Speaking of Data

By Michael Duffin, PEER Associates
For Arts Alive! Arts and Economic Prosperity event
June 3, 2016

Three Main Points

 Effective data use almost always takes more time and effort than you expect

 Some data is almost always better than no data

 Give your data a SPA treatment (Story Purpose Audience)

Some Evaluator Perspectives

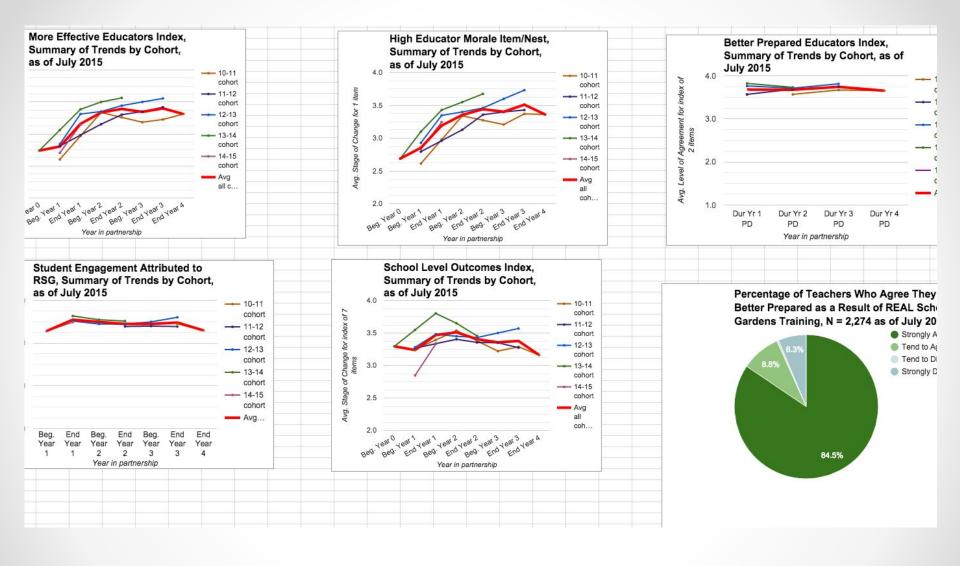
Where I'm coming from

What is "data" anyway?

Stories versus numbers

Researcher versus advocate

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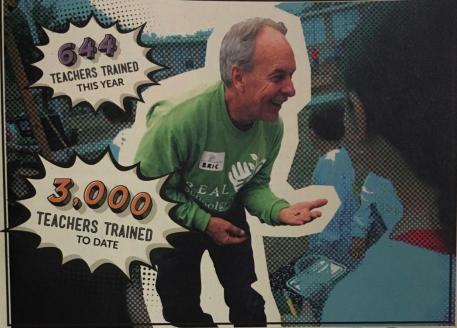
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ANNUAL REPORT NO. 2012



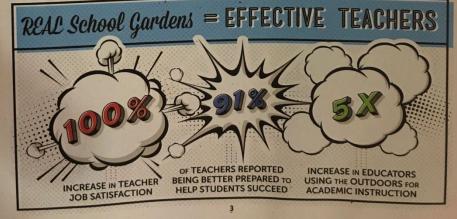




Rock SOLID RESULTS!

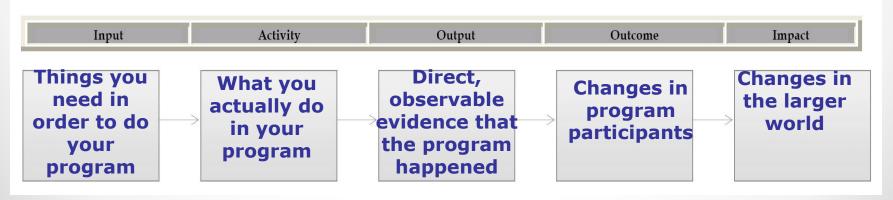
PROVEN PERFORMANCE

REAL School Gardens contracted with PEER Associates, a notable program evaluation and education research firm to conduct a three-year study following 45 schools and repeatedly surveying more than 1,000 educators. After only two years, we've seen remarkable results!





 $(a \text{ rock}) \rightarrow (\text{throwing a rock into a pond}) \rightarrow (\text{splash from the rock}) \rightarrow (\text{ripples from the splash}) \rightarrow (\text{waves at the pond's edge})$



Gundalow Logic Model

Premise: If we augment hands-on 'WOW!' experiences of the working Gundalow with opportunities for progressively deeper engagement and partnership, we will achieve our mission of protecting the Piscatagua region's maritime heritage and environment through education and action.

Schools

Community



relationships with important local groups

inspiring land/seascape

Activities

things programs and partners do

Outputs

evidence that activities happened

Outcomes

changes in participants

Impacts

changes in society and systems

two Gundalow replicas (one CG certified)

Inputs

resources brought to the table

create, offer Wow! experiences for students, adults

dedicated, skilled staff

cadre of volunteers

field trip funding, contracts with schools

other funding, revenue

evaluation, research data, expertise

iconic appeal, history, tradition, reputation

strong board, advisors, fundraising capacity

develop, revise high quality, place-based, Gundalowdriven curriculum

deliver professional development for educators (workshops, institutes, resources, mentoring, credit)

partner with Piscataguathemed classrooms, schools

initiate, coordinate citizen networking (pr, messaging, learning events, celebrations)

develop relationships with local commercial vendors. consumers, stakeholders

provide custom workshops for public decision makers

participate in relevant advocacy campaigns

contribute to, coordinate with ecosystem monitoring efforts

Tier I # of On-Board Field Trips

Tier II # of Pre- and Post-Trip Curriculum Experiences

Tier III # of teachers using In-Depth, Project-Based Curriculum

> Tier IV # of River Schools

Tier V # of members in, actions by Estuary Keepers Association (Network of Individuals)

Tier VI # of members in, actions by Piscatagua Ecoregion Consortium (Network of Organizations)

students increase...

- excitement to play/learn/be outside
- watershed science understanding
- knowledge of env. action strategies
- environmental stewardship behavior

educators increasingly...

- use Piscatagua themes for handson, inquiry-, project-, service- based teaching and learning
- embrace place-based education as a means for academic achievement

public artifacts (e.g. maps, signs, publications) increasingly use Piscatagua ideas, words, icons

Gundalow increasingly used for real work, e.g. public commerce, transport

stronger environmental protection regulations in the ecoregion

ecological, physical, biological quality indicators trend upward

Students Become Stewards

Regional Identity **Becomes** "We're from Piscataqua!"

Estuary **Becomes** Healthy and Strong

New Hampshire School-Based Courage to Teach Logic Model

DRAFT v1c, 1-25-10 LEARNING SPACE CREATED INDIVIDUAL **IMPROVED IMPROVED** powerful, safe, hospitable, constructive, collegial STUDENT OUTCOMES SCHOOL CULTURE GROWTH **FACILITATED REFLECTION** professional skills. positive outcomes for student collaboration, collegiality, conpersonal growth, renewal gruence spread through school learning and relationships deep listening, sharing in retreat format a- Participation by invitation, choice o- Teachers apply new, remembered skills, values in b- Boundary markers, group norms classroom k- Increased established, fiercely guarded clarity, confidence, v- Kids feel more compassion, courage p- Teachers recommit personally, known, seen, c- Re-membering life story, professionally to students understood by values, identity, birthrights teachers q- Staff create new, more, better. I- Improved d- Trust unexpected social interactions, in communication skills & out of school listening, none- Hearing, affirming stories of judging, open, honest r- Increased staff enthusiasm. colleagues w- Improved questioning buy in, involvement for whole student learning school initiatives, professional f- Improved relationships - quality, development quantity, personal, professional m- Increased capacity s- Increased sharing of to act as change g- Poetry, arts, expression resources, ideas, support, critical agent - classroom, reflection within and across teams school, community x- Reduced need. h- Empowerment, hope, belief in increased results t- Staff emphasize whole school positive possibilities with student level when problem solving discipline n- Increased capacity, i- Building commitment to healing. desire, responsibility, growth u- Administrators, team leaders to solve own problems have more time for aspirations. need less time for crises j- Advocacy for well being of self and group

Within the program.....

Beyond the program.....

Figure 2. National Park Service Interpretation and Education Program Logic Model

Premise: If the NPS offers high and will be better eq	remise: If the NPS offers high quality interpretive, curriculum-based, and informational programs to a diverse public, the public will have better quality of life and will be better equipped to help preserve and protect the National Park System for future generations.									
Inputs	Activities	Outputs	Outcomes	Impacts						
Funding National, Regional, Local Sources—Public, Private, Philanthropic, Earned	Formal Interpretation Interpretive Talks, Demonstrations, Tours	People Participating in each type of program, service, or event (Visitors, Community Members,	Participants make personal connections to intellectual and emotional resource meanings.	The Public: Finds personal meaning and shared heritage in the National Park System.						
Revenue, Fees		Educators, Students, Families, Internet Users,		National Fark System.						
	Informal Interpretation Roving, Visitor Center	Diverse Citizens, Lifelong								
Skilled Staff NPS, Partners, Volunteers,	Contact	Learners, Other Audiences)	Participants learn new information and concepts	Understands and						
Cooperating Associations,			about the park or program topic.	participates in civil democratic society.						
Community Members, Concessioners	Interpretive Media Publications, Exhibits, Web	Programs, Services, and Events Offered (Walks, Talks, Curriculum-								
Management		based Programs, Teacher Workshops, Public	Participants learn civic engagement skills and	Practices healthy lifestyles						
Supervision, Administration, - Policy	Curriculum-based Programs Parks as Classrooms, Distance Learning	Meetings, Events, Youth Programs, Internships, Audiovisual)	take action. (Volunteer, Make a Donation, Comment)	through recreation.						
	Distance Learning			Demonstrates a long- term commitment to						
Facilities and Technology Visitor Centers, Trails, Historic Buildings, Computer Hardware	Teacher Professional Development Workshops, Institutes	Interpretive Media Products (Exhibits, Websites, Audiovisual Programs, Brochures)	Participants have satisfying and memorable experiences.	stewardship of national park resources.						
				Enjoys motivating, lifelong						
Planning and Training CIP, GMP, Strategic Plans, Interpretive Development Program, Employee Orientation	Community Engagement Public Meetings, Commu- nity Fairs, Events, Dialogues, Internships, Youth Programs	Educational Materials (Curriculum-based Lesson Plans, Traveling Trunks, Activity Guides)	Teachers improve professional practice and students have enhanced learning/motivation.	learning opportunities. The National Park System is preserved for future						
			Park neighbors and	generations.						
Standards and Evaluation Guiding Principles, Best Practice	Information and Orientation Wayfinding, Press Releases, Television, Magazines, Newsletters, Visitor Center Information Desk	Informational products (Maps, Site Bulletins, Magazines, Television Programs, Newsletters, Fact Sheets)	community decision-makers understand park resources and issues and are engaged in park and community preservation.							

MADE to STICK SUCCESs Model

A sticky idea is understood, it's remembered, and it changes something. Sticky ideas of all kinds—ranging from the "kidney thieves" urban legend to JFK's "Man on the Moon" speech—have six traits in common. If you make use of these traits in your communication, you'll make your ideas stickier. (You don't need all 6 to have a sticky idea, but it's fair to say the more, the better!)

PRINCIPLE I



SIMPLE

Simplicity isn't about dumbing down, it's about prioritizing. (Southwest will be THE low-fare airline.) What's the core of your message? Can you communicate it with an analogy or high-concept pitch?

PRINCIPLE 2



UNEXPECTED

To get attention, violate a schema. (The Nordie who ironed a shirt...) To bold attention, use curiosity gaps. (What are Saturn's rings made of?) Before your message can stick, your audience has to want it. PRINCIPLE 3



CONCRETE

To be concrete, use sensory language. (Think Aesop's fables.) Paint a mental picture. ("A man on the moon...")

Remember the Velcro theory of memory—try to book into multiple types of memory.

PRINCIPLE 4



CREDIBLE

Ideas can get credibility from outside (authorities or anti-authorities) or from within, using human-scale statistics or vivid details. Let people "try before they buy." (Where's the Beef?) PRINCIPLE 5



EMOTIONAL

People care about people, not numbers. (Remember Rokia.) Don't forget the WHFY (What's In It For You). But identity appeals can often trump self-interest. ("Don't Mess With Texas" spoke to Bubba's identity.) PRINCIPLE 6



S

STORIES

Stories drive action through simulation (what to do) and inspiration (the motivation to do it). Think Jared. Springboard stories (See Denning's World Bank tale) help people see how an existing problem might change.

www.MADE to STICK.com

Prioritization table for evaluation stakeholder groups

Stakeholder group/ audience for final evaluation report or other product	Decisions this group makes that affect or are affected by the program	Types of evidence that this group feels are useful for making decisions	Rank order of priority among these stake- holder groups as audiences for evaluation info	
SAMPLE	SAMPLE	SAMPLE	SAMPLE	
Program staff	How to implement in schools How to disseminate How to fund the program	Sound bite evidence Amazing anecdotes and quotes Evidence of impact on student learning	5	
School administrators	Budget decisions Professional development allocation Hiring	Site/school-specific evidence Test score data Evidence of community involvement	3	
Current funder	Which programs to fund & how much Alignment of programs with foundation mission	High quality/professional reports Good evaluation templates Environmental stewardship/behavior Longitudinal/long term impacts	4	
Program participant leadership teams	Allocations of time and \$\$ resources How to support the program for the long term	Recommendations based on best practices at similar sites Clear nuts and bolts next steps ideas	7	
Classroom teachers and support staff	Whether or not to change teacher practice/how they do things	Ease of use of program Belief that program outcomes are important Evidence of increased enthusiasm from teachers, students, administrators	2	
School board	Authorize release time Fund field trips Fund classroom activities	Positive feedback from teachers, students, administrators, community Quantitative data/research	1	
Students	How much effort to put in Will this help my future job or college chances	How fun is it Rewards to self and peers	6	

Your task: apply Logic Models,

SUCCESs, or Stakeholder Prioritization

ideas to AEP Calculator Data

- Start in a group of two or three (or solo)
- For AEP Calculator data, use your organization, provided sample data, NH 2010, or fictitious numbers
- For this exercise think baby steps, quick and dirty, back of the envelope, sketch, brainstorm, just take a whack



The Economic Impact of Nonprofit Arts and Culture Organizations and Their Audiences in the State of New Hampshire (Fiscal Year 2010)

Direct Economic Activity	Arts and Culture Organizations	+	Arts and Culture Audiences		Total Industry Expenditures
Total Industry Expenditures	\$53,028,067		\$62,054,161		\$115,082,228

Spending by Arts and Culture Organizations and Their Audiences Supports Jobs and Generates Government Revenue

Total Economic Impact of Expenditures (Direct & Indirect Impacts Combined)	Economic Impact of Organizations	+	Economic Impact of Audiences	=	Total Economic Impact
Full-Time Equivalent (FTE) Jobs Supported	2,009		1,484		3,493
Household Income Paid to Residents	\$45,603,000		\$33,928,000		\$79,531,000
Revenue Generated to <u>Local</u> Government	\$2,462,000		\$3,375,000		\$5,837,000
Revenue Generated to State Government	\$3,095,000		\$2,674,000		\$5,769,000

Event-Related Spending by Arts and Culture Audiences Totaled \$62.1 million (excluding the cost of admission)

Attendance to Arts and Culture Events	Resident* Attendees	+	Non-Resident* Attendees	=	All Cultural Audiences
Total Attendance to Arts and Culture Events	2,053,175		506,894		2,560,069
Percentage of Total Attendance	80.2%		19.8%		100%
Average Event-Related Spending Per Person	\$19.25		\$34.70		\$22.31
Total Event-Related Expenditures	\$29,313,706		\$32,740,455		\$62,054,161

Nonprofit Arts and Culture Event Attendees Spend an Average of \$22.31 Per Person (excluding the cost of admission)

Resident* Attendees	Non-Resident* Attendees	All Cultural Audiences
\$11.79	\$17.13	\$12.85
\$2.68	\$4.03	\$2.95
\$1.53	\$3.62	\$1.94
\$0.91	\$7.46	\$2.21
\$2.34	\$2.46	\$2.36
\$19.25	\$34.70	\$22.31
	\$11.79 \$2.68 \$1.53 \$0.91 \$2.34	Attendees Attendees \$11.79 \$17.13 \$2.68 \$4.03 \$1.53 \$3.62 \$0.91 \$7.46 \$2.34 \$2.46

^{*} For the purpose of this study, residents are attendees who live within the State of New Hampshire; non-residents live outside that area. Source: Arts & Economic Prosperity IV: The Economic Impact of Nonprofit Arts and Culture Organizations and Their Audiences in the State of New Hampshire. For more information about this study or about other cultural initiatives in the State of New Hampshire, visit the New Hampshire State Council on the Arts's web site at www.nh.gov/nharts. Copyright 2012 by Americans for the Arts (www.AmericansForTheArts.org).

ECONOMIC IMPACT OF THE NONPROFIT ARTS & CULTURE INDUSTRY > CALCULATOR

INFORMATION

STEP 1: POPULATION

POPULATION of your community:

Less than 50,000

STEP 2: TOTAL EXPENSES

Your Organization's TOTAL EXPENSES (please do not use commas):

\$ 190000

STEP 3: TOTAL ATTENDANCE (OPTIONAL)

TOTAL ATTENDANCE to your organization's arts events (again, do not use commas):

3500

CALCULATE

Reset





TOTAL ECONOMIC IMPACT OF:

	<u>Total</u> Expenditures	FTE Jobs	Household Income	Local Government Revenue	State Government Revenue
Nonprofit Arts and Culture Organizations:	\$190,000	6.2	\$139,131	\$6,720	\$8,140
Nonprofit Arts and Culture Audiences:	\$78,645	2	\$39,418	\$3,914	\$3,804
Total Industry Impact: (The Sum of Organizations and Audiences)	\$268,645	8.1	\$178,549	\$10,634	\$11,944

Print Your Results Please see the fine print below







DEFINITIONS

Total Expenditures: The total dollars spent by your nonprofit arts and culture organization and its audiences; event-related spending by arts and culture audiences is estimated using the average dollars spent per person by arts event attendees in similarly populated communities.

FTE Jobs:

The total number of full-time equivalent (FTE) jobs in your community that are supported by the expenditures made by your arts and culture organization and/or its audiences. An FTE can be one full-time employee, two half-time employees, four employees who work quarter-time, etc.

Household Income:

The total dollars paid to community residents as a result of the expenditures made by your arts and culture organization and/or its audiences. Household income includes salaries, wages, and proprietary income.

Government Revenue:

The total dollars received by your local and state governments (e.g., license fees, taxes) as a result of the expenditures made by your arts and culture organization and/or its audiences.

Three Main Points

 Effective data use almost always takes more time and effort than you expect

 Some data is almost always better than no data

 Give your data a SPA treatment (Story Purpose Audience)



"We do a lot of amazing work bringing the arts to people who don't want the arts."

Telling good stories with data is hard ... just start!

 Many of these resources are available on the Library page at PEERassociates.net

 Feel free to contact me at Michael@PEERassociates.net