

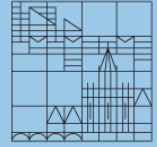
# Discrimination in Housing Markets: (First) Results from a Field Experiment

VIU

Rational Choice Sociology: Theory and Empirical Applications

Dec 2008

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## Overview

Discrimination in housing markets and inequality

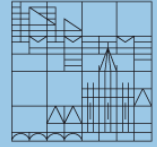
Hypotheses

Experimental design

Response quotas

Correspondence test

Outlook



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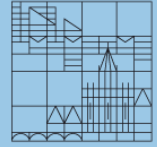
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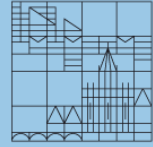


## Discrimination in housing markets and inequality

Discrimination = unequal treatment on the basis of race or ethnicity  
(note: disparate impact of rules and regulations is also often considered as discrimination)

Discrimination in housing markets refers to

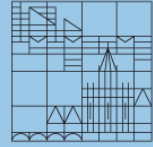
- rental apartments
- real estate and
- residential segregation



## Discrimination in housing markets and inequality

*Access* to certain objects can be restricted by race or ethnicity and *prices* eventually differ. In addition, landlords may invest different efforts in *maintenance* based on ethnicity of renters. A study of the Department of Housing and Urban Development shows an adverse treatment by race in roughly twenty percent of housing searches (several indicators have been used). The implications of discrimination and segregation in housing markets are inequalities in employment chances, health, wealth and inheritance (Pager/Shepherd 2008: 189).

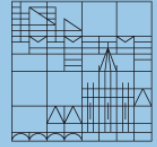
But, discrimination in housing markets differs strongly by metropolitan areas and their local contexts (Turner et al. 2002).



## Discrimination in housing markets and inequality

### Measurement (Pager/Shepard 2008)

- Perceptions of discrimination
- Report by potential discriminators
- Statistical analyses (use of controls for endowment, “unexplained variance” due to discrimination)
- Experimental studies
  - laboratory experiments (simulating evaluations)
  - field experiments (audits, correspondence tests)



## Discrimination in housing markets and inequality

### Theories of discrimination

Psychological factors ("racism")

Information ("statistical discrimination")

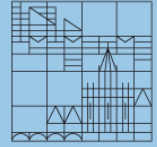
### Determinants

Formalization (reducing individual discretion)

Diversity initiatives (e.g. community development plans)

Networks (e.g. referrals reinforcing homophily)

Market conditions



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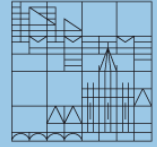
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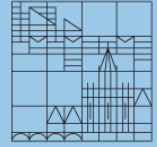
## Hypotheses

### Rental housing

H<sub>1</sub>: There is a discrimination against ethnic minority groups concerning market access.

H<sub>2</sub>: Ethnic minority groups are required to pay higher rents – controlling other characteristics of the rental objects.

[H<sub>3</sub>: There is a reproduction of residential segregation by ethnicity.]



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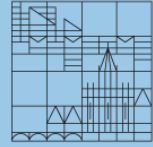
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## Experimental design

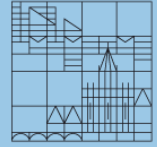
### **dependent variable**

different reactions on email inquiries

December 2007/January 2008, Munich region,  
ads in newspapers with an online version  
(Süddeutsche, Münchner Merkur, tz, Abendzeitung,  
kurz und fündig)  
apartments with two or three rooms

### **first step**

gathering information on the rental objects  
(ads plus telephone inquiries, N=279)



## Experimental design

### **second step**

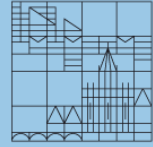
for each object two corresponding emails have been sent to the email address provided on the web site (within one hour, sequence for ethnicity of names by random)

### **third step**

checking the email accounts for possible reactions (time frame: two weeks after sending)

### **fourth step**

creating a data sheet with all information on the rental objects, the measured reaction, and information on the local context (e.g. proportion of foreigners living in the quarter; not yet completed)



## Experimental design

### **fifth step**

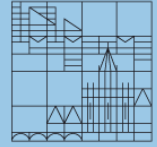
declining possible viewing with a friendly email

### **using**

24 german (male) names, 24 turkish (male) names

7 different text versions (asking for a viewing and more information, German language)

varying information on occupation and legal status

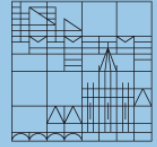


## Text sample in German

Guten Tag,

ich interessiere mich für das Mietobjekt ###. Ich bin **ledig/verheiratet** und derzeit als **beruf** tätig. Für einen Besichtigungstermin und Informationen zum Objekt wäre ich Ihnen sehr dankbar. Freundliche Grüße

**NAME**



### **Beruf/statusniedrig (low status occupation)**

Maurer (brick layer)

Kfz-Mechaniker (car mechanic)

Dachdecker (roofer)

### **Beruf/statushoch (high status occupation)**

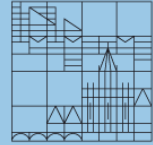
Bauingenieur (construction engineer)

Informatiker (computer scientist)

Assistenzarzt (assistant physician)

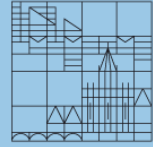
### **Familienstand (legal status)**

ledig (unmarried)/ verheiratet (married)

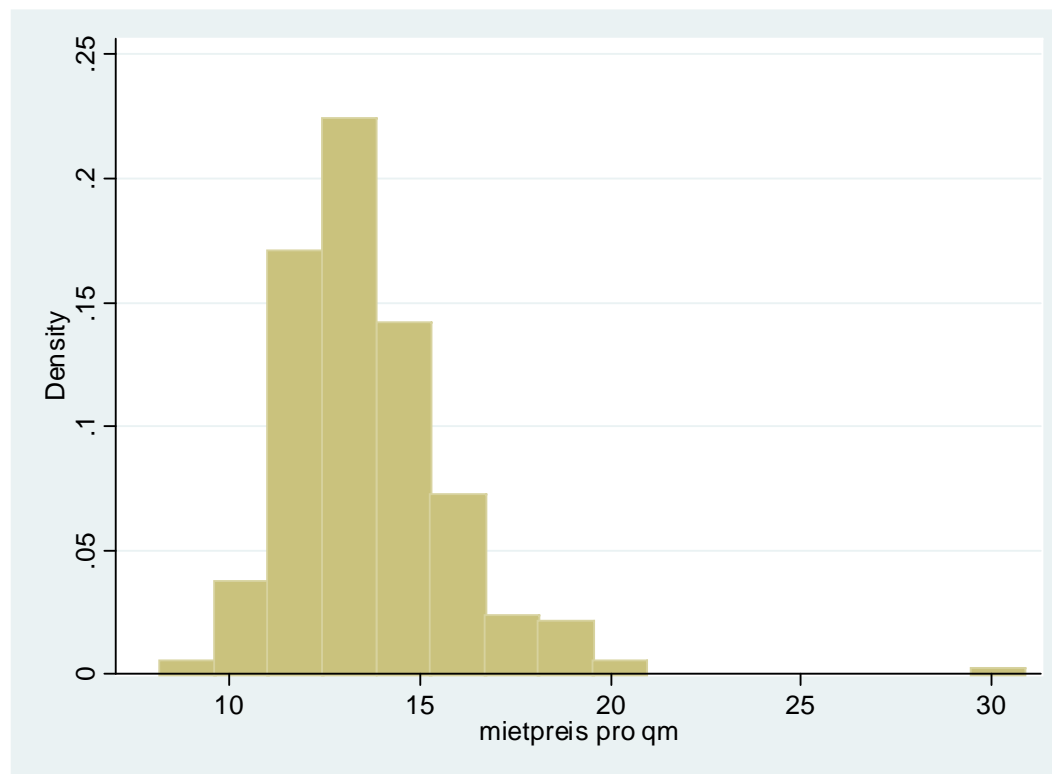


<b>German names</b>	<b>Turkish names</b>
Carsten Steiger	Cem Güteryüz
Stefan Gerstman	Burhan Özdemir
Manfred Koch	Osman Yilmaz
Phillip Schönfeld	Selim Aybay
Peter Steinbach	Salam Özcelic
Ralf Herzog	Kenan Sönmez
Sebastian Helmbold	Ferat Akkas
Nico Lange	Ibrahim Bulat
Jan Münscher	Deniz Yetim
Steffen Böhme	Murat Gürbüz
Rene Kalmring	Arcan Sengül
Andre Sperling	Mehrali Ilgaz
Martin Ephardt	Burak Aytekin



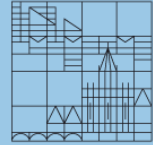


rent/sqm

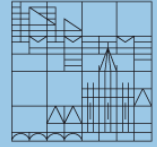


average: 13,7 €  
(N=264)

over 80 percent with a  
balcony, bathrooms and  
central heating



Summary of rent/sqm			
stadtbezirk	Mean	Std. Dev.	Freq.
altstadt	15.790592	3.4995378	5
ludwigvor	12.885265	1.9207112	7
maxvorsta	16.555146	5.0828358	2
schwabing	16.394988	4.0226425	17
au - haid	14.326864	2.2049838	10
sendling	12.998648	1.033514	8
sendling	13.593785	1.9001924	4
schwantha	15.410256	0	1
neuhausen	15.12795	2.2579561	11
moosach	12.711071	1.2133188	8
milbertsh	13.586667	1.8770323	5
schwabing	15.301564	2.4718599	8
bogenhaus	13.767699	2.0710896	17
berg am l	13.037093	1.4209874	4
trudering	13.049556	1.3355022	18
ramersdor	12.512336	1.3369193	19
obergiesi	12.547135	1.2733278	7
untergies	13.927575	2.1307835	19
thalkirch	14.15278	1.8899711	23
hadern	13.641482	1.0562178	7
pasing -	13.493018	1.5492509	22
aubing-lo	12.883201	1.3480781	3
allach-un	12.858887	1.3905866	6
feldmochi	12.266667	5.7511357	2
laim	12.682017	1.0708164	13
Total	13.78371	2.2703105	246



## Reactions

The following analyses are restricted to simple, easily measured outcomes. For testing of hypotheses  $H_1$  and  $H_2$ , contingency tables/logistic regressions are calculated with additional variables for applicants and the characteristics of the rental objects.

### response quotas

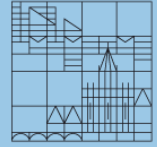
yes/no

### correspondence tests

yes/no

yes and rejection

yes and appointment for viewing



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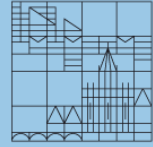
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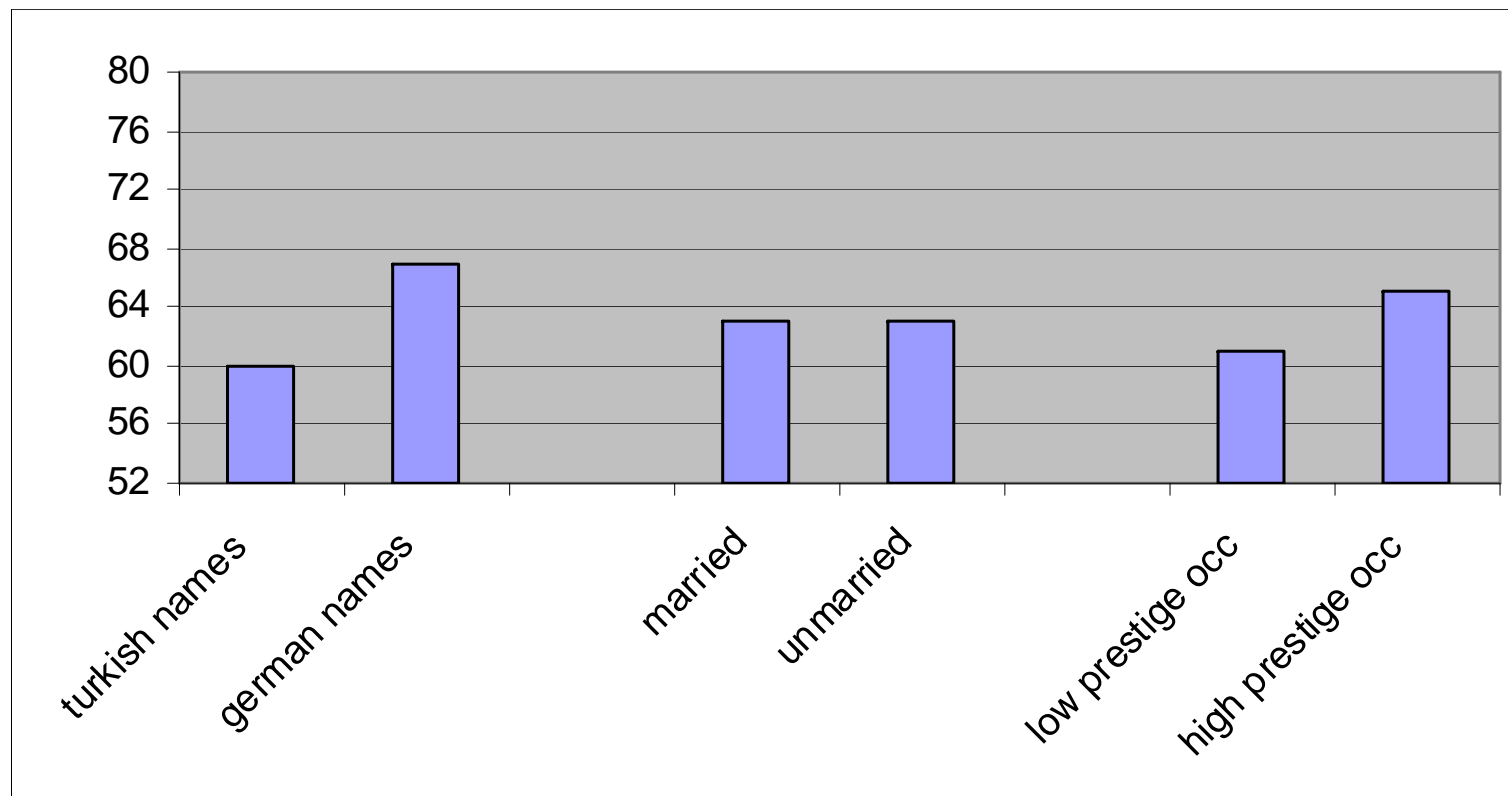
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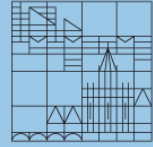
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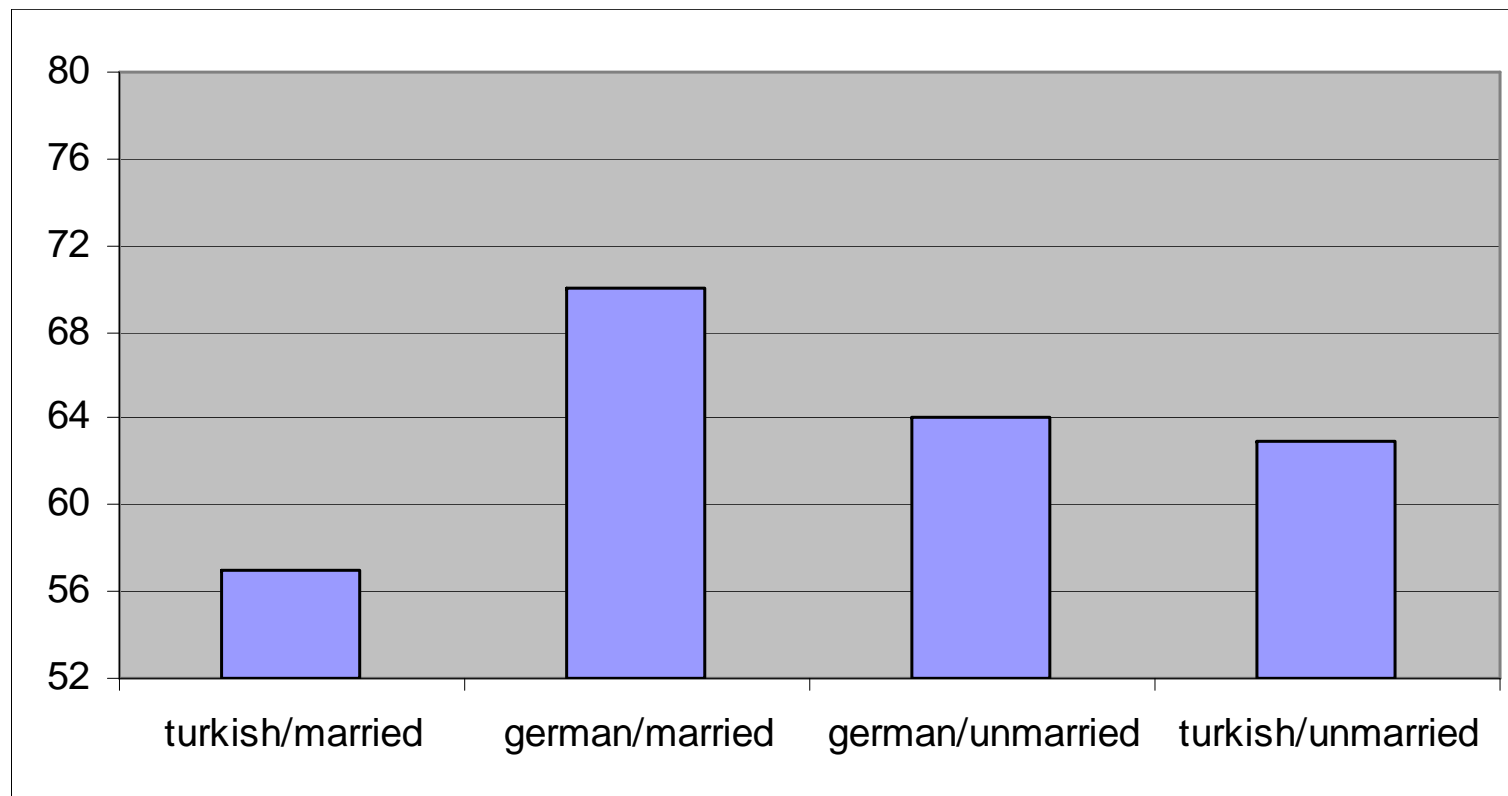
## Response quotas



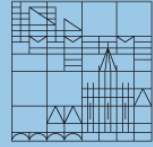
$p = 0,079$



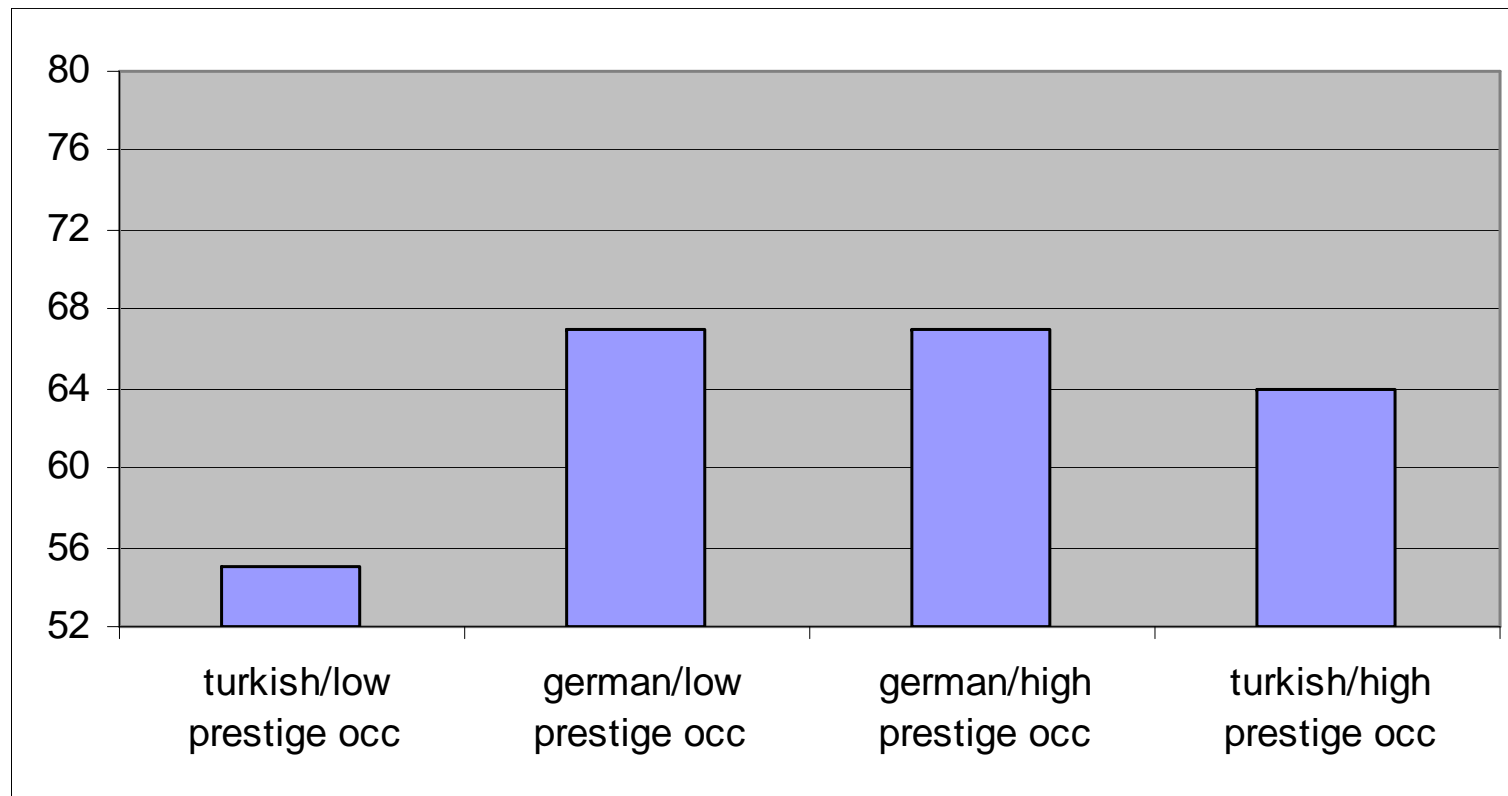
## Response quotas/interaction effects



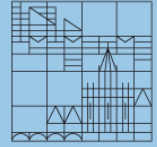
$p = 0,018$



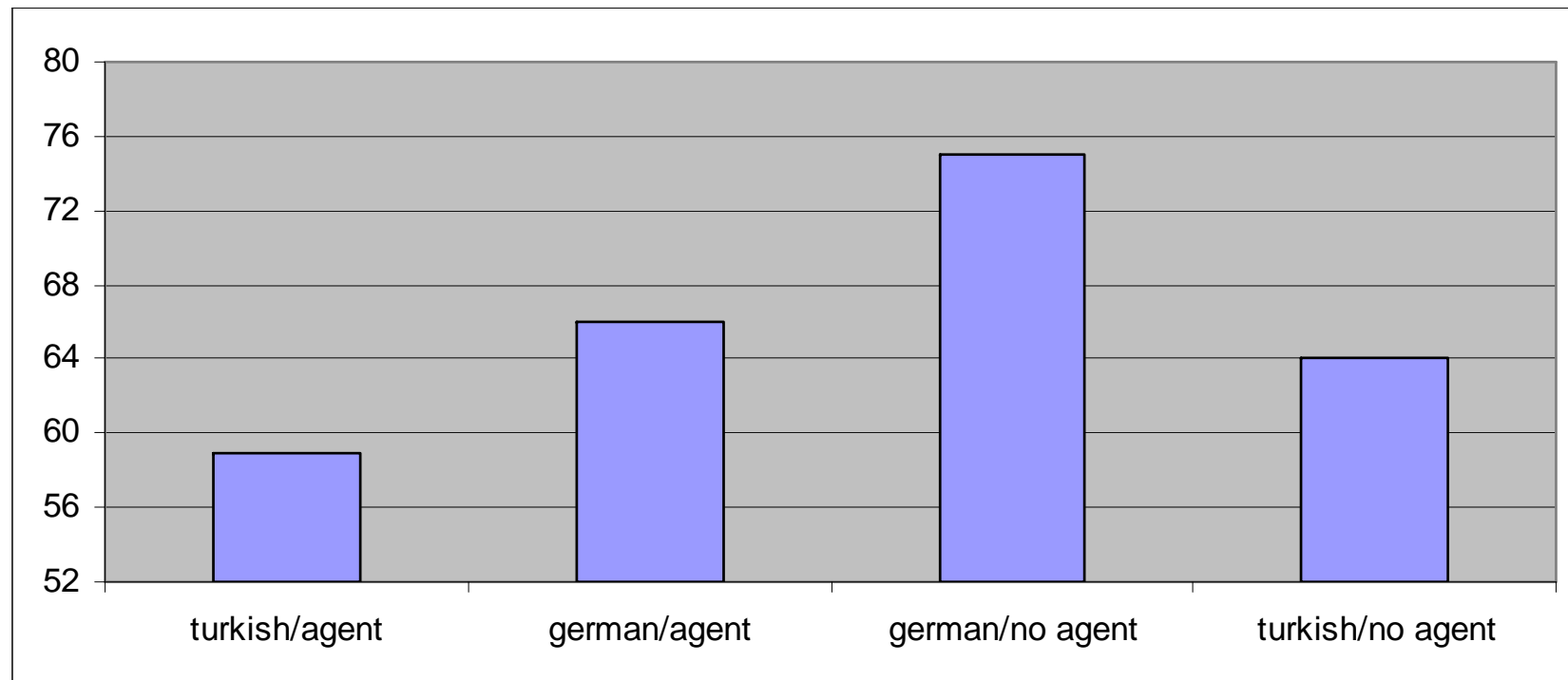
## Response quotas/interaction effects



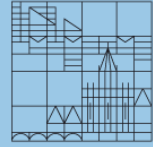
$p = 0,040$



## Response quotas/interaction effects





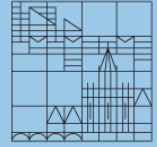


## Response quotas/interaction effects

Coefficients of response models

turkish	-0,31 (p=0,079)	-0,31 (p=0,088)	-2,24 (p=0,049)
rent/sqm		-0,01 (p=0,821)	-0,08 (p=0,164)
interaction term			0,14 (p=0,085)

The response for emails with turkish names is better if the apartments are relatively high priced.



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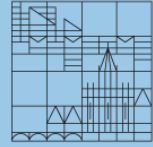
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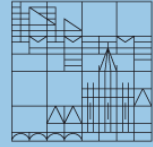
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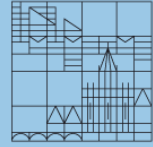
TURKISH NAME	GERMAN NAME response		Total	Net discrimination: 0.095
	no	yes		
no	68 24.37	44 15.77	112 40.14	
yes	24 8.60	143 51.25	167 59.86	
Total	92 32.97	187 67.03	279 100.00	



## Correspondence test

disc_group	both unmarried	only turks married	only germans married	both married	Total
both response	33 76.74	28 50.91	40 71.43	42 73.68	143 67.77
turks response	2 4.65	12 21.82	5 8.93	5 8.77	24 11.37
germans response	8 18.60	15 27.27	11 19.64	10 17.54	44 20.85
Total	43 100.00	55 100.00	56 100.00	57 100.00	211 100.00

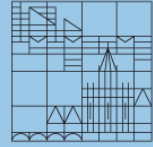
Pearson chi2(6) = 12.3696 Pr = 0.054



## Correspondence test

disc_group	both low status occ	both high status occ	Total
both response	65 63.11	78 72.22	143 67.77
turks response	11 10.68	13 12.04	24 11.37
germans Response	27 26.21	17 15.74	44 20.85
Total	103 100.00	108 100.00	211 100.00

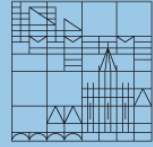
Pearson chi2(2) = 3.5047 Pr = 0.173



## Correspondence test

rejection

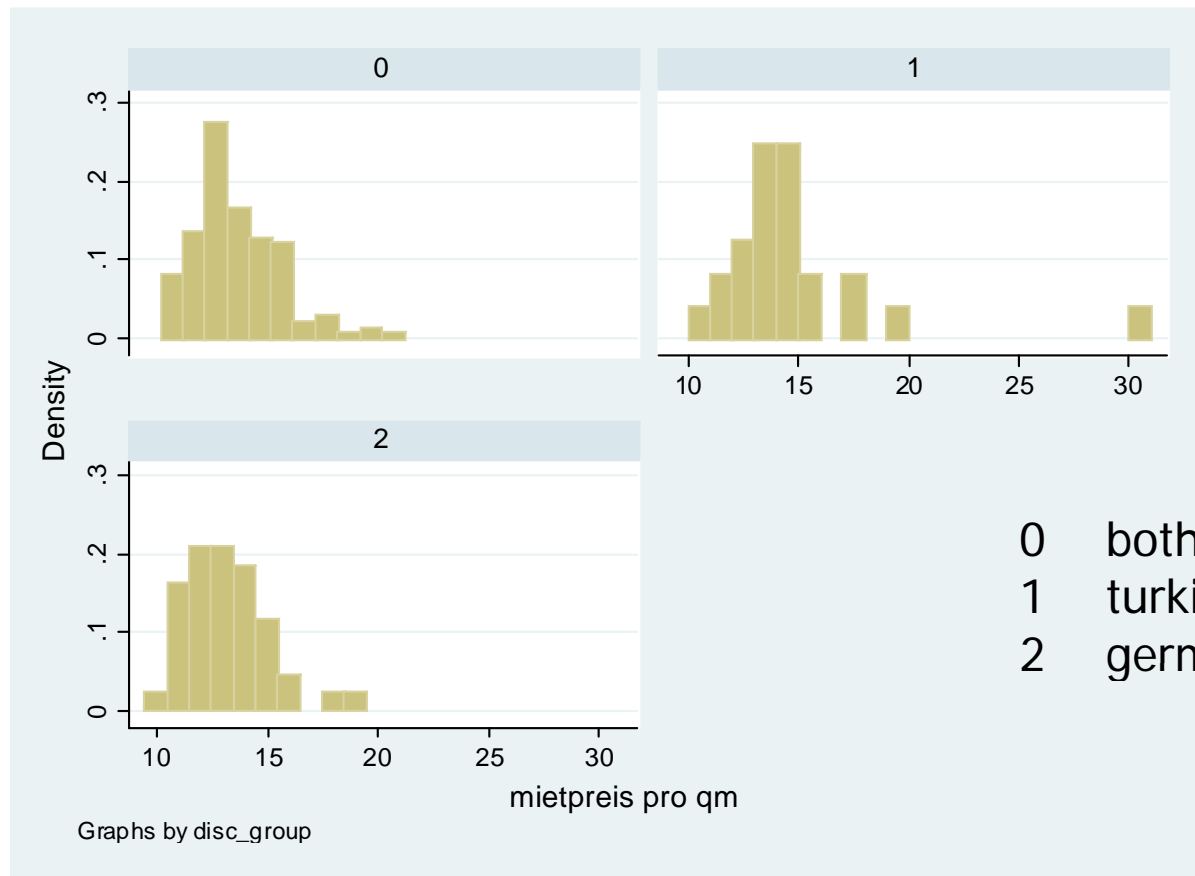
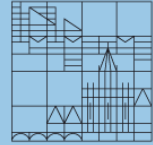
turks	germans		Total
	no	yes	
no	122 89.71	1 0.74	123 90.44
yes	1 0.74	12 8.82	13 9.56
Total	123 90.44	13 9.56	136 100.00



## Correspondence test

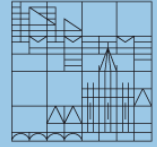
viewing

turks	germans		Total
	no	yes	
no	18 14.52	6 4.84	24 19.35
yes	2 1.61	98 79.03	100 80.65
Total	20 16.13	104 83.87	124 100.00



	Mean	Std. Err.	[95% Conf. Interval]	
Rent/sqm				
0	13.61695	.1736154	13.27456	13.95933
1	14.7097	.8177274	13.09708	16.32233
2	13.2333	.2913663	12.65871	13.8079





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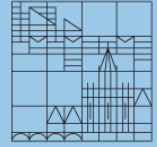
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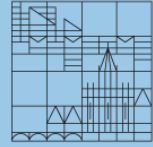
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Some evidence for discrimination by ethnicity.

- Inquiries from applicants with Turkish names receive fewer responses, especially if they are married or have low status occupation.
- Turkish applicants get a relatively higher response in case of (very) high rents.

However, response is a rather vague indicator for discrimination.

More information on local contexts is needed. There might be a tendency for desegregation (gentrification).



## References

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