

## Living near the next Fukushima: public perception of risk affects property value

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### About the research

There is considerable uncertainty around nuclear risk, and reports of major nuclear accidents shape the public perception of such risk.

While nuclear power has been widely used as a source of energy in many countries including the United Kingdom, little is known about the social cost. Consequently, the risk of rare but catastrophic nuclear accidents such as Fukushima or Chernobyl is inaccurately assessed by individuals living or willing to live in the surroundings of nuclear power plants.

The occurrence of Japan's Fukushima nuclear accident in March 2011 had a marked effect on house prices in England and Wales. The incident generated a 3-4% fall in all house prices within a 20 kilometre area around nuclear power plants.

This fall in property prices was mostly observed in poor neighbourhoods, indicating a disparity between social groupings when carrying out ex ante assessments of nuclear risk. The sizeable drop in house prices also indicates poor access to information.

This briefing outlines steps that should be taken to improve individuals' assessment of nuclear risk.

This research analyses the changes in nuclear-risk perception in England and Wales subsequent to the Fukushima nuclear accident.

### Policy implications

- Home owners living in the immediate surroundings of nuclear plants should receive compensation payments equivalent to the disamenity brought by the extension of nuclear programmes in these areas.
- Information is crucial in the context of these rare events. Information should be better disseminated to all individuals to avoid disparities in housing markets between informed individuals and uninformed individuals.
- Campaigns to increase public awareness should be targeted towards areas in which nuclear risk is imperfectly reflected in house prices.
- In the absence of an active policy to inform individuals, compensation payments should be differentiated across neighbourhoods: these differential payments should reflect the extent to which the disamenity of living in the neighbourhood of nuclear plants is already accounted for in the house price.

## Key findings

In the wake of the Fukushima disaster, house prices abruptly decreased by approximately 3.5 - 4.5% in the areas surrounding each active nuclear plant in England and Wales. While this effect is persistent and still felt to this day, it is mostly concentrated in areas of 20 kilometres around nuclear plants.

Access to information was very unequally distributed. Reaction to the Fukushima accident was most prominent in deprived neighbourhoods, where house prices fell by 7-8%, compared to 2% in richer neighbourhoods. Before the Fukushima accident, house prices in deprived neighbourhoods reflected the cost of perceived nuclear risk to a lesser extent. However, the post-Fukushima housing market response partly bridges the gap with richer neighbourhoods.

These findings suggest that poor neighbourhoods under-estimate the risk before a catastrophe, and then compensate following a high-profile nuclear incident at the centre of media attention such as the Fukushima disaster.

With widespread access to accurate information, the risk would be fully incorporated into house prices independent of the occurrence of disasters elsewhere.

## Further Information:

Renaud Coulomb, Yanos Zylberberg (2016):  
**Rare Events and Risk Perception: Evidence from the Fukushima Accident.**

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Battersea Power Station

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