Initial Survey of Businesses Following the November 30, 2018 Anchorage Earthquake

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Outline

Background
Alaska deployment
Lessons learned
Next steps
Survey objectives

1. Answer important longer-term research questions
2. Monitor business recovery issues in near real time
3. Facilitate comparisons across different earthquakes
Overview of development process

- **Nov 2014**: Working group formed
- **May 2015**: Survey questions drafted
  - Reviewed existing survey tools and identified research needs
- **Aug 2016**: Survey piloted in Napa, CA
  - Revised survey questions using feedback from panel of technical reviewers
- **Nov 2016**: Survey deployed in Cushing, OK
  - Surveyed 20 businesses using online tool at 2-year earthquake anniversary
- **Jun 2018**: Survey tool and protocol revised
  - Sent team to Cushing one week after earthquake to survey damage and interview 50 businesses
- **Mar 2019**: Survey deployed in Anchorage, AK
  - Produced updated versions of survey questions and deployment strategy
Deployment protocol

- Initial damage survey
- Follow-up business survey
- Follow-up business survey
- Follow-up business survey
Alaska team

• Kai Wu, Texas A&M
• Ana Orozco, EERI
• Zoe Yin, EERI
• Mike Mieler, Arup
• Manny Hakhamaneshti, Caltrans
Deployment timeline and objectives

Test the survey instrument across a range of business types and damage scenarios, not obtain a representative sample of businesses.
Database of damaged businesses compiled from news reports by VERT before deployment

Combination of opportunistic and snowball sampling to identify additional businesses while in the field

15-60 minutes to complete survey
Characteristics of businesses surveyed

- Most were in the retail, food services, or hospitality sectors
- Ranged in size from small, independent businesses to large, national franchises and corporations
- Most had no prior disaster experience
- Mix of local customers and tourists

No significant change in number of employees reported after earthquake

Findings not representative of all businesses in Anchorage
Extent of earthquake damage

75 percent of surveyed businesses reported utility outages (typically power or water), but they were brief and did not impact ability to resume operations.

Findings not representative of all businesses in Anchorage.
Drivers of business downtime

- Building damage
- Inventory damage
- Suppliers unable to meet demand
- Staff unable to work due to personal issues

Findings not representative of all businesses in Anchorage
Recovery

• Few businesses requested financial assistance (insurance, SBA, loans, etc.)
• Lots of stories of customers helping businesses clean up damage

Findings not representative of all businesses in Anchorage
Lessons learned

- Not all damage is created equal
- Difficult to reach non-retail businesses and closed businesses
- Difficult to obtain representative sample given constraints of traditional EERI reconnaissance
- Response rates are highest with in-person surveys
- Every earthquake is different
Next steps

• Re-examine deployment strategy
• Formalize lessons learned
• Make recommendations to LFE committee for future deployments
• Explore partnerships with chambers of commerce and other groups
• Develop training materials and hold training workshops
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