

Visual communication of uncertain pension outcomes

"Clear visual representations of uncertainty remain a challenge"

Lisanne van Weelden, Maaike Jongenelen, Marloes van Moort and Hans Hoeken – Utrecht University

In the new Dutch pension system, pension organisations need to inform participants that the pension outcome is uncertain. Visual metaphors are frequently used to convey this complex message. Unfortunately, participants often misinterpret the intended message because the visual representation fails to convey the metaphor with sufficient clarity. We therefore compared the navigation visualisation currently used in uniform pension overviews with two alternatives (spaghetti and gradient visualisations) to assess the impact of the visualisation on interpreting uncertainty.

Principal Findings

- Participants felt quite certain about their interpretations, especially for the spaghetti visualisation.
- They felt the least certain about their interpretation of scenarios that ranged between the most likely and the most unlikely outcomes.
- After interpreting the navigation visualization participants considered a lower financial outcome more likely compared to the other two visualizations.
- These differences are statistically significant yet quite small.

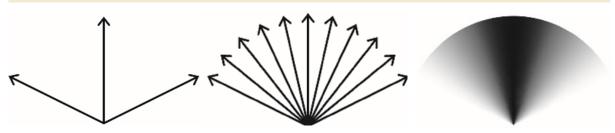


Figure: Type of visualizations used in the study: Navigation, Spaghetti and Gradient

Key Takeaways for the Industry

• The three different visualizations differ only slightly in how well they convey uncertainty.

Want to know more? Read the paper 'Visuele communicatie van onzekere pensioenuitkeringen'