The Storytelling Power of Numbers

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"Upon this gifted age, in its dark hour,
Rains from the sky a meteoric shower
Of facts....they lie unquestioned, uncombined.
Wisdom enough to leech us of our ill
Is daily spun; but there exists no loom
To weave it into fabric...."

Edna St. Vincent Millay from Huntsman, What Quarry? (1939)

Sometimes framing lessons come from the most unlikely sources.

I was in the midst of FrameWorks' annual financial audit when our auditor remarked, "The spreadsheet is really boring. The numbers aren't telling a story." He proceeded to organize the numbers under topical headings, showing how much of our revenue and expense related to work on the environment, children and family issues, and so on. And suddenly, a meaningless array of numbers told a story about the organization's priorities and accomplishments.

This event reminded me of a question from a participant in a recent training on how to frame rural issues. It was a question we hear over and over again when we advise advocates to rethink their use of data in communications. "Do you mean we have to stop using numbers and tell stories instead? We can't do that. We're policy wonks!" To which our smart program officer, a mass communications scholar herself, replied, "It's not numbers versus stories. It's both."

But only when I put the two events together did they clarify for me the lessons that need to be learned about the relationship between the two frame elements of Narrative and Numbers. Here are five lessons for using quantitative data more effectively to advance social issues.

Lesson #1: Unless numbers are embedded in a story you've framed, the public will use the stories they know to make sense of them.

Advocates like to load up on numbers. We see many brochures and fact sheets that are simply long, bulleted lists of numbers lacking any useful interpretation.

What happens when communicators fail to provide strong cues for what the numbers mean? People default to the pictures in their heads. Those pictures are typically dominant cultural models, like I*ndividualism, Consumerism,* or *Fatalism*. They are unlikely to result in attribution of public responsibility, engagement, or problem-solving.

The better practice in data-based advocacy is to provide the meaning first and then use the numbers to support that meaning. This practice helps the public understand the numbers as intended – and also prompts advocates to make sure they have thought through the larger story that the numbers are meant to illustrate. What is the organizing principle, or frame,

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that the numbers support? This leads to our second lesson.

Lesson #2: *Too often numbers are used to tell a single, unproductive story: Crisis.*

Advocates tend to use numbers to attest to the fact that we have a Big Problem, so big that it is now a Crisis, with all numbers being variations on the evidence, showing how it affects this group of people living in this place or over this period of time. In fact, so entrenched is this frame as a storytelling narrative that advocates often don't realize that they are using numbers to tell the Crisis story.

Many social issues are, in fact, in need of urgent attention and major change. So what's wrong with a Crisis story?

FrameWorks research across issue areas — children and family, poverty, environment, economy, health — demonstrates clearly that the Crisis frame does not, in fact, motivate people to want to fix the problem. Rather, the Crisis frame incapacitates them, leading them to conclude the problem is too big to fix, government can't fix it, and no solutions exist. Numerous other social scientists concur.

Importantly, numbers are rarely used to tell the aspects of the story that advocates are often trying to bring to public awareness: solutions exist, they have proven effective, government can play a role, and the problem can be addressed incrementally. On issues like climate change or education, where the size of the crisis tends to remind people of the necessity to protect their own situation, the Crisis frame actually disengages people from public solutions. Instead, it redirects their energies to adaptive behavior (e.g., "I'll buy our beach house a block from the ocean just to be safe") or cocooning (e.g., "I'll make sure my kid gets into the best private school we can afford.")

Moreover, when advocates *do* explain solutions, these are often dwarfed by the Crisis frame and appear to the public as meaningless or irrelevant. When the numbers are used to describe a Huge Problem, followed by numbers that describe Small Solutions, advocates reinforce the sense of futility that comes with the Crisis frame.

This isn't to suggest that advocates stop talking about problems altogether – that, too, would fail to motivate change. A better practice for advocacy communications is to ask: what is the story that our numbers could be used to tell that allows people to see solutions? Our colleagues at Action Media in Minneapolis

> *"What is the story that our numbers could be used to tell that allows people to see solutions?"*

have suggested that a better way to portray Big Problem + Solution is the Giantkiller story: small power defeats major adversary, as in the Biblical story of David and Goliath. We often point out to advocates that *The Little Engine that Could* is a story about Ingenuity triumphing over Big Problem. And these stories can be told with numbers as the supporting documentation.

Lesson #3: *Social math can unify the narrative and the numbers.*

Social math is a technique pioneered by our friends in media advocacy: the Advocacy Institute and the Berkeley Media Studies Group. You can read more about it in *News for A Change: An Advocate's Guide to Working with the Media* (Wallack et al, Sage Publications: 1999). Social math blends stories and numbers by providing comparisons with familiar things. It works by analogy. For example, Wallack et al offer this example:

> *Community residents near a gasoline refinery noted that the plant emits 6 tons of pollutants per day - or 25 balloons full of toxic pollution for each school child in the town.*

Why is this effective?

First, it connects the numbers to meaning, by visually painting pictures in our heads. Six tons is an unimaginable number; 25 balloons per child is comprehensible and visual.

A caution in the use of social math: because it relies on the mapping of one familiar, everyday example onto a lesser-known social issue, it can backfire if you choose the wrong comparison. For example, here's a sound bite from the arena of foreign policy:

> *Most people in Africa support their entire families on the equivalent of what Americans spend on pet food.*

The communicator was trying to make the point that Americans spend plenty of money on extravagances that could be put toward important acts of charity, and thus are being selfish when they don't share their wealth with the rest of the world.

"Sticky," memorable quote — so what's the problem?

The problem lies in the associations that people have with the source of the analogy: pets. When FrameWorks investigated the frame effects of this data point in small-group discussion sessions, we found that the public took away something quite different. The public doesn't think of pets as extravagances; they think of them as family, and therefore, as deserving of care and nurturing. The social math therefore set up a false choice that people didn't want to make: You want me to choose between my beloved pets and people in other countries? Paying attention to

the reasoning that will be set up by your social math equation is an important consideration in predicting its effectiveness. (The power of analogies to drive reasoning is one reason FrameWorks devotes a good portion of its research to developing and rigorously testing Explanatory Metaphors that have consistent, reliable, and positive frame effects.) People will run with metaphors – and so it's important to ensure that they lead in the direction you wish them to go.

Lesson #4: Use numbers to tell causal stories.

Too often the use of numbers in advocacy communications is reduced to their descriptive power: "The problem is real and here's the evidence." Or: "The problem is big - and here's who is affected and where."

But numbers can also be used to tell more analytic stories. Explanatory Chains - simple causal sequences - are important components in helping people understand how an issue works. The most effective Explanatory Chains point the public to the surrounding context, how human decisions contribute to the problem, and the policy opportunities that exist to prevent or even solve the problem. Indeed, this use of numbers is a key contribution to changing a story from episodic to thematic. It's easy to outline the story your numbers need to tell as a chain of events in which the influences of each are apparent:

Sea levels rise because our cars are pumping more and more carbon dioxide into the air, fish die in the oceans, and the food chain is disrupted. Here are the facts. And here's how it could work differently.

OR

Salaries for CEOs at major companies rise 430%, profits decline 10% worldwide, and thousands of people are let go from their jobs in Minnesota to hold the bottom line on profitability for a small number of shareholders around the world. With better planning and better policies, we don't have to choose between shared prosperity and a strong economy.

Lesson #5: Uninterpreted numbers tell a story of random mayhem.

When advocates use numbers to convince people that the problem exists, implicitly expecting that one number will prove the tipping point from apathy to engagement, they do themselves a disservice. Stark statistics often add up to a story that evokes the public's models of naturalism or determinism: the universe is a hostile and chaotic place where Nature rules and human actions are predetermined or irrelevant.

What's wrong with this picture? Once people are reasoning from cultural models that say *that's just the way it is*, they find it hard to think about concepts like prevention, policy impacts, policy changes, or government responsibility. The poor shall always be with us. The apples don't fall far from the tree. It is what it is.

To avoid those seriously problematic frame effects, make sure the numbers are used to illustrate what could have been done to prevent the problem, how human action or inaction has contributed to the problem, and to assign responsibility by showing the potential impact of government intervention. Don't let your fact sheet, infographic, data book, or bar graphs leave the public with the take-away that Stephen Crane described in his famous poem:

A man said to the universe:
"Sir, I exist!"
"However," replied the universe,
"The fact has not created in me
A sense of obligation." ■

Susan Nall Bales, *President and Founder*
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For more on how to tell thematic stories for policy advocacy, check out Wide Angle Lens, a free online learning module available at www.frameworksacademy.org.
A short course on Framing with Numbers is also available.