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TITLE: **RESEARCH QUESTION**

Do Employers Discriminate Less If Vacancies Are Difficult to Fill? Evidence from a field experiment

RESEARCH QUESTION: **IN OTHER WORDS**

Do employers discriminate less if they have to attract workers for occupations **for which labour market tension is high?**

FORMER CONTRIBUTIONS: **DIRECT AND INDIRECT THEORETICAL EVIDENCE**

Ashenfelter (1970), Black (1985) and **Biddle and Hamermesh (2012):**

"Employers with monopsony power have an opportunity to select workers according to their preferences"

"Higher arrival rates of employees at vacancies lower cost of discrimination: less foregone output when a minority worker is turned away"

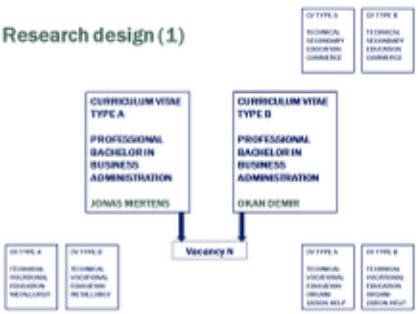
OUR CONTRIBUTION: **DIRECT THEORETICAL EVIDENCE**

Research methodology

Correspondence methodology

- Pairs of fictitious job applications are sent to real job openings.
  - Both applications differ only by the minority status of the candidate.
  - By monitoring the subsequent call back, discrimination is identified.
- "Golden standard" to identify discrimination in the labour market
  - Employer discrimination is disentangled from supply side determinants of LM outcomes.
  - Selection on unobservable characteristics is not an issue.
- Bertrand and Mullainathan (AER, 2004) is seminal work.

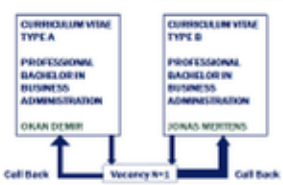
Research design (1)



Research design (2)

Positive call back

- Sensu stricto invitation for interview
- Sensu lato: any positive reaction



Research design (3)

How is "difficult to fill" (high labour market tension) measured?

- Each vacancy can be matched with a profession following the ANR classification.
- For each profession we know the labour market tension.
  - Median duration time (in 2011) of job openings for this profession
  - Bottleneck status (in 2011) of this profession

Vacancy 1	Vacancy 2	Vacancy 3	...	Vacancy 376
Profession X	Profession Y	Profession Z	...	Profession Y

Descriptive results

Descriptive statistics: invitation for job interview

	Call back Flemish	Call back Turkish	Call back ratio	t-value
All vacancies	0.19	0.13	1.44**	2.04
Vacancies for bottleneck professions	0.17	0.17	1.03	0.07
Vacancies for non-bottleneck professions	0.21	0.10	2.05***	2.64

Main regression results

Probit estimates, marginal effects: invitation for job interview

Turkish origin	-0.06***(0.02)	
Pseudo R-squared	0.01	
Observations	752	

White heteroskedasticity-consistent standard errors, corrected for clustering at the vacancy level, in parentheses. ***/**/* indicates significance at the 1%/5%/10% level.

Probit estimates, marginal effects: invitation for job interview

Turkish*Bottleneck profession	-0.01	(0.02)
Turkish*Non-bottleneck profess.	-0.11***(0.02)	
Bottleneck profess.	-0.03	(0.03)
Pseudo R-squared	0.01	
Observations	752	

White heteroskedasticity-consistent standard errors, corrected for clustering at the vacancy level, in parentheses. ***/**/* indicates significance at the 1%/5%/10% level.

Do employers discriminate against foreign school leavers? **Yes!**

Do employers discriminate less if Vacancies are difficult to fill? **Yes!**

Sensitivity analyses (1)

Conducted sensitivity analyses

- Alternative outcome variable
  - Any positive reaction
- Alternative tension variable
  - Median vacancy duration time for profession
- Additional interactions with origin
  - Education level, customer contact, fraction foreign workers in sector
- Alternative model
  - Linear probability model
  - Heteroskedastic probit model

Probit estimates, marginal effects: any positive reaction

Turkish*Bottleneck professions	-0.01	(0.03)
Turkish*Non-bottleneck profess.	-0.15***(0.03)	

Other adopted variables: indicator variable "bottleneck profession"
White heteroskedasticity-consistent standard errors, corrected for clustering at the vacancy level, in parentheses. ***/**/* indicates significance at the 1%/5%/10% level.

Sensitivity analyses (2)

Probit estimates, marginal effects: invitation for job interview

Turkish	-0.06***(0.02)
Turkish*Median vacancy duration time for profession	0.04***(0.01)

Other adopted variables: indicator variable "median vacancy duration time in profession"
White heteroskedasticity-consistent standard errors, corrected for clustering at the vacancy level, in parentheses. ***/**/* indicates significance at the 1%/5%/10% level.

Probit estimates, marginal effects: invitation for job interview

Turkish*Bottleneck profession	-0.05*	(0.03)
Turkish*Non-bottleneck profess.	-0.17***(0.04)	
Turkish*High educated	0.11***(0.03)	
Turkish*Customer contact	-0.02	(0.05)
Turkish*% foreign workers in sector	0.02	(0.02)

Other adopted variables: indicator variables "high educated" and "customer contact" and continuous variable "% foreign workers in sector"
White heteroskedasticity-consistent standard errors, corrected for clustering at the vacancy level, in parentheses. ***/**/* indicates significance at the 1%/5%/10% level.

Sensitivity analyses (3)

Heteroskedastic probit model

- Critique (Heckman and Siegelman, 1993): differences in variance of unobs. characteristics can generate spurious evidence of discrimination
- Solution: heteroskedastic probit
  - allows variance of error term to vary with ethnicity

Heteroskedastic probit, marginal effects: invitation for job interview

Turkish*Bottleneck profession	-0.01	(0.02)
Turkish*Non-bottleneck profess.	-0.11***(0.02)	

Other adopted variables: indicator variable "Turkish*high educated", indicator variable "Bottleneck profession" and 7 no-profile indicator variables.
White heteroskedasticity-consistent standard errors, corrected for clustering at the vacancy level, in parentheses. ***/**/* indicates significance at the 1%/5%/10% level.