

# “Beyond Engineering & Meteorology: The New Social Science of Safe Rooms”

Tenth Annual National Severe Weather  
Workshop

Thursday, March 4<sup>th</sup>  
Norman, Oklahoma



Strengthening Homes  
and Safeguarding Families



FLASH PROUDLY ACKNOWLEDGES ITS LEGACY PARTNERS  
FOR THEIR UNWAVERING SUPPORT OF FLASH AND ITS MISSION.

*FLASH also wishes to recognize its Founding partners, whose commitment  
and involvement with FLASH propelled us towards our bright future.*



**American Red Cross**

*Founding Partner*



**FEMA**

*Founding & Legacy Partner*



*Founding & Legacy Partner*



*Legacy Partner*



*Founding Partner*



**INTERNATIONAL  
CODE COUNCIL®**

*Legacy Partner*



*Founding & Legacy Partner*



*Legacy Partner*



*Legacy Partner*



**State Farm**

*Founding & Legacy Partner*

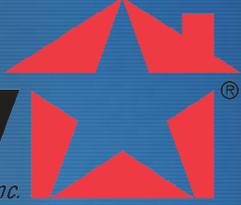


*Founding & Legacy Partner*



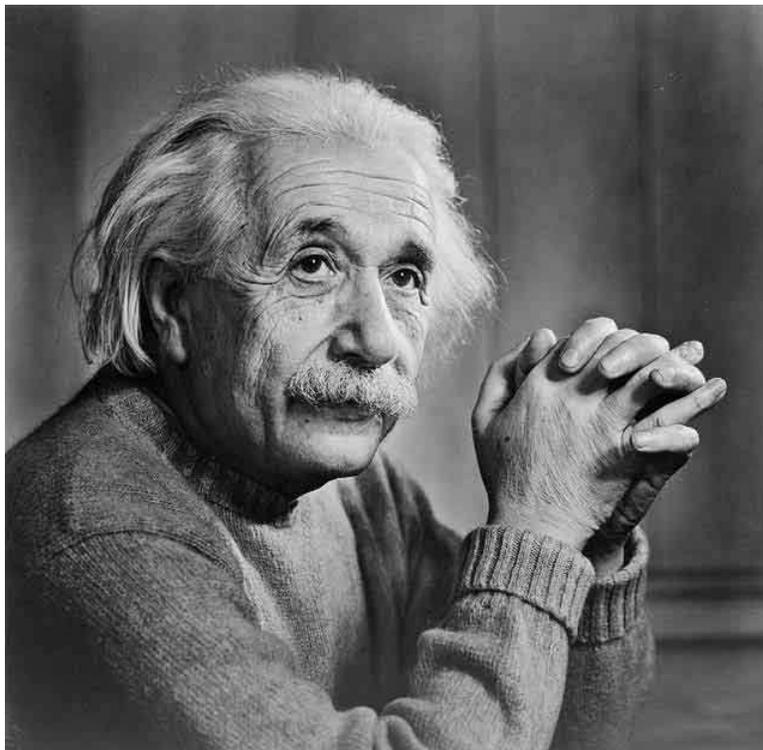
*Legacy Partner*

*Strengthening Homes  
and Safeguarding Families*

**FLASH**<sup>inc.</sup> 

**FEDERAL ALLIANCE FOR SAFE HOMES**

[www.flash.org](http://www.flash.org)



“Imagination is more  
important than knowledge.”

Albert Einstein, Physicist

# INNOVENTIONS



*Walt Disney* envisioned a showcase for innovation and discovery, where guests could understand the magic of the world around them.

Insert StormStruck Video

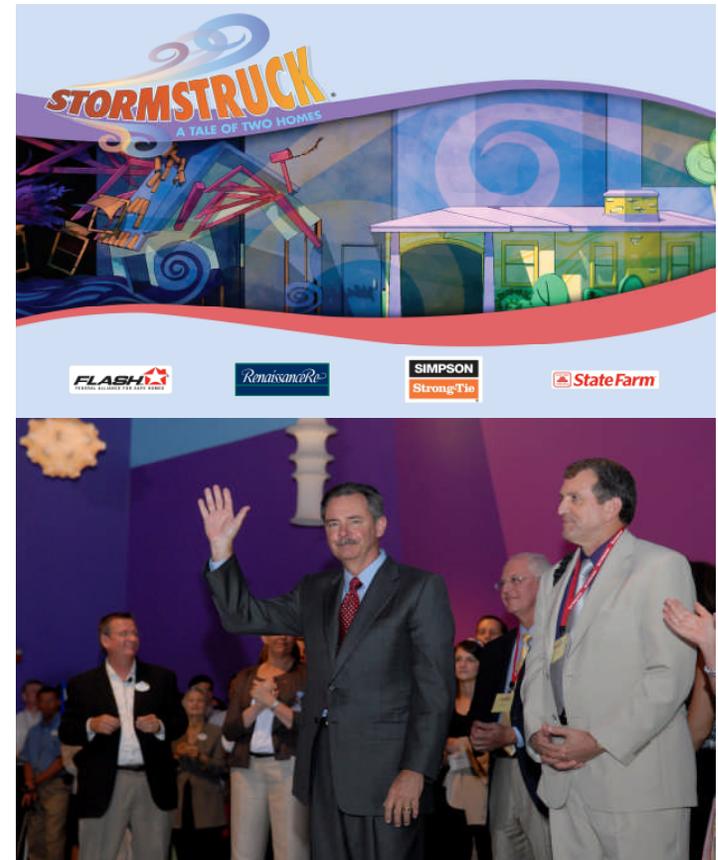
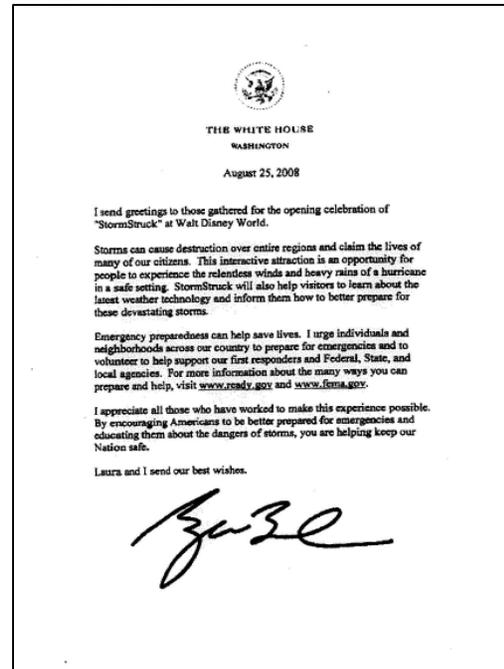
Strengthening Homes  
and Safeguarding Families

**FLASH**<sup>inc.</sup> 

**FEDERAL ALLIANCE FOR SAFE HOMES**

[www.flash.org](http://www.flash.org)

- Record Attendance
- Widespread news coverage
- Accolades from Experts
- Guest Feedback
- Informing Policy
- California – EQ

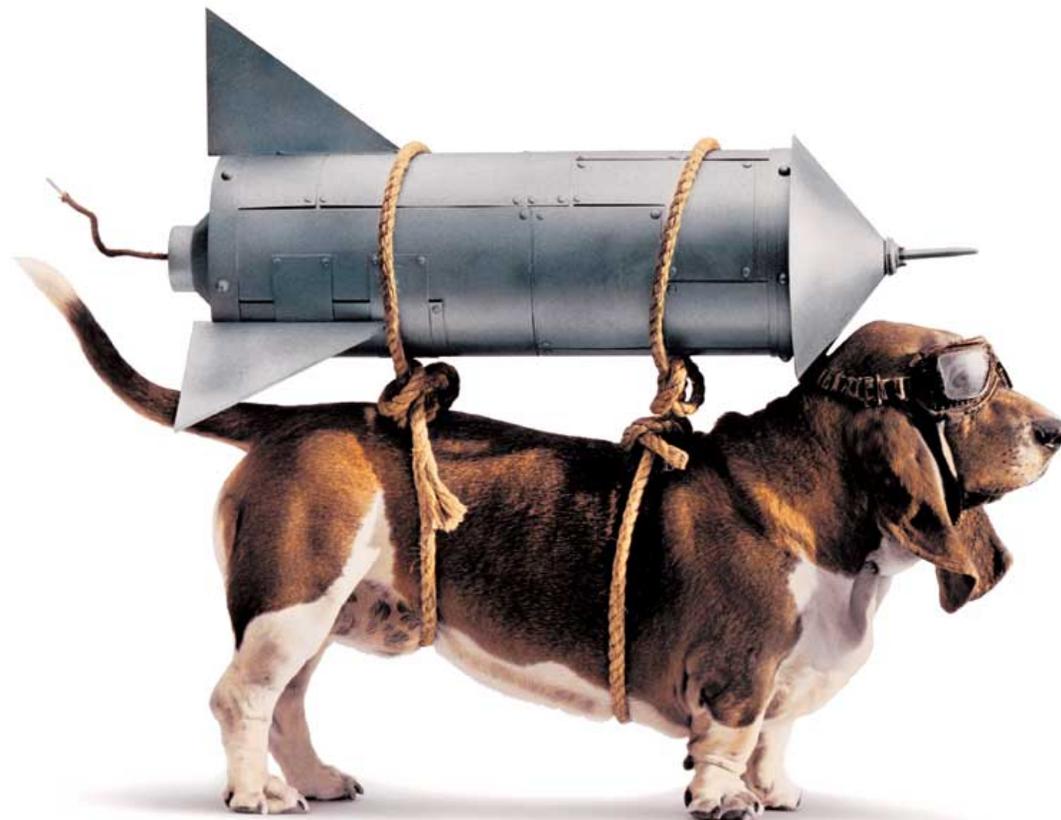


But most importantly ...

# We're making families safer ...



So what's next?

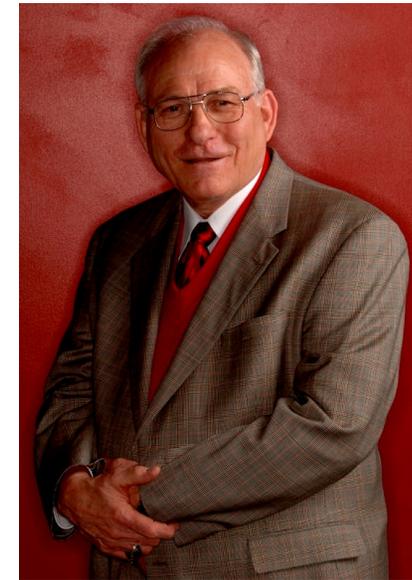
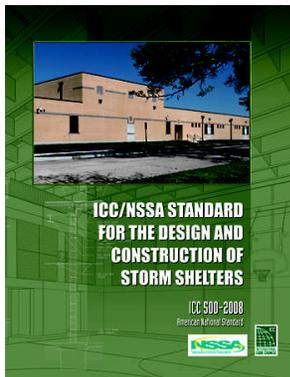




q3. What other natural disasters would you be interested in finding out about?

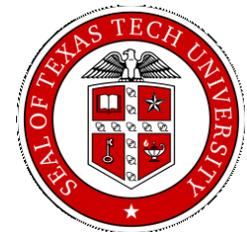
		Total	
		Count	PCT
Q3. What other natural disasters would you be interested in finding out about? (CHECK ALL THAT APPLY).	Total	415	100.0%
	Wildfire	82	19.8%
	Earthquake	141	34.0%
	Tsunami	108	26.0%
	Flood	160	38.6%
	<b>Tornado</b>	184	<b>44.3%</b>
	Other (specify)	14	3.4%
Total	415	100.0%	

# Tornado Science MVP

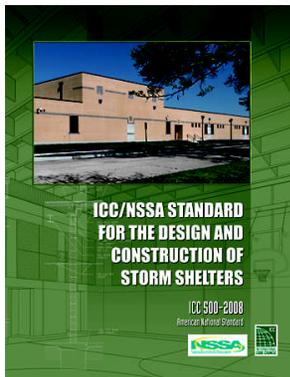


Ernst W. Kiesling, Ph.D.

Surviving interior room from the 1974 Tornado in Xenia, Ohio serves as the motivation for building tornado safe rooms to serve as above ground shelters.



# Tornado Safety Hero



Surviving interior room from the 1974 Tornado in Xenia, Ohio serves as the motivation for building tornado safe rooms to serve as above ground shelters.



# Tornado Safety Formula

- **Essential Ingredients for Tornado Safety**
  - **Meteorology**
    - **Tools - Tracking/Forecasting/Warning**
    - **Challenges - Over-warning/Public Denial**
  - **Engineering**
    - **Tools - Tornado Safe Rooms/Shelters/Standards & Guidelines**
    - **Challenges – Lack of Market & Quality of Construction**
  - **Social/Behavioral Science**
    - **Tools – An Understanding of Motivators**
    - **Challenge – Lack of Behavior Change & Quality Issues**

# Classic Risk Communication Formula

Problem + Awareness =

Market Demand for Solution

# Classic Risk Communication Formula



+



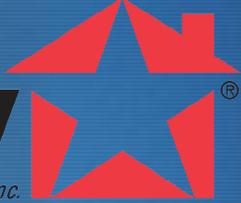
= Rx from your Doctor

# Classic FLASH Communication Formula

Problem + Awareness



*Strengthening Homes  
and Safeguarding Families*

**FLASH**<sup>inc.</sup> 

**FEDERAL ALLIANCE FOR SAFE HOMES**

[www.flash.org](http://www.flash.org)

“It’s kind of fun to do the  
impossible.”

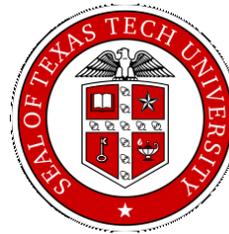
Walt Disney, Storyteller



# Tornado Project Partners

## Resilient Homes Program

## Federal Alliance for Safe Homes



FEMA



US Army Corps  
of Engineers®



saltermitchell  
COMMUNICATION + BEHAVIOR CHANGE



WeatherPredict  
CONSULTING INC.



Strengthening Homes  
and Safeguarding Families



FEDERAL ALLIANCE FOR SAFE HOMES

[www.flash.org](http://www.flash.org)

- Tornado Outreach & Awareness Asset
  - Danny Lipford as National Campaign Spokesman
    - CBS Early Morning Show
    - The Weather Channel
    - Syndicated TV & Radio



#### 12th Season Showcases Projects and Celebrities



Season 12 of *Today's Homeowner with Danny Lipford*® is underway. Episodes in the works feature Bill Nye, the Science Guy and green tips from Ed Begley, Jr. Danny and the crew showed *Access Hollywood's* Laura Saltman how fix a leaky toilet and will unveil the completed restoration of slugger Hank Aaron's childhood home. Plus, viewers will get an inside look at *Dancing with the Stars' Louis van Amstel's* rooftop Hollywood pad.

#### New Spokesperson for Tornado Safety

Danny delivered an address to the International Code Council's Annual Conference in Baltimore on November 2nd. He was named spokesperson for tornado safety by the Council, FLASH®, and the Resilient Homes Program for his strong advocacy for home safety and the construction of code-approved shelters in new and existing homes.



# Initial Project Plan

1. Conduct Research/Establish Baseline Awareness
2. Design Social Marketing Campaign to Boost Awareness, ergo Expand Market Demand (Purple Pill Approach = 75% Consumer v. 25% Builder/Remodeler)
3. Conduct Retest to Gauge Improvement

Don't re-invent  
the **wheel**



# Survey Parameters

- Online survey fielded Dec. 10-14, 2009
- Sample Size
  - n=822 participants
- All participants were homeowners living in the Southeastern United States
- Alabama
- Florida
- Georgia
- Kentucky
- Mississippi
- South Carolina
- Tennessee

# Why the Southeast?

- Convergence of vulnerabilities
  - Nocturnal tornadoes 2X more likely fatal and lack of progress despite forecast/warning progress
  - High penetration of vulnerable housing
  - Potential low perception of threat away from the traditional “tornado alley” area
- Project outcomes still relevant for Midwest as same challenges exist in traditional tornado “alley” markets

*Strengthening Homes  
and Safeguarding Families*



**FEDERAL ALLIANCE FOR SAFE HOMES**

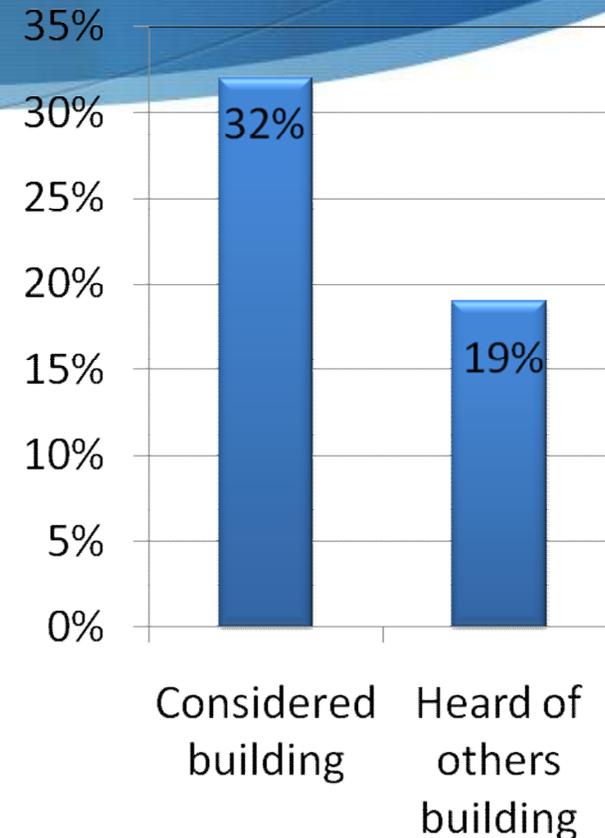
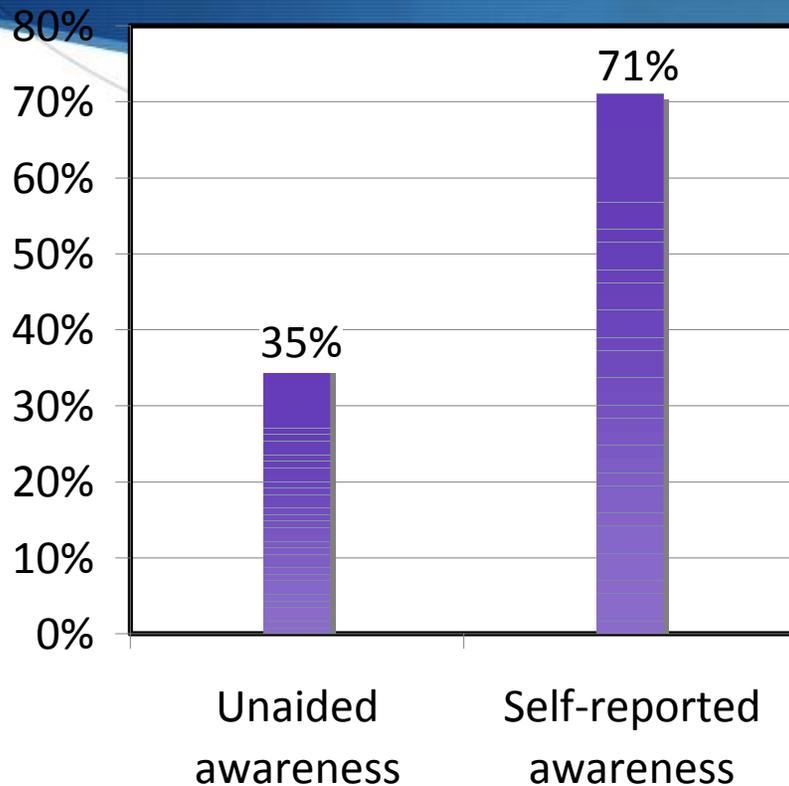
*[www.flash.org](http://www.flash.org)*

Where are we starting from?

Awareness, consideration and intention  
at Baseline (December 2009)

# Baseline awareness

Awareness and self-reported consideration not that low



**Unaided awareness:** Respondents were asked to name a room that was reinforced to withstand a hurricane or tornado.

**Self-reported awareness:** Respondents were given safe room definition and asked if they had heard the term before.

Average number of times respondent heard of someone building a safe room was 0.43 times

# Baseline Intention

Overall interest low, but triples when considering in new home

Likelihood to construct in an existing home:	Full sample	Full Sample Average
Safe room	4%	Mean = 1.51
Windowless room	7%	Mean = 1.77
Storm shelter	7%	Mean = 1.73
Likelihood to construct in a new home:	Full sample	Full Sample Average
Safe room	11%	Mean = 2.16
Windowless room	23%	Mean = 3.00
Storm shelter	17%	Mean = 2.66

# What percentage are planning to renovate an existing home to include a safe room?

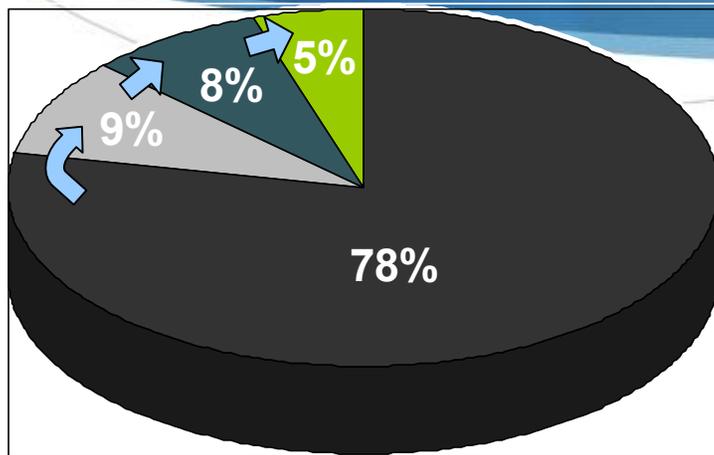
Renovations planned over the next five years	Likely	Very Likely	Installed
Additional or renovated bathroom	10.2%	16.5%	5.6%
Additional storage space	8.3%	7.9%	4.3%
Game room	4.1%	2.8%	3.9%
Secure closet or safe	4.8%	2.4%	4.4%
A work-out room	3.6%	2.4%	5%
Gun closet	1.6%	2.2%	2.1%
A kid's play room	1.9%	2%	2.6%
Wine storage area	2.6%	1.9%	2.1%
<b>Storm shelter</b>	2.4%	1.2%	3.1%
<b>A windowless room designed to withstand hurricanes and tornadoes</b>	2.0%	1.2%	3.8%
<b>Safe room</b>	1.5%	0.7%	1.4%
Panic room	0.5%	0.4%	0.2%

# How willing to pay extra compared to other new home amenities?

Now imagine you were building a new home. How likely would you be to pay extra for ...	Likely	Very Likely
A finished basement or cellar	19.8%	18.1%
A work-out room	14.6%	10.7%
<b>A windowless room designed to withstand hurricanes and tornadoes</b>	12.9%	10.2%
Game room	14.5%	8.9%
Secure closet or safe	12.3%	8.5%
<b>Storm shelter</b>	10.7%	7.1%
A kid's play room	7.2%	5.9%
Wine storage area	7.4%	5.2%
<b>Safe room</b>	6.4%	4.1%
Gun closet	4.5%	3.9%
Panic room	2%	1.3%

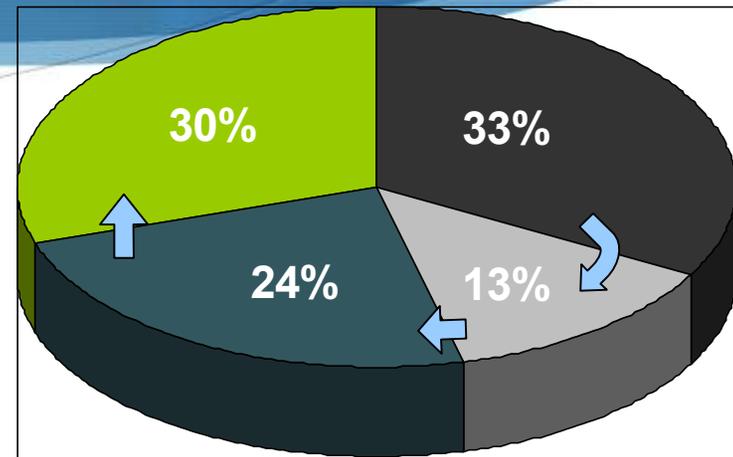
# Campaign Goal

Adding to Existing home



■ Rejecters ■ Negatives  
■ Positives ■ Intenders

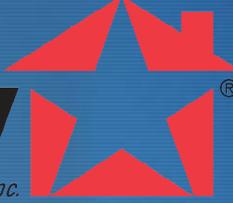
Adding to New Home



■ Rejecters ■ Negatives  
■ Positives ■ Intenders

Increase portion of **INTENDERS** & **POSITIVES**

*Strengthening Homes  
and Safeguarding Families*

**FLASH**<sup>inc.</sup> 

**FEDERAL ALLIANCE FOR SAFE HOMES**

[www.flash.org](http://www.flash.org)

**What's Important to Homeowners?**

**Finding needs-states we can leverage**

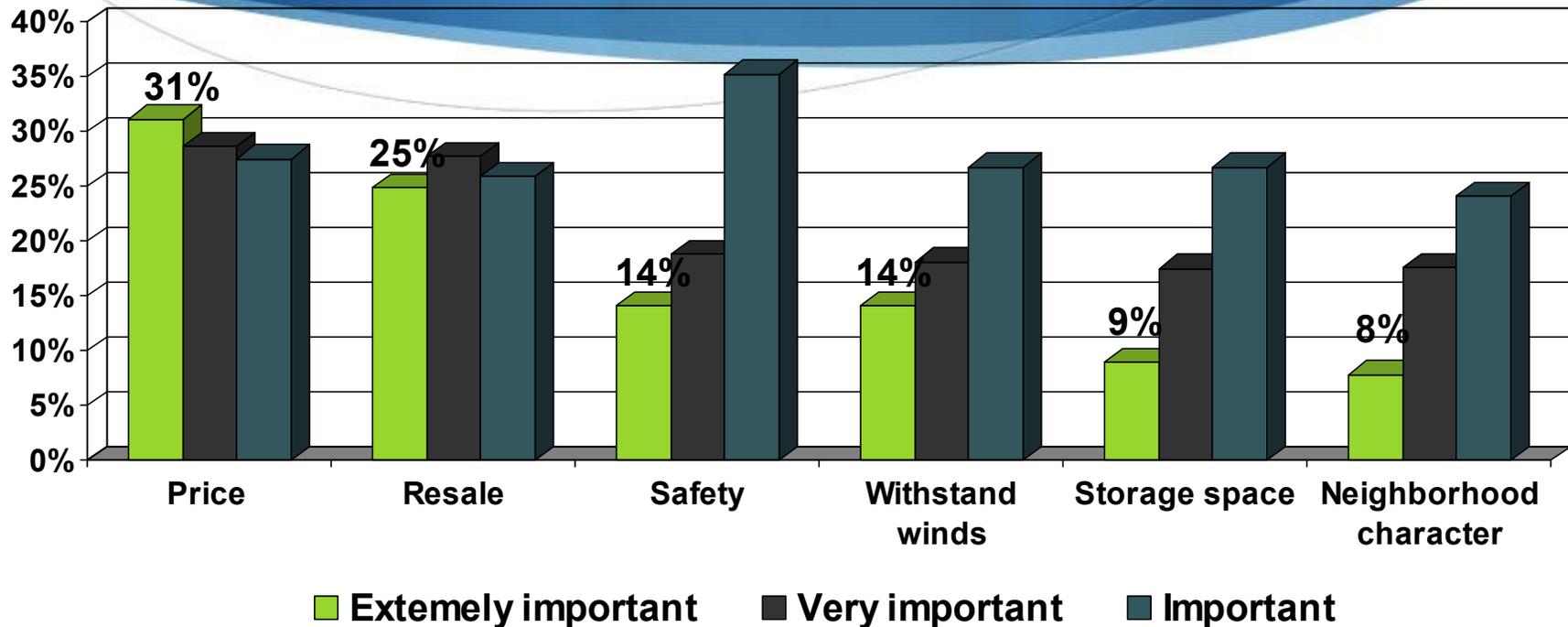
# My home is safe ... I think

Some doubt safety in high winds

Items in order of agreement	Percent who disagree (strongly)	Percent who agree (strongly)
I tend to be better prepared than most other people	16% (1%)	84% (8%)
I know what to do to protect my home from a hurricane or tornado.	18% (2%)	72% (10%)
I would be relatively safe in my home if a tornado or hurricane struck my area	17% (4%)	73% (6%)
I can protect my family in a hurricane or tornado without any outside help	44% (5%)	66% (5%)
I take more risks than most other people	75% (13%)	25% (1%)

# One-fifth say safety is very important ...

Price and resale value key factors, but 22% also say withstanding high winds “very” or “extremely important”



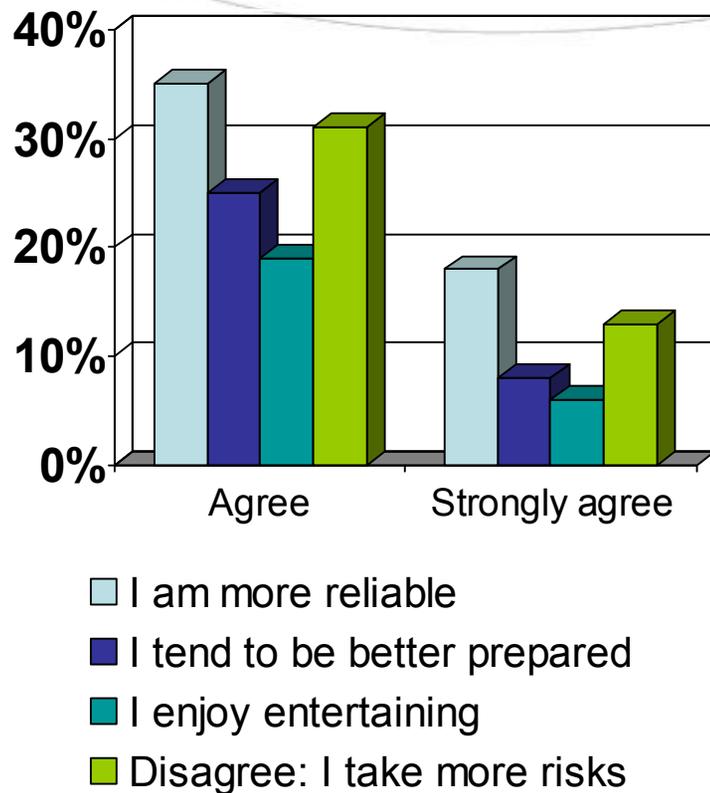
Participants were asked how important each factor was when it came to renovating or making improvements to their home on a scale from “not at all important” to “extremely important.”

# ... but safety is not something they worry about

Kids, money and being in shape top list of worries

Items from most to least important	A lot	All the time
Your children's development or future (Only asked of parents)	21.9%	21.7%
Having enough money to pay your bills	11.1%	14.7%
Being in good physical shape	16.3%	7.6%
Your career	9.6%	6.6%
The effects of aging	12.9%	5.9%
The resale value of my home	14.1%	5.8%
Your marriage or romantic relationship	7.8%	4.5%
Someone in your family having a catastrophic illness	7.6%	4.3%
Someone in your family injured or killed in a car accident	5.6%	4.2%
A home burglary	5.6%	2.2%
Someone in your family being injured or killed in a tornado	1%	1.5%
Someone in your family being injured or killed in a hurricane	1%	1.5%

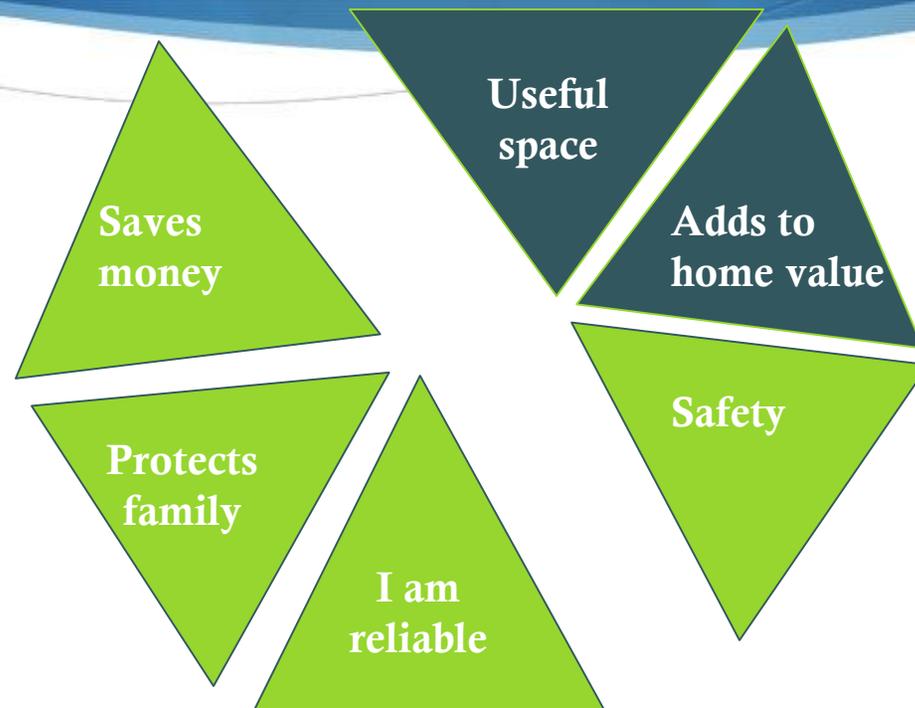
# Another possible motivator: Self-Standards



## Safe room could show:

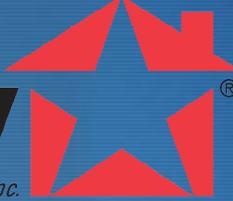
- How you are more reliable than other people
- How you tend to be better prepared than others
- How you enjoy entertaining in your home
- How you take fewer risks than other people

# Putting the pieces together



**More about this later ...**

*Strengthening Homes  
and Safeguarding Families*

**FLASH**<sup>inc.</sup> 

**FEDERAL ALLIANCE FOR SAFE HOMES**

[www.flash.org](http://www.flash.org)

**Who is our best potential customer?**

**Demographic profiles of “intenders” and  
“positives” who plan to build**

# How “Intenders” are different

## Might add safe room / shelter as renovation

- ↑ Male
- ↑ Have children in home
- ↑ Spanish at home
- ↑ Worries about family being injured (all ways) and home burglaries

## Pay more for safe room / shelter in new home

- Younger
- ↓ Caucasian
- ↑ Worries about everything
- ↓ Sure about safety in hurricane or tornado

# Target audience profile

Renovators who don't reject the idea



- **62% male**
- **44% have children at home (v. 33%)**
- **6% speak Spanish at home (v. 2%)**
- **35% worry: family die in car crash**
- **27% worry: home burglary**
- **17% worry: family dying in tornado**
- **14% worry: family dying hurricane**

# Target audience profile

New home buyers likely to consider it



- 52% male
- 43% 25-44 (v. 22%)
- 86% Caucasian (v. 93%)
- 6% speak Spanish at home (v. 2%)
- Worry more about everything, including child's dev. (32% all the time v. 11%); being in shape (10% v. 3%); home resale (8% v. 3%); car fatality (7% v. 3%).
- 49% agree: Can protect family in hurricane (v. 62%)

# Classic Risk Communication Formula Doesn't Work

**Tornado  
Safety  
Problem**

**+**

**Tornado Safe  
Room/Shelter  
Awareness**

**≠ Behavior Change/Acceptance**

**≠**



# What will work?

## **Selling to Renovators**

### **Possible Strategies**

## What kind of renovations are likely ... for those planning improvements?

Renovations planned over the next five years (all answers over 5%)	Likely	Very Likely	TOTAL
<b>Additional or renovated bathroom</b>	17%	28%	<b>45%</b>
<b>Additional storage space</b>	12%	13%	<b>25%</b>
Game room	7%	4%	11%
A kid's play room	3%	5%	8%
Secure closet or safe	5%	2%	7%
A work-out room	5%	2%	7%
Wine storage area	3%	2%	5%

Notice what's **NOT** on this list ...

# What to do - Existing Homes?

## Position as feature, not stand-alone

- Target men who are planning home renovation / improvements
- Drive consideration DURING renovation planning... what kind of closet / bathroom?
- Play to self-standard - what a reliable person does
- Offer as feature for people who have to think about protecting family (acknowledge this is a choice)
- Position price as incremental not stand-alone
- Include Spanish-language component; some focus on Hispanic market

*Strengthening Homes  
and Safeguarding Families*



**FEDERAL ALLIANCE FOR SAFE HOMES**

[www.flash.org](http://www.flash.org)

# Selling to New Home Builders?

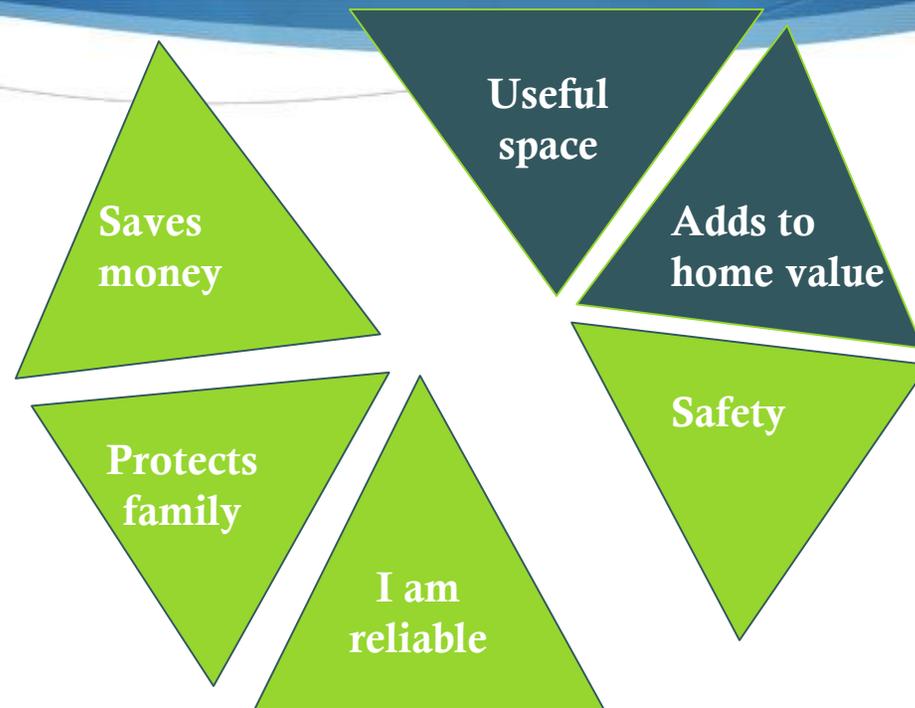
## Possible Strategies

# What to do – New Homes?

## “Peace of mind” feature

- Drive consideration at design stage, but no need to sell complete design - just feature
- Play to self-standard - what a reliable person does
- Norm it as “How homes are build in hurricane- &/or tornado-prone areas
- Position price as incremental not stand-alone
- Include Spanish-language component

# Next Steps: Create A Campaign



**Creating an identity/mnemonic to trigger consideration**

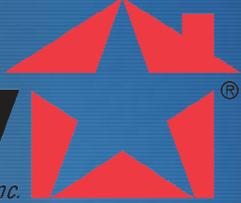
# Next Steps: Test Creative



# Next Steps: Test Creative



*Strengthening Homes  
and Safeguarding Families*

**FLASH**<sup>inc.</sup> 

**FEDERAL ALLIANCE FOR SAFE HOMES**

[www.flash.org](http://www.flash.org)



**Leslie Chapman-Henderson**

**leslie@flash.org**

**(877) 221-SAFE**