Equitable Access to Affordable Earthquake Insurance: A Resilience Challenge

WEBINAR

CREW
Cascadia Region Earthquake Workgroup

nehrp
Welcome

- **CREW** crew.org
  - Pascal Schuback
  - Kyra Nourse

- **CUSEC** cusec.org
  - Jim Wilkinson

- National Earthquake Hazards Reduction Program (NEHRP)
  - www.nehrp.gov

**Equitable Access to Affordable Earthquake Insurance:** A Resilience Challenge
Agenda

- Introductions
- Panelists’ presentations
- Panel Discussion
- Q&A
How to Participate

- To ask questions of the panelists, open the Q&A window and type in your question.
- Use the chat window to report a technical issue to the host.
Panelists

Dr. Carolyn Kousky, Associate Vice President for Economics and Policy at the Environmental Defense Fund (EDF) | edf.org

Lynda Foster, Claim Manager at the California Earthquake Authority (CEA) and Co-chair of CEA’s Diversity, Inclusion, and Belonging Advisory Council | earthquakeauthority.com

Kate Stillwell, founder of the parametric earthquake insurance company Jumpstart and President of Parametric Insurance at Neptune Flood Insurance | jumpstartinsurance.com

Douglas Heller, Director of Insurance at the Consumer Federation of America and member of the U.S. Department of Treasury’s Federal Advisory Committee on Insurance | consumerfed.org
Dr. Carolyn Kousky, Associate Vice President for Economics and Policy at the Environmental Defense Fund

df.org
Creating inclusive disaster insurance markets

Carolyn Kousky
Associate vice president for economics and policy, Environmental Defense Fund
Outline for today

1. Disaster insurance is critical for recovery.

2. Many people are uninsured against disasters, often because it is difficult to provide comprehensive disaster coverage affordably.

3. New models, as well as public-private partnerships, could help bring the financial protection of insurance to more people and improve equity in recovery.
Disaster insurance supports recovery
Disasters are negative financial shocks

- Expenditures increase
  - Property Damage
  - Other expenses
- Incomes can decline

Data from hurricanes Michael, Harvey, Florence, and Ida.
Resources to rebuild

savings
loan
assistance
insurance
People with insurance tend to recover better and faster than those without insurance.

Insurance: financial protection and safety net

• Those with disaster insurance are less likely to report financial burdens both three months and a year after hurricanes and less likely to report unaddressed funding needs (You and Kousky 2023)

• Lack of flood insurance widens inequality (Rhodes and Besbris 2022)
Community spillovers

• Greater uptake of insurance can improve broader economic recovery in a community

• Insurance can protect against loan modifications, delinquencies, and defaults
Disaster insurance gaps
Disaster insurance gap

World – 207bn | 70bn

NatCat protection gap 137bn in USD 66% of total losses

10 year average

~ 2/3 of direct losses from disasters are uninsured globally

Drivers of the gap

• Lack of risk information
• Poor risk and insurance literacy
• Heuristics & biases
• Affordability constraints
Disaster insurance can be expensive

Insurance works best for independent risks that are not overly catastrophic

Larger pool
Disasters have “spiky” loss profiles

Source: Danielle et al. 2012
Public-private partnerships
Inclusive disaster insurance
An inclusive disaster insurance system:

the policies, programs, and products that make appropriate and affordable insurance available to those currently unserved or underserved by the market.

Inclusive disaster insurance should be:

- Affordable
- Accessible
- Transparent
- People-centered
- Just
New models

- Microinsurance
- Aggregator models
- Tighter links with mitigation
Carolyn Kousky, ckousky@edf.org
Kate Stillwell, founder of Jumpstart and President of Parametric Insurance at Neptune Flood Insurance

jumpstartinsurance.com
Earthquake Insurance: Stories & Solutions

Kate Stillwell
What Does it Take to Recover?

Social Connection
- Safe Homes
- Money
- Governance
Extreme Perils are Massively Un-Insured

90% Uninsured for earthquakes

87% Uninsured for floods
57% of Americans Can’t Afford a $500 Surprise Expense

Data Source: Bankrate
1915 Pan-Pacific Expo
$50M public + private investment
($100s of Billions in today’s dollars)
Natural Disaster?
Natural Disaster? or Financial Disaster?

$600,000,000,000,000*

*source: http://www.seced.org.uk/images/newsletters/LARSEN, BOLTON, DAVID.pdf
Natural Disaster? or Financial Disaster?

$600,000,000,000,000*

Half of this is due to "Indirect Losses"

*source: http://www.seced.org.uk/images/newsletters/LARSEN, BOLTON, DAVID.pdf
2014 M6.0
American Canyon
Hi!

Our building is safe, the retrofit worked. We are closed only because of the building behind us. We'll see you soon.

Thanks for your support!

(Dick Nel)
Unforeseen Expenses call for Unrestricted Funding
$Lump Sum
To pay for any quake expense.

Relocation costs
Temporary housing
Emergency supplies
Child care
Elder care
Clean up costs
Legal fees
Transportation
Utilities
Parametric Insurance

- Partial
- Fast
- Unrestricted
- Automated
- Non-Arbitrated
Insurers Aim to Fill In the Disaster Gap

As natural disasters increase, homeowners look for more ways to cover more expenses.

Catastrophic parametric insurance is increasingly being marketed in areas with natural disasters and fires such as the Camp Fire in Paradise, Calif., in 2018.

PHOTO: HECTOR AMEZCUA/SACRAMENTO BEE/ZUMA PRESS

By Lisa Ward
Oct. 20, 2019 10:04 pm ET
Finance & economics

The future of insurance is happening without insurance firms

Run for cover

The industry’s plodding giants face mounting threats from restless reinsurers and Big Tech
Hurricane Ian Destroyed Their Homes. Algorithms Sent Them Money

Google's AI scanned satellite imagery to identify the worst-hit neighborhoods—helping direct aid to residents' phones.
Still other innovations will be legal and financial, like insurance that links homeowners’ rates to their preparedness and provides immediate payouts based on the intensity of winds or storm surge.
Parametric Insurance

- Partial
- Fast
- Unrestricted
- Automated
- Non-Arbitrated
Before the Event

Customer pays premium via Broker.
Before the Event

Tech stays connected to data source.
Upon Occurrence

Data triggers a payout to Customer.

$ Amount = 20x to 50x annual premium
Parametric Trigger:

USGS Data

example from 2014
M6.0 Napa earthquake
Jumpstart Trigger: PGV 30 cm/sec*
Shaking Intensity: VII-VIII

Trigger corresponds to **widespread disruption, but not mass destruction.** Severe enough to create **surprise expenses**

*in California. In OR & WA, 20cm/sec.
Lessons from selling parametric
Consumer Value Proposition?

Fast Payout
Affordable
Simple
Objective
Community Events

Brave the #JumpstartShaker at Fleet Week - October 11th and 13th at Marina Green Park! #earthquake
Consumer Value Proposition

Fast Payout
Affordable
Simple
Objective
Consumer Value Proposition

Fast Payout
Affordable
Simple

Objective | Trust
Consumer Value Proposition

Fast Payout

Affordable

Simple

Objective | Trust | No Arbitration
Consumer Value Proposition

Fast Payout

Affordable

Simple

Objective | Trust | No Arbitration | Less Bias
If you only remember two things:

Trusted Community Member

Perception of Bias
One more thing...
“It’s a no-brainer”

Tomantha

(customer since 2018)

Oakland, CA

› Millennial
› Condo owner
› Works in the service industry
› Limited savings
It’s perfect

Frank

customer since 2019
Davis, CA

▶ ER doctor
▶ Homeowner
▶ Nearing retirement
▶ Wants to preserve savings
It all comes back to Personal Finances
It all comes back to Personal Finances
It all comes back to Personal Finances
Conventional compared to Parametric

Conventional Property Insurance

- Insured Limit
- Policy Holder pays
- Insurance Company pays
- Policy Deductible
- Policy Holder pays

Parametric Insurance alone

- Insured Limit
- Insurance Company pays a lump sum
- Policy Holder pays

Financial Losses (as a % of Insured Limit)
Triggering Events

Ridgecrest, CA
M7.1 and M6.4
July 2019

The system works.
(no payouts yet)
Before

Participants

- Beneficiaries
- Community Administrator
- Insurer
- Donor(s)
- Outreach Facilitator
- Broker + Technology

After

Contact: Kate Stillwell
kstillwell@jumpstartinsurance.com
Lynda Foster, Claim Manager at California Earthquake Authority (CEA) and Co-chair of CEA’s Diversity, Inclusion, and Belonging Advisory Council

earthquakeauthority.com
About CEA
California Earthquake Authority

1994 Northridge Earthquake Led to CEA Creation

- Created in 1996 in the wake of the 1994 Northridge earthquake
- Enables CEA "Participating Insurers" to satisfy mandatory offer of earthquake insurance
- Privately Financed. Publicly Managed. Not for Profit
  - Public instrumentality of the State of California
- Take All Comers
  - Anyone owning a homeowner policy from a CEA Participating Insurer is eligible to purchase a CEA policy.
- 1.1 million policyholders in California
  - 10% of the homes
  - In certain high-risk zones, 20%-30%
  - 66% of the residential earthquake policies
- $19 billion in claim paying capacity
Background

CEA: First 25 years
- Created to preserve CA homeowners’ market
- Today writes 66% of CA earthquake policies
- Significant coverage expansion in 2016

Since 2016
- CEA policies up 18%
- Total insured value up 55%
- Purchased risk transfer up 67%

Key unique characteristics:
- CA only, earthquake only
- Take all comers
- Best available science
- Actuarially sound
- No public funding to cover loss
- Heavy reliance on risk transfer

NOW:
- Historic inflation
- Hardening risk transfer market – higher price and lower capacity
- Exacerbated by Hurricane Ian insured losses
Re-Insurance Market

THE WALL STREET JOURNAL
TUESDAY, NOVEMBER 8, 2022

Insurers Are Facing a Steep Rise in Reinsurance Rates
Despite big losses from Ian, hurricane season has so far been tame for bigger insurers

Miami Herald
Friday, November 25, 2022

More bad news for insurance in Florida:
Reinsurance costs going up after Hurricane Ian
Strategic Plan Initiatives/Coverage Equity Working Group

Worked with consumer groups, participating insurers, and other stakeholders to identify potential coverage modifications that would promote affordability and greater equity in the coverage options we provide.

<table>
<thead>
<tr>
<th></th>
<th>Minimum limit required by state law</th>
<th>Current CEA Options</th>
<th>Proposed Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coverage A – Structure</td>
<td>Replacement Cost</td>
<td>Replacement Cost</td>
<td>No change</td>
</tr>
<tr>
<td>Coverage C – Personal Property</td>
<td>$5,000</td>
<td>$200,000 maximum</td>
<td>$25,000 maximum</td>
</tr>
<tr>
<td>Coverage D – Additional Living Expenses</td>
<td>$1,500</td>
<td>$100,000 maximum</td>
<td>No change</td>
</tr>
<tr>
<td>Mitigation Discount</td>
<td>CEA: 5%</td>
<td>25% maximum</td>
<td>No change</td>
</tr>
<tr>
<td></td>
<td>All other insurers: none</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Deductible             | 15%                                 | 5%, 10%, 15%, 20%, 25%       | • Eliminate 5% and 10% for policies with $1 million+ Coverage A, and pre-1980 non retrofitted homes
  • Retain 5%, 10%, 15%, 20%, 25% for all others |
| Masonry Veneer         | None                                | Available                    | Eliminate optional endorsement                       |
| Breakables             | None                                | Available                    | Eliminate optional endorsement. Seek regulatory approval for $500 sub-limit for all policyholders. |
About EBB
Earthquake Brace & Bolt Program

Retrofits crawlspaces with plywood bracing and new bolting

Provides up to $3,000 grant
Currently requires owner-occupied
In select ZIP Codes with high seismic hazard
Has collected important data:
  • Retrofit averages $5,200 in CA
  • More expensive in Northern CA
  • Over 500 zip codes in CA

EarthquakeBraceBolt.com
2014 South Napa M6.0 Earthquake Damage

House shifted and dropped

Raised foundation that has collapsed
Earthquake Brace + Bolt Retrofit

Crawlspace Before

Crawlspace After
Earthquake Brace + Bolt Retrofit

Crawlspace After
CEA Mitigation

EBB Supplemental Grants

- Earthquake Brace + Bolt (EBB) is now offering a supplemental grant in addition to the $3,000 EBB grant to help low-income homeowners complete a code-compliant brace + bolt retrofit.

- To qualify for this Supplemental Grant (SG), homeowners must verify that their household annual income is $72,080 or less.

- During registration, they identify themselves as someone who may qualify for this supplemental grant.

The maximum amounts of the EBB Supplemental Grants (after the $3,000 EBB grant) are:

- Northern California Bolt Only...........$2,800
- Northern California Brace + Bolt......$7,000
- Southern California Bolt Only..........$1,125
- Southern California Brace + Bolt.....$2,650

The cost of a qualifying seismic retrofit may exceed the incentive payments (EBB $3,000 and the EBB Supplemental Grant).

Any and all costs associated with a qualifying seismic retrofit that are greater than the EBB incentive payments are the sole responsibility of the Participating Homeowner.
CEA Mitigation Update
Earthquake Brace + Bolt Supplementary Grant Outreach

Now includes hearing about the program from friends, family, neighbors, co-workers, realtors, etc.

**SOCIAL MEDIA**
- Twitter
- Facebook
- Neighborhood list servers

**LOCAL PRESENTATIONS**
- City Council meetings
- Emergency Response Dept. meetings
- Neighborhood council meetings

**PAID MEDIA**
- Mail to new ZIP Codes

**LOCAL PARTNERS**
- Housing
- Faith community
- Social services
- Senior services

**EARNED MEDIA**
- Press conference
- TV/Radio
- Print

**EarthquakeBraceBolt.com**
CEA Mitigation • StrengthenYourHome.com
Hazard, vulnerability, retrofit, and resource information for homeowners
Thank you!
Douglas Heller, Director of Insurance at Consumer Federation of America and member of the U.S. Department of Treasury’s Federal Advisory Committee on Insurance

consumerfed.org
Panel Discussion

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Q&A

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**Equitable Access to Affordable Earthquake Insurance: A Resilience Challenge**
Thank You!

**Share your feedback:**

You’ll receive a short survey at the close of this webinar. Please take a moment to share your feedback with us.