



Museums for America

Sample Application MA-20-14-0438-14

Project Category: Community Anchors

Funding Level: \$25,001-\$150,000

Chicago Zoological Society (Brookfield Zoo)

Amount awarded by IMLS: \$146,579

Amount of cost share: \$234,186

Attached are the following components excerpted from the original application.

- Abstract
- Narrative
- Schedule of Completion

Abstract

Through its Zoo Adventure Passport (ZAP!): An Urban Environmental Initiative for Children and Families project, the Chicago Zoological Society (CZS) will increase informal science learning opportunities for families in largely Hispanic communities throughout the greater Chicago area. ZAP! currently serves the communities of Pilsen and West Belmont in the city of Chicago; during the grant period, ZAP! will expand to serve additional families in two largely Hispanic inner ring suburbs of Chicago - Cicero/Berwyn and Melrose Park. Program expansion will increase the total attendance numbers from the current 2,810 to 3,970 in the first year of expansion, and 4,950 in the second year. The number of families participating will increase from the current 100 to at least 280 by the end of the second year.

The Chicago Zoological Society has a long history of supporting science learning in the Hispanic community through outreach programs, attendance and membership development, and workforce diversity initiatives. In addition, the Society's Brookfield Zoo is located in areas with high percentages of Hispanic residents with children under the age of 10 (the target audience for ZAP!). The program serves as a gateway to new family experiences, teaching children about their local and world environments and providing an opportunity for enrichment for the whole family. Evaluations have shown that participation in the program positively impacts academic performance, improves family relationships and supports conservation action. ZAP! is culturally sensitive, which encourages participation from families that would otherwise be isolated from opportunities for academic enrichment and social support.

ZAP! is designed to complement the academic needs of pre-K and elementary school children utilizing culturally sensitive presentations and activities to enhance science learning. The overall ZAP! goals for the grant period are to increase family participation by 25%; improve student performance in school; increase family interest in and enthusiasm about science, nature, and the environment; and increase family participation in their child's education. The CZS Audience Research Department will evaluate the program using a mixed methods strategy to gather information from program staff, advisors, and families in English, Spanish, and Polish.

CZS believes that diverse voices – racial, cultural and socio-economic – must be engaged in the development of solutions to environmental concerns both globally and locally. Community-centered learning environments provide opportunities for people to learn and improve because their community provides the reason or need for them to apply the information. This is especially true in highly urban environments where everyday experiences can support science learning and the residents are outside of the power structure and many conventional methods of information science learning. The benefits of this expansion project to the community and CZS will be sustained through two initiatives in our current strategic plan: 1) to be the facilitator of diverse voices in conservation in the Chicagoland region by providing community-based conservation action and 2) engage participants in opportunities to practice more sustainable consumer options and reduce our ecological footprint.

NARRATIVE

1. PROJECT JUSTIFICATION

For more than 15 years, the Chicago Zoological Society's (CZS) Zoo Adventure Passport (ZAP!) program has provided free informal nature and conservation education programs for families in the diverse Chicago neighborhoods of Pilsen and West Belmont. An immediate need for program expansion is required to meet increased demand from the community and to provide additional support for science learning for families that are historically underserved. During the grant period, we will expand our award winning ZAP! programming to serve additional families in two inner ring suburbs of Chicago - Cicero/Berwyn and Melrose Park. Program expansion will increase the total attendance numbers from the current 2,810 to 3,970 in the first year of expansion, and 4,950 in the second year. The number of families participating will increase from the current 100 to at least 280 by the end of the second year.

Like many communities in the greater Chicago area, Cicero/Berwyn and Melrose Park have seen dramatic demographic shifts in the last ten years. Both communities are largely Hispanic and are in close proximity to Brookfield Zoo. Hispanic residents make up 87 percent of Cicero, 60 percent of Berwyn and 60 percent of Melrose Park. CZS is well positioned to serve this growing constituency: 44 percent of all children under the age of 10 living within 10 miles of our Brookfield Zoo are Hispanic and of the 20 Chicago area zip codes with the highest percentage of Hispanics, five are in the top 12 Brookfield Zoo visitor zip codes.

In Chicago, Hispanic 8th graders score an average 25 points below White students on standardized science tests. The Chicago Zoological Society (CZS) has invested significant resources to address the science learning needs of the Hispanic community through outreach programs that engage families, businesses and community leaders in defining and addressing community learning needs; focus groups that have helped us more than double Hispanic zoo attendance in the past decade and increase membership among Hispanic families; and workforce diversity initiatives that have garnered awards from the Hispanic community.

In order to meet community need, the Chicago Zoological Society has developed a series of cutting-edge, science-based conservation strategies that reach throughout Chicago's diverse urban neighborhoods, providing engaging opportunities for children, youth, and families to learn about science, nature, wildlife, and wild places while exploring the links between their personal actions and conservation. The Zoo Adventure Passport! program bridges the gap between underserved communities and Brookfield Zoo's conservation message by serving as a gateway to new family experiences, teaching children about their local and world environments and providing an opportunity for enrichment for the whole family. Evaluations have shown that participation in the program positively impacts academic performance, improves family relationships and supports conservation action. The program is culturally sensitive, which encourages participation from families that would otherwise be isolated from opportunities for academic enrichment and social support.

Because family involvement is one of the best ways to ensure a child's educational achievement, ZAP! engages whole families in unique science learning opportunities. CZS knows from its own groundbreaking research in the field of Conservation Psychology that positive, direct experiences with nature during childhood, particularly with someone close to the child—a parent, grandparent, or other trusted guardian—are the two most significant contributing factors in determining whether individuals will choose to take action to benefit the environment when they are adults. In interviews conducted by Dr. Louise Chawla, a leading expert in the field of environmental education who participated with CZS in the development of a state of the art early childhood nature learning laboratory, these two most frequent sources of commitment often went together, as 77% of those who talked about childhood experiences with nature also talked about a special relative who confirmed nature's value. The third most frequent explanation that people gave for their activism, reported by more than half of

each sample, was participation in an environmental organization.¹ Another United States survey of 2004 randomly selected adults found that nature activities in childhood predicted pro-environmental attitudes and behaviors like recycling, “green” voting, and participation in programs like Earth Day.²

Advancing the Strategic Plan

Through its exhibits, programs and outreach initiatives, CZS staff strives to provide guests with the hope that conservation solutions are both achievable and dependent upon their engagement as families, parents, and even children. CZS also places a high institutional priority on engaging people of all ages, races, ethnic groups, and socio-economic backgrounds in playing a role in achieving conservation solutions. As part of the 2010-2015 institutional strategic planning, which involved Trustees, Women’s Board Members, and senior management, CZS outlined specific goals within the Society’s PRIDE Values – People, Results, Innovation, Diversity, and Enthusiasm. Our Diversity Value was further articulated in the following two outcomes: 1) CZS will become a facilitator for the diverse voices of conservation in the Chicago region by providing community-based conservation action; and 2) CZS will engage participants in opportunities to practice more sustainable consumer options and reduce our ecological footprint.

2. PROJECT WORK PLAN

ZAP! Program Overview

Zoo Adventure Passport! reconnects urban families with wildlife and nature through activities that:

- provide STEM content through multigenerational science learning
- facilitate conservation action and behaviors
- allow families to define and engage in nature in ways that are meaningful and relevant to them
- empower families to see themselves as agents of conservation solutions

Through years of qualitative and quantitative research we also know that the program provides the following benefits to participants:

- increased science knowledge that has been leveraged in school work
- increased family time or family connectedness due to intergenerational learning and shared experiences and conversations around conservation and the natural world

Past evaluations of ZAP! have shown the program is effective in introducing science skills to young children and encouraging greater interest in conservation in both children and adults. All ZAP! programs and field trips are designed for intergenerational family participation, and adults are required to accompany children at each event. Parents are encouraged to continue discussing ZAP! program content at home: surveys in 2013 showed 75% of all ZAP! parents talking more often about nature and science and about their school day, and 70% of ZAP! parents spent more time helping children with their schoolwork as a result of program participation. Additionally, more than 80% of program parents reported their children used information they learned from ZAP! in their schoolwork at least once last year.

A free, community-based out of school program for families with children ages 3 through 12, ZAP! provides a variety of activities in order to address the learning styles of all the participants and encourage children and parents to learn together. Because many ZAP! families have not been able to access the diversity of Chicago’s natural resources, ZAP! field trips are designed to introduce them to a variety of experiences: zoos, gardens, dunes, forest preserves, the lakefront, and other natural settings. In addition, ZAP! families are invited at least once per year to participate in community conservation action projects in the city or in a Cook County Forest

¹ Chawla, Louise. "Learning to Love the Natural World Enough to Protect It," in *Barn* nr. 2 2006:57-58. © 2006 Norsk senter for barneforskning.

² Wells, N. M., & Lekies, K. S. (2006). “Nature and the life course: Pathways from childhood nature experiences to adult environmentalism.” *Children, Youth and Environments*, 16(1).

Preserve. Past projects have included building a community garden in Pilsen and helping to remove invasive plant species from local nature preserves. Transportation to and from all field trip and project sites is provided free of charge to families, as is field trip site admission. In anticipation of the Next Generation Science Standards in Illinois schools, we have enhanced ZAP! activities with additional STEM learning opportunities. CZS also incorporates a point system for program participation that can be exchanged for “green awards”. Piloted in 2011, this program proved effective in increasing program participation and retention.

ZAP! is a popular program which has exhibited steady upward attendance growth over the past four years. Total attendance at all ZAP! activities and trips has increased from 802 in 2009-10 to 1,384 in 2011-12 and 1,746 in 2012-13. Last year’s total attendance represents a 26% increase over the previous year and an increase of 65% over 2010-11, clearly surpassing the goal of increasing family participation by 25% every year. CZS currently offers ZAP! in the Chicago Public Library branches in Pilsen and West Belmont. Participating ZAP! families at both sites last year were 79% Hispanic, and the Pilsen participants were 97% Hispanic, mostly immigrant families with Spanish-speaking adults and bilingual children. West Belmont attracted a 60% Hispanic participation base last year, and an additional 30% of West Belmont families were immigrants from Poland and other Eastern European countries, mirroring the diversity of this neighborhood. All ZAP! program materials and activities are presented in both English and Spanish, and this year we have translated ZAP! program and publicity materials into Polish.

Program Expansion and Activities

Shortly after the Chicago Zoological Society completed its 2010-2015 Strategic Plan, Dr. Jo-Elle Mogerman, Vice President of Institutional Planning and Inclusion and her staff facilitated community focus groups with the ZAP! Advisory Councils to better understand the conservation needs within each community and to assess whether CZS was meeting those needs with its current programming. Providing the foundation for this community outreach strategic planning was the belief that local community assets could and should be used as the building blocks to explore how an institution, like the zoo, can best serve communities. Results of the focus groups showed that interest in ZAP! remains high in our two current communities, and we have received requests to expand ZAP! to other underserved neighborhoods, particularly those with large Hispanic populations.

In response to these recommendations, in 2014-2015, CZS will expand ZAP! programming to two new West Suburban neighborhoods – Cicero/Berwyn and Melrose Park. Recommendations for expansion in these largely Hispanic communities were made by the Latino Advisory Council based on increased demand for programming. Expanding the program to Berwyn/Cicero and Melrose Park will provide better access to even more area residents, and reduce demand on the Pilsen program so that more families from Pilsen can participate.

Each ZAP! yearly session centers around a common nature theme. The program year consists of 7 individual unit topics with each 1.5 hour unit presented monthly. Last year, ZAP! families learned about the animals and peoples of Africa, and for the 2013-14 program year we are spotlighting European Waterway Migrations with sessions including bird migrations between Africa and Spain, life in the Black Sea, British butterflies, and polar bear migrations in European Arctic Circle countries such as Norway and Russia. Each unit topic is repeated multiple times each month, allowing maximum flexibility for family scheduling. Interspersion of workshops and field trips provides incentives for repeat session attendance and reinforces program sessions by allowing families to practice conservation actions. Currently, CZS provides a total of five yearly sessions between its program sites in Pilsen and West Belmont.

During the grant period, CZS will expand ZAP! programming to Cicero/Berwyn and Melrose Park by providing one yearly ZAP! session in each location in Year 1, with seven topical units, two conservation workshops, one

Conservation Action Day, and two field trips. To address growing participation, in Year 2, we will double the number of topical units each month at each new location.

The ZAP! program year runs consecutively with the school year and also includes summer activities. Year 1 of the grant period will begin in October 2014 with the following activities:

Recruitment

The advisory board's community knowledge and contacts will help promote the program and recruit participants. The existing programs, contacts and web presence of the host organizations will also be used to promote the program and recruit participants. Promotional materials will be distributed by the community advisory board members and host organizations will be provided with promotional materials. CZS staff also will provide talks about the programs to audiences identified by advisory boards and host organizations and promote the program with appropriate county commissioners.

Advisory Group

ZAP! retains an active Community Advisory Board of parents, teachers, librarians, and other community leaders in each neighborhood in order to ensure the relevancy of program delivery, continued strong community ties, and a network of educational resources. These Community Advisory Boards have been highly successful at engaging community members and sustaining long-term interest in the program. The advisory groups will meet twelve times during the grant period. To incorporate the input from the two new sites, we will add ten new members (five from each community) to our existing Latino Advisory Board.

During Year 1, the advisory board will meet four times, (October, November, February, and July) to:

1. Introduce new members; review program year, develop and execute recruitment plan; distribute promotional materials; get input on academic areas that should be emphasized with monthly programs.
2. Determine program year 2015-16 theme and topics; get input on academic areas that should be emphasized with monthly programs; determine field trip locations and conservation action workshops; review and provide input into the CZS master plan.
3. Collect feedback on the program itself; revise recruitment plan; review and revise field trip plans.
4. Collect feedback on conservation action workshops and field trips; revise recruitment plan for Year 2 and review evaluation results for program revisions.

During Year 2, the advisory board will meet four times, (October, November, February, and July) to:

1. Introduce new advisory board members; determine program year 2015-16 theme and topics; get input on academic areas that should be emphasized with monthly programs; determine field trip locations and conservation action workshops; review and revise current CZS outreach strategic plan.
2. Collect feedback on the program itself; revise recruitment plan; review and revise field trip plans; review CZS plans for summer.
3. Collect feedback on conservation action workshops and field trips; revise recruitment plan for 2016 ZAP! year and review evaluation results for program revisions.
4. Review project evaluation results.

The theme for year one of the expansion program will be *Wonders of Asia* with the following unit topics:

November: Central Asia Travels (part one) - Explore the habitats, animals and people of Georgia, Azerbaijan, Kazakhstan and Turkmenistan.

December: Central Asia Travels (part two) - Explore the habitats, animals and people of Armenia, Uzbekistan, Tajikistan and Kyrgyzstan.

February: Pacific Highways and Islands - Learn how the many islands of Indonesia, Malaysia and the Philippines serve as migratory highways for some of the plants, animals and people in that region.

March: Mysteries of India - Explore the many ecosystems and cultures in India.

April: On the Trail of Marco Polo - Visit a few of the countries Marco Polo explored during his travels, and learn about their animals.

May: Silk Road Travels – See the Silk Road from the perspective of wildlife as they or their products (silk) migrated through China and other parts of Asia.

May: Russia & the Caucasus & Trans-Siberian Railway – Railways provide a migration route for people and often follow animal migratory routes. Learn about migratory animals found in Russia.

Field Trips for year 1 include:

Brookfield Zoo Field Trip (March 2015) – Families are welcomed at Brookfield Zoo to explore in-depth our exhibits with animals from Asia.

Natural Area Field Trip (Aug 2015) - Osaka Garden (Chicago Park District), is a garden modeled after a Japanese Garden complete with a pagoda. It is a hidden gem and one of the top bird watching areas in the city of Chicago.

Conservation Action Workshops – Two workshops in each community, themed around recycling, will build knowledge and skill on how to recycle both common and uncommon household items. The workshops will be tailored to meet community recycling needs and recycling processes. To build skills the workshops will progress from recycling common items such as paper, plastic, metal, cardboard, furniture, clothes (workshop 1) to recycling less common items such as CFL bulbs, batteries, oil, appliances, etc (workshop 2).

Conservation Action Day – All of the ZAP! families gather to steward a parcel of the Forest Preserve District of Cook County near Brookfield Zoo. Working with the site steward, families cut buckthorn and cut garlic mustard and clean out any trash. After a morning of stewardship they have lunch and enjoy an afternoon at Brookfield Zoo.

In year 2, the Advisory Board will meet in November 2014 to determine the program year theme, topics ideas and field trips and will note any academic areas (geography, math, etc.) the programs should emphasize.

Project Resources: Time, Personnel, Budget

The ZAP! program year runs in conjunction with the school year; thus, the two-year expansion will begin in October 2014 (the 2014-15 school year) with a Latino Advisory Group meeting to plan programming in the new communities and a full advisory board meeting in November. The boards will continue to meet in February 2015, June 2015, February 2016, and July 2016 with full-group meetings in November 2015 and September 2015.

Pilsen and West Belmont will begin host organization activities in October 2014, and the two new communities will begin in November 2014. All communities will complete Year 1 host organization activities, field trips, conservation workshops, and conservation action days by July 2014. Pre-assessment will run from October-December with post-assessments in April through July and dissemination of results in July and August. Programming for the 2015-16 school year will begin in September 2015 with host organization activities at all sites, and for grant Year 2 all sites will be on the same calendar: host organization activities in September and

November, the Brookfield Zoo field trip in December, host organization activities February through May, conservation action workshops in April and July, conservation action day in June, and the second field trip in August. Pre-assessment for this year will run September through November, post-assessment will take place from May through July, and final results from the two-year project will be announced by September 2016.

Program Staffing

Jo-Elle Mogerman, Ph.D., CZS Vice President of Institutional Planning and Inclusion, will provide oversight for the project and act as the overall project manager, managing the Community Advisory Councils. Dr. Mogerman will spend an estimated 50% of her time during Year 1 and 35% during Year 2 on this project.

Saira Perea-Bensett, CZS Community Relations Manager, will allocate 50% of her time to ZAP! program expansion and enhancement, providing program development, site relationship development and volunteer and intern management.

Jennifer Matiasek, CZS Research Program Coordinator, will spend approximately 10% of her time developing and monitoring the evaluation collection and analysis.

In addition, one new Program Facilitator will be hired at 50% FTE to be responsible for program delivery and family relationship building and maintenance. Program implementation will be augmented by volunteers from the CZS adult and youth volunteer corps and parents, a successful model that provides an average 1:4 adult to child ratio.

CZS is requesting a grant of \$146,579 over two years for the expansion of the ZAP! program into two new communities. The request will cover 25% of Ms. Perea-Bensett's salary and benefits, 10% of Ms. Matiasek for evaluation, and 100% of the salary and benefits of the new Program Facilitator. We are also requesting all program expenses for the two new communities of Cicero/Berwyn and Melrose Park, including local travel, program consumables, bus transportation for field trips, and costs for the Conservation Workshops, Conservation Action Days, and the Advisory Board meetings in both years. Year 1 field trips will be to free sites, and we are requesting field trip admissions for Year 2 for the new sites. Finally, CZS has a federally negotiated indirect cost rate of 70.21%, and we are requesting 15% of indirect costs in both years. CZS will contribute all salary and benefits for Dr. Mogerman, 25% of Ms. Perea-Bensett's salary and benefits, all program expenses for the Pilsen and West Belmont sites, and the remaining 85% of indirect costs as cost share.

3. PROJECT RESULTS

ZAP! is designed to complement the academic needs of pre-K and elementary school children utilizing culturally sensitive presentations and activities to enhance science learning. Evaluations have shown that ZAP! effectively introduces science and math skills and encourages increased interest in conservation in both children and adults. The overall ZAP! goals for the grant period are to:

- Increase family participation. Introducing ZAP! into new communities will allow an increased number of families to participate in the program. This requires the program to be offered in a linguistically and culturally competent fashion.
 - The number of participating families will increase by 25% over 2013-14 participant numbers.
 - Program activities will be offered in Spanish and Polish where appropriate.
- Improve performance in school. ZAP! science education will complement school curricula for underserved children and their families providing support for content learning and improved school performance.
 - 75% of ZAP! families will report applying ZAP! content to their children's schoolwork.
 - 50% of participating students will show improvements in their grades for science, math, and geography during the time they participated in ZAP!

- Increase interest and enthusiasm. ZAP! offers opportunities for hands-on educational activities at the zoo and in underserved neighborhoods allowing participating families to develop their connection with and interest in science, nature, the environment, and conservation.
 - 70% percent of ZAP! families will report spending more time discussing nature and science and will share their experiences with other ZAP! families.
 - 65% of ZAP! families will report spending an increased amount of time in nature.
- Increase family participation in education. Participating in ZAP! activities together allows parents and family members to feel like they are a part of their children’s learning process. This participation will increase families’ confidence to further participate in and influence their children’s education.
 - 75% of ZAP! families will report spending more time talking to their children about school and helping their children with school work.

Measuring Success

The CZS Audience Research Department works with ZAP! program staff to design and implement the evaluation of this program using a mixed methods strategy to gather information from program staff, advisors, and families. All protocols and instruments will be submitted for IRB review.

Attendance records. Program staff uses a standard reporting format to document participation in ZAP! events.

This includes program participation and participation in field trips and workshops.

Review of program materials. Program materials will be shared with advisory board members to assess alignment with Illinois State Standards and the ability of the materials to meet community language needs.

Family surveys. Family members complete questionnaires following each program or event. These questionnaires are coded to track changes over time and focus on measuring satisfaction, interest, and behaviors. Surveys are available in English, Spanish, and Polish.

Grade sharing. Starting in 2014, parents will be invited to share their children’s school report cards for the years they have participated in ZAP! Report cards will be returned after grades are recorded and grades will be used to track and analyze performance trends in science, math, and geography.

Journal entries. Knowledge and interest related to science, nature, the environment, and conservation will be assessed through participants’ journal entries. Journal entries will be coded using a standardized coding scheme that identifies and tallies common themes.

Action points. CZS uses a point system for program participation that can be exchanged for “green awards.” Participation in ZAP! programs, field trips, workshops, and personal conservation actions will be tracked using the point system.

Advisor feedback. Notes from advisory board meetings will be used to ascertain community level impacts of the ZAP! program and any facilitators or barriers that are identified with regard to the program’s success.

Sustaining Project Benefits

Diverse voices – racial, cultural and socio-economic – must be engaged in the development of solutions to environmental concerns both globally and locally. Community-centered learning environments provide opportunities for people to learn and improve because their community provides the reason or need for them to apply the information. This is especially true in highly urban environments where everyday experiences can support science learning and the residents are outside of the power structure and many conventional methods of information science learning. The benefits of this project to the community and CZS will be sustained through two initiatives in our current strategic plan: 1) to be the facilitator of diverse voices in conservation in the Chicagoland region by providing community-based conservation action and 2) engage participants in opportunities to practice more sustainable consumer options and reduce our ecological footprint.

