



**RiskMAP**  
Increasing Resilience Together



**Risk Communications:  
Education is Not Enough**




Helping Ensure Outreach Creates Change

Peter Herrick, Jr.  
Risk Management Directorate, FEMA






**Education is Not Enough**


Presentation of Data      Changed behavior      Resilience



**Applying Behavior Science**



**Applying Behavior Science**





- Optimism Bias:** hazardous events are more likely to strike others
- Projection Bias:** biased toward what is being experienced and felt in the present
- The Charity Hazard Hypothesis:** biased toward what is being experienced and felt in the present
- Status Quo Bias:** preference for inaction
- Hyperbolic Discounting:** disproportionately valuing immediate results
- Availability Bias:** over or underestimating the likelihood of an event
- Representative Heuristic Errors:** mental shortcuts we use in making decisions

resilienceaction

## Applying Behavior Science

**People take action when they're concerned about something and also feel that there is a real risk of that thing happening to them.**

- ▶ This holds true when it comes to communicating the risk related to flood hazards.
- ▶ In order to increase the level of personal concern, we must link flood risks to other issues people care about:
  - Jobs, roads, property values, economic development, sustainability
- ▶ When people know that others to whom they can relate have already done something, they are more likely to repeat that action.

4

## Storytelling

**Because storytelling is better than fact-sharing.**

**Because there are powerful stories to tell about how communities can drive mitigation action.**

Stories that are



**More memorable More powerful More persuasive More effective**






5

## Flood Economics

- Increase decision-makers' awareness of flood risk and its relevance to their communities;
- Increase their knowledge of how to mitigate a community's flood risk; and
- Encourage people to share this knowledge with key industry experts and affected stakeholders, creating a ripple effect.

STATE SUMMARY FOR CALIFORNIA		
Average return on investment	Average annual cost ratio	CRS investment by year
65%	1.65	
Number of projects	Total investment	Total benefits
909	\$571.0m	\$705.9m



6

## IMMERSED Virtual Reality

LEARN MORE ABOUT TAKING MITIGATION ACTION IN YOUR COMMUNITY AT  
[FEMA.GOV/MITIGATION](http://FEMA.GOV/MITIGATION)

**IMMERSED**

A VR EXPERIENCE ABOUT FLOOD & RESILIENCE

7