

Dynamics of decision issues and decision-making rules in urban regeneration: why the focus of attention changes over time?

Ke Zhou

ke.zhou@ucl.ac.uk

PhD Student in Participatory System Dynamics

Supervised by: Dr. Nici Zimmermann

Institute for Environmental Design and Engineering

University College London

UK Chapter of the System Dynamics Society

22 Annual Conference Support for tackling important issues with system dynamics

Student presentation

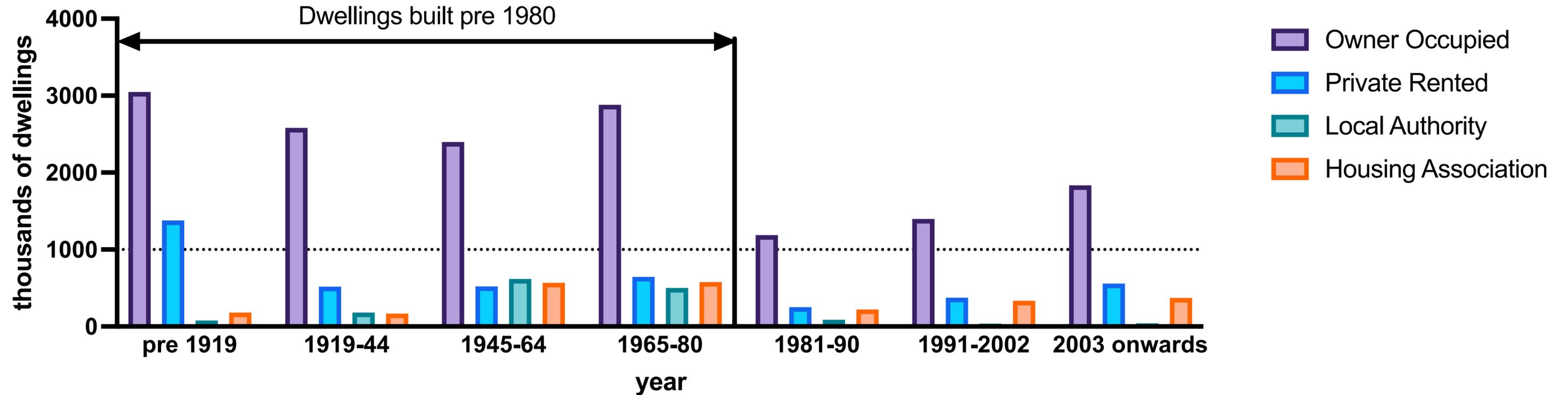


Urban regeneration and mixed evidence

Urban regeneration, as a housing improvement intervention, has multi-dimensional considerations in social, economic, and physical environmental aspects.

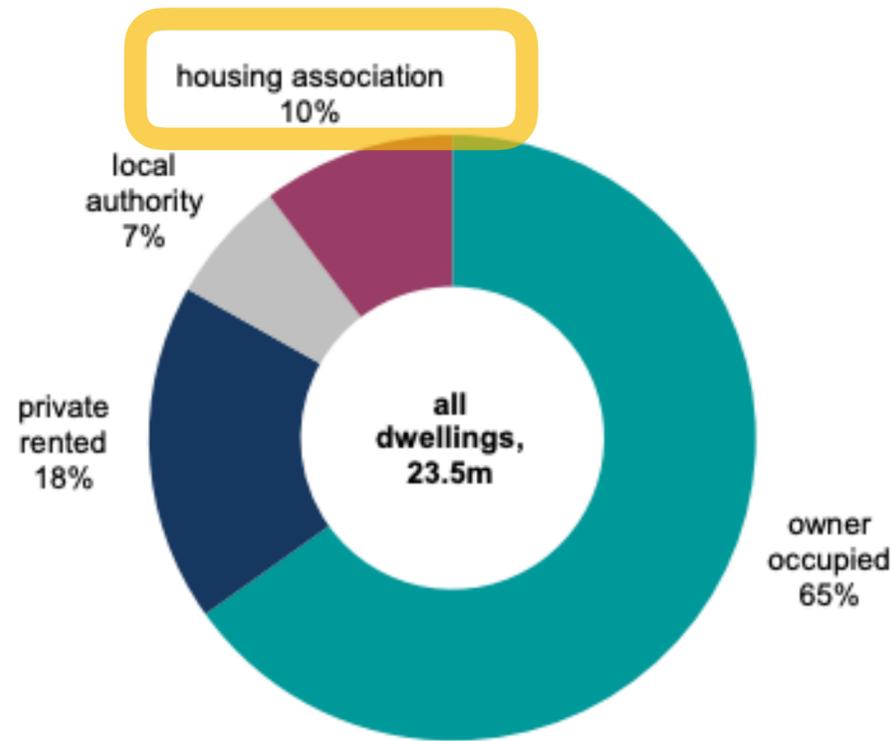
Compelling evidence has linked poor housing conditions with consequences in population health, but the evidence of the impact of housing improvement is mixed.

About 70% of dwellings are built pre 1980

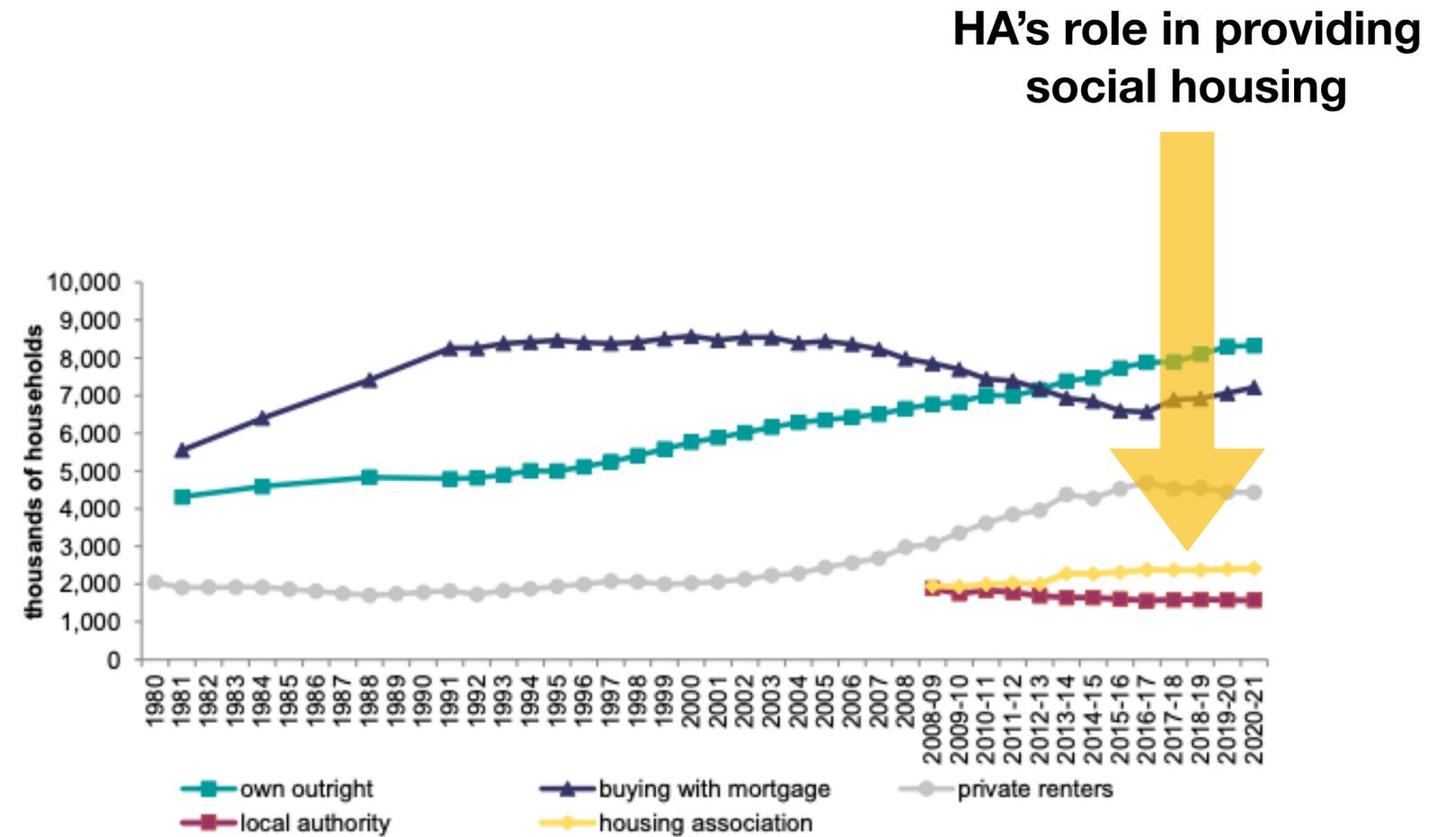


Dwelling age, by tenure, 2020

Housing Association's role in providing quality and affordable housing



Dwellings, by tenure, 2020
English Housing Survey 2020



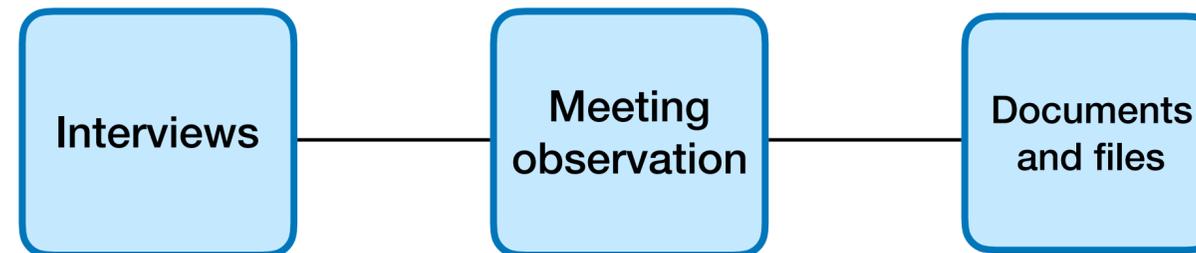
Trends in tenure (thousands of households), 1980 to 2020-21
English Housing Survey 2020

Our questions

1. For Housing Associations, what influences the ***dynamics of decision-making*** in regeneration projects?
2. What is the ***pattern of decision-making*** in regeneration meetings and what influences the switching of different topics over time?

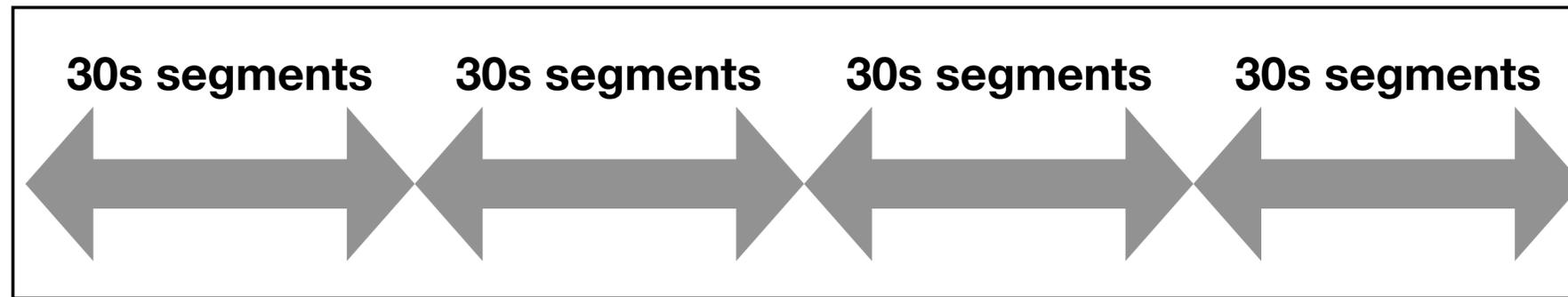
Data collection: a case study with a Housing Association

- From 2019~ 2021, empirical data collection has three parts:
 - 13 individual interviews
 - 27 meeting observations
 - 30 documents and files

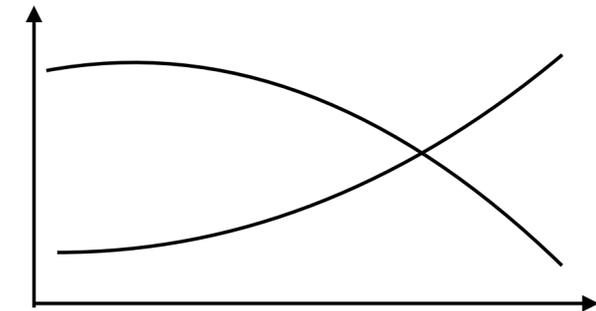


Meeting analysis

Time segments

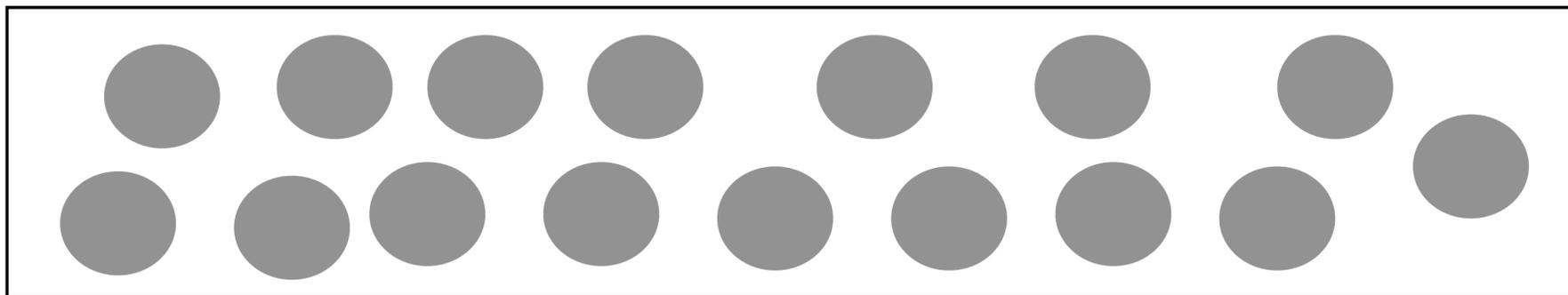


Output

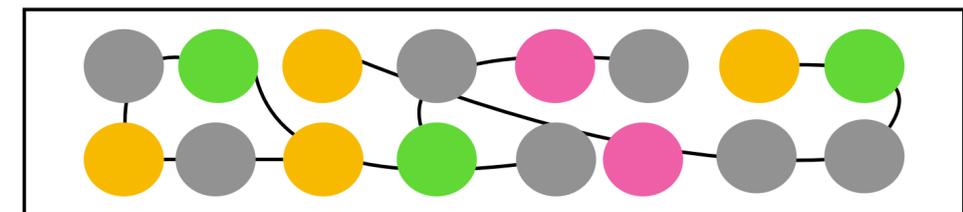


- Changes over time patterns of each issue

Meeting recording



Output

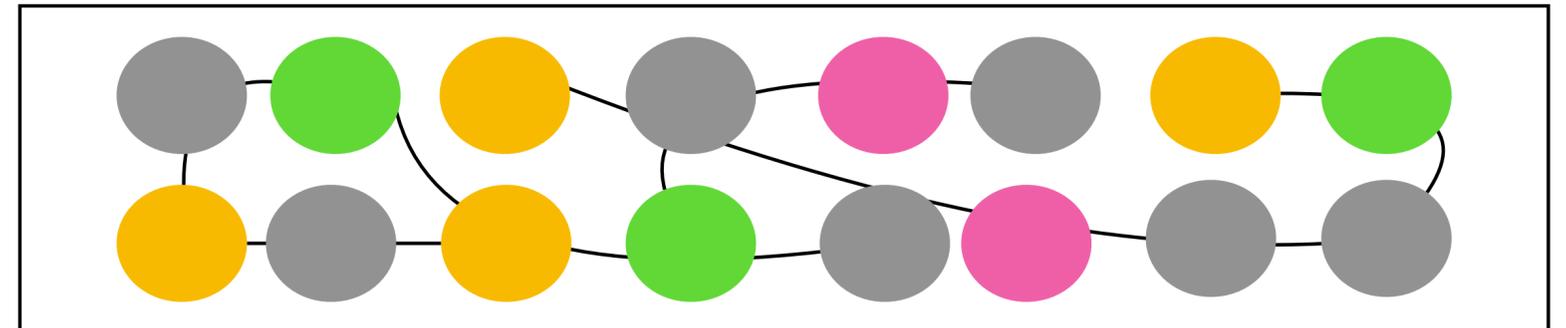


- Interconnections of the issues
- Types of the issues

Qualitative coding and development of the causal loop diagram

Seven categories of issues

1. Environmental sustainability
2. Health and wellbeing
3. Community engagement
4. Housing design
5. Policy compliance
6. Operational management
7. Financial viability and efficiency



Summary of findings

1. Specifically, we focus on the interconnections between decision-issues and decision-making rules in delivering healthy and sustainable regeneration projects. We identified seven types of decision-making issues in regeneration projects.
2. Early decision-making in the planning stage could be very critical and have a strong impact on future decisions, and health and sustainability outcomes. For phased delivery projects, it's more complex.
3. Attention competition between costs and risks versus health and sustainability outcomes is a critical element that drives decision-making.
4. The integration of change-over-time analysis, qualitative textual analysis and causal loop diagrams offers a novel approach to theorising and analysing decision-making dynamics.



Thank you for your time.

