Housing and subjective well-being

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Roadmap

Roadmap

Historical Perspective on Well-Being

Philosophical Roots

- **Aristotle**: Introduced the concept of *eudaimonia* - flourishing as life's ultimate goal.
- **Bentham and Utilitarians**: Defined happiness as the maximisation of pleasure over pain. Developed ideas like the *felicific calculus*.
- **Edgeworth**: Imagined the *hedonimeter* - a device to measure human well-being using a continuous scale.

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Historical Perspective on Well-Being

Economics and Utility

- **20th-century shift:** Economics moved toward observable behaviour.
- **Revealed preference theory:** Treated utility as unobservable - income and consumption became proxies for welfare.
- **GDP dominance:** Growth in national income was long assumed to reflect social progress and well-being.

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A Foundational Warning

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"The welfare of a nation can scarcely be inferred from a measurement of national income."

Simon Kuznets (1934)

An Alternative: Subjective Well-Being

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Psychology's Contribution

- Psychologists developed **sentiment and mood scales** to measure internal states.
- Examples include Likert-type questions.
- These tools allow individuals to **rank possible lives** according to how satisfying they feel.

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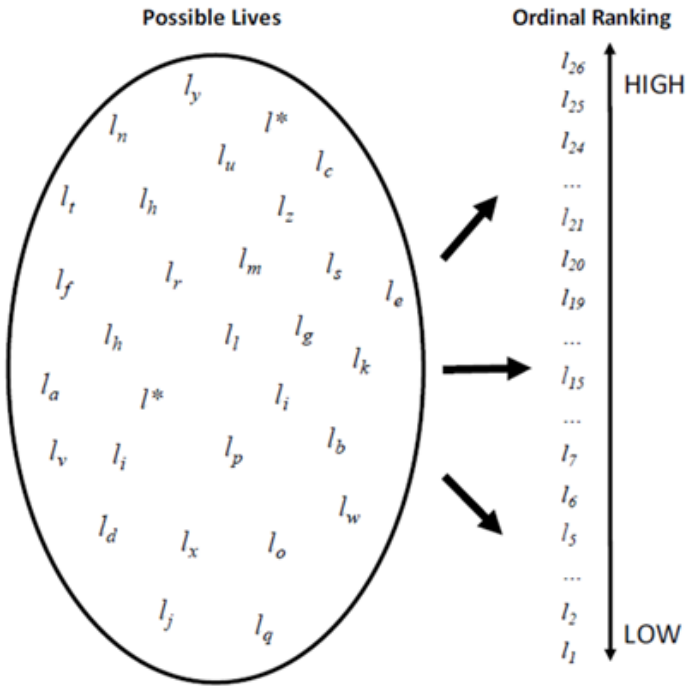


Notes: Respondents must arrange possible lives they could live, of which there are theoretically an infinite number, into an ordered ranking from least to most satisfying.

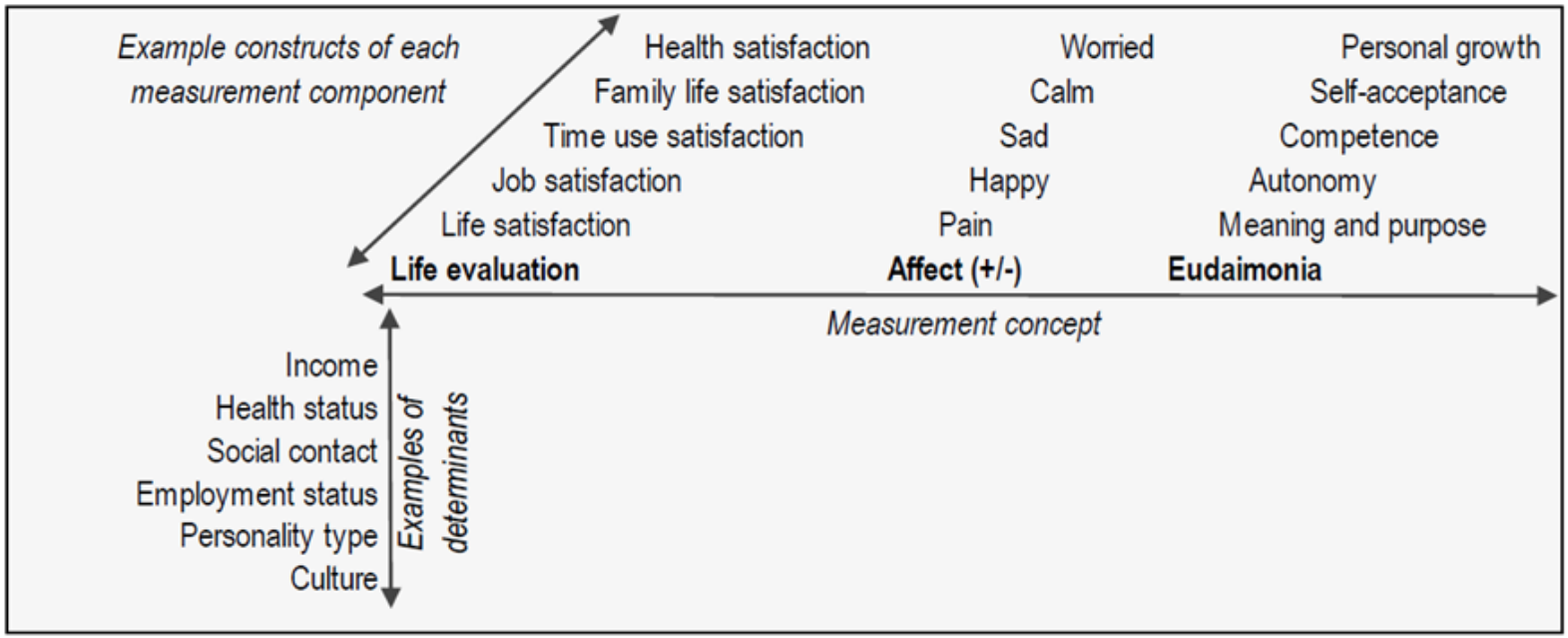
An Alternative: Subjective Well-Being

OECD

OECD Guidelines on Measuring Subjective Well-being (2025 Update)

An Alternative: Subjective Well-Being

Figure 1.2. A conceptual framework of subjective well-being

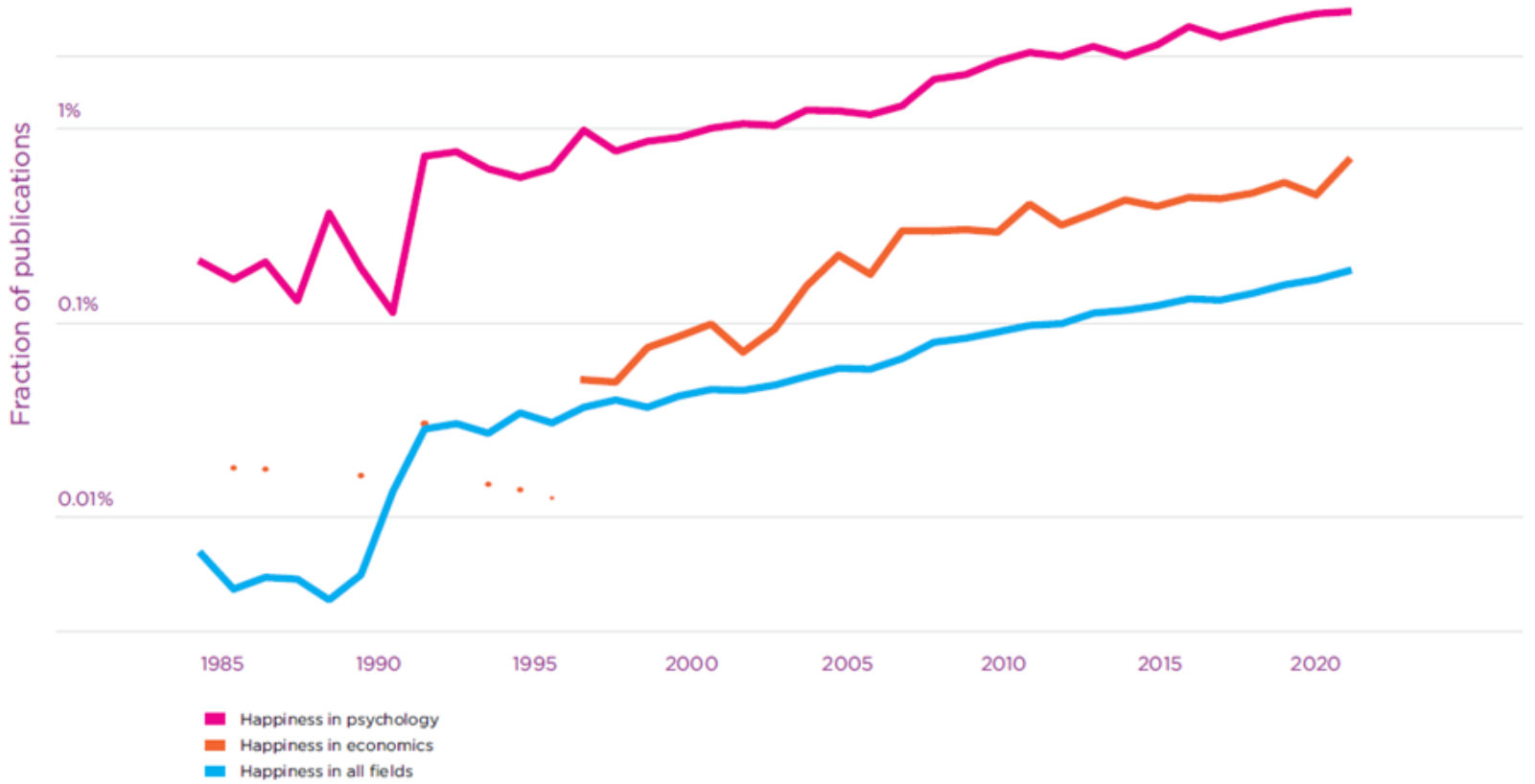


Note: The constructs listed within each component of subjective well-being are illustrative examples that capture different aspects of the overall concept; it is *not* assumed that the constructs are additive (i.e. that all constructs under life evaluation are summed to equal overall life evaluation, for example).

Source: Adapted from OECD (2013[1]), *OECD Guidelines on Measuring Subjective Well-being*, OECD Publishing, Paris, https://doi.org/10.1787/9789264191655-en.

An Alternative: Subjective Well-Being

Figure 3.4: Fraction of academic papers related to happiness



Note: Fraction of academic papers related to happiness. Publication rates are shown relative to their respective denominators. The dots show years in which only one or two articles were published. The criterion for being related to happiness is that the title or abstract of a journal article contains any of "happiness", "life satisfaction," "satisfaction with life", or "subjective well(-)being." In 2021, the raw numbers of publications related to happiness were 4217 in all fields, 682 in psychology, and 212 in economics. Data come from the Web of Science.

SWB Measurement: Not Perfect, But Improving

The Skeptical View

- **Bond and Lang (2019, JPE):** Highlight fundamental problems in interpreting SWB data
  - Equal distance between response categories is arbitrary
  - Distribution of latent WB within-response category is unobserved
  - Differences in scale use (inter- and intra-personal)
- Their critique raised doubts about whether we can make credible welfare comparisons using SWB at all.

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But There's Progress

- A growing methodological literature seeks to **correct or circumvent** scale use biases.
- Examples:
  - *Liu and Netzer (2023 - AER)*: Response times contain information about the distribution of the latent SWB through a chronometric effect.
  - *Kaiser and Lepinteur (2025)*: Diagnostic tools to document risks of sign-reversal (among others) + evidence in favour of homogeneity within-category and quasi-linear scale use.
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- The field is moving toward more robust SWB measures and inferences.

Takeaway: The imperfections of SWB data are real, but not fatal. We are learning to work around them.

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Why Cognitive SWB Measures?

Normatively democratic

- No need for the researcher to aggregate across domains.
- People assess their lives according to their own values and priorities.

Empirical Performance

- Predict future outcomes (health, longevity, political behaviour, productivity).

Roadmap

A quick detour: Easterlin Paradox and Social Comparison

The Easterlin Paradox

- **Observation (Easterlin, 1974):** Post-WWII U.S. GDP per capita rose steadily, but average SWB did not.
- **Implication:** Something beyond absolute income gains may offset the benefits of growth.

Happiness is Relative

- **Clark et al. (2008):** Utility depends on comparisons: $U_i = U(X_i, X_j)$, not just $U(X_i)$.
- A rise in income boosts SWB, but if *everyone's* income rises, the relative position remains - and so the gain fades.

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When Are Others' Gains Bad or Good for You?

1. Jealousy (Envy) Effect

- Seeing others earn more or live better can **lower your SWB**.

2. Tunnel (Information) Effect

- **Hirschman (1973):** Others' gains may signal your *future opportunity*.
- Metaphor: Traffic jam - when the next lane moves, you feel hope.

Which Effect Dominates?

- It depends on:
  - Social mobility
  - Economic growth and expectations

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Detecting Social Comparison Effects in SWB

General Empirical Framework

A standard approach is to augment SWB regressions with **reference-group outcomes**:

$$SWB_{it} = \alpha + \beta_1 X_{it} + \beta_2 \overline{X}_{j,t} + \mathbf{Z}'_{it}\gamma + \mu_i + \lambda_t + \varepsilon_{it}$$

- X_{it}: own outcome (income, wealth, housing quality, etc.)
- $\overline{X}_{j,t}$: average outcome of a **reference group**
- Reference groups typically defined by age, education, region, cohort

Interpreting β_2

- $\beta_2 < 0$: **Comparison / Jealousy effect**
  - Others doing better lowers my SWB
- $\beta_2 > 0$: **Tunnel / Information effect**
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Social Comparison and Housing

Why Housing Is Special

- Housing is the **main component of wealth** for most households.
- Highly **visible**, spatially **localized**, difficult to conceal or downplay.

Theoretical implications for SWB

- **Absolute housing quality** is unambiguously linked to higher SWB
  - Comfort, space, security, and long-term stability
- **Relative housing quality** has **ambiguous effects** on SWB
  - Status and rank
  - Feelings of adequacy or deprivation
- As a result, housing wealth can generate:
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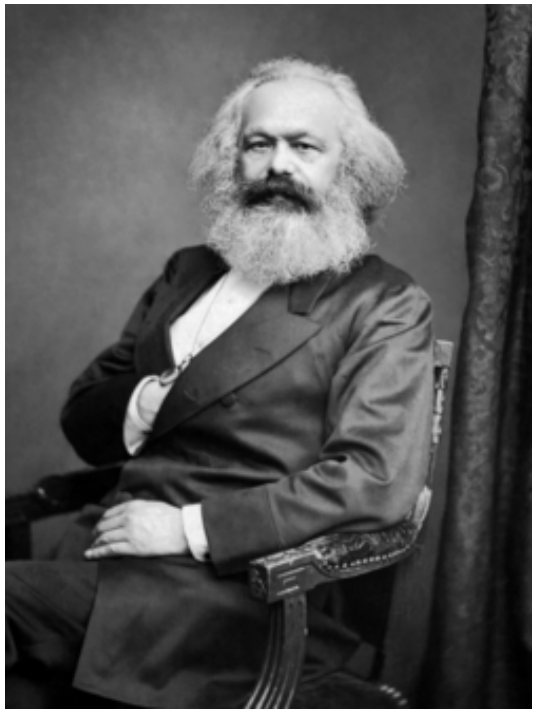
Someone Already Had an Opinion in 1847



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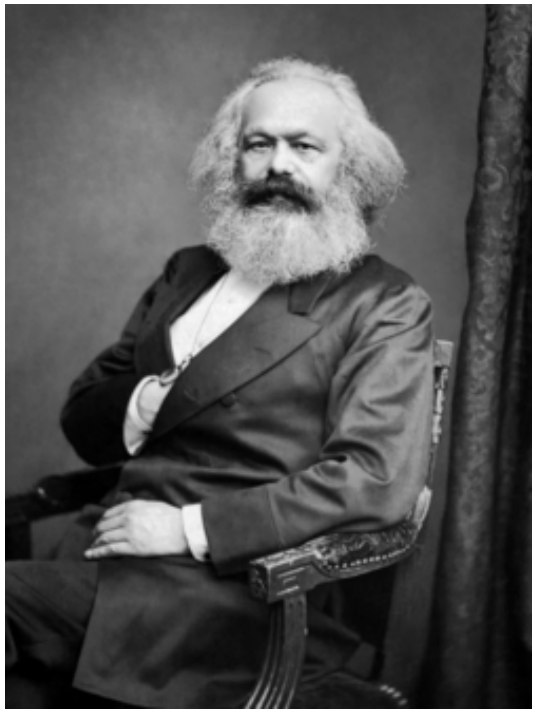

"A house may be large or small; as long as the neighboring houses are likewise small, it satisfies all social requirements for a residence. But let there arise next to the little house a palace, and the little house shrinks to a hut."

Karl Marx (1847)

What Comes Next: Three Empirical Illustrations

1. *D'Ambrosio, C., Jäntti, M., & Lepinteur, A. (2020):*
   - Show that **wealth matters for SWB beyond income**.
   - Real estate plays a central role.
2. *Bellet, C. S. (2024):*
   - Shows that the construction of large houses (*McMansions*) in U.S. suburbs **reduce housing satisfaction**.
   - Clean identification of **positional externalities** driven by visibility.
3. *Brokešová, Z., Cupak, A., Lepinteur, A., & Rizov, M. (2025):*
   - Uses interviewer-based ratings of housing quality in Slovakia to provide a **direct measure of relative housing status**.
   - Shows that relative housing position likely affects life satisfaction.

Together, these papers show how absolute housing and relative position jointly shape SWB.

D'Ambrosio, Jäntti & Lepinteur (2020)

Data - German Socio-Economic Panel (SOEP)

- Long-running household panel with economic and subjective data

Subjective Well-Being

- **Life satisfaction**, measured on a 0–10 scale

Wealth and Housing

- **Net wealth**: financial assets + real assets + private insurance + business assets + collectibles – debts

Permanent Wealth and Life Satisfaction

Table: Life Satisfaction at $t+1$: Permanent Income and Wealth

	(1)	(2)	(3)
Permanent income (5 years)	0.114***	0.043***	0.101***
	(0.012)	(0.010)	(0.011)
Comparison income			-0.040***
			(0.012)
More than comparison income			0.003
			(0.024)
Permanent wealth (over 5 years)	0.065***	0.039***	0.037***
	(0.012)	(0.010)	(0.010)
Comparison wealth			0.051***
			(0.012)
More than comparison wealth			0.050*
			(0.024)
Life satisfaction at t		0.515***	
		(0.011)	
Observations	11,295	11,295	11,295
Adjusted R^2	0.217	0.409	0.219

Notes: Standard errors in parentheses, clustered at the household level. Controls include age, age squared, gender, education, marital status, number of children, labour-force status, self-assessed health, region and year fixed effects. $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

The Risk of Inferring the Reference Group

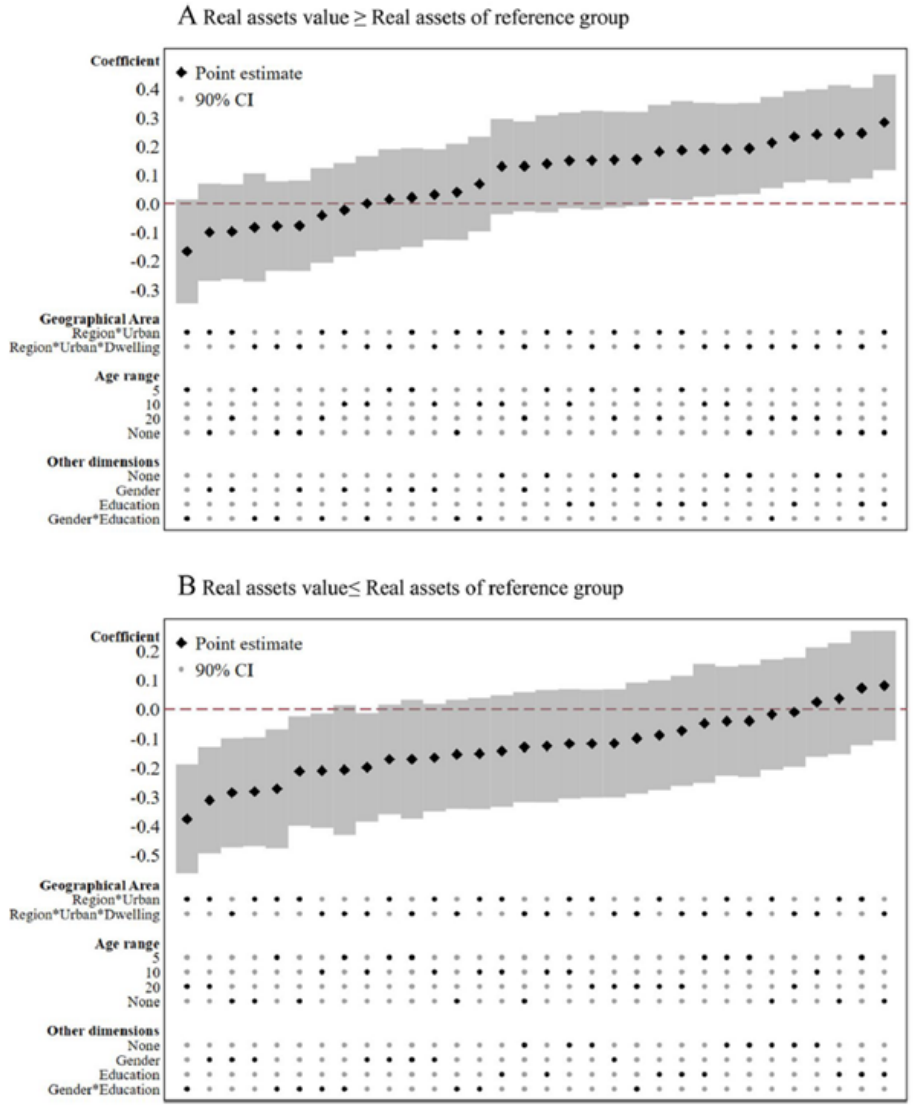

Fig. 3 Specification curves for relative effects of real assets using different reference groups. Source: HFCS 2017 – National Bank of Slovakia

Bellet, C. (2024)

Data - American Housing Survey (AHS)

- Repeated cross-sectional household panel in the US
- Matched with Zillow.com and road network data

Subjective Well-Being

- **House and neighbour satisfaction**, measured on a 1–10 scale

Wealth and Housing

- Absolute housing: Self-reported size of own house
- Relative housing: Visual exposure to McMansions in neighbourhood

What is a McMansion?

(a) Visible McMansions, Montgomery County (MD)

(b) Isolated McMansion, Montgomery County (MD)

(c) Visible McMansions, Washington County (PA)

(d) Isolated McMansion, Washington County (PA)

Fig. 1. Examples of McMansions on Zillow.com in traditional and affluent suburbs. Notes: Photos of McMansions featured on Zillow.com from a traditional suburb (Washington County, Pennsylvania) and a more affluent suburb (Montgomery County, Maryland). Each house is approximately 4500 square feet. McMansions in panels (a) and (c) are located close to roads, while those in panels (b) and (d) are situated in more isolated neighborhoods, away from the road network.

Defining Visual Salience

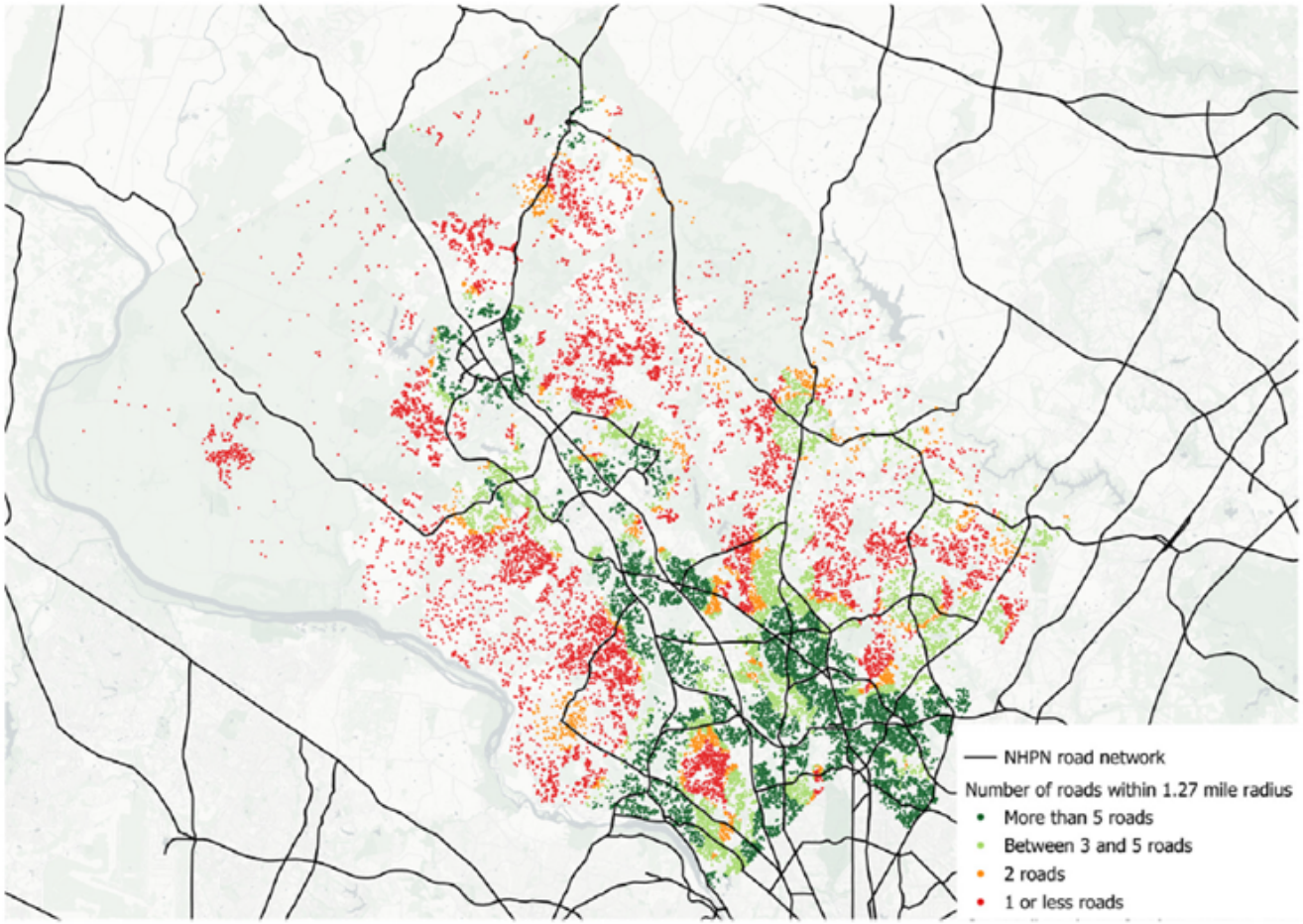

Fig. 3. Mapping of houses by visual salience (Montgomery County, MD). Notes: The figure illustrates the visual salience of each house in Montgomery County, Maryland, based on the number of roads within a 2 km (1.27-mile) radius (N = 22,144). Roads are defined according to the National Highway Planning Network (NHPN) and encompass national highway routes, rural and urban arterials, as well as rural and urban collectors. Houses are color-coded to indicate their visual salience: dark green houses are visually salient, falling in the top quartile with access to more than five roads, whereas red houses are more isolated and less visually salient, falling in the bottom quartile with access to only one road or none. (For interpretation of the references to color in this figure legend, the reader is referred to the web version of this article.)

McMansion and House Satisfaction

Table 2
Evidence of positional externalities in house size.

	Main effect						Placebo tests			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Ln(own size)	0.080***	0.054***	0.054***	0.055***	0.051***	0.051***	0.051***	0.051***	0.051***	0.051***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Ln(reference size)	−0.041***	−0.033***	−0.040***	−0.045***	−0.039***	−0.046***	−0.013	0.012	−0.003	−0.007
	(0.008)	(0.007)	(0.010)	(0.010)	(0.009)	(0.011)	(0.009)	(0.012)	(0.008)	(0.012)
σ coefficient	0.52***	0.62***	0.74***	0.82***	0.77***	0.90***	0.25	−0.24	0.06	0.13
	(0.09)	(0.14)	(0.19)	(0.18)	(0.18)	(0.22)	(0.18)	(0.23)	(0.15)	(0.24)
Observations	182,570	182,570	182,570	182,570	182,570	182,009	182,570	182,570	182,412	182,167
R^2	0.030	0.184	0.194	0.203	0.223	0.223	0.223	0.223	0.223	0.223
Controls:										
Household Controls	–	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Suburb × Year FEs	–	–	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tenure Period FEs	–	–	–	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Full House Controls	–	–	–	–	Yes	Yes	Yes	Yes	Yes	Yes
Placebo Reference Size Controls	–	–	–	–	–	Yes	–	–	–	–
Reference House Specification:										
Size Percentile	90th	90th	90th	90th	90th	90th	50th	10th	90th	90th
Visual Salience	High	High	High	High	High	High	High	High	Low	High
Post-Purchase	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No

Data - Household Finance and Consumption Survey (HFCS)

- Cross-sectional household panel with precise measures of wealth
- 2017 Slovakian sample includes paradata and SWB

Subjective Well-Being

- **Life satisfaction**, measured on a 0–10 scale

Wealth and Housing

- Absolute housing: Self-reported value of real assets
- Relative housing: Comes from paradata

Measuring Relative Housing: Paradata

What Are the Paradata?

- Data about the process by which the data were collected
- Prior to the interview, interviewers are asked to **assess the dwelling** relative to nearby homes.
  - The assessment is based on **direct visual inspection**:
  - Ratings are coded on an ordered scale (worse / about the same / better than surrounding dwellings).

Why This Measure Is Special

- It provides a **direct measure of relative housing position**, rather than an inferred one.
- It is based on what is **most salient and visible** to households: their immediate housing environment.

$\rightarrow$ *Paradata allow us to study housing comparisons using the same visual cues that shape everyday social comparison.*

Some Results

Table 2 Life satisfaction and real assets – OLS results

	Life satisfaction [0–10]			
	(1)	(2)	(3)	(4)
Net wealth (IHS)	0.111***			
	(0.023)			
Real assets (IHS)		0.118***	0.105***	0.096***
		(0.021)	(0.020)	(0.020)
Financial assets (IHS)		0.149***	0.094***	0.087***
		(0.019)	(0.020)	(0.019)
Mortgage debt (IHS)		0.024*	−0.015	−0.015
		(0.013)	(0.013)	(0.013)
Non-mortgage debt (IHS)		0.006	−0.008	−0.009
		(0.015)	(0.015)	(0.015)
Household income (IHS)			0.274***	0.263***
			(0.087)	(0.086)
Age			−0.129***	−0.127***
			(0.026)	(0.025)
Age squared			0.001***	0.001***
			(0.000)	(0.000)
University education			0.712***	0.651***
			(0.137)	(0.131)
Employed			0.409***	0.397***
			(0.152)	(0.149)
Male			−0.038	−0.029
			(0.133)	(0.131)
Household size			−0.177***	−0.184***
			(0.054)	(0.055)

Some Results

Table 3 Life satisfaction, real assets and relative dwelling quality – OLS results

	Life satisfaction [0–10]		
	OLS	OLS	OLS
	(1)	(2)	(3)
Real assets (IHS)	0.096***	0.087***	0.070***
	(0.020)	(0.020)	(0.016)
Relative dwelling quality compared to neighbours:			
Worse		−0.714***	−0.795***
		(0.152)	(0.132)
Better		0.162	0.275**
		(0.143)	(0.136)
Interviewer controls	No	No	Yes
Interviewer fixed effects	No	No	Yes
Adjusted R^2	0.205	0.220	0.369
Observations	2,149	2,149	2,149

Conclusion and Avenues for Future Research

Housing is both a **consumption good** and a **status good**.

1. Absolute Housing and SWB

- The positive housing–SWB gradient is fairly **uncontroversial**.
- What remains understudied are the **channels**:
  - security and perceived insurance against shocks; consumption services (space, comfort, amenities); credit constraints and access to opportunities; local public goods and neighbourhood quality
- *Open question:* Which mechanisms matter most, and for whom?

2. Relative Housing and Upward Comparisons

- Housing is a prime setting for **upward comparisons** because it is visible and local.
- This raises **political economy questions**:
  - Should policy mitigate positional externalities (zoning, property taxation, design rules)?
  - Should it focus on mobility and opportunity so that others' gains are not threatening?