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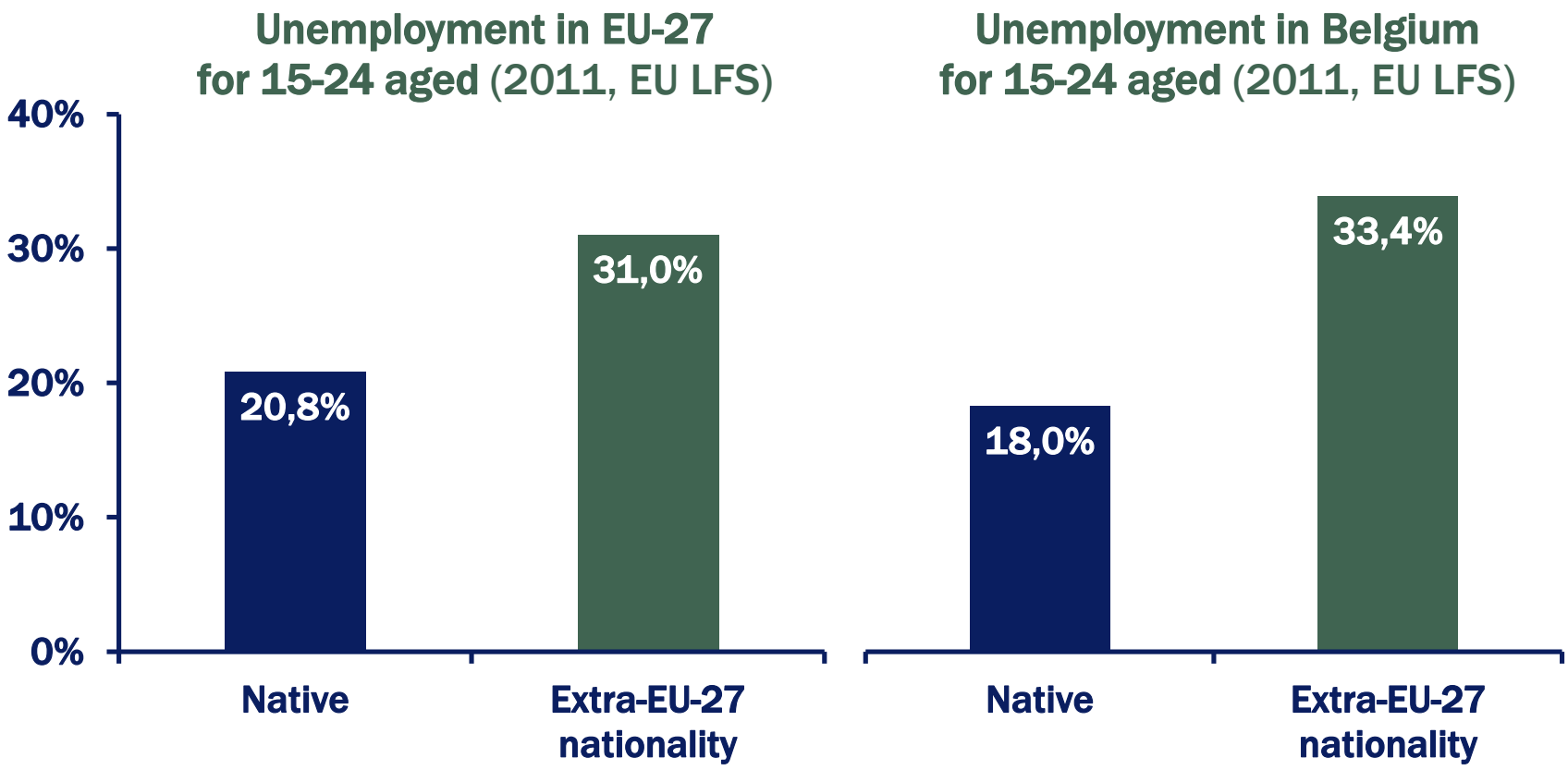
DO EMPLOYERS DISCRIMINATE LESS IF VACANCIES ARE DIFFICULT TO FILL?

EVIDENCE FROM A FIELD EXPERIMENT IN THE YOUTH LABOUR MARKET

Potential explanations for gaps

- Differences in supply side endowments
- Differences in supply side preferences and behaviour
- Differences in demand side preferences and behaviour



Employers in Belgium

- Comprehensive anti-discrimination legislation
- High unemployment among ethnic minorities

Do employers discriminate against foreign school leavers?

Research population school leavers

- "Target group for intensive labour market assistance"
- Scarring effects

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Do employers discriminate less if vacancies are difficult to fill?

Roadmap

1. Literature and our contribution
2. Research methodology
3. Research results
4. Conclusion

Former contributions

- Direct and indirect **theoretical evidence** for negative relationship between discrimination and labour market tension
  - Ashenfelter (1970), Black (1985), 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 discriminating because less foregone output when a minority worker is turned away

Our contribution

- Direct **empirical evidence** of relationship between discrimination and labour market tension away.

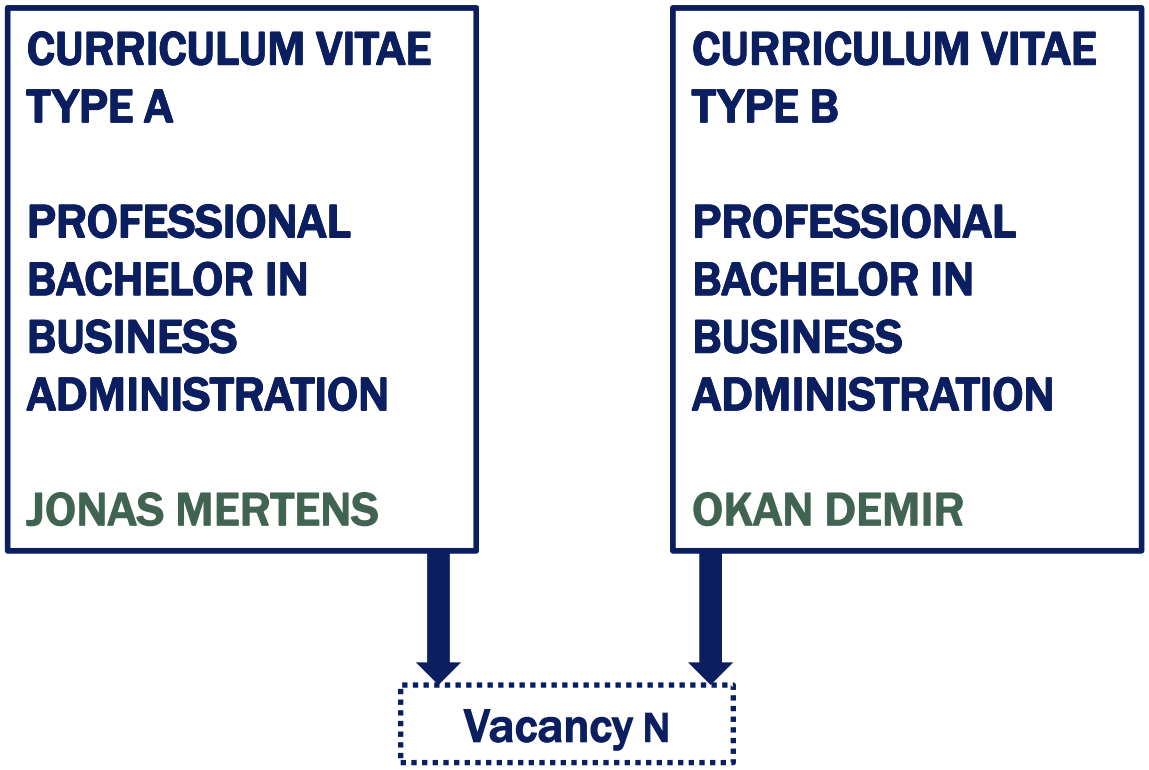
Correspondence methodology

- 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)

CURRICULUM VITAE TYPE A PROFESSIONAL BACHELOR IN BUSINESS ADMINISTRATION	CURRICULUM VITAE TYPE A VOCATIONAL SECONDARY EDUCATION IN METALLURGY	CURRICULUM VITAE TYPE A VOCATIONAL SECONDARY EDUCATION IN ORGANIZATION HELP	CURRICULUM VITAE TYPE A TECHNICAL SECONDARY EDUCATION IN COMMERCE
CURRICULUM VITAE TYPE B PROFESSIONAL BACHELOR IN BUSINESS ADMINISTRATION	CURRICULUM VITAE TYPE B VOCATIONAL SECONDARY EDUCATION IN METALLURGY	CURRICULUM VITAE TYPE B VOCATIONAL SECONDARY EDUCATION IN ORGANIZATION HELP	CURRICULUM VITAE TYPE B TECHNICAL SECONDARY EDUCATION IN COMMERCE

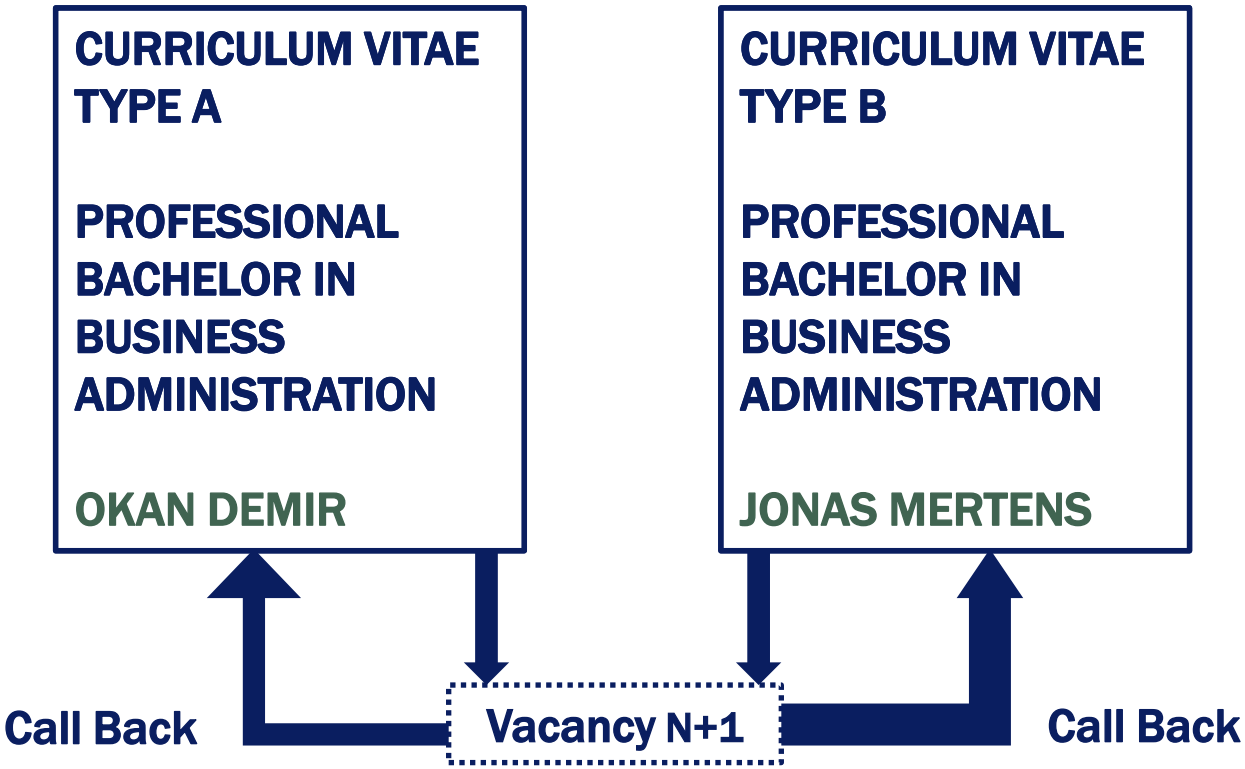
Research design (2)



Research design (3)

Positive call back

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



Research design (4)

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

- Each vacancy can be matched with a profession following the AMI-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 statistics

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

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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 signicance 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 signicance at the 1% (5%) ((10%)) level.

Do employers discriminate against foreign school leavers?

Do employers discriminate less if Vacancies are difficult to fill?

Sensitivity analyses (1)

Conducted sensitivity analyses

- Alternative outcome variable
  - Any positive reaction
- Alternative tension variable
  - Median vacation 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 profession	-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 signicance at the 1% (5%) ((10%)) level.

Sensitivity analyses (2)

Conducted sensitivity analyses

- Alternative outcome variable
  - Any positive reaction
- Alternative tension variable
  - Median vacation 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: invitation for job interview

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

Other adopted variables: indicator variable “median vacation duration time in profession”.
White heteroskedasticity-consistent standard errors, corrected for clustering at the vacancy level, in parentheses. ***(**)((*)) indicates signicance at the 1% (5%) ((10%)) level.

Sensitivity analyses (3)

Conducted sensitivity analyses

- Alternative outcome variable
  - Any positive reaction
- Alternative tension variable
  - Median vacation 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: 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 normalized variable “% foreign workers in sector”.
White heteroskedasticity-consistent standard errors, corrected for clustering at the vacancy level, in parentheses. ***(**)((*)) indicates signicance at the 1% (5%) ((10%)) level.

Sensitivity analyses (4)

Sensitivity analyses

- Alternative outcome variable
  - Any positive reaction
- Alternative tension variable
  - Median vacation 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

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

Sensitivity analyses (5)

Sensitivity analyses

- Alternative outcome variable
  - Any positive reaction
- Alternative tension variable
  - Median vacation 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

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 cv profile indicator variables.
White heteroskedasticity-consistent standard errors, corrected for clustering at the vacancy level, in parentheses. ***(**)((*)) indicates signicance at the 1% (5%) ((10%)) level.

Research conclusions

- Hiring discrimination against foreign school leavers still apparent in Belgian LM.
- Hiring discrimination is lower for professions for which labour market tension is high
  - Employers use labour market power to discriminate against foreign school leavers

Sensitivity analyses (4)

Conducted sensitivity analyses

- Alternative outcome variable
  - Any positive reaction
- Alternative tension variable
  - Median vacation duration time for profession
- Additional interactions with origin
  - …
  - Male recruiter
- Alternative model
  - Linear probability model
  - Heteroskedastic probit model

Probit-estimates, marginal effects: invitation for job interview

Turkish*Bottleneck profession	-0.01	(0.02)
Turkish*Non-bottleneck profess.	-0.11***	(0.03)
Turkish*Male recruiter	-0.00	(0.03)
Bottleneck profess.	-0.04	(0.04)
Male recruiter	-0.08**	(0.04)
Pseudo R-squared	*0.03*	
Observations	*752*	

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

Sensitivity analyses (5)

Conducted sensitivity analyses

- Alternative outcome variable
  - Any positive reaction
- Alternative tension variable
  - Median vacation 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

LPM: invitation for job interview		
Turkish*Bottleneck profession	-0.01	(0.02)
Turkish*Non-bottleneck profess.	-0.11***	(0.02)
Bottleneck profess.	-0.04	(0.04)
R-squared	*0.01*	
Observations	*752*	

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

Policy advice

- Need for discrimination detection (and punishment).
- Need for awareness campaigns presenting success stories.
- Stimulation of labour market competition is in favour of equal treatment.