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# Measuring labour differences between natives, non-natives, and natives with an ethnic-minority background

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## **Abstract**

Through a field study we measure differences in employment outcomes between natives, non-natives, and natives with an ethnic-minority background. It is suggested that the joint effect of productivity uncertainties and distastes against ethnic-minority groups should be higher for non-natives than for natives with an ethnic-minority background. However, it is revealed that both non-natives and natives with an ethnic-minority background face comparable occupational access constraints and are sorted into similarly lower paid vacancies. An ethnic name regardless of one's nationality is enough to generate unequal treatments.

**Key words:** Occupational access; Wages; Ethnic Minorities, Discrimination

**JEL classification:** J15; J31; J71

## 1. Introduction

In the current study, we measure differences in access to occupations and wage-levels between natives, non-natives, and natives with an ethnic-minority background. Based on the statistical theory of discrimination (Arrow, 1973), if there are uncertainties regarding the productivity level of ethnic-minority groups this may create differentials in employment outcomes. In addition, the taste-based discrimination theory (Becker, 1957) evaluates that if firms have tendencies towards discrimination and can distinguish ethnic-minorities from ethnic-majorities, differences in labour market outcomes may arise. In practice, a combination of the above theoretical explanations can be validated (Drydakis, 2012; Drydakis and Vlassis, 2010). Employers might simultaneously disfavour ethnic-minority groups due to distastes and uncertainties regarding their productivity skills (Drydakis and Vlassis, 2010). In this study, it is suggested that the joint effect of dislikes and productivity uncertainties against ethnic-minority groups should be higher for non-natives than for natives with an ethnic-minority background. Although, potential communication, cultural and educational differences might strongly affect non-natives' productivity, natives with an ethnic-minority background should not be subject to the same level of productivity limitations. Similarly, the level of dislikes might be higher for non-natives, than for natives with an ethnic-minority background due to potential higher xenophobic and racist attitudes against the former group.

We conduct a correspondence test to evaluate the aforementioned relationships. The correspondence test involves the sending of matched pairs of job applications in response to advertised vacancies (Bertrand and Mullainathan, 2004). The only difference between the pair is a characteristic that signals membership to a group, such as a name common to a particular ethnic-minority group (Baert et al., 2014; Drydakis and Vlassis, 2010; Bertrand and Mullainathan, 2004). Differences in employment outcomes are then recorded. Correspondence tests can minimize unobserved factors that might affect labour differences between natives and people with an immigration history, offering the opportunity to capture discriminatory patterns (Baert et al., 2014;

Drydakis and Vlassis, 2010; Bertrand and Mullainathan, 2004). Given the increasing importance of integrating immigrants into the European Union labour markets and tackling ethnic discrimination wherever it is observed, an understanding of the underlying mechanism of discrimination should be of importance to social planners (Drydakis, 2012; Drydakis, 2013). In the following sections, we present our experiment, results, discussion and conclusions.

## **2. The experiment**

In 2016, we randomly identified 344 firms, all over Greece, which offered a variety of vacancies in white-collar occupations (office workers), pink-collar occupations (sales, hospitality), and blue collar occupations (factory workers)<sup>1</sup>. In each firm we submitted 3 applications. The first application was from a fictitious 26-year old Greek applicant; the so-called "native applicant", the second was from a fictitious 26-year non-Greek applicant; the so-called "non-native applicant", and the third one was from a 26-year Greek applicant with an ethnic-minority background; the so-called "native with an ethnic-minority background applicant". Half of the pairs were from male applicants.

We worked with the 3 largest ethnic minority groups in Greece. One third of the pairs of applications were from Albanians, one third of the pairs of applications were from Ukrainians and the rest were from Georgians. In the non-native's application, either the Albanian, the Ukrainian or the Georgian nationality was mentioned. In the native application, the Greek nationality was mentioned. Similarly, in the native with an ethnic-minority background application, the Greek nationality was mentioned. The non-native applicants, and the native with an ethnic-minority background applicants were assigned either an Albanian, Ukrainian or Georgian-sounding names and surnames (Baert et al., 2014; Drydakis and Vlassis, 2010). The native applicants were assigned Greek-sounding names and surnames (Baert et al., 2014; Drydakis and Vlassis, 2010).

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<sup>1</sup> We concentrated on low-skilled jobs in the private sector as this group is expected to be more at risk of ethnic discrimination (Drydakis, 2012; Drydakis and Vlassis, 2010; Eurobarometer 2007).

As it is seen in the Appendix, both the native and the native with an ethnic-minority background applicant had graduated from Greek primary and high schools. The non-native applicant had graduated from primary and high schools in her/his country of origin. All the applicants had six years of work experience in a post similar to the vacancy that they were applying for. The non-native applicant had two years of work experience in her/his country of origin and four years in Greece<sup>2</sup>. The native and the native with an ethnic-minority background applicant had work experience only in Greece. Each applicant was allocated a contact information (e-mail), and a postal address. The addresses were chosen so as to be recognized as addresses which were as similar as possible, in terms of social class (Drydakis and Vlassis, 2010). All applicants were unmarried with no children.

The applications were posted simultaneously within one day of the appearance of the advertisement. In any one posting, one third of the inquiries emanated from the native applicant, one third from the native with an ethnic-minority background applicant, and one third from the non-native applicant. Also, in any pair, the format of each application was different (Drydakis and Vlassis, 2010). However, in order to control for the possibility that the style of an application influences an employer's response, the different application styles were allocated equally among the three applicants. Finally, as in Drydakis and Vlassis' (2010), if a vacancy advertised the job's wage,

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<sup>2</sup> Non-EU nationals who wish to become Greek citizens must have legally lived in Greece for a period of 7 years continuously. In our experiment, based on the non-natives applicants' CV it was inferred that they were living in Greece for less than 7 years. Also, a Greek citizenship was not mentioned in their CV. In reality, until non-natives to be eligible to apply for a citizenship, their residence/work permits (all-in-one) should be renewed every 1 to 3 years, depending on various circumstances. Renewal residence/work permit applications are submitted by individuals and should be accompanied by official work contracts. The applications do not imply any action for firms. However, they might be costly to firms if they cause delay in hiring.

this was recorded, allowing us to examine whether an ethnic-minority background could affect wage allocation.

### **3. Results**

In Table 1, we present the results regarding invitations to an interview (; model I), and the logged net monthly wages offered where applicants received an invitation to interview (; model II). In both models, the reference category is natives. Also, in both models, we have controlled for sex, ethnic backgrounds, occupational and city heterogeneity, and application sending order and type.

Model I presents the statistic that natives with an ethnic-minority background have a 17.5 percentage points lower chance of receiving an invitation for interview than natives. Also, it is observed that non-natives have a 20.1 percentage points lower chance of receiving an invitation for interview than natives. Both estimates are statistically significant at the 1% level. However, the two estimates are not statistically significantly different ( $\chi^2=1.66$ ,  $p=0.197$ ).

[Table 1]

In Model II, it is observed that natives with an ethnic-minority background are invited for interviews for vacancies that offer 5.5 percentage points lower wages compared to natives. Moreover, the estimates suggest that non-natives are invited for interviews for vacancies that offer 6.4 percentage points lower wages compared to natives. Both estimates are statistically significant at the 1% level. However, the two estimates are not statistically significantly different ( $F=0.14$ ,  $p=0.711$ ).

### **4. Discussion and conclusions**

The results of this study suggested that both natives with an ethnic-minority background and non-natives face occupational access constraints and are sorted into lower paid jobs, as compared to natives. Although it was suggested that biases against ethnic-minority groups might be higher for non-natives than for natives with an ethnic-minority background, this argument was not empirically

validated. An ethnic name regardless of one's nationality was found to entail unequal treatments. Given the design of this study, the causes of unequal treatments might be attributed to both dislikes (Becker, 1957) and productivity uncertainties (Arrow, 1973) against ethnic-minority groups<sup>3</sup>. The results of this study are in line with the existing correspondence tests for Greece (Drydakis, 2012; Drydakis and Vlassis, 2010). These studies report large differences for ethnic-minority group; however, they are not claim to identify the cause of bias. The latest topical studies suggest that the literature has returned to the question of whether taste-based or statistical discrimination is a more appropriate framework for the study of labour bias (Guryan, and Charles, 2013; Charles and Guryan, 2008). Current US correspondence tests suggest that distastes directed at some ethnic groups is the reason for labour market discrimination (Nunley et al., 2015). EU correspondence tests point to statistical discrimination (Baert et al, 2017; Kaas and Manger, 2012). Regional differences, ethnic groups' characteristics, methodological specifications, samples, controls and techniques can alter outcomes and theoretical predictions (Drydakis, 2012; Drydakis and Vlassis, 2010).

An understanding of the mechanisms underlying discrimination is important for policy strategies. If it is uncertainties against ethnic-minority groups' productivity that leads firms to mistreat them, ways to better assess their skills might be the response (Baert et al, 2017; Kaas and

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<sup>3</sup> One might suggest that, since natives with an ethnic-minority background were found to face comparable level of bias compared to non-natives this pattern might indicate that the former group experiences taste-based rather than statistical discrimination. Indeed, positive information (i.e. Greek nationality, and graduation from Greek educational system) cannot reduce biased treatments. However, in this study since we have not controlled for acculturation and ethnic identity (Drydakis, 2013) we cannot firmly support the aforementioned argument. Uncertainties in relation to cultural differences and communication, and their potential effects on productivity, might drive employers' actions. The same argument holds for non-native applicants, as well.

Manger, 2012; Drydakis and Vlassis, 2010). However, if it is distaste directed at ethnic minorities, equality trainings might be the appropriate response (Nunley et al., 2015; Drydakis and Vlassis, 2010; Charles and Guryan, 2008). If both mechanisms coexist joint actions are required. The outcomes of this study do not allow for firm generalizations until the assigned patterns are verified across a greater number of occupations, educational backgrounds, workplace experience and ethnic groups. Since ethnic bias is a real issue in most societies, additional research and meta-analysis are needed for prompt evaluation.



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**Table 1. Estimates**

	Model I	Model II
	Probit estimates (marginal effects); Access to vacancies	OLS wage (ln) estimates
Natives with an ethnic-minority background <sup>a</sup>	-0.175 (0.027)***	-0.055 (0.017)***
Non-natives <sup>a</sup>	-0.201 (0.026)***	-0.064 (0.024)***
White-collar jobs <sup>b</sup>	-0.021 (0.032)	0.077 (0.019)***
Blue-collar jobs <sup>b</sup>	0.003 (0.033)	-0.060 (0.019)***
Men	0.268 (0.026)***	0.080 (0.020)***
Albanians <sup>c</sup>	-0.010 (0.032)	-0.048 (0.020)**
Ukrainians <sup>c</sup>	-0.002 (0.033)	-0.031 (0.021)
Log likelihood	-510.148	-
LR chi <sup>2</sup>	155.494	-
Prob> chi <sup>2</sup>	0.000	-
Pseudo R <sup>2</sup>	0.132	-
Observations	1,032	-
Root MSE	-	0.081
F	-	9.192
Prob>F	-	0.000
Adj R <sup>2</sup>	-	0.469
Observations	-	112

Notes: <sup>a</sup>The reference category is natives. <sup>b</sup>The reference category is pink-collar jobs. <sup>c</sup>The reference category is Georgian applicants. Regressions control for regional heterogeneity, application sending order and type. SEs are in parenthesis. \*\*\*Statistically significant at the 1% level. \*\*Statistically significant at the 5% level.

## Appendix: Curriculum Vitae

<u>Natives</u>	<u>Natives with an ethnic-minority background</u>	<u>Non-natives</u>
<b>First Name:</b> Greek	<b>First Name:</b> Non-Greek	<b>First Name:</b> Non-Greek
<b>Last Name:</b> Greek	<b>Last Name:</b> Non-Greek	<b>Last Name:</b> Non-Greek
<b>Nationality:</b> Greek	<b>Nationality:</b> Greek	<b>Nationality:</b> Non-Greek
<b>Email:</b> Greek nicknames	<b>Email:</b> Non Greek nicknames	<b>Email:</b> Non Greek nicknames
<b>Sex:</b> Male/female	<b>Sex:</b> Male/female	<b>Sex:</b> Male/female
<b>Marital Status:</b> Unmarried	<b>Marital Status:</b> Unmarried	<b>Marital Status:</b> Unmarried
<b>Date of Birth:</b> 1990	<b>Date of Birth:</b> 1990	<b>Date of Birth:</b> 1990
<b>Current Address:</b> Location	<b>Current Address:</b> Location	<b>Current Address:</b> Location
<b>Education:</b> Certificates of Greek primary and high schools	<b>Education:</b> Certificates of Greek primary and high schools	<b>Education:</b> Certificates of non-Greek primary and high schools
Good knowledge of English and P/C	Good knowledge of English and P/C	Good knowledge of English and P/C
Driving licence	Driving licence	Driving licence
<b>Grade obtained:</b> 6.5/10	<b>Grade obtained:</b> 6.5/10	<b>Grade obtained:</b> 6.5/10
<b>Professional Experience:</b>	<b>Professional Experience:</b>	<b>Professional Experience:</b>
From 2010 to 2012:	From 2010 to 2012:	From 2010 to 2012:
Appointment/Firm (in Greece)	Appointment/Firm (in Greece)	Appointment/Firm (Not in Greece)
From 2013 to 2016:	From 2013 to 2016:	From 2013 to 2016:
Appointment/Firm (in Greece)	Appointment/Firm (in Greece)	Appointment/Firm (in Greece)