

*Residents' Perception of Risk on
Contaminated Sites*

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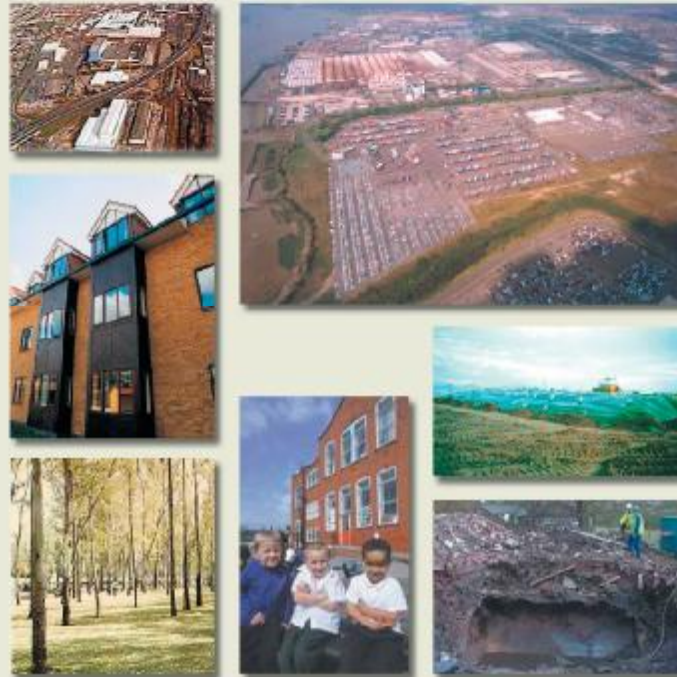
SUBR:IM

SUSTAINABLE URBAN BROWNFIELD
REGENERATION: INTEGRATED
MANAGEMENT

A NEW RESEARCH CONSORTIUM FUNDED BY:

EPSRC

With further support from industry and government



SUBR:IM

- The SUBR:IM consortium is looking at engineering, physical and social science aspects of Sustainable Urban Brownfield Regeneration: Integrated Management.
- Our own project is looking at decisions by policy-makers at different levels.
- In particular, how are residents' views considered and influenced by local agencies?
- How are risks perceived, how trusted are different sources of information?

Policy context

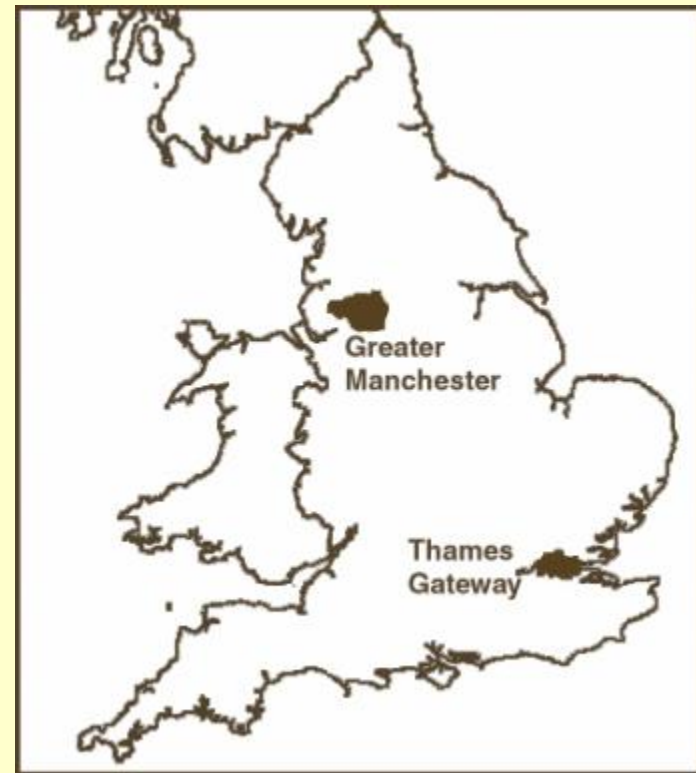
- UK national government policy is that most new housing and redevelopment should take place on “brownfield” (previously used) land.
- Local government responsible for development plans as well as managing health/environmental risks.
- Much urban brownfield land is contaminated by residues from previous industrial activity, waste, &c.
- Contamination adds to the cost of, and limits the options for, remediation and/or redevelopment.
- New legal framework from April 2000 for risk-based identification and remediation of contaminated land.



Study regions

Research focuses on two study regions: Greater Manchester and Thames Gateway (East London).

Data to be presented from postal surveys of residents of different areas within Greater Manchester and Thames Gateway.



Survey design

- In 2005, >11,000 questionnaires mailed to households in different areas of Greater Manchester and Thames Gateway.
- These areas included communities adjacent to, and more distant from, contaminated land.
- Response rate ~10%.
- Questionnaire entitled “Redeveloping Urban Land: Tell us what you think”.
- Incentive: entry into a prize draw.

Comparisons to be reported

- *Within* the two broader regions of Thames Gateway and Greater Manchester, we compare *two* Local Authority areas, with contrasting recent policy and practice with respect to risk communication with local residents.
- In *both* areas, contamination found within/close to existing residential neighbourhoods.
- **Area A:** More reactive style , apparent reluctance to share information with public.
- **Area B:** More proactive and transparent.

Area A.

- After first discovery, Council tried to be “as open as possible”, so issued press release.
- Local paper ran “sensationalist” story.
- Residents then angry they weren’t told first.
- Council blamed local press, and resolved only to divulge information when specifically requested.
- “Now we work on the basis of public reassurance as a core element of our communication strategy. We are careful about where the information goes to outside local residents.”

Area B.

- Includes two historically contaminated sites.
- 1) Asbestos found, two deaths attributed.
- Residents invited to nominate representatives, settlement agreed with families.
- 2) Power station waste found under large estate.
- Mortgage freeze lifted following Council intervention.
- While risk re-assessed, residents invited to regular focus groups.
- “It’s worked quite well because they can see that we’re being up-front and straightforward, and also trying to listen to what their concerns are.”

Survey topics

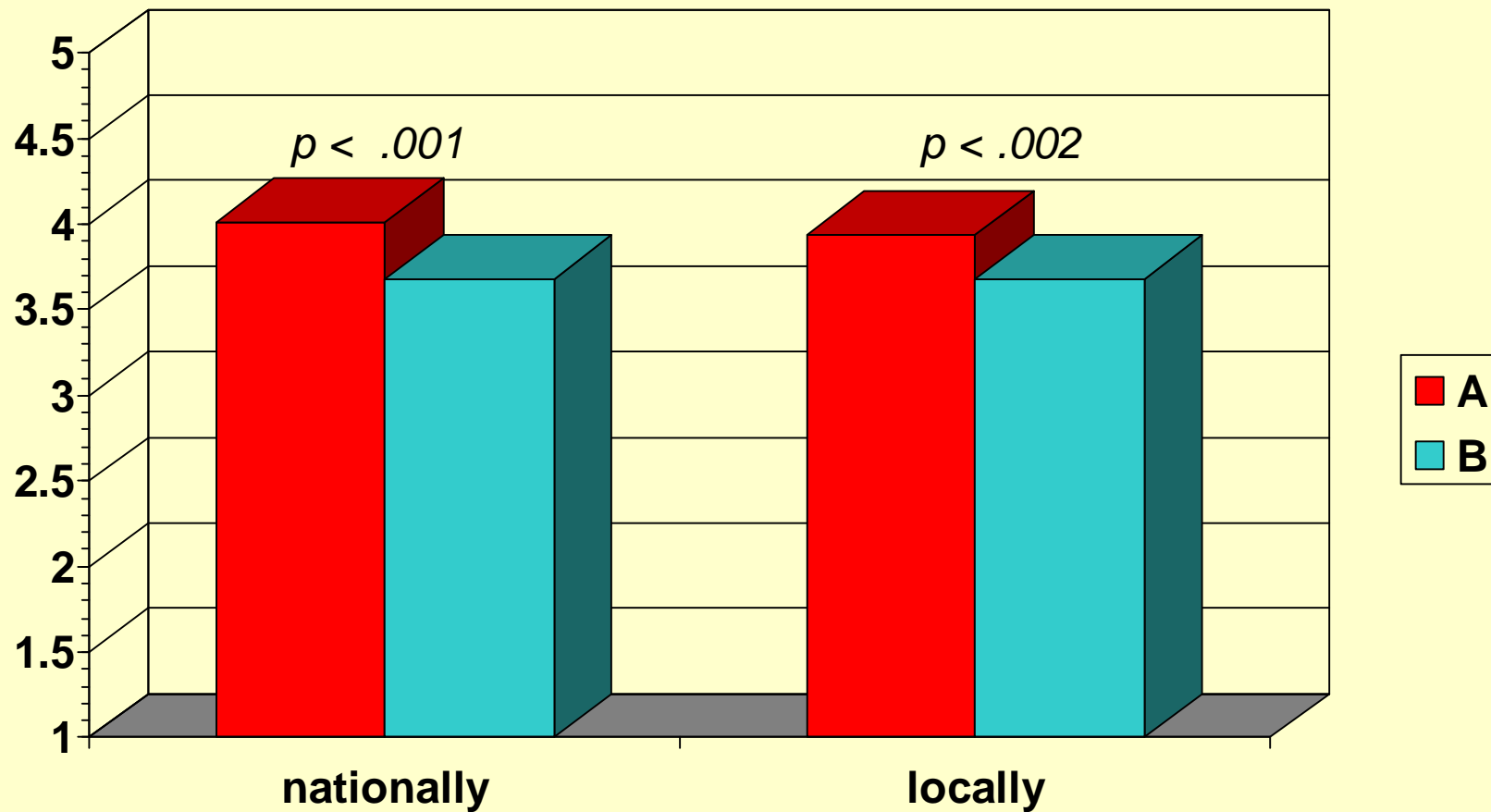
- Attitude to building on brownfield land
- Preferences for redevelopment purposes
- Beliefs about presence of, and potential risks from, contamination in local area
- Satisfaction with consultation by local council
- Trust
- Other risk perceptions (phone masts)

Attitudes to brownfield development

- Thinking of the country as a whole...
- Thinking of your local area...
- should most new homes be built on brownfield land?

(1 = Definitely No, 5 = Definitely Yes)

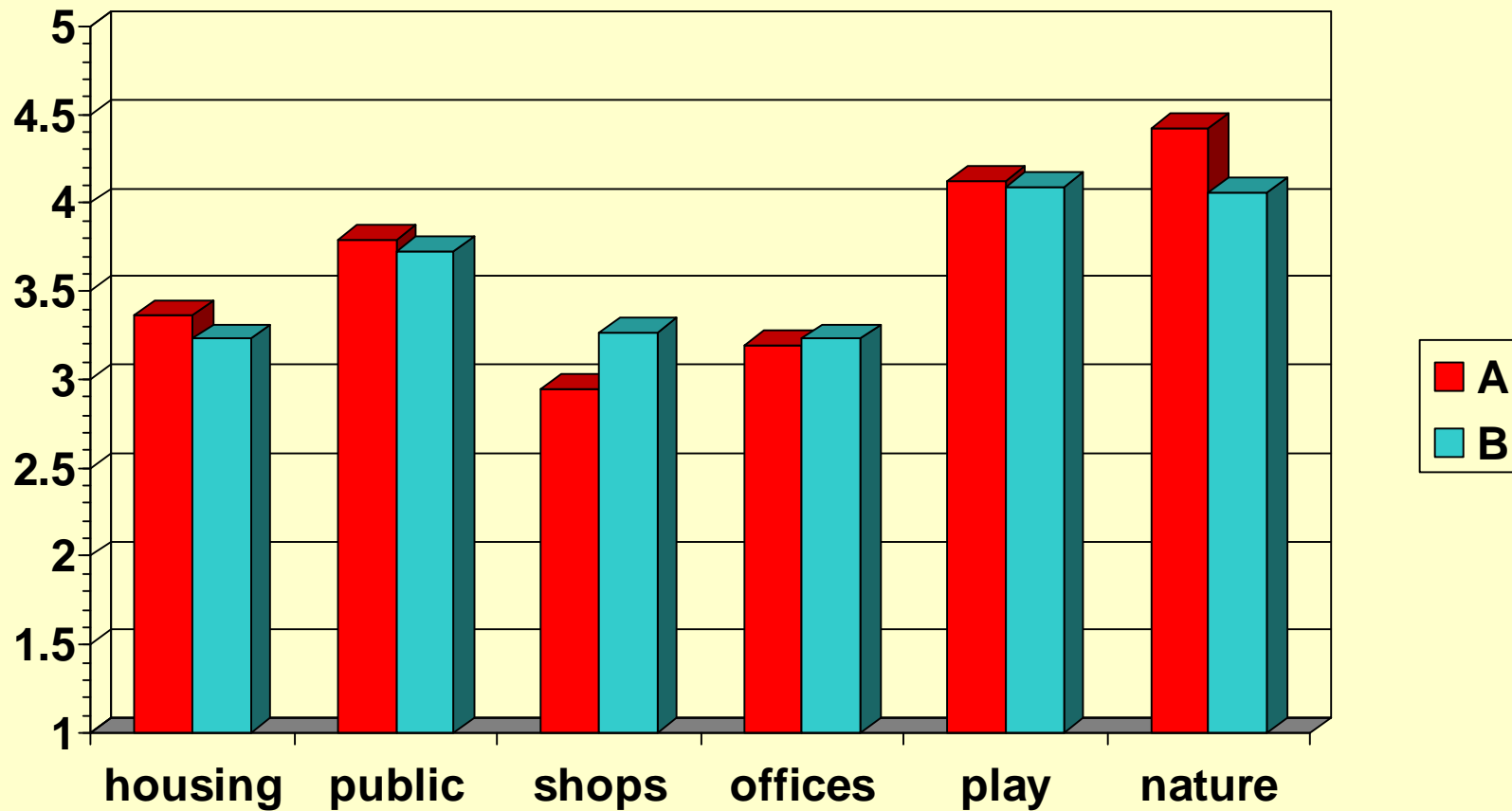
Approval of brownfield development



Favoured purposes of development

- How would you feel about any brownfield land in your area being redeveloped for any of the following purpose?
 - Housing
 - Public buildings (e.g. schools, leisure centres)
 - Shops or supermarkets
 - Work places (e.g. offices, factories)
 - Open space for public use (e.g. playground)
 - Open space for nature/wildlife
- (1 = Strongly against; 5 = Strongly in favour)

Favoured purposes



Perceived risk

- Do you think any brownfield land in your local area might be contaminated?

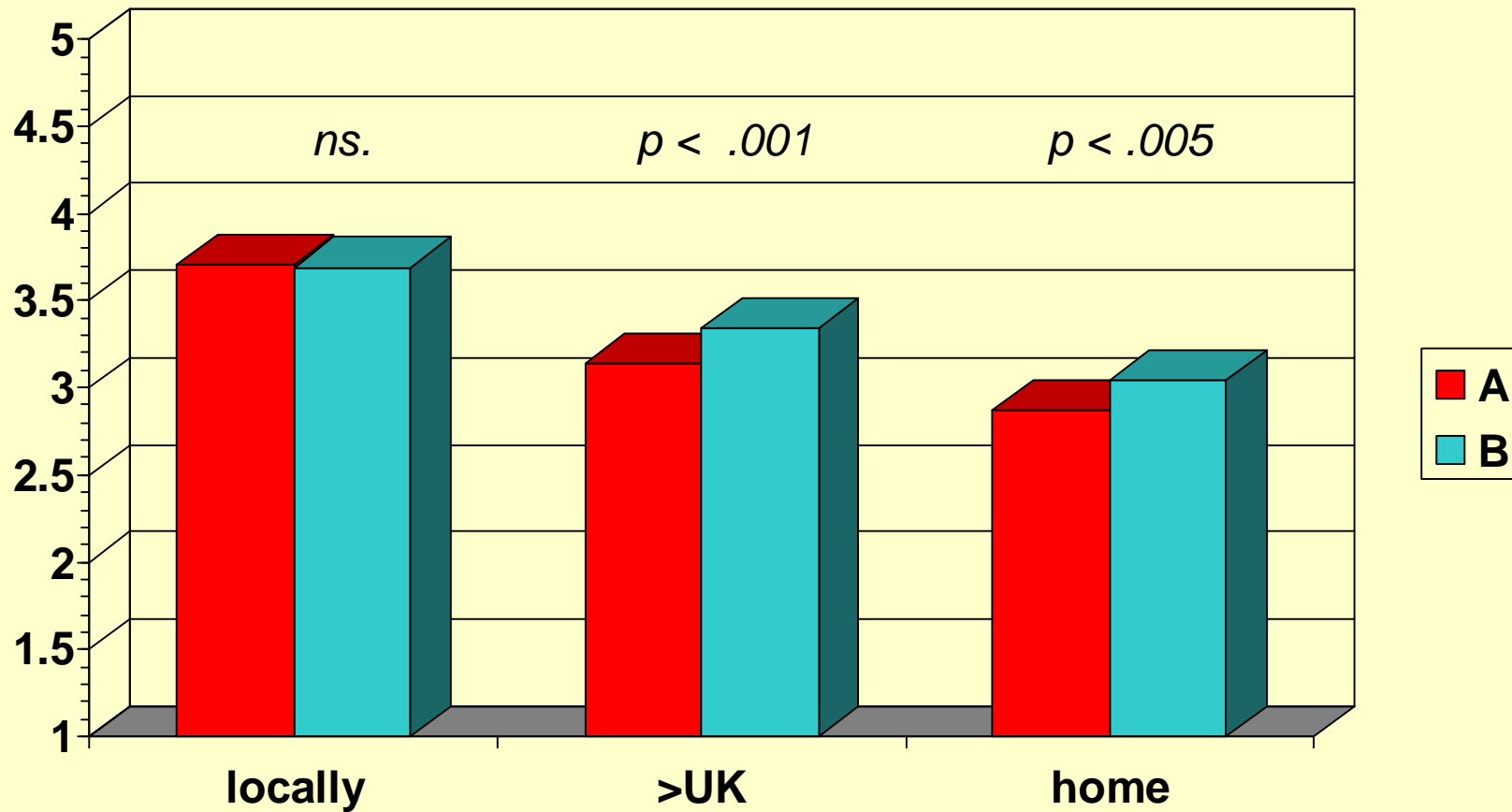
(1 = Definitely No; 5 = Definitely Yes)

- Compared with other urban areas in the UK do you think there is more or less contaminated land in your neighbourhood?

(1 = Lots Less; 5 = Lots More)

- Compared with other homes in your neighbourhood is there more or less contaminated land near your own home?

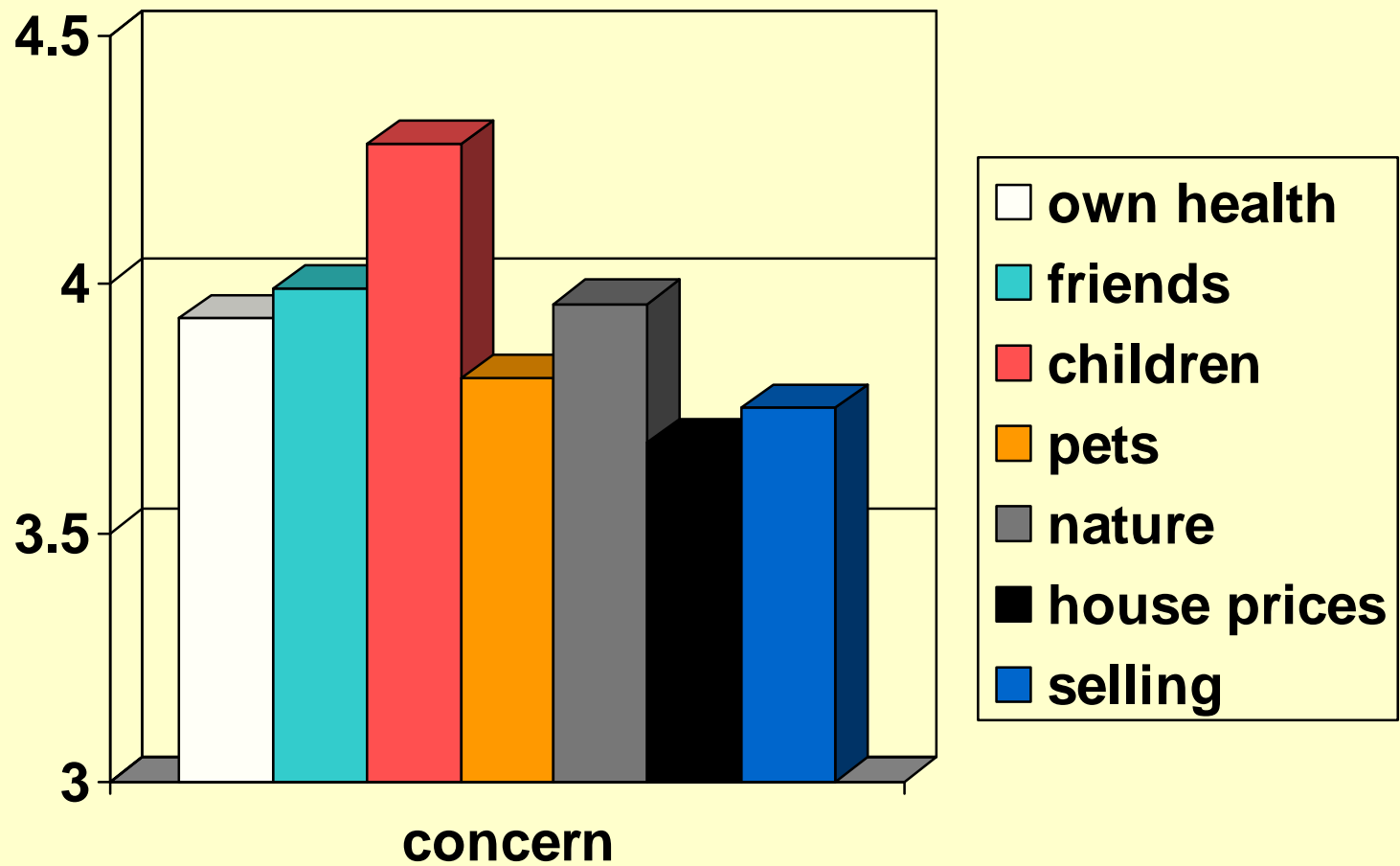
Perceived risk by area



Concern with effects of contamination

- If you learned that you lived near contaminated land, how concerned would you be about the potential effects on any of the following?
 - Your own personal health
 - The health of those you know
 - The health of children, your own or other people's
 - The health of pets, your own or other people's
 - Health of local plants and wildlife
 - House prices
 - Ease of selling or mortgaging property
- (1 = Not at all concerned; 5 = Extremely concerned)

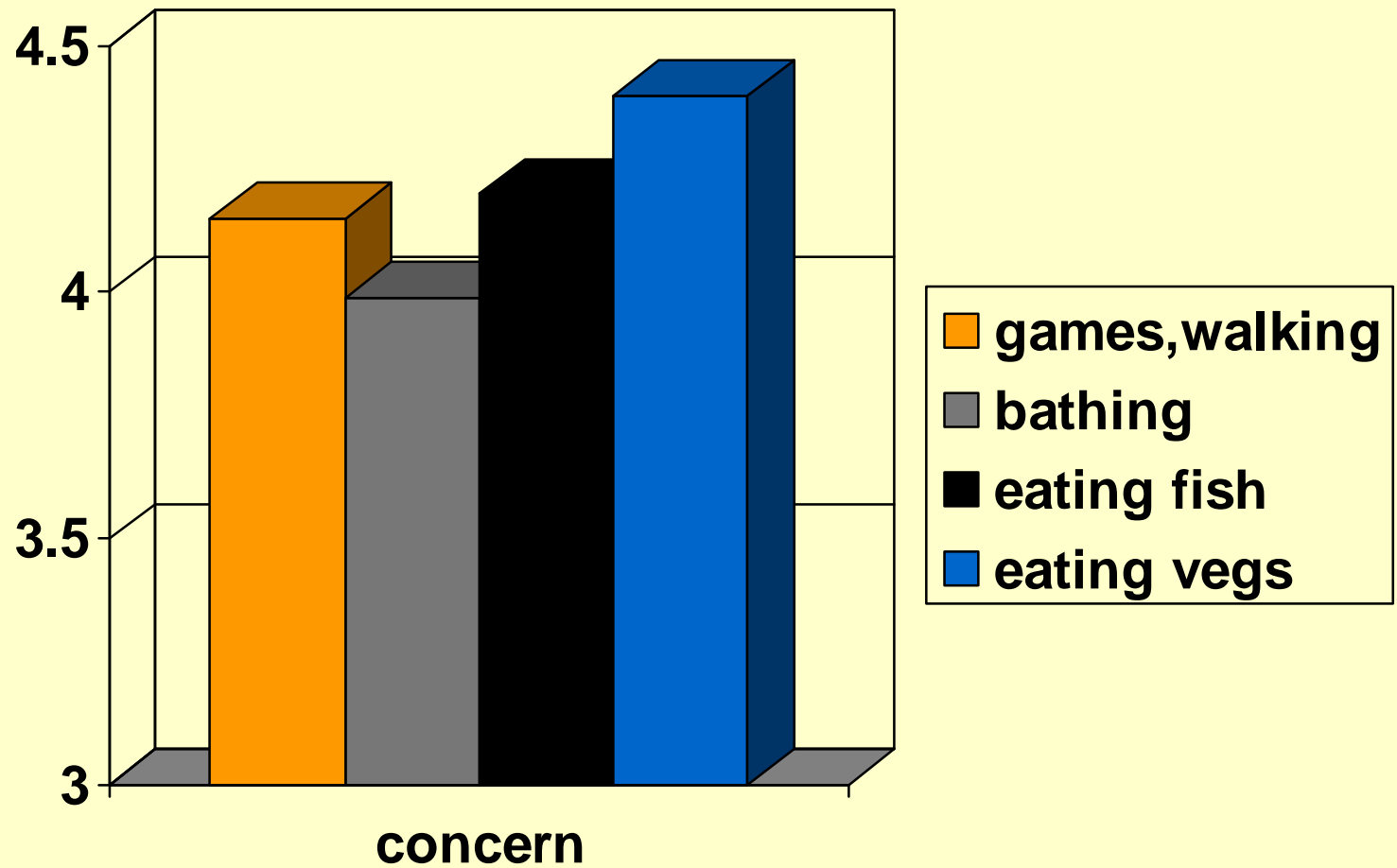
Concern with effects of contamination



Concern with activity loss

- If you learned that you lived near contaminated land, how concerned would you be about the following activities becoming potentially unsafe or forbidden?
 - Using the land for playing games, walking dogs, etc.
 - Bathing in local rivers and streams
 - Eating fish caught in local rivers and streams
 - Eating vegetables grown near contaminated land
- (1 = Not at all concerned; 5 = Extremely concerned)

Concern with activity loss



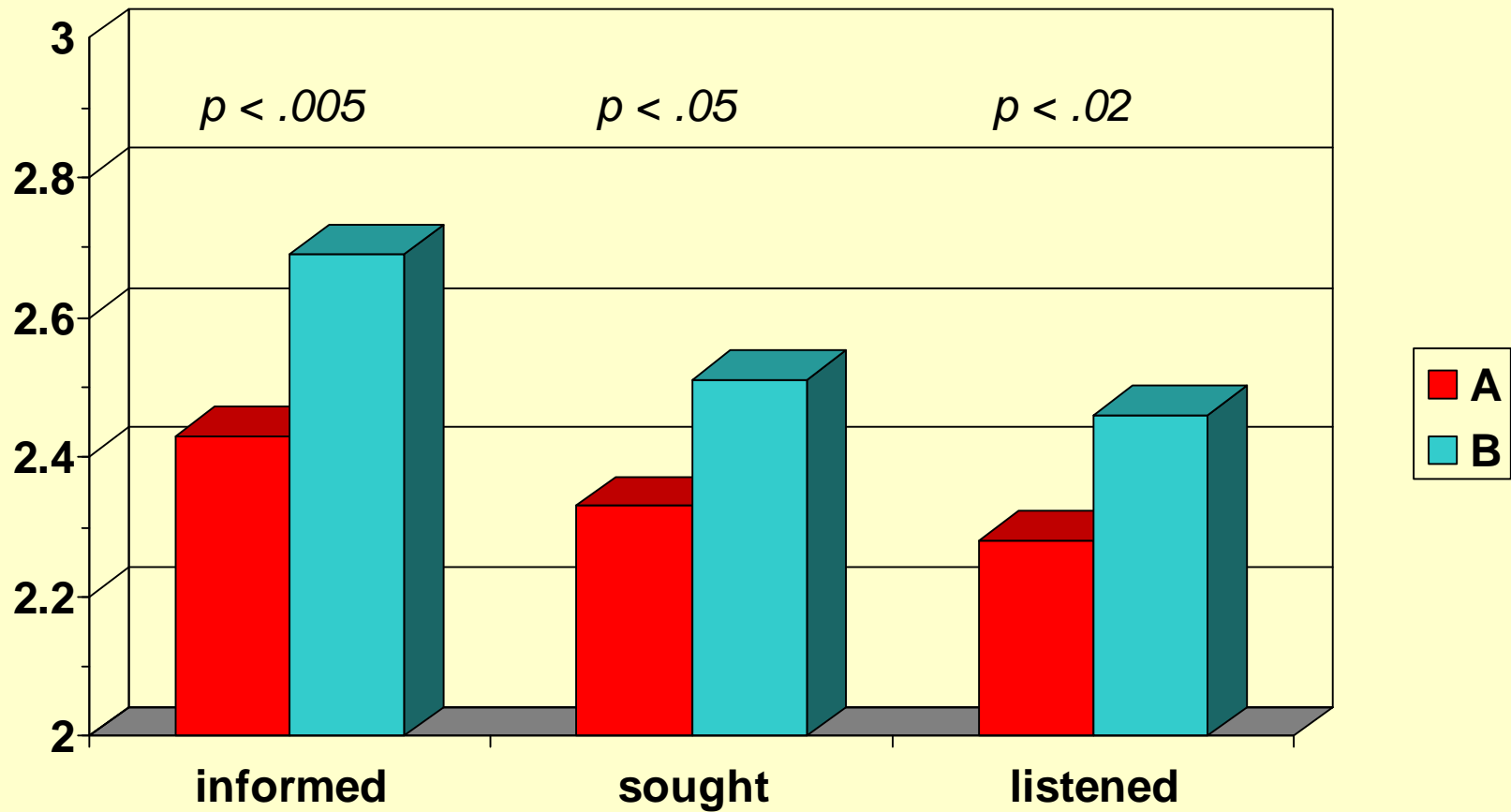
Satisfaction with consultation

[re. housing and redevelopment]..Are you satisfied with how the local council has...

- Kept residents informed?
- Sought residents' views?
- Taken residents' views into account?

(1 = Definitely No; 5 = Definitely Yes)

Satisfaction with consultation by area



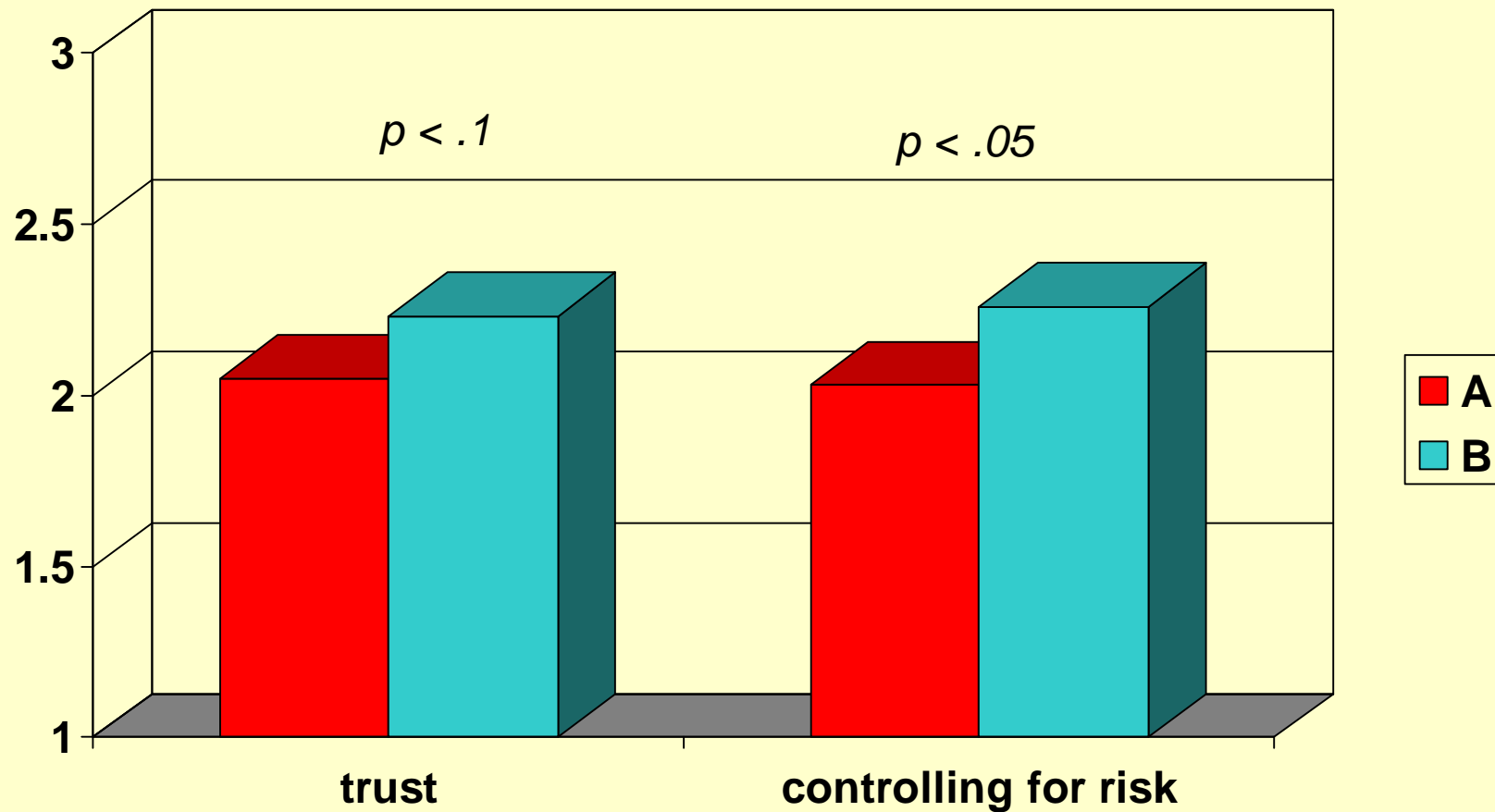
Trust

- How much would you trust what the Local Council might tell you about risks from contaminated land?

(1 = Wouldn't trust at all;

5 = Would trust completely)

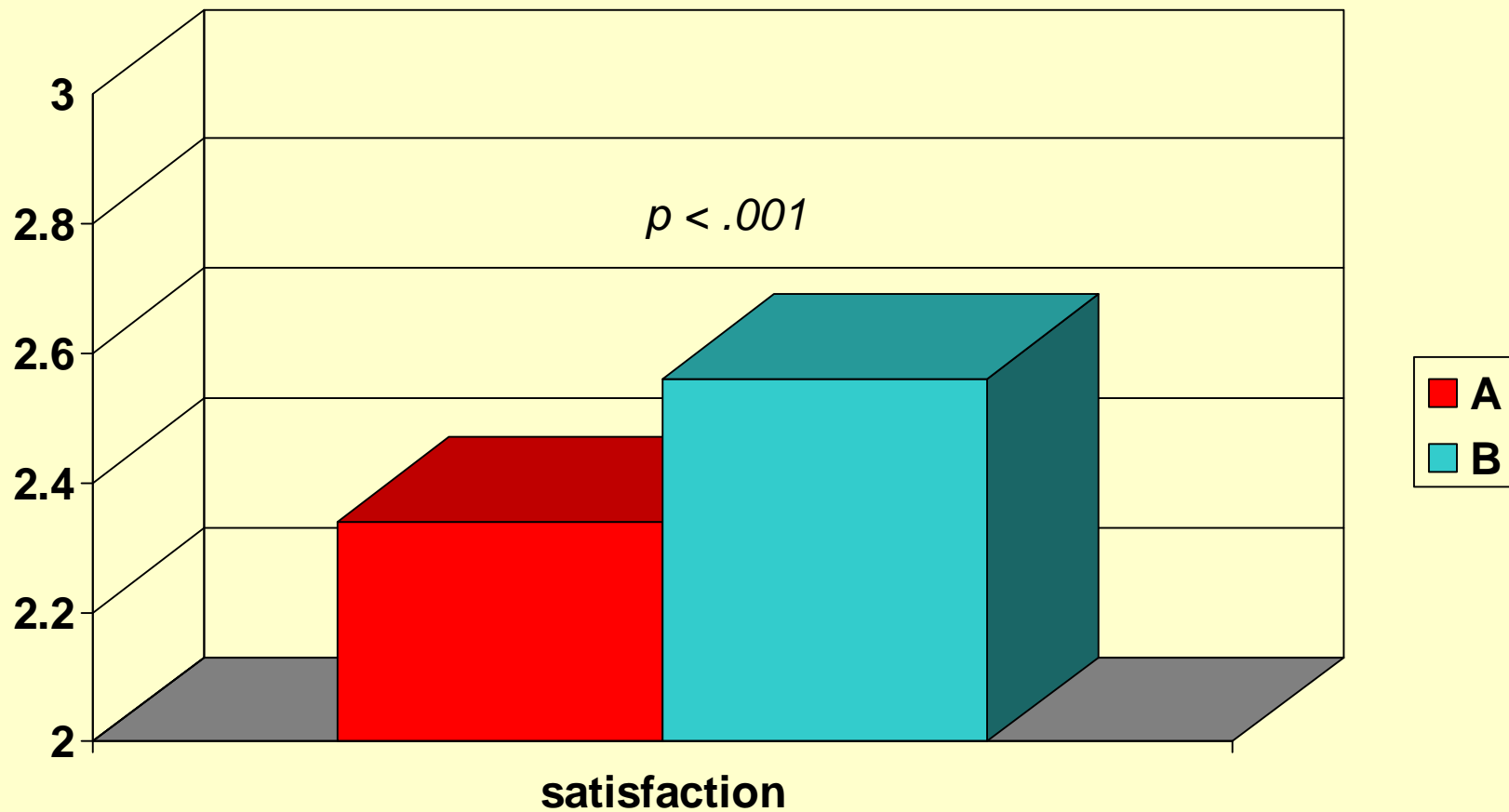
Trust in what Council might tell about contamination risk



Correlations between, risk, satisfaction and trust

	Risk	Satisfaction	Trust
Risk	1	-.21	-.19
Satisfaction		1	.38
Trust	<i>All ps < .001</i>		1

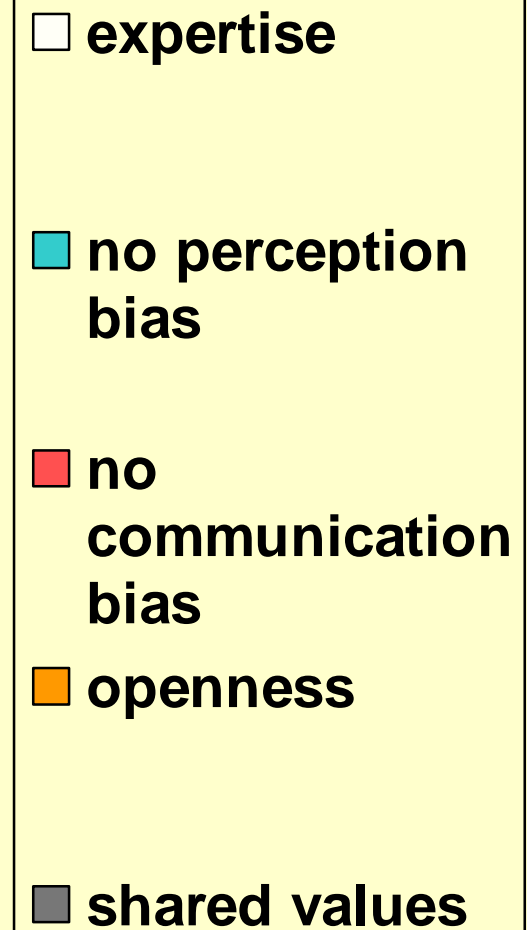
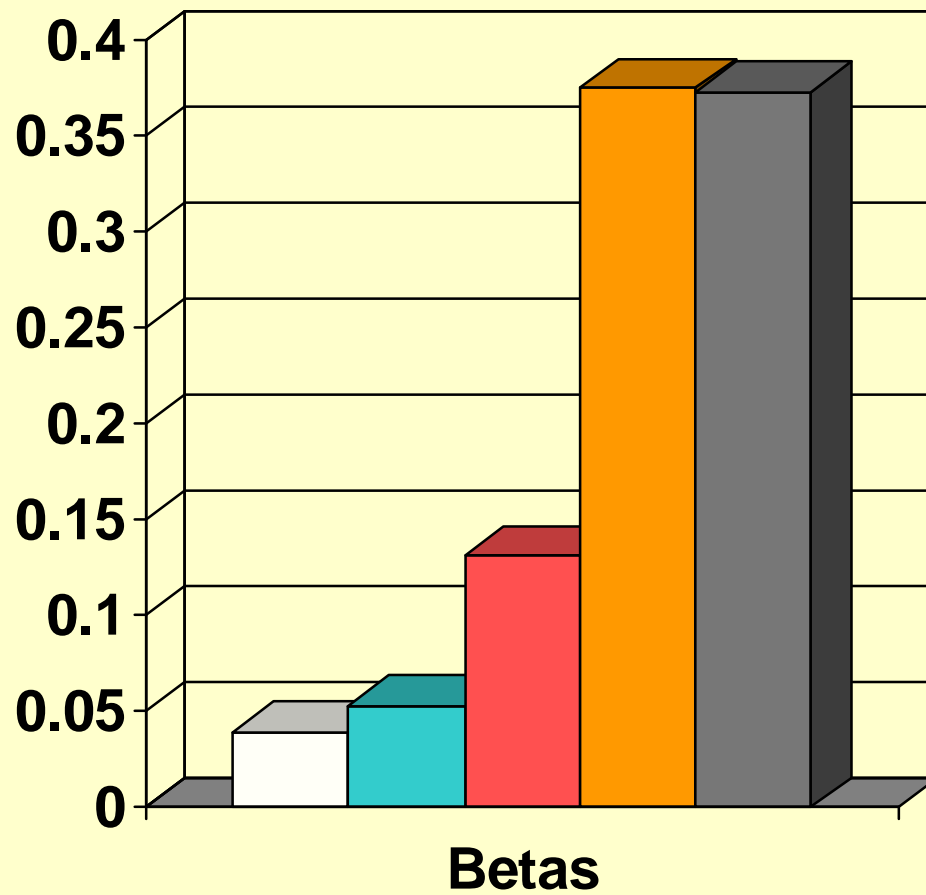
*Satisfaction with consultation,
controlling for perceived risk and trust*



Predictors of trust

- Expertise (able to judge how safe or dangerous)
- Perception bias (tend to see contamination as safer/more dangerous than it really is)
- Communication bias (underplay/exaggerate risks when communicating to the public)
- Openness (prepared to tell what they know)
- Shared values (have your own interests at heart)

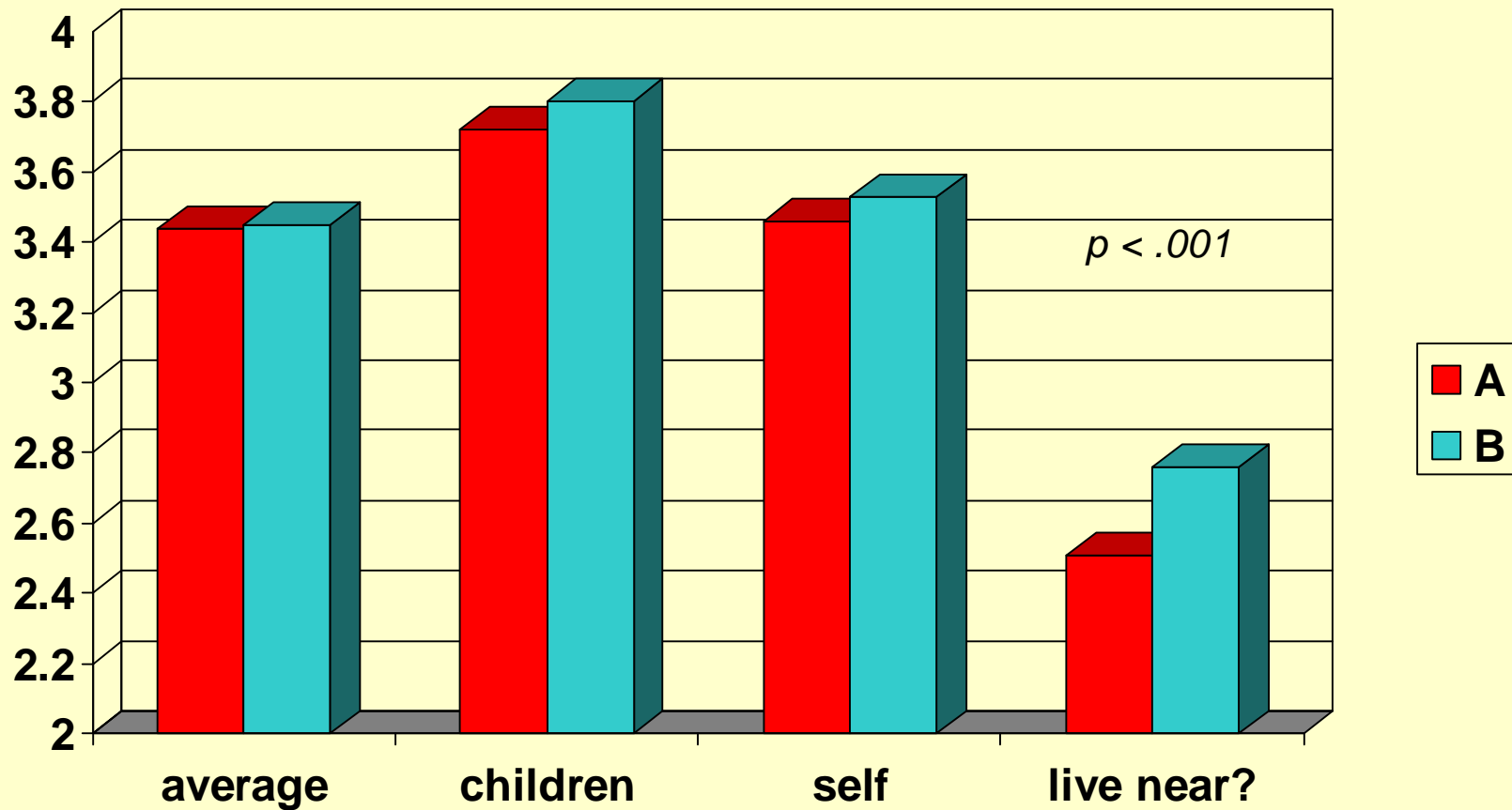
Regression of Trust in Council onto predictors of trust



Generalization of perceived risk

- Do you think there could be any health risk from living near a mobile phone mast to...
 - the average adult?
 - children?
 - your own personal risk?
 - Do you personally live near a mobile phone mast?
- (1 = Definitely No; 5 = Definitely Yes).

Perceived risks from phone masts



Conclusions (1)

- Building on brownfield land generally supported, especially by those in Area A.
- Residents value 'greener' regeneration and public amenities over shops and offices.
- Contamination viewed as risk to activities as well as health.
- Satisfaction with, and trust in, both local authorities generally low, especially among those who think they're at greater risk.
- Openness, shared values and a lack of communication bias are the most important predictors of trust (expertise isn't).

Conclusions (2)

- Residents of Area B perceive themselves at *greater* risk of contamination, but nonetheless are *less* dissatisfied with and distrustful of their Council than are residents of Area A.
- This reflects communication strategies.
- Residents of Area B more likely to think they live near a mobile phone mast, but don't perceive greater health risks from masts than residents of Area A. Hence risk perceptions appear topic-specific.

Acknowledgements

- This presentation is based on work undertaken for a collaborative research programme on 'Sustainable Urban Brownfield Regeneration: Integrated Management' (SUBR:IM) funded by the Engineering and Physical Sciences Research Council (grant number GR/S148809/01). The authors are grateful for EPSRC's support. The views presented are those of the authors and cannot be taken as indicative in any way of the position of SUBR:IM colleagues or of EPSRC on the subject. All errors are similarly those of the authors alone.