



WELCOME TO PISEC

Philadelphia/Camden Informal
Science Education Collaborative

PISEC

- *Who* 4 Museums, 8-12 CBOs
- *When* 1993-present
- *What* Research and programs
- *Why* Engaging underserved families



5 PISEC Projects and A Conference

- Family Science Learning Project
- Community Connections
- FEST
- CASE
- BRIDGES Conference
- CLUES



Family Science Learning Project

A research and development project to find out how families learn science in informal settings

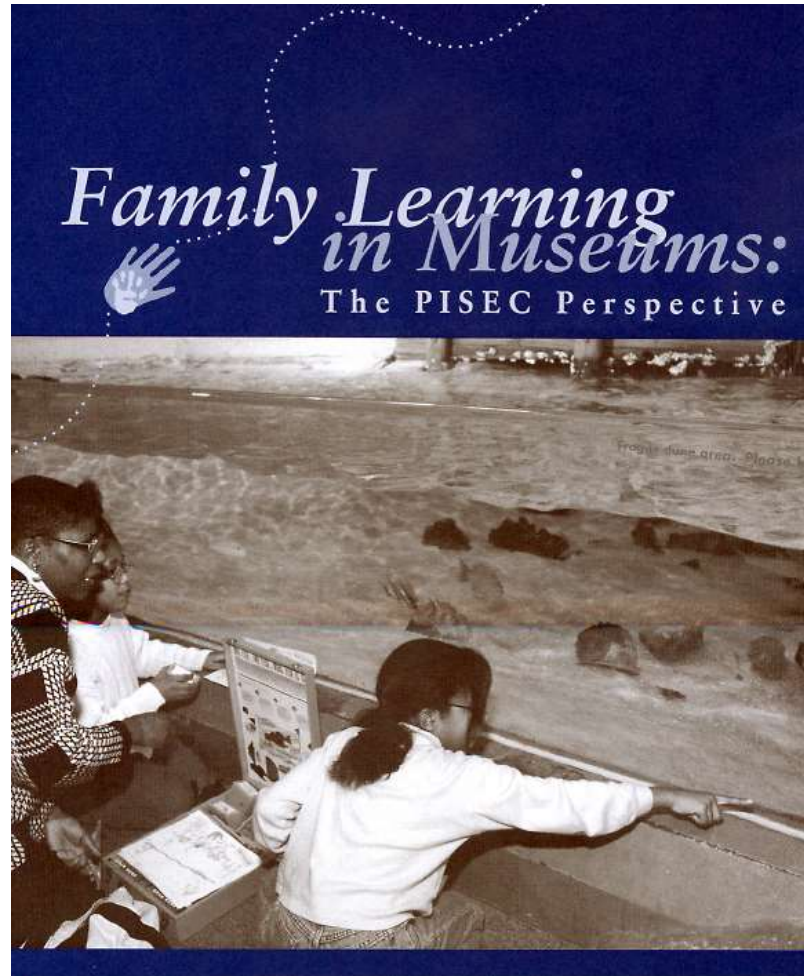


7 Characteristics of Family-Friendly Exhibits

A new model for exhibit design

- **Multi-sided** — family can cluster around exhibit
- **Multi-user** — interaction allows for several sets of hands
- **Accessible** — comfortably used by children and adults
- **Multi-outcome** — sufficiently complex to foster group discussion
- **Multi-modal** — appeals to different learning styles and levels of knowledge
- **Readable** — text is arranged in easily understood chunks
- **Relevant** — cognitive links to existing knowledge and experience

Project publication is now used widely in designing for groups



Community Connections

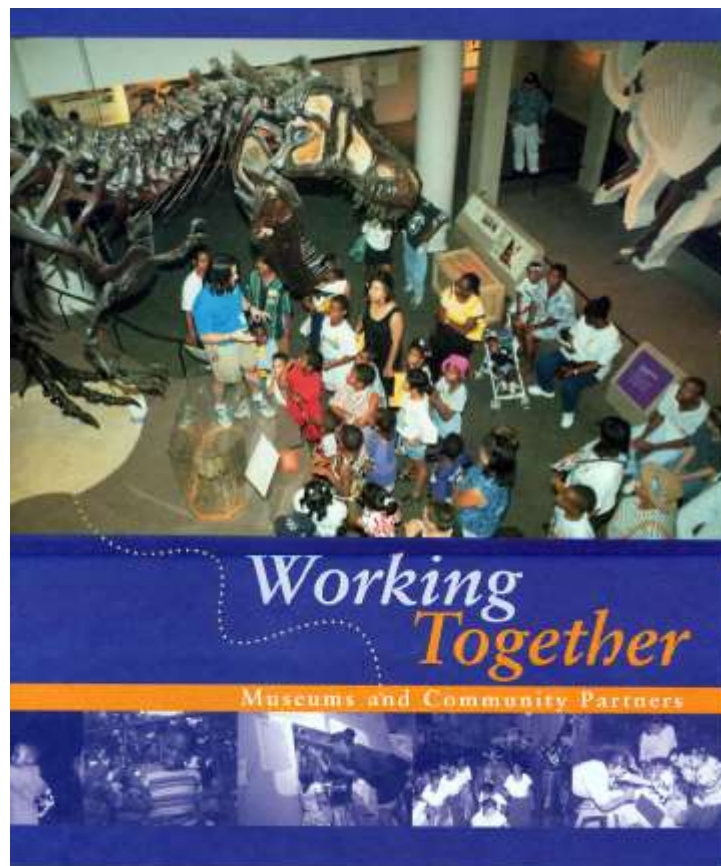
- An outreach project funded by Pew
- To diversify museum audiences and enhance family science learning
- 8 Community Partners serving African-American and Latino families
- Reached 17,000 people



Program Components

- **Introductions at community sites to the four museums**
- **Welcome sessions at the museums**
- **Day long collaborative events at each museum**
- **“Program credits”—for each CBO to purchase existing museum programs**

Project handbook is widely distributed in the science museum community



Families Exploring Science Together (FEST)



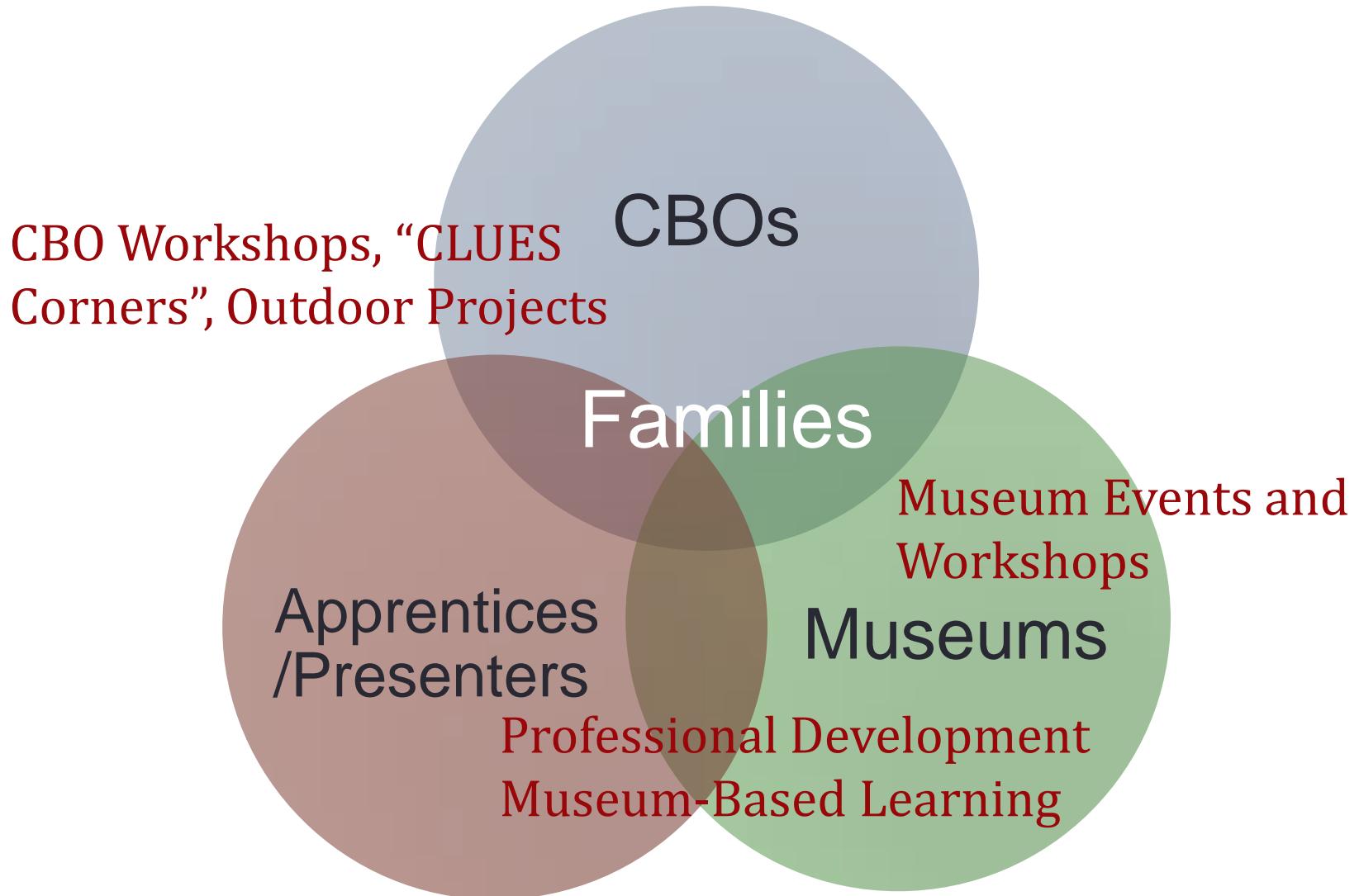
- To increase parental involvement in children's science education
- 11 community partners serving Latino, African-American, and Asian families
- Reached 12,000 participants
- Funded by NSF, Wm Penn Foundation, Fund for NJ, Hasbro Children's Foundation, The Hearst Foundations, Inc.

Community Ambassadors for Science Exploration (CASE)

- Ambassadors from the community trained at museums to give workshops at the CBOs
- 142 Ambassadors led over 350 family workshops at community sites
- Also workshops and events at the Museums to strengthen connection b/w museums and neighborhoods



Currently: Communities of Learning for Urban Environments and Science (CLUES)



Apprentices





Workshops at CBOs





Workshops at Museums



Evidence of Impact

- Reflections from similar programs
- Case Studies
- Ongoing Evaluation

How we
know

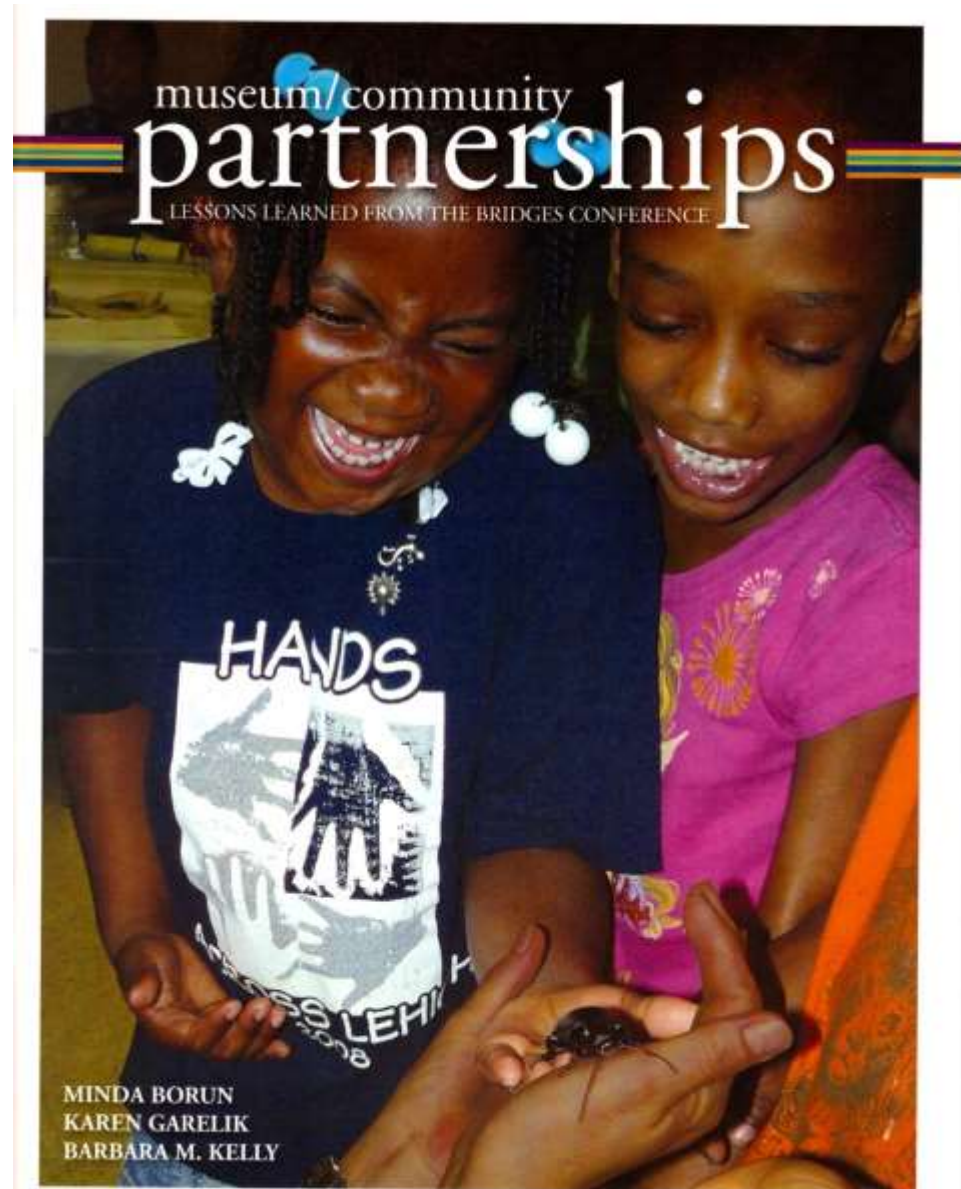
what
works



BRIDGES

June 20-22, 2008

Results of BRIDGES Conference



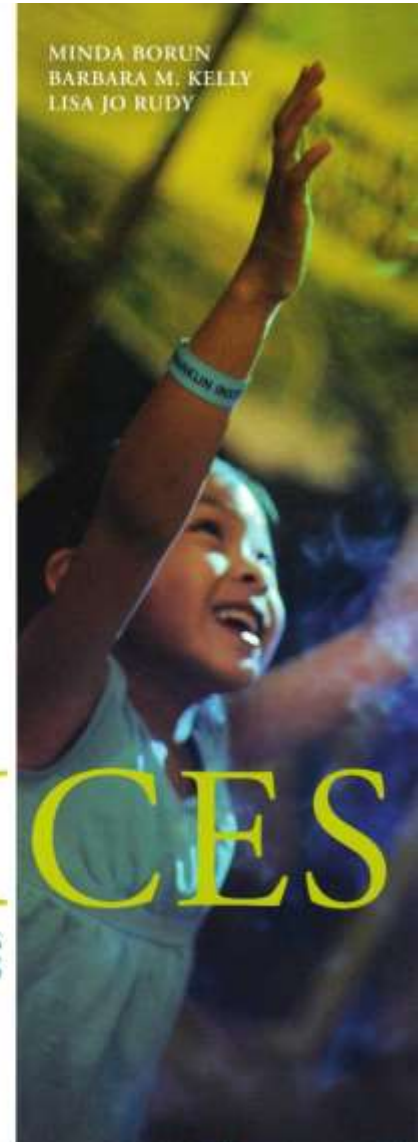
BRIDGES--Takeaway Messages

- Choose collaborators with care.
- Communicate well and often with partners.
- Co-design exhibits and programs that are relevant and interesting to your constituency.
- Ensure ongoing funding; don't drop the ball after one or two "inclusive" programs, exhibits or hires.

Case Studies

- 13 stories from highly involved participants
- A look back over 18 years of PISEC programs

in their own
VOICES
MUSEUMS AND COMMUNITIES
CHANGING LIVES



GOODMAN RESEARCH GROUP, INC.
Program Evaluation • Consultation • Market Research

*Communities of
Learning for Urban
Environments and
Science (CLUES)
Program*
**Year 3 Evaluation
Report**

PREPARED BY

Karen C. Gareis, Ph.D.
Laura Houseman, B.A.
Irene F. Goodman, Ed.D.

SUBMITTED TO

Angela Wenger and Barbara Kelly
New Jersey Academy of Aquatic Sciences

June 6, 2013

Ongoing Evaluation

- Families say they attend CLUES events to learn about science, do something as a family, and have fun.
- Apprentices and Presenters had gains in environmental science content knowledge and ISE skills. Almost two-thirds say they *probably* or *definitely* will continue in ISE.
- Presenters agreed that CLUES participation increased their understanding of and confidence in their ability to succeed in ISE and led to a fuller exploration of their career goals.
- CBO liaisons saw positive influences of CLUES on families, including improving their attitudes toward science and increasing their environmental engagement.