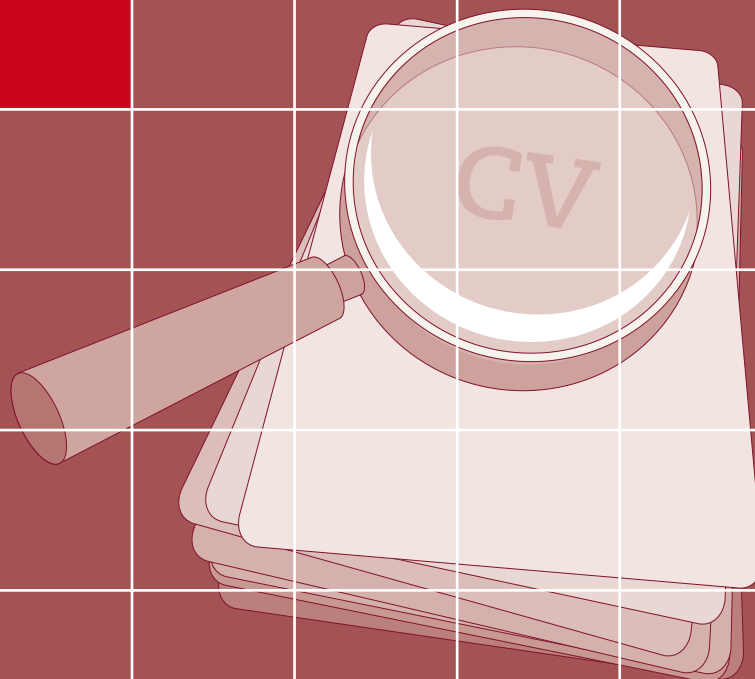


Equality
Research
Series



Discrimination in Recruitment

Evidence from a Field Experiment

*Frances McGinnity, Jacqueline Nelson,
Pete Lunn and Emma Quinn*



THE EQUALITY AUTHORITY
AN tÚDARÁS COMHIONANNAIS



This report can be downloaded at:
www.equality.ie/research and www.esri.ie

DISCRIMINATION IN RECRUITMENT: EVIDENCE FROM A FIELD EXPERIMENT

*Frances McGinnity, Jacqueline Nelson, Pete Lunn and
Emma Quinn*

Frances McGinnity is a Research Officer, Jacqueline Nelson was a Research Assistant at the time of writing, Pete Lunn is a Post Doctoral Fellow and Emma Quinn is a Research Analyst at The Economic and Social Research Institute.

This research has been carried out as part of the Equality Authority/ESRI Research Programme on Equality and Discrimination.

The views expressed in this report are those of the authors and do not necessarily represent those of The Equality Authority or The Economic and Social Research Institute.

Copyright is jointly held by The Equality Authority and The Economic and Social Research Institute, Dublin 2009.

ISBN: 978 0 7070 0278 8

Cover design by form

FOREWORD

Discrimination in Recruitment breaks new ground in Irish equality research by providing direct evidence of discrimination using an internationally recognised field testing methodology. The idea of this field experiment is simple: it directly compares employers' responses to job applications from candidates who are identical on all relevant characteristics other than their ethnic or national origin.

The key finding of this study is that job applicants with Irish names are over twice as likely to be invited to interview as candidates with identifiably non-Irish names, even though both submit equivalent CVs. This finding, which is statistically robust, is consistent across the three occupations tested – lower administration, lower accountancy and retail sales positions – and across different sectors of the Irish labour market. While international studies suggest that rates of discrimination in recruitment vary across different minority ethnic groups, this experiment does not find significant differences between African, Asian or German applicants. All three are around half as likely to be invited to interview as Irish candidates. Overall, the rate of discrimination found is high by international standards.

The findings of this groundbreaking study confirm the need for strong enforcement of equality legislation. It is crucial to ensure that people know their rights under equality legislation and that those facing discrimination have effective access to redress. But as the OECD has recently pointed out "... in general legal rules will have more impact if enforcement is not exclusively dependent on individuals deprived of their rights".* It therefore highlights the key role of specialised equality bodies – such as the Equality Authority – in raising awareness of discrimination and building public support for equality, and also in investigating and challenging discriminatory practices beyond simply relying on individual complaints.

This is the fourth report arising from the "Research Programme on Equality and Discrimination" which is being carried out by the Economic and Social Research Institute (ESRI) on behalf of the Equality Authority. We are grateful to Frances McGinnity, Jacqueline Nelson, Pete Lunn and Emma Quinn of the ESRI for their expert and insightful work on this report. Thanks are also due to Laurence Bond, Head of Research with the Equality Authority, for his support for this research project.

Richard Fallon
Acting Chief Executive Officer
Equality Authority

*OECD, 2008. "Policy Brief: Ending Job Discrimination" Paris: OECD.

ACKNOWLEDGEMENTS

In embarking on a project of this nature, we were fortunate to receive the assistance and encouragement of a number of people, and we would like to take this opportunity to thank them. Our first debt of gratitude is to Corona Joyce, for her enthusiastic assistance in developing the CVs and launching the study into the field, and for her comments on the final report. Thanks to Michele Murphy for human resource consultancy at an early stage. Special thanks also to Judy Rich, our international expert on field experiments for her thoughtful advice on operational issues and her sustained interest in the first Irish field experiment.

The Economic and Social Research Institute ethics committee performed their role with energy and rigour. Frances Ruane gave her careful consideration to this project, and her encouragement. A number of other ESRI colleagues provided ad hoc assistance and were generous with their time in doing so, particularly Charles O'Regan and Gillian Davidson. Thanks to Alan Barrett for his thought-provoking comments on the final report. Laurence Bond of The Equality Authority has been accommodating and enthusiastic throughout. Philip O'Connell has given the project team advice and support since the project began, and this is much appreciated.

In spite of all this assistance, we should make it very clear that the full responsibility for the contents of this report rests solely with the authors.

CONTENTS

<i>Foreword</i>	iii
<i>Acknowledgements</i>	iv
<i>Executive Summary</i>	vi
CHAPTER 1: INTRODUCTION	1
1.1 Introduction	1
1.2 Migration and Diversity in Ireland	2
1.3 Previous Irish Findings on Labour Market Outcomes for Immigrants	5
CHAPTER 2: MEASURING DISCRIMINATION USING FIELD EXPERIMENTS: METHODS AND INTERNATIONAL FINDINGS	8
2.1 Measuring Discrimination Using Experiments	8
2.2 International Findings on Discrimination in Recruitment	10
2.3 Research Questions	14
CHAPTER 3: THE EXPERIMENT	16
3.1 Introduction and Selection of Occupations	16
3.2 Development of Fictitious Applicants' CVs	17
3.3 Applying for Jobs	19
3.4 Ethical Issues in Field Experiments	22
APPENDIX – SAMPLE CVs	24
CHAPTER 4: RESULTS: DISCRIMINATION IN RECRUITMENT	26
4.1 Classification of Responses	26
4.2 Scale of Discrimination	27
4.3 Is this Discrimination Statistically Significant?	28
4.4 Modelling Discrimination	30
4.5 Summary of Irish Findings	32
4.6 Discrimination in Ireland in International Comparison	32
CHAPTER 5: DISCUSSION AND CONCLUSIONS	35
5.1 Summary of the Findings of this Experiment	35
5.2 Interpreting the Results	36
5.3 Avenues for Further Experiments on Discrimination in Ireland	38
5.4 Policy Implications	40
REFERENCES	42

LIST OF TABLES AND FIGURES

Table 1.1	Persons Usually Resident and Present in the State on Census Night 2006, Classified by Nationality	3
Table 1.2	Persons Usually Resident and Present in the State, Classified by Ethnic or Cultural Background, 2006	4
Figure 1.1	Per Cent of Non-Irish Nationals in Employment by Sector, 2008	4
Table 3.1	Order of Applications for Each Occupation	20
Table 4.1	Classification of Outcomes to Matched Job Applications by Minority	26
Table 4.2	Statistical Significance Test for Higher Incidence of Discrimination Against Minority Candidates than Irish Candidates	29
Table 4.3	Odds Ratios and Significance Tests for Discrimination Against Minority Candidates by Sector	29
Table 4.4	Logistic Regression Analysis for Probability of Discrimination Against Minority	31
Table 4.5	Summary of Findings from Selected International Correspondence Tests of Discrimination on the Basis of Ethnic or National Origin	33

EXECUTIVE SUMMARY

Introduction

Against a backdrop of the recent, rapid rise in immigration of non-Irish nationals, concerns have been raised about discrimination in the Irish labour market. This study breaks new ground in Irish research by providing direct evidence of discrimination using an internationally recognised and accepted methodology. It involves a field experiment that investigates discrimination in recruitment on the basis of ethnic and national origin in Ireland.

The idea of this experiment is simple: two individuals who are identical on all relevant characteristics other than the potential basis of discrimination apply for the same jobs. Responses are carefully recorded, and discrimination or the lack thereof is then measured as the extent to which one applicant is invited to interview relative to the other applicant. In this experiment we test discrimination against three minority groups: Africans, Asians and Europeans (Germans), using distinctive names to signal ethnic or national origin, as is typical in experiments of this nature.

The experiment addresses three key research questions: First, are there any differences in responses to the minority candidates and the Irish candidates? Second, is there any variation in the extent of discrimination between the minority groups? Third, does discrimination vary across the labour market in Ireland?

The Experiment

In designing the experiment, we followed international best practice, adapting it to the Irish situation. Written applications have the advantage that they allow maximum control and a guarantee of equivalence, so the written approach was adopted. Occupations were chosen that required written applications (sending CVs) and that had many vacancies, in order to generate enough responses to ensure that what we were observing was systematic: lower administration, lower accountancy and retail sales positions.

We created fictitious Irish and minority candidates with names that were clearly indicative of Irish, African, Asian or German origin. For each occupation, two equivalent CVs were developed. The CVs were not identical, to avoid detection, but all relevant personal and employment characteristics other than national or ethnic origin were matched: age (young adults), gender (male for accountancy jobs, female for lower administration and retail sales), education (in Ireland), previous labour market experience (all in Ireland) and additional skills. The CVs were rotated with the different names as an additional safeguard, to rule out any effects of unintended differences between the CVs, like layout.

Between March and October 2008, 480 matched applications were sent out by email in response to 240 job advertisements. All responses from employers were carefully recorded, as either positive (mostly invitations to interview, but also requests for further information) or negative (rejection or no further contact with candidate). Given the ethical issues in this experiment, the project went through a rigorous ethics procedure. Every effort was made to minimise inconvenience, costs and damage to the reputation of employers. For example, interview offers were declined promptly, and all records kept in strictest confidence.

Findings: Discrimination in Recruitment

Firstly, did we find any differences in responses to the minority candidates and the Irish candidates? Yes. Candidates with Irish names were over twice as likely to be invited to interview for advertised jobs as candidates with identifiably non-Irish names, even though both submitted equivalent CVs. Given the number of cases we tested, the chance of observing an outcome as biased in favour of the Irish candidates as this, if there were in fact no discrimination in the real world, is less than one in a million.

Secondly, did we find any variation in the extent of discrimination between the minority groups? No. We did not find significant differences in the degree of discrimination faced by candidates with Asian, African or German names. We might have detected differences between the groups with a larger number of cases, but in our sample, all three were around half as likely to be invited to interview as Irish candidates.

Thirdly, did discrimination vary across the labour market in Ireland? No. The results for this sample of jobs indicated strong discrimination against minority candidates and this applied broadly across the occupations tested (lower administration, lower accountancy and retail sales) and broad sectors of the Irish labour market (industry; transport/ distribution/communication; other business services and non-market services). In addition we found no evidence that the discrimination rate varied within the period of testing.

As with all field experiments, a limited number of occupations were tested: a different discrimination rate might be found for recruitment in different occupations in Ireland. The discrimination rate may have varied had we tested different minorities. We might have detected some differences with a larger sample that we did not detect with this one.

Nevertheless, the strength of the discrimination recorded in the present experiment is high relative to similar studies carried out in other countries, though by no means the highest recorded. What is striking is that there is no significant difference observed between the minority groups: international studies testing multiple groups have tended to find lower discrimination against White minorities in predominantly White societies.

While we cannot fully rule out alternative explanations, we feel that the unequal treatment observed in this experiment is most consistent with two explanations. Firstly, a strong preference for Irish candidates on the part of employers/recruiters known as 'in-group favouritism'. Favouring the in-group is consistent with the Irish situation of a strong, cohesive national identity and a very recent history of inward migration of non-Irish nationals. The second explanation is that employers may never have read past the names on the CVs, and thus failed to appreciate that the minority candidates had qualifications and experience obtained in Ireland that were equivalent to the Irish candidates.

These results have clear implications for both equality and efficiency in the Irish labour market. The extent of discrimination observed in this experiment directly contradicts any notions of equality in terms of access to employment. Individuals with minority backgrounds do not have equal access to the Irish labour market if they are being screened out at the first stage of recruitment. In terms of efficiency, this discrimination indicates that minority candidates are not being efficiently matched to

jobs. It means that the skills of immigrants are not being used to their full potential, and thus their contribution to productivity in the Irish economy is less than it could be.

Policy Implications

In terms of policy, Ireland has relatively robust legislation prohibiting discrimination in recruitment on the basis of ethnic or national origin, as well as a range of other grounds. Yet it is clear from this experiment that discrimination in recruitment against minority groups in Ireland is relatively high. As noted by the OECD (2008) legal prohibition of discrimination can only be effective if it is enforced, and in most OECD countries enforcement relies on victims' willingness to assert their claims. Yet many individuals are not even aware of their rights, or aware that they have been discriminated against. Our findings underline the need for dedicating resources to the promotion of equality.

There are a number of possible measures that may help reduce such discrimination and promote good equality practice in recruitment. First, the dissemination of information from the international literature on the benefits of diversity. Second, more information for both employers and job seekers about what the equality legislation permits and prohibits. Third, developing guidelines for all employers to ensure their recruitment practices are not likely to be discriminatory. A fourth possibility is the introduction of random audits of hiring practices – analogous to financial audits. If employers were required to keep all records of job applications for a period of twelve months, and obliged to justify decisions on short-listing for interview and final choice of candidate, in the event of a random audit, it would reinforce the pressure for good practice in the hiring decision.

What is clear from this experiment is that the extent of employer discrimination in observed recruitment is such that equality in recruitment will not be achieved until discrimination is tackled effectively.

1. INTRODUCTION

1.1 Introduction

In recent years there has been significant immigration into Ireland of non-Irish nationals in a context of rapid economic and employment growth. This has given rise to concerns about discrimination in the Irish labour market. While it is clear that discrimination is damaging both for individuals and Irish society as a whole, it is very difficult to measure, and there is little direct evidence about the extent and nature of discrimination in Ireland. This study breaks new ground in Irish research by providing direct evidence of discrimination using an internationally recognised and accepted methodology. It involves a field experiment that investigates discrimination in recruitment on the basis of ethnic or national origin in Ireland.

Experimental methods provide a powerful means of isolating causal mechanisms. Traditional experiments typically begin with clearly defined “treatment” and “control” conditions, to which subjects are randomly assigned. All other environmental influences are carefully controlled. A specific outcome variable is then recorded to test for differences between groups. Often subjects are not told the purpose of the experiment to ensure a “natural” reaction to the experimental condition. Field experiments blend experimental methods with field-based research, relaxing certain controls over environmental conditions in order to simulate real-world conditions. While retaining certain key elements of the laboratory experiment (matching, random assignment), this approach relies on real contexts (actual job searches, consumer transactions, house-hunting) for measuring outcomes (Pager, 2007).

The idea of our experiment is simple: two individuals who are identical on all relevant characteristics other than the potential basis of discrimination apply for the same jobs. Responses are carefully recorded, and discrimination or the lack thereof is then measured as the extent to which one applicant is invited to interview relative to the other applicant.

In this experiment distinctive names are used to signal ethnic or national origin, as is typical in experiments of this nature. We test discrimination in the Irish labour market on the basis of ethnic or national origin, using fictitious applicants with African, Asian and European names and compare them to applicants with Irish names. Throughout the report, these applicants are referred to as ‘minority applicants’ or ‘minority groups’. While formally the fictitious candidates all have Irish nationality, the shorthand ‘African’, ‘Asian’ and ‘German’ is used to distinguish the minority groups.

What distinguishes this experiment as scientific is primarily the number of responses collected. We sent out nearly 500 applications to ensure that what we were observing was systematic and not due to chance and the randomness of the recruitment process. We only stopped when we were satisfied that the likelihood that our results were due to chance was so small as to be negligible. All responses were carefully and confidentially recorded. Thus we have statistically robust confidence that the estimates of discrimination from this study are true for the occupations we tested.

Previous studies have estimated the presence and extent of discrimination in Ireland but have certain measurement problems. Comparing two groups (for example, Irish and migrants) using regression analysis can tell us about differential outcomes, say, in the labour market (for Irish examples of this work see Barrett *et al.*, 2006; Barrett and McCarthy, 2007; O’Connell and McGinnity, 2008). Yet even when researchers control for differences in qualifications, experience and linguistic background

between migrants and non-migrants, it is tricky to estimate what proportion, if any, of the remaining difference is due to discrimination by employers, and not something else – like knowledge of local labour markets – a fact which these studies acknowledge.

How about asking people directly whether or not they have experienced discrimination? Indeed, surveys have also asked respondents in Ireland directly whether they have experienced discrimination in a range of situations, like in the labour market, in finding a home, in shops and pubs, in accessing health services. These can either be surveys of the general population (see Russell *et al.*, 2008) or of specific groups, like migrants (McGinnity *et al.*, 2006), and compare the extent of reported discrimination across different groups. Asking people directly about their experience has considerable appeal and is undoubtedly valuable, but reports of the experience of discrimination can vary depending on the perspective of the respondent, their expectations and the information available to them (Blank *et al.*, 2004). For example, employers may favour women over men but individual job applicants never find this out as they have no access to recruitment records. Conversely, others may feel they have been discriminated against in access to employment when actually another candidate simply outperformed them.

Given the challenges of identifying, measuring and documenting the presence of discrimination, direct measures have considerable appeal (Darity and Mason, 1998; Riach and Rich, 2002; Pager, 2007; Bassanini and Saint-Martin, 2008). The major advantage of field experiments is that they provide direct observations of unequal treatment. This report describes what we did and what we found in the course of this experiment. In Chapter 2 we consider in more detail methods for measuring discrimination and their strengths and weaknesses, and then move on to international examples of field experiments, describing how exactly other authors have conducted field experiments and what they have found. Controlled field experiments of this nature are a well-established approach to testing directly for discrimination. The experiments have been conducted for over 30 years across 10 countries, but have not been implemented in Ireland prior to this study. We adapted the standard methodology for the Irish case, and in Chapter 3 we describe exactly how we conducted the experiment and some of the challenges we faced. We also discuss the ethical issues associated with this kind of experiment, given that applicants are fictitious but employers are real. In Chapter 4 we present the results of the experiment, outlining the extent of discrimination against non-Irish nationals in recruitment in Ireland. We compare the Irish findings to international findings, to set them in context. In conclusion we reflect on possible explanations for our findings, and avenues for future research in the area. In the remainder of this chapter we describe the context of migration and diversity in Ireland and previous research in the area, to make a case why it might be important to investigate discrimination on the basis of ethnic or national origin.

1.2 Migration and Diversity in Ireland

After decades of net emigration, the strong economic growth of the last decade, and resulting rapid immigration, transformed Ireland into a country of net immigration. The economic boom resulted in an increase in employment of 925,000, or 78 per cent, between 1993 and 2008, and the emergence of widespread labour shortages.¹ Net migration peaked between April 2005 and April 2006 at 72,000. The fieldwork for this study was conducted at the beginning of a period of economic contraction and this was reflected in net migration figures which, although still positive, were much reduced: net migration was 38,500 in the period between April 2007 and April 2008.

¹ *Source:* Labour Force Survey for 1993; Quarterly National Household Survey (Q2) for 2008.

This increase in migration has led to increasing ethnic and national diversity in the Irish population. According to the 2006 Census, just over 10 per cent of the population, or almost 420,000 people, were non-Irish nationals (see Table 1.1).² Of these, 276,000 or two-thirds were nationals of other EU countries (including the UK), and 144,000 or one-third came from outside the EU25. This compares to 224,000 non-Irish nationals in 2002, of which 133,000 or 60 per cent came from other EU countries and 91,000 or 40 per cent from outside the EU15.

Table 1.1: Persons Usually Resident and Present in the State on Census Night 2006, Classified by Nationality

	2006	
	000s	%
<i>Irish</i>	3,706,683	88.8
UK	112,548	2.7
Other EU 15	42,693	1.0
New EU 10	120,534	2.9
<i>Total EU</i>	275,775	6.6
Other European	24,425	0.6
USA	12,475	0.3
Africa	35,326	0.8
Asia	46,952	1.1
Other nationalities	22,422	0.5
Multi/No nationality	3,676	0.1
Not stated	44,279	1.1
<i>Total Non Irish*</i>	419,733	10.1
Total	4,172,013	100.0

Source: Census 2006.

Note: Census count of 'persons usually resident and present in the State on Census night': some commentators believe the non-Irish population may be underestimated, even by the Census.

* Total Non-Irish excludes "no nationality" and "not stated".

Census data on ethnicity became available for the first time in 2006 and showed that 87 per cent of the total population was White-Irish; 0.5 per cent Irish Traveller; 7 per cent White-Other; 1 per cent Black (mostly African); 1 per cent Asian and 1 per cent Other/Mixed Ethnicity. Results on ethnicity and nationality indicated that about 25 per cent of non-Irish nationals usually resident in Ireland are of Black, Asian or Other ethnicity compared to 1 per cent of Irish nationals. Thus while the majority of non-Irish nationals are Europeans of White ethnicity, there is also considerable ethnic variation in the immigrant group.

² Figures from 2006 are quoted as the 2006 Census provides the best estimates of ethnic and national minorities.

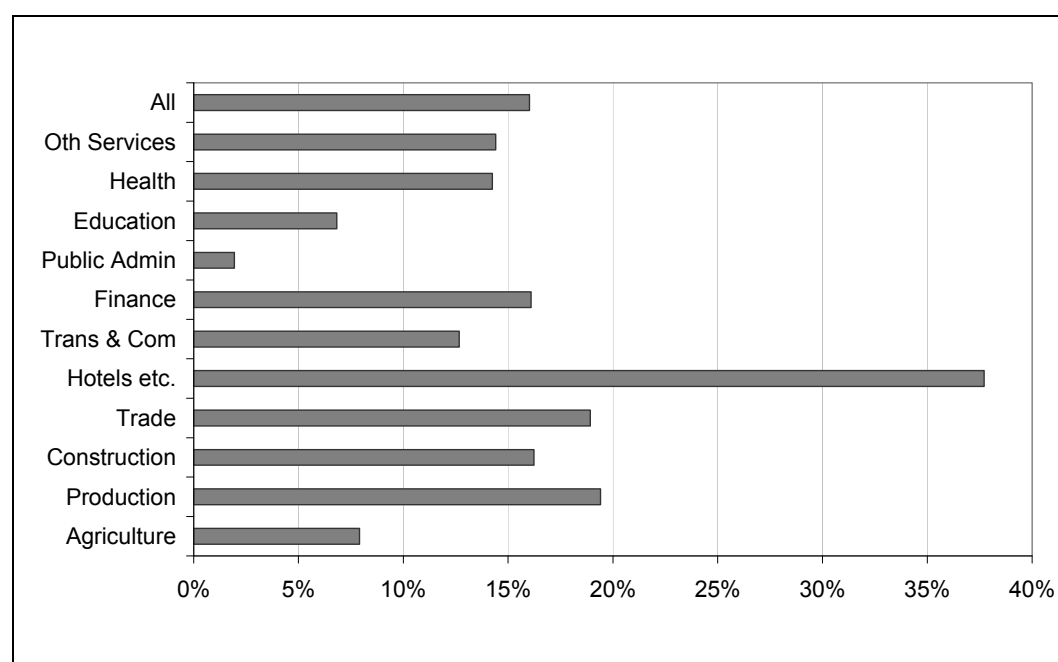
Table 1.2: Persons Usually Resident and Present in the State, Classified by Ethnic or Cultural Background, 2006

	2006	
	000s	%
White	3,956,609	94.8
<i>Irish</i>	3,645,199	87.4
<i>Irish Traveller</i>	22,369	0.5
<i>Any Other White Background</i>	289,041	6.9
Black	44,318	1.1
<i>African</i>	40,525	1.0
<i>Any Other Black Background</i>	3,793	0.1
Asian	52,345	1.3
<i>Chinese</i>	16,533	0.4
<i>Any Other Asian Background</i>	35,812	0.9
Other, including mixed background	46,438	1.1
Not stated	72,303	1.7
Total	4,172,013	100.0

Source: Census 2006.

This diversity in Irish society is reflected in the labour market. Non-Irish nationals are employed throughout the labour market in Ireland. To illustrate this, Figure 1.1 presents the share of non-Irish nationals by sector in Q2 2008. Overall, 16 per cent of people aged 15 years+ in employment in Ireland are non-Irish nationals. Non-Irish nationals are particularly concentrated in hotels and restaurants, where they make up over one-third of the sector. They are also overrepresented, relative to their overall share in manufacturing and wholesale and retail trade sectors. In other respects, immigrants are well spread through the labour market, but with very low proportions in agriculture, education and public administration.

Figure 1.1: Per Cent of non-Irish Nationals in Employment by Sector, 2008



Source: Quarterly National Household Survey, 2008, Quarter 2.

1.3 Previous Irish Findings on Labour Market Outcomes for Immigrants

While much recent immigration to Ireland has been driven by labour market demand, there is a growing body of evidence pointing to the labour market disadvantage of immigrants in Ireland. For example, this group experiences higher levels of unemployment than the majority Irish population (O'Connell and McGinnity, 2008); and is employed at occupational levels below their qualifications (Barrett *et al.*, 2006); and is much more likely to report work-related discrimination (Russell *et al.*, 2008; O'Connell and McGinnity, 2008).

Immigrants have, on average, a higher level of educational attainment than the majority Irish population, but this is not reflected in their workplace experience. Barrett *et al.* (2006) find that immigrants are not all employed in occupations that fully reflect their education levels. McGinnity *et al.* (2006) found almost two-thirds of work permit holders reported that they are overqualified for their current job. Immigrants also suffer a wage penalty: Barrett and McCarthy (2007) found that controlling for education and years of work experience, immigrants earn 18 per cent less than Irish nationals.³

These broad patterns of differential 'objective' labour market outcomes for immigrants are confirmed by studies of subjective reports of discrimination. These studies ask respondents directly about their experience of discrimination in the Irish labour market, and immigrants generally report higher levels of discrimination than Irish nationals – both in employment and in accessing it. Non-Irish nationals are three times more likely to report having experienced discrimination while looking for work than Irish nationals, and are twice as likely to report experiencing discrimination in the workplace. This is so even after controlling for differences in gender, age and education between the groups. (O'Connell and McGinnity, 2008; Russell *et al.*, 2008.)

Immigrants are far from a homogenous group (see Tables 1.1 and 1.2), yet disadvantage in the Irish labour market permeates almost all immigrant groups. The only exception seems to be those coming from 'English-speaking countries', mostly the UK (Barrett and McCarthy, 2007; O'Connell and McGinnity, 2008).⁴ Comparing Irish nationals and immigrants from English-speaking countries, studies have found no differences in wages (Barrett and McCarthy (2007) nor in their likelihood of securing the most privileged jobs, or of being unemployed (O'Connell and McGinnity, 2008). In addition, O'Connell and McGinnity find that, immigrants from English-speaking countries are no more likely to report experiencing discrimination in the workplace than Irish nationals. However, they are more likely to report discrimination in looking for work compared to Irish nationals, though somewhat less likely to do so than immigrants from non-English speaking countries (O'Connell and McGinnity, 2008).

While these findings could be interpreted in terms of the cultural similarities between English-speaking countries and Ireland, as O'Connell and McGinnity argue, the fact that for all immigrants (including those from non-English-speaking countries),

³ Barrett and McCarthy (2007) define native Irish as Irish nationals who were born in Ireland and immigrants as those born outside Ireland with non-Irish nationality.

⁴ In the absence of information on language ability, both Barrett and McCarthy (2007) and O'Connell and McGinnity (2008) use country of origin as a proxy for language skills. They classify nationals of the UK, the US, Canada, Australia and New Zealand as English language speaking, others are non-English language speaking. The authors acknowledge that this is imprecise and may mean they exclude some English speakers from countries like India, Nigeria and South Africa (see O'Connell and McGinnity, 2008, Chapter 3, for a discussion). Throughout this report, 'immigrants from English-speaking countries' refers to immigrants from this group of countries.

English-language proficiency is positively related to earnings suggests a strong role for language skills. Analysing a sample of non-EU immigrants, they found that self-assessed English language skills were positively related to earnings.

Do labour market outcomes among immigrants vary by ethnicity? Census 2006 offers comprehensive data on labour market participation by ethnicity. Non-Irish nationals of White ethnicity (15 years+) have a labour market participation rate well above average. Over 70 per cent of this group are at work compared to 57 per cent of the total population. People of White-Irish, Asian and Other including mixed ethnic backgrounds are closer to the average rate. According to the 2006 Census, just over 40 per cent of Black respondents are at work and over one-quarter are unemployed (27 per cent). People of Black ethnicity are overrepresented among those looking for their first regular job (8.2 per cent of Black people compared to 0.8 per cent of the total population).

O'Connell and McGinnity (2008), using a special module of the Quarterly National Household Survey (2004), investigated labour market outcomes by nationality, language group and ethnicity.⁵ As we saw above, they found the experience of immigrants from English-speaking countries to be little different to that of Irish nationals.⁶ They also examined whether the disadvantages faced by immigrants from non-English speaking countries differed by ethnic group.

In terms of access to employment they found that among immigrants from non-English speaking countries, those of Black ethnicity were nine times more likely than Irish nationals to be unemployed.⁷ There was little difference between those of White, Asian and Other ethnic backgrounds who were all two to three times more likely to be unemployed than Irish nationals. This pattern is confirmed by studies of subjective reports of discrimination, where in terms of access to employment, the Black ethnic group stand out as reporting the highest level of discrimination. O'Connell and McGinnity (2008) find that Black respondents are seven times more likely to experience discrimination while looking for work. With regard to former asylum seekers, part of this difficulty may be related to a prolonged absence from the labour market while in the asylum system. Also, McGinnity *et al.* (2006) found that Black and White South/Central Africans experienced the most discrimination of all the ethnic/national groups in relation to access to work, even after controlling for differences in education, length of stay and gender.

In terms of differences between ethnic minorities *in* employment, O'Connell and McGinnity (2008) find that, among immigrants from non-English speaking countries, all suffer labour market disadvantage, but there are no significant differences between White, Black, Asian and Other respondents in terms of either access to the most privileged jobs or the wages attached to the jobs. There is a penalty for immigrants from non-English speaking countries, but they find no evidence of an additional penalty on the basis of ethnicity. Again this pattern is confirmed by studies of subjective reports of discrimination. While immigrants from non-English speaking countries are much more likely than Irish nationals to report experiencing

⁵ This was the first representative survey in Ireland that collected data on ethnicity. It collected data on both objective labour market outcomes, like occupation, and data on the subjective experience of discrimination.

⁶ A very small number of immigrants from English-speaking countries were of Black, Asian or Other ethnic backgrounds. O'Connell and McGinnity found that minority ethnic respondents from English-speaking countries are four times more likely to report discrimination in looking for work than were White immigrants from these countries. However, they found no statistically significant result on any other labour market outcome for this group.

⁷ Irish nationals of minority ethnicity are identified separately in this report but the numbers are too small to generate statistically significant results (see O'Connell and McGinnity, 2008).

discrimination in the workplace, within this group there is little difference between respondents on the basis of ethnicity.

These recent studies clearly point to differential outcomes for non-Irish immigrants in Ireland. In the workplace there is a clear disadvantage for immigrants from non-English speaking countries, although within this group, no clearly established additional effect of ethnicity. In terms of access to employment, while all immigrants from non-English speaking countries are disadvantaged, those from the Black ethnic group are particularly disadvantaged. Yet the previous studies cannot determine the degree to which discrimination, as opposed to unobserved factors related to nationality or ethnicity is responsible for these differential outcomes. Equally, self-reported experience of discrimination may be prone to error.

There is, therefore, a gap in Irish research in the area: namely the use of experimental methods to give direct observations of discrimination. In the next chapter we discuss the advantages of experiments, and how they have been carried out in other countries. The chapter goes on to develop a set of research questions based on international findings and previous Irish research using alternative methods.

2. MEASURING DISCRIMINATION USING FIELD EXPERIMENTS: METHODS AND INTERNATIONAL FINDINGS

Discrimination, the unjustified unequal treatment of different groups based on for example, gender, race, religion, disability, can be very difficult to measure, and there is very little direct evidence about the extent and nature of discrimination in Ireland. Controlled experiments, or 'situational tests', can be used to test for discrimination, because they have the potential to record unequal treatment directly. Two individuals are matched for all relevant characteristics other than the one expected to lead to discrimination and they both apply for a job, a good or a service. Given the challenges of identifying and measuring the presence of discrimination, direct measures have considerable appeal (Darity and Mason, 1998). In the following discussion we first consider in detail experimental methods and their strengths and weaknesses. We discuss the two main methods of field experiments (audit studies and correspondence tests), highlighting the advantages of correspondence testing. We then move on to review the findings of a wide range of field experiments, concentrating on discrimination in recruitment on the basis of ethnicity, which is the main focus of this study. We conclude by outlining the research questions for the current study.

2.1 Measuring Discrimination Using Experiments

Measuring discrimination has proved extremely challenging. It is precisely the weaknesses of survey-based methods, as outlined in Chapter 1, that experimental methods address.⁸ As noted in the Introduction, experimental methods provide a powerful means of isolating causal mechanisms. Traditional experiments begin with a clearly defined 'treatment' and 'control' conditions, to which subjects are randomly assigned. All other environmental conditions are carefully controlled, and a specific outcome is recorded to test for differences between the groups.

Laboratory experiments allow researchers to exert maximum control over environmental conditions. They are widely used in social psychology, for example, for testing stereotypes, and are the source of much of what we know on attitudes and stereotypes (e.g. Fershtman and Gneezy, 2001). They can also be used to probe the mechanisms of discrimination (Peterson and Dietz, 2005; Krings and Olivares, 2007; Correll *et al.*, 2007). However, laboratory experiments are in artificial settings and may therefore have limited generalisability.

Field experiments combine experimental methods with field-based research. They apply certain key experimental principles (matching and random assignment) and apply them to real contexts to measure outcomes. For example, while a laboratory experiment might ask undergraduate subjects to rate hypothetical job applicants (e.g. Corell *et al.*, 2007), a field experiment would present two equally qualified job applicants to real employers in the context of real advertised vacancies.

Controlled experiments of this kind have been used in a range of domains of interest to the Equality Authority – recruitment (Bovenkerk *et al.*, 1994 in the Netherlands; Bendick, 1996 in the US; Riach and Rich, 1987 in Australia; Riach and Rich, 2006 in the UK); the housing market (e.g. Foster *et al.*, 2002) and in the product market

⁸ See O'Connell and McGinnity (2008) for further discussion of measuring discrimination using surveys.

(Riach and Rich, 2002). As this is the first known use of the method in Ireland, the study is limited to discrimination in the labour market, specifically recruitment.

In previous studies, three methods of field experiments have been used to carry out direct tests for the extent of discrimination in recruitment (Darity and Mason, 1998; Riach and Rich, 2002). Two involve personal approaches, whereby individuals either attend job interviews or apply over the telephone. These are often called audit tests (US) or situation tests (UK). The third method, correspondence testing, involves a written approach, and is described below.

2.1.1 Audit Studies and their Weaknesses

Personal approaches, or in-person audits, involve the use of matched pairs of individuals (called testers) who pose as job applicants in real job searches. Applicants are carefully matched on the basis of age, height, weight, attractiveness, interpersonal style, and any other employment-relevant characteristics. Testers are trained carefully and closely supervised to make sure differences between them are minimised. Respective CVs and the order in which testers approach the employer are often rotated. In-person audits have been used as the first approach to test discrimination in a wide range of entry-level jobs, generally in low-skilled occupations, in a number of countries (e.g. Neumark *et al.*, 1996). They have also been used as part of a process which first sends in a written application, followed by personal appearances where both candidates are invited to interview. This allows researchers to test all stages of the recruitment process, as they do in the studies of the Urban Institute (Mincey, 1993) and the ILO (Bovenkerk, 1992).

The key criticism of audit studies concerns the matching of applicants (Heckman and Siegelman, 1993). The validity of an audit study relies on its success in presenting two otherwise equally qualified job applicants who differ only by ethnicity or gender. Given the large number of characteristics that can influence an employer's evaluation, it is difficult to ensure that all such dimensions have been effectively controlled, and it is almost impossible to prove it. This problem can never be completely overcome, but using a number of testers and rotating them can reduce potential bias. A second criticism concerns the motivation of testers, otherwise known as 'experimenter effects' (Heckman and Siegelman, 1993; Bertrand and Mullainathan, 2004). In particular it is possible that minority applicants may be keen to 'prove' discrimination and that this may bias results. Training and careful supervision of testers can minimise this. In some cases, professional actors are used – but the problem of demonstrating that testers are matched and equally motivated remains (Riach and Rich, 2002; Bassanini and Saint-Martin, 2008).

2.1.2 Correspondence Tests

Correspondence testing, the method adopted in this study, involves responding to job vacancies with written applications or CVs. Usually this involves sending out equivalent CVs that vary only by the variable of interest e.g. gender, nationality or age of applicant. A key advantage of correspondence testing is that it is possible to exercise precise control over the content of the applications and to demonstrate the controlled and objective procedure to the reader, thereby circumventing some of the criticism of face-to-face and telephone interviews: face-to-face and telephone approaches have been more heavily criticised due to the role of unobserved variables (Heckman and Siegelman, 1993).⁹ Correspondence tests also incur a lower cost per application than in-person studies, meaning that it is possible to collect a

⁹ Heckman and Siegelman (1993) question the effectiveness of the procedures for selecting training and matching pairs of testers in audit studies to ensure they are identical in all relevant employment characteristics except race.

much greater number of observations with the same budget. This is an important consideration, given the number of cases necessary to ensure that recorded discrimination is not merely due to chance, i.e. to ensure that the difference in treatment is statistically significant.

While we have highlighted the strengths of correspondence testing versus previous audit studies, correspondence testing does have a number of limitations. Probably the most salient weakness is that using this method, only a limited number of jobs are available for testing, namely those requiring a written application. This rules out most manual jobs in Ireland and also many low-skilled service sector jobs, for example in the hotel and catering industry, which require an applicant to apply in person for the job. Any study of the low-wage labour market would require in-person application procedures. Indeed this points to a more general limitation of field experiments, whether in person or written applications – they have limited generalisability. By their very nature they focus on a limited number of jobs. A single experiment can encompass a number of occupations and skill levels, but requires replication on a wider range of jobs to give a full and representative picture of discrimination across the labour market.

Second, formal channels of recruitment, i.e. newspaper (internet) advertisements are only one channel of job search. While no research has been done on the topic in Ireland, research from other countries suggests that for many jobs, people are hired through social networks (Granovetter, 1974), a point also noted by Heckman and Siegelman (1993). If particular minority groups are less likely to have established job-relevant social networks, excluding this form of recruitment may underestimate discrimination.

Correspondence tests are also confined to the first stage of the hiring process, i.e. selection to interview. However, this need not be a serious problem, as evidence from the ILO studies suggests that most discrimination occurs at the initial stage (i.e. selection for interview), not at the stage 'interview to job offer' (Bovenkerk, 1992; see also discussion below). As Pager (2007) argues, discrimination is likely to be most pronounced at early stages of the employment relationship (hiring), when information about the applicant is at a minimum and when the chances of being caught are low. The advantage of focusing on recruitment more generally is that much of the research to date using statistical analysis has tended to focus on those already in jobs, ignoring the issue of discrimination in how they got to those jobs. Hence, this limitation of correspondence testing is also one of its strengths.

In summary, while experiments involving personal approaches have been subject to criticism surrounding the matching and motivation of testers and the possibility of unobserved variables, written tests offer a solution to this matching/motivation problem, as argued by Darity and Mason (1998) and Riach and Riach (2002). As Heckman and Siegelman (1993, p.196) note: "More objective demonstrations of the quality of the matchers would go a long way toward making audit pairs credible" This is what correspondence testing offers.

2.2. International Findings on Discrimination in Recruitment

Field experiments in other countries have been used to test for discrimination based on most of the nine grounds of interest to the Equality Authority: nationality/ethnicity (Firth, 1981; Riach and Rich 1991; Fix and Struyk, 1993; Arriijn *et al.*, 1998; Bertrand and Mullainathan, 2004; Carlsson and Rooth, 2007); gender (Neumark *et al.*, 1996; Riach and Rich, 1987, 2006; Weichselbaumer, 2004); family status (Petit, 2007; Corell *et al.*, 2007); age (Bendick *et al.*, 1999; Riach and Rich, 2007) and disability

status (Riach and Rich, 2002). Riach and Rich (2002) note that it is more difficult to generate equivalent CVs for testing discrimination on the basis of age and disability, and care needs to be taken in the choice of job to make sure that age/disability will not affect requirements for the job.

Summarising the results of field experiments on the basis of gender, some patterns emerge. First, women are more likely to be discriminated against in higher status/more senior positions (Riach and Rich, 1987; Neumark *et al.*, 1996). Second, where sex-typed occupations have been investigated, significant discrimination has always been recorded (Weichselbaumer, 2004). In particular, discrimination against men in 'female' occupations, such as secretary, tends to be much higher than women in 'male' occupations such as motor mechanic and network technician (Riach and Rich, 2002).

Correspondence testing has also been used more recently to test the impact of family status on gender differences in recruitment. For example, Petit (2007) investigates the impact of age and family status on the gender gap in access to job interviews in the financial sector in France. She finds significant hiring discrimination against (childless) women compared to men aged 25 years applying for high-skilled administrative jobs, but no hiring discrimination against female applicants aged 37 years, whether they are childless or married with three children. In contrast when Correll *et al.* (2007) investigate the effect of parenthood on the probability of being called to interview in the US, they find that childless women received twice as many callbacks as mothers, holding other factors constant. For men, being a parent had no impact on the rate of callback.¹⁰

2.2.1 Tests for Ethnic or Racial Discrimination

The technique of sending out matched pairs of applicants to test for discrimination originated in Britain. In almost all cases of the test for racial discrimination a White applicant is matched to a non-White applicant, but in many studies, White immigrants are also included to distinguish 'race' from 'foreignness' or immigrant status. The national or ethnic background of a candidate is almost always signalled by the applicant's name (Riach and Rich, 2002).

Jowell and Prescott-Clarke (1970) were the first to use written applications in their study of racial discrimination in white-collar jobs in Britain in 1969. Two letters of application were sent out to each vacancy: one identifying the applicant as British White, and the other identifying the applicant as either Asian (Indian/Pakistani), Australian, Cypriot, or West Indian. They found a net discrimination rate of 30 per cent for the Asian and West Indian applicants.¹¹ They found no statistically significant discrimination in the recruitment of White immigrants. Firth (1981) conducted a test of accountancy jobs, namely qualified accountants for professional firms, for industry and for financial institutions; unqualified personnel (jobs requiring no qualifications) and articled clerks. He sent seven applications to each job, one each from an English, Australian, French, Indian, Pakistani, West Indian and African applicant. He found White British applicants to have the greatest success rate, followed by Australians (White, English-speaking), then French (White, foreign language), and then minority ethnic (non-White) applicants (both from English-speaking and non-

¹⁰ This is in addition to their laboratory test of the same issue.

¹¹ *Net discrimination* in this case and the following discussion is calculated by deducting cases of "minority only offered interview" from "majority only offered interview" to get net discrimination. The discrimination rate cited in this Chapter and Chapter 4 refers to the number of cases of net discrimination expressed as a proportion of responses where at least one candidate received a positive response. This is following the recommended practice of the ILO, though there has been some controversy about this in the literature (see Riach and Rich, 2002 for further discussion).

English-speaking countries). The rate and pattern of discrimination was very similar across job type, region, salary levels, and type of firm tested (Firth, 1981).¹² Esmail and Everington (1993) in a more recent study in Britain, sent out CVs in response to advertised medical vacancies, testing for discrimination against Asian doctors who were British trained. They found a high rate of discrimination (circa 50 per cent) against a small sample of Asian doctors in the British National Health Service.

The International Labour Organisation (ILO) experiments in the mid-1990s were designed so that all stages of the hiring process could be tested, and also to ensure a high degree of comparability across the participating countries (Belgium, Germany, the Netherlands and Spain) (Bovenkerk, 1992). A second wave of ILO tests was carried out about 10 years later, using identical methodology. The findings for two have been published – for France (Cedey and Foroni, 2008) and for Italy (Alassino *et al.*, 2004). Testing was both by personal approaches and by written application, and the application process was divided into three stages: 1. Voice enquiry/ submission of CV; 2. written application; 3. job interview. Most testers were university undergraduates. Applications were made to a variety of job advertisements generally low to medium-skilled jobs: in sales, hotels, restaurants, offices, professional and also manual jobs in industry and construction. All of the studies found statistically significant net discrimination against minority candidates. These experiments also found that most discrimination (almost 90 per cent) occurred at the first stage of hiring (1. initial inquiry plus 2. written application), compared to the invitation to interview stage. While many of these results are not strictly comparable to the one-stage correspondence tests, combining results from the first two stages in the ILO procedure gives indicative indicators of discrimination rates at the first stage of the hiring process in the countries tested. For example, Alassino *et al.* (2004) report a rate of 38.3 per cent against Moroccans in Italy in 2003 (2.6 per cent at interview stage, giving a 40.9 per cent rate in total). Cedey and Foroni (2008) report an overall discrimination rate of 43.7 per cent against applicants of North or Sub-Saharan African origin in France in 2005/2006, though note when these authors distinguish applicants where the first stage involved submitting a CV by post rather than in person or making a phone enquiry (i.e. closest to correspondence testing), the net discrimination rate for the first stage is 54.2 per cent, see Table 4.5.¹³

Tests of racial or ethnic discrimination have also been conducted in Australia and Canada (Riach and Rich, 2002). For example, Riach and Rich (1991) conducted a test in Melbourne Australia in the 1980s. Written applications were sent to vacancies in three occupations, secretary, clerk, sales representative. To avoid detection, two applications were sent to each vacancy, one always from an Australian, the second from either a Vietnamese or a Greek applicant. Similar to the British studies, a much higher level of discrimination was recorded against Vietnamese (27.4 per cent) than against Greek applicants (8.8 per cent). A recent study testing a range of occupations in Sweden found that applications with a Swedish name received 50 per cent more callbacks for an interview than applicants with a Middle Eastern name (Carlsson and Rooth, 2007). They also found interesting differences between occupations and firms of different sizes, discussed in more detail below.

¹² Several months after the job applications were sent off, Firth (1981) sent follow-up questionnaires to the same firms, where virtually all respondents said they would treat White and non-White applicants equally when coming to job decisions. Tests comparing employers' responses and their actual behaviour showed that the respondents' stated views were not matched by their behaviour in practice. The distinction between actual and claimed behaviour was dramatically demonstrated over fifty years ago by La Piere (1934).

¹³ This distinction is permitted because of the very large sample size in the overall study (approximately 2,400 tests, 4,800 applications).

In the US, where there is a long tradition of research into racial discrimination, major field experiments have been conducted by the Urban Institute (Mincey, 1993) and the Fair Employment Council of Washington (Bendick, 1996). Unlike the ILO method of stopping the test as soon as one of the pair had been rejected, the Urban Institute and Fair Employment Council multi-stage tests involved individual testers proceeding as far as possible in the hiring process, even if their 'match' had been rejected at an earlier stage. This meant that in a number of the audits, there was just one person going to interview. In all audits, the highest level of discrimination was in being invited to interview, rather than at the job offer stage.

Combining the results of both these major audits, discrimination rates against Hispanics were in excess of 30 per cent, while those against African-Americans were somewhat lower at 19 per cent.¹⁴ Both these rates of discrimination are statistically significant.

More recent work in the US has developed the work of these audits further. In an interesting study, "The Mark of a Criminal Record", Pager (2003) looked at how the impact of having a criminal record differs between Black and White job applicants in a field experiment in Milwaukee. She found a significant impact of having a criminal record on the chances of being called to interview for both groups, but the impact was greater for Black applicants. So while the ratio of callbacks for non-offenders relative to ex-offenders for White applicants was 2:1, the same ratio for Black applicants was nearly 3:1.

Bertrand and Mullainathan (2004) conducted the most ambitious correspondence test in the US to date. They sent fictitious resumes responding to 1,300 varied jobs in sales, administrative support, and clerical and customer services in Boston and Chicago. Resumes were randomly assigned African-American or White-sounding names, and four CVs were sent out to each advertisement: two high-quality, two low-quality. They found White applicants were 1.5 times (50 per cent) more likely to receive callbacks than African Americans, and they also found a lower return on education/experience for African-American applicants, contrary to their expectations. Their article, while very influential, has since been criticised in the use of names to signal race: some of the names were also associated with socioeconomic class, which may bias some of the results (Fryer and Levitt, 2004).

2.2.2 Variations in Discrimination across the Labour Market

Though often field experiments are confined to one particular labour market niche, the results of some field experiments have also been used to investigate differences in discrimination in recruitment across the labour market. While some studies have found no significant differences across industries and occupations in the extent of racial or ethnic discrimination (e.g. Bertrand and Mullainathan, 2004; Cediye and Foroni, 2008), other experiments have found less such discrimination in the public sector and companies with formal equality policies (e.g. Bendick, 1996). In their study comparing Swedish with Middle-Eastern applicants, Carlsson and Rooth found less discrimination in Sweden in high-skilled occupations like computer professionals and teachers as opposed to low-skilled occupations like restaurant workers and shop assistants (Carlsson and Rooth, 2007). The authors argue that individual productivity may be more evident when reading a high-skilled individual's application than when reading a low-skilled applicant's application. This is consistent with earlier ILO studies in Germany (Goldberg *et al.*, 1996) and in the Netherlands (Bovenkerk *et al.*,

¹⁴These discrimination rates are computed using the ILO method described in Footnote 11. Using the authors' own computational procedures, which differ on a number of key assumptions, the discrimination rate is lower. However, for this review it makes sense to cite rates that are comparable to the international literature (see Bendick, 1996).

1994). Carlsson and Rooth (2007) also found male recruiters and small firms (with less than 20 employees) more likely to discriminate than female recruiters and large firms, though Bertrand and Mullainathan (2004) found no effect of firm size in their study in the US.

Employer location is rarely tested in these experiments, as the studies have tended to test in one city with little regional variation. Bertrand and Mullainathan (2004) did find that in postcode areas with a higher proportion of African-Americans in the population, that group were more likely to be hired, but the effect is very small. Carlsson and Rooth (2007) found no effect of neighbourhood in Sweden. Allasino *et al.* (2004) find no significant variation between cities in Italy (Turin, Rome, Naples). Finally, there does seem to be some suggestion that employers are less likely to discriminate when the labour market is tight, and that high unemployment allows them to indulge in discriminatory behaviour (Pager, 2003; Riach and Rich, 2002).

2.2.3 Summary of International Findings of Experiments

Field experiments have been used to investigate discrimination in a range of countries, with a range of minority ethnic groups. What is remarkable is the consistency of recorded discrimination, which has been in excess of 25 per cent against minority ethnic groups in recruitment (Bassanini and Saint-Martin, 2008). This is in spite of cross-national differences in recruitment policies and large differences in the ethnic composition of the minority groups and their status in the host society. Indeed, field experiments have found widespread evidence of discrimination in recruitment: against Indians, Pakistanis, West Indians and Africans in Britain; African-Americans and Hispanics in the US; Vietnamese in Australia; Turks in Germany; Moroccans in Belgium, the Netherlands and Spain and Surinamese in the Netherlands.

A second consistent finding is that of lower discrimination among White immigrants in predominantly White populations, in the studies which tested this. These findings suggest that while immigrants *per se* face discrimination in recruitment, the extent of discrimination faced depends on the colour of their skin.

The findings on variations across the labour market are far less consistent. Indeed many field experiments do not test variation across the labour market at all. Of those that have done so, some studies recorded higher discrimination among low-skilled jobs, while others found no difference between skill levels. Some experiments recorded higher discrimination among smaller firms, yet others did not. Still others find an effect of neighbourhood, others do not. There are many open-ended questions in this area.

2.3 Research Questions

On the basis of previous international literature, and previous Irish work on the topic reviewed in Chapter 1, we formulate our research questions. Given that it is the first time this research has been conducted in Ireland and there is a recent history of migration, with no established or dominant minority groups, we test for the presence of discrimination in recruitment between a number of groups. These groups are: Irish, Asian, African and German. While Polish nationals are much the largest group among migrants from non-English speaking European countries living in Ireland at the time of the fieldwork (2008), in order to generate equivalent CVs, it was necessary that all the fictitious applicants had completed secondary education in Ireland (see Chapter 3 for more discussion of this). This is more plausible for German or French immigrants, according to Census data.

Following a methodology similar to, say, Riach and Rich (1991) we always send out one Irish application and one from one of the minority groups (see Chapter 3 for further details). These are our research questions:

1. First, are there any differences in responses to the minority candidates and the Irish candidate? Given both previous international findings from field experiments and the differential outcomes in the Irish labour market found by Barrett and McCarthy (2007), Barrett and Duffy (2008) and O'Connell and McGinnity (2008), we expect that we will find some discrimination against the minority candidates. As this is the first field experiment in Ireland, we have no prior assumptions about the extent of this discrimination, which varies substantially across countries.
2. Second, is there any variation in the extent of discrimination between the minority groups? Previous field experiments from other countries would suggest higher discrimination in recruitment against non-White immigrants than White immigrants (Jowell and Prescott-Clarke, 1970; Firth, 1981; Riach and Rich, 1991; Riach and Rich, 2002). Previous Irish research has found higher levels of unemployment among those of Black ethnicity and higher levels of reported discrimination in accessing employment (O'Connell and McGinnity, 2008) Thus we might expect higher discrimination in recruitment against African applicants, followed by Asian applicants, followed by European (German) job applicants.
3. Third, does discrimination vary across the labour market in Ireland? As noted above, because of the nature of the field experiment method, we are limited as to how much variation we can test. Many public sector jobs are ruled out because they require written application forms rather than CVs. Jobs in the hotel/catering industry, which have significant proportions of non-Irish nationals, are ruled out because of the personal approach typical in recruitment in the sector. The volume of applications required for equivalent jobs means a limited number of occupations can be tested. What we can examine is whether discrimination varies by occupation, industrial sector and by time period.

In the next chapter we discuss how we address these questions in the experiment.

3. THE EXPERIMENT

3.1 Introduction and Selection of Occupations

Designing a field experiment is challenging in any context, but this is particularly true in a small labour market such as Ireland's, where the risk of detection is greater and the number of job vacancies lower. In this chapter we describe how we adapted best practice guidelines on the design of experiments for the Irish case and responded to challenges as they arose. This section discusses the principles that guided our decisions, particularly the choice of occupations. In Section 3.2 we discuss the development of equivalent but non-identical CVs for our fictitious Irish, African, Asian and German 'applicants'. Section 3.3 describes in detail the process of applying for jobs and recording responses and Section 3.4 concludes with a reflection on ethical issues in an experiment of this nature and how we addressed them.

A number of general considerations guided many of our operational decisions. First, we wished to avoid detection. Had any employer discovered the applicants were fictitious this may have biased their responses. Had they brought this to the attention of the media, we would have had to abandon the whole experiment immediately. Thus we only ever sent out 2 CVs, not up to 6, as in other countries, to avoid arousing suspicion. CVs were designed to be equivalent but not identical. Work experience was with fictitious employers. Third-level degrees were from existing universities but non-existent courses. Samples of CVs similar to those used in the experiment are supplied in Appendix A at the end of the chapter.

Second, there were ethical considerations. We wanted to minimise inconvenience, costs and damage to the reputation of employers, who did not know they were part of an experiment. For example, procedures were put in place to ensure that employers were notified promptly of our candidates' withdrawal, and no information will ever be revealed about any of the employers involved in the experiment, regardless of whether they did or did not give preferential treatment to one applicant over the other.

Third, we faced constraints of time and financial resources. This was a funded project with dedicated funds and deadlines. While both these were somewhat flexible, time and money played a role in the design. Occupations with many vacancies were targeted to reduce the time required to conduct the experiment. While there are sound methodological grounds for using the written approach (see Chapter 2), personal approaches would have also required funds that far exceeded the project budget. They are simply much more expensive to undertake.

A number of factors influenced the choice of occupations. In Chapter 2 we argued that there is a strong and convincing case for using written applications, as they allow maximum control and a guarantee of equivalence across applications. This does limit the occupations to be tested to those that require written applications, specifically sending equivalent CVs. As noted above, this rules out manual jobs and some low-skilled service jobs in hotels, shops and restaurants. It also rules out jobs which require extensive application forms, as the effort required in filling them out substantially increases the cost of the experiment: this rules out many public sector jobs in Ireland.

Second, in order to substantiate differential callback rates, one needs a large number of cases, in this case applications, within the time constraints of the project.¹⁵ In

¹⁵ For example, one very similar experiment was in the field for four years, whereas this experiment was in the field for seven months (Riach and Rich, 1991).

addition, one needs a large number of cases where at least one candidate receives a positive response. This means that occupations with a high number of vacancies should be targeted, and also that the CVs should be as close a match as possible for the job, to increase the chances that at least one candidate will receive a positive response.

Third, while the nature of field experiments means only a limited range of occupations and skill levels may be targeted, it makes sense to try to maximise generalisability by targeting at least two sectors with two different skill levels, to see if the discrimination rate varies by sector and by skill.

On the basis of these considerations, and after one month of monitoring the rate of vacancies in different occupations, two occupations were initially selected for investigation: administration and accountancy. The original design sought to target positions at two different levels of each occupation, one junior or entry-level position as well as a more senior role. However, the data collection period unfortunately coincided with a downturn in the Irish economy (March-October 2008) and a slowdown in the rate of vacancies. This was particularly problematic for identifying higher-level vacancies. Over a seven week period in March/April, for example, only three suitable higher-level administrative or accountancy vacancies were identified.¹⁶ In addition the higher level employers sought candidates with highly specific skills and experience, so ideally, CVs would have to be tailored specifically to meet the requirements of each vacancy. Developing a CV for each vacancy that arose was not possible within time and resource constraints. For these reasons it was not feasible to target the higher-level positions. Instead, retail sales was selected as an additional industry to target. Retail sales has a higher rate of vacancies than the higher level administration and accountancy positions. In addition, retail sales jobs involve high levels of interpersonal interaction. Previous research suggests that discrimination may be more common in roles high in interpersonal contact (Krings and Olivares, 2007). Thus the retail sales positions provided a useful comparison to the office-based administrative and accountancy positions. All data reported is based on responses from lower administration, lower accountancy and retail sales positions.

3.2 Development of Fictitious Applicants' CVs

For each occupation, two equivalent CVs were developed. Two sample CVs for the lower administration posts are presented in an Appendix to this chapter.¹⁷ In order to avoid detection CVs could not be identical, but within each job category all relevant personal and employment characteristics other than national or ethnic origin were matched between the two CVs. Essentially, applicants differed only in their ethnically distinctive names. The effectiveness of this field experiment depended on employers recognising the ethnicity of job applicants. Ethnically distinctive names are commonly relied upon in discrimination research for indicating ethnicity (Riach and Rich, 2002). In fact, names are often the sole means of indicating ethnicity (e.g. Bertrand and Mullainathan, 2004; Correll *et al.*, 2007).

A shortlist of potential names was developed based on registers of ethnically common names and web searches. A small pre-test was then conducted to identify names which were most readily identifiable as Irish, African, Asian or European (German). For example, the pre-test indicated that *Patrick Byrne* was an identifiably Irish name, one of the German names was *Albrecht Schroder*, and *Babatunde Okon*

¹⁶ Suppose we wanted to replicate this experiment, limiting applications to higher level administrative or accountancy positions. At this rate of 3 suitable job vacancies in 7 weeks it would take 560 weeks or over 10 years to make 240 applications, which is the number of jobs we actually applied for.

¹⁷ These are illustrative CVs, not exact replicas of the CVs used in the experiment.

and *Mohinder Singh* were names identified for an African and an Asian candidate respectively.¹⁸ Irish nationality was typically indicated on minority CVs to indicate to employers that there were no potential issues concerning work permits, right to work in Ireland etc. Male names were used for the financial CVs, female names for the lower administrative and sales' CVs. This is to maximise response to the CVs: previous research has shown, for example, that women are much more likely to be called to interview for administrative jobs than men (Riach and Rich, 2002).

The CVs were developed in consultation with a Human Resource consultant. Once the job categories had been chosen, a set of sample CVs was gathered from a recruitment agency. Relevant work experience, education and training from the sample CVs were used as a basis for CV development. Both accountancy CVs indicated the candidates were at the same stage in an accountancy qualification (ACCA) and were proficient in two types of accountancy software.

As can be seen in the Appendix the brief CVs developed for this study included the following information: personal details, education, work experience, hobbies/interests and other skills. Personal web-based email addresses were created for each identity. These addresses were based on the candidate's name, e.g. *tundeokon@internetserviceprovider.com*. Each CV had a mobile phone number attached to it. Mobile phones were set so that all calls were immediately diverted to voicemail. The standard voicemail message issued by the mobile provider was used. Fictitious Dublin addresses were created, using real suburbs but non-existent streets. In order to avoid the risk of ethnicity being confounded with class, all pairs of candidates were shown to reside in suburbs of Dublin equivalent in socioeconomic status.

Prior to full implementation of the study, a small pre-test was performed in Autumn 2007. The primary purpose of this test was to explore the application procedure used by various different job sources. The pre-test informed research protocol on the application process. One lesson from the pre-test was that the country where the final schools qualification was obtained was significant: an Irish Leaving Certificate gained a higher response rate than equivalent qualifications acquired outside Ireland (e.g. A-levels), so Irish Leaving Certificate qualifications were included on all CVs. Secondary schools that had recently closed were used on the CVs, in order that they were not contactable by potential employers.

The receipt of an Irish Leaving Certificate also indicated the English-language proficiency of the minority candidates. Fictitious candidates were all young, in order to be as plausible as possible: the recent nature of migration into Ireland means that most minority applicants would not have been in Ireland long enough to have been at school in Ireland. It was decided that equivalence of CVs and in particular, English language fluency, was more important than whether these candidates were 'typical' of their group currently living in Ireland.

For the two lower accountancy CVs applicants were shown to possess fictitious degrees awarded by genuine third-level institutions. Given the small size of Ireland and the limited number of universities, creating fictitious third-level institutions would immediately alert recruiters and was not considered a plausible option. Applicants were shown to have completed qualifications which, while plausible, the particular institution did not in fact offer, as falsely claiming to have a genuine award from an institution could have legal ramifications (Riach and Rich, 2006).

¹⁸ Once again names are provided here for illustrative purposes only, they are not the actual names used in the study.

Listing genuine companies and organisations as previous employers on the CVs was also considered problematic. If an employer attempted to contact the company or organisation, they would detect an anomaly. Thus, across all three areas previous work experience was with fictitious companies.

For each vacancy identified, two CVs were sent to the recruiting employer, one CV was always from the Irish candidate and the other one was alternated between the African, Asian or German candidate (see Section 3.3 below for details of the procedure). We decided that the receipt of four (or even three) applications from people with very similar backgrounds and similar qualifications would heighten the danger of arousing employer suspicions and lead to non-observations or perhaps bias the results (see Riach and Rich, 1991).¹⁹ As an additional safeguard, the two different CVs were rotated with the different ethnic identities, in order to ensure any differences were due to the ethnic identities, rather than unintended differences between the CVs (e.g. a preferable layout of CV). See Table 3.1. As should be clear from this section, much emphasis in this project was placed on following best practice to generate equivalent CVs, so that any differential treatment could be ascribed to national or ethnic origin alone.

3.3 Applying for Jobs

3.3.1 Identifying Vacancies

The first stage in the research procedure was to identify vacancies in each of the three target areas: lower administration, lower accountancy and retail/sales. The approach used was to respond to advertised vacancies. Some studies send unsolicited applications, but these have a very low response rate (Riach and Rich, 2007; for a review of this method see Riach and Rich, 2002).²⁰

A number of different sources were used in the job search, including both online and newspaper job advertisements. Full-time positions within easy commuting distance of Dublin were considered, as fictitious applicants all had Dublin addresses. Jobs advertised by recruitment agencies, rather than employers themselves, were excluded from the study. The risk of detection by these recruitment experts was considered too high.²¹ In addition, only jobs that could be applied for online or by email were included. A very small number of jobs which required postal applications were eliminated, as they posed a number of operational difficulties.²² Positions that required lengthy cover letters, letters of motivation or the completion of detailed application forms were also excluded. In addition, companies or organisations could only be included once in the research; those that had previously been targeted were also then excluded from further applications (see discussion of ethics, Section 3.4 below). Within these constraints, all advertised vacancies were applied for.

In the area of lower administration, CVs were submitted to positions such as receptionist, office assistant, data input clerk, administrator. These positions typically offered a salary of €20,000–€25,000 per annum. Lower accountancy jobs targeted ranged from part-qualified and trainee accountants to accounts assistants. In the

¹⁹ In fact in a number of cases the two test candidates were almost certainly the only applicants for the job so three or more applications are indeed likely to have aroused suspicion.

²⁰ For example, Riach and Rich sent approximately 300 pairs of CVs to employers of retail managers and were able to use 27 pairs (Riach and Rich, 2007).

²¹ In addition, with the input of an intermediary, it is not clear who is doing the discriminating: the agency or the employer.

²² For example, the same postmark on the applications could trigger detection.

retail sales category, vacancies such as sales/shop assistant, assistant store manager and trainee manager were applied for.

It must be noted that a number of the jobs applied for in the retail sales category required applicants to have a number of years previous experience. That is, the vacancies were sometimes more senior than entry level. This is reflective of the in-person application process of many entry-level retail sales positions. It tends to be at a relatively higher level where written applications are submitted. The retail sales CVs were tailored accordingly.

3.3.2 Applying for Vacancies

Once a suitable vacancy had been identified, two matched CVs were sent by email to the advertising employer. To minimise the likelihood of detection the two CVs were sent a few hours apart. As can be seen in Table 3.1, the order in which the CVs were sent was rotated, such that on one occasion the first CV was from the minority candidate (African, Asian or German) and the second CV from the Irish candidate. This order was then reversed when applying for the following vacancy. This procedure was followed for each given occupation.

Table 3.1: Order of Applications for Each Occupation

Job Vacancy	CV1	CV2
1	Irish	African
2	Asian	Irish
3	Irish	German
4	African	Irish
5	Irish	Asian
6	German	Irish

There were no significant differences in type of response to CV1 and CV2 in any of the three occupations.²³

When CV1 was sent, it was identical across the four different ethnic identities; the only variations were the names and email addresses of the applicants. The same applied for CV2. Two different cover notes were developed to be sent with the CVs. Cover note 1 was sent with CV1 and cover note 2 with CV2. In addition, in order to minimise the risk of detection the subject line of emails was varied.

In some cases additional information from applicants was requested, for example, notice period for current employment, eligibility to work in Ireland, proficiency in English. Equivalent but non-identical responses to these questions were provided by the two candidates. If, for instance, an employer asked about salary expectations, one candidate might respond, 'To be discussed,' while the other said, 'Negotiable.'

Details of the applications were carefully recorded in an Excel spreadsheet. These included the name and contact details of employers, dates of the advertisement and of the application, as well as the order of the applications and which ethnic identity applied for the position.

²³ Administration: $\chi^2(2)=0.141$, $p=0.932$; accountancy: $\chi^2(2)=0.287$, $p=0.866$; retail sales: $\chi^2(2)=0.054$, $p=0.973$.

3.3.3 Recording of Responses

Voicemail and email addresses were typically checked for responses once every working day. Of the 240 job advertisements responded to, responses were received with respect to 111 of them in total (including rejections). Both telephone and email responses were recorded, and response rates were similar across occupations and minority groups. Attempts to contact applicants by post were not recorded, as fictitious addresses were used. However, as Bertrand and Mullainathan (2004) state, it is highly unusual for employers to contact applicants by post. Standard practice in recruitment in Ireland in the occupations tested seems to be not to respond to unsuccessful applicants. In fact, some job advertisements specifically advised applicants that unless they were successful, they would not receive a response. The response rate of 46 per cent is consistent with response rates internationally and is likely to reflect this practice.

Approximately 39 per cent of jobs applied for (93 out of 240 jobs) received at least one favourable response; this relatively high rate of positive responses is indicative of the quality of the CVs. No observation was recorded if a response had not been received six weeks after the initial application and/or six weeks after the application deadline.²⁴ In cases where one applicant was contacted, if the second applicant was not contacted within ten working days, no observation was recorded for the second candidate.

All responses were recorded. Direct offers of interview and requests for further information or further contact (i.e. call back) were coded as positive responses. Date and time of response was recorded. The industry group of each employer was recorded according to the 2006 Census classification, using the company's name, supplemented in some cases with information from the job advertisement or the company website. In addition, an online business directory was used to gather firm size information for each vacancy, where possible. All response information was recorded electronically and hard copy records were also kept. Best practice was followed in ensuring confidentiality of records, as discussed in more detail in the ethics section below (Section 3.4).

3.3.4 Declining Offers

Once an employer responded to an application, the research team needed to decline any offers made and terminate the recruitment process. Declines were communicated by email wherever possible, otherwise by telephone. In order to minimise inconvenience to employers, when both candidates had been contacted the researchers sought to decline as promptly as possible, usually within 24 hours.²⁵ If, however, only one candidate had been contacted, the researcher waited a minimum of 24 hours prior to declining and then replied as promptly as possible. This meant that in the large majority of cases employers were notified of the candidate's withdrawal by the next working day. Waiting 24 hours when only one candidate had been contacted decreased the likelihood that any recorded differences in treatment of applicants were due to inconsistencies in the recruitment process. More details of how responses were recorded are given in the next chapter, where we present the results. Two different excuses were used to withdraw from the recruitment process, in order not to arouse employers' suspicion.

²⁴ Standard practice appears to be for employers to contact successful candidates within four to six weeks of application. Employers sometimes advised candidates that if they did not respond within this time frame to consider their application unsuccessful.

²⁵ In these cases one candidate declined immediately. A minimum of three hours was allowed before declining on behalf of the second candidate, in order not to arouse suspicion.

The first applications were sent out in early March 2008 and the final applications at the end of September 2008. At this stage, after performing some tests on the data the team were satisfied that enough observations had been collected to give robust findings on discrimination. Sending out further applications would incur additional cost, both to the project team and the employers, and at no substantial gain in terms of findings.

3.4 Ethical Issues in Field Experiments

Experiments such as this raise a number of ethical issues, and this project went through a rigorous ethics procedure at The Economic and Social Research Institute (ESRI) before the project commenced. The key ethical issues are, first, that participants are not aware that they are part of an experiment and thus it is not possible to secure informed consent. This is a crucial part of the experiment as informing candidates would invalidate the experiment. Second, the experiment involves deception, both in applying for jobs and the fabrication of qualifications/work histories (Riach and Rich, 2004).

What is the justification for this deception/lack of informed consent? The justification for the deception/lack of informed consent involved in this experiment is that:

1. Direct evidence of labour market discrimination is not available by any other technique.
2. This is a well-established research design applied in other countries.
3. Minimal inconvenience is caused to employers.
4. Considerably greater harm is done by discrimination.
5. No information will be published relating any individual firm, organisation or person.
6. The outcome of this study will have no direct consequences for any of the participants.

The research team assured the ethics committee that, within the constraints of the research design, every possible step would be taken to minimise the impact of the experiment on those firms tested.

Some minor inconvenience and a small cost may have been incurred by employers that pursued one or both of our fictitious applicants. Operational procedures (based on best practice findings) were designed to minimise this inconvenience by promptly notifying employers that the candidate is no longer interested in the job.²⁶ Furthermore, applications were sent to any given employer once only. Testing was stopped as soon as enough cases were selected to give meaningful results. Given these procedures, it is highly unlikely that any employer suffered significant inconvenience or cost.

The ethics committee was also assured that this project is strictly 'for research purposes only' and no information would be released at any stage which could be used to prosecute companies. The research team involved in the project was kept small. A confidentiality protocol was adopted by the research team to ensure non-disclosure of employer identities to anyone outside the research team, with applications not traceable to the ESRI. Records of company names were restricted to a small number of the research team and kept in secure locations. All electronic information relating to the project was stored in a folder with access restricted to the project team. Hard copy records were stored in a locked, secure filing cabinet.

²⁶ As outlined earlier in this Chapter, in most cases employers were notified within one working day of having contacted the job applicant.

Employer/company identifiers will not be made available to any third parties, including the Equality Authority, at any stage. ESRI researchers have exclusive access to and ownership of the database. In addition, it was agreed that identifying data regarding the source of job advertisements (job websites, print media) would not be published.

In summary, all possible steps were taken to minimise inconvenience and individual risk to employers. The procedure adopted adhered to best practice, following closely the methodology of many previous studies. An international academic expert with extensive experience of field experiments, Judy Rich, was appointed as project consultant and her advice was sought at various key stages in the process. A HR consultant was also appointed on a temporary basis to advise on CVs and recruitment practices.

APPENDIX: SAMPLE ADMIN. CVS

CURRICULUM VITAE

Name: Ellen Sweeney
Address: 121 Coll Park Avenue, Rathmines, Dublin 6
Tel: 084 8338795
Email: sweeneye@yahoo.co.uk
Date of Birth: 9/03/1983
Sex: Female
Nationality: Irish

Employment History

2005-Present

Administrative Officer. Quickdirect, Oldhouse Road, Dublin 11

My duties included organisation of meetings, diary management for the Director, typing and formatting of reports. I also performed some reception duties answering the phone and sending out mail.

2004-2005

Reception and Administrative Support. Grange Electrical Contractors, Dublin

I was responsible for general admin duties, post, answering telephone calls, booking appointments, typing, faxing, filing and maintaining order books.

2003

Clerical Officer. T.L.F. Supplies, Dublin

I was responsible for monitoring and recording of mail delivery, answering telephone queries and typing reports.

Educational Training

2003

Administrative Management. Kylemore Training Centre, Ballyfermot

2001 – 2002

NVC in Business with Computers. Wicklow V.E.C.

1999 – 2001

Leaving Certificate, Our Lady's School, Rathnew, Co. Wicklow

4 Honours (English, Art, Irish, Geography), 3 Passes (Maths, Chemistry, French)

Additional Skills

Computer literate. Full driving licence

Hobbies and Interests

I am a keen cyclist and during the summer enjoy mountain cycling in Wicklow. I also enjoy reading and going out with friends.

References

Available on request.

CURRICULUM VITAE

Personal and Contact Details

Name Ngozi Udo
Date of Birth 27th June 1983
Address 20 Opal Avenue, Rathgar, Dublin 6
Phone 084 8338794
Email nudo@googlemail.com
Gender Female
Nationality Irish

Employment

Feb 2005 – present

Administrative Officer/ Receptionist

Clancy Medical Supplies, Dublin

Duties included ordering stock and looking after customer enquiries. I was also responsible for typing monthly reports to Directors, filing and ordering of office supplies.

2004

Administrative Assistant

Eclipse Solutions, Dublin

I provided general support in the preparation of tenders as well as general office admin support: typing, outgoing and incoming mail, filing, travel and accommodation arrangements, petty cash.

2003-2004

Clerical Assistant

Dolphin Construction

General office admin support: telephone, outgoing and incoming mail, filing, petty cash.

Education

2003 Intermediate Computer Skills. IT Tallaght.
2002 Business Administration, National Vocational Certificate, Level 3. Whitehall College, Dublin 9
1999 Leaving Certificate
Honours Level: English, Geography, Business, Biology
Lower Level: Irish, French, Maths
St. Michael's College, Roscommon.

Other Skills

Microsoft Office (Word, Excel, Outlook, PowerPoint) and Internet.

Interests

I enjoy travelling, swimming and going to the cinema. I also have a full driver's licence.

Please contact me for references

4. RESULTS: DISCRIMINATION IN RECRUITMENT

The purpose of this chapter is to present the results of the experiment: the responses to our matched applications, estimate the presence and extent of discrimination in recruitment, and whether it is statistically significant. We also consider whether the discrimination varies across national/ethnic groups and across sectors. Finally, we situate Irish findings in the context of similar international experiments.

4.1 Classification of responses

What were the responses to our matched pairs of fictional applicants? Table 4.1 presents a breakdown of outcomes relating to the 240 pairs of matched job applications. Of these, no response was received or both candidates were rejected in 147 cases.²⁷

Table 4.1: Classification of Outcomes to Matched Job Applications by Minority

	Irish/African	Irish/Asian	Irish/German	<i>Total</i>
1. No response/both rejected	54	46	47	147
2. Both invited	4	8	11	23
3. Irish invited, minority not	18	19	18	55
4. Minority invited, Irish not	5	7	3	15
5. Net discrimination (Row 3 - Row 4)	13	12	15	40
6. Discrimination rate (Row 3 - Row 4)/ (Row 2 + Row 3 + Row 4)	48%	35%	47%	43%
7. Odds ratio	2.44	1.80	2.07	2.05

The remaining 93 cases received at least one positive response. These are classified into three categories: those where both candidates were invited to interview, those where the candidate with the “Irish” name was asked to interview and the candidate with the “minority” name was not, and those where the minority candidate was invited to interview but the Irish candidate was not. Throughout this chapter, ‘positive’ response is typically referred to as ‘invited to interview’, though, as discussed in Chapter 3, other types of responses are also considered. In 68 per cent of cases (63 cases) favourable responses to applicants were direct offers for interview. In the remaining 32 per cent of cases (29 cases), favourable responses took the form of ‘please call back regarding your application’ or ‘please send on your references.’ Discrimination was also considered to have occurred if one candidate received one of these types of favourable responses, where the second candidate was rejected or received no response, as the contact was clearly related to the job. This is typical of the procedure followed in this type of experiment (see e.g. Riach and Rich, 2006).²⁸

²⁷ This response rate, i.e. some form of response to advertised vacancies in about 40 per cent of cases, is relatively high and indicative of the quality of the CVs.

²⁸ When we tested this, we saw no systematic difference in the type of response and the outcome recorded (both invited; Irish invited, minority not; minority invited, Irish not).

4.2 Scale of Discrimination

Our first research question was whether there are any differences in responses to the minority candidates and the Irish candidate. As is clear from Table 4.1, the incidence of an interview being granted to the Irish candidate but not the minority candidate is substantially higher than the incidence of an interview being granted to the minority candidate but not the Irish candidate. If we refer to these cases of non-equal treatment as “discrimination”, then discrimination against each of the three minorities is greater than discrimination against the Irish candidates. We provide an explicit comparison between the three minorities with respect to the scale of discrimination in Section 4.4. Concentrating for now on the total figures in the final column of Table 4.1, discrimination against the minority candidate occurred in 55 cases, while discrimination against the Irish candidate occurred in just 15 cases.

Some discrimination against majority applicants is typically found in experiments of this nature, and is usually ascribed to a randomness/inefficiency in the recruitment process (Riach and Rich, 2002). This is why all estimates of discrimination we discuss below are of net discrimination (see row 5), i.e. discrimination against the minority minus discrimination against the Irish candidate. In this case net discrimination for the total sample is 40.

One standard measure of the extent of discrimination is the “discrimination rate”, which measures the difference between discrimination in favour of the Irish candidate and discrimination in favour of the minority candidate, or “net discrimination”, as a proportion of those instances where at least one candidate was invited to interview. Discrimination rates are provided in the penultimate row (row 6) of Table 4.1.

Although commonly employed in studies such as this, the discrimination rate is not unproblematic as a measure of discrimination. The difficulty is that it is not clear which denominator is the most appropriate for comparison. That is, should we measure net discrimination as a percentage of all applications sent, of applications for which responses were received, or of applications for which at least one candidate was invited to interview? In Table 4.1, we have conformed to practice elsewhere and used the latter, but there is debate about this in the literature (Heckman and Siegelman, 1993; Riach and Rich, 2002).

Instead, we prefer to highlight the “odds ratio” of being asked to interview, which is provided in the final row of Table 4.1. This is defined as the odds that the Irish candidate is asked to interview relative to the odds that the minority candidate is invited. More simply, it tells us how much more likely it is that the Irish candidate is asked to interview. The advantage of using the odds ratio is that it is independent of the denominator.

In the present case, from the final column of Table 4.1 we can see that Irish candidates are invited to interview a total of 78 times (total column, rows 2 and 3), while minority candidates are invited a total of 38 times (total column, rows 2 and 4). For a given denominator N , the odds ratio is:

$$\frac{78/N}{38/N} = \frac{78}{38} = 2.05$$

That is, in our experiment candidates with an Irish name are over twice as likely to be asked to attend an interview as are candidates with an African, Asian or German name. This is the scale of discrimination encountered.

An alternative way of expressing this considers how many applications candidates need to send out to get a positive response. From Table 4.1 we see that, of 240 applications (total column of rows 1 to 4), Irish candidates received 78 positive responses in total, minority candidates received 38 positive responses. Thus, on average, Irish candidates had to respond to **3.08** (240/78) vacancies to receive one positive response, whereas minority applicants had to respond to **6.32** (240/38) vacancies to receive one positive response, both using identical CVs.

The answer to our first research question then is clearly yes: there are clear differences between Irish and minority candidates in their chances of being called to interview.

What form did this differential treatment take? These are some examples of actual responses received, to illustrate the results presented in Table 4.1.

A Receptionist/Administrator position is advertised and the African and Irish candidates respond to the advertisement. The Irish candidate is told that the position she applied for has since been filled, but that the company has two other positions that may be suitable. The African applicant receives no response.

Following applications by the German and Irish candidates for a role as an Accounts Clerk, the Irish candidate is immediately invited to interview the following day. The Irish job applicant withdraws his application 24 hours later, citing promotion in his current position. Five days later the German applicant is contacted regarding his application.

The day after an Irish and an Asian candidate applied for a Co-ordinator/Administrator position, the Irish candidate was asked to call back regarding her CV. The Asian candidate received an email at the same time stating: "I regret to inform you the position is now filled."

4.3 Is this Discrimination Statistically Significant?

Although, at first sight, this disparity is striking, are the differences in treatment between Irish and minority candidates statistically significant?

For a given level of positive responses to candidates' applications, the appropriate comparison is between those cases where the Irish candidate is invited and the minority candidate is not and those where the minority candidate is invited and the Irish candidate is not. Our null hypothesis is that each of these cases occurs with equal probability; that is, that there is no greater likelihood of observing discrimination against minority candidates than against Irish ones.

If the total number of these cases of discrimination is m , and the number of cases where the minority candidate is asked to interview and the Irish one is not is δ , then we can use the binomial distribution $B(m, p)$ to calculate the probability of observing no more than δ cases, given the null hypothesis that discrimination is as likely to operate in both directions ($p = 1/2$):

$$P(x \leq \delta) = \sum_{j=0}^{\delta} \binom{m}{j} \left(\frac{1}{2}\right)^m \quad \text{where} \quad \binom{m}{j} = \frac{m!}{j!(m-j)!}$$

The result of this analysis is a p-value that equates to the probability that the data could have been observed if, in reality, there were no greater likelihood of discrimination against the minority candidate than of discrimination against the Irish candidate.²⁹ The analysis can be done with the three different minorities pooled into a single group, or separately for each minority. The resulting p-values are given in Table 4.2.

Table 4.2: Statistical Significance Test for Higher Incidence of Discrimination Against Minority Candidates than Irish Candidates

Minority	African	Asian	German	All
Discrimination rate	48%	35%	47%	43%
Odds ratio	2.44	1.80	2.07	2.05
p-value	0.005	0.014	0.001	0.000001

From the figures in Table 4.2, we can conclude that the higher incidence of discrimination affecting minority candidates is strongly statistically significant. Indeed, the tiny probability in the final column reveals that the chance of observing the outcomes in Table 4.1, if there were in fact no discrimination in the real world, is less than one in a million. Furthermore, according to conventional criteria for statistical significance, the level of discrimination against each of the three different minorities, considered separately, is also statistically significant.

It is possible that the results thus far might be specific to a particular type of occupation; that minority candidates are discriminated against when applying for some types of jobs but not others. To examine this, Table 4.3 provides odds ratios and p-values arising from similar significance tests with respect to each of the three occupations involved in the experiment.

Table 4.3: Odds Ratios and Significance Tests for Discrimination Against Minority Candidates by Sector

Occupation	N Cases Producing at Least One Invitation	Odds ratio	p-value
Lower administration	56	2.04	0.001
Lower accountancy	20	2.00	0.038
Retail sales	17	2.17	0.059

The similarity in the estimated odds ratios reveals a consistent level of discrimination across each of the three occupations. Candidates with Irish names are over twice as likely to be invited to interview for all three occupations. Meanwhile the p-values in the final column confirm that this discrimination is statistically significant, albeit marginally so in the case of sales assistants, where the sample-size is smallest. Thus, the discrimination observed is not confined to a particular type of job, but applies across the three occupations involved in the experiment. We cannot conclude that discrimination is higher in an occupation with high levels of interpersonal contact,

²⁹ In technical terms, we apply a “one-sided” significance test, which is justified because we initially hypothesise that the extent of any discrimination will be greater against minority candidates, as has been found in previous research outside Ireland. Hence, we calculate the probability that the data could have been observed if there were not, in reality, a greater chance of discrimination against the minority candidate. This is distinct from a “two-sided” test, which would calculate the probability that the data could have been observed if there were not, in reality, a greater chance of discrimination against either the Irish or the minority candidate. The two-sided test would double each of the p-values in Table 4.2. Even if this very conservative approach were taken, all four p-values would still suggest statistically significant effects.

like sales, as Krings and Olivares (2007) do, though the number of usable cases in sales is small.

4.4 Modelling Discrimination

In order to perform further statistical tests on the data a multivariate model is appropriate. This allows us to test for differences in the extent of discrimination against each of the three minority groups, while controlling for other variables and determining whether the extent of discrimination is affected by those variables. This model allows us to formally address our second research question: are there differences between the minority groups?

Our third question was whether discrimination varies across the labour market in Ireland. In addition to the specific minority and occupation applied for, two other variables in the design are potentially of interest. First, the experiment took place between March and October 2008, a period during which the economic outlook worsened very considerably. Hence, it is possible that the level of discrimination could change over time, with the deteriorating economic climate. Second, the applications were sent to firms across a range of sectors and the incidence of discrimination could also vary by sector.

We conducted a logistic regression analysis using the subsample of cases for which non-equal treatment occurred. The dependent variable signals the direction of discrimination, taking the value 1 when discrimination is against the minority candidate and the value 0 when discrimination is against the Irish candidate. The available independent variables are: minority (African, Asian, German); time period (5 March - 6 June, 7 June - 14 August, 15 August - 29 September); occupation (lower administration, lower finance and retail sales); and broad sector (industry, transport, distribution and communications; other business and market services; non-market services).

Two logistic regression models are reported in Table 4.4. The first tests for different probabilities of discrimination by minority, without controlling for any other variables. It is simply a direct test of whether there is any difference in the scale of discrimination observed against the African, Asian and German candidates respectively. The second model includes the other independent variables, allowing the same test to be repeated while simultaneously controlling for occupation, time period and sector. In addition, it allows us to test whether any of these variables themselves has an impact on the likelihood of discrimination.

Table 4.4: Logistic Regression Analysis for Probability of Discrimination Against Minority Applicants

	(1)		(2)	
	β	<i>p-value</i>	β	<i>p-value</i>
<i>Minority (Ref: African)</i>				
Asian	-0.282	0.754	-0.015	0.983
German	0.511	0.525	1.038	0.272
<i>Joint significance test for Minority</i>		0.583		0.463
<i>Time Period (Ref: 5 March - 6 June)</i>				
7 June - 14 August			-0.221	0.788
15 August - 29 September			0.457	0.656
<i>Occupation (Ref: Lower Administrator)</i>				
Lower Financial Officer			-0.287	0.723
Sales			-0.648	0.549
<i>Sector (Ref: Non-market services)</i>				
Industry			-1.766	0.306
Transport, Distribution & Communications			0.187	0.899
Other Business and Market Services			0.326	0.802
Constant	1.281	0.011	1.112	0.377
<i>Joint significance test for all variables</i>		0.565		0.828
N	70		68	
Nagelkerke R-Squared	0.025		0.110	
Hosmer Lemeshow statistic	1.000		0.472	

Model (1) reveals that the slight differences in the extent of discrimination against each of the minorities fall a long way short of statistical significance, whether the test is applied individually or jointly. Hence, we accept the null hypothesis that the scale of discrimination against the three minorities is the same. This is certainly not what we expected, based on the discussion in Chapter 2 and the pattern observed in other countries, that is, White immigrants in majority White populations generally experience lower discrimination than minority ethnic immigrants. We discuss this further in Section 4.6.

Model (2) shows that none of the explanatory variables are significantly related to the likelihood of discrimination. Indeed, a joint significance test for all the explanatory variables accepts the null hypothesis that these variables in combination have no effect on the direction of discrimination. So in answer to research question 3, we find the extent of discrimination does not vary across the occupations, sectors and time periods tested.

There are other possible ways of constructing a multivariate model based on our data, but we find results similar to those reported in Table 4.4 for a range of

specifications and dependent variables. These include when the dependent variable is a binary indicator of discrimination against minorities, against Irish candidates or against either type of candidate.

4.5 Summary of Irish Findings

The extent of discrimination we find is best summarised by the statement that candidates with Irish names were over twice as likely to be invited to interview for advertised jobs as candidates with identifiably non-Irish names. Discrimination occurred regardless of which of three minorities is involved, which occupation is being applied for, or which sector the advertised post relates to.

It remains possible that an experiment with a larger sample-size, different minorities, or a different set of occupations and sectors, might detect significant differences by minority or by other characteristics related to the posts being applied for. However, our data imply no difference in the incidence of discrimination by type of minority, time period, occupation or sector. Instead, our results are consistent with the view that there is strong discrimination against minority candidates that applies broadly across different jobs.

4.6 Discrimination in Ireland in International Comparison

How does the discrimination rate we observed compare with rates observed in international studies, which use a similar methodology? As noted above, the overall odds ratio in our study was just over 2, i.e. candidates with an Irish name were over twice as likely to be asked to attend an interview as the candidates with an African, Asian or German name. The discrimination rate, an alternative formulation, was 43 per cent.

Table 4.5 presents a table showing the results of a selected number of studies which use very similar methodology in other countries. Other field experiments on the basis of ethnic or national origin are not presented if they either do not use written approaches at all, or if the discrimination rate presented is a combination of both the invitation to interview stage and the actual outcome of the interview.³⁰ These studies, like ours, just test the first stage of the recruitment process, invitation to interview. In the table we distinguish the discrimination rate/odds ratio for each minority ethnic or national group. In general we do not distinguish findings for each occupation, unless specifically presented this way in the study.

As can be seen from Table 4.5, the odds ratios and rates presented in the table vary considerably, from lows of 1.06 (5 per cent discrimination rate) against Greeks in Australia in the 1980s (Riach and Rich, 1991) and 1.14 (12 per cent) against Australians in Britain in the late 1970s to almost 2 (50 per cent) against Indians and Pakistanis in Britain in the late 1970s (Firth, 1981), and just over 2 (54.2 per cent) against Africans in France in 2006.

The two more recent studies find discrimination, on average, somewhere in the middle. Bertrand and Mullainathan (2004) testing in the US in 2001-2002 find that White Americans are 1.5 times as likely to be called to interview as African-Americans. Carlsson and Rooth (2007), testing in Sweden in 2005-2006, find that Swedish applicants are 1.5 times as likely to get called back as those with a Middle Eastern name, a discrimination rate of just under 30 per cent.

³⁰ For example these criteria exclude many of the ILO studies.

Table 4.5: Summary of Findings from Selected International Correspondence Tests of Discrimination on the Basis of Ethnic or National Origin

Source	Location	Period of Testing	Occupation(s)	Ethnic or National Group (Gender)	Discrimination Rate ¹	Odds Ratio ²	No. of Usable Tests ³
Cediey and Foroni (2008)	France: Lille, Lyon, Nantes, Paris, Strasbourg	End 2005-mid 2006	Manager, clerk, nurse, waiter, construction worker, technician, factory worker, lorry driver.	North and Sub-Saharan African	54.2% ⁴	Not available	227
Carlsson and Rooth (2007)	Stockholm and Gothenburg (Sweden)	May 2005-February 2006	12 occupations, see notes. ⁵	Middle Eastern	29%	1.50 ⁶	522
Bertrand and Mullainathan (2003)	Chicago and Boston	July 2001-Jan 2002 (Boston) July 2001-May 2002 Chicago	Administration, sales	African American	Not available	1.50	Not given
Bovenkerk, Gras and Ramsoedh (1994)	Randstad area of the Netherlands	Oct 1993-Jun 1994	Teacher, lab assistant, admin/ finance manager, personnel manager	Surinamese (M)	18%	1.27	157
Riach and Rich (1991)	Melbourne, Australia	Oct 1984-Nov 1988	Sales representative	Greek (M)	13%	1.16	46
			Clerk	Greek (M)	33%	1.50	9
			Secretary	Greek (F)	5%	1.06	115
			Sales representative	Vietnamese (M)	26%	1.41	42
			Clerk	Vietnamese (M)	20%	1.27	15
			Secretary	Vietnamese (F)	29%	1.43	100
Firth (1981)	Britain	Oct 1977-March 1978	Accountancy, financial management	Australian	12%	1.14	245
				French	20%	1.25	245
				African	36%	1.60	247
				Indian	48%	1.94	241
				Pakistani	49%	1.95	241
				West Indian	43%	1.74	244

Notes: ¹ Discrimination rate = rate advancing from initial contact to interview stage. ² In some cases the odds ratios are calculated from figures reported in the paper. ³ Refers to number of usable responses (Equal treatment + discrimination against minority + discrimination against native). ⁴ Based a sub-sample of tests in this study where the first stage was submitting a CV by post. ⁵ Occupations in Carlsson and Rooth were the following: computer professionals; teachers (maths and science); business sales assistants; preschool teachers; accountants; nurses; teachers (upper secondary schools); teachers (language); construction workers; restaurant workers; motor vehicle drivers; shop sales assistants. ⁶ 1.5 is the average odds ratio in this study but this varies substantially across occupations, see text for further details.

Contrary to Bertrand and Mullainathan, in the Swedish study the odds vary considerably across occupations. For sales assistants, Swedish applicants are 3.22 times more likely to be called back. For computer professionals, the figure is 1.10 and not statistically significant. In fact, for teachers of maths and science, accountants and computer professionals the difference in callback rates for Swedish and Middle Eastern applicants is not significant (Carlsson and Rooth, 2007).

In summary we can say that the Irish findings are on the high side of what is presented here – substantially higher than the odds of 1.5 found in the US by Bertrand and Mullainathan. However, a discrimination rate of 43 per cent is by no means the highest, as is clear from Table 4.5.

The reader should bear in mind that the occupations tested were lower-skilled occupations (lower administration, lower accountancy, and retail sales). If it were the case in Ireland, like in Sweden, that discrimination on the basis of ethnic or national origin tends to be lower in high-skilled occupations; if we tested high-skilled occupations the overall rate might be lower. That said, as discussed in Chapter 2, other studies have found no variation by occupation (Bertrand and Mullainathan, 2004) and this may be the case in Ireland. As we observed in Chapter 3, replicating this study for high-skilled occupations in Ireland would take considerably longer, most likely a number of years.

What is particularly striking about the Irish case is that the odds of being called to interview, relative to Irish candidates, are very similar for African, Asian and German applicants. This is clearly not what is usually found in the experiments that simultaneously test White immigrant applicants with those of Black or Asian origin (see Table 4.5). In the next chapter we discuss why the Irish experience might differ.

5. DISCUSSION AND CONCLUSIONS

5.1 Summary of the Findings of this Experiment

The findings of this experiment are easy to summarise. First, candidates with Irish names were over twice as likely to be invited to interview for advertised jobs as candidates with identifiably non-Irish names, even though both submitted equivalent CVs. The chance of observing this outcome, if there were in fact no discrimination in the real world, is less than one in a million. Second, we found no differences in the degree of discrimination faced by candidates with Asian, African or German names. We might have detected differences between the groups with a larger number of cases, but in our sample, all three are around half as likely to be invited to interview as Irish candidates. Third, this finding is robust across occupations applied for and industrial sectors tested. The results indicate that there is strong discrimination against non-Irish candidates and this applies broadly across different jobs and sectors of the Irish labour market. The strength of the discrimination recorded in the present experiment is high relative to similar studies carried out in other countries.

Note that this experiment just tested the first stage of the recruitment process, invitation to interview. Once the entire process of hiring has been followed through with matched applicants, including attendance at interview, the likelihood is that discrimination faced would be even higher (Bovenkerk, 1992). What the findings do present is the denial of interview/the opportunity for the candidate to present themselves on the basis of national or ethnic origin.

As with all experiments of this nature, a limited number of occupations were tested: lower administration, lower accountancy and retail sales. It is possible that a different discrimination rate would be found for recruitment in Ireland in either different occupations altogether, or higher-skilled positions in these occupations. The discrimination may also have varied had we tested different minorities. An experiment with a larger sample size might have detected some differences not observed with this sample.

The findings are broadly consistent with the differences in employment outcomes found in other research in Ireland and outlined in Chapter 1 (Barrett *et al.*, 2006; Barrett and McCarthy, 2007; O'Connell and McGinnity, 2008). Immigrants in general experience disadvantage in terms of wages and occupational position. The one group that does not experience such a disadvantage is immigrants from English-speaking countries (defined as the UK, the US, Canada, Australia and New Zealand in both these studies, see Chapter 1), and this group was excluded from the experiment. Recruitment discrimination may be one reason why many immigrants are working in jobs below their level of education, as highlighted by Barrett *et al.* (2006). If migrants are discriminated against compared to Irish candidates with equivalent CVs, then they may need to have more qualifications, or experience, relative to an Irish candidate, to actually get the job.

The findings from the experiment are also consistent with previous work highlighting the problems immigrants have in accessing employment, both in terms of reported discrimination and unemployment rates (O'Connell and McGinnity, 2008; Russell *et al.*, 2008). The implication of our findings is that a non-trivial part of these differences is due to employer discrimination in recruitment.

Where these findings differ from previous findings is regarding differences between national/ethnic groups in access to employment. While immigrants in general have

higher unemployment rates and report higher levels of discrimination in access to employment, previous research has found that Black respondents stood out as being more disadvantaged than other immigrant groups (O'Connell and McGinnity, 2008). In contrast, in this experiment, we observe no differences in discrimination rates between African, Asian and German respondents. It could be that the differences in unemployment rates are due to other factors, like a period out of the labour market while an asylum applicant, rather than a high discrimination rate against Black groups *per se*. It could also be that there are exceptionally high rates of recruitment discrimination against Black applicants in sectors/occupations we did not test in this experiment.

5.2 Interpreting the Results

So why is discrimination in this stage of recruitment relatively high in Ireland, as discussed in Chapter 4, given the recent history of migration? We might have expected, given relatively positive attitudes to migrants (Hughes *et al.*, 2007), that discrimination in recruitment would be lower than in countries with established minority groups. Second, why did we not observe significant variation between minority groups, as found in most other countries? There are a number of possible explanations.

In terms of theoretical perspectives, two broad groups of economic theories dominate the literature: taste based and statistical discrimination models.³¹ Both are consistent with finding discrimination against minority groups in general, though differ in their explanations, and what they would predict about differences between groups.

For statistical discrimination models, imperfect information about workers' abilities constitutes the key rationale for discrimination to arise. In one class of statistical discrimination models, potential employers cannot observe everything they wish to know about job candidates, and in this environment, they have an incentive to seize group membership as a signal that allows them to improve their predictions of a prospective candidate's ability to perform (e.g. Phelps, 1972; Arrow, 1973). According to these models, employers simply assume that individual characteristics, like ethnicity, are correlated with the unobserved determinants of performance. Individuals are assigned the expected abilities of the groups they belong to. Thus, hiring decisions are in part based on prior beliefs or stereotypes, be they true or false. In our case, these models would suggest that Irish employers assess minority candidates as having lower productivity, linked to language skills, knowledge of local labour markets etc. and, therefore, would not be able to do the job as well.

Another class of statistical discrimination models emphasises the precision of the information that employers have about individual productivity (Altonji and Blank, 1999). So even in the absence of strong prior beliefs or stereotypes, minority and majority workers with the same distribution of abilities may be treated differently, if employers are more accurate judges of the talents of non-minority workers than of minority workers (Aigner and Cain, 1977; Cornell and Welch, 1996). In our experiment, Irish employers may be better able to judge the suitability of an Irish candidate who applies for a job because they have more experience in assessing the productivity of Irish candidates, with a limited amount of information. If so, more Irish people would be called to interview because employers would have more confidence in their ability to assess Irish people.

³¹ See Darity and Mason (1998) for a comprehensive review of these, and other, models of discrimination.

The problem with both these explanations based on statistical discrimination is that the candidates in this experiment had identical qualifications and work experience, all of which were obtained in Ireland. Thus, the CVs strongly indicated good English language skills, and employers did not have to form judgements based on foreign degrees or work experience, or even secondary schooling. However, we cannot rule out the possibility that employers use minority status as a proxy for unobserved productivity differences, such as character and motivation. They may have preferred Irish candidates because they are more used to assessing Irish characters, even though the minority candidates had all been to secondary school in Ireland. In addition, it is possible that employers did correctly perceive the qualifications on the CV, but found the CVs of the minority candidates to be implausible.

Overall, however, the fact that the minority candidates had obtained their qualifications and work experience in Ireland somewhat weakens the argument that our result is due to statistical discrimination by employers.

This discussion suggests that employers may not appreciate the equivalence of CVs. This is consistent with the idea of a lexicographic search by employers (Bertrand and Mullainathan, 2004). Employers receiving many CVs might use quick heuristics (as in 'a rule of thumb that can backfire') when reading them. One such heuristic may be that they read no further when they see a minority name. If employers did not read past the name on the CV, they may have assumed that the minority candidates would not have the requisite language skills for the positions applied for; would have less experience of working in Ireland or some other (inaccurate) pre-conception of the CV that followed. This might be true of many minority candidates working in Ireland, given the recent history of migration, but if employers had read past the name, they would have noticed this was not the case with the candidates in this experiment.

The prominent alternative to statistical discrimination, taste-based discrimination models, see discrimination as based on prejudice, though the models differ in whose prejudiced 'tastes' they emphasise – employers, customers or co-workers. (Becker, 1971).³² The basic idea is that prejudiced employers will prefer majority applicants, and indeed impose a so-called 'discriminatory psychic penalty' for minority applicants (Bassanini and Saint-Martin, 2008). This penalty lowers the wages and employment rates of minority workers. The greater the number of prejudiced employers or the greater the intensity of prejudice, the greater the penalty. If this prejudice is ethnic or racial prejudice we should expect higher discrimination in recruitment against ethnic minority applicants – African and Asian applicants – than the German applicant,³³ and yet this is not what we found. Alternatively, if this prejudice takes the form of 'Xenophobia' (i.e. fear of foreigners), the penalty would be the same for all non-Irish groups. This explanation is just not consistent with previous research on attitudes to migrants in Ireland, which are generally positive (Hughes *et al.*, 2007).

Rather than feelings as negative and hostile as xenophobia, the finding of no difference in assessments of minority groups may be more a question of 'in-group favouritism'. In-group favouritism implies the extension of trust, positive regard, cooperation and empathy to in-group, but not out-group members, and while it is an initial form of discrimination, it does not entail an active component of aggression, like in out-group derogation (Hewstone *et al.*, 2002). In our case, in-group favouritism would translate into the positive desire to hire Irish workers, as opposed to a dislike

³² In the following we limit the discussion to employer prejudice. See Darity and Mason (1998) or Bassanini and Saint-Martin (2008) for a discussion of customer or co-worker prejudice.

³³ In fact previous work on the experience of racism in face-to-face interactions in Ireland would suggest higher discrimination against Africans than Asians or White Europeans (McGinnity *et al.*, 2006).

of hiring foreign workers. As Hewstone *et al.* (2002) note, in-group favouritism is by far the most common form of bias uncovered in social-psychological research. Favouring the in-group need not be associated with strong, negative attitudes towards out-groups. It is consistent with the Irish situation of an existing strong, cohesive national identity, based on an almost exclusively White Irish population, and until very recently, no substantial non-Irish minority groups to either threaten or be included as part of that identity. It is also plausible that in-group favouritism is higher in a recession. As noted previously, the fieldwork was conducted in a period when demand for labour was falling in Ireland.

It could also be of course that any in-group favouritism, which results in similar and high discrimination rates for all minorities, may change over time. For example, an integration/familiarisation process may reduce the overall level of discrimination observed, but this reduction may be faster for those groups that are less ethnically different. Then we would observe less discrimination in recruitment towards the German candidate than to the African or Asian candidate, which is more consistent with findings in other countries.

We cannot fully rule out alternatives, like statistical discrimination or xenophobia, but we feel that the unequal treatment we observe in this experiment is most consistent with (1) a strong preference for Irish candidates on the part of these employers/recruiters (in-group favouritism) and/or (2) a failure by employers to appreciate that the candidates' CVs were equivalent, because of not reading past the name on the CV. Nevertheless, whatever is driving the discrimination it makes it no less serious a problem.

In fact these results have implications for both equality and efficiency in the Irish labour market. The extent of discrimination observed in this experiment directly contradicts any notions of equality in terms of access to employment. Individuals with non-Irish backgrounds do not have equal access to the Irish labour market if they are being screened out at the first stage of recruitment. In terms of efficiency, this discrimination may indicate that immigrants are not efficiently matched to jobs and thus that the skills of immigrants are not used to their full potential, making their contribution to productivity in the Irish economy less than it could be (see Barrett *et al.*, 2006).

From this perspective, the findings present an economic puzzle: why would firms competing for profit not wish to hire the best people, irrespective of ethnic or national origin? International research suggests that in addition to hiring more skilled people, firms that embrace ethnic diversity can benefit from broader understanding of customers, improved staff retention, better morale and reduced costs associated with discrimination cases (Metcalf and Forth, 2000). However, it is possible that diversity has the capacity to generate costs as well as benefits. Business costs could arise if it were harder to get a less homogeneous group of employees to work towards common goals. Across national and regional economies, studies of economic performance suggest that there may be benefits and costs to ethnic diversity, with no consensus emerging as to which dominates (Alesina and La Ferrara, 2005). One recent study found that the balance between costs and benefits depends on the industry (Sperber, 2009). Gains from diversity were more likely in industries requiring more creative decision-making and customer service (e.g. legal services, software, advertising), but less likely in more traditional sectors (e.g. mining, metals, transportation). Given this mixed picture, at the level of the individual firm much may depend on whether possible benefits to diversity are first recognised and then sought (Monks, 2007). More research in this area is needed.

5.3 Avenues for Further Experiments on Discrimination in Ireland

In a context where there has been very little previous research on discrimination using experimental methods in Ireland, there is great potential for developing the field, though conducting field experiments in Ireland will always be challenging given the small size of the labour market. Calfee (1985) argues that the results of any single experiment can only provide a partial account of any phenomenon. Experiments should be used to build a research landscape and be interpreted in the context of that landscape.

An obvious avenue for further experiments would be to test for discrimination in recruitment across a range of grounds. As discussed in Chapter 2, field experiments have been used to conduct experiments to test a wide range of equality grounds, like gender, family status, age and disability. This could be done using written applications, as we have done, or personal approaches. We did conclude that there are limits to the number of grounds/factors one could test in Ireland. While conducting a test of family status and age in the French financial sector, researchers sent out 6 applications for each job (Petit, 2007). Given the size of the Irish labour market and extent of social networks, two applications is the maximum any field experiment in Ireland should aim for.

Alternatively, other experiments could be replicated to test discrimination on the basis of ethnic or national origin using a similar methodology, written applications, but in different sectors, occupations, including high-skilled occupations and with a larger number of cases. The only potential problem here is that in Ireland, a small labour market, the economy entered into a recession during 2008, following 15 years of very rapid employment growth. The unemployment rate has risen from 4.6 per cent at the end of 2007 to 7.7 per cent at the end of 2008 (CSO, 2009, using the International Labour Organisation (ILO) definition), and the ESRI is forecasting that the rate of unemployment will average 9.4 per cent in 2009, which is consistent with the rate being over 10 per cent by the end of 2009 (Barrett *et al.*, 2008). Vacancies have fallen dramatically and, particularly in higher-skilled occupations, it would take many years to conduct an experiment of this nature in Ireland.

This experiment tested discrimination at the initial stage, being called to interview. Yet discrimination occurs right through from initial contact to the job offer, where immigrants tend to be offered lower pay and poorer working conditions than native applicants (Bovenkerk, 1992; ILO, 2007). Therefore, an obvious extension of this experiment would be for candidates to pursue applications right through the process, as the ILO experiments do (Bovenkerk, 1992). This would also allow researchers to explore the treatment of, for example, ethnic/national minority job applicants in Ireland at both the interview and job offer stage of recruitment. It would require careful training of Irish and migrant 'candidates' or professional actors, to pose as job candidates, and careful monitoring of the experiment, to ensure equivalence of candidates. This would considerably widen the potential pool of jobs which could be tested, to include the hotels and catering sector, for example, where a large proportion of immigrants are employed. As noted in Chapter 2, correspondence tests like the one reported here are limited to jobs which require written applications.

In addition, future research could investigate other domains, aside from employment. Previous research on the subjective experience of discrimination suggests that immigrants, and other minority groups, experience disadvantage in a range of domains (Russell *et al.*, 2008). The scope of experiments could be widened to explore discrimination in these domains, in particular housing, though also in credit

applications to banks and other financial institutions (see Foster *et al.*, 2002; Fix and Struyk, 1993).

As the success of a field experiment in recruitment depends on sufficient vacancies, most of those mentioned above will be more challenging to conduct in the changed economic circumstances. Laboratory experiments, another underdeveloped field in Ireland, are independent of economic conditions. Laboratory experiments could be exploited to explore some of the mechanisms underlying the discrimination observed. This type of experiment has been widely used in North America and, to some extent, in Europe to investigate ethnic discrimination in recruitment (for example, Peterson and Dietz, 2005 in Germany; Krings and Olivares, 2007 in Switzerland). In addition, the method has also been used in research in the field of age discrimination (for review, see Morgeson *et al.*, 2008), to examine discrimination against mothers, in combination with a field experiment (Correll *et al.*, 2007) and people with disabilities (Gouvier *et al.*, 2003), and in gender related discrimination more generally (Ng and Wiesner, 2007). Without the constraint of only sending out two CVs at any given time, researchers could let participants rank CVs which vary according to a number of criteria. The key here is to design the experiment to replicate real-world conditions as closely as possible.

5.4 Policy Implications

This experiment took place in the context of relatively robust legislative provision around discrimination and racism in Ireland. The *Employment Equality Acts 1998 to 2008* prohibit discrimination in the areas of employment and vocational training, including recruitment. The *Equal Status Acts 2000 to 2008* specifically prohibit discrimination in the provision of goods and services, education and accommodation. Discrimination on nine specific grounds is outlawed in the legislation: gender, marital status, family status, age, disability, race, sexual orientation, religious belief and membership of the Traveller community. The 'race' ground refers to race, colour, nationality or ethnic or national origins. Both Acts define discrimination as treating a person less favourably than another person is, has been or would be treated in a comparable situation on any of the grounds specified.

In one way, an experiment of this nature provides the closest possible test of discrimination according to the legislation, i.e. whether one individual is less favourably treated than another in recruitment on the basis of nationality/ethnicity. However, in spite of the legislation, it is clear from this experiment that discrimination on the basis of national or ethnic origin is not only present in Ireland, it is relatively high.

While it is possible for individuals to take a case that they had been discriminated against on the basis of their nationality or ethnicity, it is clear from this experiment that in many cases, candidates would not know whether they had been discriminated against or not. They simply receive a rejection email, or no contact at all. Or, in some cases the employer felt the need to explain their decision, which involved employers providing inconsistent replies to the two candidates (i.e. 'please call back' versus 'the position has been filled' – see examples in Chapter 4). If it is only up to a rejected candidate to take a case, the number of cases will be rare, and discrimination will be seriously underestimated. As noted in OECD (2008), legal prohibition of discriminatory behaviour can only be effective if it is enforced, yet in all OECD countries enforcement essentially relies on victims' willingness to assert their claims – 'the individual enforcement model'. Yet many people are not even aware of their legal rights regarding discrimination in the workplace, and even if they are, such legal actions are costly and benefits often uncertain.

There are a number of possible measures that may help reduce such discrimination and promote good equality practice in recruitment. Firstly, the dissemination of information from the international literature on the benefits of diversity (e.g. European Commission, 2008; for Irish work on the benefits of diversity see Monks, 2007; Flood *et al.*, 2008). Secondly, more information for both employers and job seekers about what the equality legislation permits and prohibits. Thirdly, developing guidelines for all employers to ensure their recruitment practices are not likely to be discriminatory or fall foul of the legislation. A fourth possibility is the introduction of random audits of hiring practices - analogous to financial audits. If employers were required to keep all records of job applications for a period of twelve months, and obliged to justify decision on short-listing for interview and final choice of candidate, in the event of a random audit, it would reinforce the pressure for good practice in the hiring decision. Audits would, in theory, be permissible under Irish legislation, as part of the 'Equality Reviews and Action plans' (at least for companies with over 50 employees), but have not been carried out to date.³⁴ This measure is consistent with the OECD (2008) recommendation that legal rules will have more impact if the enforcement is not exclusively dependent on individual actions, such as government agencies empowered to investigate companies, take actions against employers and sanction them when they find evidence of discrimination.

What is clear is that while qualifications and knowledge of local labour markets and recruitment procedures might reduce the differential outcomes in recruitment in the Irish labour market, the extent of employer discrimination in recruitment revealed by this experiment is such that equality in recruitment will not be achieved until discrimination is tackled effectively.

³⁴An equality review is an audit of the level of equality of opportunity and an examination of the policies, practices and procedures to determine whether these are conducive to the promotion of equality. An action plan is a programme of actions to be undertaken to further the promotion of equality of opportunity. There are enforcement powers with respect to both of these, but to date reviews have been commenced on a voluntary basis only.

REFERENCES

- Aigner, D. and G. Cain, 1977. "Statistical Theories of Discrimination in Labor Markets", *Industrial and Labor Relations Review*, Vol. 30, No. 2, pp.175-187.
- Alesina, A. and E. La Ferrara, 2005. "Ethnic Diversity and Economic Performance", *Journal of Economic Literature*, Vol. 43, pp. 762-800.
- Allasino, E., E. Reyneri, A. Venturini and G. Zincone, 2004. "Labour Market Discrimination against Migrant Workers in Italy", *ILO International Migration Papers* No. 67. Geneva: International Labour Organisation.
- Altonji, J. and R. Blank, 1999. "Race and Gender in the Labor Market" in O. Ashenfelter and D. Card (eds.), *Handbook of Labor Economics*, Edition 1, Volume 3C, pp. 3143-3259.
- Arriijn, P., S. Feld and A. Nayer, 1998. "Discrimination in Access to Employment on Grounds of Foreign Origin: the Case of Belgium", *ILO International Migration Papers 23E*, Geneva: International Labour Organisation.
- Arrow, K., 1973. "The Theory of Discrimination" in P. Ashenfelter, and A. Rees, (eds.), *Discrimination in Labor Markets*. Princeton, NJ: Princeton University Press.
- Barrett, A. and D. Duffy, 2008. "Are Ireland's Immigrants Integrating into its Labour Market", *International Migration Review*, Vol. 42, Issue 3.
- Barrett, A. and Y. McCarthy, 2007. "Immigrants in a Booming Economy: Analysing their Earnings and Welfare Dependence", *Labour*, Vol. 21, No. 4.
- Barrett, A., A. Bergin and D. Duffy, 2006. "The Labour Market Characteristics and Labour Market Impacts of Immigrants in Ireland", *The Economic and Social Review*, Vol. 37, No.1.
- Barrett, A., I. Kearney, and J. Goggin, 2008. *Quarterly Economic Commentary, Winter 2008*. Dublin: The Economic and Social Research Institute.
- Bassanini, A. and A. Saint-Martin, 2008. "The Price of Prejudice: Labour Market Discrimination on the Grounds of Gender and Ethnicity", Chapter 3 in *Employment Outlook*. Paris: OECD.
- Becker, G., 1971. *The Economics of Discrimination*. Second Edition. Chicago: University of Chicago Press.
- Bendick, Jnr., M., 1996. "Discrimination Against Racial/Ethnic Minorities in Access to Employment in the United States: Empirical Findings from Situation Testing", *ILO International Migration Papers* No. 12, Geneva: International Labour Organisation.
- Bendick, Jnr. M., L. Brown and K. Wall, 1999. "No Foot in the Door: an Experimental Study of Employment Discrimination Against Older Workers", *Journal of Aging and Social Policy*, Vol. 10, pp. 5-23.

- Bertrand, M. and S. Mullainathan, 2004. "Are Emily and Greg More Employable than Lakisha and Jamal? A Field Experiment on Labor Market Discrimination", *The American Economic Review*, Vol. 94, No. 4, pp. 991-1013.
- Blank, R., M. Dabady and C. Citro (eds.), 2004. *Measuring Racial Discrimination*. Washington DC: The National Academies Press.
- Bovenkerk, F., 1992. *Testing Discrimination in Natural Experiments. A Manual for International Comparative Research on Discrimination on the Grounds of 'Race' and Ethnic Origin*. Geneva: International Labour Organisation.
- Bovenkerk, F., M. Gras and D. Ramsøedh, 1994. "Discrimination Against Migrant Workers and Ethnic Minorities in Access to Employment in the Netherlands", *International Migration Papers 4*, Geneva: International Labour Organisation.
- Calfee, R. C., 1985. *Experimental Methods in Psychology*. New York: Holt, Rinehart and Winston.
- Carlsson, M. and D.-O. Rooth, 2007. "Evidence of Ethnic Discrimination in the Swedish Labor Market Using Experimental Data" in *Labour Economics*, Vol. 14, pp. 716-729.
- Cediey, E. and F. Foroni, 2008. "Discrimination in Access to Employment on Grounds of Foreign Origin in France", *ILO International Migration Papers No. 85E*. Geneva: International Labour Organisation.
- Corell, S.J., S. Benard and I. Paik, 2007. "Getting a Job: Is There a Motherhood Penalty?", *American Journal of Sociology*, Vol. 112, No. 5, pp.1297-1338.
- Cornell, B. and I. Welch, 1996. "Culture, Information and Screening Discrimination", *Journal of Political Economy*, Vol. 104, No. 3, pp. 542-571.
- Central Statistics Office, 2009. *Quarterly National Household Survey, Quarter 4 2008*. Dublin: Central Statistics Office.
- Darity, W. and P. Mason, 1998. "Evidence on Discrimination in Employment: Codes of Color, Codes of Gender", *Journal of Economic Perspectives*, Vol. 12, pp. 63-90.
- Esmail, A. and S. Everington, 1993. "Racial Discrimination against Doctors from Ethnic Minorities", *British Medical Journal*, Vol. 306, pp. 691-692.
- European Commission, 2008. *Continuing the Diversity Journey: Business Practices, Perspectives and Benefits*. Luxembourg: Office for Official Publications of the European Communities.
- Fershtman, C. and U. Gneezy, 2001. "Discrimination in a Segmented Society: An Experimental Approach", *The Quarterly Journal of Economics*, Vol. 116, No.1, pp. 351-377.
- Firth, M., 1981. "Racial Discrimination in the British Labor Market", *Industrial and Labor Relations Review*, Vol. 34, No. 2, pp. 265-272.
- Firth, M., 1982. "Sex Discrimination in Job Opportunities for Women," *Sex Roles*. Vol. 8, No. 8.

- Fix, M. and R. Struyk, 1993. *Clear and Convincing Evidence: Measurement of Discrimination in America*. Washington D.C.: The Urban Institute Press.
- Flood, P., T. Mkamwa, C. O'Regan, J. Guthrie, W. Liu, C. Armstrong, S. MacCurtain, 2008. *New Models of High Performance Work Systems: The Business Case for Strategic HRM, Partnership and Diversity and Equality Systems*. Dublin: The Equality Authority and the National Centre for Partnership and Performance.
- Foster, A., F. Mitchell and S. Fienberg, 2002. *Measuring Housing Discrimination in a National Study*. Washington: National Academies Press.
- Fryer Jr., R.G. and S.D. Levitt, 2004. "The Causes and Consequences of Distinctively Black Names", *The Quarterly Journal of Economics*, Vol.119, Issue 3, pp. 767-805.
- Goldberg, A., D. Mourinho and U. Kulke, 1996. "Labour Market Discrimination against Foreign Workers in Germany", *ILO International Migration Papers No.7E*, Geneva: International Labour Organisation.
- Gouvier, W.D., S. Sytsma and S. Mayville, 2003. "Patterns of Discrimination in Hiring Job Applicants with Disabilities: The Role of Disability Type, Job Complexity, and Public Contact", *Rehabilitation Psychology*, Vol. 48, pp. 175-181.
- Granovetter, M., 1974. *Getting a Job: a Study of Contacts and Careers*. Chicago: University of Chicago Press.
- Heckman, J. and P. Siegelman, 1993. "The Urban Institute Audit Studies: their Methods and Findings" in M. Fix, and R. Struyk, *Clear and Convincing Evidence: Measurement of Discrimination in America*. Washington DC: The Urban Institute Press.
- Hewstone, M., R. Rubin and H. Willis, 2002. "Intergroup bias", *Annual Review of Psychology*, Vol. 53, pp. 575-604.
- Hughes, G., F. McGinnity, P. O'Connell and E. Quinn, 2007. "The Impact of Migration" in T. Fahey, H. Russell and C.T. Whelan, *Best of Times? The Social Impact of the Celtic Tiger*. Dublin: Institute of Public Administration.
- International Labour Organisation, 2007. '*Situation Testing*' *Discrimination in Access to Employment Based on ILO Methodology*. Geneva: International Labour Office.
- Jowell, R. and P. Prescott-Clarke, 1970. "Racial Discrimination and White-collar Workers in Britain", *Race*, Vol.11, No. 4.
- Krings, F. and J. Olivares, 2007. "At the Doorstep to Employment: Discrimination Against Immigrants as a Function of Applicant Ethnicity, Job Type and Raters' Prejudice". *International Journal of Psychology*, Vol. 42, No. 6.
- La Piere, R., 1934. "Attitudes vs Actions", *Social Forces*, Vol. 13, pp. 230-237.
- McGinnity, F., P. O'Connell, E. Quinn and J. Williams, 2006. *Migrants' Experience of Racism and Discrimination in Ireland*, Dublin: The Economic and Social Research Institute in association with Equality Authority.

- Metcalf, H. and J. Forth, 2000. *Business benefits of race equality at work*. NIESR Research Report No. 177, London: Department for Education and Employment.
- Mincey, R., 1993. "The Urban Institute Audit Studies: their Research and Policy Context" in M. Fix, and R. Struyk (eds.), *Clear and Convincing Evidence: Measurement of Discrimination in America*. Washington D.C.: The Urban Institute Press.
- Monks, K., 2007. *The Business Impact of Equality and Diversity: The International Evidence*. Dublin: The Equality Authority and the National Centre for Partnership and Performance.
- Morgeson, F., M. Reider, M. Campion and R. Bull, 2008. "Review of Research on Age Discrimination in the Employment Interview", *Journal of Business Psychology*, Vol. 22, pp. 223-232.
- Neumark, D., R. Bank and K. Van Nort, 1996. "Sex Discrimination in Restaurant Hiring: an Audit Study", *Quarterly Journal of Economics*, Vol. 111, pp. 915-941.
- Ng, E.S.W. and W.H. Wiesner. 2007. "Are Men Always Picked Over Women? The Effects of Employment Equity Directives on Selection Decisions," *Journal of Business Ethics*, Vol. 76, No. 2, pp. 177-187.
- O'Connell, P.J. and F. McGinnity, 2008. *Immigrants at Work: Nationality and Ethnicity in the Irish Labour Market*. Dublin: The Economic and Social Research Institute in association with The Equality Authority.
- OECD, 2008. *Ending Job Discrimination*. OECD Policy Brief, July 2008. Paris: OECD.
- Pager, D., 2007. "The Use of Field Experiments for Studies of Employment Discrimination: Contributions, Critiques and Directions for Future Research". *The Annals of the American Association of Political and Social Science*, Vol. 609, January.
- Pager, D., 2003. "The Mark of a Criminal Record", *American Journal of Sociology*, Vol. 108, No. 5, pp. 937-975.
- Peterson, L. and J. Dietz, 2005. "Prejudice and Enforcement of Workforce Homogeneity as Explanations for Employment Discrimination", *Journal of Applied Social Psychology*, Vol. 35, No. 1, pp. 144-159.
- Petit, P., 2007. "The Effects of Age and Family Constraints on Gender Hiring Discrimination: A Field Experiment in the French Financial Sector", *Labour Economics*, Vol.14, Issue 3, pp. 371-391.
- Phelps, E., 1972. "The Statistical Theory of Racism and Sexism", *American Economic Review*, September, Vol. 62, No. 4.
- Riach, P. and J. Rich, 2007. "An Experimental Investigation of Age Discrimination in the English Labor Market". IZA Discussion Paper No. 3029. Bonn: Institute for the Study of Labor.
- Riach, P. and J. Rich, 2006. "An Experimental Investigation of Sexual Discrimination in Hiring in the English Labour Market", *Advances in Economic Analysis and Policy*, Vol. 6, Issue 2, pp. 1-20.

- Riach, P. and J. Rich, 2004. "Deceptive Field Experiments of Discrimination: Are They Ethical?" *Kyklos*, Vol. 57, No. 3, pp. 457-470.
- Riach, P. and J. Rich, 2002. "Field Experiments of Discrimination in the Market Place", *The Economic Journal*, Vol. 112, F480-F518.
- Riach, P. and J. Rich, 1991. "Testing for Racial Discrimination in the Labour Market", *Cambridge Journal of Economics*, Vol 15, pp.239-256.
- Riach, P. and J. Rich, 1987. "Testing for Sexual Discrimination in the Labour Market", *Australian Economic Papers*, Vol. 26, pp.165-178.
- Russell, H., E. Quinn, R. O'Riain and F. McGinnity, 2008. *The Experience of Discrimination in Ireland. Analysis of the QNHS Equality Module*. Dublin: The Economic and Social Research Institute in association with The Equality Authority.
- Sperber, C., 2009. "Racial Diversity and Aggregate Productivity in U.S. Industries: 1980–2000", *Southern Economic Journal*, Vol. 75, pp.829-856.
- Weichselsbaumer, D., 2004. "Is it Sex or Personality? The Impact of Sex-Stereotypes on Discrimination in Application Selection", *Eastern Economic Journal*, Vol. 30, No. 2.

The Equality Authority

Birchgrove House
Roscrea
Co. Tipperary
Phone: (0505) 24126
Fax: (0505) 22388

2 Clonmel Street
Dublin 2
Phone: (01) 417 3336
Text Phone: (01) 417 3385
Fax: (01) 417 3331

Public Information Centre
Lo Call: 1890 245 545
Email: info@equality.ie

www.equality.ie

The Economic and Social Research Institute

Whitaker Square
Sir John Rogerson's Quay
Dublin 2

www.esri.ie



THE EQUALITY AUTHORITY
AN tÚDARÁS COMHIONANNAIS



ISBN 978-0-7070-0278-8



9 780707 002781