

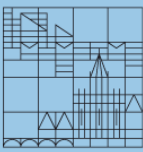


Presentation of Research Interests

Thomas Hinz (University of Konstanz)

Taras Shevchenko National University of Kyiv

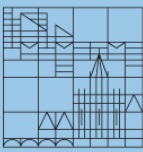
June 11th, 2013



Who is talking to you?

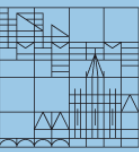
- since 2004 Professor of Sociology (University of Konstanz)
- Methods of Empirical Social Research, Survey Methodology
- Labor Market Studies, Social Inequality
- Sociology at Konstanz: Eight Professorships
- EXC16: Cultural Foundations of Social Integration

- since 2010 Dean of the Humanities



Who is talking to you?

- Projects at my research group
- Precarious employment and regional mobility
- Fairness of earnings
- Discrimination in markets

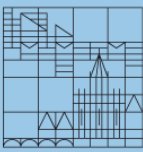


Contexts and Conditions of Ethnic Discrimination: Evidence from a Field Experiment in a German Housing Market

Thomas Hinz (University of Konstanz)

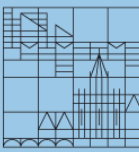
Taras Shevchenko National University of Kyiv

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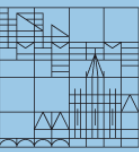
Outline

- Discrimination in Housing Markets
- Previous Research on Discrimination in Housing Markets
- Hypotheses
- Data and Methods
- Results
- Summary



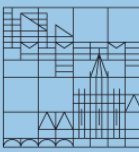
Discrimination in Markets as Research Topic

- At UKon, discrimination in markets is a research field to which different disciplines contribute (economics, psychology, sociology).
- My research group focuses on two matching markets:
 - Labor market: pay gaps and social (in)justice
 - Housing market: access to rental housing by ethnicity
- Discrimination correlates with patterns of market segregation. Direct discrimination (unequal treatment of equals) is abandoned in a completely segregated market.
- This is joint work with Katrin Auspurg and Laura Schmid.



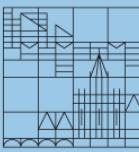
Discrimination in Housing Markets

- An individual's place of residence has serious impacts on individual well-being and on social stratification.
- In Germany, most people live in rental housing. In particular, migrants are often bound to rental housing.
- How are people matched to their place of residence?



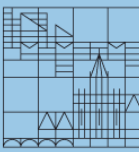
Discrimination in Housing Markets

- Three different aspects of discrimination:
 1. *Exclusion* – general access to housing is denied to members of certain ethnic groups.
 2. *Spatial segregation (steering)* – housing is mainly available for members of ethnic groups in specific areas where members of these groups already live.
 3. *Discrimination by price* – members of the discriminated group are more likely to be accepted for comparably expensive rental housing.
- These aspects are interrelated. Exclusion fosters spatial segregation and spatial segregation itself drives higher prices for a comparably worse housing for the discriminated group.



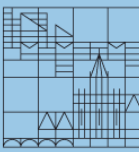
Previous Research on Discrimination in Housing Markets

- There is ample evidence for the existence of ethnic discrimination in housing markets based on studies conducted with several methods, such as reported data on discrimination (survey), regression analyses (survey, register data), and experimental design, mostly in terms of situation tests resp. audits (in-person audits, audits per telephone).
 - For the US: Yinger, 1986; Galster, 1990; Ondrich et al., 2000; Turner et al. 2002; Pager and Shepherd, 2008; overviews: Harrison, 1995; Ross and Turner, 2005.
 - For Europe: e.g. Clark and Drever, 2001; European Union Agency for Fundamental Rights, 2009; Will, 2003; Safi, 2010.



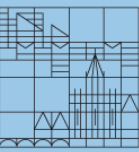
Previous Research on Discrimination in Housing Markets

- But: most of these methods suffer from potential bias, e.g. caused by misperception or unobserved different characteristics of the auditors.
- Possible alternative: correspondence testing via email inquiries varying ethnic background of (fictional) applicants.
 - U.S.: Carpusor and Loges, 2006; Ewens et al., 2009; Friedman et al., 2010; Hanson and Hawley, 2011. Europe: Ahmed and Hammarstedt, 2008; Ahmed et al., 2010; Baldini and Federici, 2010; Bosch et al., 2010
- There exists no reliable study of ethnic discrimination for Germany.
- In the following: focus on Turkish migrants (largest group, cultural distance).



Theoretical Discussion

- Mainly, two approaches dominate discrimination research.
 - Taste-based discrimination refers to prejudice. In a competitive market discriminators are penalized, they have to pay a premium to realize their taste.
 - Statistical discrimination, however, is based on missing information on an individual. Because of the missing information, the individual is treated as a member of a group which typical characteristics (e.g. mean values) are known.
- In housing markets, both kinds of discrimination may play a role.
- Residential segregation is at least partly rooted in individual preferences on neighborhoods and their ethnic composition.

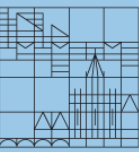


Hypotheses on Ethnic Discrimination

- **Hypothesis 1** on discrimination in general access (exclusion):
Applications for rental housing from persons with a Turkish name will experience discrimination in receiving fewer responses than applications from persons with a German name.

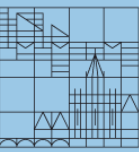
If **taste-based discrimination** is in operation, the difference will not be moderated by additional valuable information (such as the occupational status of the applicants).

If **statistical discrimination** is in operation, the difference in response rates will be markedly affected by additional information on the applicants.



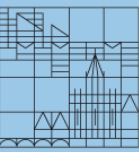
Hypotheses on Ethnic Discrimination

- **Hypothesis 2** on spatial segregation (steering): Discrimination rates differ by the proportion of foreign population in residence. The discrimination of Turkish applicants should be highest when the proportion of foreign residents is lowest.



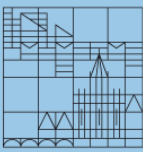
Hypotheses on Ethnic Discrimination

- **Hypothesis 3:** Discrimination by price: Assuming that migrants have restricted access to housing and landlords know this and use this information to receive higher rents for stable rented objects, migrants should have lower response rates compared to non-migrants for relatively reasonable offers and experience less discrimination for relatively high priced offers.



Study Design

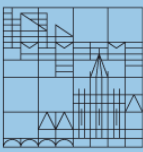
- Our study experimentally varied the information on the applicants in the email inquiries and used additional information on the rental units as well as on their neighborhoods.
- The inquiries reacted to ads for rental housing in a local housing market.
- Besides the *name of the applicant* (German or Turkish), the *occupation* (indicating an either high or low status), and *marital status* (married or single) were varied using six similar, but slightly different text versions.
- All dimensions were crossed independently, so there was no correlation between them.



E-Mail Inquiry (Example)

“Dear Mrs./Mr., I am interested in the offered apartment no. *XXX*. Currently I am *single* and I am working as *a construction engineer*. I would be very grateful if you could offer me a showing and further information of the apartment. Kind regards, *Selim Aksoy*”.

(Translated version of the German original; the varied variables are in italics).



Setup

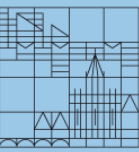
- For each unit of observation (advertised apartment), one pair of applications (German and Turkish applicant) was sent within one hour. The sending order (German/Turkish) was randomized.
- The status level of occupation (low or high) was kept constant for each pair.
- In advance, further information on the apartments (address and quality aspects) were collected by a brief standardized phone interview (screening).
- For each inquiry, it was recorded if there was any response at all (and some other qualitative information).



Names (Examples)

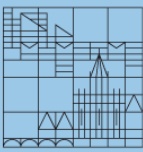
German vs. Turkish names (e-mail accounts); in both groups, 48 names with email providers (e.g. gmx), male names only:

Carsten Steiger	Cem Güteryüz
Stefan Gerstman	Burhan Özdemir
Manfred Koch	Osman Yılmaz
Phillip Schönfeld	Selim Aybay
Peter Steinbach	Salam Özcelic
Ralf Herzog	Kenan Sönmez
Sebastian Helmbold	Ferat Akkas
Nico Lange	Ibrahim Bulat
Jan Münscher	Deniz Yetim



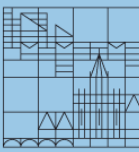
Setup

- Registering of advertisements for rental apartments (2-3 rooms) in daily newspapers and online platforms.
- 637 apartments were successfully screened.
- Data collection in 2007 and 2008 in city of Munich.
- Housing market in Munich with a huge excess in demand.
- Dependent variable in the remainder: response rate (automatically sent response e-mails were excluded).



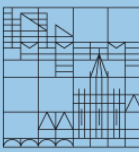
Additional Data

- The additional information gathered in the screening contained the location of the apartments (often not mentioned in the ad text). This allowed to collect context information on the apartment (e.g. proportions of foreigners in the neighborhood).
- The proportion of foreign residents in the neighborhood was grouped into three terciles (FP1: lower third, FP2: medium third, FP3: upper third)
- The lower third of objects was located in regional units with a proportion of foreign residents lower than 18.5%. The regions of the upper third of objects exceeded a proportion of 24.3% foreign residents.



Additional Data

- The rent was regressed on the number of rooms and a set of dummy variables indicating the borough where the object was located. The deviance between the estimated rent and the actual rent was grouped into three terciles as well (UP: underpriced, MP: medium difference, and OP: overpriced).
- The lower third of objects (“underpriced”) were offered at least €1.06/sqm below the estimated price given the information on the number of rooms and location. The observed rent for the upper third of objects exceeded the estimated rent by at least €0.38/sqm.



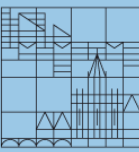
Data Analysis

- To describe the extent of discrimination, the concepts of gross and net discrimination rates are applied.

$$\text{Gross discrimination} = P_{10} = \frac{N(\text{majority gets answer, minority gets no answer})}{N(\text{all inquiries})} \quad (1)$$

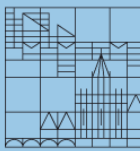
$$\text{Net discrimination} = P_{10} - P_{01} = P_{10} - \frac{N(\text{minority gets answer, majority gets no answer})}{N(\text{all inquiries})} \quad (2)$$

- On this level of analysis, all (unobserved) apartment and landlord characteristics are the same for both inquiries and therefore ruled out as an explanation for unequal treatment.



Data Analysis

- For testing hypotheses, multinomial regression on the apartment level were used to estimate the likelihood of three different outcomes:
 - the likelihood that both inquiries receive responses respectively both inquiries do not receive responses (equal treatment),
 - the likelihood that only the German applicant,
 - and the likelihood that only the Turkish applicant receives a response.
- Marital status, sending order, and level of regional aggregation were used as controls.



Results

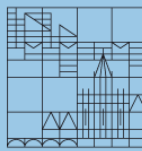
Response rate for e-mail correspondence tests (unit of analysis: apartments in ads)

Response received

	Turkish applicant		Total
	No	Yes	
German applicant			
No	155 (24.3)	34 (5.3)	189
Yes	90 (14.1)	358 (56.2)	448
Total	245	392	637 (100.00)

Gross discrimination rate: $90/637 = 0,141$.

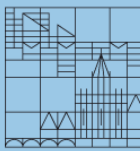
Net discrimination rate: $(90-34)/637 = 0,088$.



Response rate for e-mail correspondence tests (unit of analysis: apartments in ads) by occupational status

Response received							
Low status				High status			
Turkish applicant				Turkish applicant			
German applicant	No	Yes	Total	German applicant	No	Yes	Total
No	84 (26.3)	17 (5.3)	101	No	71 (22.4)	17 (5.4)	88
Yes	57 (17.8)	162 (50.6)	219	Yes	33 (10.4)	196 (61.8)	229
Total	141	179	320	Total	104	213	317

Dichotomous variable for status: low (brick layer, motor mechanic, roofer) versus high (construction engineer, computer scientist, medical assistant). For **low status** occupations: gross discrimination rate is $57/320 = \mathbf{0.178}$ and net discrimination rate is $(57-17)/320 = \mathbf{0.125}$; for **high status** occupations: gross discrimination rate is $33/317 = \mathbf{0.104}$ and net discrimination rate is $(33-17)/317 = \mathbf{0.051}$.



Results

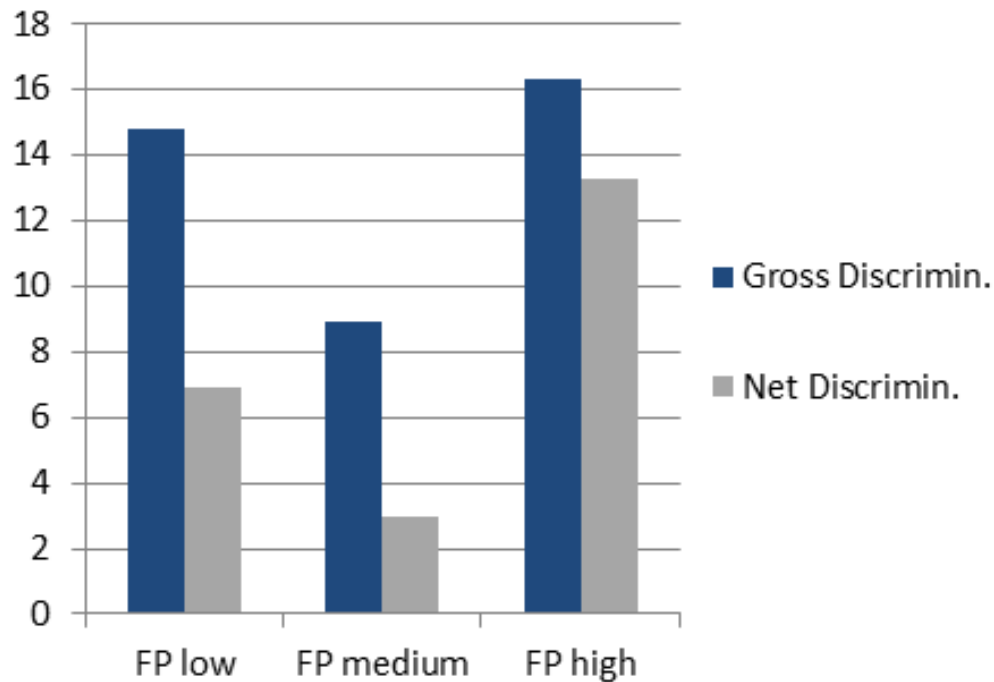
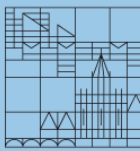
Probability of responses, average marginal effects after multinomial logistic regression: independent variable: occupational status (marital status and sending order as controls)

Pseudo R²=0.0217, N=637

	Equal treatment	Only German received answer	Only Turk received answer
Occupational Status (high)	0.0756 (0.0316)*	-0.0753 (0.0282)**	-0.0003 (0.0176)

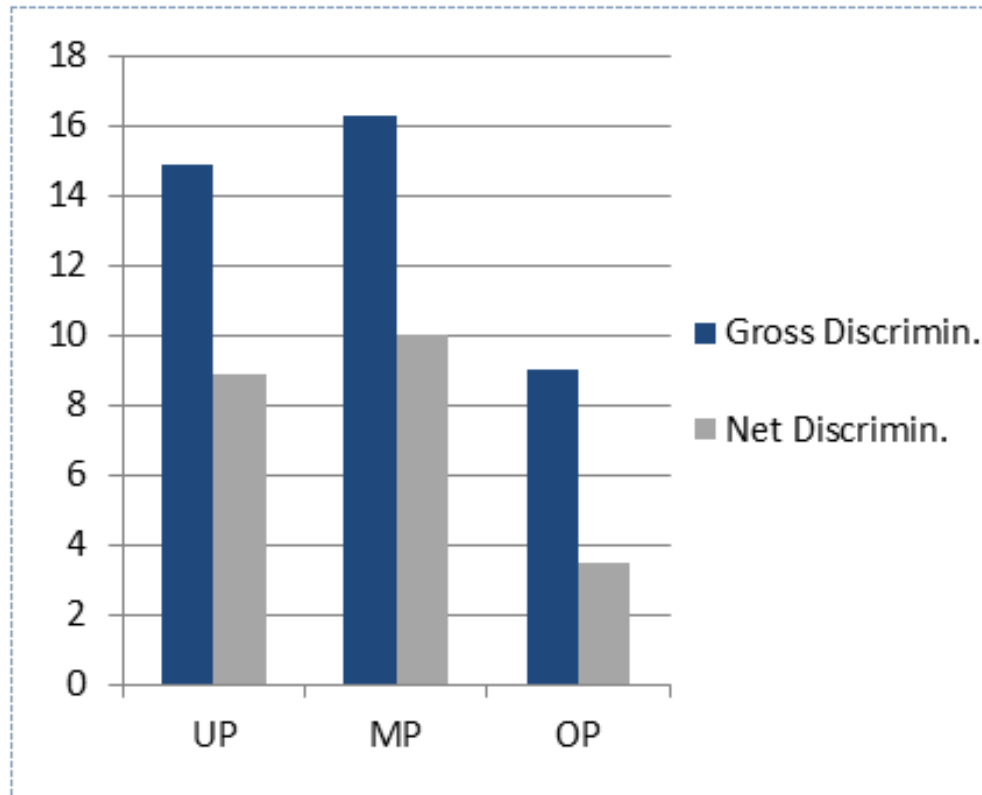
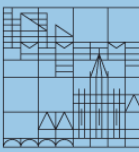
** p ≤ .01: * p ≤ 0.05

Dichotomous variable for status: low = 0 (brick layer, motor mechanic, roofer); high = 1 (construction engineer, computer scientist, medical assistant).



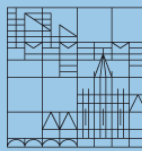
Gross and net discrimination rates by proportions of foreign population (FP; lowest, medium and highest tercile).

Tests for differences of net discrimination rates between the grouping variables revealed the following results: FP low against FP medium ($p = .067$), FP medium against FP high ($p = .000$), FP low against FP high ($p = .032$).



Gross and net discrimination rates by proportions of price level (over-, medium or underpriced: OP, MP, UP).

Tests for differences of net discrimination rates between the grouping variables revealed the following results: UP against MP ($p = .505$), MP against OP ($p = .016$), UP against MP ($p = .075$).



Probability of response, average marginal effects after multinomial logistic regression: independent variables: occupational status, proportion foreigners, price level (marital status, level of regional aggregation and sending order as controls)

Pseudo R² = 0.0549, N=605

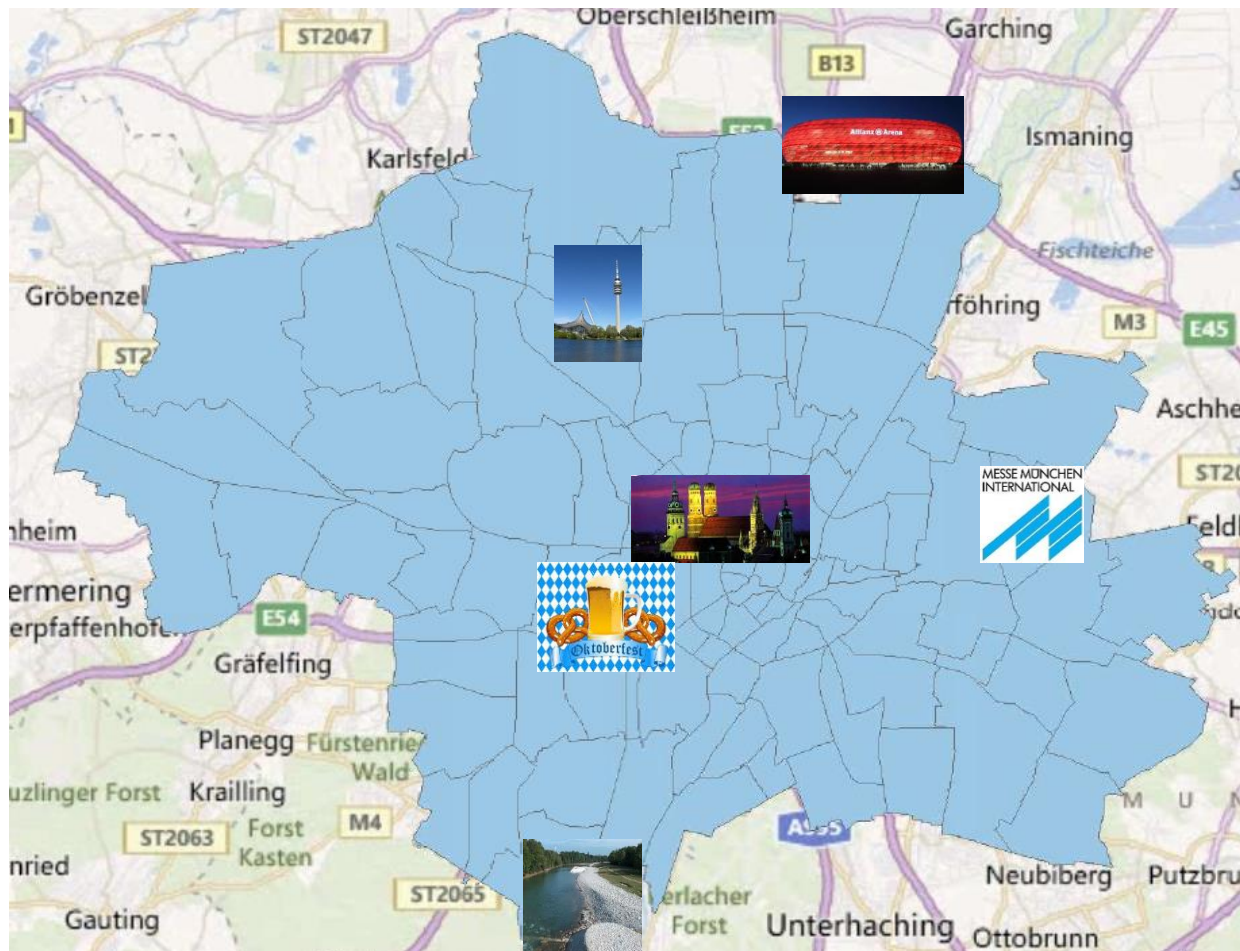
	Equal treatment	Only German received answer	Only Turk received answer
Occupational Status (high)	0.0568 (0.0318) [°]	-0.060 (0.0279)*	-0.0034 (0.0185)
Proportion Foreign (low)	-0.0791 (0.0384)*	0.0609 (0.0318) [°]	0.0182 (0.0255)
Proportion Foreign (high)	-0.0475 (0.0377)	0.0784 (0.0322)*	-0.0309 (0.0208)
Underpriced	0.0027 (0.0403)	-0.0082 (0.0355)	0.0055 (0.0232)
Overpriced	0.0698 (0.0377) [°]	-0.0671 (0.0326) [°]	-0.0027 (0.0223)

** p ≤ .01; * p ≤ .05; ° p ≤ .10

Dichotomous variable for status: low 0 (brick layer, motor mechanic, roofer); high 1 (construction engineer, computer scientist, medical assistant). Dummy variables for proportion foreigners (reference: medium third); dummy variables for price level (reference: medium third of residuals).

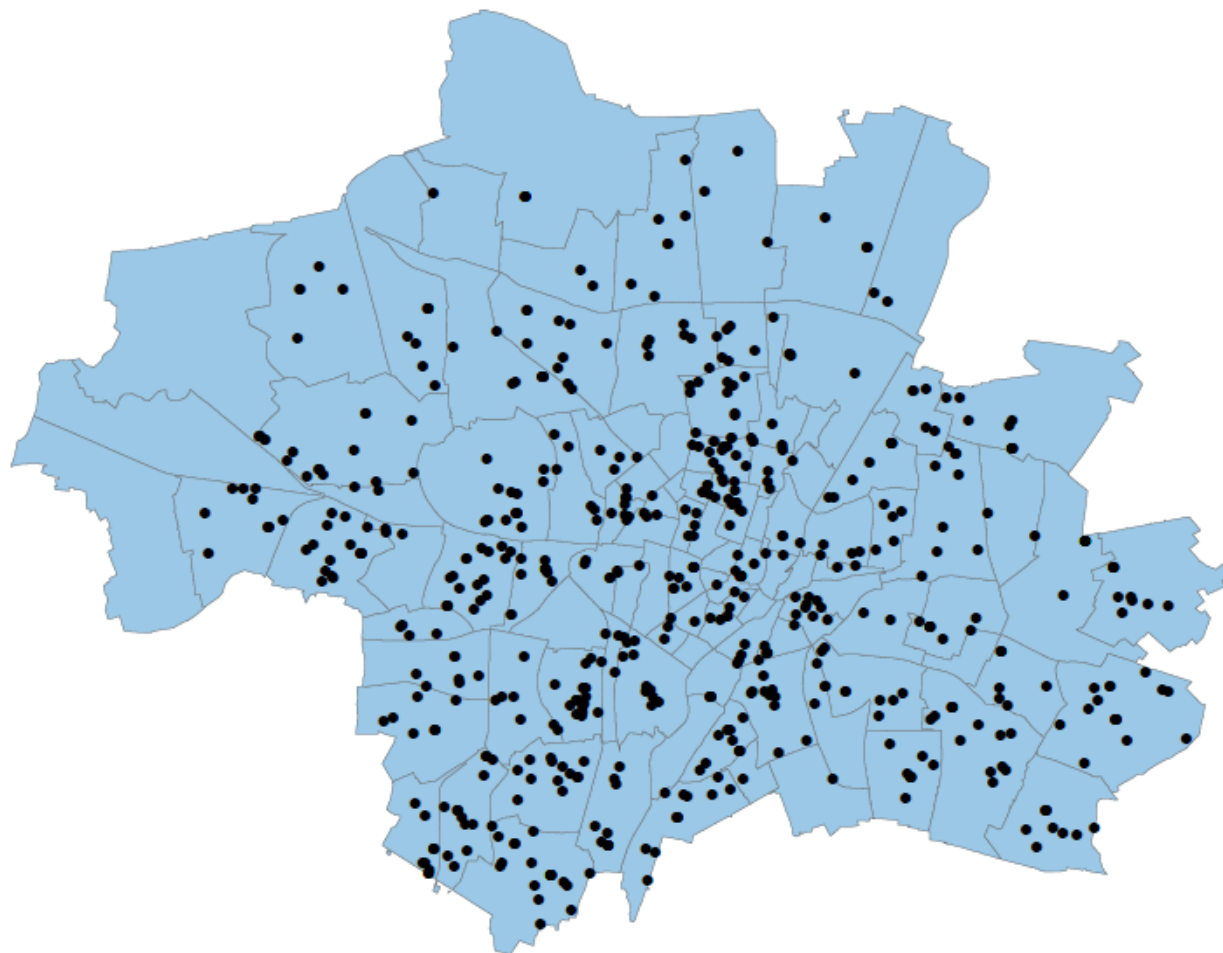


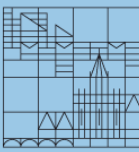
Images on Spatial Trends: City of Munich



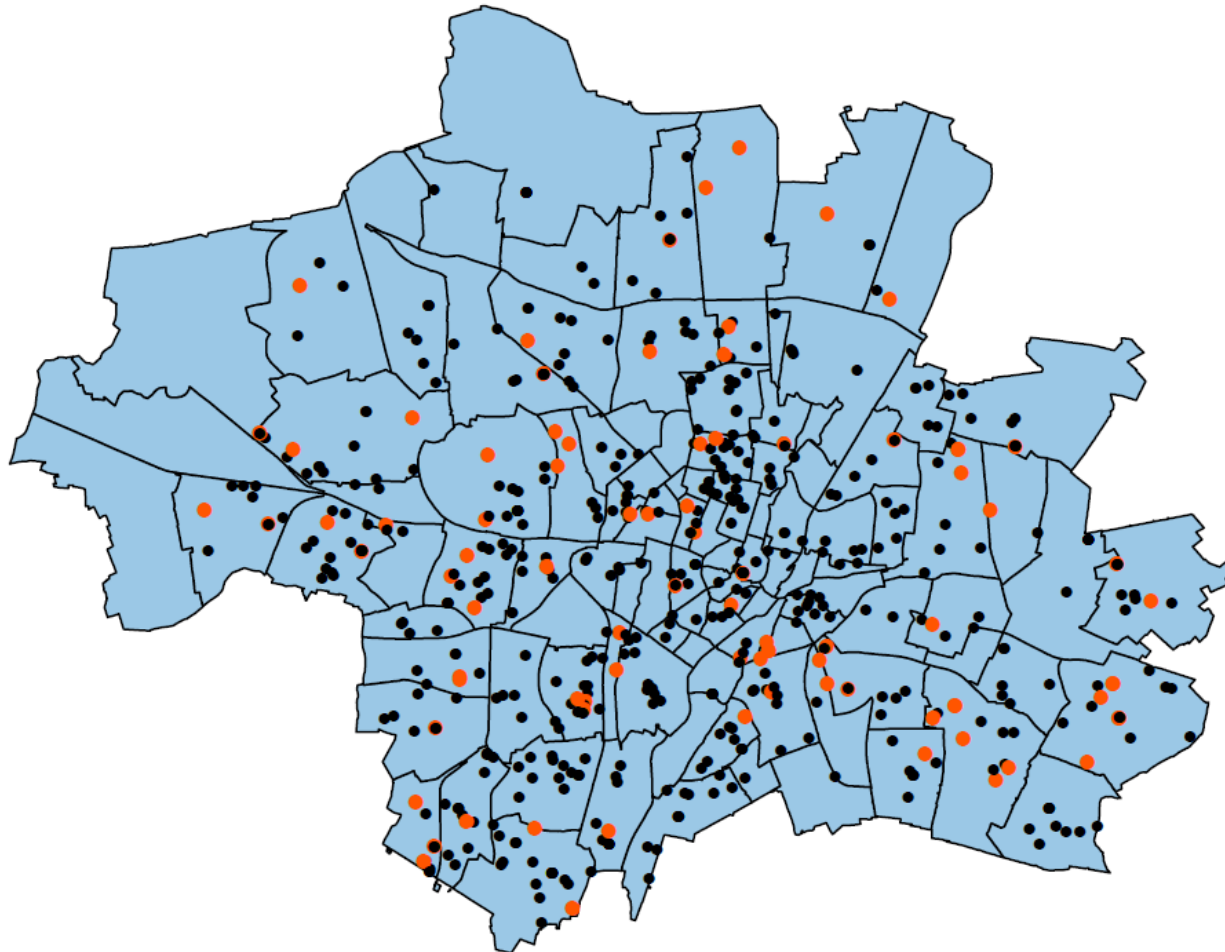


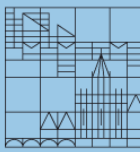
Tested apartments



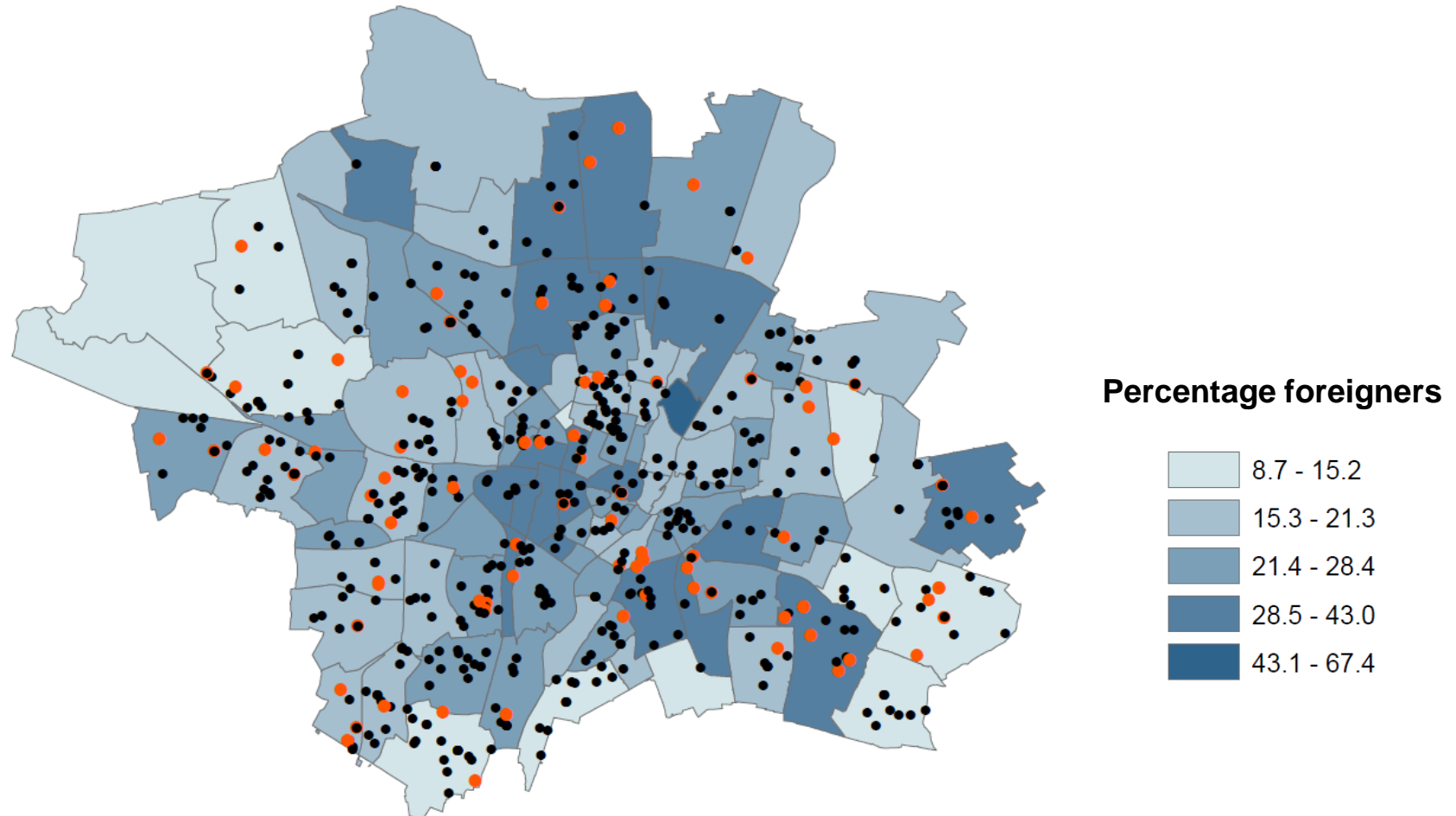


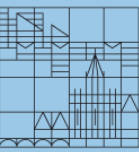
Discrimination against Turkish applicants (red points; D response only)





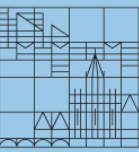
Discrimination and proportion foreigners (red points: only D response)





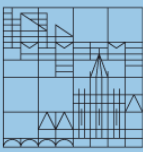
Summary

- Net-discrimination rate of 8.8% → Turkish applicants had a significantly lower chance of access to the rental housing market.
- The discrimination rates decreased, when applicants signaled a high social status through a high occupational status.
- The results on the neighborhood-specific characteristics are puzzling. In neighborhoods with relatively many foreigners, the discrimination rates against Turks were higher.
- Discrimination by price level was lower for overpriced apartments.



Outlook

- To test for statistical discrimination, the comparison of different amounts of information is needed. This will be possible in further experiments.
- The spatial units may be too large to identify processes and consequences of segregation. We try to get a more fine-grained measurement (e.g. for blocks).
- It would be important to study housing markets under different conditions (e.g. demand for rental housing in East Germany is much lower while prejudice against foreigners is more pronounced).
- Only the first step in the search process is monitored. However, this first contact is often decisive. Actual discrimination might be higher.
- We are planning a survey study for housing agents and their gate-keeper behavior.



Thank you very much for your attention!