

# Kingsway Arterial



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## Earthquake Risk

Kingsway  
MetroVan



146,240/  
460,000

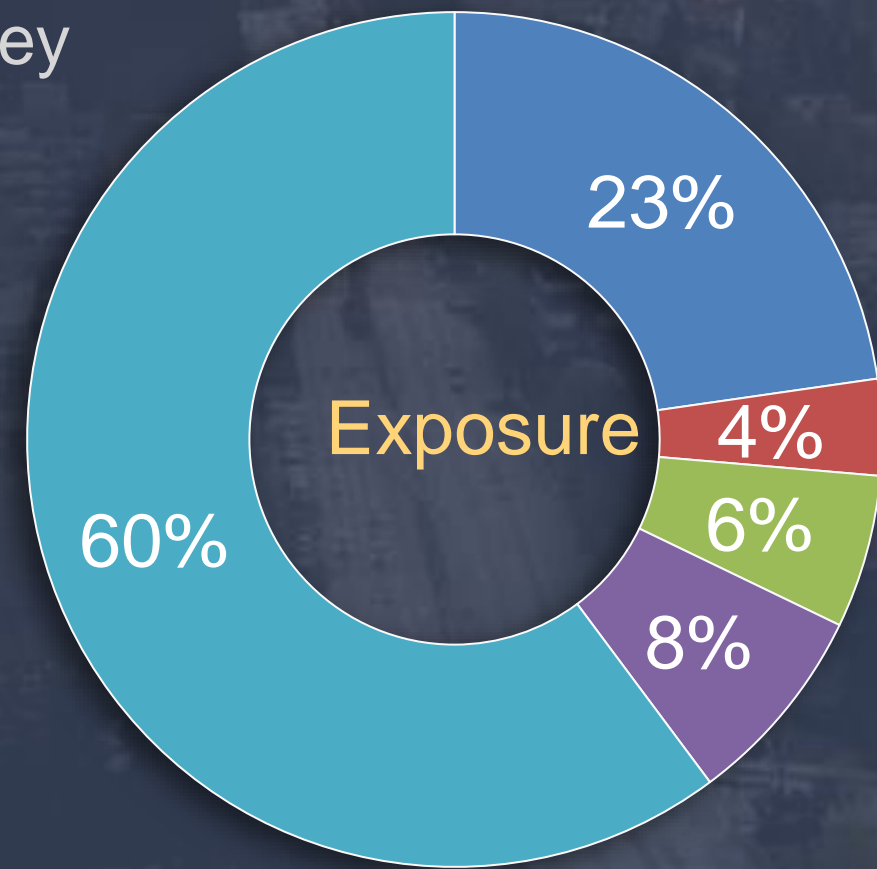


0.92M/  
2.69M

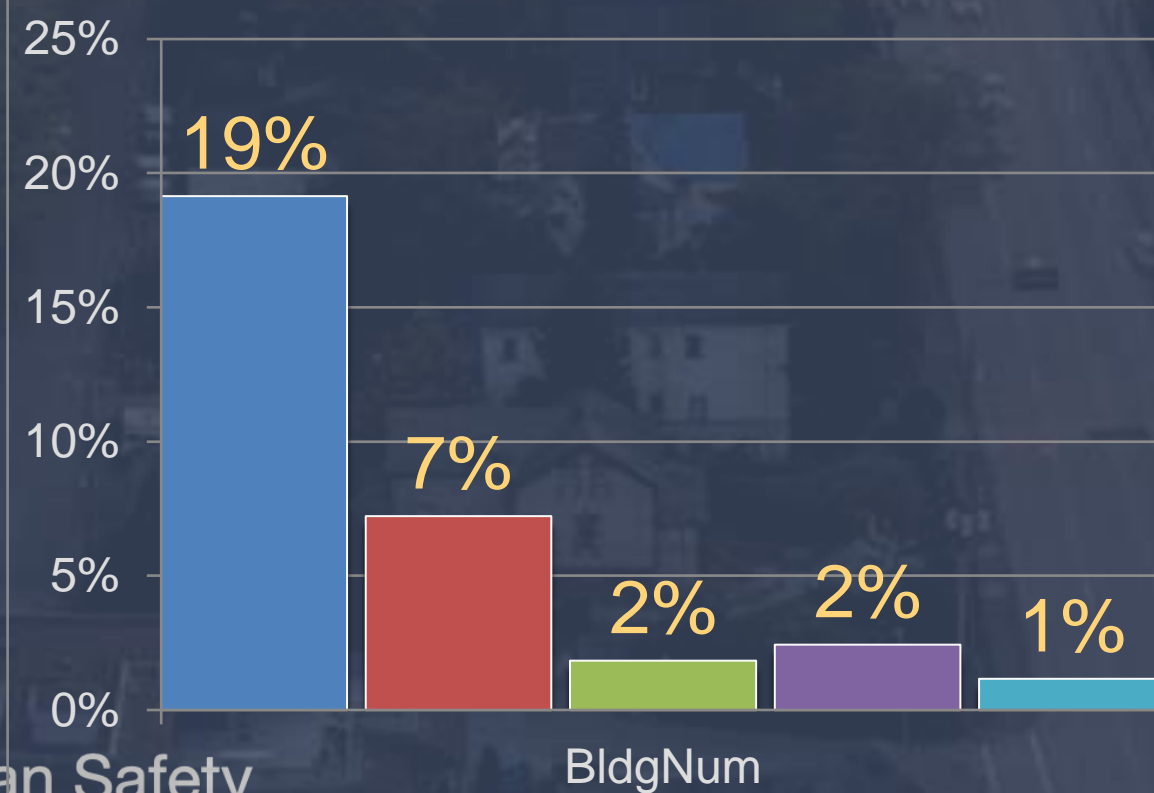


241B/  
736B

Burnaby  
New Westminster  
Surrey  
Coquitlam  
Port Coquitlam



Surrey  
New Westminster  
Coquitlam  
Burnaby  
Port Coquitlam



4,640



150



192K



5.2B CAD\$

RedTag Bldgs

### Buildings Damaged Beyond Repair

31%

14,300

Critical Injuries

### Life-Threatening Injuries

29%

50

Social Disruption

### Social Disruption > 30 Days

30%

641,500

Economic Loss

### Direct Economic Losses

31%

16.8B CAD\$



Go to [www.menti.com](https://www.menti.com) and use the code **79 79 23 7**

Mentimeter

# KINGSWAY ARTERIAL



## Physical/Social Impacts

- 1 Building Damage
- 2 Critical Injuries
- 3 Downtime & Social Disruption
- 4 Economic Loss

Please go to [menti.com](https://www.menti.com) and then enter the code:

**79 79 23 7**

For each of the risk metrics, use your judgement to rank:

1. level of concern for physical impacts and strain on neighbourhood social fabric
2. potential to reduce risk through proactive investments in mitigation/adaptation

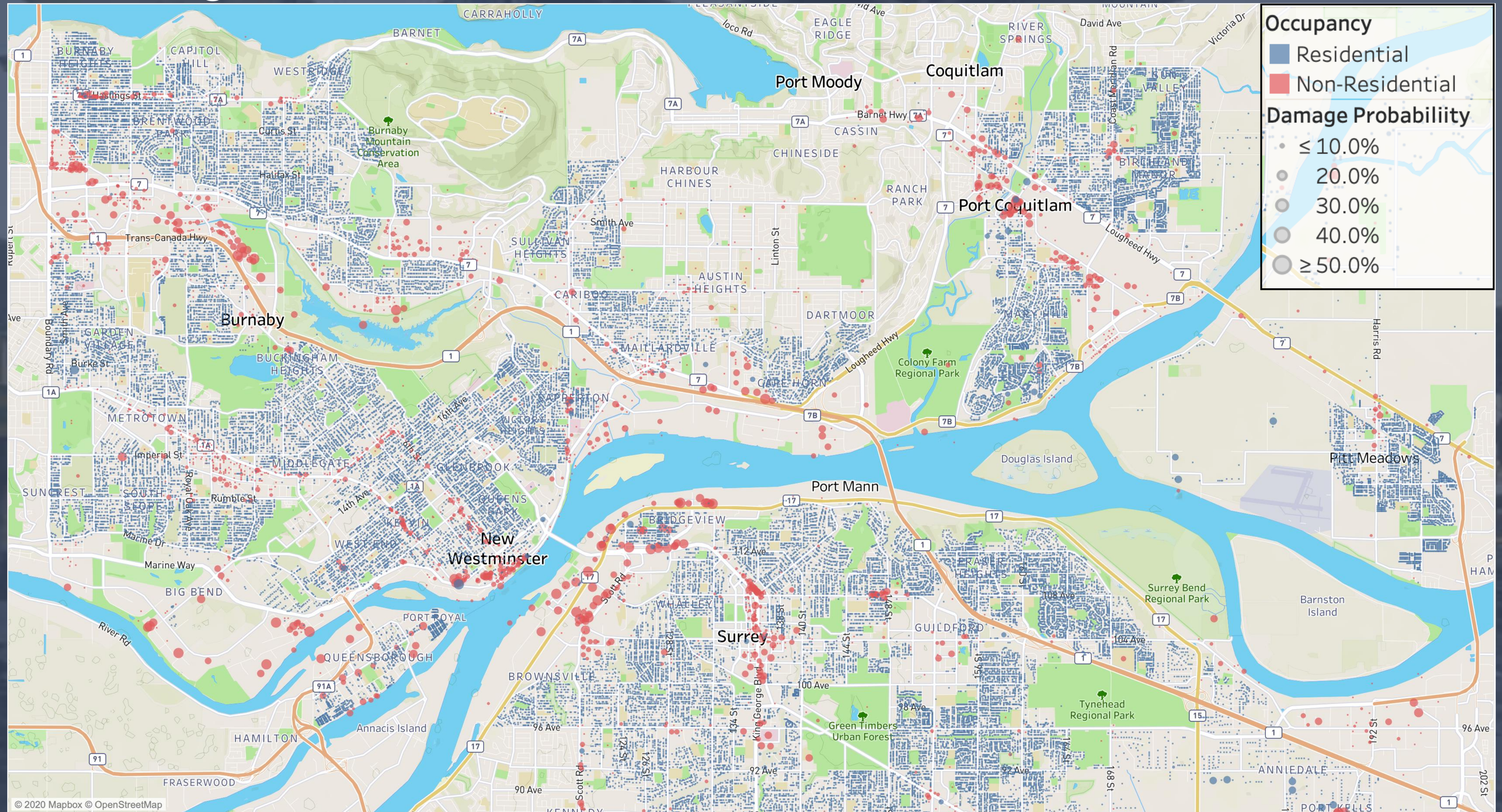






31% of  
Total

# Building Performance: 4,640 buildings damaged beyond repair

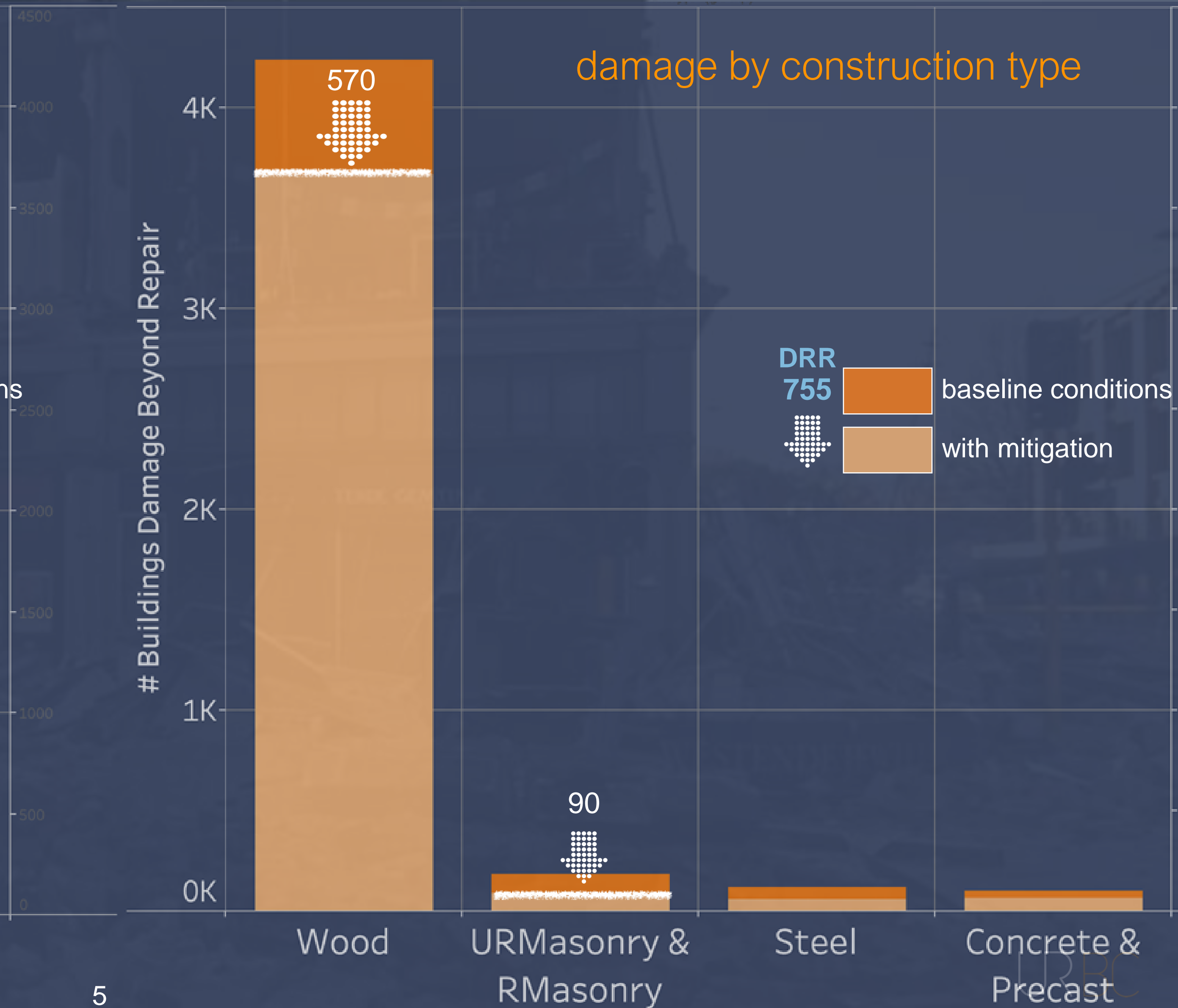
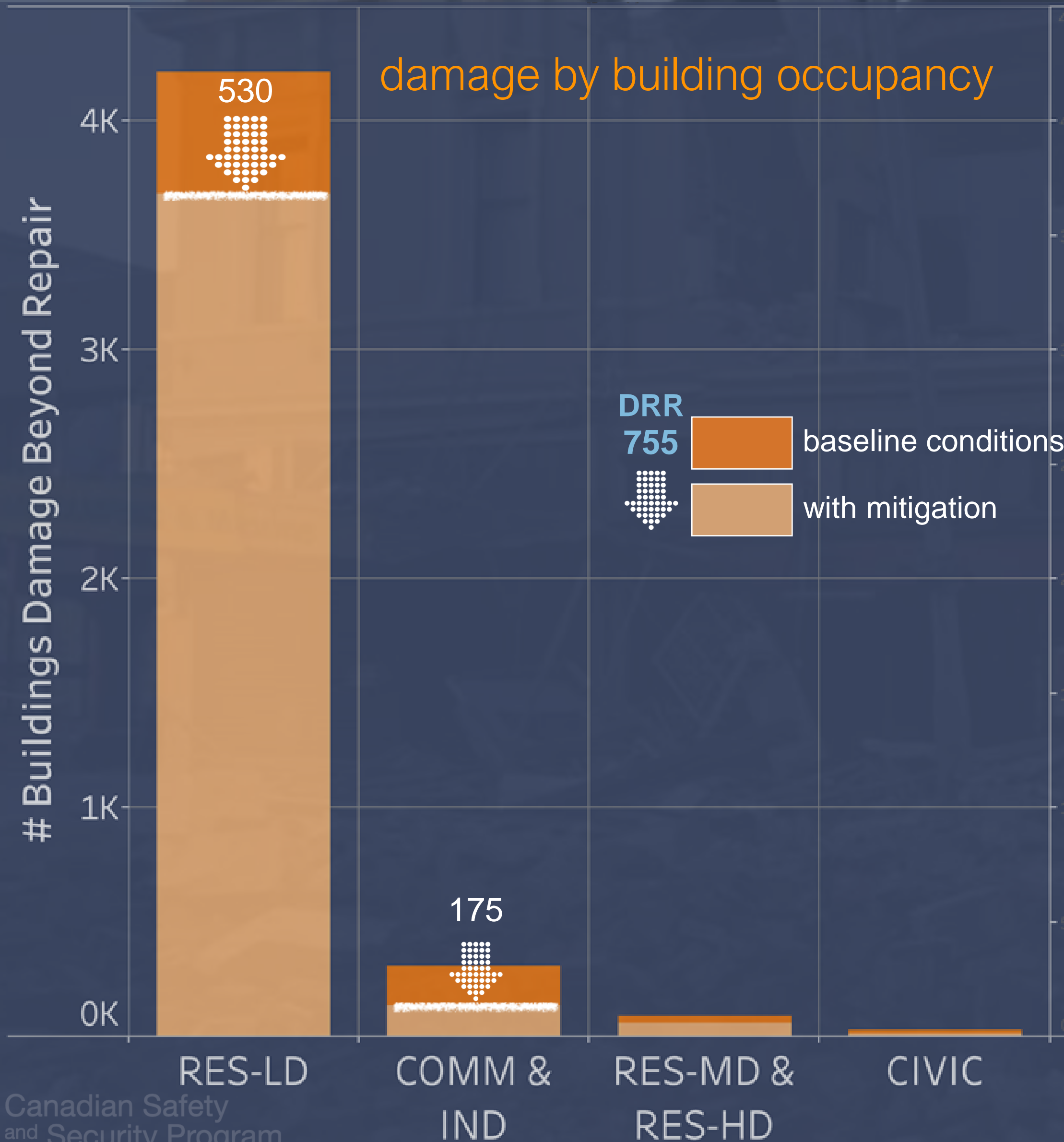






# Building Performance: 4,640 buildings damaged beyond repair

31% of Total

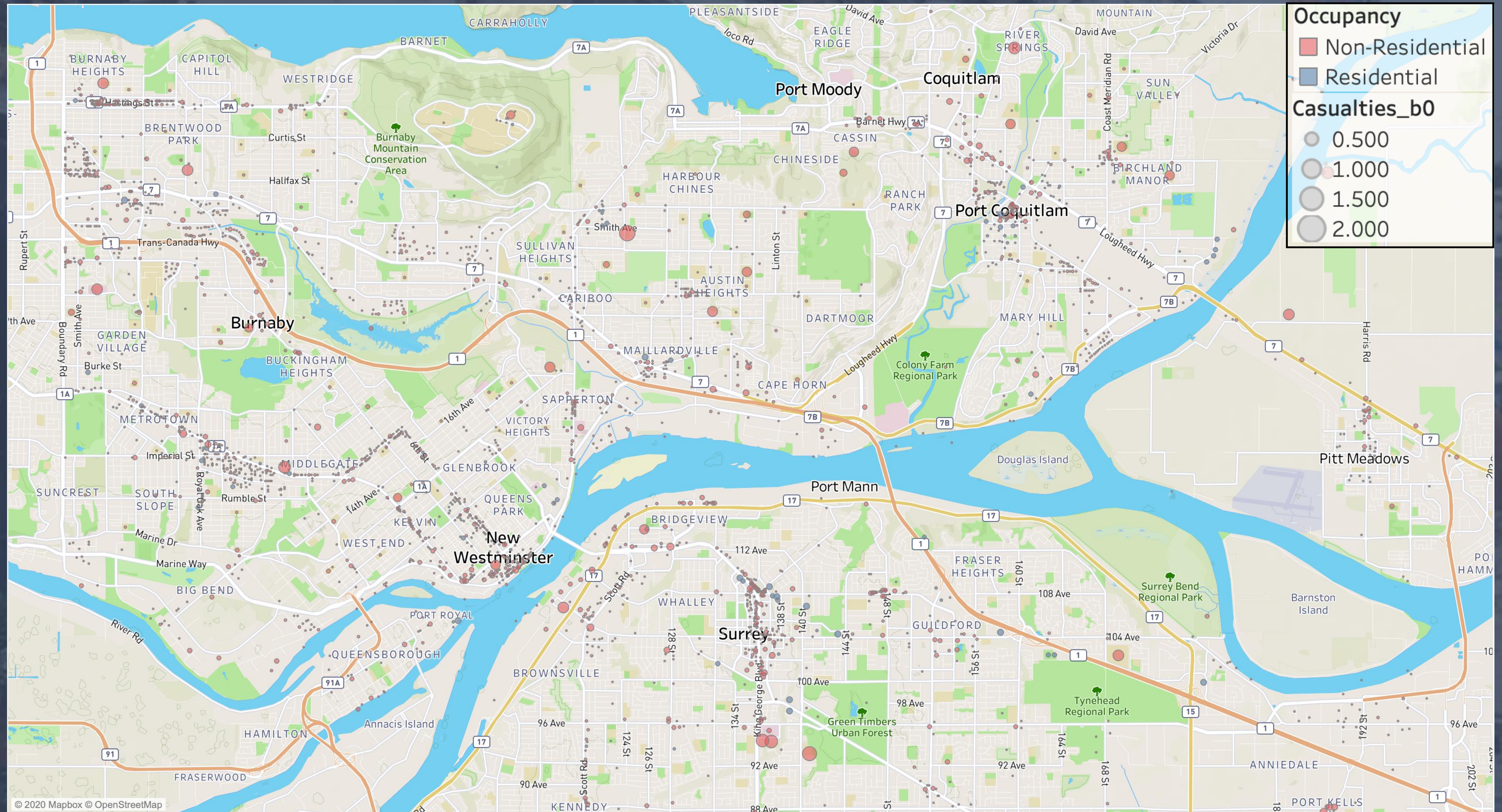






29% of  
Total

# Public Safety: 150 life-threatening injuries

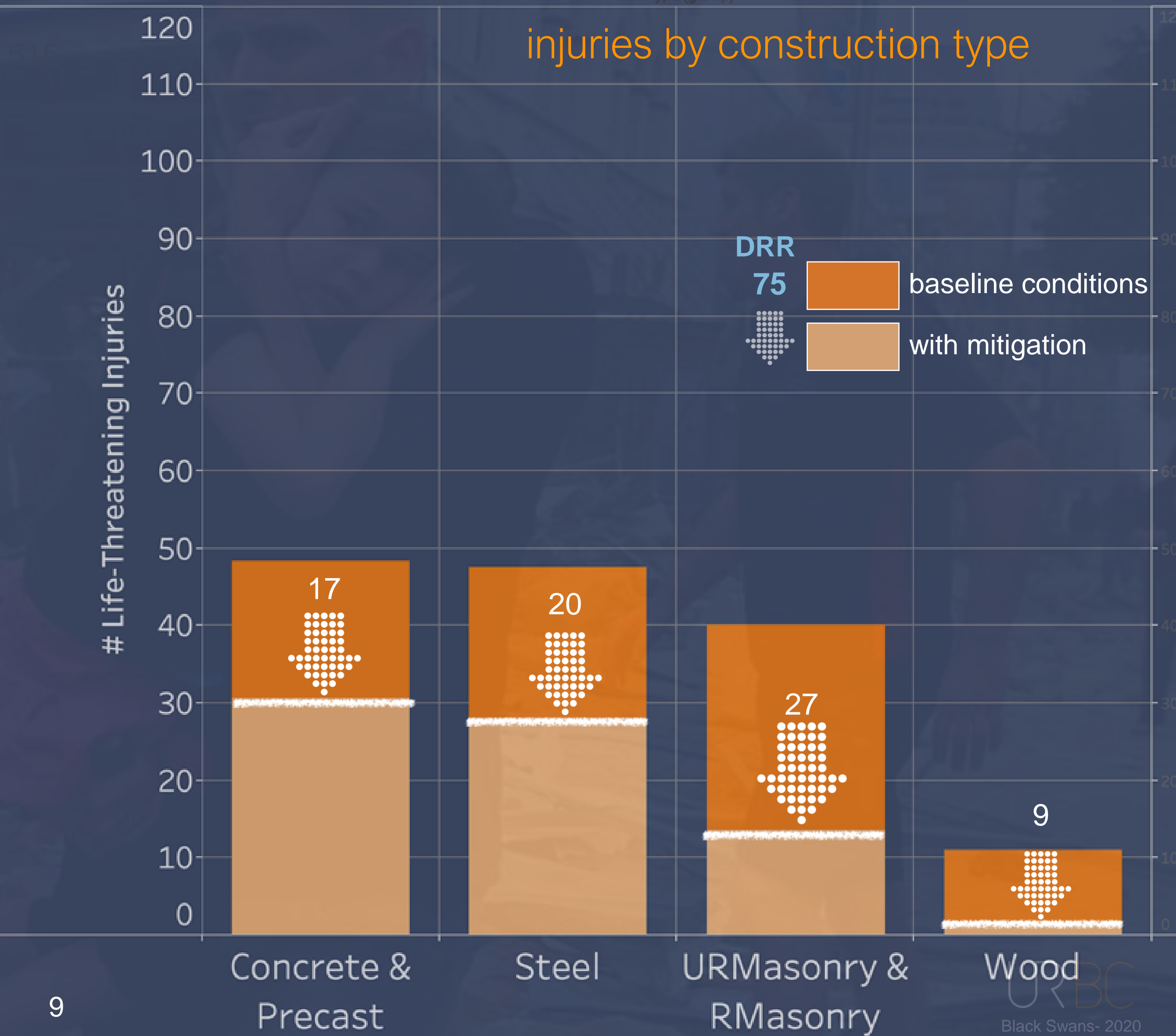
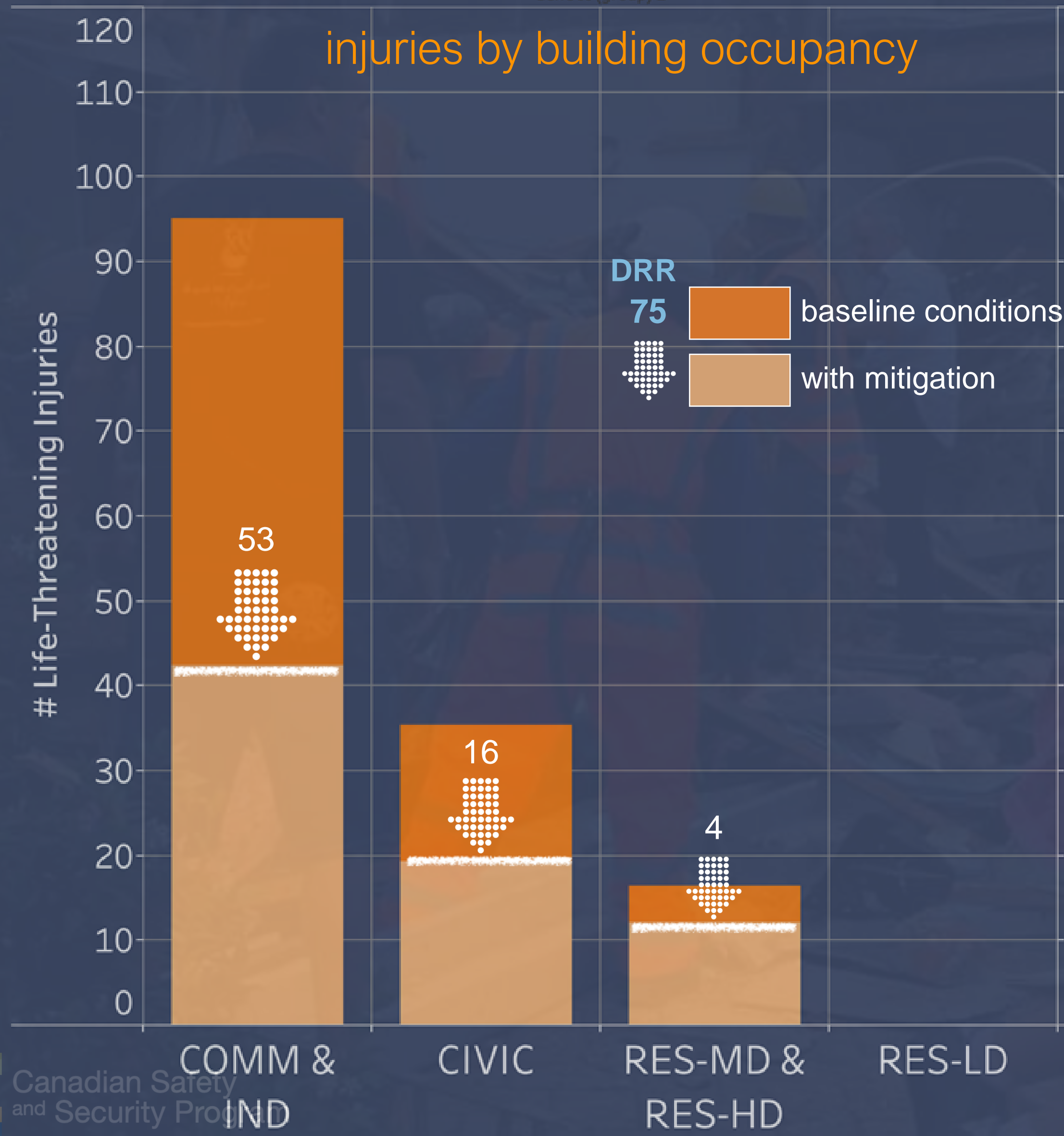






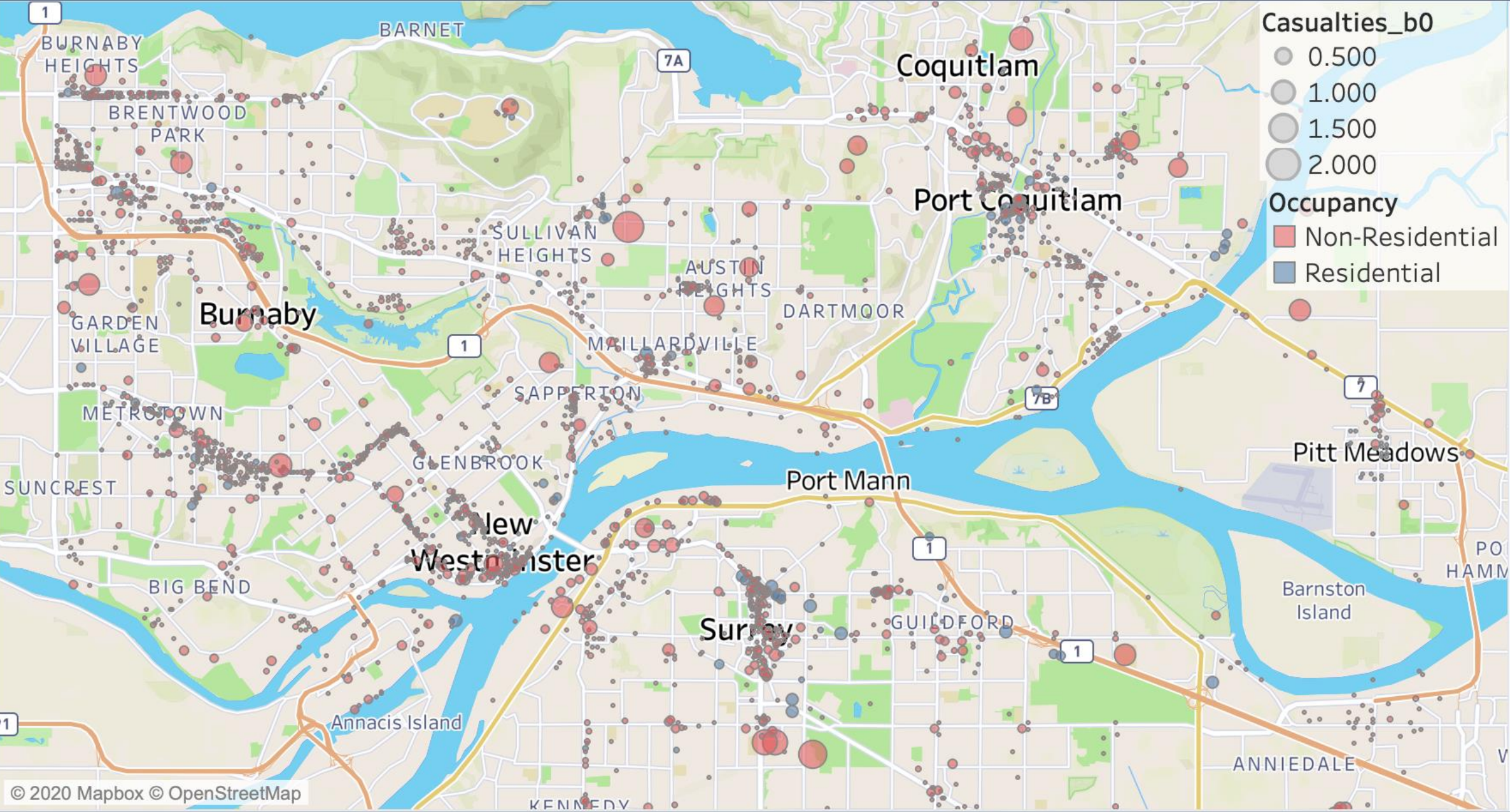
# Public Safety: 150 life-threatening injuries

29% of Total

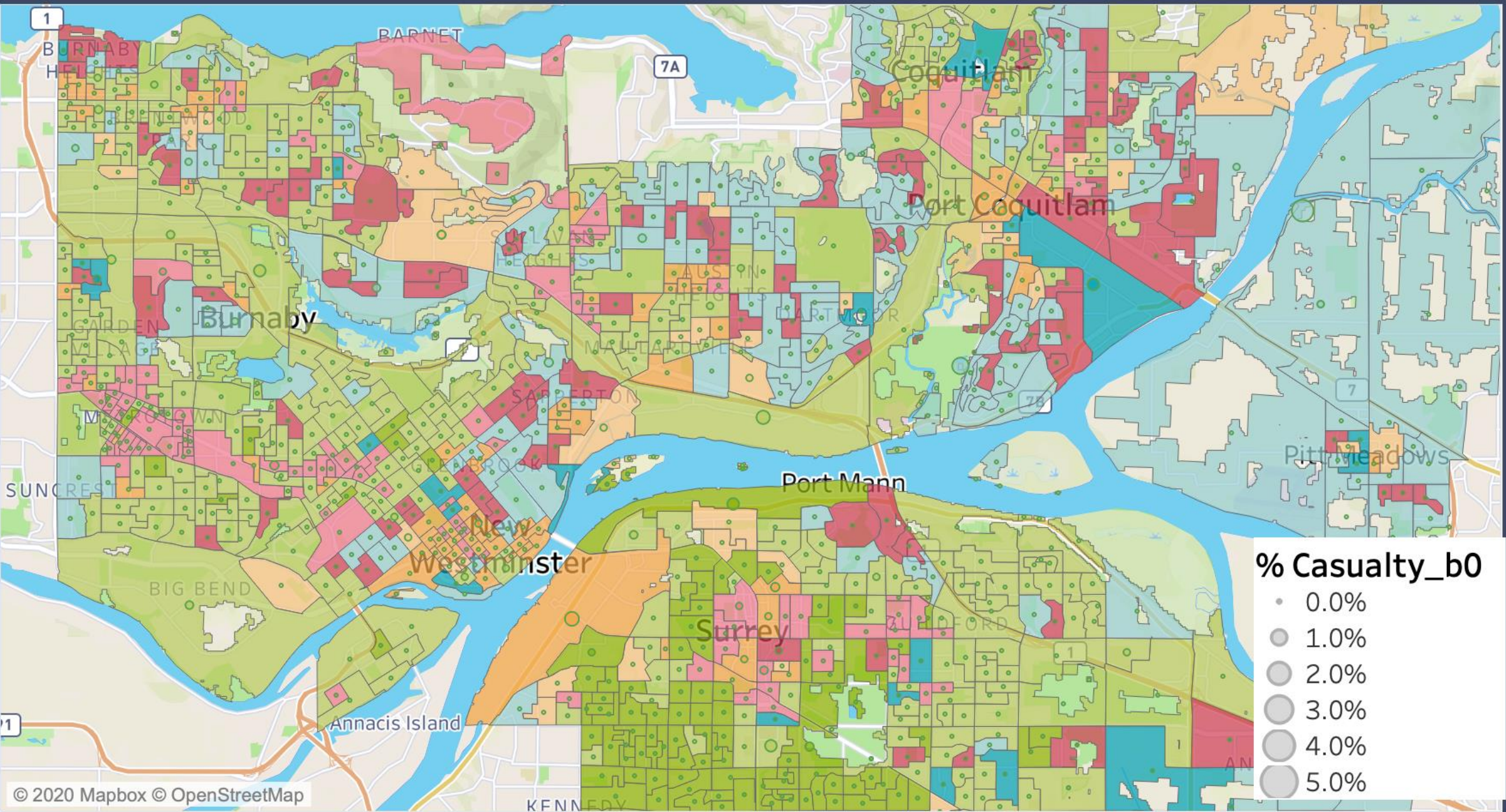




EARTHQUAKE IMPACTS - Critical Injuries (baseline conditions)

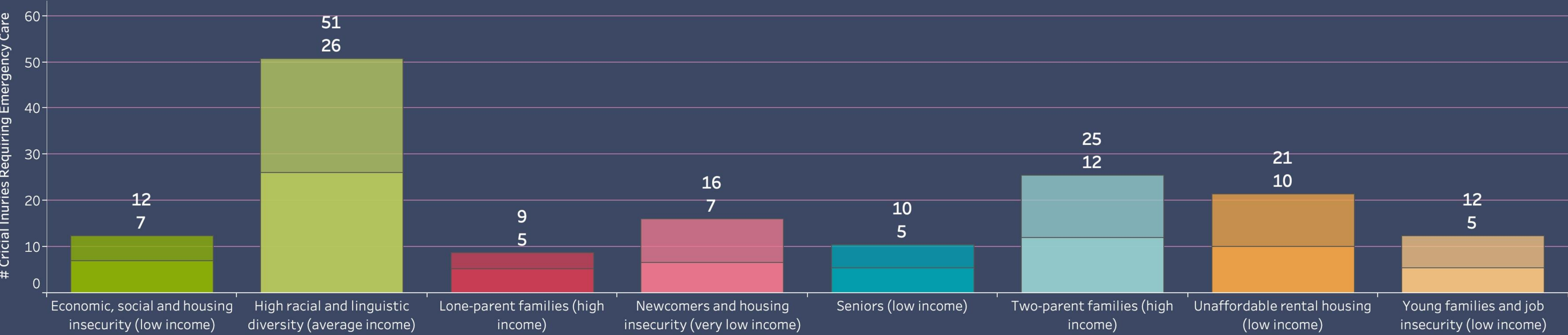


STRAIN ON SOCIAL FABRIC - Susceptibility to Physical Injury



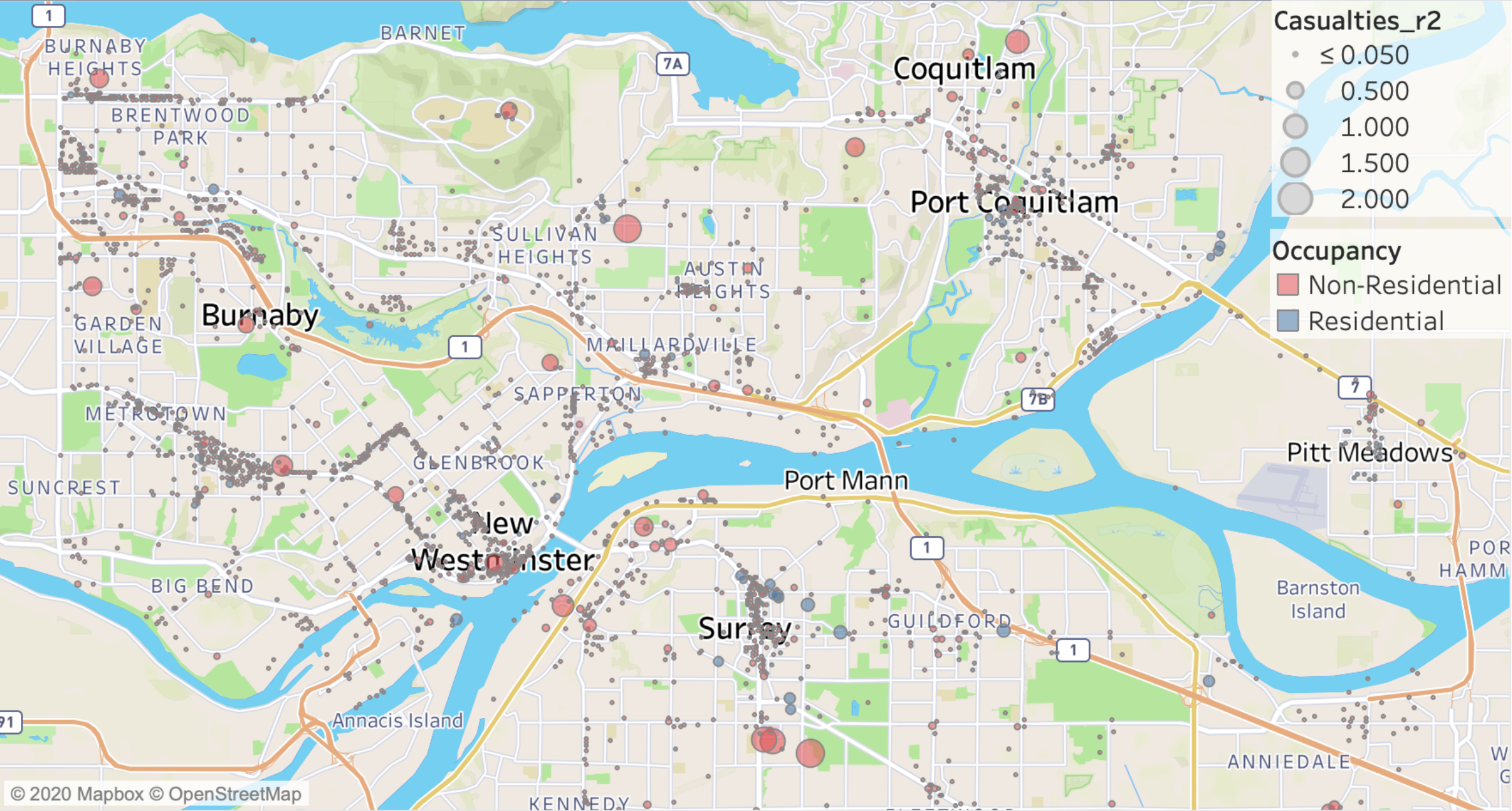
Distribution of Critical Injuries Across Neighbourhood Archetypes

150

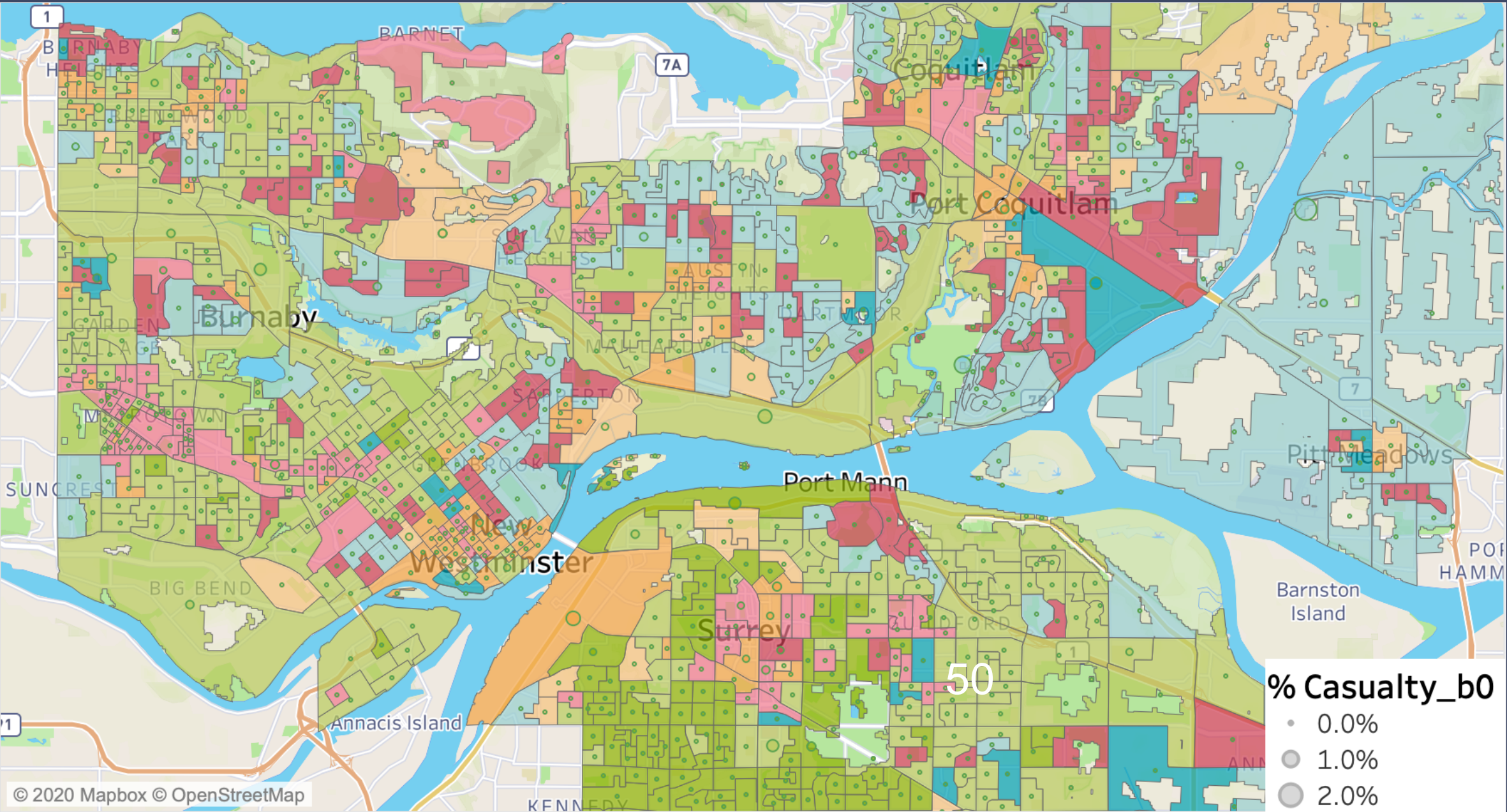




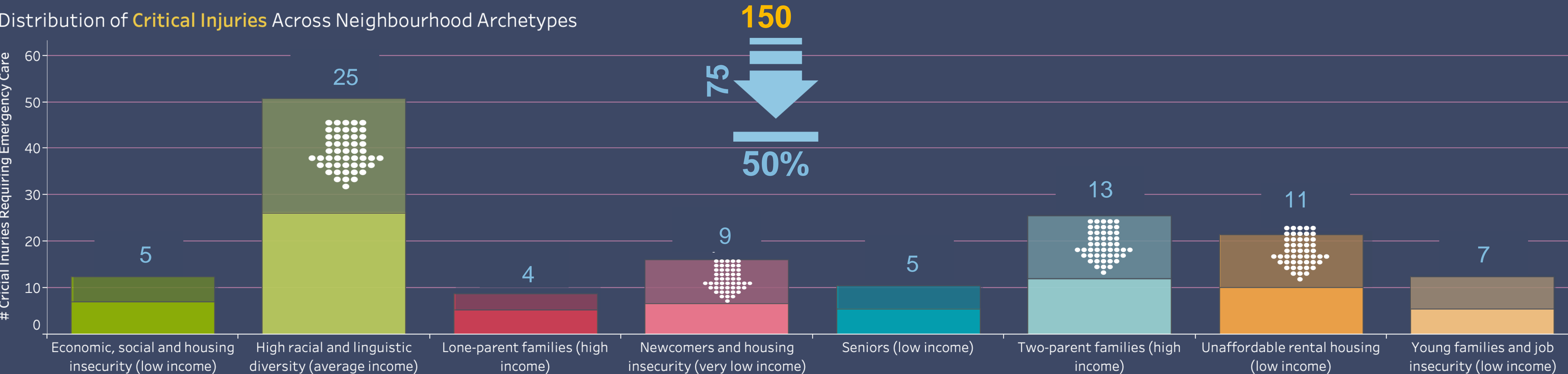
EARTHQUAKE IMPACTS - Critical Injuries (with mitigation)



STRAIN ON SOCIAL FABRIC - Susceptibility to Physical Injury



Distribution of Critical Injuries Across Neighbourhood Archetypes

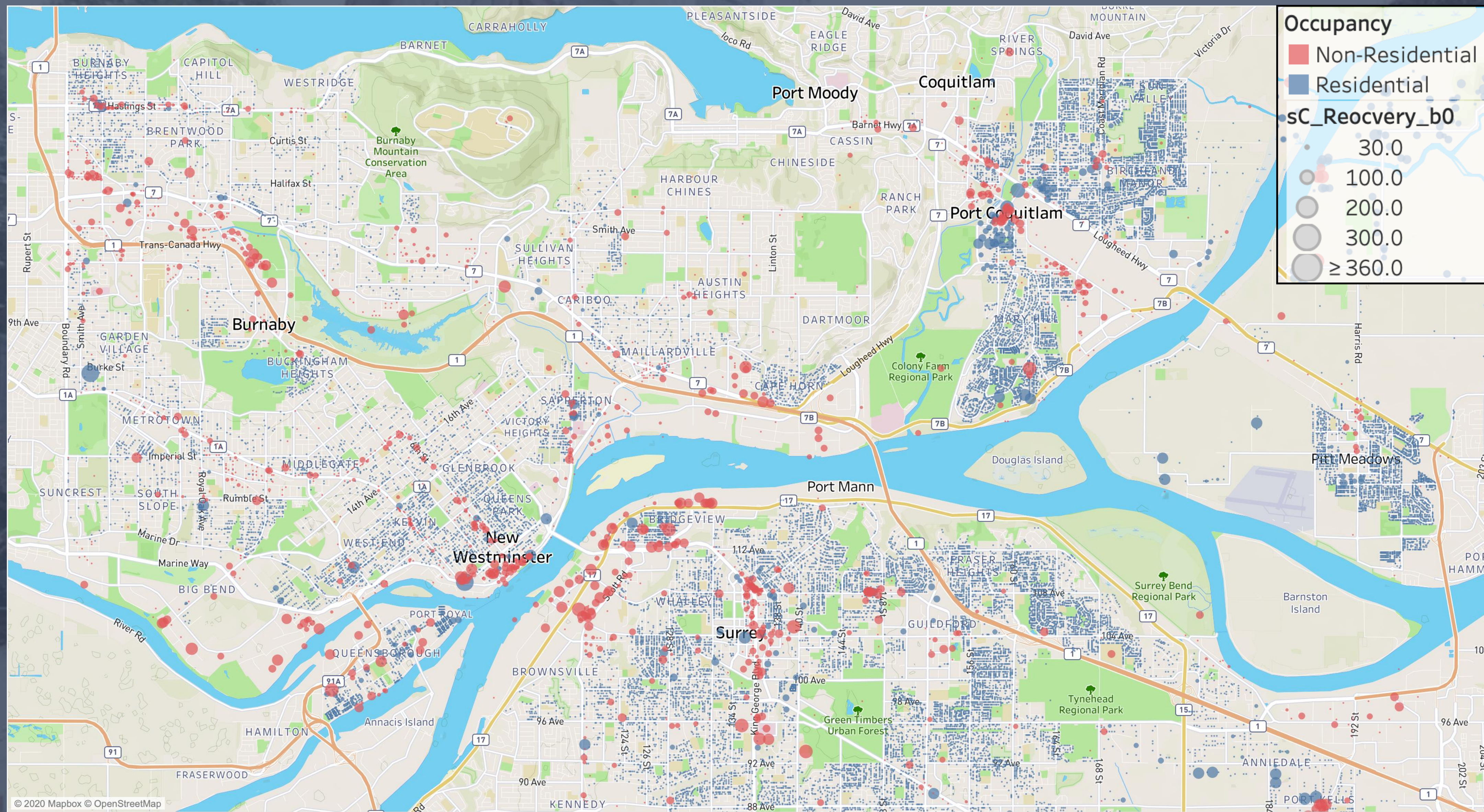






30% of  
Total

# Downtime: 190,000 people disrupted > 30 days

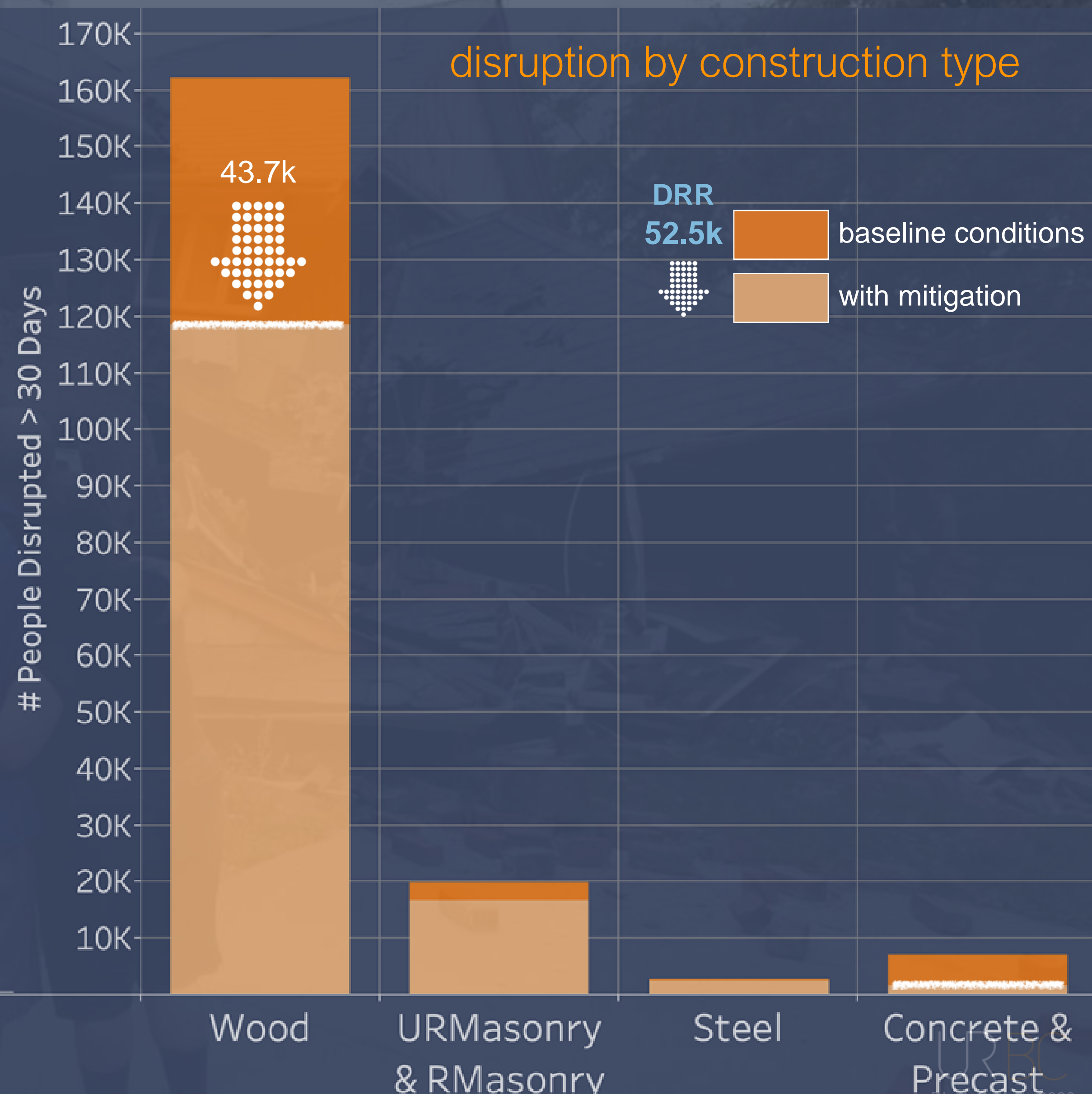
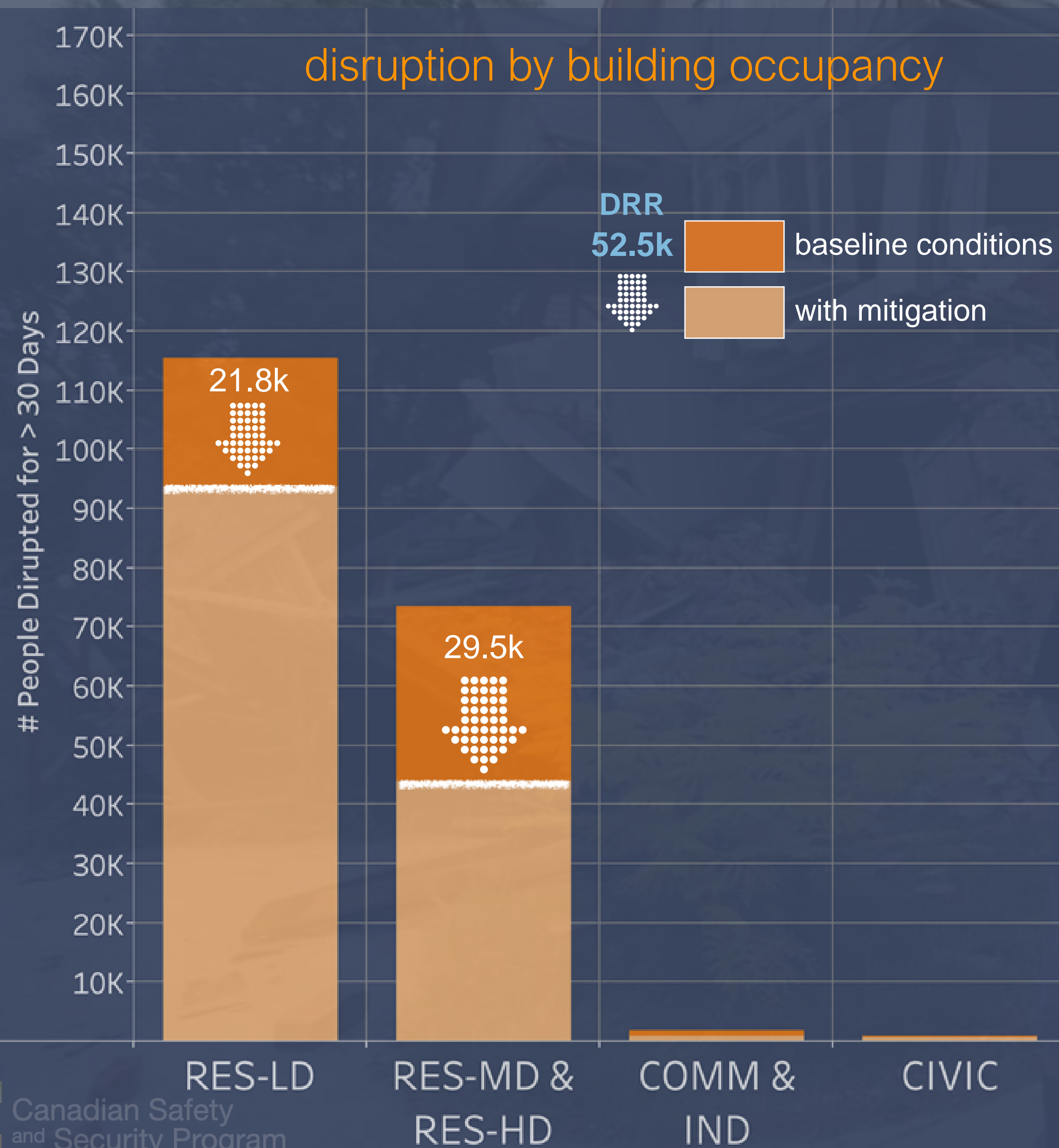






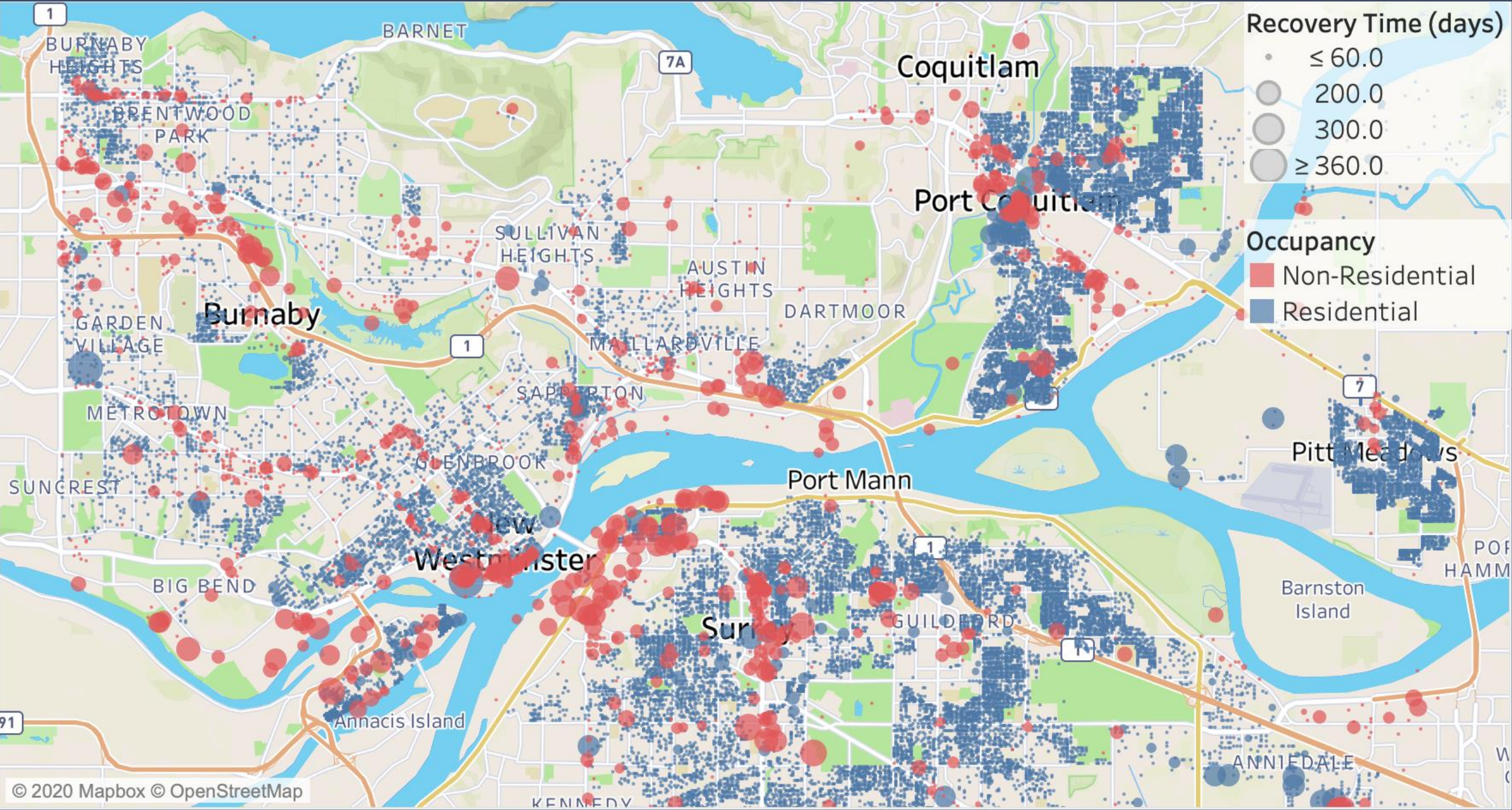
# Downtime: 190,000 people disrupted > 30 days

30% of Total

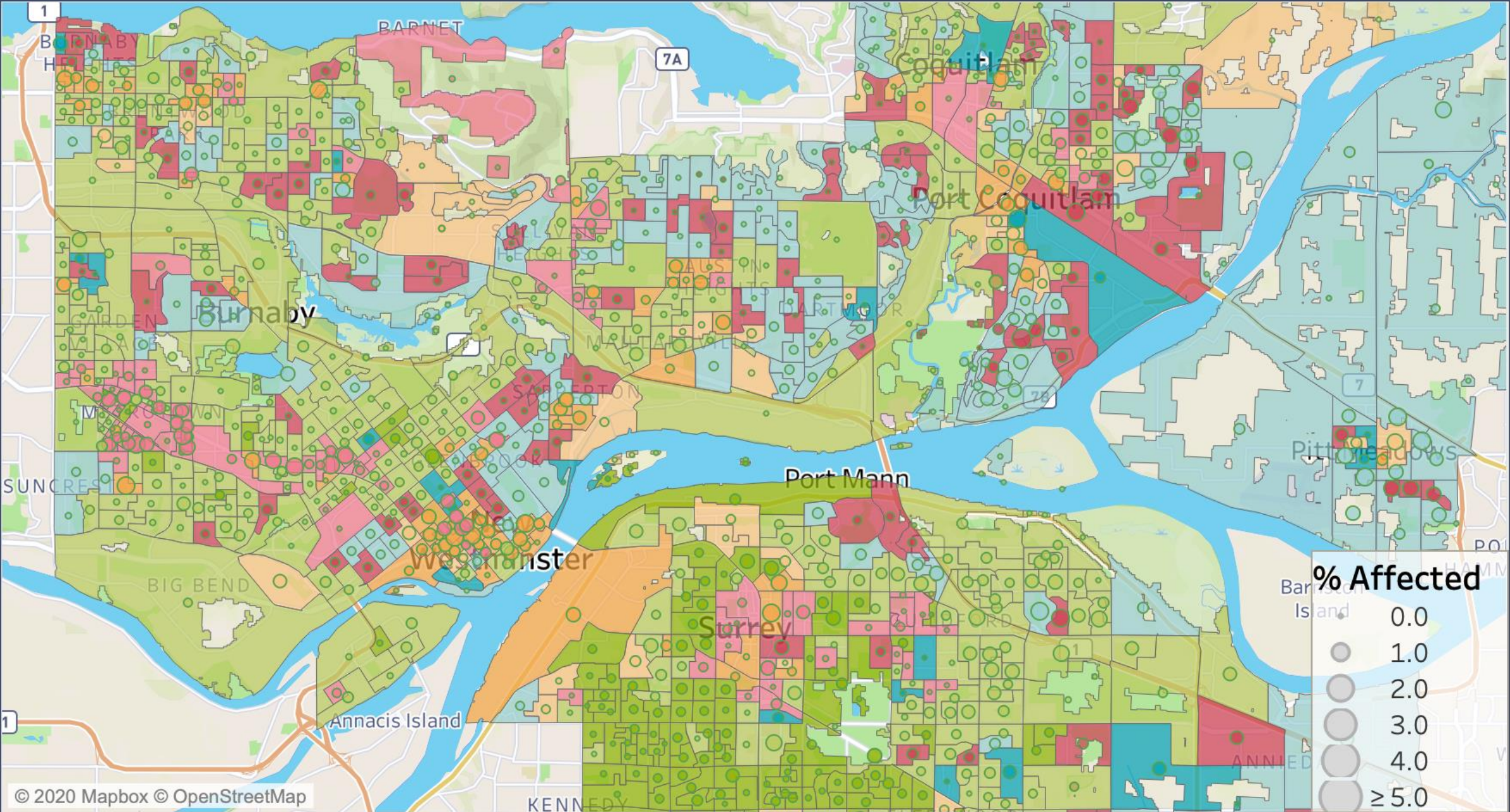




EARTHQUAKE IMPACTS - Recovery Time (baseline conditions)

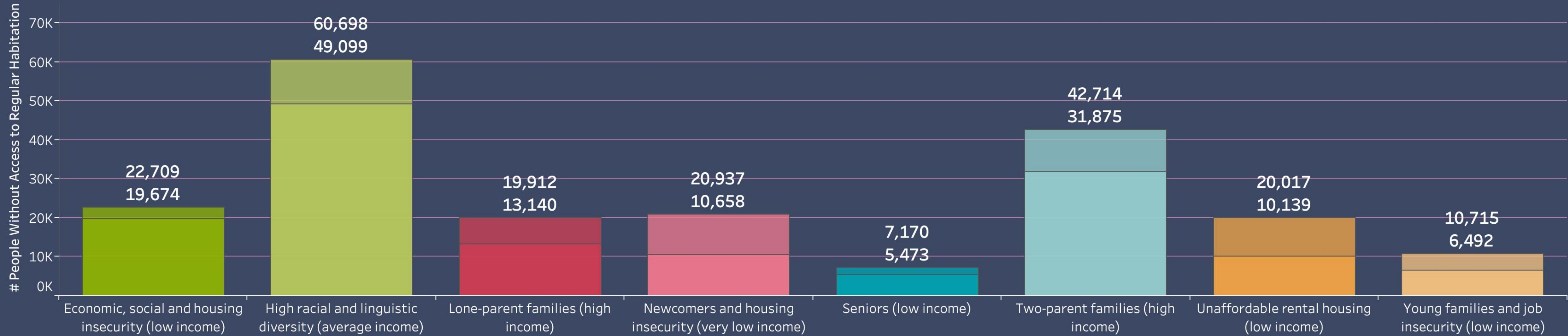


STRAIN ON SOCIAL FABRIC - Loss of Habitation for > 30 Days



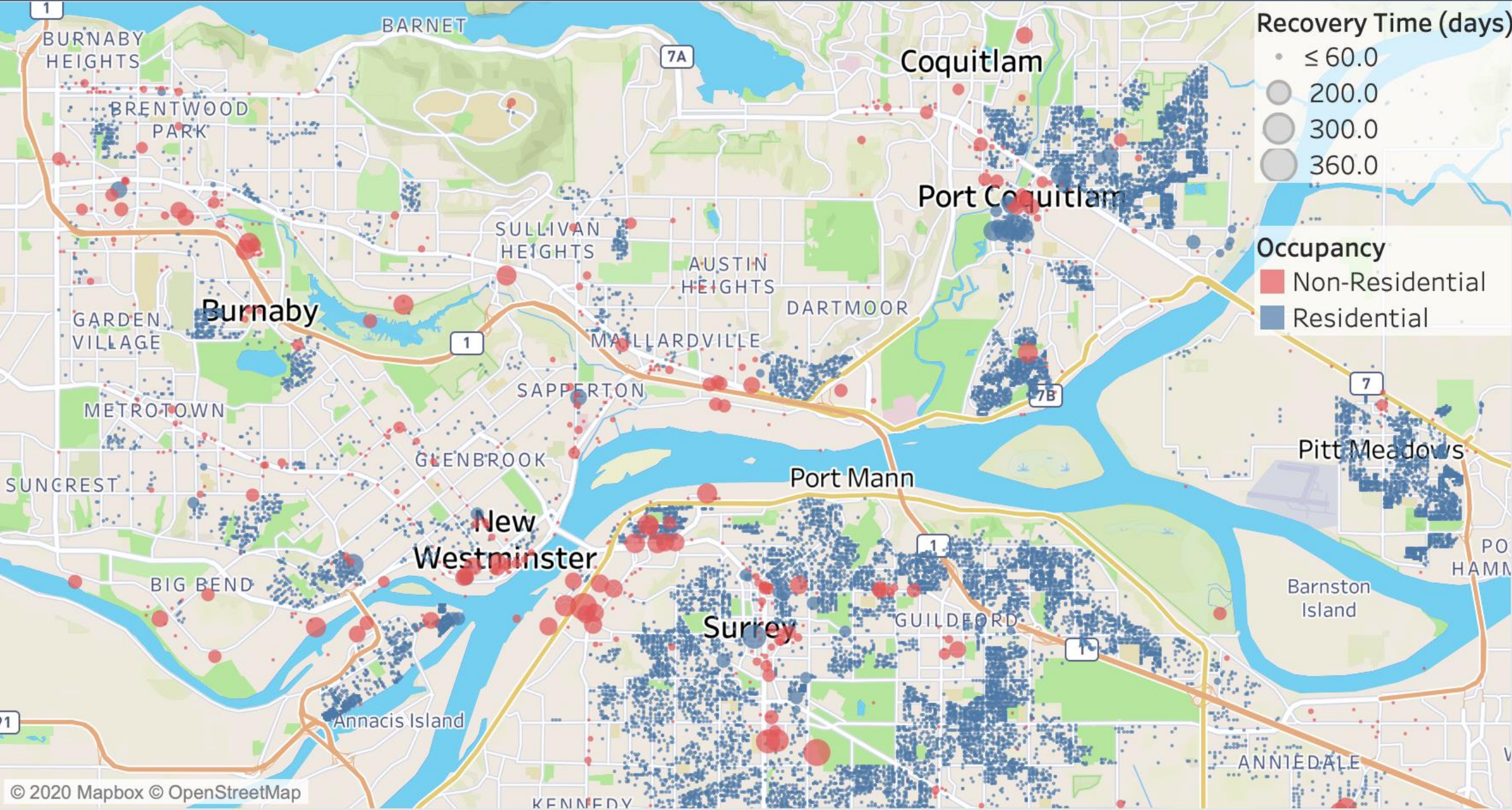
Distribution of Social Disruption Across Neighbourhood Archetypes

190k

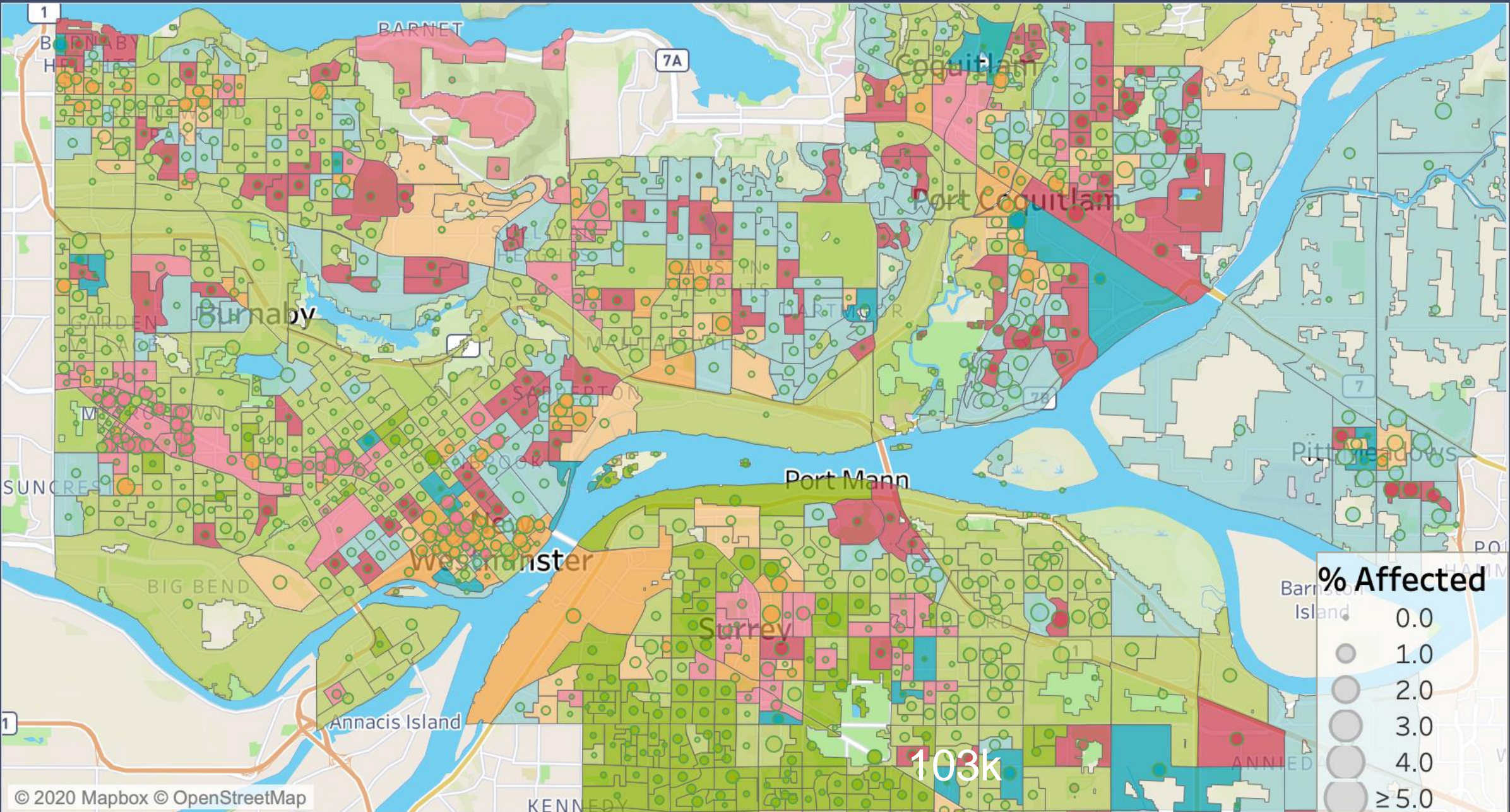




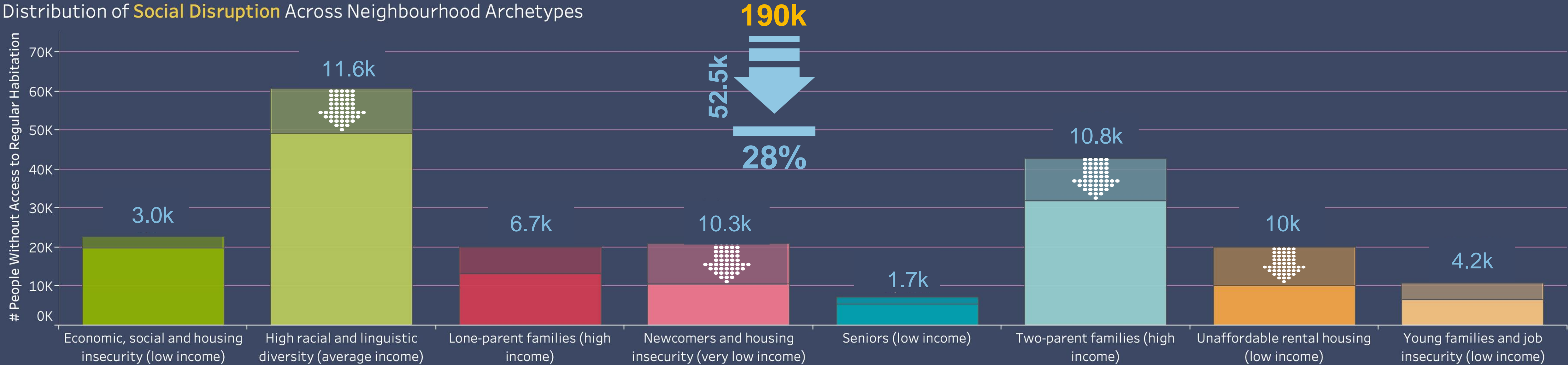
EARTHQUAKE IMPACTS - Recovery Time (baseline conditions)



STRAIN ON SOCIAL FABRIC - Loss of Habitation for > 30 Days



Distribution of Social Disruption Across Neighbourhood Archetypes

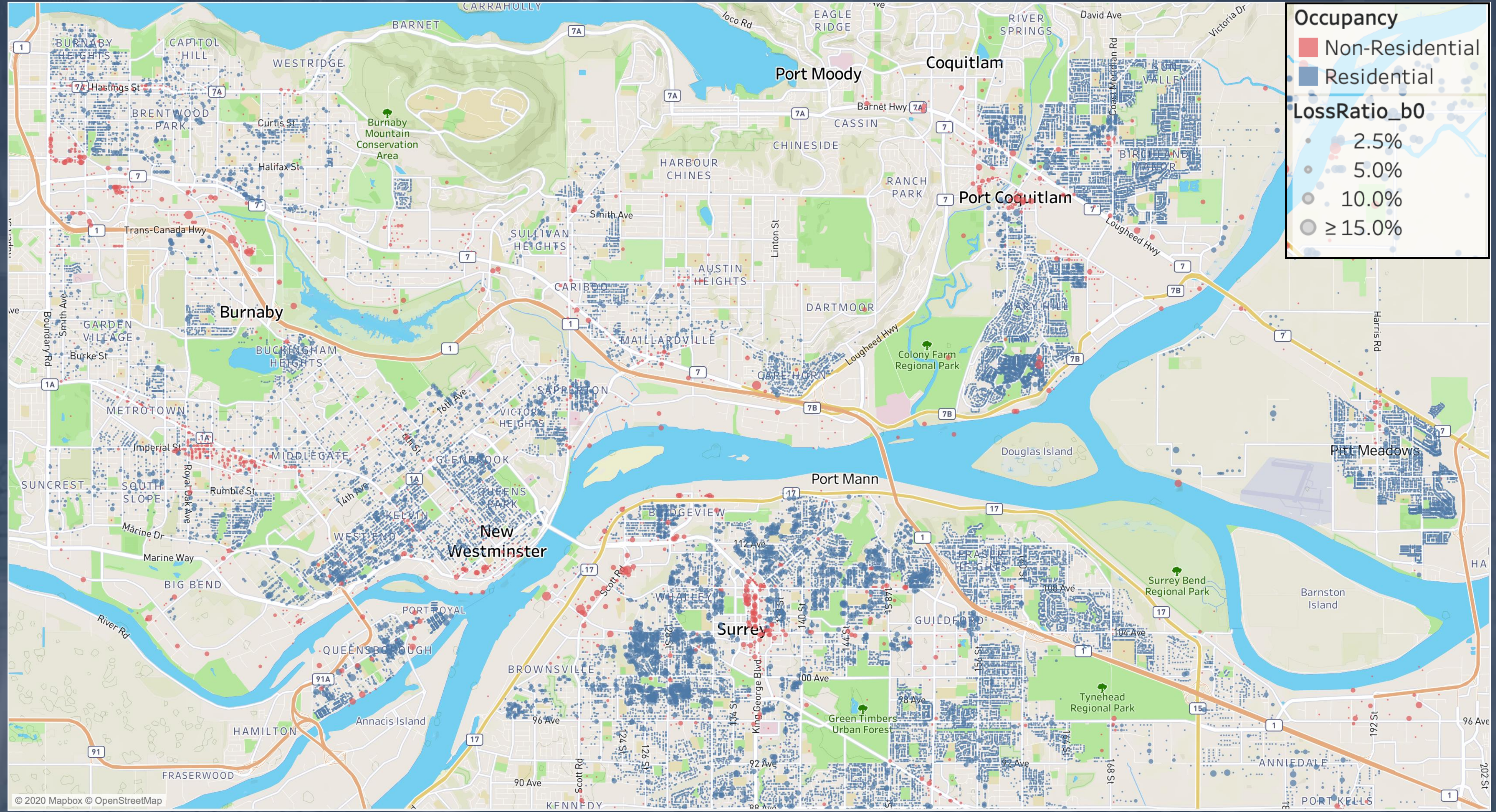






31% of  
Total

# Economic Security: 5.2B CAD\$ in direct economic loss



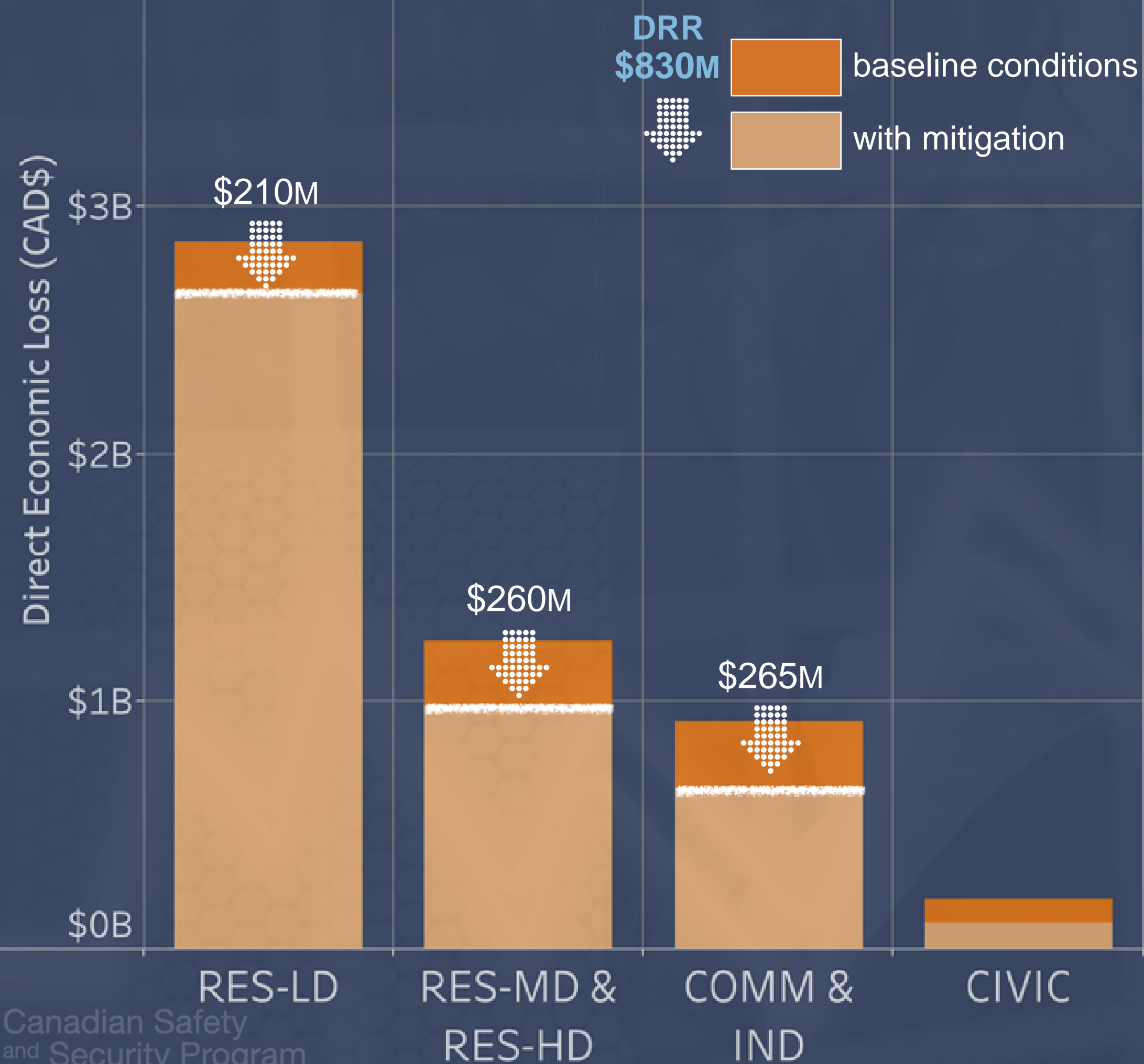




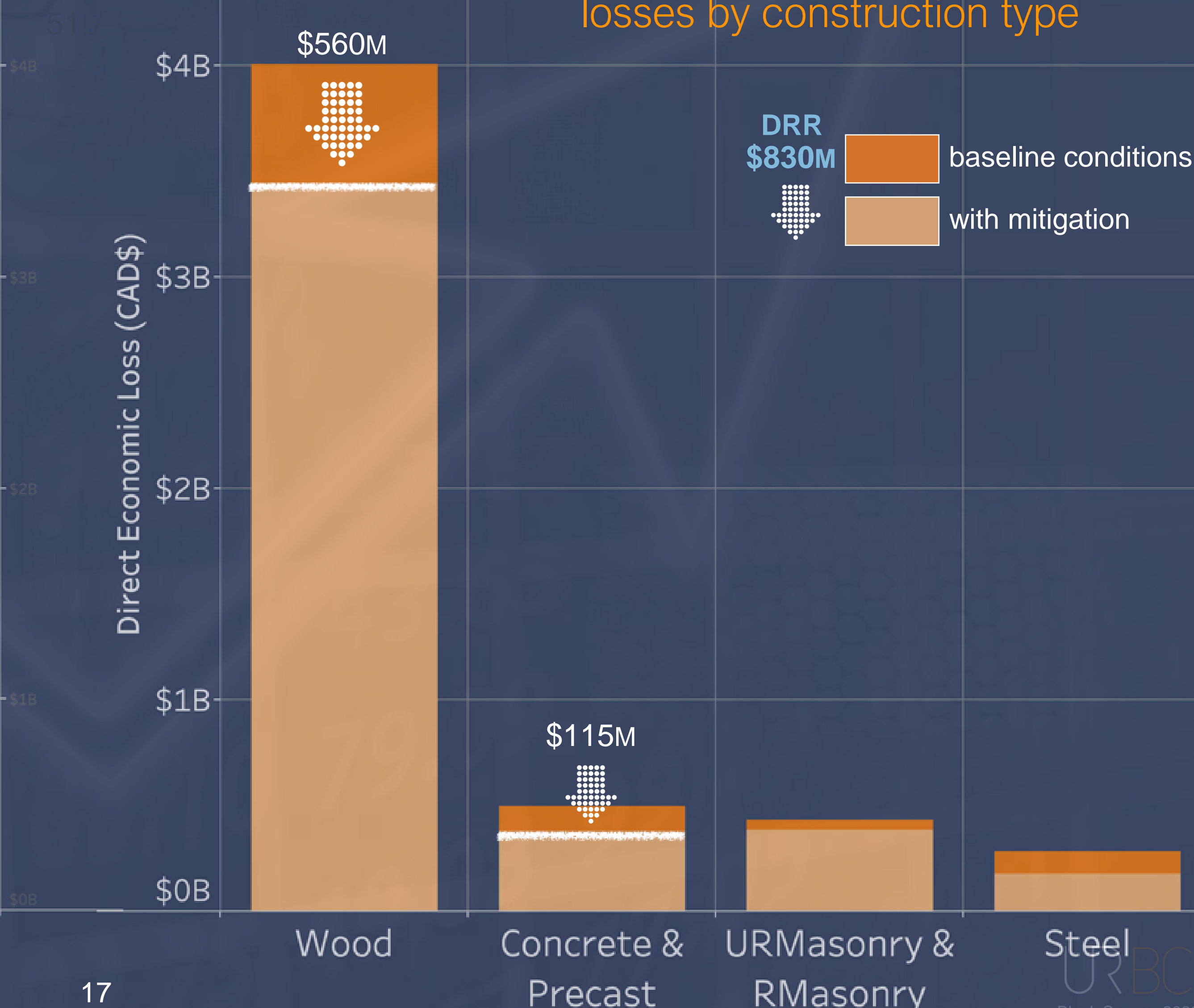
# Economic Security: **5.2B** CAD\$ in direct economic loss

31% of Total

losses by building occupancy

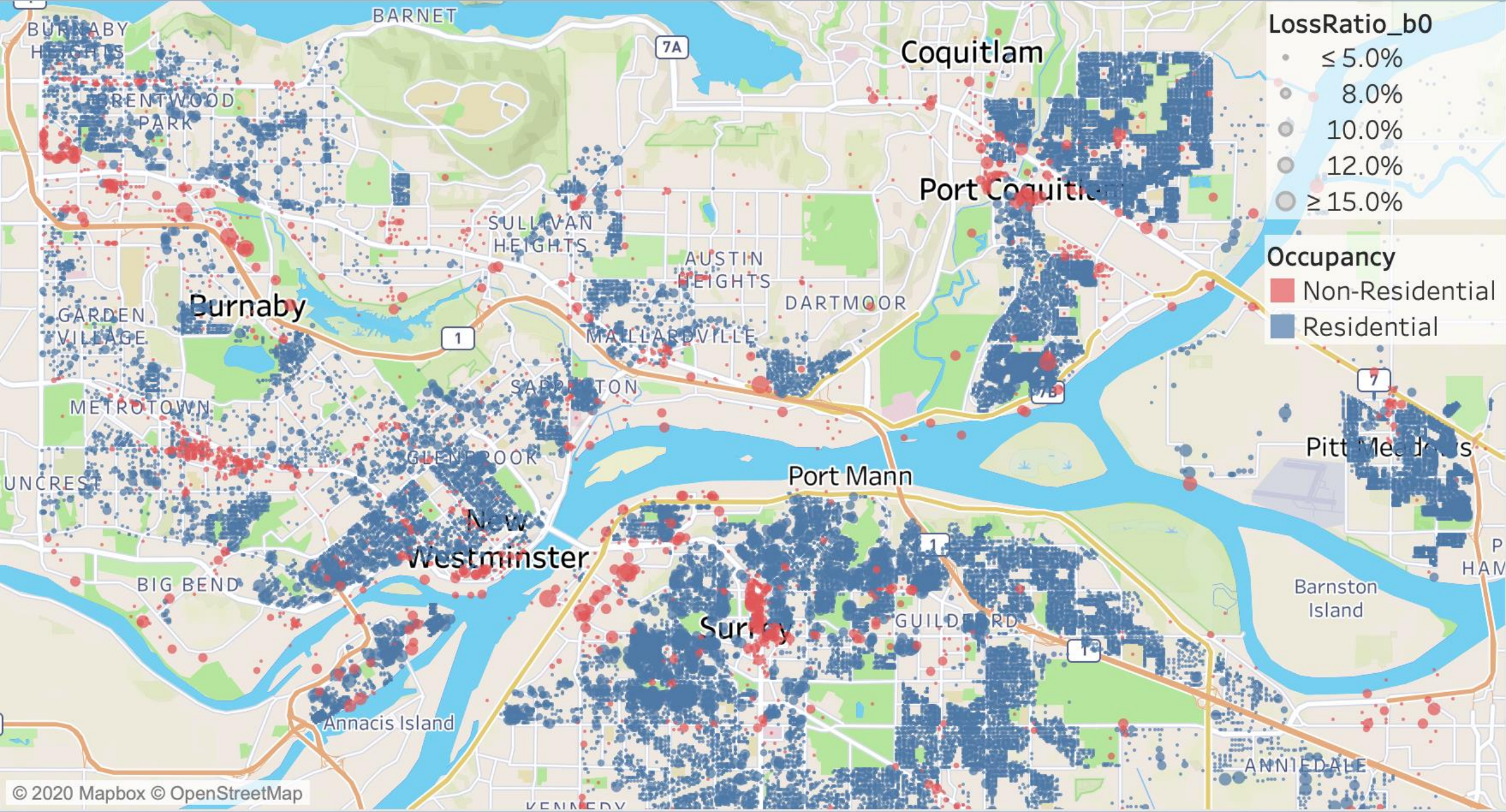


losses by construction type

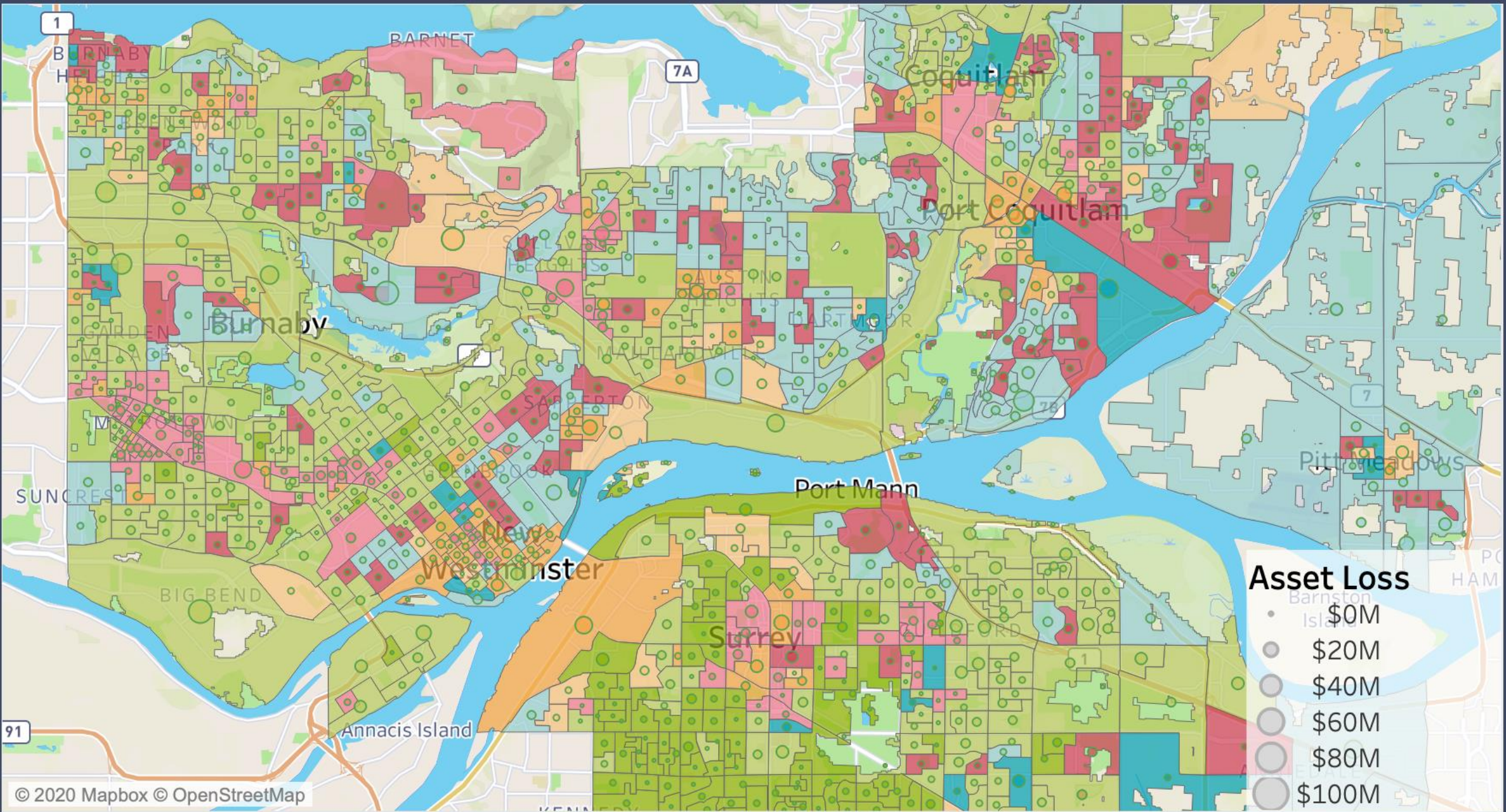




EARTHQUAKE IMPACTS - Direct Economic Loss (baseline conditions)

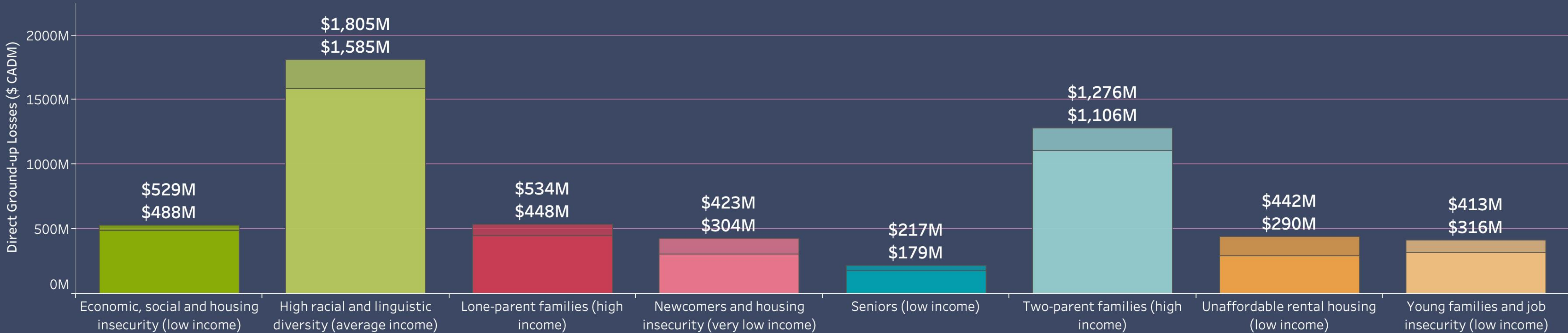


STRAIN ON SOCIAL FABRIC - Financial Hardship



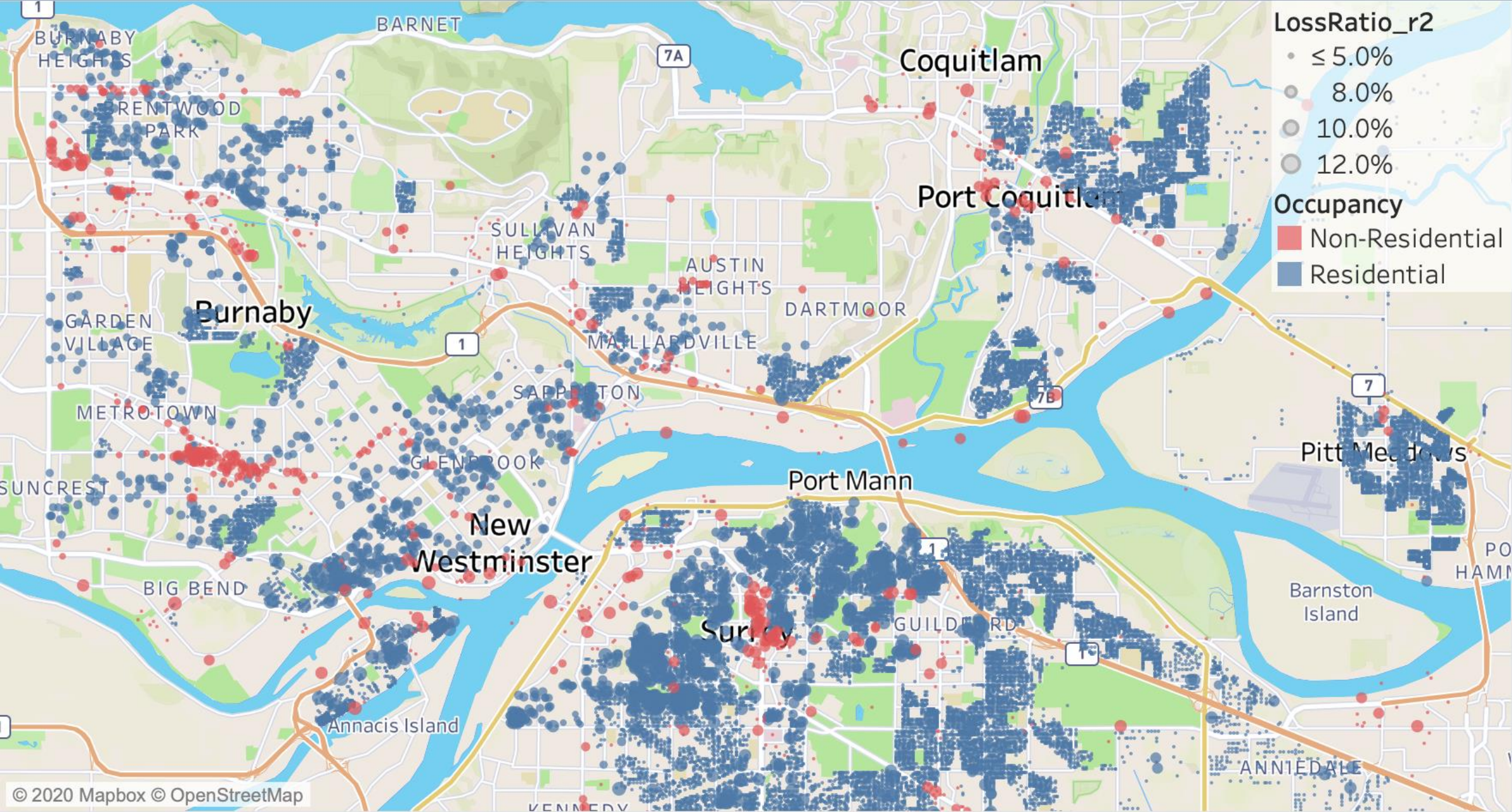
Distribution of Economic Losses Across Neighbourhood Archetypes

5.2B CAD\$

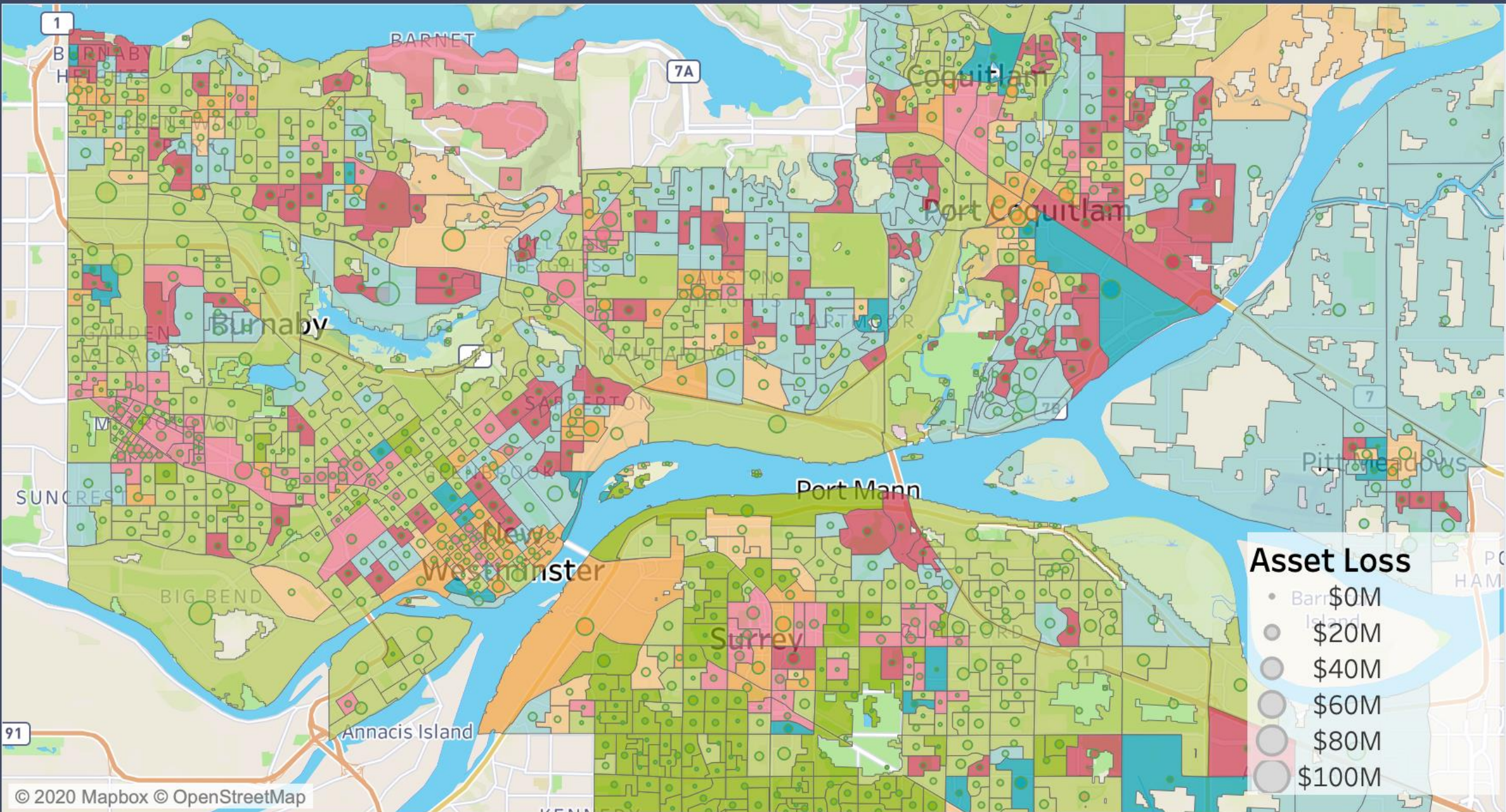




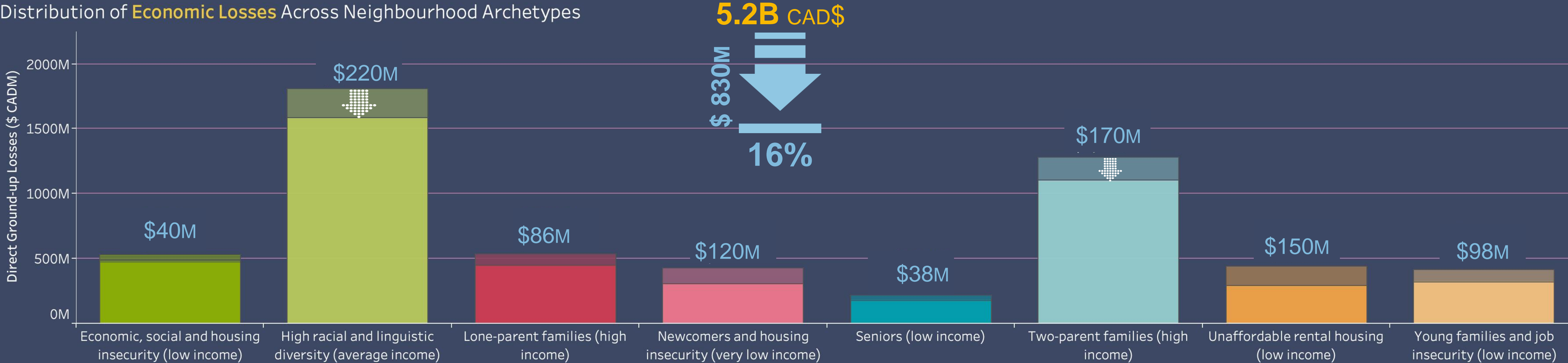
EARTHQUAKE IMPACTS - Direct Economic Loss (baseline conditions)



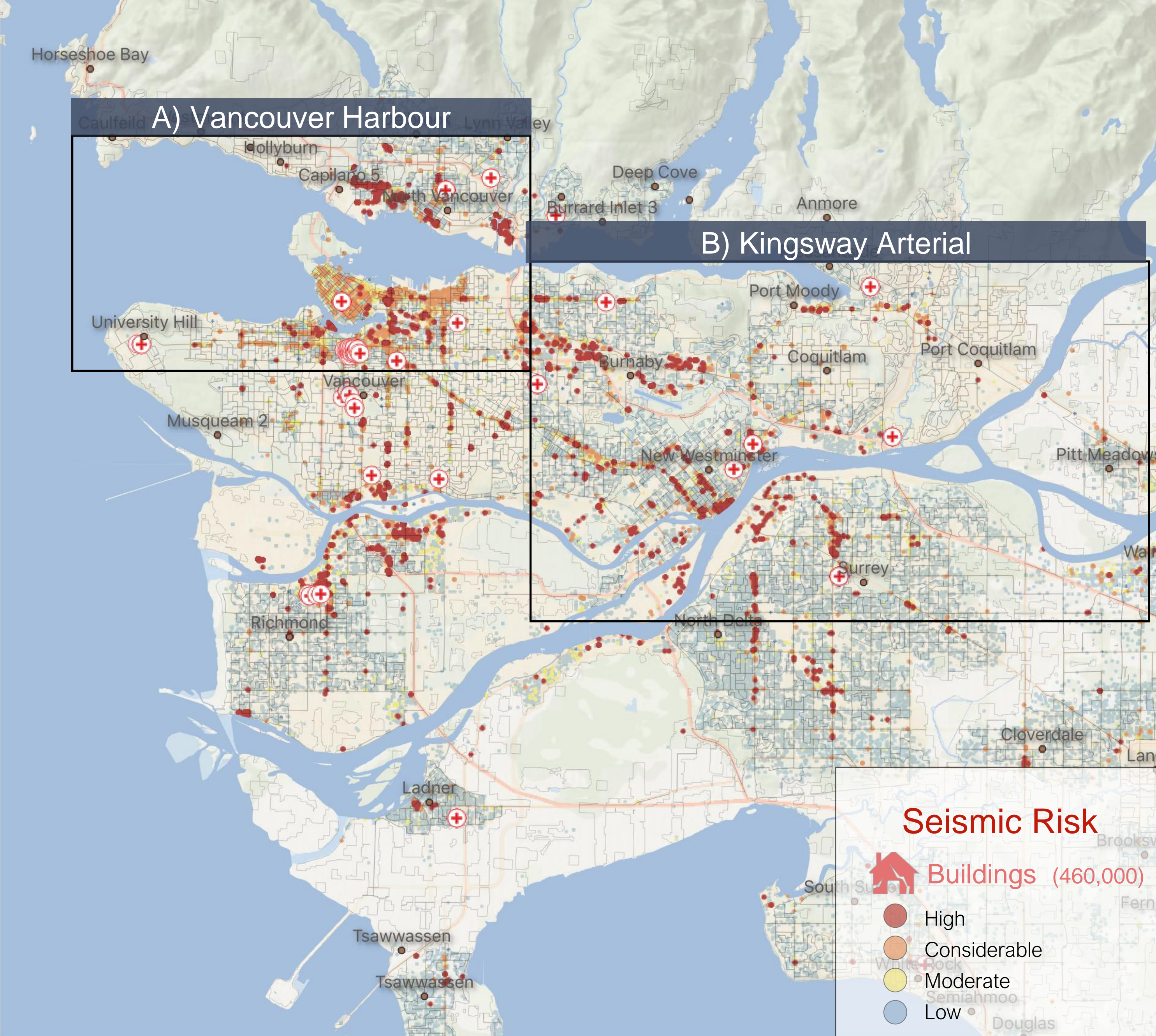
STRAIN ON SOCIAL FABRIC - Financial Hardship



Distribution of Economic Losses Across Neighbourhood Archetypes







- Are you surprised by any of the risk information shared today?
- Does the integration of physical & social impacts change your perception of risk?

## Breakout Session 2

3. Identify actions/policies that will be effective in promoting functional recovery by:



- Increasing physical resistance
- Accelerating response/recovery functions
- Minimizing burden of risk on vulnerable populations