Climate Risks and Inequality

Laura Bakkensen

University of Arizona

November 4, 2022
Cross-National Evidence

Climate Change Impacts on Tropical Cyclone Damage

(Mendelsohn et al., 2012)
U.S. Evidence

Climate Change Impacts in the United States

(Hsiang et al., 2017)
Mechanism: Adaptation Gap

Income Elasticity of Tropical Cyclone Damages

(Bakkensen and Mendelsohn, 2016)
Mechanism: Sorting and Migration

Flood Risk and Neighborhood Demographics

(Bakkensen and Ma, 2020)

Laura Bakkensen
University of Arizona
Climate Risks and Inequality
### Mechanism: Sorting and Migration

Neighborhood Change After Flood Insurance Price Reform

<table>
<thead>
<tr>
<th>Percent Changes in Race/Income Distribution by Zone</th>
<th>Zone X</th>
<th>Zone A</th>
<th>Zone V</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White/Asian</td>
<td>11.55</td>
<td>-11.74</td>
<td>-54.36</td>
</tr>
<tr>
<td>Black</td>
<td>2.24</td>
<td>-2.32</td>
<td>-2.01</td>
</tr>
<tr>
<td>Hispanic</td>
<td>13.86</td>
<td>-14.27</td>
<td>-29.86</td>
</tr>
<tr>
<td><strong>All</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q1</td>
<td>4.70</td>
<td>-4.87</td>
<td>-4.03</td>
</tr>
<tr>
<td>Q2</td>
<td>4.89</td>
<td>-5.06</td>
<td>-4.90</td>
</tr>
<tr>
<td>Q3</td>
<td>4.84</td>
<td>-4.98</td>
<td>-10.11</td>
</tr>
<tr>
<td>Q4</td>
<td>5.52</td>
<td>-5.64</td>
<td>-19.45</td>
</tr>
<tr>
<td>Q5</td>
<td>7.71</td>
<td>-7.77</td>
<td>-47.75</td>
</tr>
</tbody>
</table>

*Note: Table aggregates the changes in predicted shares after all NFIP price supports are removed.*

(Bakkensen and Ma, 2020)
Mechanism: Information Value

Value of Improved Flood Risk Information by Race

(Bakkensen and Ma, 2020)
Mechanism: Information Value

Weather Forecast Error and Mortality by Race

(Shrader, Bakkensen, and Lemoine, WP)
References