all the following:

- The program must have effective program budgeting in place that defines the relationship between 1) annual and long-term performance targets and 2) budget resources.
- The program must have an integrated budget and performance presentation that:
 - makes clear the impact of funding, policy, or legislative decisions on expected performance and;
 - provides evidence that the requested performance/resource mix will enable the program to achieve its performance goals.
- The program must report all direct and indirect costs needed to attain the performance results, including applicable agency overhead, retirement, and other costs that might be budgeted elsewhere.

The exclusion of minor amounts of services provided from central departmental offices (e.g., Office of the Secretary) from program costs does not require a program to receive a *No* answer. However, a program that generates significant costs that must be addressed by another program should budget for these costs or, at a minimum, provide this information in clear display tables that display the full costs of attaining results.

To earn a *Yes*, discretionary programs will need to define the relationship between funding and performance levels, and mandatory programs will need to explain the relationship between policy changes and performance levels.

A program with budget planning that is not tied to performance or strategic planning would receive a *No*.

Examples: An energy program may generate significant environmental side effects that must be mitigated by a separate program. The energy program should acknowledge and account for those mitigation costs as part of the full cost of attaining its own program goals.

Evidence/Data: Evidence can include documentation of how the budget request directly supports achieving performance targets. Budget documents should also clearly indicate the full costs of achieving performance goals, even if some of these costs do not appear in the specific account or activity line of the program.

Also, evidence can include an agency program budget estimate that identifies all spending categories in sufficient detail to demonstrate that all relevant costs are included or a report that shows the allocation of all significant program overhead costs to the program.

2.8. Has the program taken meaningful steps to correct its strategic planning deficiencies?

Purpose of the question: to determine whether the program is on track to correct any strategic planning deficiencies that have been identified.

Elements of a Yes answer: A *Yes* answer would require that the program has acted to correct strategic planning deficiencies. The question addresses any deficiencies identified in this section. Particular emphasis, however, should be placed on whether the program is working to adopt a limited number of specific, ambitious long-term performance goals and a limited number of annual performance goals that demonstrate progress toward achieving the long-term goals, if they do not already have these measures or associated baselines, targets, and timeframes.

A program that does not review planning efforts or does not make corrections to eliminate identified deficiencies would receive a *No*.

Evidence/Data: Evidence can include a description of how deficiencies in the strategic planning of a program are identified and corrected, as well as examples of such changes. A timetable for the achievement of these changes should also be included.

III. PROGRAM MANAGEMENT

This section focuses on a variety of elements related to whether the program is effectively managed to meet program performance goals. Key areas include financial oversight, evaluation of program improvements, performance data collection, and program manager accountability. Additionally, specific areas of importance for each program type are also explored. Potential source documents and evidence for answering questions in this section include financial statements, GAO reports, IG reports, performance plans, budget execution data, IT plans, and independent program evaluations.

Options for answers are *Yes*, *No* or *Not Applicable*. (For R&D programs, some of the questions in this section help address the *prospective* aspects of program “quality” and “performance” of the R&D Investment Criteria, in addition to addressing general program management issues (see Appendix A).)

3.1. Does the agency regularly collect timely and credible performance information, including information from key program partners, and use it to manage the program and improve performance?

Purpose of the question: to determine whether the program collects data on performance and the performance of its partners and uses the data to inform program management, resource decisions, and program performance.

Elements of a Yes answer: A *Yes* answer requires all the following:

- The program regularly collects high-quality performance data, including data from key program partners, relating to program goals
- The program use that information to adjust program priorities, allocate resources, or take other appropriate management actions.
- The program considers the performance of the program partners as well when assessing progress on key program activities.
- The program has collected the baseline performance data necessary to set meaningful, ambitious performance targets.

Program partners are other agencies or intermediaries responsible for carrying out different aspects of the program and might include partner agencies, grant recipients, participating financial institutions, regulated

bodies, and contractors. Timely performance information is information that reflects current performance and is current enough to be useful in program management. Credible performance information is information that is collected through a systematic process with quality controls to confirm the validity of the data.

Not Applicable is not an option for this question.

Evidence/Data: Evidence can include a description of how the agency uses performance information in managing the program and how frequently reviews occur, as well as illustrative examples of recent management actions based on performance information. Evidence can also include steps taken by a program to enact necessary improvements cited by a specific evaluation.

3.2 Are Federal managers and program partners (including grantees, sub-grantees, contractors, cost-sharing partners, and other government partners) held accountable for cost, schedule and performance results?

Purpose of the question: to determine whether the program managers and partners are accountable for achieving program results.

Elements of a Yes answer: A *Yes* answer requires all of the following:

- the program identify the managers who are responsible for achieving key program results;
- establish clearly defined or quantifiable performance standards for those managers; and
- establish specific performance standards for program partners when program partners contribute to the achievement of program goals.

Not Applicable is not an option for this question.

Evidence/Data: Evidence can include the use of performance management contracts with program managers, or some other mechanism for incorporating program performance into personnel performance evaluation criteria with clearly defined or quantifiable performance targets. Evidence of partners' accountability can include requiring grant and contract awards and renewals to consider past performance.

3.3 Are funds (Federal and partners') obligated in a timely manner and spent for the intended purpose?

Purpose of the question: to determine whether funds are administered efficiently and obligated in accordance with planned schedules and spent for the intended purposes.

Elements of a Yes answer: A *Yes* answer requires all of the following:

- Program funds are obligated consistently with the overall program plan and that a limited amount of unobligated funds remain at the end of the year.
- Programs and partners establish schedules for obligations that properly correspond to the resource needs of the program plan.
- Adequate procedures exist for reporting actual expenditures, comparing them against the intended use, and taking timely and appropriate action to correct single audit findings when funds are not spent as intended.

A program would receive a *No* if it had significant erroneous payments or was in violation of the Anti-Deficiency Act.

Not Applicable is not an option for this question.

Evidence/Data: Evidence can include periodic and year-end spending reports from the program and its partners. Evidence on expenditures can include spending reports that draw intended purpose from Congressional Justifications, Appropriations, and program operating plans and match them against actual spending. For grantees, evidence can include grantee audit reports under the Single Audit Act, including data captured in the Federal Audit Clearinghouse, and the existence of an established procedure for reviewing actual expenditures against budgets in grant awards or appropriate Federal guidelines. Evidence for erroneous payments could include results from any testing completed pursuant to the Improper Payments Information Act (IPIA) of 2002.

A *No* answer is strong evidence that a *No* may be warranted for Question 3.6, which examines financial management more generally.

3.4. Does the program have procedures (e.g., competitive sourcing/cost comparisons, IT improvements, appropriate incentives) to measure and achieve efficiencies and cost effectiveness in program execution?

Purpose of the question: to determine whether the program has effective management procedures and measures in place to ensure the most efficient use of each dollar spent on program execution.

Elements of a Yes answer: A Yes answer requires all the following:

- The program has regular procedures in place to achieve efficiencies and cost effectiveness.
- The program has at least one efficiency measure with baseline and targets

There are several ways to demonstrate that a program has established procedures for so improving efficiency. For example, a program that regularly uses competitive sourcing to determine the best value for the taxpayer, invests in IT with clear goals of improving efficiency, etc., could receive a *Yes*. A de-layered management structure that empowers front line managers and that has undergone competitive sourcing (if necessary) would also contribute to a *Yes* answer. For mandatory programs, a *Yes* could require the program to seek policies (e.g., through review of proposals from States) that would reduce unit costs. Also consider if, where possible, there is cross-program and inter-agency coordination on IT issues to avoid redundancies.

An efficiency measure can be the per-unit cost of outcomes or outputs, a timing target, and other indicator of efficient and productive processes germane to the program. A program that regularly benchmarks itself against other similar programs to determine how efficiently it operates would also contribute to a *Yes* answer. The answer to this question should describe how measures are used to evaluate the program's success if achieving efficiency and cost effectiveness improvements.

To receive a *Yes* answer, the program must include at least one efficiency measure on the Measures Tab/Screen of the PART. Only measures that meet the standards for a *Yes* should be entered on the worksheet.

Not Applicable is not an option for this question.

For more detailed discussion on defining acceptable efficiency measures please see “Selecting Performance Measure” section of the PART guidance or visit OMB’s website at <http://www.omb.gov/part/>.

Evidence/Data: Evidence can include efficiency measures, competitive-sourcing plans, and IT improvement plans designed to produce tangible productivity and efficiency gains, or IT business cases that document how particular projects improve efficiency.

3.5. Does the program collaborate and coordinate effectively with related programs?

Purpose of the question: to determine whether a Federal program collaborates with other related program(s) in a meaningful way.

Elements of a Yes answer: A *Yes* answer would require that the program collaborate with related Federal programs and, to the extent appropriate or possible, with related State, local, and private programs. A *Yes* answer would require that the program show evidence of collaboration leading to meaningful actions in management and resource allocation. The existence of a coordinating council would not by itself constitute meaningful collaboration.

This question applies to programs that have interrelated, but separately budgeted, efforts. An example of an interrelated Federal program is the shared effort of the Department of Veterans Affairs and the Medicare Program to provide care for aging veterans. Meetings, discussions groups, and task forces are not sufficient for a *Yes*.

Evidence/Data: Evidence of meaningful collaboration could include joint grant announcements, planning documents, performance goals, or referral systems.

3.6. Does the program use strong financial management practices?

Purpose of the question: to determine whether the program uses effective financial management practices in administering program funds.

Elements of a Yes answer: A *Yes* answer would require that, at a minimum, the program be free of material internal control weaknesses reported by auditors. In addition, depending on the particular risks inherent to the program, a *Yes* may require meeting some or all of the following criteria:

- The program has procedures in place to ensure that payments are made properly for the intended purpose to minimize erroneous payments.
- Financial management systems meet statutory requirements.
- Financial information is accurate and timely.
- Integrated financial and performance systems support day-to-day operations.
- Financial statements receive a clean audit opinion and have no material internal control weaknesses.
- No other non-compliances with laws and regulations related to financial management.

If an agency-wide material weakness exists that is unrelated to the program, then a *Yes* response would be appropriate. However, if an agency-wide material weakness has a direct relation to the program (e.g., a lack of systems that support day-to-day operations), then the program would receive a *No* for this question.

Not Applicable is not an option for this question.

Evidence/Data: Evidence can include recent audit reports and existence of procedures to identify the above-listed criteria, such as the ability to measure improper payments.

Unlike Question 3.3, the presence of significant erroneous payments does not automatically generate a *No* for this question. Specifically, if an agency has instituted strong financial management controls that have been consistently demonstrating measurable reductions in erroneous payments over time, then a *Yes* may be appropriate. Nevertheless, a *No* on Question 3.3 is strong evidence that a *No* may be appropriate for this

question.

3.7. Has the program taken meaningful steps to address its management deficiencies?

Purpose of the question: to determine whether the program has developed a system of evaluating program management and correcting deficiencies in a timely manner once they are identified. This question should include, but is not limited to, financial management or other Presidential Management Agenda deficiencies. However, the focus of this question is program-level deficiencies, as opposed to agency-level deficiencies that may not directly affect the program.

Elements of a Yes answer: A *Yes* answer would require that the program has a system for identifying and correcting program management deficiencies and uses the system to make necessary corrections within agreed upon timeframes. A program that does not review program management activities and make corrections to eliminate identified deficiencies would receive a *No*.

Evidence/Data: Evidence can include a description of how deficiencies in the program management are identified and corrected as well as examples of such changes.

IV. PROGRAM RESULTS/ACCOUNTABILITY

This section considers whether a program is meeting its long-term and annual performance goals. This section also assesses how well the program compares to similar programs and how effective the program is based on independent evaluations. Potential source documents and evidence for answering questions in this section include GPRA performance reports, evaluations, GAO reports, IG reports and other agency documents. Assessments of program results should be based on the most recent reporting cycle or other relevant data. The Measures tab in the PART worksheet contains data fields for a performance targets and results, and should be completed to the greatest extent possible for all measures agreed to by OMB and the agency for Section II.

Answers in this section are rated as *Yes*, *Large Extent*, *Small Extent*, and *No*. Like Sections I-III, the scoring system in this section remains on a 0 to 1 point scale. Scoring for this section differs by including the option of partial credit between 0 and 1 in increments of 0, .33, .67, and 1.

In general, *Not Applicable* answers are not appropriate for Questions 4.1, 4.2, 4.3, and 4.5. While it is recognized that some programs may have great difficulty developing quantitative performance goals, programs are strongly encouraged to have some meaningful and appropriate methods for demonstrating results. OMB and agencies should work together to develop approaches for programs where it is difficult to develop quantitative measures, and where qualitative, expert-review, or other measures are more appropriate. (For R&D programs, most of the questions in this section help address the *retrospective* aspects of the R&D Investment Criteria, with emphasis on the “performance” criterion (see Appendix A).)

4.1. Has the program demonstrated adequate progress in achieving its long-term performance goals?

Purpose of the question: to determine whether the program is meeting or making measurable progress toward meeting the long-term performance goals evaluated in Questions 2.1 and 2.2. The question also seeks to determine whether the program’s partners are meeting long-term goals evaluated in Question 2.5, if partner performance is critical to the program achieving its goals. Examples of partners can include grantees, participating financial institutions, regulated bodies, or suppliers.

Elements of a Yes answer: A *Yes* answer (i.e., full credit) would require that the program is on track to meet all the long-term performance goals—including ambitious targets and timeframes—evaluated in Questions 2.1 and 2.2. A program would not receive a *Yes* answer by simply meeting any one of its long-term targets, or by having performance measures but no ambitious targets and timeframes. A *Yes* answer would also require that, where applicable, partners commit to long-term outcome targets and achieve them as well. Where relevant, a *Yes* answer would also require that a program has addressed appropriately any predefined end targets.

Partial credit, such as *Large Extent* or *Small Extent*, should be given in cases where there is partial, but notable, achievement of long-term targets. A program could receive a *No* if it had received a *Yes* for achieving its annual targets (Question 4.2), but is not making progress toward meeting its long-term goals.

Not Applicable is not an option for this question.

Additional rating guidance:

- **If adequate outcome (or output) measures are not available and a program received a *No* in Question 2.1, the program must receive a *No* answer to this question.**
- **If the program received a *Yes* in Question 2.1 and a *No* in Question 2.2, then the program cannot receive a rating higher than *Small Extent*.**

The only exceptions to this guidance are in cases in which OMB has approved the use of alternative forms of assessment, as discussed in the Section IV overview.

Evidence/Data: To support a *Yes* or *Large Extent*, the Measures tab of the PART worksheet must include historical performance data showing the program's successful progress in meeting its long-term performance goals. Evidence can also include data from the agency's GPRA performance report, a strategic plan, or other Administration goals and objectives. Reports detailing customer satisfaction with program performance, program reports detailing rates of utilization or participation, or independent evaluations of the program's performance may also be considered as relevant evidence. In cases where targets are not met, additional evidence can include an explanation of the main reasons.

Space is provided in the Measures tab/screen of the PART to list and document goals, targets and achieved results. Only measures that meet the standards for a *Yes* should be entered in the PART.

4.2. Does the program (including program partners) achieve its annual performance goals?

Purpose of the question: to determine whether the program is meeting the targets evaluated in Question 2.4. The question also seeks to determine whether the program's partners are meeting annual targets evaluated in Question 2.5, if partner performance is critical to the program achieving its overall targets. Examples of partners can include grantees, contractors, participating financial institutions, regulated bodies, or suppliers.

Elements of a *Yes* answer: A *Yes* answer (i.e., full credit) would require that the program meet all the annual performance targets evaluated in Question 2.4. A *Yes* answer would also require the program received a *Yes* for Questions 2.1 and 2.3, and a *Yes* or *Not Applicable* for Question 2.5. A program would not receive a *Yes* answer by simply meeting any one of its annual targets. A *Yes* answer would also require that, where applicable, partners commit to annual targets and achieve them as well.

Partial credit such as *Large Extent* or *Small Extent*, should be given in cases where there is partial, but notable, achievement of targets.

Not Applicable is not an option for this question.

Additional rating guidance:

- If a program received a *No* in Question 2.3, the program must receive a *No* answer to this question.
- If the program received a *Yes* in Question 2.3 and a *No* in Question 2.4, then the program cannot receive a rating higher than *Small Extent*.

Evidence/Data: To support a *Yes* or *Large Extent*, the Measures tab of the PART worksheet must include historical performance data showing the program's success in meeting its annual performance goals.

Space is provided in the Measures tab/screen of the PART to list and document goals, targets and achieved results. Only measures that meet the standards for a *Yes* should be entered in the PART.

Evidence can also include data from the agency's annual GPRA performance report, a strategic plan, or other Administration goals and objectives. In cases where targets are not met, additional evidence can include an explanation of the main reasons.

4.3. Does the program demonstrate improved efficiencies or cost effectiveness in achieving program goals each year?

Purpose of the question: to determine whether management practices have resulted in efficiency gains over the past year.

Elements of a *Yes* answer: A *Yes* would require that the program demonstrate improved efficiency or cost effectiveness over the prior year. Efficiency improvements should generally be measured in terms of dollars or time. Programs that complete an A-76 competition – an indicator of cost-efficient processes – would also likely be eligible for a *Yes* answer, provided that the competition addresses the program's key cost and performance drivers. A program that regularly benchmarks itself against other similar programs to determine how efficiently it operates would also contribute to a *Yes* answer. Also, programs that clearly demonstrate very high levels of efficiency through other means may receive a *Yes* without documenting increasing efficiency over time.

Not Applicable is not an option for this question.

If a program received a *No* in Question 3.4, the program must receive a *No* answer to this question.

Evidence/Data: Evidence can include meeting performance targets to reduce per unit costs or time, meeting production and schedule targets; or meeting other targets that result in tangible productivity or efficiency gains. Efficiency measures may also be considered in Questions 4.1 and 4.2.

4.4. Does the performance of this program compare favorably to other programs, including government, private, etc., with similar purpose and goals?

Purpose of the question: to determine how well the program performs relative to other programs engaged in a similar activity.

Elements of a *Yes* answer: A *Yes* answer would require the program compare favorably to other programs with similar purpose and goals. Programs are not limited to Federal government and can include State and local government and the private sector. The user should consider relevant evaluations that allow a comparison of programs with similar purpose and goals. A *Not Applicable* rating is appropriate if 1) no

comparable federal, state, local government, or private sector programs exist, or 2) the comparison would be too inherently difficult and costly to perform for the foreseeable future. The explanation for *Not Applicable* should explain why the comparison is inherently too difficult to perform. (This question is not limited to comparisons of programs with explicitly coordinated “common measures.”)

For capital assets and service acquisition programs, review of performance should include cost/schedule adherence, quality, and quantity of deliverables.

Evidence/Data: Evidence can include evaluations and documentation comparing similar programs.

4.5. Do independent evaluations of sufficient scope and quality indicate that the program is effective and achieving results?

Purpose of the question: to determine whether the program is effective based on independent and comprehensive evaluations. This question may be particularly important for programs that have substantial difficulty formulating quantitative performance measures.

For R&D programs, this question is central to retrospective assessment of all of the R&D criteria.

Elements of a Yes answer: A *Yes* answer would require that independent program evaluations of sufficient scope and quality indicate that the program is effective. An evaluation, or set of evaluations, must meet the quality, scope, and independence criterion as defined in Question 2.6 to be considered evidence for this question. If this response relies on different evaluations than those used for 2.6, the explanation must address the scope, quality, and independence criteria.

To provide evidence of results an evaluation must have been completed or at a minimum have produced some interim findings. Unlike in Question 2.6, a program cannot receive credit in this question for planned evaluations.

Relevant evaluations would be at the national program level, rather than evaluations of one or more program partners, and would not focus only on process indicators such as the number of grants provided, or hits on a web site.

Not Applicable is not an option for this question. Given the flexibility in determining what constitutes an evaluation, all programs should undergo an evaluation that meets the elements of quality, scope, and independence detailed in Question 2.6.

Evidence/Data: Evidence can include findings of an evaluation conducted by academic and research institutions, agency contracts, other independent entities, the Government Accountability Office, or Inspectors General.

APPENDIX F: RAW DATA UTILIZED FOR EVALUATION

The following data sets were utilized in this formative evaluation. The charts in their entirety can be accessed via the internet at <http://www.projectexploration.org/about.htm>

- Roster of Participants in Project Exploration Field Programs
- Statistics of Field Program Participants
- College Roster of Former Project Exploration Students
- Statistics of Former Project Exploration Students in College
- Chicago Public Schools Graduation Rates
- National Science Foundation Data

APPENDIX G: DRAFT PROGRAM GOALS, MEASURES AND TARGETS

Note: These draft performance goals represent Project Exploration’s initial attempts to create outcome areas and measurable goals. However, through the course of working through the year-long evaluation process, program staff began to feel that goals should be more closely aligned to the program design model of “*getting* kids interested in science, *keeping* them interested in science, and *equipping* them with what they need to graduate high school and consider college—and science—as options.” Project Exploration staff will begin to consistently record key longitudinal benchmark data (demographics, high school graduation, participation, etc.) in the summer of 2006 but anticipate reworking program areas and goals in the fall of 2006.

Performance Goal A: Access and Equity

Expand life and career options for students who would otherwise not have such access based on their race, gender, income level, or prior educational performance, by providing sustained access to rich science education opportunities.

Measures & Targets

- A.1 Enrollment reflects overall racial demographics of Chicago Public Schools.
- | | |
|------------------------------------|---------------|
| Target for Junior Paleontologists: | within _____% |
| Target for Sisters4Science: | within _____% |
| Target for Dinosaur Giants: | within _____% |
- A.2 Enrollment reflects overall economic demographics of Chicago Public Schools.
- | | |
|------------------------------------|---------------|
| Target for Junior Paleontologists: | within _____% |
| Target for Sisters4Science: | within _____% |
| Target for Dinosaur Giants: | within _____% |
- A.3 Enrollment reflects ESL demographics of Chicago Public Schools.
- | | |
|------------------------------------|---------------|
| Target for Junior Paleontologists: | within _____% |
| Target for Sisters4Science: | within _____% |
| Target for Dinosaur Giants: | within _____% |
- A.4 Ratio of girls to boys.
- | | |
|------------------------------------|--------------------|
| Target for Junior Paleontologists: | ratio <u>50:50</u> |
| Target for Sisters4Science: | ratio <u>100:0</u> |
| Target for Dinosaur Giants: | ratio <u>50:50</u> |
- A.5 “*PE targets students who may not be academically successful:*” Measure: Grade point average of participants upon entry to Project Exploration programs is a “C.”
- | | |
|------------------------------------|--------|
| Target for Junior Paleontologists: | _____% |
| Target for Sisters4Science: | _____% |
| Target Dinosaur Giants: | _____% |
- A.6 The extent to which students who participate in PE programs are participating in other out-of-school time or extra-curricular activities.
- | | |
|------------------------------------|--------|
| Target for Junior Paleontologists: | _____% |
| Target for Sisters4Science: | _____% |
| Target Dinosaur Giants: | _____% |

Performance Goal B: Efficacy & Engagement

Enhance self-efficacy in and positive attitudes towards science and learning through programs that offer meaningful opportunities for students to engage in the practices of the scientific community.

Measures & Targets

- B.1 Percentage of students who participate in more than one program opportunity with Project Exploration?
- | | |
|------------------------------------|---------|
| Target for Junior Paleontologists: | _____ % |
| Target for Sisters4Science: | _____ % |
| Target for Dinosaur Giants: | _____ % |
- B.2 Percentage of students who participate in leadership opportunities over the lifetime of the program.
- | | |
|------------------------------------|---------|
| Target for Junior Paleontologists: | _____ % |
| Target for Sisters4Science: | _____ % |
| Target for Dinosaur Giants: | _____ % |
- B.3 Positive shift in distribution of student scores on science and/or academic attitudes measure.
- | | |
|------------------------------------|--------------|
| Target for Junior Paleontologists: | _____ points |
| Target for Sisters4Science: | _____ points |
| Target for Dinosaur Giants: | _____ points |
- B.4 Positive shift in distribution of student scores on science and/or academic self-efficacy measure.
- | | |
|------------------------------------|--------------|
| Target for Junior Paleontologists: | _____ points |
| Target fro Sisters4Science: | _____ points |
| Target for Dinosaur Giants: | _____ points |
- B.5 Program participants graduate high school at a higher rate than their peers.
- | | |
|------------------------------------|----------------------------------|
| Target for Junior Paleontologists: | _____ % above peer group average |
| Target for Sisters4Science: | _____ % above peer group average |
| Target Dinosaur Giants: | _____ % above peer group average |
- B.6 Program participants enroll in college at higher rate than their peers.
- | | |
|------------------------------------|----------------------------------|
| Target for Junior Paleontologists: | _____ % above peer group average |
| Target for Sisters4Science: | _____ % above peer group average |
| Target Dinosaur Giants: | _____ % above peer group average |
- B.7 Program participants who attend college major in science at a higher rate than their peers.
- | | |
|------------------------------------|----------------------------------|
| Target for Junior Paleontologists: | _____ % above peer group average |
| Target for Sisters4Science: | _____ % above peer group average |
| Target Dinosaur Giants: | _____ % above peer group average |
- B.8 Note: may want to design qualitative measures (interviews, etc.) for this goal.

Performance Goal C: Concepts & Skills

Improve students' mastery of concepts and skills critical to the practice of science (i.e. Illinois State Goals 11 & 13).

STATE GOAL 11: Understand the processes of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

- A. Know and apply the concepts, principles and processes of scientific inquiry.
- B. Know and apply the concepts, principles and processes of technological design.

STATE GOAL 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

- A. Know and apply the accepted practices of science.
- B. Know and apply concepts that describe the interaction between science, technology and society.

Measures & Targets

- C.1 Program participants enroll in advanced science courses at an above average rate for their school.
 - Target for Junior Paleontologists: _____% above school average
 - Target for Sisters4Science: _____% above school average
 - Target for Dinosaur Giants: _____% above school average

- C.2 Program participants demonstrate improvement in their grades in science classes.
 - Target for Junior Paleontologists: _____%
 - Target for Sisters4Science: _____%
 - Target for Dinosaur Giants: _____%

- C.3 Program participants show statistically significant gains on criterion referenced in pre- and post-test measures of science concept and skill mastery.
 - Target for Junior Paleontologists: _____% of a standard deviation
 - Target for Sisters4Science: _____% of a standard deviation
 - Target for Dinosaur Giants: _____% of a standard deviation

- C.4 Program participants demonstrate gains on standardized science test scores (e.g. Prairie State Achievement Exam).
 - Target for Junior Paleontologists: _____ points
 - Target for Sisters4Science: _____ points
 - Target for Dinosaur Giants: _____ points

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Project Exploration's youth programs evaluation work was generously supported by grants from Grand Victoria Foundation, Polk Bros. Foundation, and Girl's Best Friend Foundation.

For more information about Project Exploration's Youth Programs, visit www.projectexploration.org



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