



# Horizontal and vertical occupational mobility and their consequences for subjective well-being

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Seminar *Analytical Sociology: Theory and Empirical Applications*, San Servolo / Venice, November 2024



## Introduction

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- Look at selected links between...
- Occupational mobility  
-> here: *intra*generational / *career* mobility

and

- Subjective well-being (SWB)  
-> (a) *life* satisfaction  
-> (b) *job* satisfaction



## Introduction

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- An established topic...
- ...with **everyday plausibility**
- But:
- **Theoretical arguments** with **different predictions** of how mobility and SWB are related...
- Corresponding **empirical evidence** similarly mixed:  
E.g., *upward* moves associated with *positive*, *negative* or *no* effects on SWB...



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## Introduction

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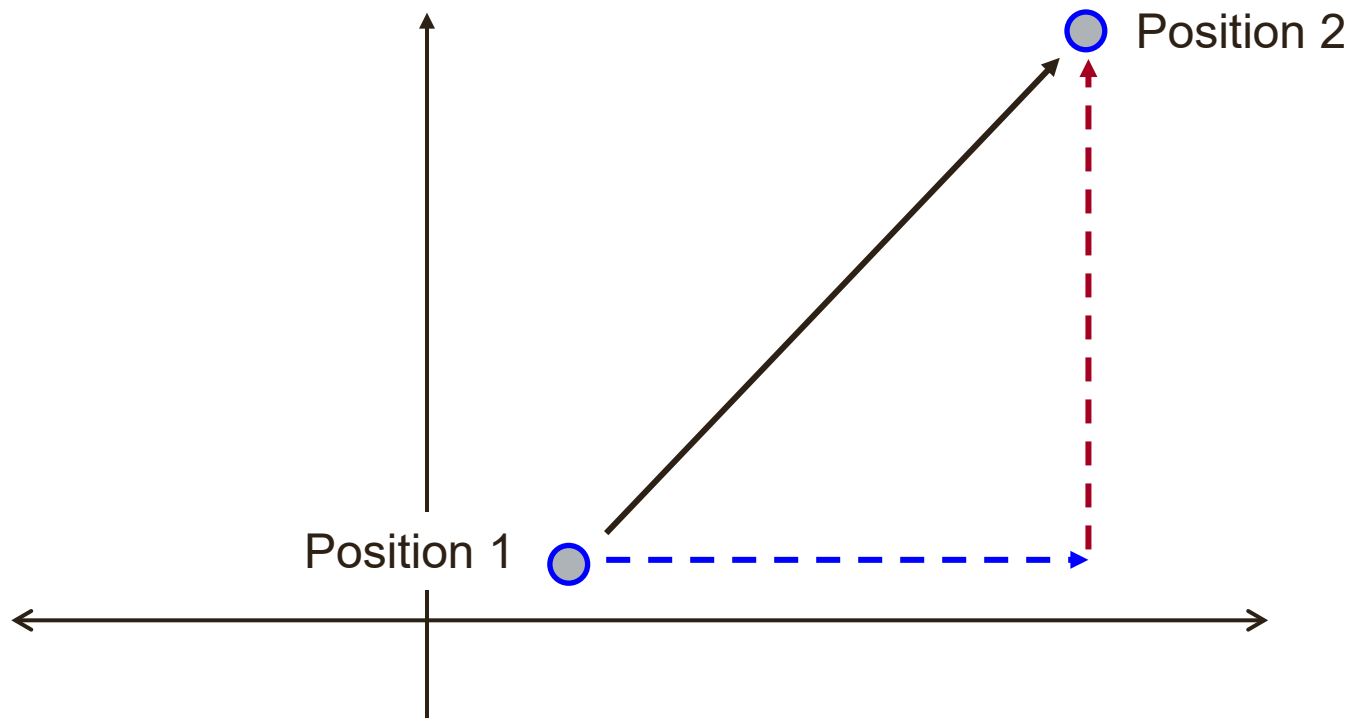
In this ongoing project, we...

- ...argue that some of these inconsistencies can be resolved when having a better understanding of different **aspects / dimensions** of occupational **mobility**
- ...analyse consequences of occupational mobility for SWB, distinguishing between **vertical** and **horizontal** aspects of **mobility**



## Occupational mobility

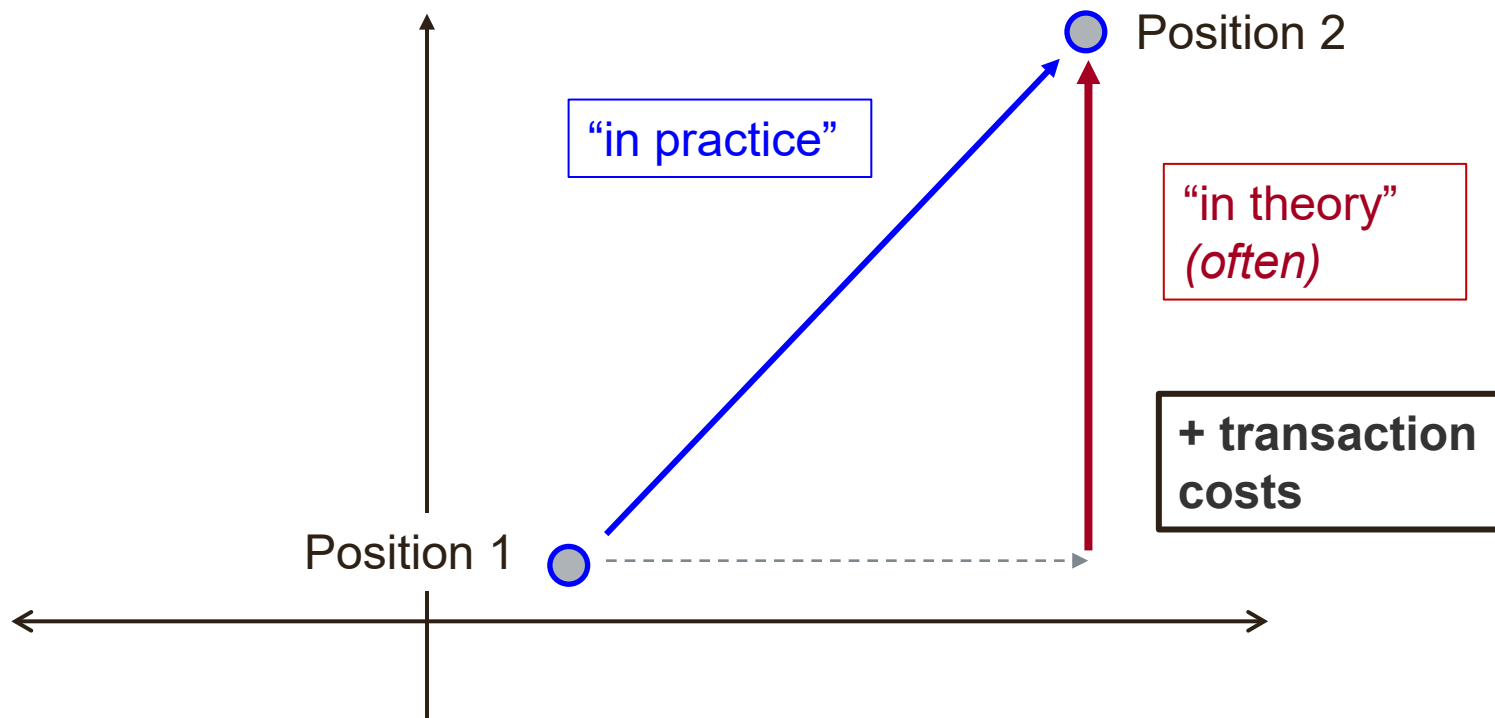
- Occupational moves are typically **combinations** of 'vertical' and 'horizontal' moves...





## Occupational mobility

- Occupational moves are typically combinations of ‘vertical’ and ‘horizontal’ moves...





## What is 'vertical', what is 'horizontal'?! ---

- ...not always clear...
- Especially 'horizontal' often used in a rather ambiguous way
- Allegedly 'horizontal' differences may be vertical differences in disguise...
  - > e.g. related to occupational tasks or fields of study...
  - > looking e.g. for corresponding income differences (!)



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## A **'vertical'** move...

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- ...is a move between two occupational positions where there is a social **consensus** about...

...a **(status) hierarchy** existing between the two positions





## An 'horizontal' move...

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- ...is a move between two occupational positions where there is no such consensus
- BUT: This does not mean that an individual may not have clear preferences about what is better or worse (for her personally)
- THAT IS why we can at all expect to find 'effects' on SWB...
- *E.g., I might prefer working with things over working with people*
- *Then, for me, a move between two corresponding positions may make a big difference, even if they are generally regarded as being on an equal level (e.g., same prestige)*
- *Someone else might of course feel the reverse...*



## Measurement of mobility dimensions

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- **‘Vertical’ mobility:** In principle, there are various possible dimensions
  - However, in practice, a few (income, prestige,...) are more important than others...
  - ...and they are highly correlated
- > we can (simply) assume to have one dominant vertical dimension
- 
- **‘Horizontal’ mobility:** There is a (large) number of possible dimensions...
- > there is probably not one single/dominant horizontal dimension



## (Vertical) mobility research

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- Occupations can be ordered hierarchically
- Hence, moves between them often imply a vertical movement
- BUT: If occupational moves are typically **combinations** of ‘vertical’ and ‘horizontal’ movements...
- ...seemingly (purely) ‘**vertical**’ mobility **effects** are probably a **combination** of **vertical and horizontal** effects *[to an unknown/ varying degree]*
- Often, only the vertical aspect is made visible/being discussed
- -> If possible, we would like to isolate **vertical** and/or **horizontal components** of occupational moves and to estimate their respective ‘**pure**’ effects...



## Theoretical arguments/mechanisms (applied to career mobility)

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- All mobility
- Change causes stress and potentially social isolation: e.g., *Dissociative hypothesis*: Sorokin 1959
- Movers adapt: e.g., *Acculturation hypothesis*: Blau 1956  
-> Relevance of current absolute **levels**
- Additional **transaction costs** / side effects of job changes...
- Vertical mobility
- Experience of gains/losses of resources and status: *Falling from grace hypothesis*: Newman 1988 / *Rising from rags hypothesis*: Gugushvili et al. 2019
- Horizontal mobility
- Moves towards/away from *individual preferences* with positive/negative effects



## Hypotheses

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- **Vertical** dimension: Net of transaction costs, upward mobility is beneficial for SWB whereas downward mobility is harmful
- **Horizontal** dimension: Net of transaction costs, horizontal mobility increases SWB (only) if it brings individuals closer to their individual preferences
- Effects of horizontal mobility and vertical mobility on SWB may not only **add** to / **compensate** each other in specific choices (e.g., preferred job content vs. status loss) but also **interact** with each another ('perfect matches'/'double burden' etc. ...)



## Data & analytical strategy

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- **Two steps:**
  - **(1)** Data from a large German employment survey (*BIBB/BAuA Working Population Survey*)
    - includes workers' subjective assessments of their work content
      - > characterise occupations along horizontal dimensions that are set orthogonal to a vertical dimension of stratification
  - **(2)** This occupational information merged to longitudinal data from the *German Socioeconomic Panel (GSOEP)*
    - > analyse effects of occupational moves on individuals' life satisfaction and job satisfaction



## (1) Work content: Task dimensions and corresponding indicators

- Specific module in *BIBB/BAuA Working Population Survey*
- Describing current job / occupation
- Task-based approach (Autor et al. 2003)

5 task dimensions	Indicators
Non-routine analytic	Developing; researching; designing; gathering information
Non-routine interactive	Buying/selling; marketing; organizing; teaching
Routine cognitive	Measuring; controlling; quality checks
Non-routine manual	Fabricating/producing; controlling of machines; cleaning
Routine manual	Repairing/patching; serving/creating dishes; nursing/healing

Basis: 2011/2012 BIBB/BAuA Working Population Survey



## (1) Occupation-level analyses

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- N = 20,036 individuals / jobs
- CFA -> 5 latent task variables (factor scores) / occupation
- Regress 5 task variables on a 'vertical dimension'
- **Vertical dimension** <- occupational prestige (income, education)
- -> generate **5 variables** (task-specific residuals) as '**horizontal**' occupation-level (ISCO-88, 3-digit) indicators





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## (2) Individual-level analyses

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- Waves 2006-2019 of the *German Socio-Economic Panel* (GSOEP)  
-> occupational mobility for pairs of consecutive waves
- Occupational mobility effects on individuals' **life satisfaction** and **job satisfaction**
- Descriptive analyses and person fixed-effects (FE) linear regressions



## Sample description (GSOEP)

	<b>N=</b>	<b>mean</b>	<b>sd</b>	<b>min</b>	<b>Max</b>
<b>Survey year</b>	92,561	2012.42	3.18	2007	2017
<b>Life satisfaction<sup>1</sup></b>	92,561	7.27	1.58	0	10
<b>Job satisfaction<sup>1</sup></b>	92,561	7.09	1.95	0	10
<b>Vertical mobility (standardised)</b>	92,561	0.27	1.42	-2.53	3.35
<b>Vertical mobility (stand.) difference score</b>	92,561	0.03	0.61	-6.81	7.55
<b>Horizontal mobility (City Block, residualised, standardised)</b>	89,816	-0.30	0.61	-0.44	7.60
<b>Age (years)</b>	92,561	45.20	11.10	18	90
<b>Age squared</b>	92,561	2166.33	994.16	324	8100
<b>Education and training (in years)</b>	92,561	12.86	2.75	7	18
<b>Reason for end of job<sup>2</sup></b>	92,561			0	2
<b>Marital status: stable relationship</b>	92,561	0.63	0.48	0	1
<b>Number of children &lt; 16yr</b>	92,561	1.01	1.12	0	12
<b>Current health status<sup>3</sup></b>	92,561	3.56	0.85	1	5

<sup>1</sup> Categories: 0 'Not at all satisfied' ... 10 'Very satisfied'.

<sup>2</sup> Categories: 0 'No reported change of job'; 1 'Involuntary change of job'; 2 'Voluntary change of job'.

<sup>3</sup> Categories: 1 'Bad'; 2 'Poor'; 3 'Satisfactory'; 4 'Good'; 5 'Very good'.

Basis: GSOEP 2007-2019



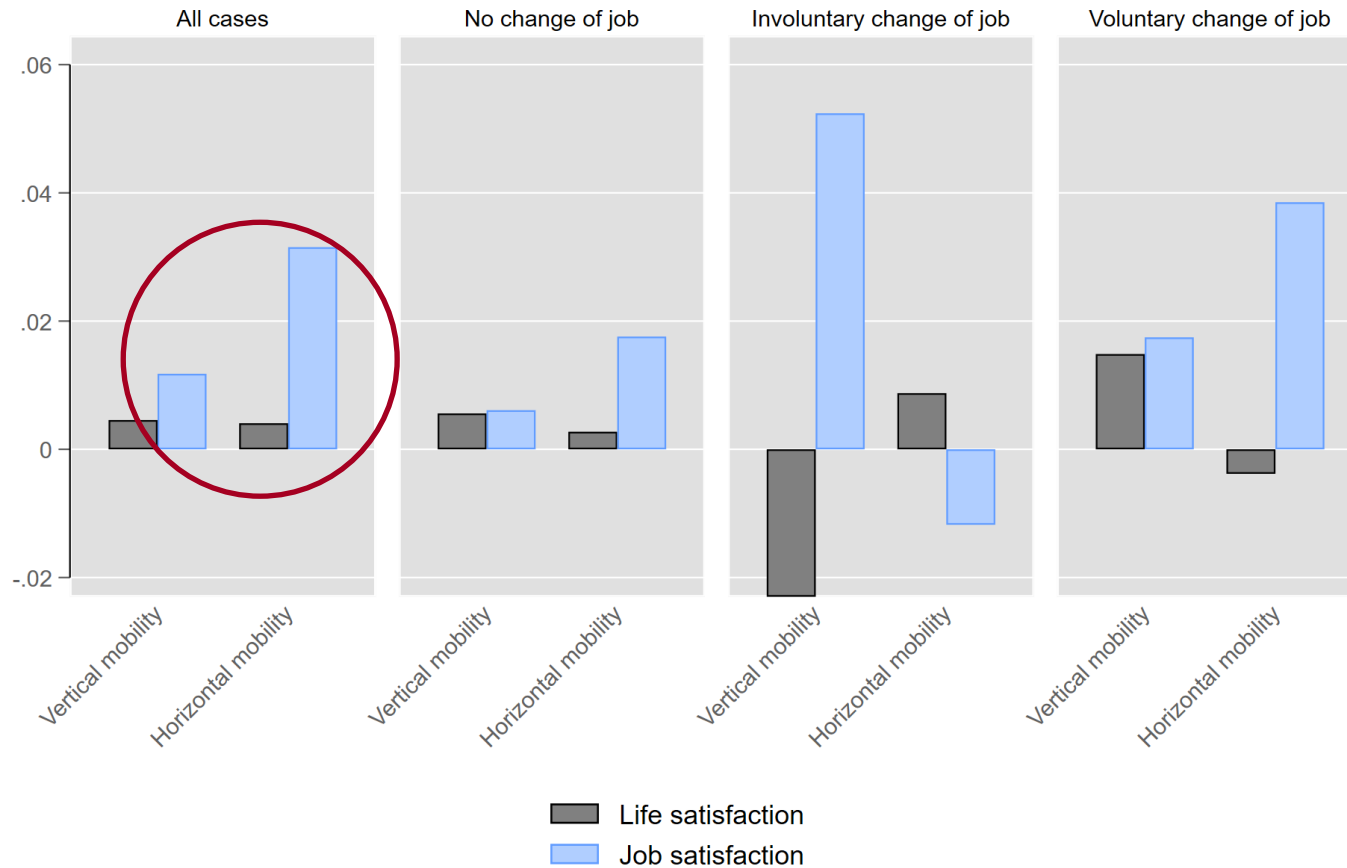
## (2) Individual-level analyses

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- **Vertical** mobility
  - wave-specific difference scores for the occupation-level latent variable of vertical stratification
- **Horizontal** mobility
  - wave-specific difference scores for each of the **5 job-task-specific** variables
    - > all difference scores standardized and *city-block distance* between them computed
  - -> A **single metric** for **horizontal mobility**
- No direct information about individual preferences
  - -> **voluntary** vs. **involuntary** job changes as a **proxy** for move towards/away from preferences

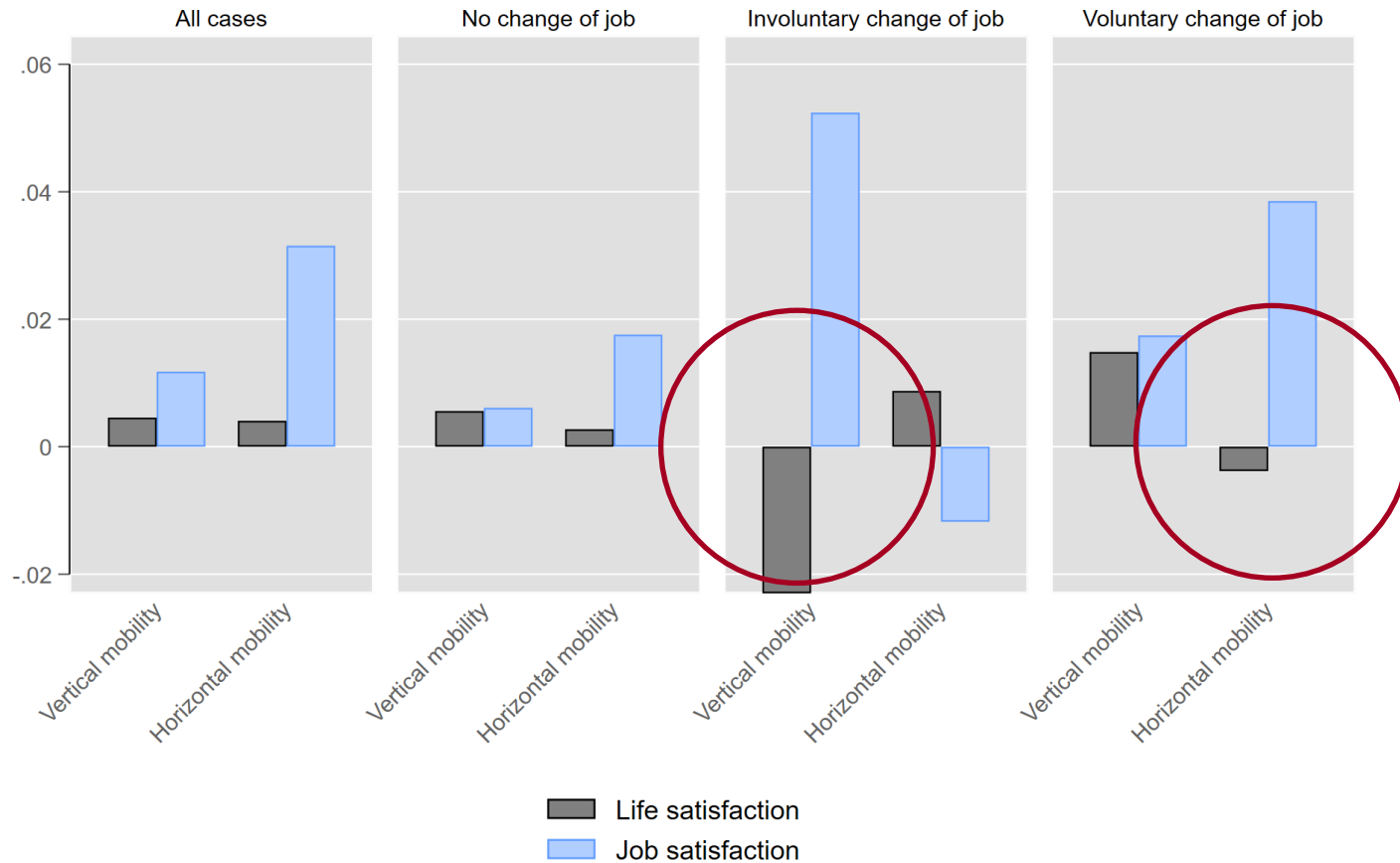


## Correlations between mobility types and two dimensions of SWB





## Correlations between mobility types and two dimensions of SWB





## FE panel analyses of vertical and horizontal social mobility effects on life satisfaction

	Model 1a	Model 1b	Model 1c	Model 1d	Model 1e	Model 1f
Intercept	7.245***	7.262***	7.091***	7.290***	7.372***	7.150***
Vertical stratification (standardised)	-0.006	-0.008	-0.009	-0.008	-0.007	-0.007
Vertical mobility (stand. diff. score)	0.029***	0.017	0.017	0.017	0.016	0.016
Horizontal mobility (City Block, residualised, stand.)		0.029***	0.029***	0.029***	0.029**	0.030***
Age			0.006	0.008	0.014	0.014
Age <sup>2</sup>			-0.000	-0.000	-0.000	-0.000
Education (years)				-0.019	-0.023	-0.024
Marital status: stable relationship					-0.142***	-0.141***
Number of children < 16yr					-0.016	-0.016
Current health						0.062***
N=	92,561	89,816	89,816	89,816	89,816	89,816
AIC	248467	239762	239766	239766	239713	239613
BIC	248580	239884	239907	239916	239882	239791
R <sup>2</sup>	0.00	0.00	0.00	0.00	0.01	0.01

Note: All analyses include controls for survey years. Significance levels (two-tailed): \* ( $p < 0.05$ ); \*\* ( $p < 0.01$ ); \*\*\* ( $p < 0.001$ ).



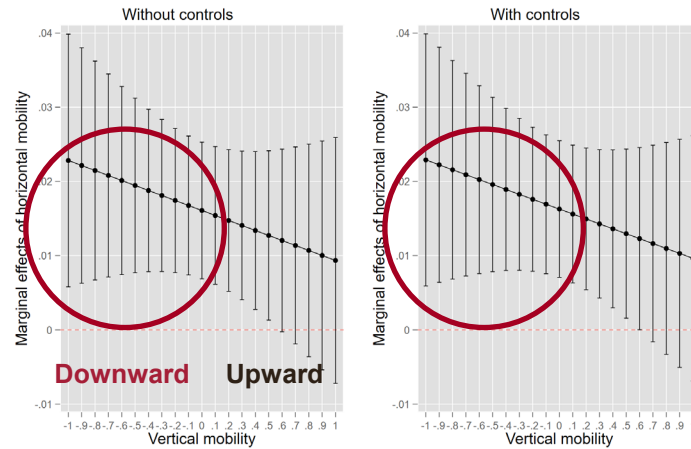
## FE panel analyses of vertical and horizontal social mobility effects on job satisfaction

	Model 2a	Model 2b	Model 2c	Model 2d	Model 2e	Model 2f
Intercept	7.132***	7.181***	7.905	8.046	7.915	7.640
Vertical stratification (standardised)	0.031	0.032	0.032*	0.033*	0.033*	0.032*
Vertical mobility (stand. diff. Score)	0.012	-0.004	-0.004	-0.005	-0.005	-0.005
Horizontal mobility (City Block, residualised, stand.)		0.161***	0.161***	0.161***	0.162***	0.163***
Age			-0.022	-0.020	-0.025	-0.024
Age <sup>2</sup>			0.000	0.000	0.000	0.000
Education (years)				-0.014	-0.007	-0.008
Marital status: stable relationship					0.073	0.075*
Number of children < 16yr					0.030	0.030
Current health						0.077***
N=	92,561	89,816	89,816	89,816	89,816	89,816
AIC	304184	293382	293385	293386	293374	293289
BIC	304297	293504	293526	293537	293543	293467
R <sup>2</sup>	0.00	0.00	0.00	0.00	0.00	0.01

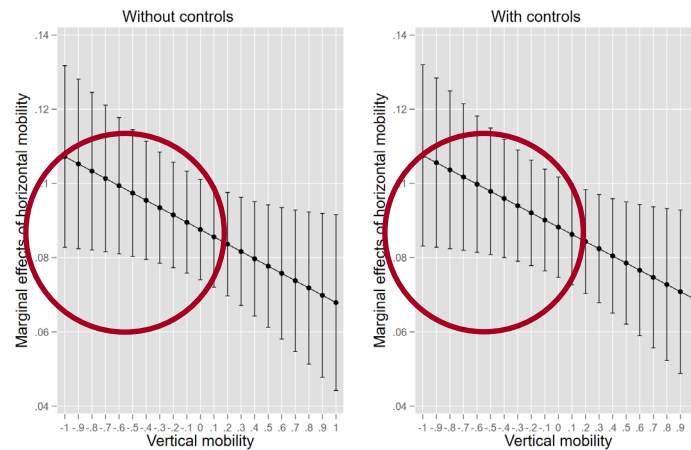
Note: All analyses include controls for survey years. Significance levels (two-tailed): \* ( $p < 0.05$ ); \*\* ( $p < 0.01$ ); \*\*\* ( $p < 0.001$ ).



## Interactions between horizontal mobility and vertical mobility



Life satisfaction

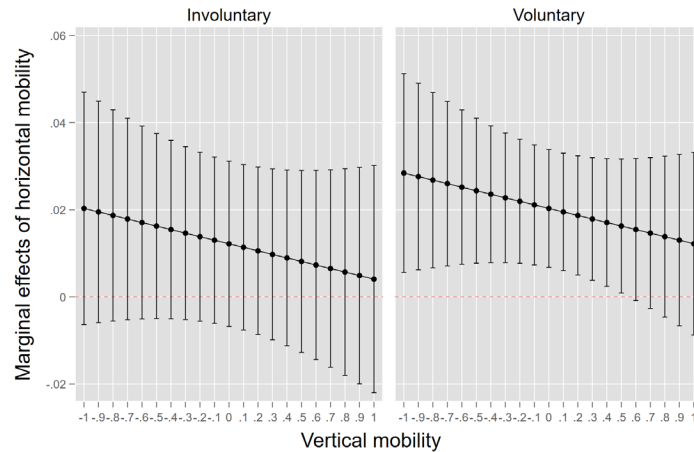


Job satisfaction

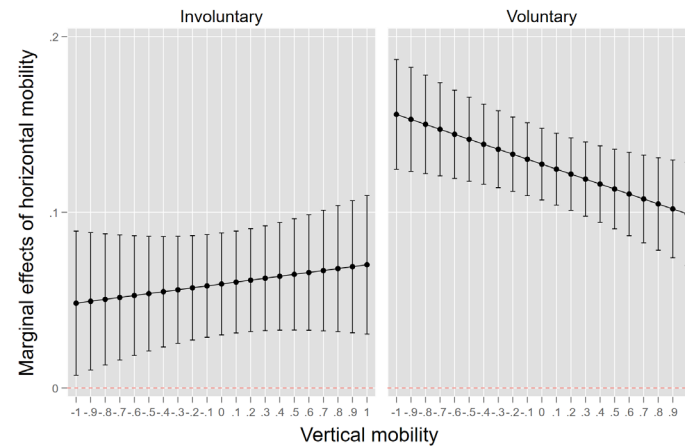




## Interactions between horizontal and vertical mobility and reason for job change



Life satisfaction



Job satisfaction



## (Preliminary) summary

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- **Dimensions of SWB**: Effects on **job** satisfaction ~ clearer than those on **life** satisfaction
- **Vertical** mobility: ~ no visible net effects (beyond level!)
  - -> Current situation >> experience of move
  - -> rel. quick adaptation...
  - -> Seemingly full 'vertical' mobility only partly vertical...
- **Horizontal** mobility: Positive effects, particularly when job moves are voluntary
- Some interactions



## Horizontal mobility

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- So far, one **aggregate measure** of (multidimensional) horizontal mobility
- OK as a measure of ‘objective change’
- BUT: Movement on some dimensions may go **towards** individual preferences, on others it may go **away from** them
- Transaction costs/side effects:
  - -> Threshold for mobility effects?
  - -> Better control for other potentially changing conditions/ circumstances



## Life satisfaction vs. job satisfaction

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- As two measures of SWB,
  - life satisfaction and job satisfaction may be more different than expected...
  - Cf. benefits and costs of occupational moves...
  - Possible trade-offs: job vs. 'life' (*"better job, more stress"*)
  - *Benefits may load more on job satisfaction, costs more on life satisfaction, etc.*
  - ALSO: possible trade-offs within couples/households
  - „Who earns the benefits of the career...? vs. Who takes the burdens...?
- > Look at SWB also of household members!



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## (Preliminary) conclusions & outlook

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- Better distinguish between **vertical** and **horizontal** aspects in occupational mobility...
- In particular: clarify '**horizontal**' dimensions...
- ...also relevant in *inter-generational* mobility?
- Time horizon: See **short-term** vs. **longer-term** perspectives
- -> speed of adaptation?
- -> longer-term developments?



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## Questions & comments...

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