RUHR-UNIVERSITÄT BOCHUM

RUB

# Ethnic Discrimination in the Rental Housing Market

## The Role of Additional Information and Market Structure

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Seminar Analytische Soziologie: Theorie und empirische Anwendungen

Venice International University, San Servolo
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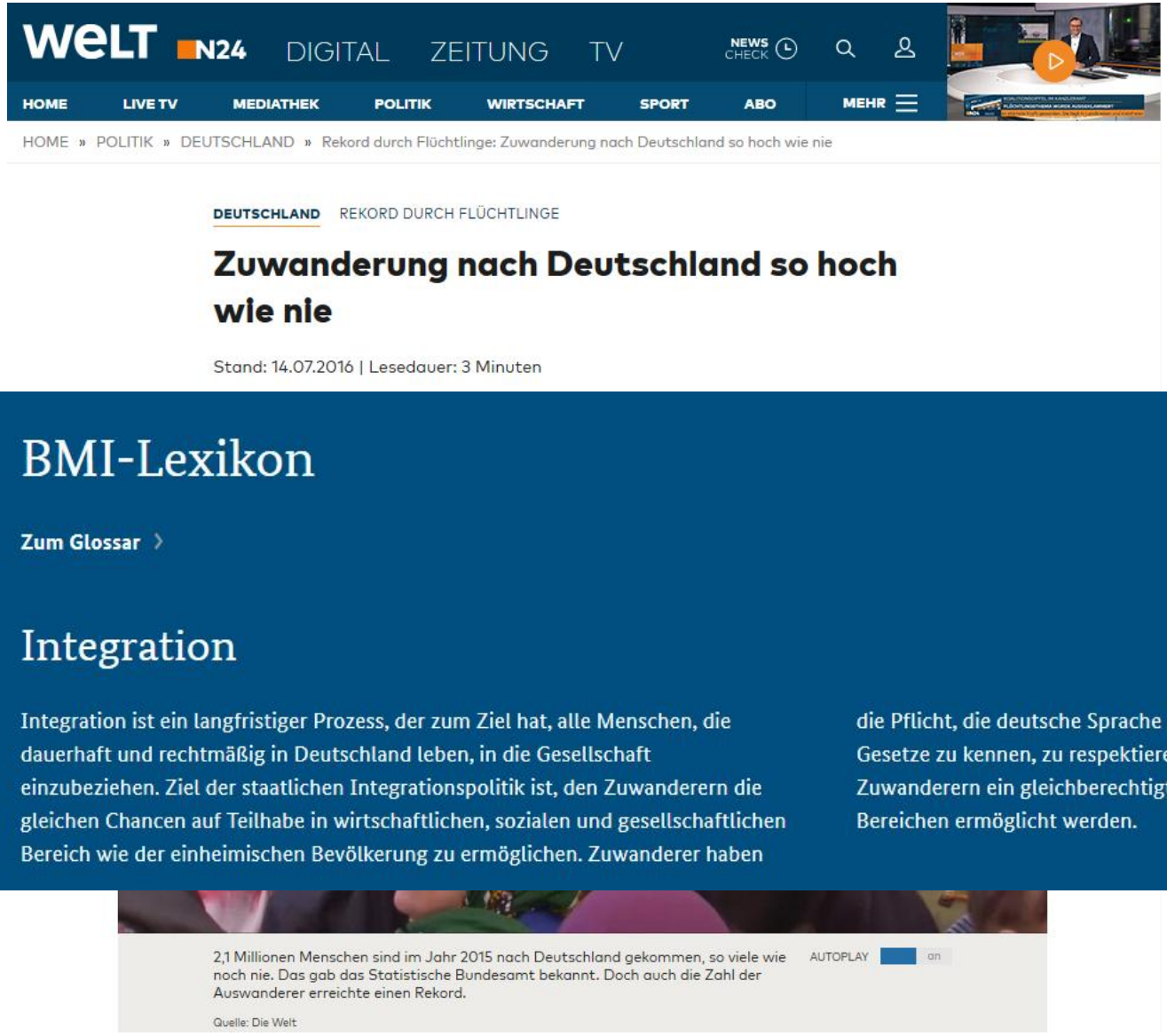
**Faculty of Social Science**
Sociology Section

# Introduction



WELT N24 DIGITAL ZEITUNG TV

NEWS CHECK

HOME LIVE TV MEDIATHEK POLITIK WIRTSCHAFT SPORT ABO MEHR

HOME » POLITIK » DEUTSCHLAND » Rekord durch Flüchtlinge: Zuwanderung nach Deutschland so hoch wie nie

DEUTSCHLAND REKORD DURCH FLÜCHTLINGE

**Zuwanderung nach Deutschland so hoch wie nie**

Stand: 14.07.2016 | Lesedauer: 3 Minuten

BMI-Lexikon

Zum Glossar

Integration

Integration ist ein langfristiger Prozess, der zum Ziel hat, alle Menschen, die dauerhaft und rechtmäßig in Deutschland leben, in die Gesellschaft einzubeziehen. Ziel der staatlichen Integrationspolitik ist, den Zuwanderern die gleichen Chancen auf Teilhabe in wirtschaftlichen, sozialen und gesellschaftlichen Bereich wie der einheimischen Bevölkerung zu ermöglichen. Zuwanderer haben die Pflicht, die deutsche Sprache zu erlernen sowie die Verfassung und die Gesetze zu kennen, zu respektieren und zu befolgen. Gleichzeitig muss den Zuwanderern ein gleichberechtigter Zugang möglichst zu allen gesellschaftlichen Bereichen ermöglicht werden.

2,1 Millionen Menschen sind im Jahr 2015 nach Deutschland gekommen, so viele wie noch nie. Das gab das Statistische Bundesamt bekannt. Doch auch die Zahl der Auswanderer erreichte einen Rekord.

AUTOPLAY an

Quelle: Die Welt

# Introduction

## Ethnic discrimination

*"refers to unequal treatment of persons or groups on the basis of their race or ethnicity."* (Pager & Shepherd 2008, 182)

## Unequal treatment of migrants in rental housing markets

- Sweden (Ahmed & Hammarstedt 2008; Ahmed et al. 2010; Bengtsson et al. 2011; Carlson & Eriksson 2014)
- Norway (Andersson et al. 2012; Beatty & Sommervoll 2012)
- US (Carpursor & Loges 2006; Hanson & Hawley 2011; Ewens et al. 2014)
- Canada (Hogan & Berry 2011)
- Italy (Baldini & Frederici 2011)
- Spain (Bosch et al. 2010)
- Czech Republic (Bartoš et al. 2013)
- Belgium (Van der Bracht et al. 2015)
- Germany (Auspurg et al. 2017)

→ **Clear evidence for ethnic discrimination**

→ **Mixed evidence regarding (contextual ) moderators**

# Research questions

- Can evidence for ethnic discrimination in the rental housing market be replicated for Arabic applicants in Germany?
- Does ethnic discrimination vary according to applicant's characteristics?
- Does ethnic discrimination vary across regional and market conditions?

# Theoretical framework

## **Preference-based discrimination** (Becker 1957)

- Results from affective tastes for and against particular social groups, i.e. Arabs
- Objectives against certain social groups are part of individuals' utility function
- Offenders have to bear a costly ‘tax’ for discrimination
- Discrimination should decline in contested markets

# Theoretical framework

## **Statistical discrimination** (Phelps 1972; Arrow 1973)

- Results from imperfect information
- Offenders use observable markers for assessment of others, i.e. ethnicity
- Related expectations are based on previous interactions and commonly known average values
- Especially effective in situations of high risk, i.e. high rents (cf. Hogan & Berry 2011; Bengtsson et al. 2012; Auspurg et al. 2017)
- Discrimination should decrease if missing information is added (cf. Bosch et al. 2010; Baldini & Frederici 2011; Auspurg et al. 2017)

# Theoretical framework

## Discrimination by customers (Becker 1957)

- Lessors discriminate migrants to avoid trouble with existing tenants
- Customers preferences and minority group size
  - Ethnic competition theory (Shepers et al. 2002), Social identity theory (Tajfel & Turner 1979)
  - Intergroup contact theory (Allport 1954)

- When lessors have doubts, they will play it save
- The larger the minority group size, the more should lessors discriminate against migrants (see also Ewens et al. 2014; Hogan & Berry 2011)

→ In contrast to spatial steering

# Set of hypotheses

## Causal hypotheses

- H1: If the sender has an Arabic name as compared to a German name, enquiries will gain less response.
- H2: If additional information is provided, ethnic discrimination will be reduced.

## Moderation hypotheses

- H3a: The higher the financial risk, the stronger will be ethnic discrimination.
- H3b: The higher the financial risk, the more will ethnic discrimination be reduced by additional information.

- H4a: The less the market situation is in favour of the lessor, the lower will be ethnic discrimination.
- H4b: The lower ethnic discrimination, the less important will be additional information.

- H5a: The larger the minority group size, the stronger will be ethnic discrimination.
- H5b: The larger the minority group size, the less will information reduce ethnic discrimination.

# Experimental design

**Correspondence test** (see Riach & Rich 2002; Pager 2007; Keuschnigg & Wolbring 2015; Bertrand & Duflo 2017)

- Two e-mail enquiries for appointments regarding vacant rental apartments
- 2 x 2 x 2 x 2 = 16 experimental conditions
  - Within variation: applicants name
  - Between variation: applicants gender, information about employment, information about family background
- Behavioural outcome: response by lessors

| | |
|---|---|
| Stephan Unger<br>(stephan.unger@posteo.de)<br><br>Programmer<br><br>Wife & child | Omar Benali<br>(omar.benali@mailbox.org)<br><br>IT sector<br><br>Wife & child |
| Julia Brockmann<br>(julia.brockmann@mailbox.org)<br><br>Bank clerc<br><br>Husband & child | Fatima Aynan<br>(fatima.aynan@posteo.de)<br><br>Insurance sector<br><br>Husband & child |

# Examples of e-mail enquiries

Sender: Stephan Unger
Empfänger: **daniela.schmitz@leg-wohnen.de**

*Betreff:* Besichtigung Wohnung 92460914

Sehr geehrte Damen und Herren,

ich bin im Internet auf folgendes Wohnungsinserat von Ihnen aufmerksam geworden: https://www.immobilienscout24.de/expose/92460914 (Zum Hillenwasser). Gern würde ich diese Wohnung mit meiner Frau und unserem Kind besichtigen. Ich bin voll berufstätig (IT-Bereich).

Sollte die Wohnung noch verfügbar sein, würde ich mich sehr freuen, wenn Sie sich bei mir melden, damit wir einen Termin in dieser oder der nächsten Woche vereinbaren können.

Mit freundlichen Grüßen
Stephan Unger

Sender: Omar Benali
Empfänger: **daniela.schmitz@leg-wohnen.de**

*Betreff:* Anfrage Besichtigungstermin Zum Hillenwasser

Sehr geehrte Damen und Herren,

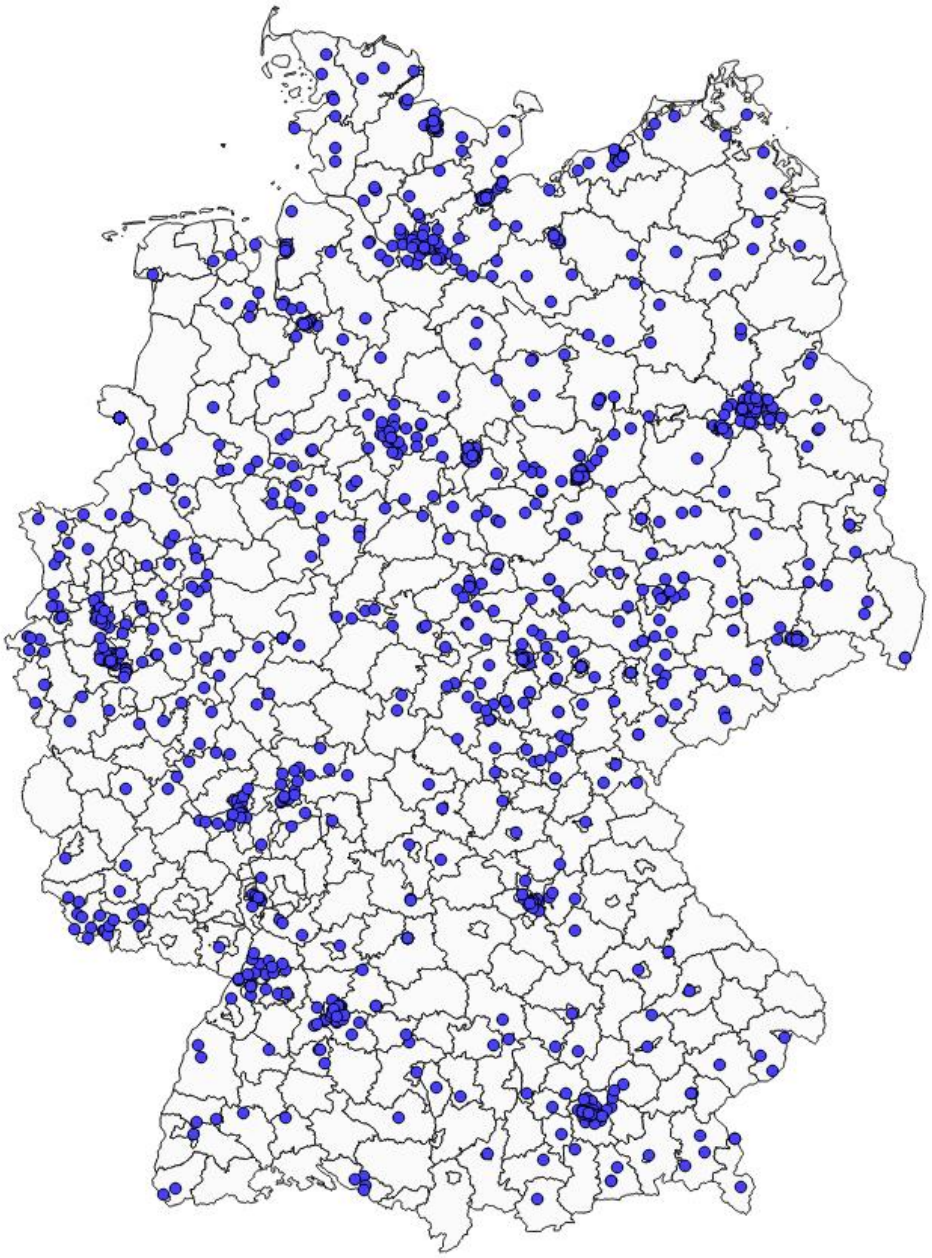
ich schreibe Ihnen, da ich mich für Ihr Wohnungsangebot auf immobilienscout24.de interessiere (Scout-ID: 92460914). Ich bin von Beruf Programmierer und suche gemeinsam mit meiner Familie (1 Kind) nach einer geeigneten Wohnung.

Sofern ihre Wohnung noch nicht vergeben ist, würden wir sie sehr gern in den nächsten Tagen besichtigen. Bitte setzen Sie sich diesbezüglich mit mir in Verbindung.

Mit freundlichem Gruß
Omar Benali

# Data collection

- Advertisements for rental 2/3 room-apartments from *www.immobilienscout24.de*
- January - February 2017
- Regional quotation, random (‘route’) selection
  - Urban & rural areas
  - East, West, North, South
- Enquiries via e-mail
  - Lessors were subjected only once to the study
  - Two days between both enquiries, balanced order
  - Recherche of e-mail adresses when missing
- Final sample
  - 1768 enquiries according to 884 vacant rental apartments (196 deleted)
  - 223 counties



# Proportions of experimental conditions

| Treatment | N | Percent | Level |
|---|---|---|---|
| Ethnic name | | | |
| *German* | 884 | 50.0 % | 0 |
| *Arabic* | 884 | 50.0 % | 1 |
| Gender | | | |
| *Male* | 892 | 50.5 % | 0 |
| *Female* | 876 | 49.5 % | 1 |
| Job status | | | |
| *No information* | 860 | 48.7 % | 0 |
| *Information* | 908 | 51.3 % | 1 |
| Family background | | | |
| *No information* | 850 | 48.1 % | 0 |
| *Information* | 918 | 51.9 % | 1 |
| Total | 1768 | 100% | |

| Variables | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| 1 Ethnic name | 1.0000 | | | |
| 2 Gender | 0.0000 | 1.0000 | | |
| 3 Information job status | 0.0000 | 0.0138 | 1.0000 | |
| 4 Information family background | 0.0000 | 0.0239 | -0.0246 | 1.0000 |

*Pearson's r; * p < 0.01*

# Sample composition

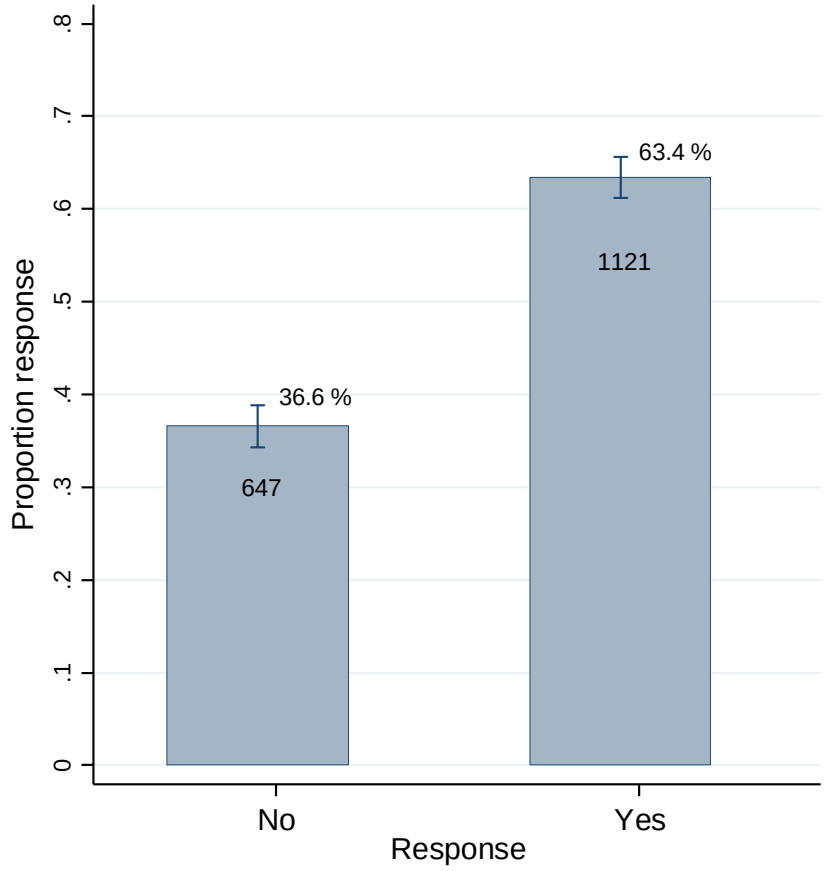
| Variables | N / M | Percent / SD | Range |
|---|---|---|---|
| Rooms | | | 2-3 |
| 2-room | 438 | 49.5 % | |
| 3-room | 446 | 50.5 % | |
| Living space in m² | 68.5 | 19.6 | 30-183 |
| Basic rent in € | 552.8 | 331.4 | 165-2550 |
| Lessor type | | | 0-2 |
| Private landlord | 26 | 2.9 % | |
| Housing association | 308 | 62.2 % | |
| Real estate agent | 550 | 34.9 % | |
| Region | | | 0-1 |
| Urban | 613 | 69.3 % | |
| Rural | 271 | 30.7 % | |
| Federal state | | | 1-16 |
| Bavaria | 90 | 10.2 % | |
| North Rhine-Westphalia | 100 | 11.3 % | |
| Saxony-Anhalt | 107 | 12.1 % | |
| Thuringia | 103 | 11.7 % | |
| Schleswig-Holstein | 61 | 6.9 % | |
| Berlin | 33 | 3.7 % | |
| Baden-Württemberg | 59 | 6.7 % | |
| Rhineland-Palatinate | 35 | 4.0 % | |
| Hesse | 35 | 4.0 % | |
| Lower Saxony | 58 | 6.5 % | |
| Saxony | 73 | 8.3 % | |
| Brandenburg | 35 | 4.0 % | |
| Mecklenburg-Vorpommern | 37 | 4.2 % | |
| Saarland | 20 | 2.3 % | |
| Hamburg | 21 | 2.4 % | |
| Bremen | 17 | 1.9 % | |
| Total | 884 | 100 % | |

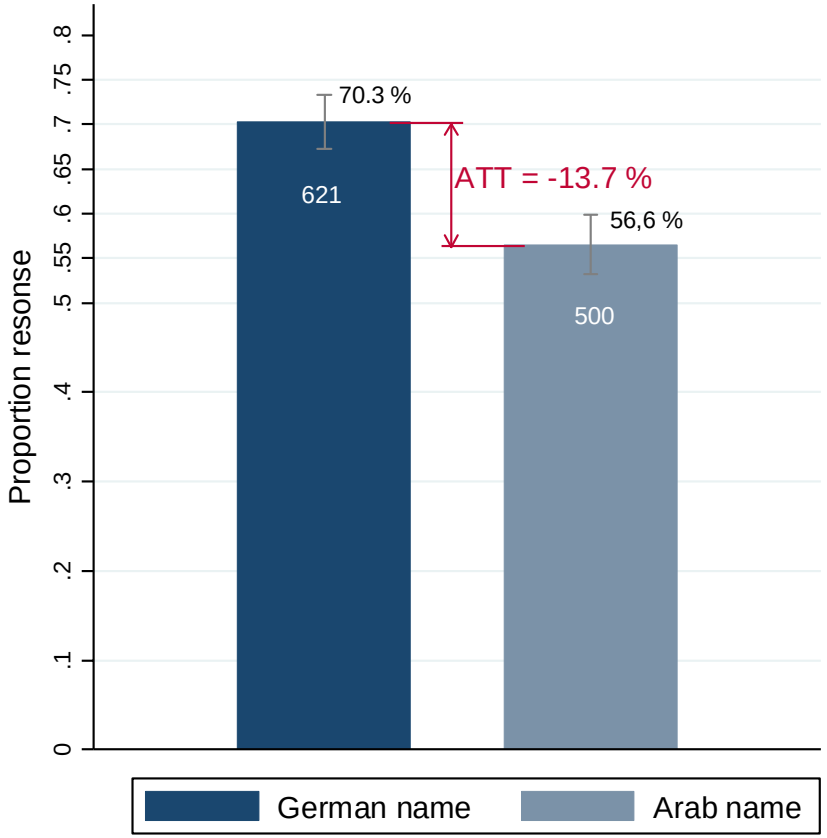
# Merged contextual information

- Additional county-level data from INKAR & GENESIS (for 2015)

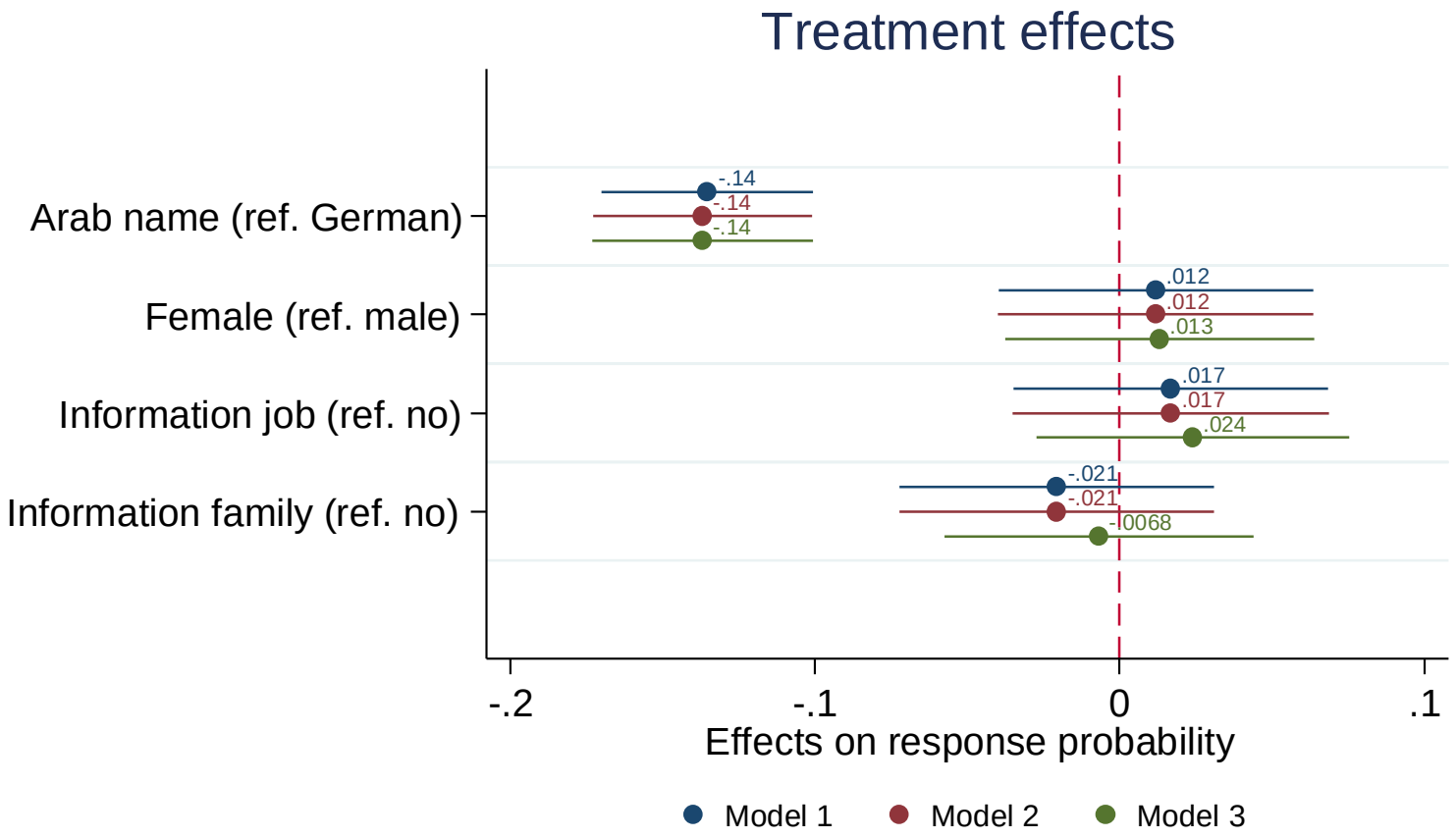
| Variables | M | SD | Range |
|---|---|---|---|
| Population | 478171 | 697456 | 45362-3520031 |
| Population density (inhabitants per km²) | 2531 | 1495 | 527-6234 |
| Average age in years | 44.4 | 2.2 | 40.6-49.4 |
| Rent index in € | 7.5 | 2.6 | 3.4-19.8 |
| Average living space per capita in m² | 43.4 | 4.2 | 36.9-60.5 |
| Proportion of 2/3-room apartments in % | 34.9 | 10.4 | 12.5-56.1 |
| Average net household income in € | 1673.5 | 237.0 | 1362.1-3450.7 |
| Housing allowance in ‰ of households | 15.8 | 6.8 | 2.0-31.3 |
| Proportion of foreigners in % | 8.4 | 6.4 | 1.0-27.2 |
| Proportion of foreigners - km²-grid in % | 9.8 | 8.7 | 0.0-51.5 |
| Demand for new apartments 2030 | 15.3 | 10.5 | 0-46 |

# Net discrimination effect (response rates)



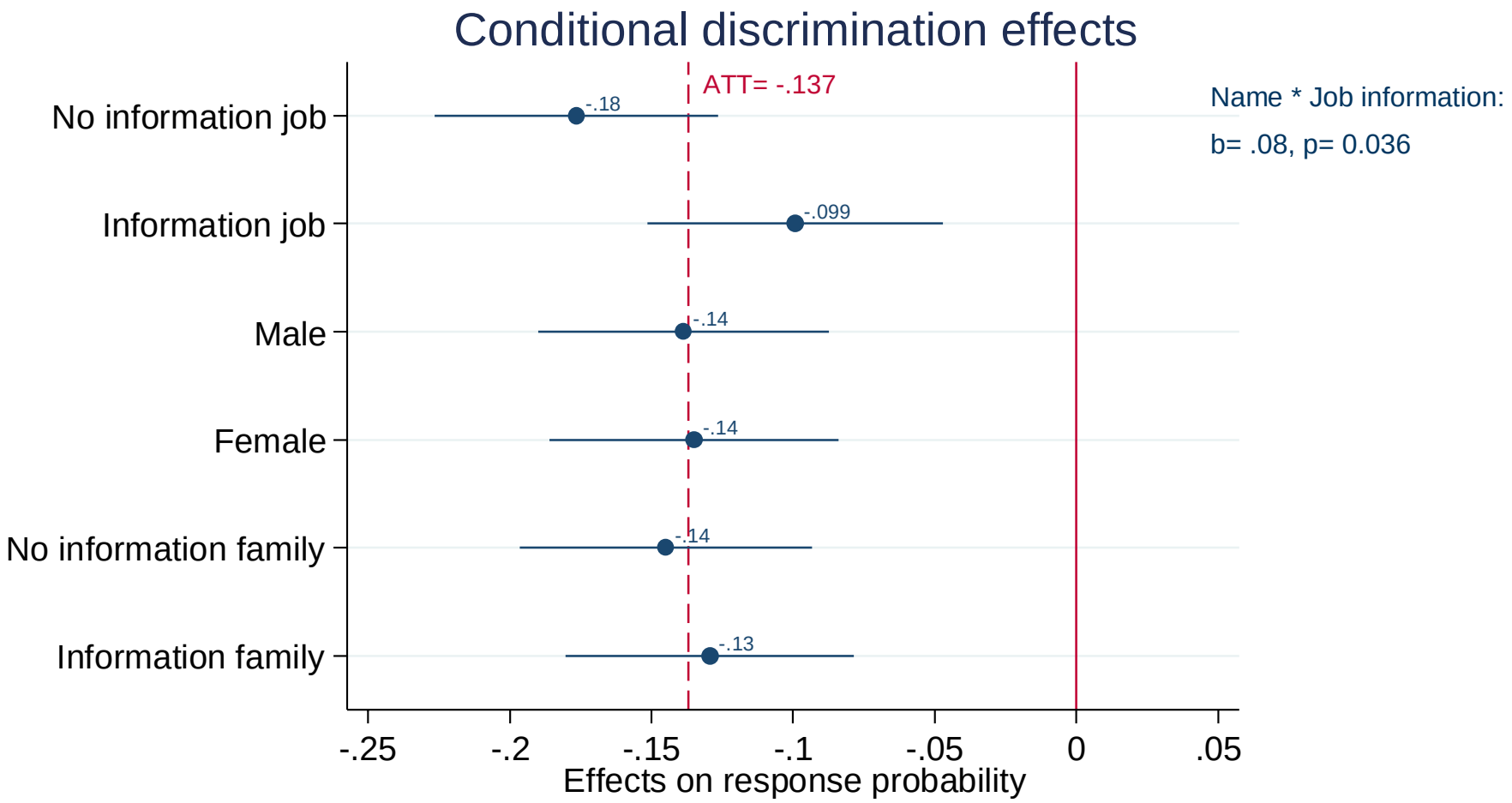



# Treatment effects




Model 1: logit, no covariates
Model 2: LPM/OLS, no covariates
Model 3: LPM/OLS, covariates (characteristics of apartment and region)
Clustered SE, 95% CI
Napartments = 884; Nenquiries = 1768

# Taste-based discrimination and statistical discrimination

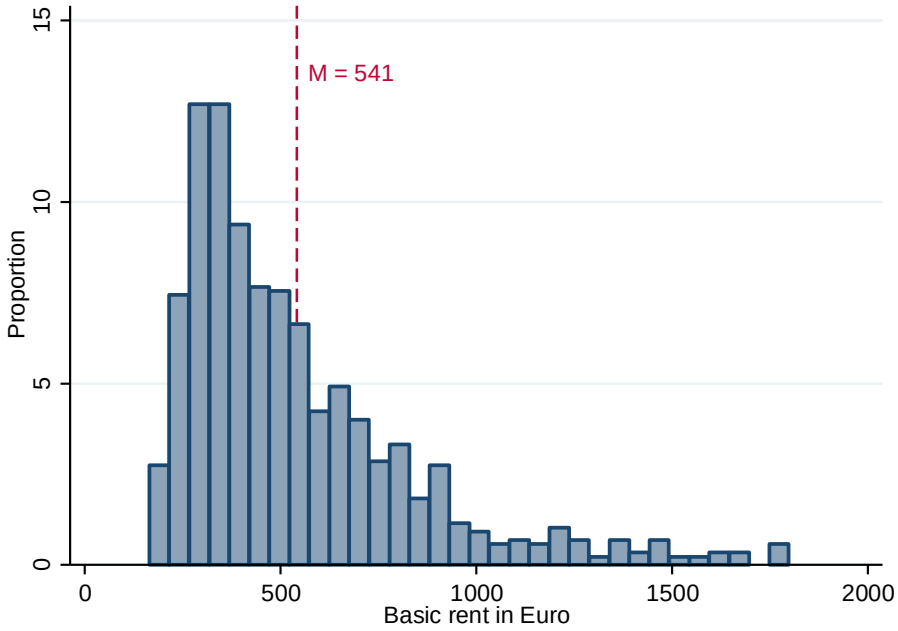



Model: LPM/OLS, covariates (characteristics of apartment and region)
Clustered SE, 95% CI
Napartments = 884; Nenquiries = 1768

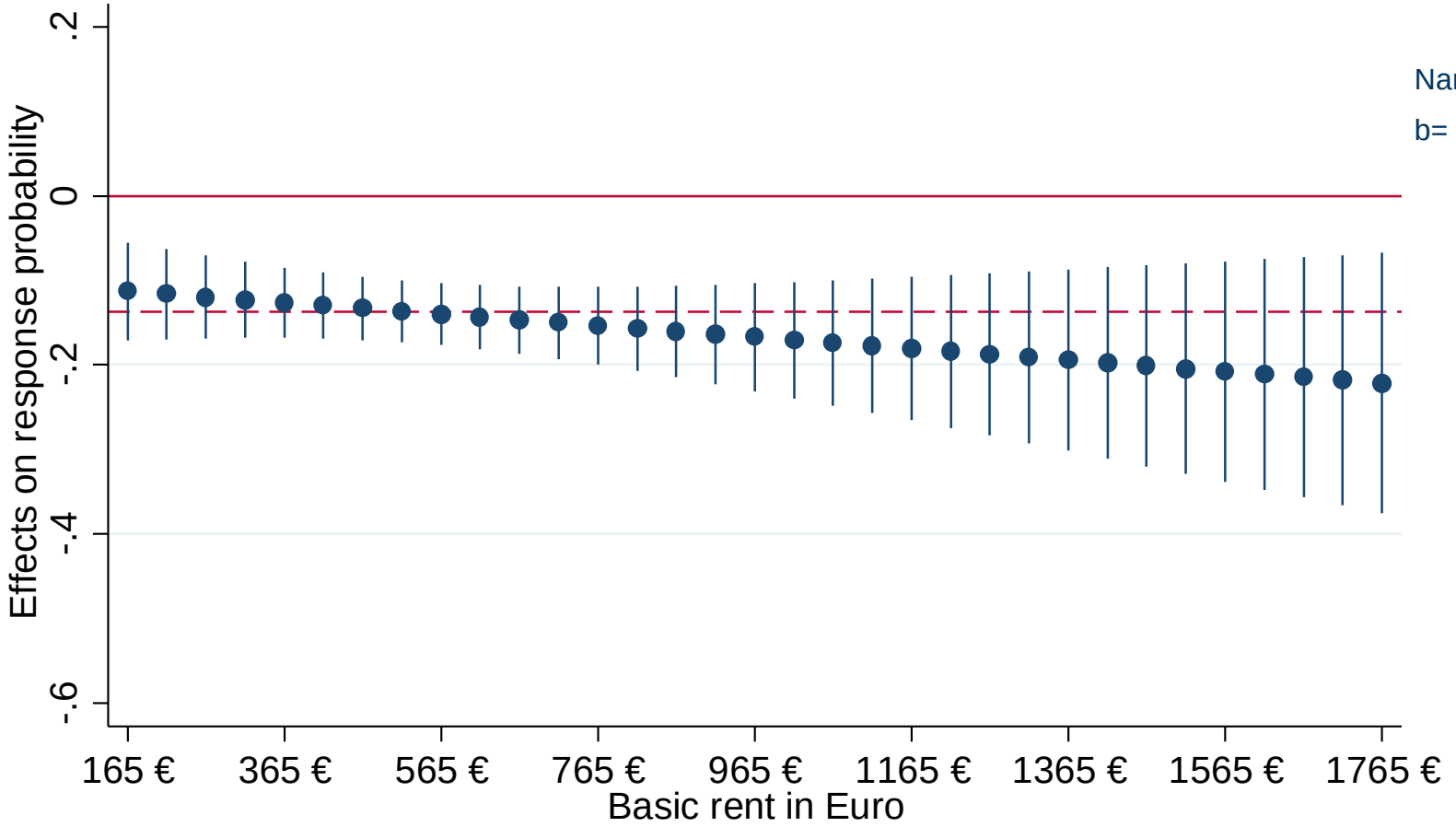
# Basic rent

## Basic rent

- Total rent in Euro without without heating and electricity



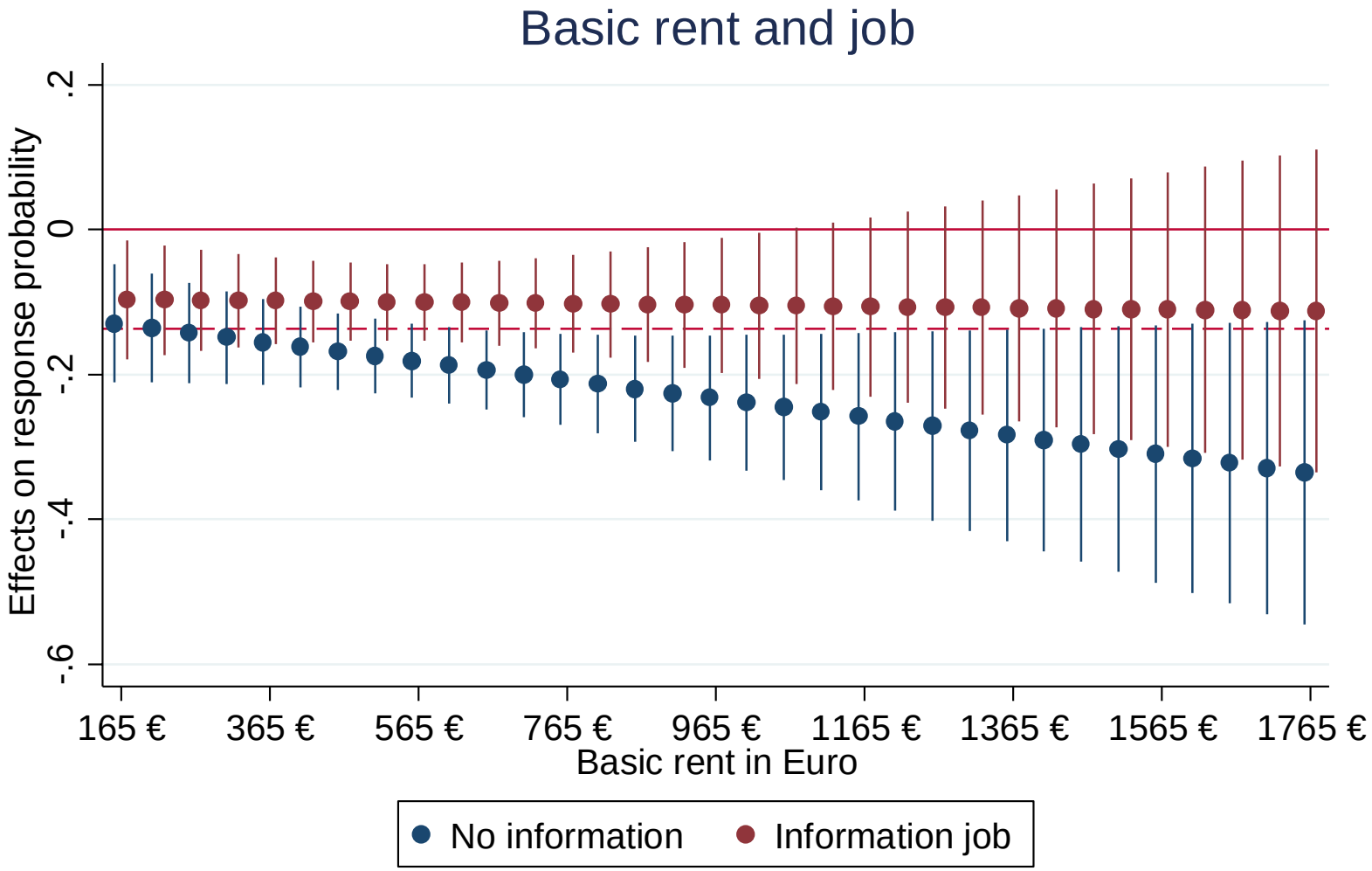
# Basic rent




Name * Basic rent:

b= .000, p= 0.273

Model: LPM/OLS, conditional effects, clustered SE, 95% CI, covariates
Napartments = 874; Nenquiries = 1748
AIC: 2345.461, BIC: 2525.846

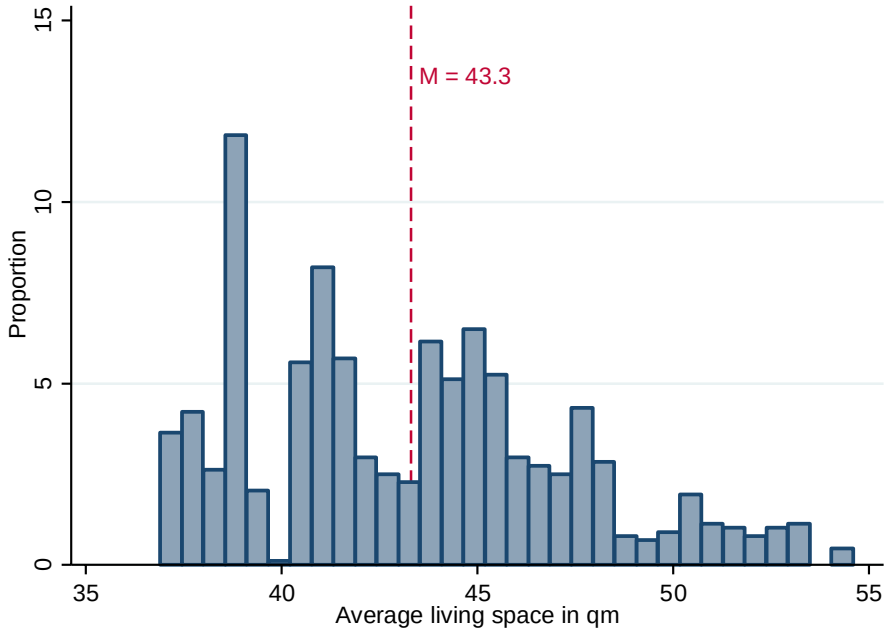



Model: LPM/OLS, conditional effects, clustered SE, 95% CI, covariates
Napartments = 874; Nenquiries = 1748; AIC: 2342.179, BIC: 2533.497

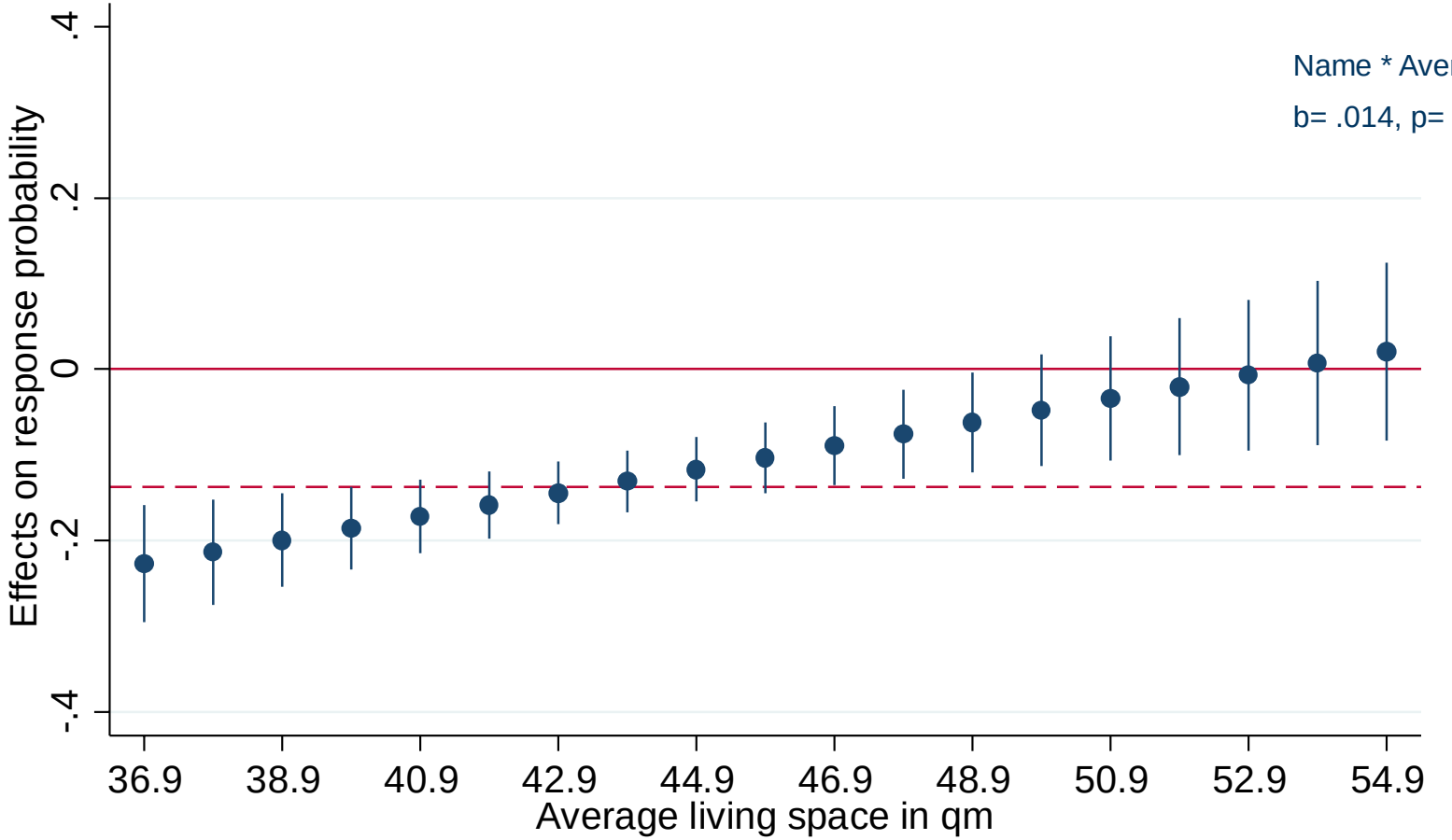
# Discrimination and living space per capita

## Living space per capita

- Living space in residential buidlings per inhabitant in square meters



# Average living space

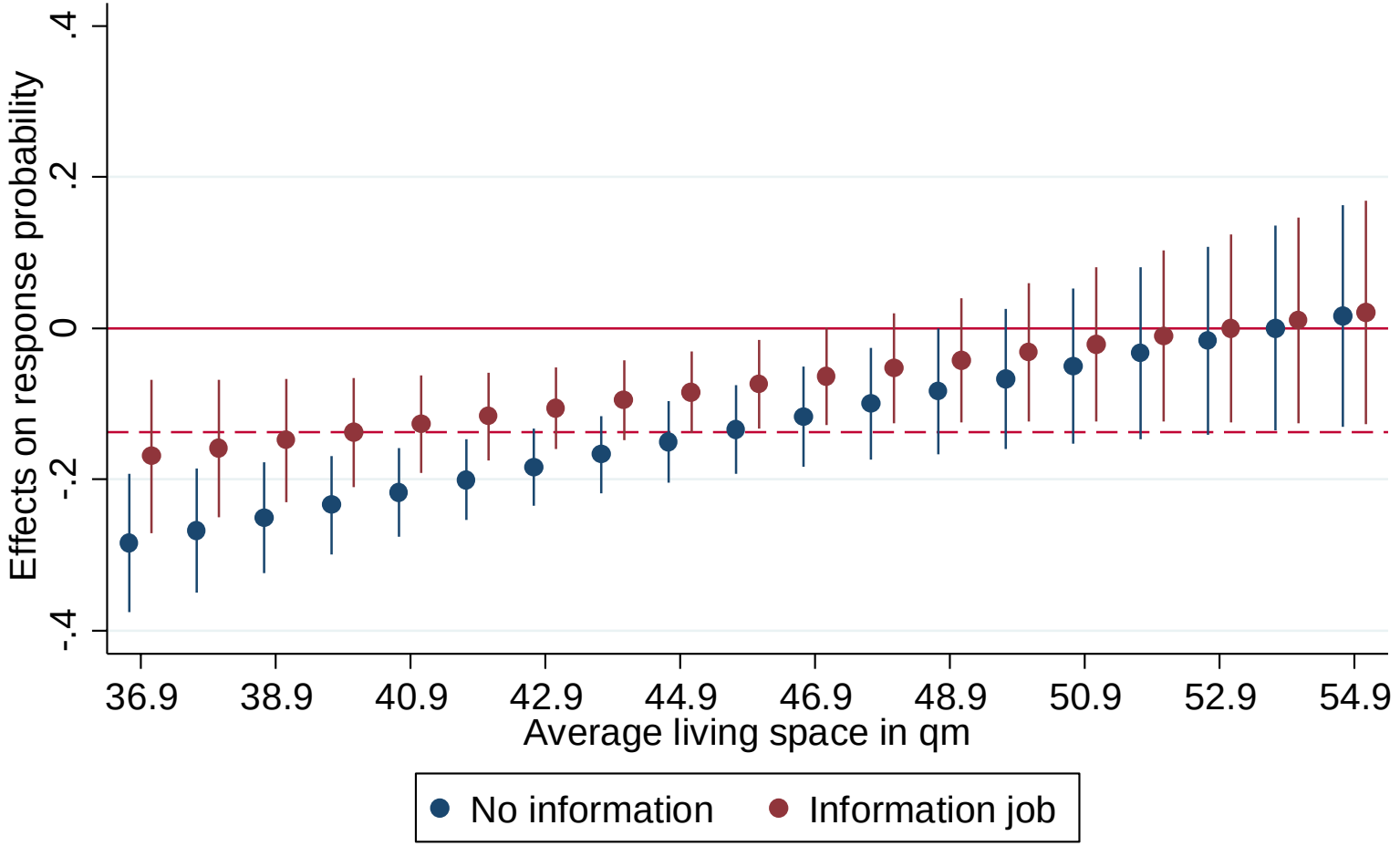



Name * Average living space:

b= .014, p= 0.002

Model: LPM/OLS, conditional effects, clustered SE, 95% CI, covariates
Napartments = 878; Nenquiries = 1756
AIC: 2326.955, BIC: 2502.020

# Average living Space and job

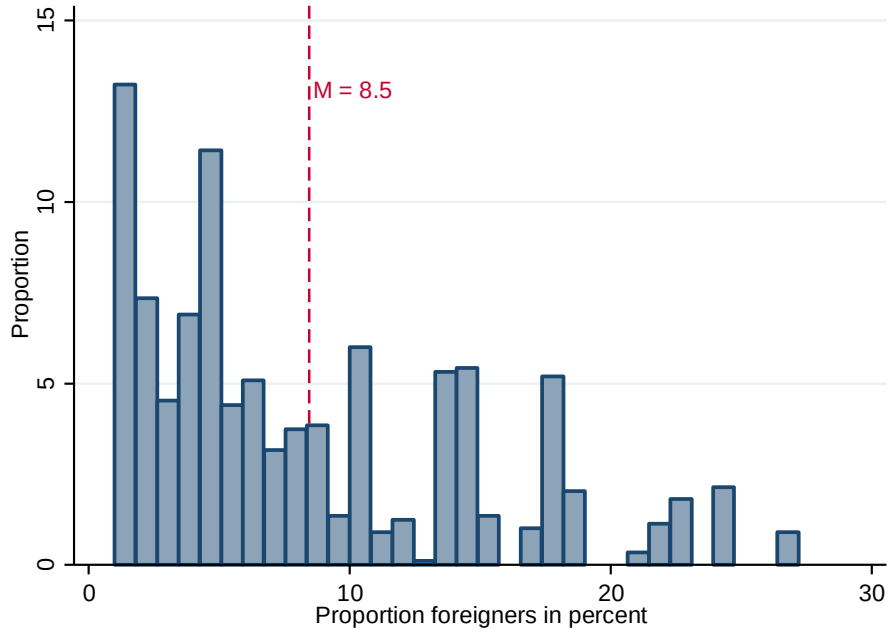


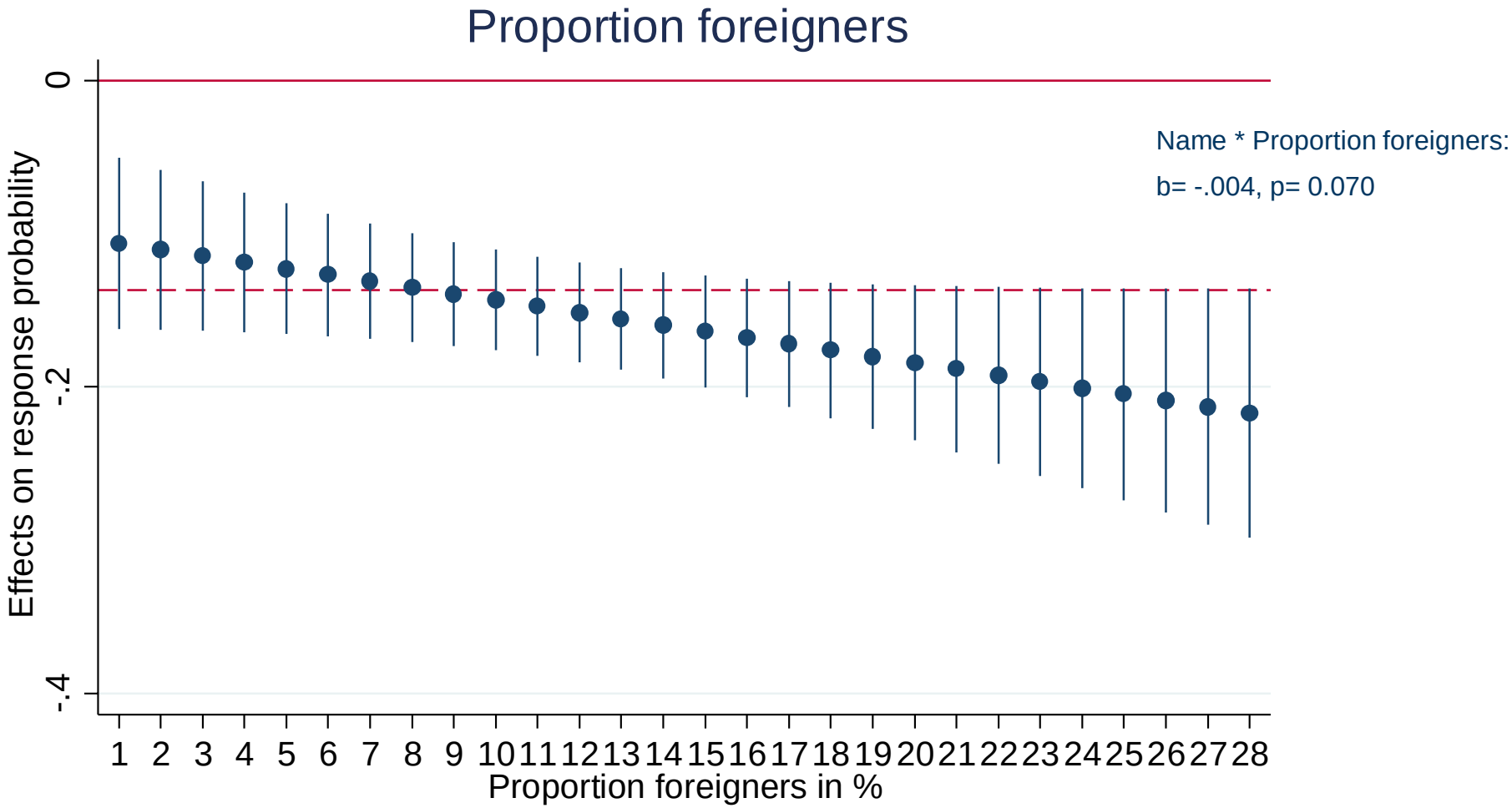

Model: LPM/OLS, conditional effects, clustered SE, 95% CI, covariates
Napartments = 878; Nenquiries = 1756; AIC: 2326.955, BIC: 2502.020

# Discrimination and foreigners proportion

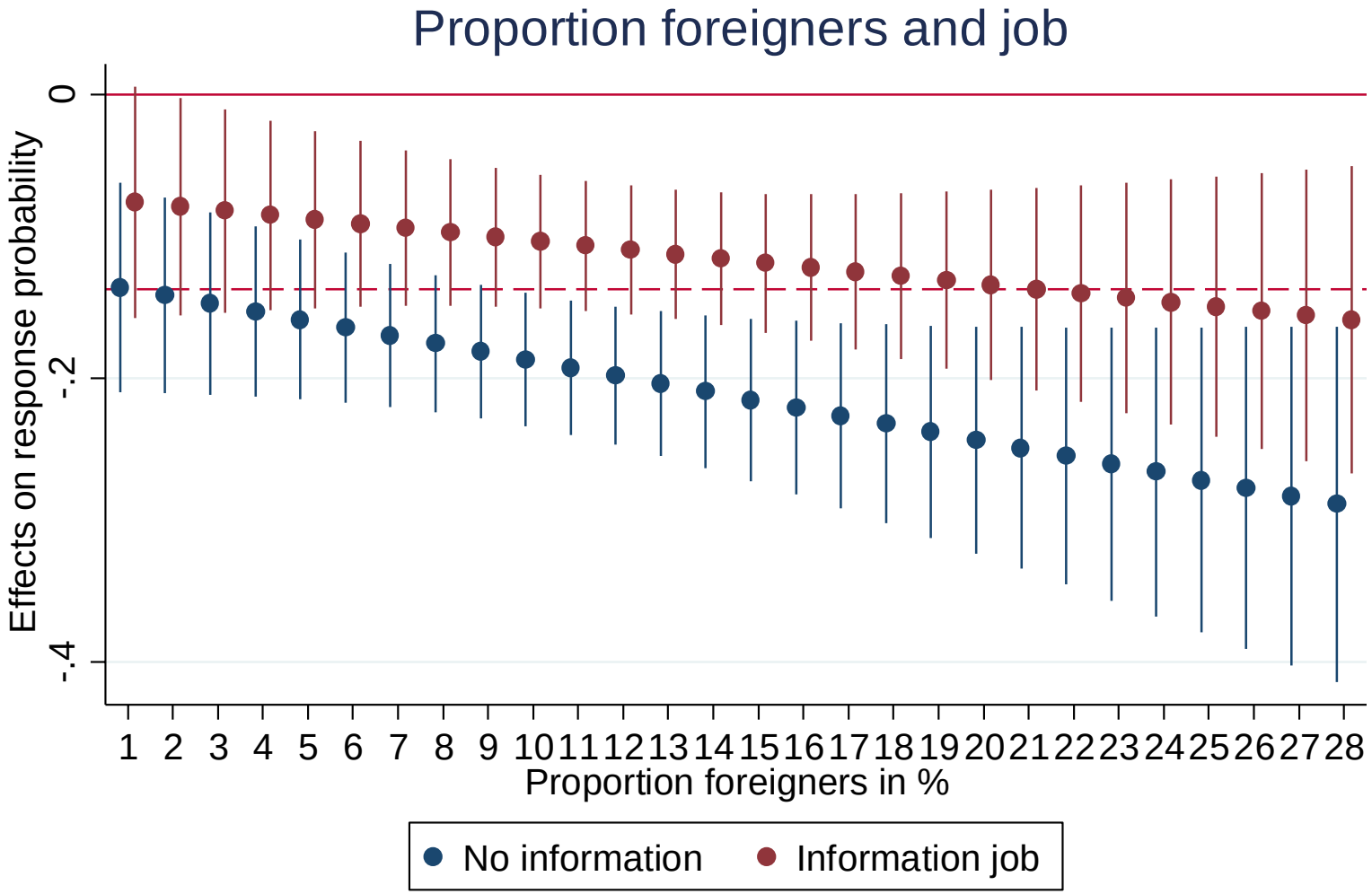
## Foreigners proportion

- Proportion of (all) foreigners of all inhabitants






Model: LPM/OLS, conditional effects, clustered SE, 95% CI, covariates
Napartments = 884; Nenquiries = 1768
AIC: 2357.073, BIC: 2526.879




Model: LPM/OLS, conditional effects, clustered SE, 95% CI, covariates
Napartments = 884; Nenquiries = 1768; AIC: 2360.191, BIC: 2562.862

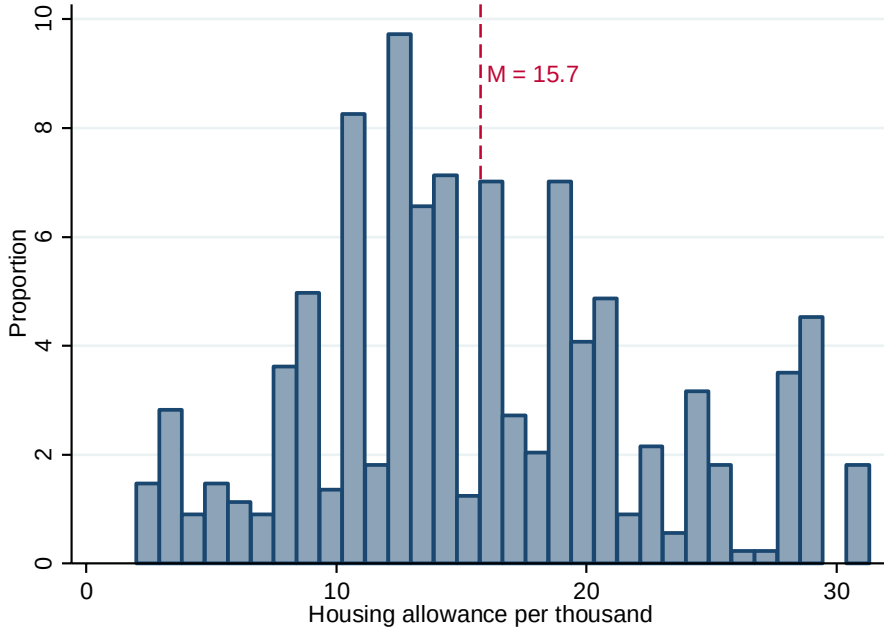
# One additional consideration

- H6a: The better financial risk can be assessed by context information, the lower will be ethnic discrimination.
- H6b: The better financial risk can be assessed by context information, the less important will additional information be.

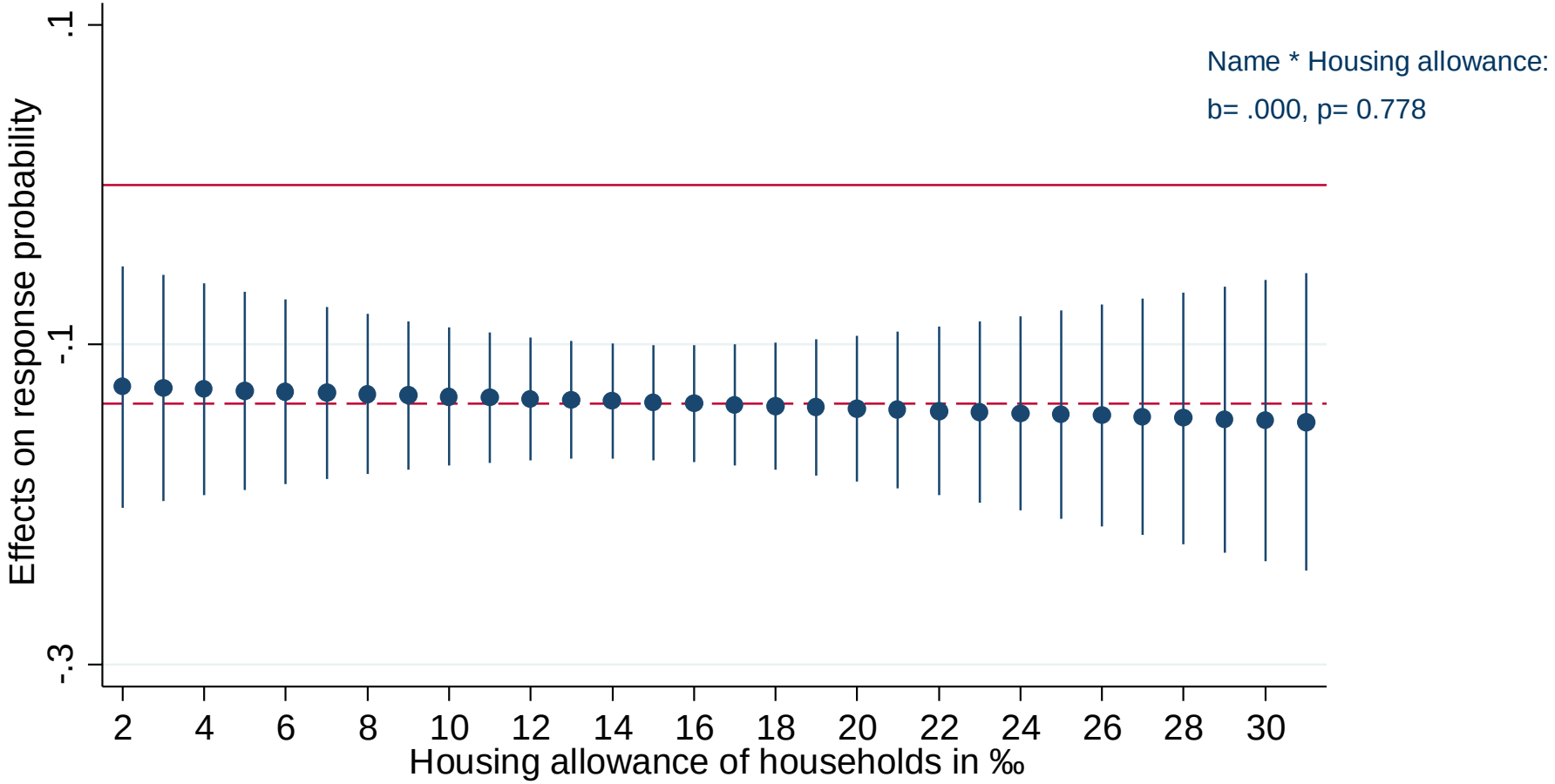
# Discrimination and housing allowance

## Housing allowance

- Households who receive housing allowance
- Per 1.000 households

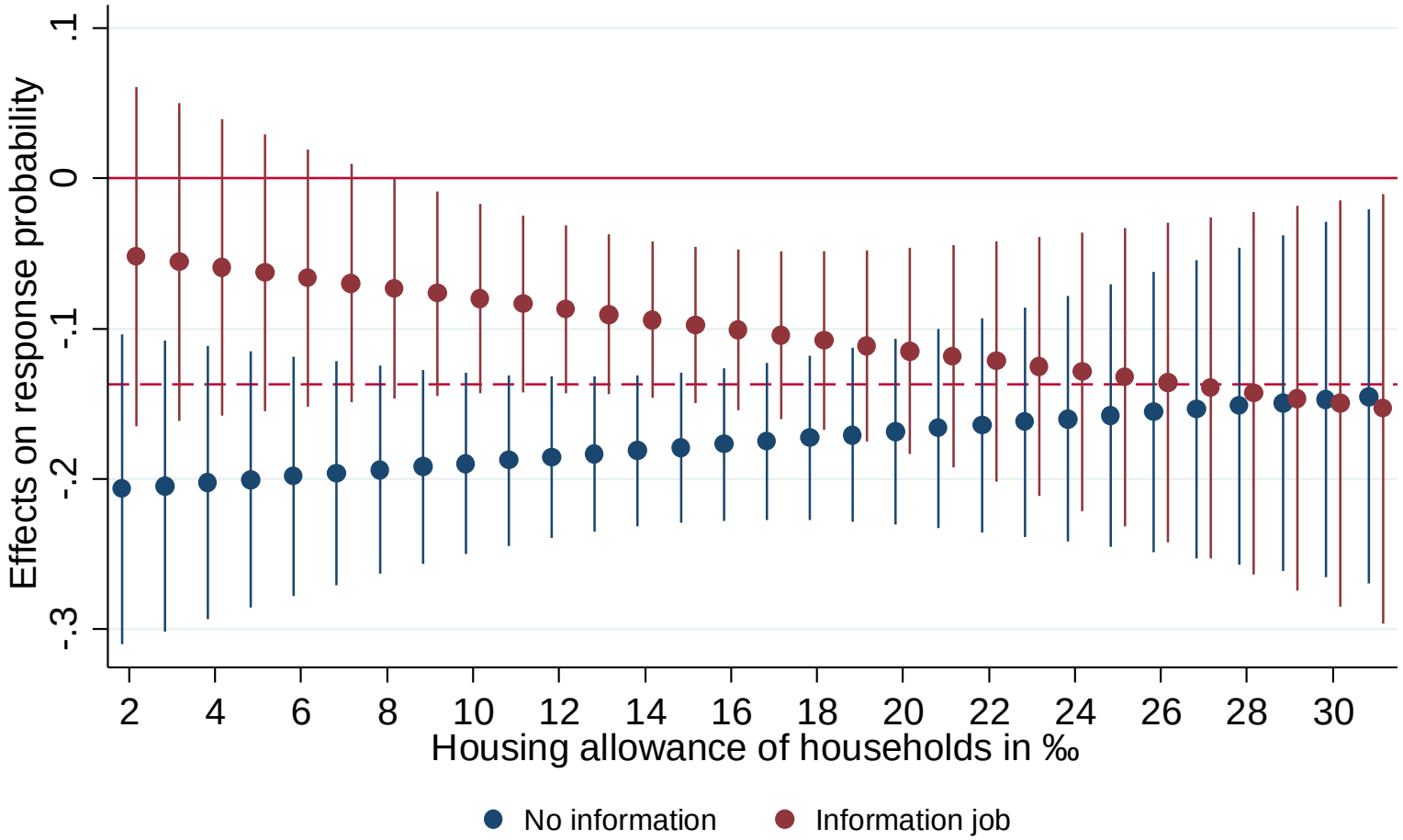


# Housing allowance




Model: LPM/OLS, conditional effects, clustered SE, 95% CI, covariates
Napartments = 884; Nenquiries = 1768
AIC: 2358.020, BIC: 2538.781

# Housing allowance and job




Model: LPM/OLS, conditional effects, clustered SE, 95% CI, covariates
Napartments = 884; Nenquiries = 1768; AIC: 2360.191, BIC: 2562.862

# Summary

- There is remarkable ethnic discrimination in the rental housing market (H1)

- Ethnic discrimination is moderated by
  - information about employment status (H2)
  - competition among applicants (living space) (H4a)
  - minority group size (H5a)
  - (financial risk (basic rent, H3a))

- Employment status is disregarded when
  - relevant information is provided by context (housing allowance, H6b)
  - there is low competition among applicants (living space, H4b)

# Discussion & conclusions

- Evidence for preference-based and statistical discrimination
- Evidence for interaction between the objections against certain social groups and regional and market conditions

- Open questions
  - How can we explain the discriminatory baseline?
  - What are the sources of tastes against Arabs?
  - Is there still imperfect information?
  - What ist the “true causally relevant geographic context“ (Kwan 2012)?

# Limitations & prospects

- Treatment construction
- Sampling and sample size (external validity)
- Context variable choice
- Regional scale of context information
- Content of response mails

→ Further replications are needed!

# Thank you for your attention and your comments!

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# References

# Theoretical framework

## Preference formation

**Realistic Group Conflict Theory** (Coser 1956; LeVine & Campbell 1972)
**Social Identity Theory** (Tajfel & Turner 1979)
**Ethnic Competition Theory** (Scheepers et al. 2002)

- The larger a (threatening) outgroup, the more ethnic threat is perceived und and negative attitudes are developed (Empirical evidence: e.g. Weins 2011; Wagner et al. 2006)

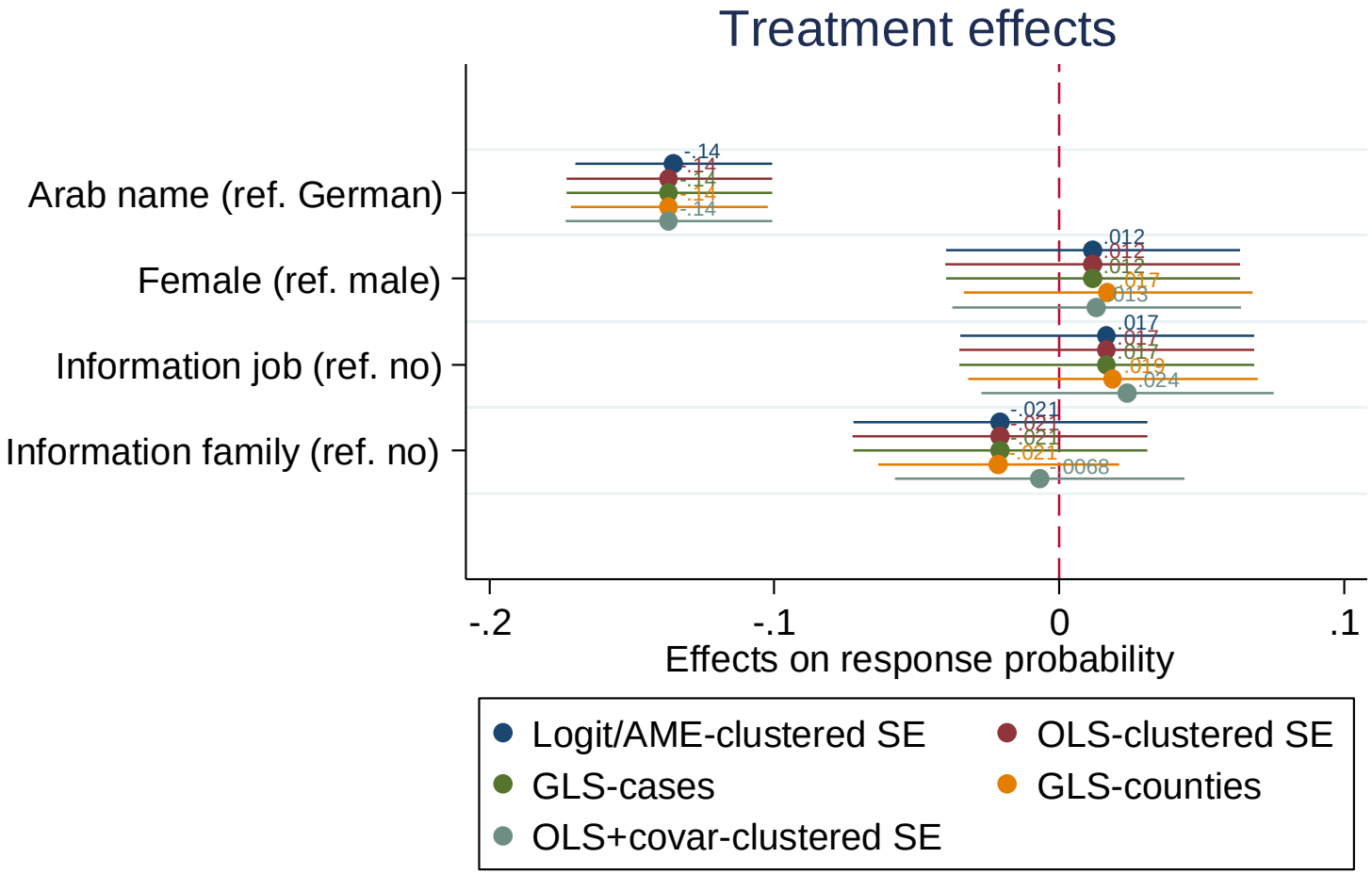
**Intergroup Contact Theory** (Allport 1954; Pettigrew 1998)

- The larger an outgroup, the more intergroup interaction. Intergroup contact as efficient mean to reduce prejudice (Empirical evidence: e.g. Schneider 2008; Savelkoul et al. 2011)

**Discrimination by customers** (Becker 1957)

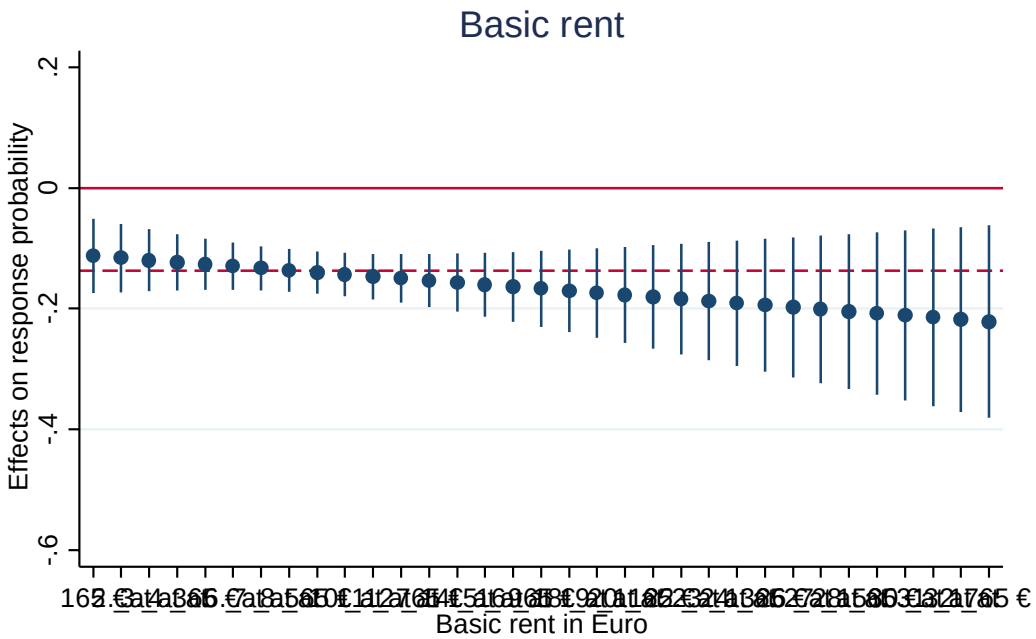
- Lessors discriminate migrants to avoid trouble with existing tenants
- The larger the minority group size, the more should lessors discriminate against migrants (see also Ewens et al. 2014; Hogan & Berry 2011)
- (In contrast to spatial steering)

# Robustness check treatment effects



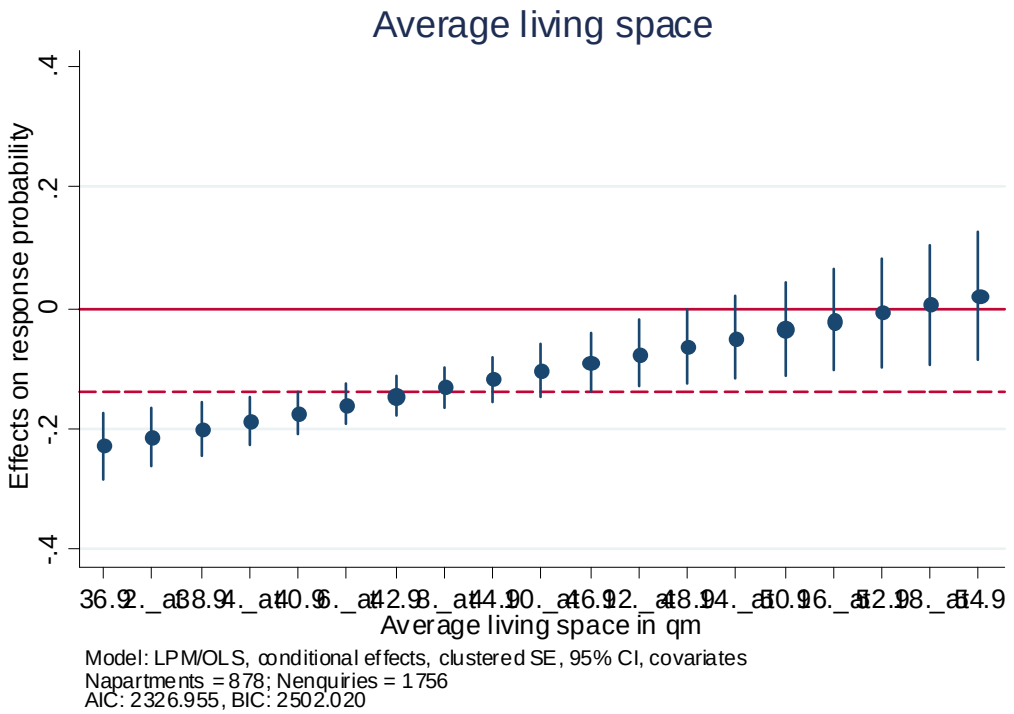

Covariates (characteristics of appartment and region)
95% CI
Napartments = 884; Nenquiries = 1768

# Basic rent ML model

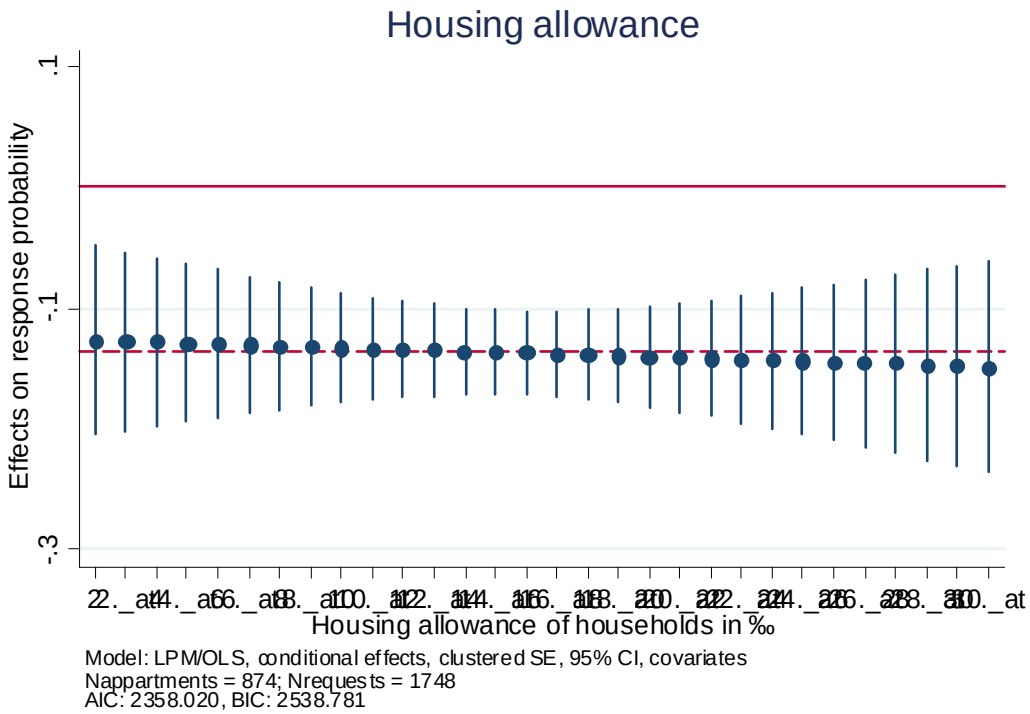



Model: LPM/OLS, conditional effects, clustered SE, 95% CI, covariates
Napartments = 874; Nenquiries = 1748
AIC: 2345.461, BIC: 2525.846

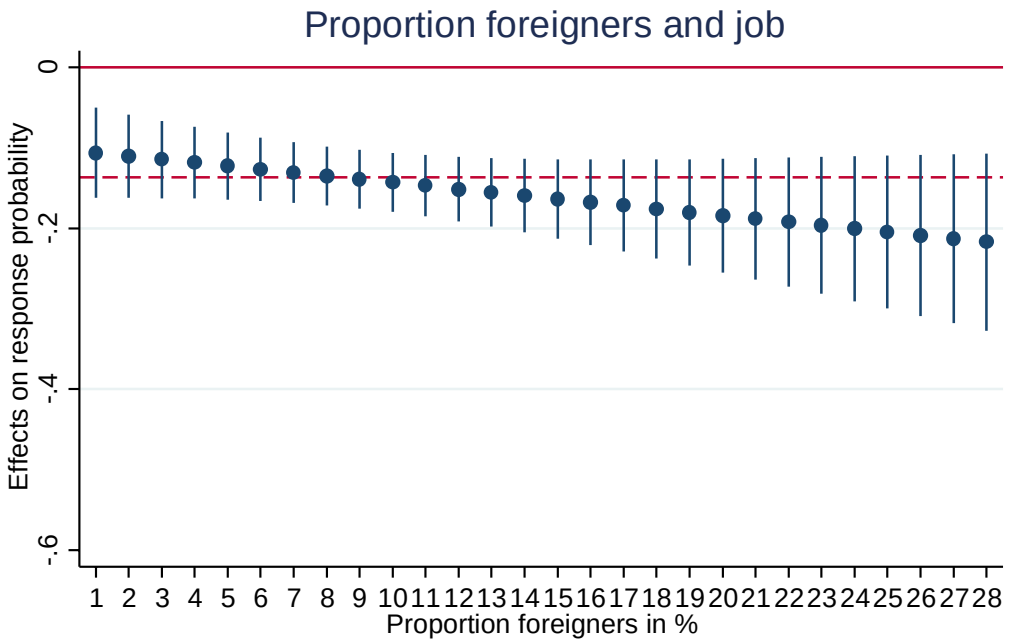
# Living space per capita ML model



# Housing allowance ML model



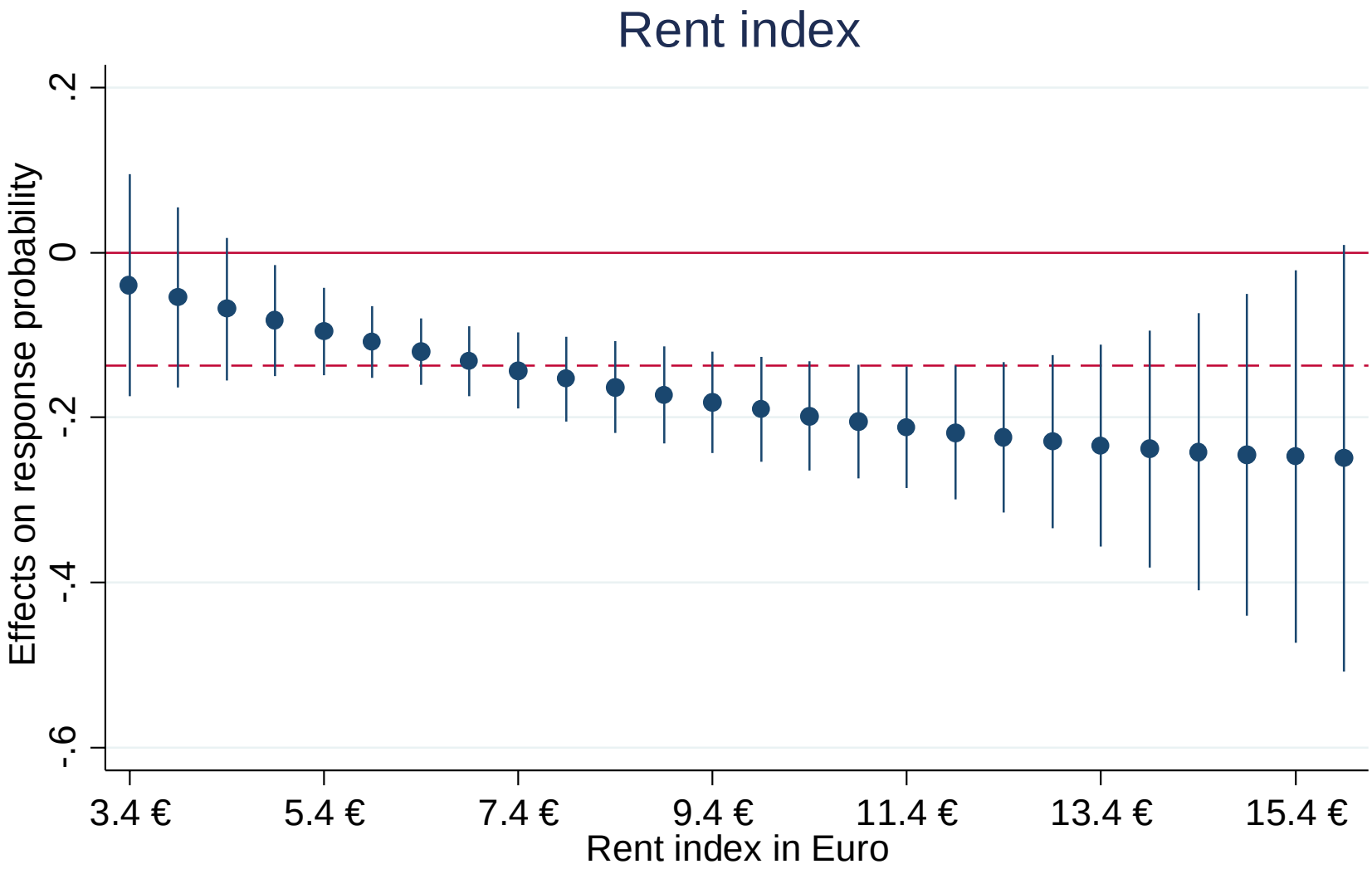
# Proportion foreigners ML model




Model: LPM/OLS, conditional effects, clustered SE, 95% CI, covariates
Napartments = 884; Nenquiries = 1768
AIC: 2357.073, BIC: 2526.879

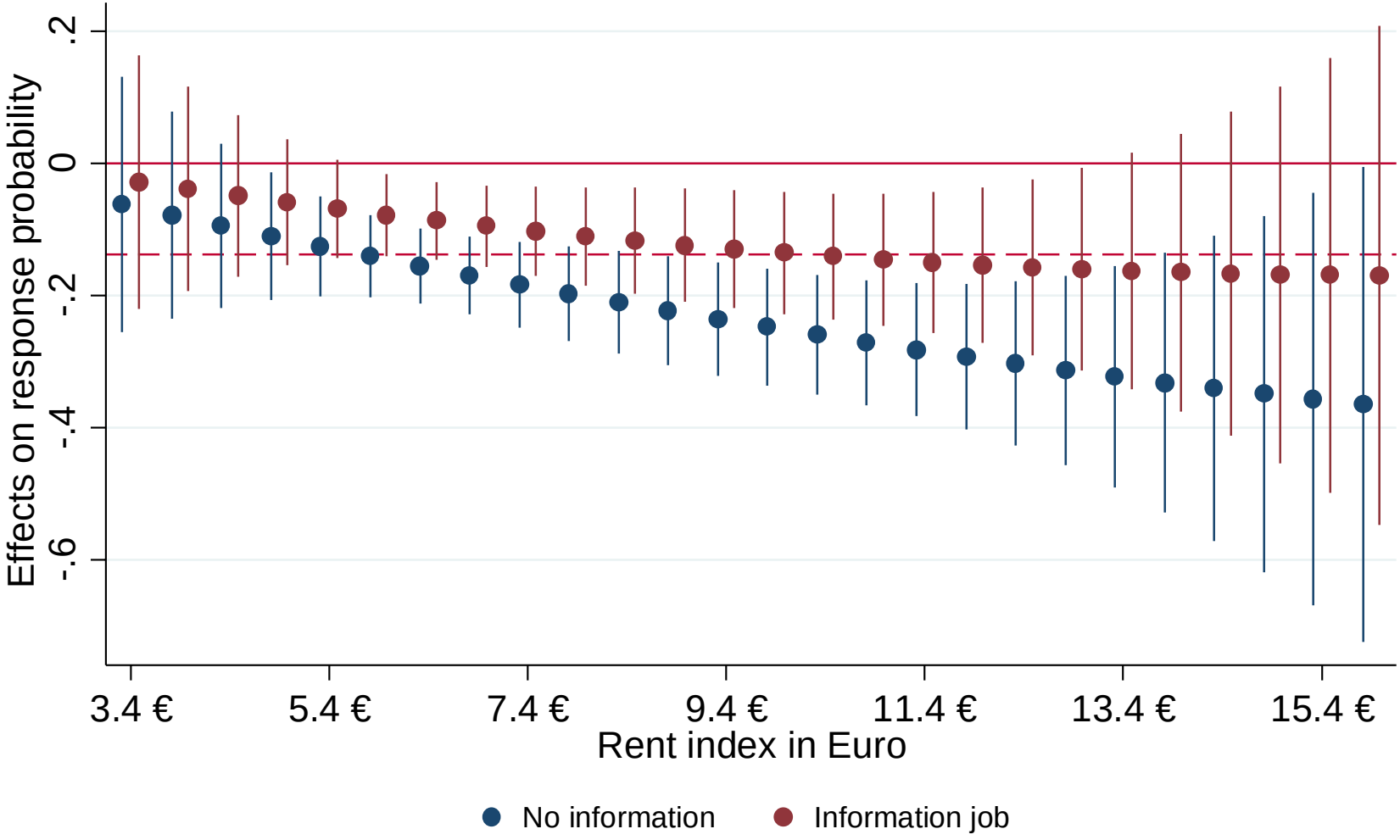
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 Rent index | 1.0000 | | | | | | | | | | | |
| 2 Average living space per capita | -0.4192* | 1.0000 | | | | | | | | | | |
| 3 Proportion of 2/3-room apart. | 0.3767* | -0.8538* | 1.0000 | | | | | | | | | |
| 4 Average net household income | 0.5804* | 0.1783* | -0.2322* | 1.0000 | | | | | | | | |
| 5 Housing allowance | -0.4329* | -0.3403* | 0.4217* | -0.7218* | 1.0000 | | | | | | | |
| 6 Proportion of foreigners | 0.7426* | -0.4250* | 0.4082* | 0.5371* | -0.4884* | 1.0000 | | | | | | |
| 7 Proportion of foreigners - km² grid | 0.4198* | -0.0905* | 0.1167* | 0.4093* | -0.3473* | 0.5297* | 1.0000 | | | | | |
| 8 Population | 0.4336* | -0.3938* | 0.4548* | 0.0934* | -0.2008* | 0.4644* | 0.1697* | 1.0000 | | | | |
| 9 Population density | -0.6534* | 0.4417* | -0.3613* | -0.3792* | 0.3559* | -0.7606* | -0.3716* | -0.4197* | 1.0000 | | | |
| 10 Average age in years | 0.6943* | -0.7345* | 0.7527* | 0.2011* | -0.1062* | 0.8040* | 0.3637* | 0.6437* | -0.7469* | 1.0000 | | |
| 11 Demand for new apart. 2030 | 0.5322* | 0.0358 | -0.1296* | 0.5839* | -0.6244* | 0.4869* | 0.3077* | 0.2553* | -0.4808* | 0.2501* | 1.0000 | |
| 12 Region (urban / rural) | -0.4376* | 0.4266* | -0.4278* | -0.1936* | 0.1024* | -0.5395* | -0.2637* | -0.3133* | 0.6034* | -0.6485* | -0.1338* | 1.0000 |

*Pearson's r; * $p < 0.01$*



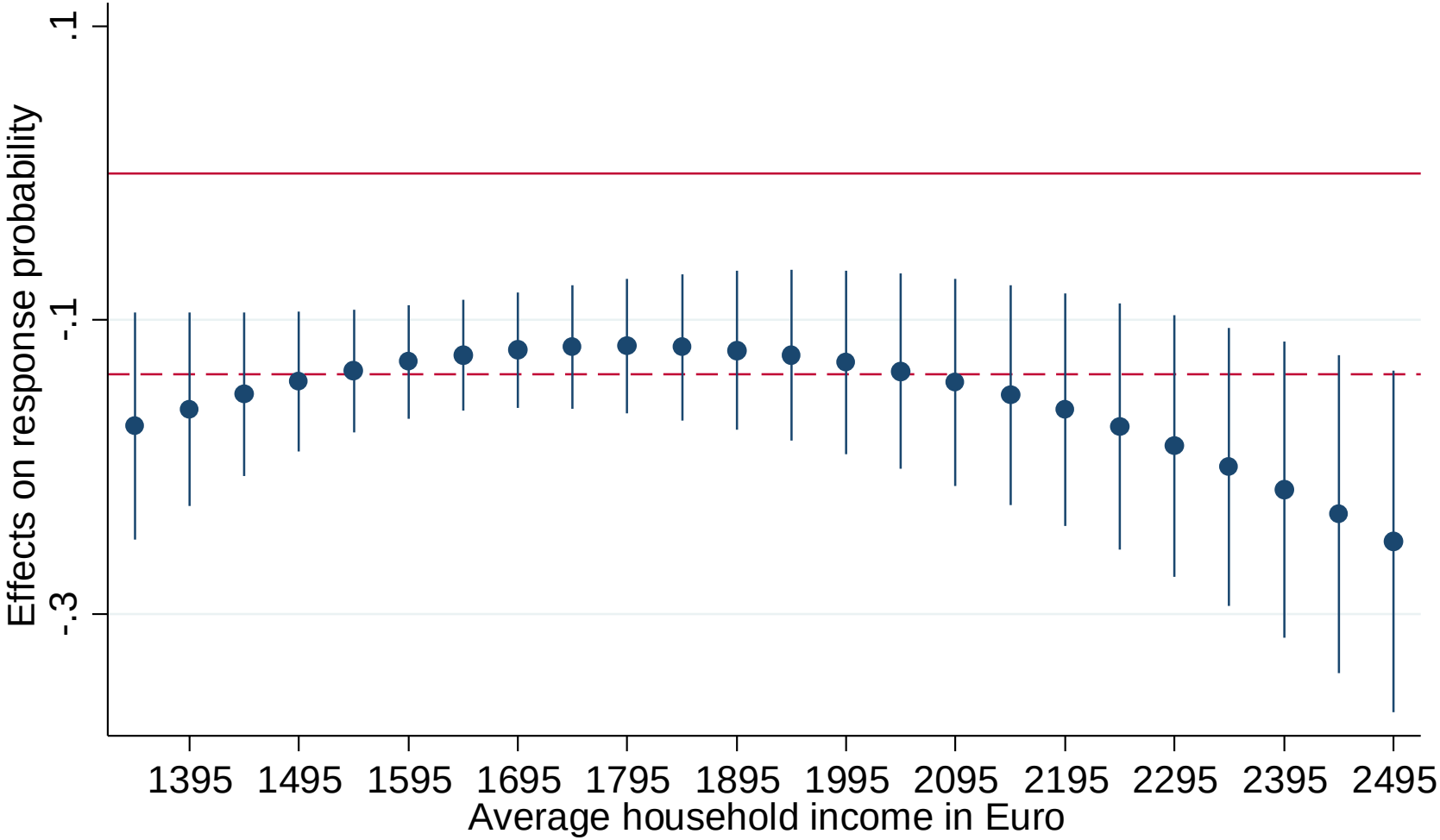

Model: LPM/OLS, conditional effects, clustered SE, 95% CI, covariates
Nappartments = 874; Nrequests = 1748
AIC: 2345.461, BIC: 2525.846

# Rent index and job



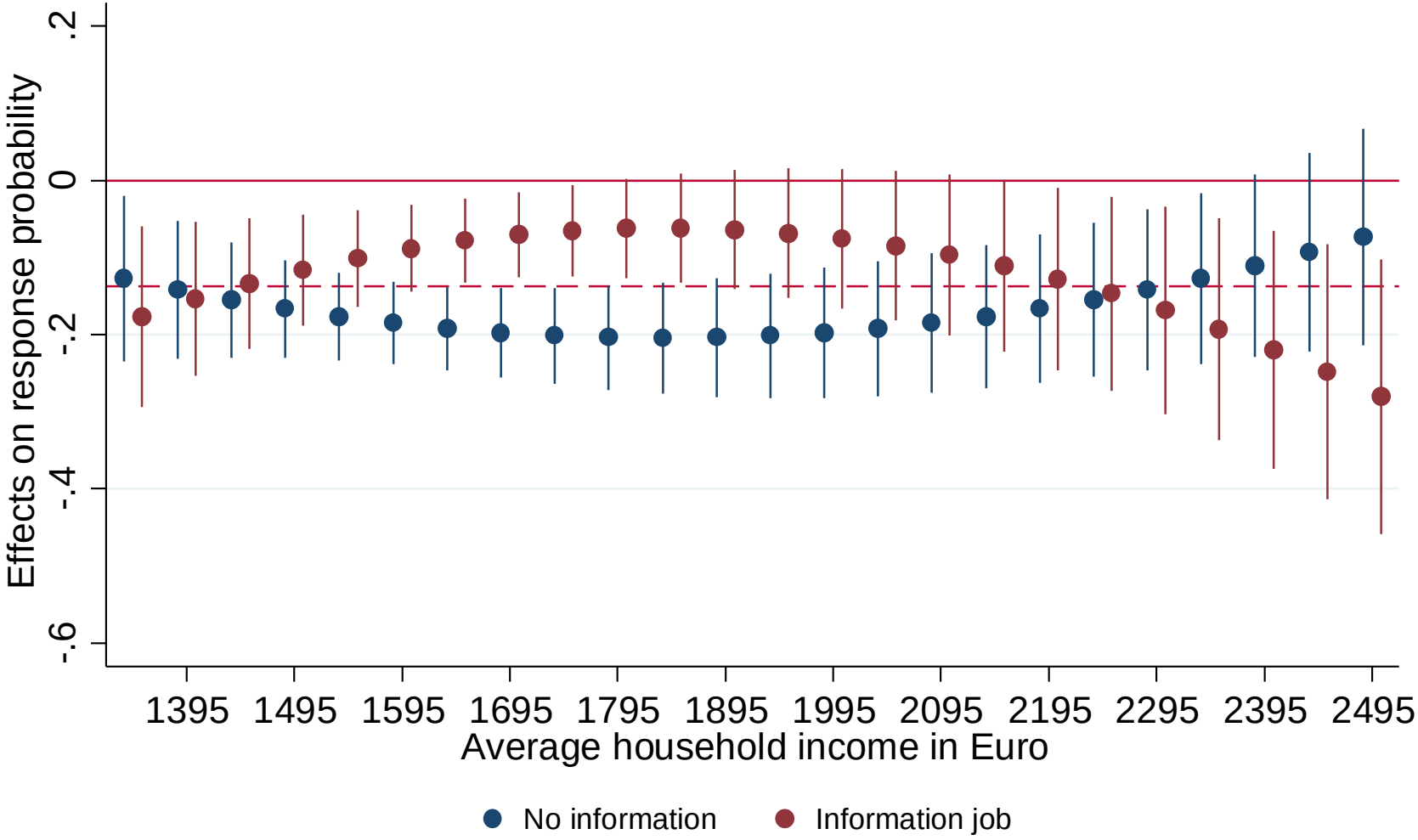

Model: LPM/OLS, conditional effects, clustered SE, 95% CI, covariates
Nappartments = 874; Nrequests = 1748; 2331.446, BIC: 2522.563

# Average household income



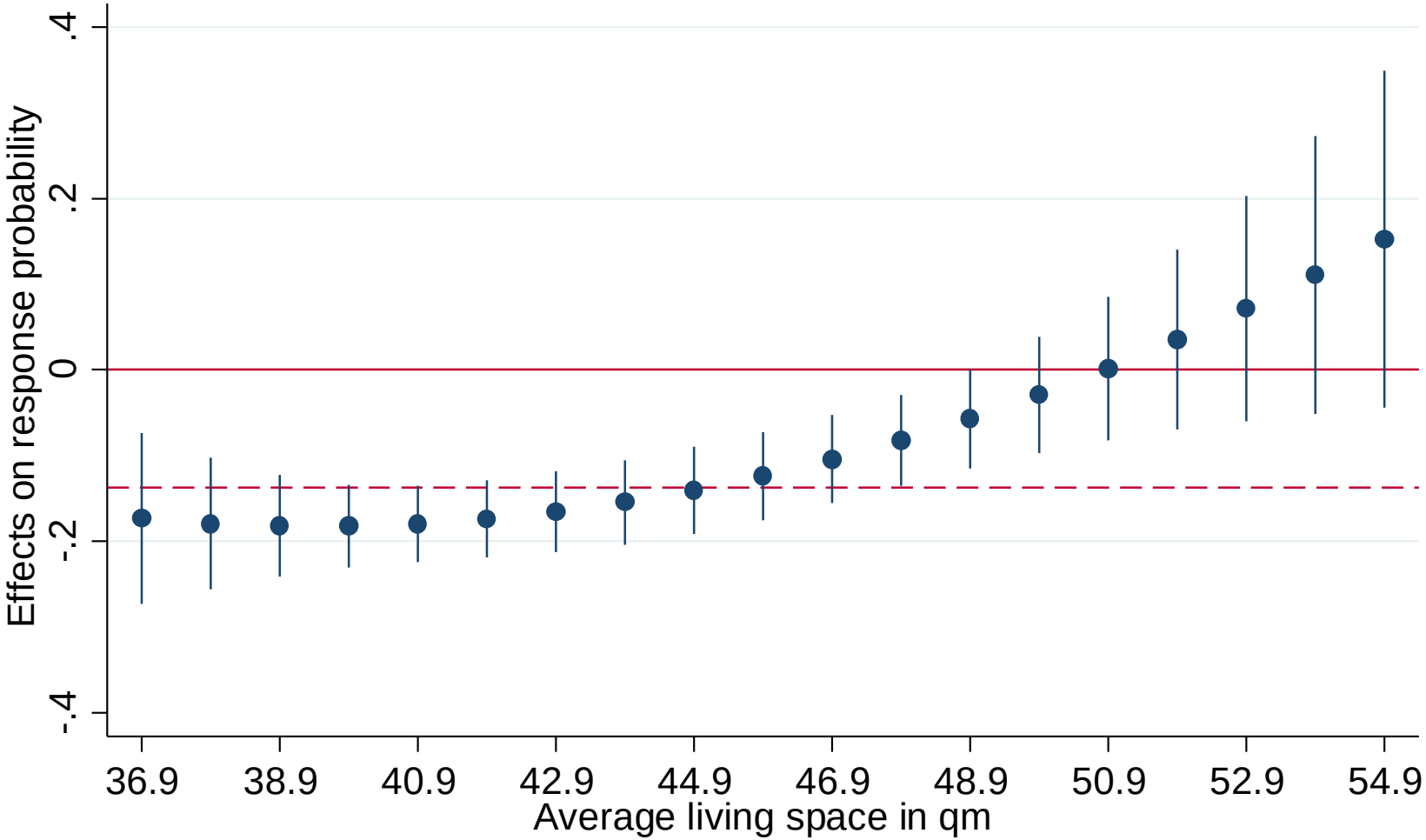

Model: LPM/OLS, conditional effects, clustered SE, 95% CI, covariates
Nappartments = 874; Nrequests = 1748
AIC: 2358.848, BIC: 2545.086

# Average household income and job



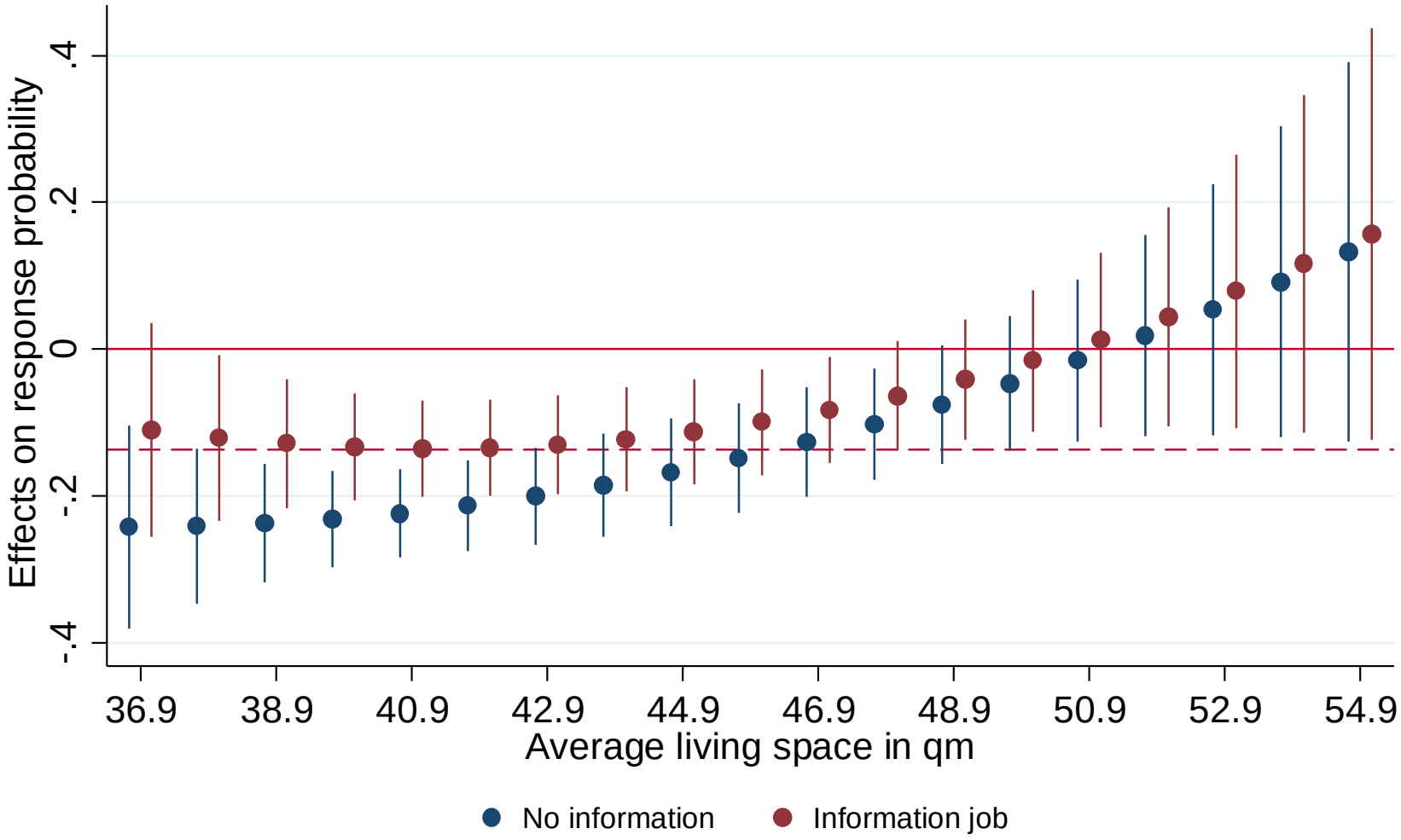

Model: LPM/OLS, conditional effects, clustered SE, 95% CI, covariates
Nappartments = 878; Nrequests = 1756; AIC: 2360.191, BIC: 2562.862

# Average living space



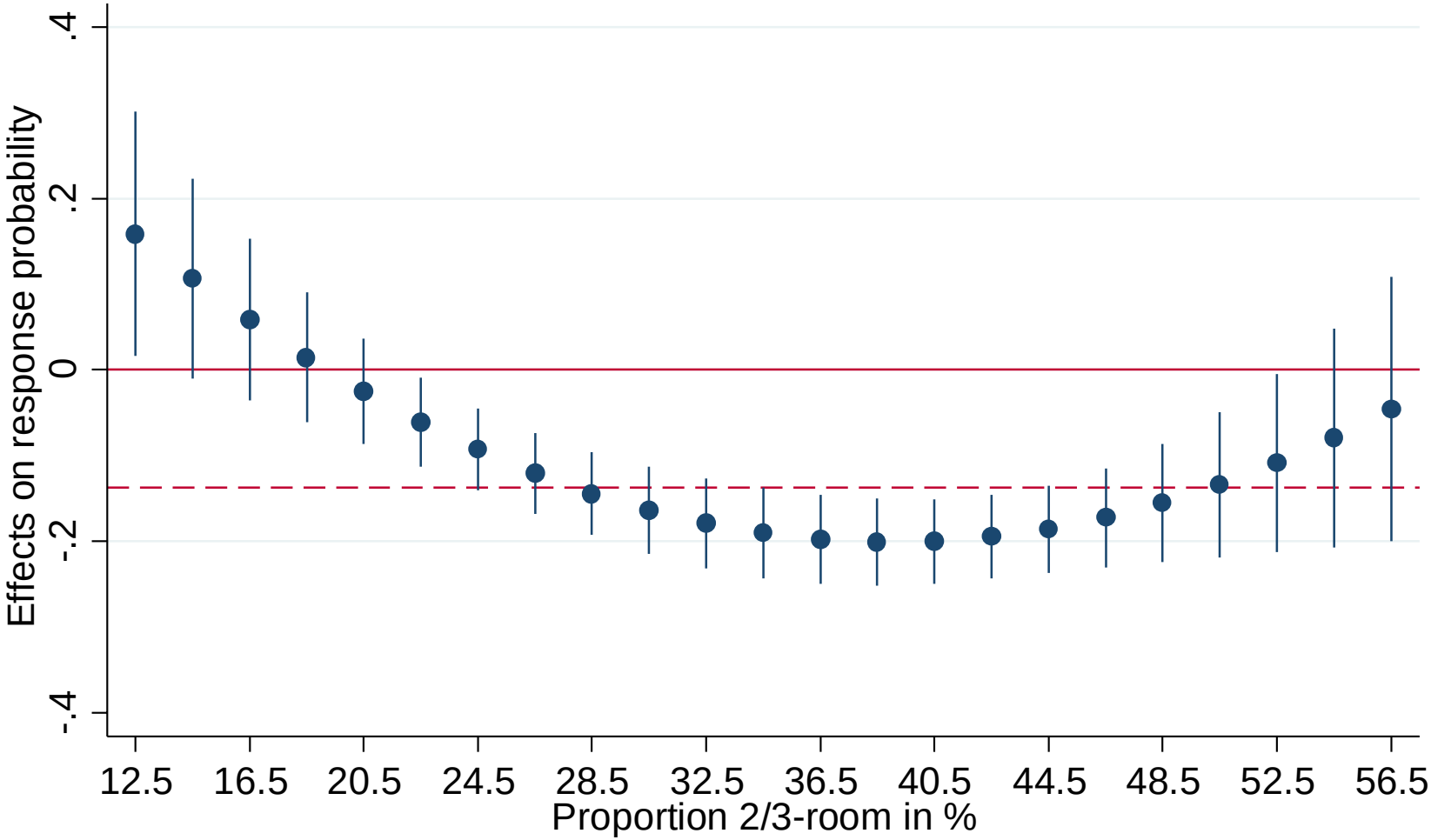

Model: LPM/OLS, conditional effects, clustered SE, 95% CI, covariates
Nappartments = 874; Nrequests = 1748
AIC: 2326.002, BIC: 2512.009

# Average living Space and job



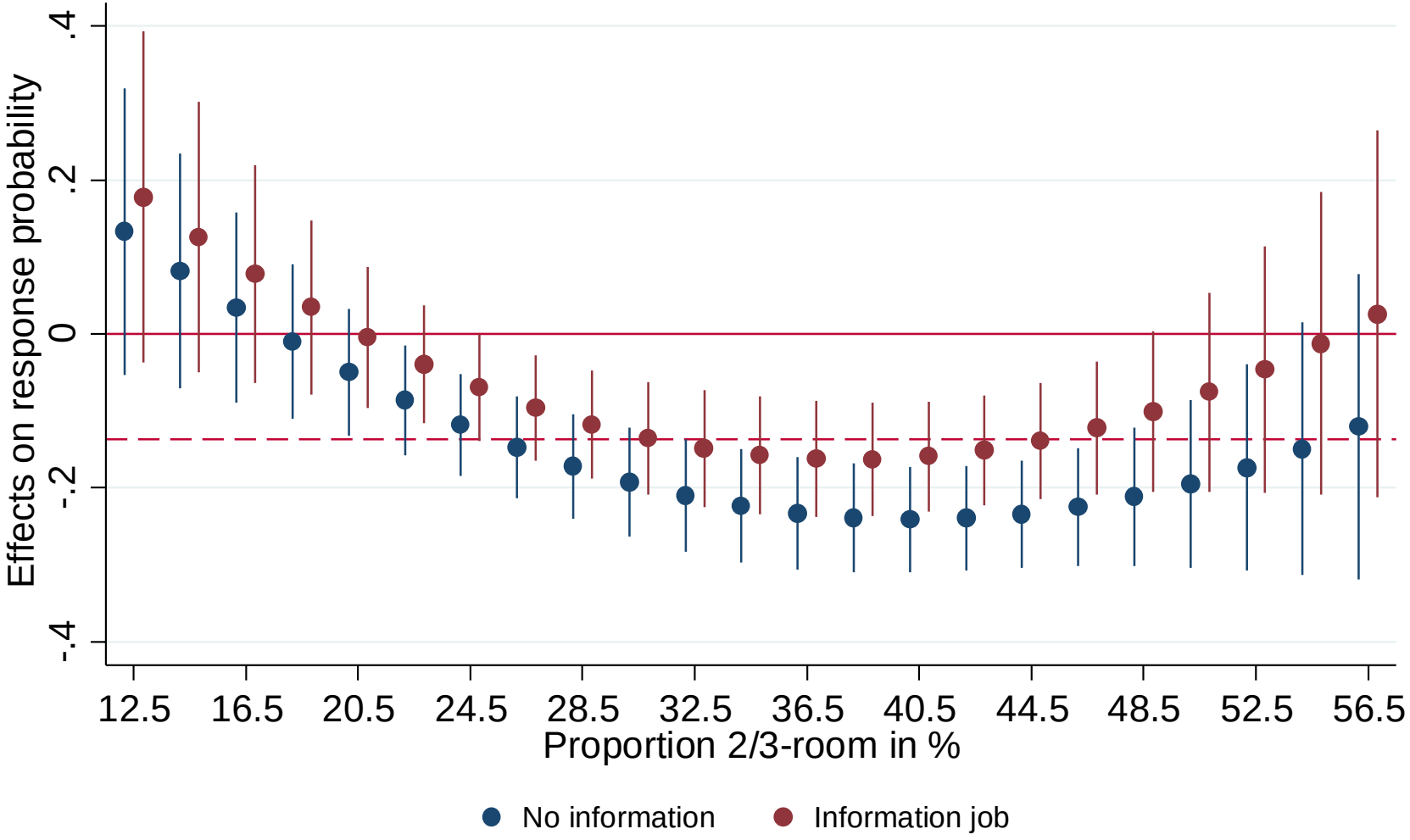

Model: LPM/OLS, conditional effects, clustered SE, 95% CI, covariates
Nappartments = 878; Nrequests = 1756; AIC: 2329.404, BIC: 2548.236

# Proportion 2/3-room

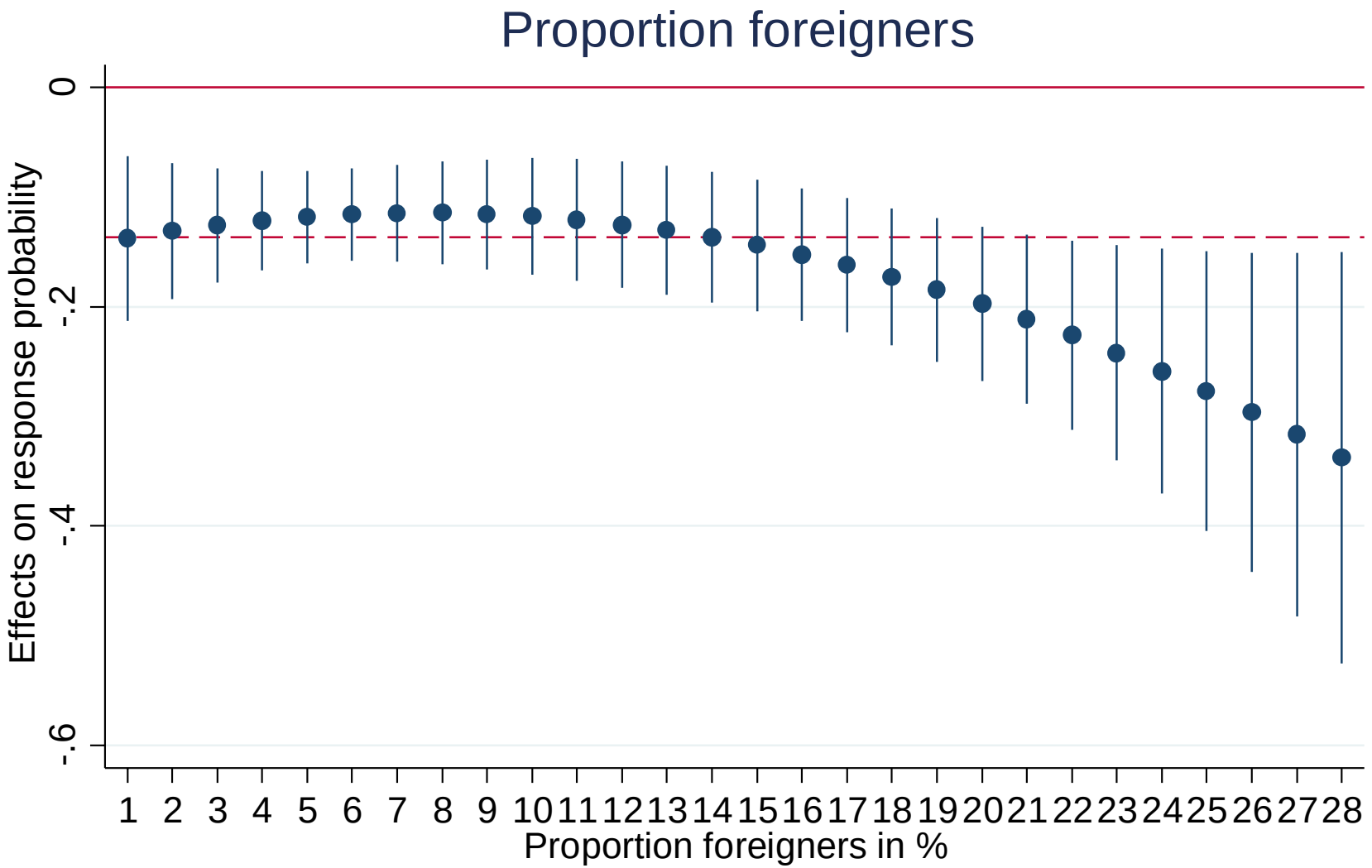



Model: LPM/OLS, conditional effects, clustered SE, 95% CI, covariates
Nappartments = 874; Nrequests = 1748
AIC: 2326.002, BIC: 2512.009

# Proportion 2/3-room and job

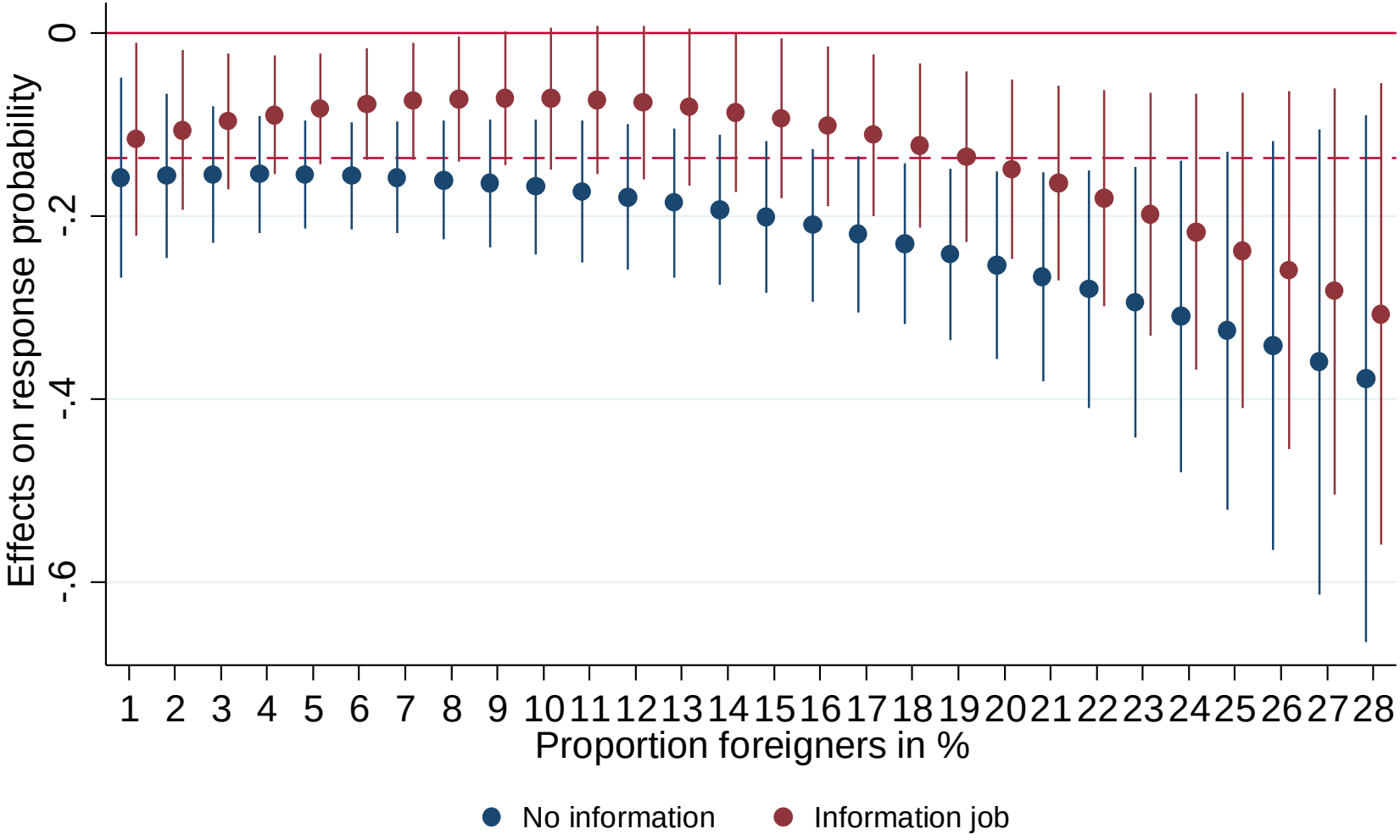



Model: LPM/OLS, conditional effects, clustered SE, 95% CI, covariates
Nappartments = 878; Nrequests = 1756; AIC: 2354.591, BIC: 2573.695



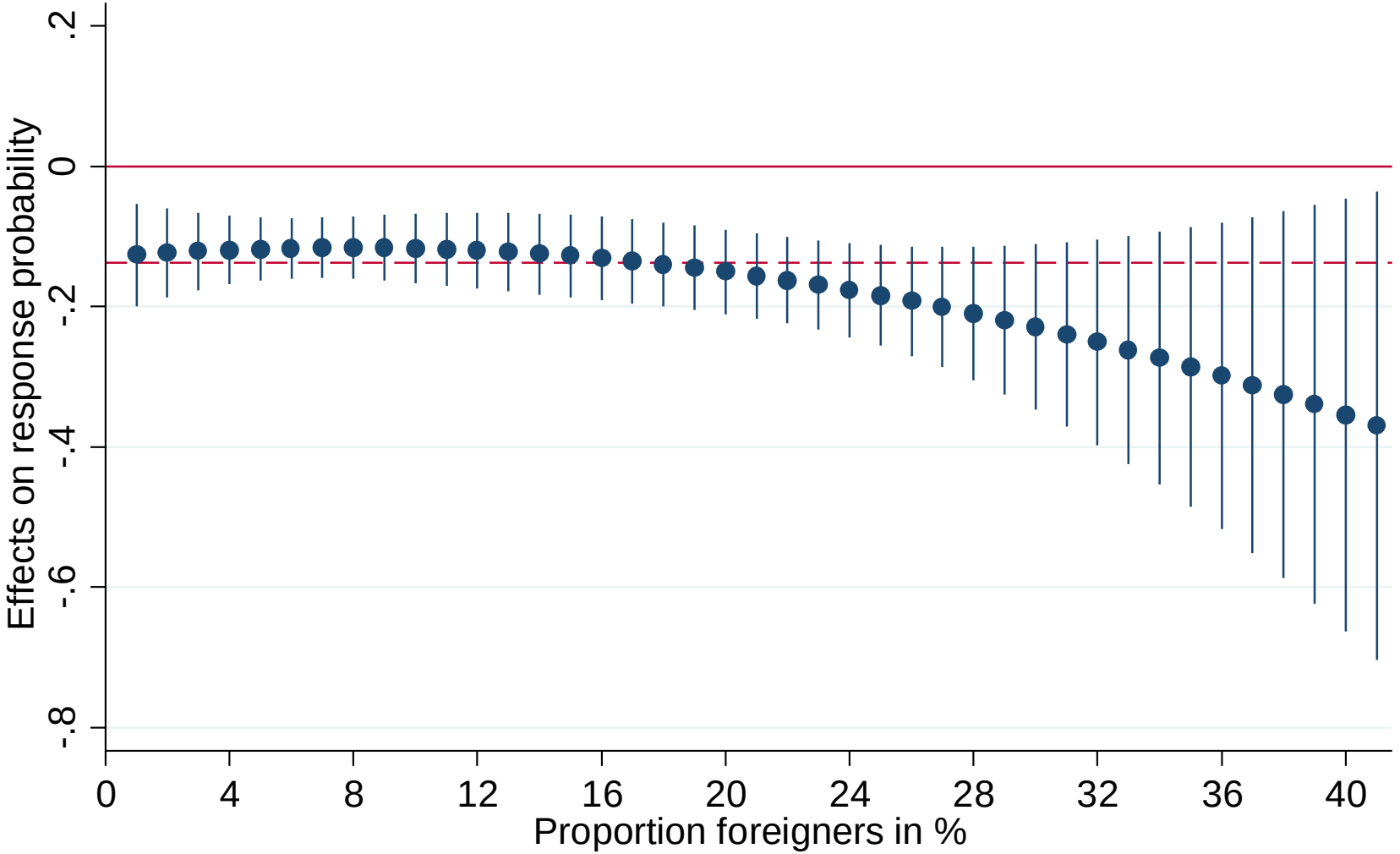

Model: LPM/OLS, conditional effects, clustered SE, 95% CI, covariates
Nappartments = 874; Nrequests = 1748
AIC: 2359.951, BIC: 2540.712

# Proportion foreigners and job



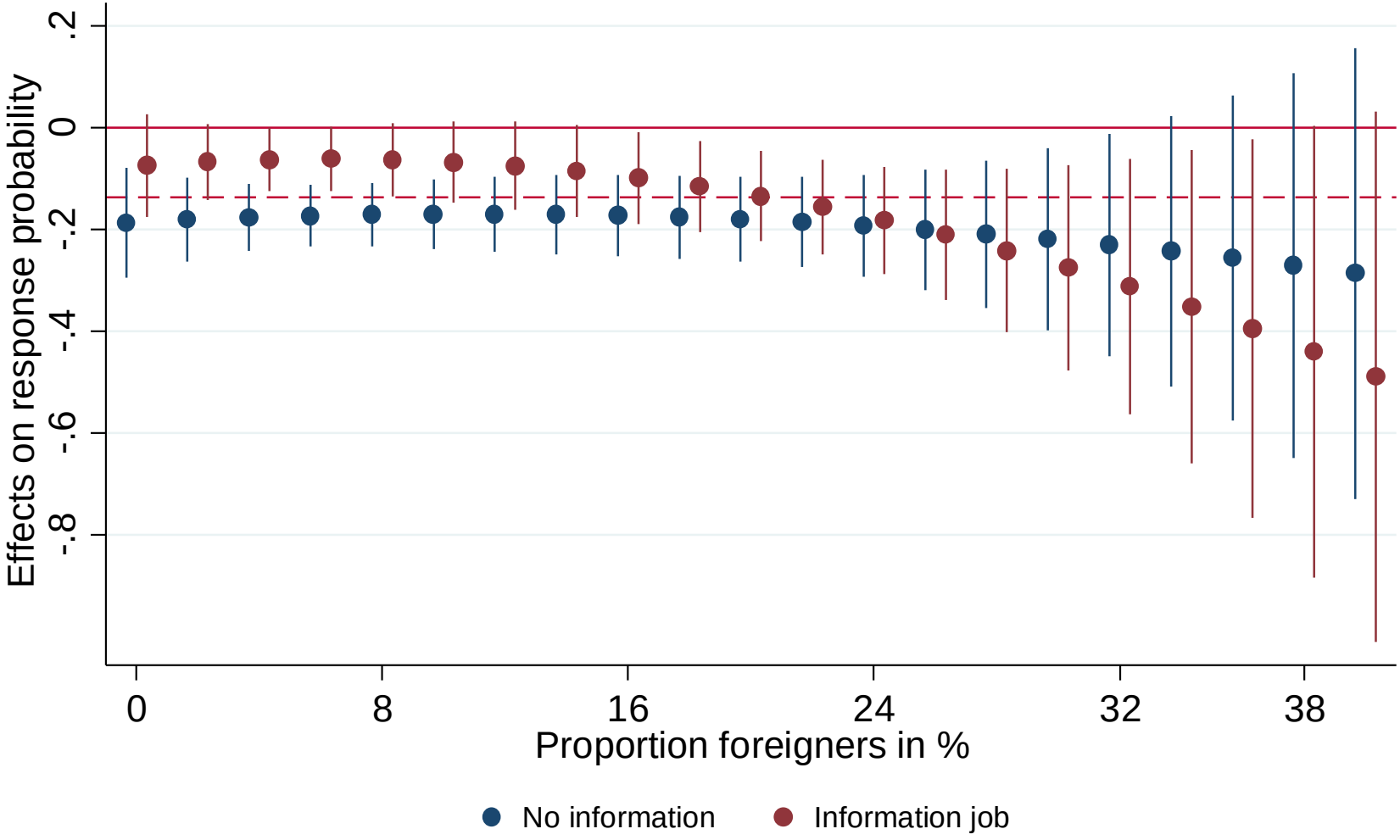

Model: LPM/OLS, conditional effects, clustered SE, 95% CI, covariates
Nappartments = 878; Nrequests = 1756; AIC: 2360.191, BIC: 2562.862

# Proportion foreigners 1km2




Model: LPM/OLS, conditional effects, clustered SE, 95% CI, covariates
Nappartments = 854; Nrequests = 1708; AIC: 2291.021, BIC: 2470.642

# Proportion foreigners 1km2 and job




Model: LPM/OLS, conditional effects, clustered SE, 95% CI, covariates
Nappartments = 854; Nrequests = 1708; AIC: 2296.075, BIC: 2508.356