

Table of contents

Foreword	v
1. Introduction	1
1.1 The purpose of this paper	1
1.2 Outline of this paper	2
2. The context of situation testing in the United States	2
2.1 The state of minority and immigrant relations	2
2.1.1 The United States is a nation of immigrants	2
2.1.2 Blacks	3
2.1.3 Hispanics	4
2.2 Findings and hypotheses from non-testing research	6
2.2.1 Statistical studies of employment	6
2.2.2 Public attitudes towards minorities	7
2.2.3 Victims' perceptions and reports	8
2.2.4 Research gaps for testing to address	9
2.3 The development of situation testing in the U.S.	10
2.3.1 Three goals for situation testing	10
2.3.2 Four studies matching the ILO research design	11
3. Procedures in four U.S. audit studies	12
3.1 Tester selection	12
3.2 Tester training	14
3.3 Sampling job vacancies	15
3.4 Field procedures	15
4. Empirical results from the four U.S. studies	17
4.1 Discrimination rates in the ILO format	17
4.2 Discrimination rates in the authors' formats	19
4.3 Relating these rates to the overall labour market	20
4.4 The prevalence of reverse discrimination	21
4.5 Variations in the prevalence of discrimination	22
4.5.1 Variation between racial/ethnic groups	22
4.5.2 Variations within a metropolitan area	23
4.5.3 Variations between metropolitan areas	26
4.6 Examples of discriminatory behaviour	27
4.6.1 Opportunities to interview	27
4.6.2 Job offers or referrals	28
4.6.3 Compensation	28
4.6.4 Steering	29
4.6.5 Access to additional opportunities	29
4.6.6 The cumulative effect	29
4.7 Psychological processes of discrimination	30
5. Correspondence testing	34
5.1 Research procedures	34
5.2 Empirical findings	36
6. Summary and conclusions	38
6.1 Summary of empirical findings	38
6.2 Implications for public policy in the United States	39
Bibliography	41
Appendix: Additional employment studies in the United States using situation testing	46

Tables

1. Characteristics of four U.S. testing studies	13
2. Discrimination rates calculated as the ILO specifies	18
3. Discrimination rates calculated by the studies' authors	20
4. Effect of selected circumstances on the probability that a minority tester will experience less favourable treatment	24
5. Comparison of application processing for Black and White testers	31
6. Results of correspondence tests as calculated by the study authors	37
International Migration Papers	47

Foreword

The following study has been elaborated under the auspices of the ILO's Migration for Employment Branch. The objectives of the Branch are to contribute to (i) the evaluation, formulation and application of international migration policies suited to the economic and social aims of governments, employers' and workers' organizations, (ii) the increase of equality of opportunity and treatment of migrants and the protection of their rights and dignity. Its means of action are research, technical advisory services and co-operation, meetings and work concerned with international labour standards. The Branch also collects, analyses and disseminates relevant information and acts as the information source for ILO constituents, ILO units and other interested parties.

The ILO has a constitutional obligation to protect the 'interests of workers when employed in countries other than their own'. This has traditionally been effected through the elaboration, adoption and supervision on international labour standards, in particular the Migration for Employment Convention (Revised), 1949 (No. 97); the Discrimination (Employment and Occupation) Convention, 1958 (No. 111); the Migrant Workers (Supplementary Provisions) Convention, 1975 (No. 143); and the non-binding Recommendations supplementing them. International legal instruments of this kind aim to influence national laws and regulations in such countries as ratify the binding Conventions; and in this way they change not only legislation but the actual practices as well.

The key concern of ILO standards for migrant workers is non-discrimination or equality of opportunity and treatment. Many countries broadly adhere to this objective in the economic and social spheres. Some countries ratify ILO Conventions¹ and to their level best to fulfil the obligations deriving from them. One might expect, therefore, that discrimination would no longer be part of the legislation or practices of these countries. Unfortunately, a great deal of circumstantial evidence exists that this assumption does not hold in certain respects and especially not at the workplace in private or public enterprises; and such evidence also exists for countries not having ratified ILO Conventions.

Therefore, the ILO has launched a global programme to combat discrimination against migrant workers and ethnic minorities in the world of work. This programme, which focuses on industrialized migrant-receiving countries, aims at tackling discrimination by informing policy makers, employers, workers and trainers engaged in anti-discrimination training on how legislative measures and training activities can be rendered more effective, based on an international comparison of the efficacy of such measures and activities. The programme covers four main components: (i) empirical verification of discrimination; (ii) research to assess the scope and efficacy of legislative measures designed to combat discrimination; (iii) research to document and to evaluate training and education in anti-discrimination or equal treatment; (iv) seminars to disseminate and draw conclusions from the research findings.

¹ Forty in the case of Convention No. 97, one hundred and twelve in the case of Convention No. 111, and seventeen in the case of Convention No. 143.

Preliminary findings show discrimination in access to employment to be a phenomenon of considerable and significant importance.¹ The present paper by Marc Bendick Jr. documents the occurrence of discrimination in the United States. Hispanics are discriminated against in every third application procedure, whereas Blacks are discriminated against in one out of five application procedures. The paper convincingly shows that discrimination in access to employment is widespread. It severely hampers minority groups' chances of finding employment and thus contributes to societal exclusion and disintegration.² The paper's conclusion, that affirmative action programmes are indispensable to promote actively (im)migrants' equal participation in the labour force provides useful guidance to legislators and policy makers in all countries with ethnic minority or migrant populations.

The Russell Sage Foundation, concerned as it is about the integration of migrants and ethnic minorities, generously financed the carrying out of this study, for which we are most grateful.

February 1996

W.R. Böhning

¹ F. Bovenkerk, M. Gras and D. Ramsoedh: *Discrimination against migrant workers and ethnic minorities in access to employment in the Netherlands* (Geneva, ILO, 1995); A. Goldberg, D. Mourinho: 'Empirischer Nachweis von Diskriminierung gegenüber ausländischen Arbeitnehmern beim Zugang zum Arbeitsmarkt', in: A. Goldberg, D. Mourinho und U. Kulke: *Arbeitsmarkt-Diskriminierung gegenüber Ausländischen Arbeitnehmern in Deutschland* (Geneva, ILO, 1995; English translation in preparation); Colectivo IOE: 'Discriminación contra trabajadores marroquíes en el acceso al empleo: Informe sobre España', in: Colectivo IOE y R. Pérez Molina: *La discriminación laboral a los trabajadores inmigrantes en España* (Geneva, ILO, 1995; English translation in preparation).

² On the concept of disintegration see my contribution 'Labour market integration in Western and Northern Europe: Which way are we heading', in W. R. Böhning and R. Zegers de Beijl: *The integration of migrant workers in the labour market: Policies and their impact* (ILO, Geneva, 1995).

1. Introduction¹

1.1 The purpose of this paper

Economists define employment discrimination as a process in the workplace in which members of a demographic group - for example, racial and economic minorities or recent immigrants - experience differences in treatment or outcomes for reasons not based on productivity.² Legal definitions reflect this same concept while specifying it in more detail. Thus, ILO's Discrimination (Employment and Occupation) Convention, 1958 (No. 111), Article 1, defines discrimination to include:

any distinction, exclusion or preference made on the basis of race, colour, sex, religion, political opinion, national extraction, or social origin, which has the effect of nullifying or impairing equality of opportunity or treatment in employment or occupation (including access to vocational training, access to employment and to particular occupations, and terms and conditions of employment) ... Any distinction, exclusion or preference in respect of a particular job based on the inherent requirements thereof shall not be deemed to be discrimination.

Similarly, in the United States, Title VII of the Civil Rights Act of 1964 (42 U.S. Code, Section 2000e *et seq.*, as amended), states that:

It shall be an unlawful employment practice for an employer ... to fail or refuse to hire or to discharge any individual, or otherwise to discriminate against any individual with respect to his compensation, terms, conditions, or privileges of employment, because of such individual's race, colour, religion, sex or national origin ... An unlawful employment practice based on disparate impact is established under this title only if ... the respondent fails to demonstrate that the challenged practice is job related for the position in question and consistent with business necessity.

Situation testing is a powerful new tool for research on employment discrimination. Situation testing (also called auditing) is a social science technique creating controlled, "laboratory-like" conditions in which to measure employers' candid responses to the personal characteristics of job seekers. The technique involves sending matched pairs of research assistants to apply simultaneously for the same job vacancy. Within each pair, applicant characteristics related to productivity (such as education, experience, and skills) are controlled by selecting, training, and credentialing testers so that they appear equally qualified for the jobs they seek. Characteristics not related to productivity are then subjected to experimentation by pairing testers who differ in only one personal characteristic, such as race. When testers within a pair receive substantially different responses to their applications, few assumptions and little analysis are required to infer that these differences are a reaction to that personal characteristic.

In 1992, the International Labour Office (ILO) initiated a programme of situation testing in multiple countries, repeating the same research procedures in each country to generate comparable results. These procedures, developed for the ILO by F. Bovenkerk (Bovenkerk, 1992), are referred to throughout this paper as the *ILO research design*.

When this ILO effort commenced, researchers in the United States were already involved in situation testing. Building on several decades of applying the technique to discrimination in

¹ The author gratefully acknowledges helpful comments from R. Zegers de Beijl, E. Wanner, L. Brown, M. Egan, C. Jackson, M. Turner, D. Wissoker, C. Withers, and W. Zimmerman. However, all findings and conclusions are solely the responsibility of the author.

² Ehrenberg and Smith (1994, p. 402). Bovenkerk (1992, p. 2) defines the concept as "unjustified unequal treatment of groups or individual persons."

housing,¹ testing work in the U.S. on employment began with development of a design comparable to that prepared for the ILO (Bendick, 1989a). Based on that design, a number of empirical studies were completed between 1989 and 1992. Although undertaken independently from the ILO effort, methodological and substantive concerns common to both efforts resulted in a United States design that closely paralleled the ILO research design. Accordingly, it is feasible for the United States to be represented in the ILO research by reporting results from existing studies rather than conducting additional tests. This document is a "meta-analysis" that performs this reporting.

1.2 Outline of this paper

Chapter 2 of this report reviews the historical and social context in which situation testing for employment discrimination has evolved in the United States and describes the overall scope of such testing activities. Chapter 3 then focuses on four testing studies that match the ILO research design in sufficient detail for their results to be utilized in the ILO's international comparison. Chapter 4 presents estimated rates of discrimination generated by these four studies and examples of the discriminatory behaviour that these rates represent. Chapter 5 describes the implementation and findings of employment discrimination studies in the United States using correspondence testing. Finally, Chapter 6 summarizes the findings of this paper and suggests their implications for public policy.

2. The context of situation testing in the United States

2.1 The state of minority and immigrant relations

2.1.1 The United States is a nation of immigrants

Among market-oriented industrialized countries, the United States is one of the most ethnically and racially diverse. Within its population of approximately 250 million persons (U.S. Bureau of the Census, 1994, pp. 17, 18 and 53):

- C The largest proportion consists of persons of European origin, primarily those whose ancestors immigrated to the United States between the seventeenth century and the first decades of the twentieth century. These groups account for approximately 76 per cent of the national population.
- C Blacks, who ancestors were imported involuntarily from Africa to work as slaves in the southern region of the United States until 1865, account for an additional 30 million persons, or twelve per cent of the population.
- C Hispanics (immigrants or descendants of immigrants from Mexico, Central America, or South America) account for 22 million persons, or eight per cent of the population. Some Hispanics were already living in the Southwestern region of the United States when these areas were annexed to the United States in 1848. Others have immigrated to the United States in more recent decades, including an estimated several million persons who are in the United States without legal permission to immigrate (Chiswick, 1988).

¹ While developing their initial design, U.S. researchers were also aware of employment testing studies conducted in the United Kingdom as early as the 1960s, especially the work of McIntosh and Smith (1974).

- C Persons of Asian origin total about 7 million persons, or three per cent of the population. Some of these groups, such as those of Chinese and Japanese ancestry, began to emigrate to the United States during the nineteenth century. Others, often of Southeast Asian ancestry such as Vietnamese and Cambodians, have arrived in large numbers primarily since the United States' military involvement in Vietnam during the 1960s and 1970s.
- C Native Americans (American Indians, Eskimos, and Aleuts) are the only groups whose ancestors were not immigrants to the United States within recorded history. They account for about two million persons, or less than one per cent of the population.

In the 350 years since European immigration began to what is now the United States, successive waves of migrants have gradually been assimilated into the nation's social and economic mainstream. For example, the largest numbers of immigrants from Southern and Eastern Europe (from nations such as Italy, Greece, and Russia) arrived in the United States during the last decades of the nineteenth century and first decades of the twentieth century. At that time, they constituted an "underclass" and encountered discrimination compared to persons of Northern European and Western European ancestry who had predominantly arrived decades earlier. Yet by the 1990s, several generations later, descendants of Southern and Eastern Europeans are found throughout all segments of life in the United States and at all levels of employment (Borjas, 1994a; Borjas, 1994b; Borjas and Freeman, 1992).

For other racial/ethnic groups and for immigrants of more recent origin, however, integration into United States society and labour market is far from complete. Because they are the largest race/ethnic minority groups in the country and because they are the subject of situation testing discussed in this paper, two groups are particularly important to discuss: Blacks and Hispanics.

2.1.2 Blacks

The integration issue of longest standing and greatest prominence in economic and social life in the United States involves Blacks (synonymously, Black Americans or African Americans). When slavery was abolished in 1865 as a result of the United States Civil War, those Blacks who had been slaves faced a society where separation of the races remained the social norm, and they entered the labour market with substantial deficits in education and occupational experience compared to the White population.¹ In former slave-holding regions, these deficits were often perpetuated by state and local laws (called "Jim Crow" laws) mandating segregation in housing, education, public accommodations, and employment. In the rest of the nation, although segregation was not generally reinforced by laws, Blacks remained primarily segregated into minority residential neighbourhoods, schools of lower quality, and a limited range of lower-level employment opportunities.

The 1960s brought to the United States a civil rights revolution in social customs, backed by national laws rendering racial discrimination illegal in housing, education, public services, and employment (Rutherglen, 1994). The thirty years since that time have witnessed dramatic

¹ For simplicity, two terms are used synonymously throughout this paper to refer to persons who are the "converse" of persons in these minority groups: "Whites" and "majority." Both terms are intended to refer to Americans of European ancestry and thus to exclude the minority groups. Thus, for example, in reporting testing results, when Hispanics and Whites are contrasted, Blacks are not included within Whites. However, in data generated by the U.S. Bureau of the Census, Hispanics are considered to belong to an ethnic group who may be of any race. Therefore, in some of the Census data quoted in this paper, Whites may include some White Hispanics.

convergence between Blacks and Whites in many indicators of social and economic status and an increase in Blacks in the "middle class." Despite these gains, however, for a substantial part of the Black population, patterns of *de facto* disadvantage persist in all principal indicators of labour market success. For example (Jaynes and Williams, 1989, pp. 294-315; U.S. Bureau of the Census, 1994, pp. 396, 407, 426):

- C *Unemployment.* Unemployment rates for Blacks average approximately double those of Whites (in 1993, for example, 6.0 per cent for Whites and 12.9 per cent for Blacks).
- C *Earnings.* In 1984, the hourly wage rate for Black men averaged 72 per cent of that of White men, and their annual earnings averaged 56 per cent of that for White men. For Black women, the corresponding figures, compared to White women, were 91.6 per cent of wage rates and 99.0 per cent of annual earnings.
- C *Access to training.* As of 1990, 8.5 per cent of Black persons aged 18-64 had received formal work-related training provided by an employer, compared to 11.5 per cent for comparable Whites.
- C *Occupations.* In the 1980s, the proportion of employed Black men in managerial and professional positions achieved the level that had prevailed for White men three decades earlier; for Black women, the corresponding lag compared to White women was two decades. In 1993, Black persons represented 6.6 per cent of employment in managerial and professional occupations and 6.0 per cent of employment in the skilled construction crafts, while they accounted for 16.7 per cent of labourers and 17.3 per cent of non-supervisory service workers. The former figures are below the overall representation of Blacks in the United States' civilian labour force at that time, which was 10.2 per cent, and the latter figures are above that figure.

Differences between Blacks and Whites in workplace qualifications partially explain such differences. For example, in 1993, 70.4 per cent of the Black population aged 25 and older had completed secondary school, compared to 81.5 per cent of the comparable White population (U.S. Bureau of the Census, 1994, p. 157). Nevertheless, the persistence of substantial differences between Blacks and their White counterparts in labour market status, in combination with the long history of socially- and legally-sanctioned differences in their treatment, is consistent with the hypothesis that labour market discrimination against Blacks is also an important part of the explanation.

2.1.3 Hispanics

The second largest minority group in the United States' labour market is Hispanics (synonymously, Hispanic Americans or Latinos). Persons of Hispanic origin have long constituted part of the population in the Southwestern region of the country, including states such as California and Texas, that were part of Mexico until 1848. However, during the 1980s and 1990s, their numbers have increased rapidly, become more diverse in terms of cultural subgroups within the Hispanic category (now including Mexicans, Cubans, Puerto Ricans, Central Americans, and others), and have dispersed more widely throughout the nation. In 1990, Hispanics constituted 62.5 per cent of the population in Miami, 39.9 per cent in Los Angeles, 27.6 per cent in Houston, 24.4 per cent in New York City, and 19.6 per cent in Chicago (U.S. Bureau of the Census, 1994, p. 44).

In parallel with Blacks, Hispanics in the United States tend to experience substantially less labour market success than their White counterparts. For example (U.S. Bureau of the Census, 1994, pp. 396, 407; U.S. Bureau of Labor Statistics, 1992, p. 73):

- C *Unemployment.* Unemployment rates for Hispanics are persistently higher than for their White counterparts, although not so high as for their Black counterparts – in 1993, for example, 10.6 per cent for Hispanics, compared to 6.0 per cent for Whites and 12.9 per cent for Blacks.
- C *Earnings.* In 1992, the median weekly earnings for Hispanic males employed full-time was \$322 per week, which was 59.8 per cent of the comparable figure for Whites and 91.7 per cent of the comparable figure for Blacks. For women, the parallel figure was \$284 per week, which was 76.5 per cent of the figure for their White counterparts and 88.8 per cent of that for their Black counterparts.
- C *Access to training.* As of 1990, 10.9 per cent of Hispanics aged 18 to 64 had received formal work-related training provided by an employer, compared to 11.5 per cent for comparable Whites.
- C *Occupations.* In 1993, Hispanics represented 4.0 per cent of employment in managerial and professional occupations and 7.0 per cent of employment in the skilled construction crafts, while they accounted for 13.7 per cent of labourers and 11.2 per cent of non-supervisory service workers. The former figures are below the overall representation of Hispanics in the United States civilian labour force at that time, which was 7.8 per cent, and the latter figures are above that figure.

Even more strongly than for Blacks, differences in employment qualifications between Hispanics and their majority counterparts are important in explaining these outcomes:

- C *Educational credentials.* In 1993, 53.1 per cent of Hispanic males aged 25 and older had completed secondary school, compared to 81.5 per cent of Whites and 70.4 per cent of Blacks; 9.5 per cent of these Hispanic men had received a post-secondary degree, compared to 25.7 per cent of counterpart Whites and 11.9 per cent of Blacks (U.S. Bureau of the Census, 1994, p. 157).
- C *Command of English.* As of 1990, 12.1 million (or 7.9 per cent) of persons in the United States of typical working age (18 to 64) spoke Spanish at home. Among these persons, 49.6 per cent spoke English not very well or not at all (U.S. Bureau of the Census, 1994, p. 53). Research has estimated that lack of command of English is, in the United States labour market, associated with a substantial penalty in earnings, even after controlling for other characteristics such as education; for example, one study estimates this penalty at 17 per cent of wages (Grenier, 1984; see also Borjas, 1994b).

Differences in qualifications do not account for all differences between Hispanics and other groups in labour market success, however. Hispanics were not enslaved in the United States, and they have only occasionally been subject to state and local laws imposing segregation in the manner it was imposed on Blacks. Nevertheless, they have frequently been treated by the majority population as socially undesirable, found non-Hispanic residential neighbourhoods unwelcoming, and been restricted to inferior educational opportunities, often in minority-dominated schools. It is reasonable to hypothesize that parallel discriminatory experiences in the labour market account for at least some of their employment difficulties.

2.2 Findings and hypotheses from non-testing research

For more than three decades,¹ economic, sociological, and other empirical social science research has explored the extent, nature, and consequences of employment discrimination in the United States' employment market.

2.2.1 Statistical studies of employment

Prominent among these research efforts are numerous econometric studies that estimate the effect of workers' demographic characteristics (such as race) on their labour market outcomes (such as wages) after using statistical techniques (such as multiple regression analysis) to control for the effects of workers' differing qualifications (such as education and experience). This literature primarily examines wages and thus offers only limited insights into other aspects of employment concerns such as hiring. It is also limited in that it has examined the experiences of Blacks more extensively than that of other racial/ethnic groups.² Furthermore, significant controversies remain concerning technical issues that importantly affect the estimates produced.³

Despite these limitations, however, consensus generally prevails within this literature on four broad findings (Ehrenberg and Smith, 1994, ch. 12; Cain, 1986; Jaynes and Williams, 1989, ch. 6; Smith and Welch, 1989):

- C Differences in labour market success between Blacks and Whites have decreased dramatically between the 1960s and the 1990s.
- C Increases in the employment qualifications of Blacks (such as increasing levels of educational attainment) account for a substantial share of this convergence.
- C Enforcement of anti-discrimination laws and changing social attitudes towards discrimination account for an additional important share of the convergence (Leonard, 1990).
- C Despite this progress, minorities continue to do less well than equally qualified Whites on many measures of labour market status. For example, after accounting for differences in education, experience, and other job-relevant qualifications, racial/ethnic minorities remain under-represented in higher-level occupations and over-represented in lower-level occupations (Gill, 1989); minorities typically do not command the same wages as non-minorities for performing the same work or receive the same pay-offs for acquiring educational credentials (Jaynes and Williams, 1989, pp. 146-147; Wolpin, 1992; Cain, 1986); and minorities who perform equally well experience higher rates of job dismissal (Zwerling and Silver, 1992).

¹ The earliest prominent work in this tradition was that of Myrdal (1944).

² The relatively few studies concerning Hispanics in the United States labour market are consistent with the more numerous studies concerning Blacks in suggesting that discrimination continues to operate. For example, Reimers (1985) estimated that Hispanic males earn about five per cent less than equally-qualified Whites, and DeFreitas (1985) concluded that they have a higher probability of experiencing unemployment.

³ For example, most of the datasets on which econometric analyses have been conducted do not include direct measures of individuals' abilities or motivation. To the extent that such "omitted variables" are related to productivity and are correlated with variables that are included in the statistical analysis – such as race – estimates of the effect of race *per se* may be distorted (Ehrenberg and Smith, 1994, pp. 21-24; Cain, 1986).

2.2.2 Public attitudes towards minorities

Additional evidence consistent with the hypothesis that racial/ethnic discrimination continues to operate in the United States labour market is provided by studies of attitudes towards minority groups held by many members of the United States majority population. Theorists note that one potential source of discrimination is *personal prejudice*, or preferences on the part of employers, customers, or fellow workers for not working with members of racial/ethnic minority groups (Becker, 1971). A second source of discrimination is *stereotypes*, that is, generalizations concerning the lack of qualifications or undesirability of members of a minority group that are used to judge individuals from within that group; this latter process is sometimes labelled "statistical discrimination" (Aigner and Cain, 1977).¹ In both cases, perceptions and attitudes held by members of the White population may importantly influence opportunities outcomes for minorities.

Public opinion surveys indicate that substantial segments of the United States majority population continue to hold stereotyped beliefs and prejudiced attitudes towards minority groups.² According to public opinion research, widely-held "ethnic images" of both Blacks and Hispanics in the United States portray them, relative to majority-group members, as substantially less intelligent, more lazy and welfare-dependent, and more prone to violence (Harris, 1989; Smith, 1990; Jaynes and Williams, 1989, ch. 3).

In hiring decisions, the perceptions and attitudes held by company managers and other personnel decision-makers are particularly relevant. Research interviews with such decision-makers in the United States typically indicate that they readily generalize about racial and ethnic groups, and the content of these generalizations is predominantly highly adverse to minority job-seekers. In one study in Chicago, for example, common generalizations by employers concerning Black and Hispanic workers emphasized their shortcomings in terms of work ethic, honesty, attitudes, communication skills, intelligence, educational preparation, and stability (Neckerman and Kirschenman, 1991b; see also Tilly and Tilly, 1994, pp. 301-302). Among researchers, considerable controversy centres on the extent to which such attitudes are translated into actions such as hiring decisions.³ However, it is unlikely that such widely-held opinions have no influence adverse to the employment prospects of minorities.

The hypothesis that prejudice and stereotyping operate to the detriment of racial and ethnic minorities in the workplace is further supported by the continued operation of race/ethnic distinctions throughout other aspects of life in the United States. These circumstances include:

- C widespread *de facto* segregation in housing and in housing-related social contacts (Massey and Denton, 1993; Jaynes and Williams, 1989, chapter 2);
- C incidents of discrimination experienced by minorities at the hands of law enforcement officers and the legal system (Jaynes and Williams, 1989, chapter 9);

¹ Bovenkerk (1992, p. 14) applies the label "malignant discrimination" to what is referred to here as discrimination reflecting personal prejudice and the label "myopic discrimination" to what is characterized here as statistical discrimination.

² These same negative beliefs and attitudes may also prevail among members of one minority group concerning members of other minority groups.

³ See, for example, Arvey and Campion (1992) and Brief *et al.* (1994). Bovenkerk (1992, p. 4) labels this "a discrepancy between what we say and what we do".

- C differences in treatment between minorities and Whites in business transactions, including obtaining home mortgages, household insurance, business loans, and business contracts (Frankel, 1994; Squires, 1992); and
- C incidents of unfavourable treatment of minorities in their roles as customers – for example, in restaurants, hotels, and retail stores (Feagin and Sykes, 1994; Cose, 1994; Davis, 1989; Ayres, 1991; Scanlon and Bendick, 1993).

2.2.3 Victims' perceptions and reports

The prevalence of employment discrimination has also been probed through surveys in which samples of the United States population are asked whether they believe that discrimination operates in the workplace. These studies typically report two findings:

- C Substantial numbers of respondents, including both members of minority groups and majority groups, believe that discrimination continues to exist; and
- C The proportion of minorities believing that discrimination continues to operate is higher than the proportion of majority group members sharing this belief.

Illustrating both of these patterns, one 1989 nationwide poll reported that 80 per cent of Blacks thought that a Black applicant who is as qualified as a White is less likely to win a job that both want, and 37 per cent of Whites agreed. In that same poll, 62 per cent of Blacks felt that the chances of a Black to win a supervisory/managerial position were worse than those for Whites, while 41 per cent of Whites agreed (Harris, 1989; see also Kluegel and Smith, 1986).

In surveys of minority individuals concerning their own experiences with discrimination, a substantial proportion of these individuals, although typically much less than half, report having personally had such experiences. For example, in a 1979 survey of recent Cuban immigrants, more than 25 per cent reported having experienced discrimination in employment (Portes and Bach, 1985). In another survey, employed Blacks in a nationwide sample were asked, "At your workplace, are Black people treated unfairly or badly?" and "At the place where you work now, have you ever been turned down for a job you wanted because you are Black?" Between 23 and 31 per cent of respondents answered yes to the first question, and between five and 10 per cent responded affirmatively to the second (Bowman, 1991, p. 148).¹ In a study by the U.S. government's General Accounting Office, based in part on unsystematic sampling of persons with "a foreign appearance or accent," such persons reported experiencing discrimination at the hands of approximately ten per cent of employers (DeFreitas, 1985, pp. 74-75).

When members of minority groups in the United States believe that they personally have experienced employment discrimination, in many circumstances they may seek legal action to end the discrimination and obtain compensation for damages such as lost wages (Rutherglen, 1994). The administrative complaints that they file with the public agencies enforcing employment discrimination laws provides another measure of discrimination in the workplace. Because these complaints are counted prior to determination of the merits of the charges, these records overestimate the extent of discrimination by including cases in which complainants' allegations are not justified. On the other hand, they underestimate the amount of discrimination because many

¹ Because these questions refer to respondents' present employment, the responses reflect their experiences at firms willing to hire minority workers. Presumably, the figures would be higher if firms that discriminate in hiring were also sampled.

incidents undoubtedly occur without victims filing formal charges. In 1994, a total of 67,003 charges of race, ethnic, or national origin discrimination in employment were filed with the federal Equal Employment Opportunity Commission (EEOC) and its state and local counterpart agencies.¹

2.2.4 Research gaps for testing to address

Together, these findings about employment patterns, public attitudes, and workers' perceptions provide considerable background on employment discrimination in the United States labour market. They suggest that it is reasonable to hypothesize that some discrimination against racial/ethnic minorities continues to operate in that market today. However, they fail to provide a generally accepted estimate of the extent of that discrimination.

A second shortcoming of available research is that it is largely indirect. For example, studies of public attitudes examine potential precursors of discrimination, and statistical studies of wages portray what may be the consequence of discrimination, but neither observes the process of discrimination itself.

Among all types of employment discrimination, perhaps the greatest deficiencies in current knowledge concern discrimination in hiring. If a job applicant is told that an advertised position has already been filled or that another applicant has been hired who is more qualified, the disappointed job seeker typically does not have sufficient information to confirm or contradict those statements. Thus, both statistical research and tabulations of complaints provide less credible estimates of discrimination in hiring than, for example, counterpart sources of information concerning discrimination in wages.

In short, prior to implementation of situation testing, research had left three needs largely unmet in terms of knowledge about employment discrimination in the United States labour market: the need for *quantitative estimates* of the extent of discrimination; the need to examine discrimination *directly* rather than indirectly; and the need to focus on *hiring*.

2.3 The development of situation testing in the U.S.

2.3.1 Three goals for situation testing

Interest by researchers and research funders in filling these gaps in knowledge played some role in originating situation testing in the United States. However, their interest would probably not have sustained an extensive research programme had it not coincided with political developments that increased the importance of the information that situation testing could generate.

Throughout the 1980s – most notably, with the election of Ronald Reagan as president in 1980 – a politically more conservative approach began to dominate much of public policy in the United States. Prior to that time, generally liberal policies had, in varying degrees, shaped anti-discrimination efforts for several decades. Federal laws in the 1960s that had prohibited racial segregation in employment, mandated equal employment opportunity for racial and ethnic minorities, and implemented pro-minority affirmative action in employment² all reflected this

¹ Unpublished data, U.S. Equal Employment Opportunity Commission, May 1995. This volume of filings corresponds to one new complaint per year for every 363 Black or Hispanic member of the United States labour force.

² Affirmative action is defined as “... any measure, beyond simple termination of a discriminatory practice, adopted to correct or compensate for past discrimination or prevent discrimination from recurring in the future”

general trend. Court decisions throughout the 1960s and 1970s had generally ratified or expanded the reach of anti-discrimination statutes. By the 1980s, however, conservative critics were increasingly attacking these public actions as inefficiently interfering with market outcomes and unjustly reducing employment opportunities for members of the majority population. These critics often argued that the problems of discrimination had been eliminated and that the time had come for the nation to adopt a "colour blind" approach to the labour market (Rutherglen, 1994, pp. 30-34).

Reflecting this philosophy, the Reagan Administration reduced the aggressiveness of enforcement activities by the federal government's Equal Employment Opportunity Commission and appointed federal judges less sympathetic to anti-discrimination efforts. At the same time, the federal Supreme Court produced a series of decisions constraining affirmative action in employment and raising the standards of evidence required to attack discrimination through litigation (Boggs, Sellers and Bendick, 1993; Bendick, 1990).

Stung by such developments, advocates of continued anti-discrimination efforts repeatedly emphasized their belief that discrimination had not been eliminated, so that these changes of policies were, at best, premature. For example, in dissenting from one Supreme Court decision, three liberal judges of the United States Supreme Court stated (*Wards Cove Packing Company v. Atonio*, 109 Supreme Court 2215, p. 755):

Today a...majority of the Court takes three major strides backwards in the battle against race discrimination.... One wonders whether the majority [of Supreme Court justices] still believes that race discrimination... against non-Whites is a problem in our society.

Supporters of continued activism against employment discrimination shared these justices' concern about the growing tendency to perceive racial/ethnic discrimination as a problem that had been solved. They believed that situation testing would reveal that discrimination continues to require public action and would do so in a dramatic form particularly useful in influencing public opinion. At the same time, these advocates were aware that situation testing had been used for several decades as evidence in litigation concerning housing discrimination. As Supreme Court rulings eroded the role of traditional forms of evidence in employment discrimination litigation, situation tests suggested itself as an alternative means of generating evidence for use in such cases (Boggs, Sellers and Bendick, 1993).

Thus, three objectives – generating additional knowledge through research, influencing public opinion through dramatic findings, and providing evidence for enforcement litigation – converged to support a programme of situation testing. By the late 1980s, the Rockefeller Foundation was organizing and financing these efforts, and several other large foundations subsequently joined in support.

Research on employment testing began at The Urban Institute, a non-profit, non-partisan research organization which, with support from the Rockefeller Foundation, was already engaged in research on persistent poverty and the employment problems of the underclass in the United States. The first step was to develop a general research design for situation testing (Bendick, 1989a). The Urban Institute then adapted and implemented that design in a study of discrimination against Hispanics sponsored by the federal government as part of an investigation of the impact

(U.S. Commission on Civil Rights, 1977, p. 1). Under U.S. law, affirmative action is required of certain employers, such as firms holding federal contracts, and permitted on a voluntary basis for others (Rutherglen, 1994, p. 23).

on ethnic minorities of changes in United States immigration law. The results of that study were published in 1990 (Cross *et al.*, 1990; Fix and Bean, 1990) and cited in Congressional debates at that time. Shortly thereafter, The Urban Institute utilized financial support from foundations to conduct a parallel testing study on the employment experiences of Blacks (Turner, Fix and Struyk, 1991; Fix and Struyk, 1993).

The work of the Urban Institute was designed primarily to promote the research and public opinion objectives of situation testing. To develop testing as a form of evidence in anti-discrimination litigation, a new non-profit organization, the Fair Employment Council of Greater Washington (FEC), was created in 1990. Since that time, the FEC has been methodically applying testing to litigation and establishing the relevant legal precedents (Boggs, Sellers and Bendick, 1993; Yelnowsky, 1992; Welmer and Sudbury, 1992). However, the FEC has also completed a number of research studies parallel to those of The Urban Institute and based on modifications of the same initial design. The first of these studies concerned Hispanics (Bendick, Jackson, Reynoso and Hodges, 1991), while the second concerned Blacks (Bendick, Jackson and Reynoso, 1994).

2.3.2 Four studies matching the ILO research design

The four studies just identified – one of Hispanics and one of Blacks by The Urban Institute and one of Hispanics and one of Blacks by the Fair Employment Council – are not the only situation testing studies that have been conducted in the United States.¹ However, those other testing studies address forms of discrimination other than that against racial/ethnic minorities (for example, age or sex discrimination) or apply methodologies that differ substantially from the ILO research design. In contrast, these four studies parallel the ILO research design in sufficient detail for their results to be compared to those generated in other nations under the ILO's multi-national research programme. Therefore, only these four studies will be discussed in the remainder of this paper.

3. Procedures in four U.S. audit studies

This section describes how face-to-face testing was implemented in the four U.S. audit studies that parallel the ILO research design as set forth in Bovenkerk (1992).² Because these four studies were implemented without direct contact with parallel ILO efforts, it should not be expected that they would have followed the ILO's specifications in every detail. Nevertheless, they followed them sufficiently closely that the results of these studies, with some adjustments, are comparable to the results of other international tests conducted under the ILO research design.

Table 1 briefly profiles the four studies described in this chapter.

3.1. Tester selection

For testing to produce analysable results, testers must be sufficiently credible applicants for the positions they seek so that some of them receive job interviews and job offers. For testing to achieve its sought-for condition as a controlled experiment, the testers in each pair must be

¹ The appendix to this report briefly catalogues nine additional studies.

² Unless noted otherwise, information throughout this chapter and the next is drawn from the following sources: Urban Institute tests: Bendick (1989a), Cross *et al.* (1990), Turner, Fix and Struyk (1991), Fix and Struyk (1993), and Keeney and Wissoker (1994); Fair Employment Council tests: Bendick, Jackson, Reinoso and Hodges (1991), Bendick, Jackson and Reinoso (1994), and Fair Employment Council (1993). Additional information is based on the author's personal knowledge.

equivalent to each other in job-relevant characteristics while differing in their race or ethnicity. And because testers themselves are the primary source of data concerning the outcomes of tests, testers must be accurate and honest reporters of their experiences. The process of meeting these stringent requirements begins with tester selection.

For the studies by The Urban Institute and the FEC, testers were recruited primarily from among undergraduate students at colleges and universities in the metropolitan areas in which tests were conducted. Student employment offices, minority affairs programmes, selected university faculty, and the personal contacts of testers were used to generate applicants. This produced a pool of persons between the ages of 19 and 29, with most in their early 20s.

Applicants were screened by members of the research staff using the following principal criteria:

- C credibility as a job applicant for entry-level positions (conventional appearance and manner, appropriate age);

Table 1. Characteristics of four U.S. testing studies

Characteristic	White-Black pairs		White-Hispanic pairs	
	FEC	UI	FEC*	UI
Period of testing	1991	1990	1992	1989
Method of application	In-person	In-person	Telephone	In-person
Completed tests	149	476	282	302
Tester gender	Male and female	Male	Male and female	Male
Labour market	Washington	Washington Chicago	Washington	San Diego Chicago
Source of job sample	Newspaper Industry lists	Newspaper	Newspaper Industry lists	Newspaper
Location				
City	60%	—	21%	—
Suburbs	40%	—	79%	—
Firm size				
< 15 employees	17%	—	—	12%
\$ 15 employees	83%	—	—	88%
Education claimed in resume				
Secondary school	—	100%	—	100%
Some university	100%	—	50%	—
University graduate	—	—	50%	—
Type of employment				
Retail	22%	23%	34%	16%
Office	5%	21%	46%	10%
Service	63%	37%	4%	56%
Other	10%	19%	16%	18%

* In addition to the telephone tests described in this column, correspondence tests were conducted within this study; see Chapter 5.
Source: Adapted from Bendick, Jackson and Reinoso (1994).

- C unambiguous status as a member of the race/ethnic group being tested or its converse "majority" group (Hispanic, Black, or White);

- C ability to remember and report experiences accurately;

- C absence of strong ideological beliefs about discrimination that might interfere with objectivity; and
- C willingness to follow research procedures exactly and work cooperatively.

From among applicants surviving this initial screening, the research staff formed teams consisting of one member of the relevant minority group and one White. In matching these teams, emphasis was placed on:

- C physical appearance (similar ages, height and weight, gender, and demeanour);
- C communications style (articulateness, talkativeness, propensity to smile);
- C general personality (shyness, neatness, maturity); and
- C work histories (shared experiences in terms of past employment).

To complete large numbers of tests in a relatively short period, all four studies utilized multiple teams. The Urban Institute employed five teams of males in each of the two cities in which it conducted Black tests and four teams of males in each of the two cities in which it conducted Hispanic tests. The Fair Employment Council employed six teams in its Black-White tests, three teams of males and three teams of females; in its tests involving Hispanics (which were conducted by telephone), the FEC employed one pair of females and one pair of males.

The presence of female testers in two of the four United States studies represents a deviation from the ILO research design, which specified that all tester pairs should be male. The overall impact of this deviation is unclear. In the two studies in which comparable data are available for both genders, the estimated rate of discrimination was higher for males in tests involving Hispanics but higher for females in tests involving Blacks (see table 4 later in this paper). Additional testing studies will be required before confidence can be placed in the direction and magnitude of adjustments for such interactions between gender and race/ethnicity. Accordingly, empirical results are reported in this paper without adjusting for the fact that part of the study sample in some studies was female.

3.2 Tester training

In all four studies, testers received training of approximately one week's duration. Training began with an explanation of testing,¹ encompassed information on the job-seeking process and how to be an effective applicant, and established systematic procedures for field work and data recording. Role playing – practice interviews, filling in sample application forms – and exercises in which testers observed the interview performance of their partners were part of this process.

¹ Tests might have been conducted in a "double blind" format – that is, with testers not being told that discrimination was the subject of the study in which they were participating. This approach was implemented, for example, in a testing study of race discrimination in automobile sales practices in the United States (Ayres, 1991). However, in employment testing, it is unrealistic to assume that testers would not infer the subject of the study from the procedures they were following and the data they were asked to record. Instead of using a double-blind design, the U.S. studies sought to ensure the objectivity of tester-generated data by careful tester selection, extensive training, close supervision, data collection procedures that emphasize facts over judgements, and an organizational culture of social science objectivity.

Training then concluded with a series of closely-critiqued practice tests in actual job-seeking situations.

During training, members of the research staff worked with each tester to develop a fictional biography specifying personal histories, education, work experience, and job-relevant skills. These biographies were designed to make all testers strong candidates for the positions for which they were to apply.¹ The biographies for each pair of testers were made equivalent, with only slight variations to keep their pairing from being apparent to potential employers. Testers' actual personal experiences were often incorporated into their testing biographies, with appropriate adaptations. Once the content of biographies was decided upon, one-page resumes were prepared for the testers, neatly typed in standard but slightly differing formats (Swanson, 1991; Yate, 1988).

3.3 Sampling job vacancies

The ILO research design (Bovenkerk, 1992, p. 21-22) specifies the universe from which vacancies were to be sampled as "all the vacancies for semi-skilled jobs in industry and the service sector within the [geographic] area chosen for investigation". The focus should be jobs "one step up" from the lowest quality jobs (in which minority employment is assumed to be clustered, often with little competition from majority-group workers). In Bovenkerk's words (1992, p. 21), "The occupations should represent the type of jobs where the bulk of young adults of the particular minority group would begin their upward working careers".

The ILO research design then calls for considering jobs typically addressed in local area data and by the local labour exchange and selecting from among them a small number of specific occupations to be tested. For example, Bovenkerk suggests that a sample of 175 tests might be split among positions in the construction industry (bricklayer, carpenter); waiter; and light production assembler.

In the four U.S. studies, a different procedure was followed which nevertheless generated a generally comparable sampling frame. The goal of the process was a representative sample of occupations in the private sector² that are permanent and full-time but "...are open to persons who are recent high school graduates, have limited work experience, and no specific vocational skills. That is, they are 'generic' entry-level employment" (Bendick, 1989a, p. 16).

In the two studies conducted by The Urban Institute, vacancies were selected from positions advertised in the "help wanted" section of the Sunday edition of the largest-circulation newspaper in the metropolitan area. In the two studies conducted by the Fair Employment Council, this source was used for part of the sampling frame, but additional vacancies were selected from "help wanted" advertising in smaller newspapers circulated in suburban neighbourhoods within the metropolitan area; from private employment placement agencies listed in the local telephone directory; and from publicly-available lists of employers (for example, lists of hotels distributed by the local tourist bureau). In all cases, the specific vacancies to be tested were selected by random sampling within the sampling frame.

² Research staff identified the skills and other qualifications that were typical of entry-level occupations by consulting published research (U.S. Department of Labor, 1990, U.S. Department of Labor, 1991) and by reviewing newspaper "help wanted" advertising for such positions.

¹ All four studies excluded positions with government or non-profit organizations.

As the final section of table 1 reports, the resultant sample of vacancies tested emphasized jobs in the retail sector (for example, sales clerks, inventory stockers, or store manager trainees), in office positions (for example, receptionists, file clerks, or insurance claims processors), and in the service sector (for example, hotel front desk clerks, waiters/waitresses, or delivery drivers). Jobs classified in table 1 as "other," which accounted for between 10 and 20 per cent of the sample in the different studies, included entry-level jobs in construction and manufacturing.

3.4 Field procedures

In all four studies, a research supervisor interacted closely with each pair of testers at all stages of the job-seeking process. The supervisor selected vacancies to be tested using the sampling procedures just described, assigned vacancies to tester teams, monitored the passage of each tester through the different stages of the application process, checked the completeness and accuracy of data as testers recorded their experiences, and provided immediate resolution of testers' questions. To maintain close supervision, when as many as half a dozen teams of testers were in the field full-time, one supervisor devoted virtually her or his full working time to this role (in some cases, with additional assistance from a second supervisor).

All tests by The Urban Institute studies and some tests by the Fair Employment Council were completed by testers working full-time during university summer vacations; the remaining tests by the FEC were completed by testers working part-time during their universities' academic year. Testers were paid for their work at a fixed rate per hour (for example, \$8.00 per hour).

When a vacancy was assigned to a team of testers, half of the time the minority tester was instructed to contact the employer before his or her White counterpart, while the other half of the time, they were instructed to do the reverse. The two applications were made on the same day, typically within approximately one hour of each other.

As soon as each stage of the application process (such as a telephone call or an interview) was completed, testers documented their experiences as soon as possible. Information was recorded on pre-structured data forms which emphasized factual questions (for example: How many minutes did the interview last? What topics were discussed during the interview? Was the tester offered a job?) rather than subjective judgements concerning whether discrimination had occurred. Testers were instructed to enter these data prior to discussing their experiences with their testing partners.

When a tester received a job offer, he or she was instructed to call the employer back within a few hours to refuse the offer. If asked, testers provided a reasonable explanation for their refusal (such as, "I took another job that paid slightly more.").

In the United States, it is common practice for employment application forms to request the names and telephone numbers of references such as former employers. In both studies conducted by The Urban Institute, testers supplied such names and numbers, but the numbers did not work. In the Black-White tests by the FEC, the first telephone number provided for each tester connected to a person (usually a local business owner, working as a volunteer) who supplied a favourable reference for the tester using a script prepared by FEC staff.

In the vast majority of the 1,209 tests initiated in the four studies,¹ the testing process proceeded smoothly. Across the four studies, 67 per cent of the time that testers filed applications, at least one tester was invited to a job interview; and at least one tester received a job offer an average of 60 per cent of the time that at least one tester was interviewed. These rates suggest that employers generally perceived the testers to be credible, qualified job applicants. In only half a dozen cases (less than one-half of one per cent of tests) did employers suspect that a tester was not a *bona fide* job applicant; and in no case where that occurred did it appear that the employer suspected that there was more than one false applicant or that the application was part of a test.

4. Empirical results from the four U.S. studies

4.1 Discrimination rates in the ILO format

The ILO research design (Bovenkerk, 1992, p. 12) states the fundamental research question of the ILO comparative study as follows: Do immigrants and ethnic minorities suffer from substantial discrimination in the labour market?

In mobilizing testing data to answer this question, the central measure of discrimination is differences in rates of job-seeking success: Who proceeds furthest in the job application process? Who receives a job offer? The "null hypothesis" of an absence of discrimination would be confirmed if equally-qualified minority and majority testers met with success at equal rates, while discrimination is measured by the extent to which minorities are treated less favourably than their White partners.

Of course, instances also arise in which minority job candidates are selected over majority candidates, reflecting either employer preferences in favour of minorities or reflecting random effects when two equally-qualified candidates compete for a single opening. Therefore, in testing studies, outcomes are typically analysed by calculating the proportion of job applications in which majority applicants are successful, calculating the proportion of applications in which minorities are successful, and then subtracting the latter from the former to generate a *net* rate of discrimination against minority job seekers.

Table 2 presents a computation of these net rates of discrimination for the four United States testing studies described in section 3. To generate figures that are directly comparable to those produced for other countries participating in the ILO's research programme, these computations follow the procedure specified by the ILO research design (Bovenkerk, 1992, p. 32). Row (14) of table 2 presents the estimated net rates of discrimination:

C For *Blacks*, the Fair Employment Council study generated a rate of 14.1 per cent, while the Urban Institute study generated a rate of 22.3 per cent. The weighted average² of these two

¹ 1,209 is the total of all tests in which both testers succeeded in presenting themselves to apply for employment, as reported in row (1) of table 2. The number of "usable tests" as defined by the ILO, which is reported in row (3) of table 2, is 815.

² The weights used in computing this weighted average are the number of usable tests, reported in row (3) of table 2.

estimates is 19.4 per cent. This latter figure – *19.4 per cent* – should be considered the best overall estimate of a net rate of discrimination against Black job applicants, under the ILO's computational procedure, emerging from the United States testing studies.

- C For *Hispanics*, the Fair Employment Council study generated a rate of 25.1 per cent, while the Urban Institute study generated a rate of 39.8 per cent. The weighted average of these two estimates is 33.2 per cent. This latter figure – *33.2 per cent* – should be considered the best overall estimate of a net rate of discrimination against Hispanic job applicants, under the ILO's computational procedure, emerging from the United States' testing studies. However, because the FEC's study included in this computation covered only the application stage and therefore excludes discrimination that might occur at the interview stage, this estimate should be considered a conservative, lower-bound estimate.

Table 2. Discrimination rates calculated as the ILO specifies

Stage/Outcome	White-Black pairs		White -Hispanic pairs	
	FEC	UI	FEC*	UI
Filling an initial application seeking to be interviewed				
1. Both testers presented themselves for a position	149	476	282	302
2. Neither invited to advance beyond that stage	8	211	99	76
Advancing from application to interview				
3. Usable applications: at least one tester invited to interview (1-2)	141	265	183	226
4. Both testers invited to interview	125	215	137	140
5. Only majority tester invited to interview	10	35	46	66
6. Only minority tester invited to interview	6	15	0	20
7. Net discrimination against minority (5-6)	4	20	46	46
Advancing from job interview to receiving a job offer				
8. At least one tester received a job offer	24	155	–	152
9. Both received a job offer	5	62	–	62
10. Job offered only to majority tester	18	66	–	67
11. Job offered only to minority	1	27	–	23
12. Net discrimination against minority (10-11)	17	39	–	44
13. Cumulative net discrimination (7 + 12)	21	59	46	90
14. Cumulative net discrimination in % [(13/3) x 100]	14.1%	22.3%	25.1%	39.8%

* Applications covered only the initial application stage.

Source: see text.

Both these estimated rates of discrimination are significantly different from zero under a test of statistical significance:

- C *Blacks*: Based on an estimated probability of discrimination of 19.4 per cent and a sample size of 406 useable tests (combining the Urban Institute's sample and Fair Employment Council's sample, as reported in row (3) of table 2), the estimated rate of discrimination

corresponds to 9.7 standard deviations of difference between 19.0 per cent and zero. This figure translates into a probability that a rate of discrimination as high as that observed would have arisen if the rate of discrimination is actually zero of less than one in a billion.

- C *Hispanics*: Based on an estimated probability of discrimination of 33.2 per cent and a sample size of 409 useable tests (combining both the Urban Institute's sample and the Fair Employment Council's sample, as reported in row (3) of table 2), the estimated rate of discrimination corresponds to 14.4 standard deviations of difference between 39.8 per cent and zero. This figure translates into a probability that a rate of discrimination as high as that observed would have arisen if the rate of discrimination is actually zero of less than one in a billion.

4.2 Discrimination rates in the authors' formats

Utilization of the computational procedure specified by the ILO allows United States estimates to be compared directly to those generated in other nations participating in the ILO study. When the authors of the four United States studies analysed their own data, they adopted computational procedures that differed somewhat from the ILO's. The approaches differed in a number of ways:

- C Some of these differences reflected differences in how tests were conducted. For example, in its study of Blacks, the Fair Employment Council collected and analysed data not only on whether testers received interviews or job offers (which is the focus in the ILO's computations) but also other differences in the treatment testers received even if both testers advanced to the same stage in the application process. For example, both testers might receive job offers, but one tester might be offered a higher wage rate than the other.
- C Additional differences reflect computational conventions. For example, the United States authors generally included tests in the study sample when both testers had presented applications, whereas the ILO's computational procedure counted such tests only if at least one tester was accorded an interview.¹
- C Data for the Fair Employment Council's test for Hispanics in table 3 are based on both the telephone tests reported in table 2 and correspondence tests reported in chapter 5.

Table 3 presents estimated net rates of discrimination for the four United States studies using computational procedures adopted by the authors of each of the studies themselves. Under the label "percentage of initial job applicants who received a job offer", the top section of the table presents a net rate of discrimination that is closest to the ILO's net rate of discrimination estimated in row (14) of table 2. Under the label "applicants experienced a substantial difference in treatment or outcome", the bottom section of the table presents a measure based on a broader definition of the ways that discrimination might occur.

The results in table 3 are of the same order of magnitude as those in table 2, in the sense that they are clearly greater than zero but less than 50 per cent. However, they differ in their exact magnitude. The weighted average of the authors' estimates from the four testing studies, using the

¹ Thus, as the studies' authors view it, the sample size of useable tests from the four studies taken together is 1,209, while the ILO views the useable sample size as 815; see footnote 1, p. 16.

more comprehensive measure of discrimination reported at the bottom of table 3 and using the figures in row (1) of table 2 as the weights, is 15.6 per cent for Blacks, while the comparable figures for Hispanics is 21.0 per cent. Moreover, because the measures of discrimination used in three of these four studies are incomplete,¹ this estimate should be considered a conservative, lower-bound estimate.

Table 3. Discrimination rates calculated by the studies' authors

Outcome measure	White-Black pairs		White-Hispanic pairs	
	FEC	UI	FEC UI	UI
Percentage of initial job applicants who received a job offer				
White	15%	15%	— ^a	22%
Minority	- 4%	- 5%	—	- 8%
Difference	11%	10%	—	15%
Applicants experienced a substantial difference in treatment or outcome^b				
White favoured	29%	20%	25%	31%
Minority favoured	- 5%	- 7%	- 3%	- 11%
Difference	24%	13% ^c	22% ^a	20% ^c

^a Applications were not pursued to the job offer stage.

^b Difference in receiving a job offer are included, along with other differences in treatment.

^c Includes only differences in the stage to which job applicants advanced; does not include any differences in treatment.

Details may not add to totals due to rounding.

Source: Adapted from Bendick, Jackson and Reinoso (1994).

4.3 Relating these rates to the overall labour market

In practice, the adverse effects of discrimination on the employment opportunities for minority jobs seekers are even more substantial than rates such as 19.4 per cent and 33.2 per cent suggest. This is true for at least four reasons.

First, a typical job seeker in the United States applies for a number of jobs – often dozens of jobs – in the course of one search for employment (Bendick, 1989b; Holzer, 1987). If at least one job application in five is infected by discriminatory treatment, then the probability that a minority job seeker experiences discrimination somewhere in the course of a multiple-application job search rapidly approaches 100 per cent. Such findings suggest that virtually every minority participant in the United States labour market is likely to be touched by discrimination at some time in her or his working life.

Second, while testing is readily applied to employers' hiring decisions, it cannot readily be utilized to evaluate the assignment, compensation, treatment, promotion, or dismissal of persons

² As footnotes to table 3 indicate, The Urban Institute's study for Blacks and the FEC's study for Hispanics examined only differences in outcomes rather than differences in treatment, and the FEC's study for Hispanics did not continue beyond the offer of a job interview.

once they have been hired. Inequality of opportunities often arise after the initial hiring decision – as signalled, for example, by the approximately 85 per cent of race/ethnic complaints alleging employment bias filed annually with the Equal Employment Opportunity Commission in the United States that did not involve hiring. Indeed, entry-level recruitment and hiring are believed to be the personnel processes in which minorities have made the most progress in many firms, with "glass ceiling" problems in retention and advancement remaining substantially more intractable (Thomas, 1991; Jackson and Associates, 1992; Tilly and Tilly, 1994, pp. 294-299). Thus, post-hiring practices undoubtedly produce instances of discrimination in addition to those counted through testing studies of hiring alone.

Third, all four of the research studies listed in table 1 were designed to examine the implications of discrimination for problems of long-term poverty. Accordingly, these studies were conducted on samples that over-represented vacancies open to persons seeking to enter the "economic mainstream" – that is, jobs with relatively limited educational and skill prerequisites that nevertheless offer reasonable compensation, stability, and opportunities for advancement. While the effects of discrimination are serious for any worker, they are perhaps most destructive for job seekers just entering the world of work; being denied access to the bottom rung of "career ladders" can trap persons in a lifetime of "dead end", low-paying, unstable employment (Freeman and Holzer, 1986; Bendick and Egan, 1988). Unfortunately, testing results demonstrating that discrimination is present are based on samples disproportionately composed of just such career-entry opportunities.

Indeed, although United States testing evidence does not document this pattern definitively, it suggests that the better the job, the greater the likelihood of discrimination. For example, in Black-White tests by the Fair Employment Council in which both applicants received a job offer, and therefore we assume discrimination was not present, the average starting wage offered to the White tester was \$5.45 per hour; in tests where White applicants received an offer but their Black partner did not, the starting wage offered to the White tester averaged \$7.13 per hour, 30 per cent higher.¹

Finally, testing is most readily applied to only a subset of all job vacancies – those which are relatively accessible because they are advertised in newspapers or listed with employment agencies. In the United States labour market, such vacancies account for only about one-third of all employment opportunities, with the remaining two-thirds filled through more private means of recruitment such as word-of-mouth and personal referrals (Bendick, 1989b; Holzer, 1987; Bortnick and Ports, 1991; Powell and Smith-Doerr, 1994). It is widely assumed that at least some employers utilize the latter recruitment techniques – those in which information about vacancies is not publicized – partially to keep away minority and other "undesirable" applicants (Bendick, 1989b; Hanson and Pratt, 1994; Neckerman and Kirschenman, 1991a). Therefore, the extent of discrimination in the overall labour market is almost certainly higher than the rate among vacancies that have been subject to testing.

4.4 The prevalence of reverse discrimination

In discussions of employment discrimination in the United States, the issue of "reverse discrimination" is currently a central concern. This term refers to circumstances in which white persons suffer diminished opportunities in the labour market when minorities are hired, promoted, or otherwise advanced based on their race or ethnicity. Some commentators argue that anti-

¹ Additional support for the proposition that discrimination tends to be more prevalent for better-paying jobs is provided by anecdotal evidence (Braddock and McPartland, 1987) and economic theory (Becker, 1971).

discrimination activities in the United States over the past several decades have "over-tipped" the balance in favour of minorities so that instances of reverse discrimination are now widespread.

Other commentators argue that instances of reverse discrimination remain relatively rare. For example, a recent study analysed several thousand civil suits concerning employment discrimination decided by United States District and Appeals Courts between 1990 and 1994. This study concluded that reverse discrimination claims constituted only between one and three per cent of all employment discrimination cases during that period; and that within those cases, the Courts found the claims to be without merit a high proportion of the time (Blumrosen, 1995).

In situation testing, reverse discrimination can be measured by counting the instances in which minority testers are favoured over their equally-qualified White partners. In table 3, such instances are represented in the row labelled "minority favoured" in the section labelled "applicants experienced a substantial difference in treatment or outcome". The table provides an estimate of this figure from each of the four U.S. testing studies. For tests involving Blacks, the estimated rates are 5 per cent in the Fair Employment Council's study and 7 per cent in The Urban Institute's study, with a weighted average of 6.3 per cent. For tests involving Hispanics, the comparable figures are 3 per cent in the Fair Employment Council's tests and 11 per cent in The Urban Institute's research, with a weighted average of 7.4 per cent.

These estimated rates of reverse discrimination – 6.3 per cent for tests involving Hispanics and 7.4 per cent for tests involving Blacks – can then be compared to the gross rates of discrimination *against* minorities estimated by the study authors, presented in the row of table 3 labelled "White favoured" immediately above the row just examined. There, the weighted average of the two estimates concerning discrimination against Blacks is 22.9 per cent, and the weighted average of the two estimates concerning discrimination against Hispanics is 28.3 per cent. To produce a figure comparable to that in the study by Blumrosen, the rate of reverse discrimination needs to be re-expressed as a proportion of all instances in which the two testers are treated differently (that is, the sum of the gross rate of discrimination against minorities plus the rate of reverse discrimination). When reexpressed this way, the results are 21.5 per cent in the case of Blacks and 20.7 per cent in the case of Hispanics. In other words, in all cases where one tester or the other was favoured, that difference favoured the minority tester in approximately one time in five. Four times out of five when the two testers were treated differently, the minority tester bore the brunt of unfavourable treatment.

Thus, empirical evidence from testing suggests that reverse discrimination, while not absent from the United States labour market, continues to be far less prevalent than is traditional discrimination operating against minorities.

4.5 Variations in the prevalence of discrimination

All four United States studies consistently found that discrimination arises at some rate throughout the entire labour market. No location is immune; no industry or occupation is discrimination-free. Nevertheless, certain segments of the labour market or certain labour market circumstances are commonly hypothesized to be more prone to discrimination than others.

4.5.1 Variation between racial/ethnic groups

The most obvious variation is between the two race/ethnic groups whose experiences were examined in United States situation tests. Under the computational procedures prescribed by the ILO, the weighted average of the rate of discrimination against Blacks was 19.4 per cent, whereas

that against Hispanics was 33.2 per cent, or 1.7 times the Black rate. Under the computational procedures adopted by the authors of the four testing studies reviewed, the weighted average of the rate of discrimination against Blacks was 15.6 per cent, whereas that against Hispanics was 21.0 per cent, or 1.35 times the Black rate.

In reporting the results of U.S. testing studies within the framework of the ILO research design, Blacks represent what the ILO design characterizes as an "older, established" minority group, and Hispanics represent what the ILO characterizes as "relative newcomers" (Bovenkerk, 1992, p. 16). Thus, one possible interpretation of the observed pattern is that discrimination is more prevalent against recently-arrived minority groups and perhaps may tend to diminish over time. However, Blacks and Hispanics in the American labour market differ in a number of ways other than the length of time that their respective groups have been present in the United States. For example, as was discussed in section 2.1 of this paper, Hispanics on average have completed fewer years of education than Blacks, and a higher proportion of Hispanics have limited command of English. Thus, considerable caution must be exercised in drawing broad conclusions from these limited observations.

In fact, the most important finding of the study is not that the rate of discrimination against one group was somewhat greater than against the other but rather that substantial discrimination was found against both. Bovenkerk (1992, p. 16) argues that such findings demonstrate that discrimination is "not just an isolated problem of one group only ... but is a general characteristic of how the labour market functions with respect to immigrants." Some commentators in the United States developed this line of reasoning into a broader concept sometimes labelled "managing diversity." This concept argues that discrimination in the United States labour market today reflects less the circumstances of specific minority groups than the inability of employers (who are primarily non-disabled, non-elderly, White males) to deal comfortably with employees and job applicants who are "different" from themselves in any way. Under this line of reasoning, the problems of discrimination experienced by racial and ethnic minority groups such as Blacks and Hispanics are closely allied to those experienced by women, older workers, persons with disabilities, and others (Thomas, 1991; Jackson, 1992; Egan and Bendick, 1991). The results of U.S. testing studies seem broadly consistent with this line of reasoning.

4.5.2 Variations within a metropolitan area

Table 4 presents data drawn from two of the United States testing studies – those conducted by the Fair Employment Council – to which the statistical technique of multiple regression analysis has been applied to identify variations in rates of discrimination that can be observed within a metropolitan area.¹ In both studies, the metropolitan area studied was Washington.

The first row of table 4 repeats the figure, which appeared earlier in table 3, for the average rate of discrimination encountered by the two groups tested, as calculated by the studies' authors – 24.2 per cent for Blacks and 22.4 per cent for Hispanics. The remaining rows of the table then estimate how this probability varies under different conditions. The table reports the following patterns:

C *Gender.* It is often hypothesized that minority males are more subject to discrimination than minority females (Neckerman and Kirschenman, 1991; Freeman and Holzer, 1986). In the

¹ The regression equations underlying table 4 are reported for Blacks in Bendick, Jackson and Reinoso (1994, p. 36) and for Hispanics in Bendick, Jackson, Reinoso and Hodges (1991, p. 478). For somewhat parallel analyses on data from The Urban Institute, see Kenney and Wissoker (1994).

FEC's Hispanic-White tests, male job seekers were much more likely to encounter discrimination than female ones (29.3 per cent versus 12.2 per cent). However, the FEC's Black-White tests found the opposite pattern (13.6 per cent for males, 31.6 per cent for females). Only further studies can determine whether these contradictory results are stable, implying that race and gender interact differently for the two minority groups. In any case,

Table 4. Effect of selected circumstances on the probability that a minority tester will experience less favourable treatment

Characteristic of job or applicant	(a) Tests with Black/White testers (%)	(b) Tests with Hispanic/White testers (%)
Average of all tests	24.2	22.4
Applicant is male	13.6	29.3
Applicant is female	31.6	12.2
Job located in the city of Washington	18.9	37.2
Job located in Maryland suburbs	20.6	18.5}
Job located in Virginia suburbs	37.2	}
Job advertised in metropolitan newspaper	14.7	19.7
Job advertised in suburban newspaper	—	22.3
Unsolicited application to an employer	34.3	—
Application to an employment agency	66.7	33.7
Job typically not filled by a college graduate	—	24.8
Job typically filled by a college graduate	—	19.6
Jobs is a sales position	30.0	}
Job is a hotel position	16.6	25.0}
Job is a restaurant position	23.5	}
Job is an office position	41.9	21.8
Job is a blue-collar position	—	13.6
Firm is large or part of a large franchise	21.9	—
Firm is not large or franchised	21.5	—
Advertisement not marked "equal opportunity"	—	22.0
Advertisement marked "equal opportunity"	—	23.0

Sources: Based on multiple regression analysis of tests by the Fair Employment Council; for Blacks, see Bendick, Jackson and Reinoso (1994, p. 36); for Hispanics, see Bendick, Jackson, Reinoso and Hodges (1991, p. 478).

both sets of findings document that race/ethnic discrimination is by no means confined to males.

- C** *City versus suburbs.* It is often hypothesized that suburban areas in the United States are less welcoming to minorities, both as residents and as workers, than central cities (Hanson and Pratt, 1994). The results in the FEC's Black-White tests were consistent with this hypothesis (an 18.9 per cent rate of discrimination in the central city of Washington, compared to rates of 20.6 per cent and 37.2 per cent in its two surrounding suburban areas, in the states of Maryland and Virginia, respectively). However, in the FEC's Hispanic-White tests, the opposite proved true (37.2 per cent in city of Washington versus 18.5 per cent in the suburbs). The difference between the two studies may reflect the fact that in the Washington area, a majority of the population in the city of Washington itself is Black. Furthermore, the distinction between city and suburb itself may be too broad; in the FEC's Black-White study, for example, rates of discrimination were very similar for the city of

Washington and its Maryland suburbs (18.9 per cent and 20.6 per cent) but substantially higher in the Virginia suburbs (37.2 per cent).¹

- C *Job advertising.* Jobs advertised in a major metropolitan newspaper (the *Washington Post*) were associated with rates of discrimination rates of 14.7 for Blacks and 19.7 per cent for Hispanics, which were lower than the rates for jobs listed in locally-distributed suburban newspapers (22.3 per cent, in Hispanic tests) or "walk-in" applications based on industry lists where there was no newspaper advertising (34.3 per cent, in Black tests). These patterns are consistent with the hypothesis, stated earlier in this paper, that the more closely information about a vacancy is held, the greater the likelihood of discrimination because restricting information is a means of discrimination.
- C *Employment agencies.* Employment agencies are for-profit firms whose business is to place workers in other firms, either temporarily or permanently. Particularly in office and service employment, these agencies control access to a substantial number of job opportunities (Bendick, 1989b). When FEC testers sought jobs through employment agencies, minority testers encountered less favourable treatment than their identically-qualified White testing partners 33.7 per cent of the time in the case of Hispanics and 66.7 per cent of the time in the case of Blacks. This outcome is consistent with the hypothesis that screening out "undesirable" applicants is one of the services many employment agencies provide to their client firms.
- C *Educational prerequisites.* In the FEC's tests involving Hispanic and White applicants, discrimination proved somewhat more prevalent for jobs not typically filled by college graduates (24.8 per cent) than those typically filled by college graduates (19.6 per cent).²
- C *Occupations.* In the studies reported in table 4, the number of tests completed within individual occupations was limited, and the ways that occupations were categorized was relatively informal. Accordingly, conclusions concerning the prevalence of discrimination in specific occupations should be drawn with caution. Only sales position (with a net discrimination rate of 30.0 per cent for Blacks and 25.0 per cent for Hispanics) exhibited rates of discrimination consistently higher than the average for all occupations (24.2 per cent for Blacks, 22.4 per cent for Hispanics).³
- C *Firm size.* It is sometimes hypothesized that large employers with professional human resource departments and formal personnel policies are less likely to discriminate than small, owner-managed firms. However, in the FEC's tests involving Blacks and Whites, only a slightly lower rate of discrimination was observed in large firms than in small ones (21.9 per cent for large firms or firms affiliated with large franchise systems, 25.5 per cent for smaller firms). FEC testers experienced biased treatment from some of the United States' largest, best known retailers, hotels chains, real estate agencies, and service companies.

¹ In the Urban Institute's Black-White testing study, the authors found no statistically significant differences between city and suburbs or between Census tracts with high and low minority populations (Turner, Fix and Struyk, 1990, pp. 26-27).

² Comparable results for Blacks cannot be reported because the Black-White testing studies conducted by both the FEC and The Urban Institute examined jobs with little variation in their educational prerequisites, focusing primarily on positions not requiring college graduation.

³ Economic theory (Becker, 1971) predicts that jobs that involve public contact (such as sales occupations) should be more prone to discrimination than those that do not (such as manual or office occupations). These results are consistent with this prediction.

- C *Equal opportunity labelling.* Firms whose vacancy announcements carried statements such as "an Equal Opportunity Employer" were approximately as likely to discriminate (in Hispanic tests, 23.0 per cent) as firms that did not make such claims (in those same tests, 22.0 per cent).¹

4.5.3 Variations between metropolitan areas

Both of the testing studies conducted by the FEC were restricted to the Washington area and thus provide no data by which to test differences among metropolitan areas. However, the two studies conducted by The Urban Institute were each carried out in two metropolitan areas, thus allowing some examination of the impact of general labour market circumstances on the level of discrimination. For Hispanics in the Urban Institute studies, the estimated net rate of discrimination was 16 per cent in San Diego and 25 per cent in Chicago. For Blacks, the comparable rates were 14 per cent in Chicago and 26 per cent in Washington (Cross *et al.*, 1990, p. 55; Turner, Fix and Struyk, 1990, p. 21).

One factor that might explain such patterns is the relative level of unemployment in the different labour markets. It might be hypothesized that "loose" labour markets, with an excess of unemployed job seekers from which employers can choose, allow employers greater opportunities to exercise discrimination than "tight" labour markets, where employers might be more desperate to fill vacancies. At the time that The Urban Institute selected its study sites, the rate of unemployment was substantially higher in Chicago, at approximately 7 per cent, than in either San Diego or Washington, at approximately 3 per cent (Turner, Fix and Struyk, 1990, p. 7; Cross *et al.*, 1990, p. A-4). Thus, while the higher rate of discrimination for Hispanics was observed in the city with the lower unemployment rate, the opposite pattern held for Blacks. These data fail to support the hypothesis that there is a simple relationship between rates of discrimination and the tightness of the local labour market.

A second factor that might explain city-to-city differences in discrimination rates is the types of employment that dominates each labour market. For example, Chicago is more oriented towards manufacturing than Washington, where business services and professional and managerial employment is more prominent. In general, studies by both The Urban Institute and the FEC reported higher rates of discrimination for higher skilled and "white collar" occupations than for positions involving manual labour (table 4, above; Turner, Fix and Struyk, 1990, p. 27). Thus, the observed patterns offer some support for this explanation of inter-city differences. However, such patterns were not terribly strong or consistent. For example, in its Black-White tests, The Urban Institute observed one of its highest rates of discrimination in "white collar positions" in the hotel industry in Washington but one of its lowest in the same positions in the same industry in Chicago (Turner, Fix and Struyk, 1990, p. 28). Any conclusions drawn from these data must be considered preliminary at best.

Additional hypotheses concerning city-to-city differences in rates of discrimination have been proposed on the basis of a variety of cultural and historical factors. For example (Turner, Fix and Struyk, 1990, pp. 25-28):

¹ In contradiction of this finding, Konrad and Linnehan (1995), using non-testing methods of research, concluded that symbolic acts against discrimination, such as a firm's declaration that it is an equal opportunity employer, do reduce discrimination.

- C In San Diego, which is located on the border between the United States and Mexico, a substantial Hispanic population has been resident for many decades, while in Chicago, a large Hispanic presence has developed only in recent years.
- C Washington, with a large number of government and government contractor jobs, may have a local employment culture particularly oriented towards equal employment opportunity because of the additional equal employment opportunity and affirmative action requirements that involvement with government often imposes (Clark, 1989).
- C Residential patterns are more segregated in Chicago, particularly for Blacks, than in either Washington or San Diego (Massey and Denton, 1993).

The number of such hypotheses, combined with the limited observations provided by coverage of only three cities in the Urban Institute tests, precludes their rigorous evaluation with the testing data in hand. However, the observed patterns do not appear to provide clear support for any simple hypotheses. For example, consider the hypothesis that discrimination will be more prevalent in localities where a minority group has arrived more recently. The Urban Institute's data for Hispanics seems consistent with this hypothesis, in that it contrasts a 25 per cent discrimination rate against Hispanics in Chicago to a 16 per cent rate in San Diego. However, a large Black population has been present in the Washington area for longer than there has been a comparable Black population in Chicago, and The Urban Institute's data for that minority group contrasts a 26 per cent rate of discrimination in Washington to a 14 per cent rate in Chicago. Such hypotheses cannot be seriously scrutinized with testing results until additional testing studies are conducted in a broader range of locations.

4.6 Examples of discriminatory behaviour

The rates of discrimination discussed throughout this chapter typically reflect discrimination operating in several different ways or at several different stages of the job seeking process. The following examples, taken primarily from studies by the Fair Employment Council, illustrate those mechanisms at work. The quantitative importance of each mechanism is placed in perspective by reporting the rate at which that type of discrimination was encountered in the Black-White tests conducted by the Fair Employment Council (Bendick, Jackson and Reinoso, 1991, pp. 31-34).

4.6.1 Opportunities to interview

Although the testers in each pair presented their applications at virtually the same moment, one was sometimes turned away "because the job is filled," while the other was interviewed. Overall, 48.3 per cent of the FEC's White testers received interviews, compared to 39.6 per cent of their Black partners, a difference of 8.7 percentage points.

For example, the *Washington Post* carried an advertisement for a restaurant supervisor in the Washington suburbs. A Black tester for the FEC who went to the restaurant was told that he would be called if the restaurant wished to pursue his application. Minutes later, a White tester with equivalent credentials followed the same application procedure. He was called later the same day to schedule an interview, interviewed the day after that, and subsequently offered the position. Meanwhile, the Black tester made four follow-up calls to reiterate his interest in the position, including one immediately after the White tester refused the job offer. No response was received to these calls.

A second example is provided by the experiences of an Hispanic tester for the FEC applying for a position by telephone. A vacancy for a receptionist in an optometrist's office was advertised in a suburban newspaper in the Washington area. When the Hispanic tester called the next day to apply, her call was first put on hold, then she was called by the wrong name (Carmen, when she had given her name as Juanita) and told that they were no longer taking applications. However, when her White testing partner called thirteen minutes later, she was given an appointment for an interview the following morning.

4.6.2 Job offers or referrals

Although each pair of testers had been selected and trained to be equally poised and articulate and carried resumes describing equivalent education and experience, one tester was sometimes rejected while the other received a job offer. Some 46.9 per cent of the FEC's White testers who were interviewed received job offers, compared to 11.3 per cent of their Black counterparts, a difference of 35.6 percentage points.

For example, a Black female tester sought entry-level employment through a large employment agency in downtown Washington. After completing an application and being interviewed briefly, she was told that she would be called if a suitable vacancy became available. Shortly thereafter, her White testing partner arrived seeking similar opportunities. After she completed an application and was interviewed, she was told about a receptionist/sales position at an upscale health and grooming firm. She was coached on interviewing techniques and scheduled for an interview later that day; in that interview, she was offered the position.¹

4.6.3 Compensation

In 16.7 per cent of the FEC's tests in which both the Black tester and her/his White partner were offered the same job, the White was offered a higher starting wage; the reverse never occurred. In these cases, the starting wage offered White applicants averaged \$5.45 per hour, compared to \$5.30 for their Black partners, a gap of \$.15 per hour.

For example, a major department store chain advertised in the *Washington Post* for sales assistants in the women's clothing department of a branch store in an affluent neighbourhood. When a pair of female testers applied for the position, both were interviewed by the store's personnel department, and both were offered permanent, full-time employment. However, the starting salary offered to the Black tester was \$6.50 per hour, while her White partner was offered \$7.50 per hour.

4.6.4 Steering

In some cases, both applicants were offered jobs, but one in a well-paid, upwardly mobile position and the other in a low-pay, dead end post. A total of 2.0 per cent of the FEC's White testers were "steered" to an alternative job at a lower level than the position for which they

¹ For this and the following types of discrimination, examples involving Hispanic testers are sometimes not available because the FEC's testing research involving Hispanics only proceeded to the stage of obtaining appointments to be interviewed, and documentation of The Urban Institute's research does not provide many examples.

initially applied, compared to 5.4 per cent of the FEC's Black testers, a difference of 3.4 percentage points.

For example, a major-brand automobile dealer in the Washington suburbs advertised in the *Washington Post* for a car salesperson. A Black male tester who applied was told that to enter the auto sales business, he should accept a position as a porter/car washer. Arriving shortly thereafter with identical credentials, his White testing partner was immediately interviewed for the sales position that had been advertised.

4.6.5 Access to additional opportunities

When applying for one position, a job candidate in the United States is sometimes considered for other vacancies, often unadvertised ones, at the same level or higher than the job originally advertised. This situation was experienced by 4.0 per cent of the FEC's White testers but only 2.7 per cent of counterpart Black testers, a gap of 1.3 percentage points.

For example, a social matching (dating) service in the Washington suburbs advertised in the *Washington Post* for a receptionist/ typist. When a Black tester for the FEC applied for the position, she was interviewed but heard nothing further. When her White testing partner applied for the receptionist position and was interviewed, the employer offered to create a new position for her, that of personal assistant to the manager. This new position would pay more than the receptionist job, would lead to rapid promotions and increases in salary, and would also provide tuition assistance for further education. Follow-up calls by the Black tester elicited no interest on the part of the firm, either for the receptionist position or the newly created opportunity, even after the White tester refused the offer.

A second example is provided by a test by The Urban Institute concerning a position as a "busboy" at a restaurant. When the Hispanic applicant in this test appeared at the restaurant to apply, he was given a brief interview focusing on the requirements of the busboy position and its rate of pay. In contrast, his White testing partner was given a longer interview, was introduced to several other employees, and was told that if he worked well, he could soon earn promotions to higher-paying positions as a host or bartender (Cross *et al.*, 1990, p. 58).

4.6.6 The cumulative effect

Among these five differences, only that for job offers is large enough to be statistically significant (at the .01 level) in the sample of 149 tests completed for Blacks by the Fair Employment Council. However, when expressed as a proportion of the time Whites were favoured over minorities when the mechanism potentially operated, the differences were substantial. In these terms, the figures in sections 4.6.1 through 4.6.5 translate into:

- C a rate of Whites obtaining job interviews that is 22 *per cent* higher than the rate for their equivalently-qualified Black counterparts;
- C a rate for Whites of receiving job offers at the interview stage that is 415 *per cent* the rate for Blacks;
- C a 17 *per cent* probability that a White offered a job will receive a higher wage offer than a Black offered the same position;

- C a likelihood for a White applicant of being steered to a lesser-quality job that is *37 per cent* lower than that for a Black; and
- C access to additional job vacancies that is *48 per cent* greater for a White than a Black.

Taken together, these effects make the labour market experiences of identically-qualified minority and majority job applicants profoundly different.

4.7 Psychological processes of discrimination

While the net rate of discrimination is an important summary measure of the prevalence of discrimination, situation testing generates much richer empirical information than is captured in any single number. Testing readily supports the recording of detailed information about employer-applicant interactions – for example, what questions are asked, what information is volunteered, and what degree of encouragement is expressed to job candidates. Thus, testing generates data on institutional and psychological mechanisms of bias that usually can be examined only in case studies (Braddock and McPartland, 1987). But because the testing situation is structured to eliminate explanations of differences in treatment other than discrimination, the complexity that leads case studies to be difficult to interpret is sharply reduced. At the same time, by repeating the same controlled situation in hundreds of job applications, testing moves beyond isolated case studies to statistically-analysable samples.

Table 5 illustrates such uses of testing data with results from the FEC's testing study of Blacks and Whites. The table reports five measures comparing how Black and White testers fared in different aspects of the hiring process. These comparisons are closely controlled. They not only reflect the comparability created by the overall testing process, by fielding pairs of job applicants who are equally qualified. They create an additional degree of comparability by grouping results for sets of testers whom employers allowed to proceed to the same stage of the hiring process (for example, pairs of testers who were both interviewed but neither received a job offer).

The results reported in table 5 suggest the often subtle nature of employment discrimination in the United States in the 1990s. In all four of the testing studies examined in this paper (as well as in the additional testing studies listed in the appendix), racial epithets, obvious employer hostility, or similar explicit indications of bias have been encountered only rarely. In nearly all cases, minority and majority testers were treated with approximately equal politeness.

To demonstrate this pattern, the first four groups of results in table 5 report the experiences of Black and White testers in terms of four variables describing the extent and intensity of interaction between the testers and the staff of the firm to which they were applying for employment. These four indicators are:

- C the proportion of applicants who interacted with a manager, rather than a lower-level employee such as a receptionist;

Table 5. Comparison of application processing for Black and White testers

Indicator	White testers	Black testers	Difference (White-Black)	Ratio (White/Black)
-----------	---------------	---------------	-----------------------------	------------------------

Percentage of applicants who met with a line manager at each stage,
by furthest stage reached:

Present application	26.3	24.6	1.7	1.07
Interview, no offer	73.3	79.2	-5.9	0.93
Interview and offer	89.5	83.3	6.2	1.07
Average minutes of contact at each stage, by furthest stage reached:				
Present application	15.7	16.1	-0.4	0.98
Interview, no offer	17.2	13.3	3.9	1.29
Interview and offer	22.2	23.3	-1.1	0.95
Average number of topics discussed throughout the application process, by furthest stage reached:				
Present application	0.80	0.82	-0.02	0.97
Interview, no offer	2.98	3.02	-0.04	0.99
Interview and offer	3.33	2.50	0.83	1.33
Average number of comments recorded throughout the application process, by furthest stage reached:				
Present application	0.22	0.13	0.09	1.69
Interview, no offer	0.83	0.51	0.32	1.62
Interview and offer	1.75	1.50	0.25	1.17
Ratio of positive to negative comments received throughout the application process, by furthest stage reached:				
Present application	0.50	0.43	0.07	1.16
Interview, no offer	2.90	0.53	2.37	5.46
Interview and offer	35.54	— ^a	—	—
Percentage of applicants reaching a stage in the hiring process who moved to the next stage of:				
Present application	94.6	91.9	2.7	1.03
Interview, no offer	71.0	67.9	3.1	1.05
Tests	23.6	15.3	8.3	1.54
Interview and offer	46.9	11.3	35.6 ^b	4.15

^a No positive comments were received by Blacks at this stage.

^b Difference statistically significant at .01 level.

Sources: Adapted from Bendick, Jackson and Reinoso (1994, p. 40).

- C the length of contact between the applicant and the staff of the employer, measured in minutes;
- C the number of substantive topics discussed by the applicant and the employer's staff (for example, the requirements of the job or the applicant's qualifications); and
- C the number of evaluative comments made to testers (on topics such as their qualifications, their chances of obtaining the job, or the advantages or disadvantages of the job).

These four indicators register few consistent differences in the experiences of Black and White applicants. For example, comparing interviews that resulted in job offers, there was only a slight difference in the proportion of interviews conducted by a manager rather than a lower-level employee (89.5 per cent for Whites, 83.3 per cent for Blacks), and only a one minute difference in the length of these interviews (22.2 minutes for Whites, 23.3 minutes for Blacks). None of the

differences on these four variables is statistically significant, and the direction of differences is approximately as likely to favour Blacks as Whites.¹

In contrast to these apparent similarities in the *treatment* of minority and majority applicants during the hiring process, the *judgements* made during the process showed substantial differences that consistently favoured the majority testers. These differences are displayed in the final two sections of table 5.

One indicator of employers' judgements of applicants is the content of comments made to White testers by the staff screening or interviewing them. Interviewers made somewhat more comments to White testers than to Black ones.² In the fifth section of the table, these comments are divided into *positive* ones (for example, "You are just what we are looking for.") and *negative* ones (for example, "This is a dead-end job; you wouldn't want it anyway."). The fifth section of table 5 reports the ratios of positive to negative comments received by White and Black testers. In all cases, White testers received substantially more positive comments than negative ones, while the reverse was true for Black testers. Thus, for example, the average White tester who was interviewed but did not receive a job offer received 2.9 positive comments for every negative one, while a counterpart Black tester received only 0.5 positive comments for every negative one.³

A second measure of employers' judgements of minority and majority job candidates is the stage of the application process to which the candidates advance. The final section of table 5 reports a modest (5 per cent) racial difference in the probability of obtaining an interview, and a larger difference (54 per cent) in the probability of being allowed to take skills tests (for example, tests of typing speed). These differences represent limitations on the extent to which minority job applicants can display their qualifications.

Then, differences in minority/majority employment success are sealed in hiring decisions. As reported earlier in table 3, in the FEC's Black-White tests, majority testers received job offers 15 per cent of the time they entered the application process, while the comparable rate for minorities was 4 per cent. This finding is echoed in the final section of table 5, where it is reported that 46.9 per cent of White applicants who advanced to a job interview obtained a job offer, while 11.3 per cent of their Black counterparts did so. The bottom row of the final column of table 5 reports the ratio of these two percentages, which is 4.15. That ratio translates into

¹ On each of the four measures examined here, a result favouring Whites is signalled in the third column of table 5 (labelled "Difference") by a figure with a positive sign, whereas a result favouring Blacks is signalled by a figure in that column with a minus sign. For each of the four indicators, results are reported separately for groups reaching three different stages in the application process (for example, "job interview, no offer"), thus generating 12 separate observations of tester-employer interaction. Among these twelve, seven favoured Whites, and five favoured Blacks. This is the basis for the statement in the text that the direction of differences is approximately as likely to favour Blacks as Whites.

² For example, as was reported earlier in the fourth section of table 5, among testers who were interviewed and received a job offer, the average White tester received 1.75 comments (including both positive and negative ones), whereas his/her average Black counterpart received only 1.5 comments.

³ Job interviews that do not lead to an offer but nevertheless include positive comments are likely to leave job seekers more optimistic and encouraged to continue their job search than similar interviews dominated by negative comments. In the United States, minority workers who are unemployed become "discouraged workers" (that is, leave the labour force rather than actively seek employment) at a substantially higher rate than counterpart White workers. This difference is usually attributed to their relative chances of obtaining employment, as reflected, for example, in higher unemployment rates for Blacks than Whites (Jaynes and Williams, 1989, p. 310). Testing findings concerning the proportion of positive and negative comments received during interviews by job applicants of different races provide an additional explanation of the same phenomenon.

saying that when equally-qualified Black and White testers were interviewed for the same jobs, the average White was more than *four times* as likely as his/her counterpart Black testing partner to emerge from the interview with a job offer.

This juxtaposition of approximately even-handed *treatment* of job applicants with hiring *judgements* that are far from even-handed seems paradoxical. In some cases, it undoubtedly reflects the behaviour of employers who, although they know ahead of time that they would never hire a minority candidate, feel forced by social pressure or potential legal penalties to "go through the motions" of interviewing minority applicants.

In other cases, however, the outcome seems to reflect more complex cognitive processes. In particular, it appears to reflect the effect of stereotyped beliefs held by employment decision-makers on the way job applicants are judged. Social psychological research suggests that generalizations about a demographic group strongly influence how individuals from that group are perceived. This effect is particularly strong in situations where exposure to that individual is brief and accompanied by limited prior information. For example, in one social psychological experiment, two groups of university students were shown different videotapes concerning a girl of primary school age. One group of students was shown a tape portraying the girl living in a depressed urban neighbourhood, while the other group saw a tape portraying her living in an affluent suburb. Both groups were then shown identical videotapes of her performing on an oral achievement test. Students who had previously been exposed to the girl's "high class" background judged her to be of higher ability *and reported her obtaining a higher test score* than did students who had been exposed to her "low class" background (Darley and Gross, 1983; see also Krueger and Rothbart, 1988).

This experimental situation is analogous in many ways to the process of screening applications for entry-level employment in the United States. Hiring decisions for such positions are generally made on limited information – typically, a one-page resume and an interview averaging perhaps twenty minutes. It is therefore not surprising that interviewers' judgements of individuals are influenced by generalizations about the applicants' demographic group that the interviewer may have formed over a lifetime.

In section 2.2.2 of this paper, we cited research documenting the negative content of stereotypes about minority workers held by many members of the public in the United States, as well as by employment decision-makers such as managers in business firms. When these persons bring such attitudes into a job selection process, every minority candidate enters the process with a substantial handicap. However well a minority individual may perform in the interview and however impressive his or her resume, those qualifications are likely to be discounted or incorrectly perceived based on the prior generalizations.¹

Indeed, stereotypical thinking can even turn applicants' positive attributes into their opposite. For example, a standard piece of advice to job seekers in the United States is to dress well for

¹ A second mechanism that may operate here is that the unconscious behaviour of interviewers may cause minority applicants to perform badly in interviews. In one social psychology experiment, White university students were assigned to interview Black and White job applicants. When the applicant was Black, researchers observed that the interviewers sat further away, terminated the interview 25 per cent sooner, and made 50 per cent more speech errors than when the applicant was White. Then, in a second experiment, interviewers were instructed deliberately to duplicate the behaviour typical of interviews with either Blacks and Whites. The interview performance of job applicants subjected to the "Black" treatment was rated by neutral judges as more nervous and less effective than that of persons subjected to the "White" treatment, regardless of whether the applicant was Black or White (Word, Zanna and Cooper, 1974; see also Lord and Saentz, 1985).

employment interviews (Molloy, 1988). But when a Black male FEC tester wearing a dress shirt and tie was interviewed by a Washington-area employment agency, he was asked whether his ability to afford such nice clothes indicated that he participated in illegal activities.

5. Correspondence testing

5.1 Research procedures

The basic concept of correspondence testing is parallel to that for face-to-face testing: employers who have actual job vacancies to fill simultaneously encounter two equally-qualified applicants who differ in one demographic characteristic; the employers' responses to the two job seekers are recorded; and a net rate of discrimination is computed from the differences in the treatment received by the two applicants. Correspondence testing offers several advantages over face-to-face testing, including a lower cost per test, the opportunity to test job vacancies for which applicants are instructed to reply only by mail, and avoidance of the effort and uncertainties in matching the appearance and personalities of pairs of live testers. However, correspondence testing also has some limitations. It cannot be applied to job vacancies where applicants are instructed to apply only in person, and it generates more limited measures of employer responses (typically, only whether an employer makes a telephone call to the applicant to schedule an interview).

The ILO research design (Bovenkerk, 1992, p. 27-29) calls for correspondence testing to be included in the ILO cross-national testing programme. Specifically, it calls for the minority applicant in these tests to be from the longer-established minority group and for the vacancies tested to be drawn from higher-level positions such as managerial and professional occupations.

One of the four United States studies reviewed in this report – that for Hispanics conducted by the Fair Employment Council in the Washington metropolitan area in 1992 – included a correspondence testing component approximating that called for by the ILO.¹ This effort generated a total of 186 analysable tests. Among the vacancies studied in these tests, 77 per cent can reasonably be labelled higher-level positions, in the sense that, after considering the position described in the vacancy announcement, the FEC research staff deemed it appropriate to mail resumes describing university graduates.² The results reported below are based on all 186 tests.

Each correspondence test began by identifying a job vacancy from one of three sources: "help wanted" classified advertising in the Sunday edition of the region's major newspaper, the *Washington Post*; "help wanted" advertisements in local newspapers circulated in the Washington suburbs; and employment agencies listed in the regional telephone directory.

The application for each tester consisted of a one-page resume and a short cover letter. All these materials were neatly typed, laid out in standard formats (Swanson, 1991; Yate, 1988), used similar phrasing, and described a person in his/her early 20s with education, experience, and skills directly relevant to the position advertised. Applications for both testers were mailed simultaneously from different parts of the Washington metropolitan area.

¹ Unless otherwise indicated, the following description is based on Bendick, Jackson, Reinoso and Hodges (1991), pp. 470-472.

² In contrast, these researchers assigned university graduate resumes to only 32 per cent of the vacancies tested by telephone in the same study (Bendick, Jackson, Reinoso and Hodges, 1991, p. 473).

In the mailed application materials, the ethnicity of the tester was communicated primarily by the name used to sign the letter and appearing at the top of the resume (for example, Juanita Ybarra Alvarez, an Hispanic name, rather than Julie Ann Mason, a White name). In addition, information within the resumes was consistent with the ethnic identity of the applicant. For example, the Hispanic applicant was described as growing up and being educated in Texas, a state near the Mexican border, while the Anglo applicant was described as growing up and being educated in Michigan, a state near the Canadian border. In all other respects, the materials for the two applicants were equivalent in content and appearance. Both cover letters were in standard English with no errors in grammar or spelling, and the resume made clear that the Hispanic applicant had been born and educated in the United States.

Employers' reactions to each mailed application were measured by the number, promptness, and content of responses received by mail or telephone. A typical positive response consisted of a message left on a tester's telephone answering machine requesting the tester to call to schedule a job interview. Overall, 18.8 per cent of White applications and 21.6 per cent of Hispanic applications received some positive response, suggesting that the applications were considered credible by many of the employers receiving them. Testers did not respond to these messages in any way and, even if they were invited to do so, did not present themselves to be interviewed.

Although this study design matches that specified by the ILO in many ways, it deviates in two important ones.

One is that the minority group in the study is not the "older established" minority group – which, in the context of United States testing studies, is Blacks – but the group of "relative newcomers" – which, in that context, is Hispanics. This difference is probably not critical, however. The ILO's main motivation for specifying the use of the longer-established minority group in correspondence tests was to avoid presenting resumes for minorities reporting graduation from universities in the country where the tests were being conducted, if that fact would be so unusual as to be conspicuous. In 1992, 6.5 per cent of students enrolled in colleges and universities in the United States are Hispanic (U.S. Bureau of the Census, 1994, p. 179). While their rate of enrolment is lower than for the White population, it is not so low that employers would be startled to receive a resume from an Hispanic graduate of a United States college or university.

A more fundamental deviation from the ILO design is that, contrary to both the ILO's specifications and the United States studies' own basic design (Bendick, 1989a), the minority and majority testers in this study were not given equivalent job qualifications. In mailed resumes, each Hispanic tester was given credentials that made him or her substantially more qualified for the vacancy advertised than her/his Anglo counterpart. For example, in applications for employment in business offices, Hispanics were given typing speeds of 60 words per minute, compared to 45 words per minute for the White testing partner; in resumes for sales or service positions, Hispanic applicants were described as having managed a retail department, while their White counterparts were reported to have worked as a member of the sales staff in a retail department.

5.2 Empirical findings

A consequence of the inequality in credentials just described is that the "neutral" or non-discriminatory level of employer response to the mailed resumes would not be equal responses to minority and majority testers but more favourable responses to the minority. Unfortunately, there is no basis for quantifying exactly how much above "50/50" this neutral level is. Accordingly, it is inappropriate to analyse the results of these correspondence tests using the computational procedure specified by the ILO (Bovenkerk, 1992, p. 31).

Some sense of the results of these tests can be gained, however, from estimating rates of discrimination using an alternative procedure, that adopted by the researchers who conducted this study. That computation is shown in table 6. Consistent with the patterns observed in telephone tests within this same study (as well as in the other three audit studies discussed in this report), the results from the correspondence tests portray an initial similarity in treatment combined with substantial differences in outcomes.

The section of table 6 above the dashed line presents three indicators of employer responses to the applications they received. It reports that Hispanics received positive responses (most commonly, messages on a telephone answering machine; occasionally, by letter) at a slightly higher rate than Whites; that the two groups were identical in the number of attempts employers made to contact applicants (an average of 1.4 attempts for both groups); and that Whites were contacted slightly more rapidly than Hispanics (an average of 7.3 days after their applications were mailed, compared to 8.1 days for Hispanics). None of these differences was statistically significant, the differences were in contradictory directions, and the results reflect both discrimination and the counterbalancing effects of the Hispanics' superior credentials. Thus, this section of the table provides few clear indications of the presence of discrimination.

That presence is not evident until we examine the section of table 6 below the dashed line, where the experiences of *pairs* of testers are analysed. The first row below the dashed line reports the proportion of tests in which, despite the Hispanic tester's superior credentials, the White tester received a positive response while the Hispanic tester did not. This outcome – which arose in 12.4 per cent of mail tests – represents clear discrimination against the better-qualified Hispanic applicant.

The next row of the table reports that for an additional 26.0 per cent of the sample, the better-qualified Hispanic received a positive response while the White did not. Because this outcome is consistent with the relative strength of applicants' credentials, these cases can be assumed (in at least most cases) to reflect an absence of discrimination.

In the remaining 61.6 per cent of tests, as the final row of the table reports, both applicants were treated the same – either both were contacted or both were not contacted. In some cases, such outcomes probably represent no discrimination. For example, if the job was filled before

Table 6. Results of correspondence tests as calculated by the study authors

	White applicant	Hispanic applicant	Difference (White - Hispanic)	Is difference statistically significant?
Proportion of applications to which employer made a positive response	18.8%	21.6%	-2.8%	No
For positive responses, average number of attempts employer made to contact applicant	1.4	1.4	—	No
For positive responses, average days elapsed before applicant received the employer's first response	7.3	8.1	-0.8	No
<hr style="border-top: 1px dashed black;"/>				
Discrimination against Hispanic (White with weaker qualification was contacted and Hispanic with stronger qualifications was not)				12.4%
Not discrimination (Hispanic with stronger qualifications was contacted and White with weaker qualifications was not)				26.0%

Possible discrimination against Hispanic
(despite Hispanic's stronger qualifications,
both were contacted or both were not contacted)

61.6%

Source: Adapted from Bendick, Jackson, Reinoso and Hodges (1991), p. 476.

either resume was received, the Hispanic tester's superior qualifications were irrelevant. In other cases, they represent discrimination because the Hispanic should have received positive responses for some positions where the White would not.

In short, the findings in the bottom section of table 6 can be summarized as a discrimination rate of 12.4 per cent plus an additional unmeasured amount of discrimination with an upper bound of 61.6 per cent. This level of discrimination is generally consistent with the rate estimated for Hispanics in face-to-face tests; as reported in chapter 4, these rates are 33.2 per cent under the ILO's method of calculation and 20.9 per cent under the method of calculation applied by the study authors.

In a sample of 186 useable tests, a discrimination rate of 12.4 per cent corresponds to 5.2 standard deviations of difference. This figure translates into a probability that a rate of discrimination as high as that observed would have arisen if the rate of discrimination is actually zero of less than one in a million. Thus, even if none of the 61.6 per cent of cases that are ambiguous reflected discrimination, chance alone can be ruled out as an explanation of the observed differences. These findings therefore clearly support the conclusion that substantial discrimination operates in the portion of the labour market examined in these correspondence tests.

An illustration of the typical differences in treatment revealed by correspondence testing is provided by a test within this study conducted on a private employment agency in downtown Washington that specializes in clerical and paralegal personnel. The Fair Employment Council simultaneously mailed resumes to this firm for White and Hispanic females, both described as having been born in the United States, holding a degree from a United States university, and possessing substantial office experience. On the first business day after the mailing, the White tester received a telephone message to call the agency. When she did not return the call, the agency called again three days later to repeat the message. The Hispanic tester – whose resume reported a higher university grade point average, faster typing speed, and more extensive computer skills – received no calls from the agency during the following three weeks during which responses were monitored.

6. Summary and conclusions

6.1 Summary of empirical findings

The ILO's research design (Bovenkerk, 1992, p.12) states that the fundamental research question of the ILO study is: Do immigrants and ethnic minorities suffer from substantial discrimination in the labour market? The empirical answer to this question provided by testing research in the United States is an unequivocal yes. In the 1990s, racial and ethnic discrimination continues to handicap both Blacks and Hispanics seeking employment in the United States labour market. A majority of the employers examined by testing did not appear to discriminate, at least in ways documentable through these tests. However, a substantial minority did.

Within situation testing research in the United States, four studies parallel the ILO research design sufficiently for their results to be analysed in this review. Two of these studies had been conducted by The Urban Institute, and two had been carried out by the Fair Employment Council of Greater Washington (FEC). One study by each organization involved a long-established minority group, Blacks, while the other concerned a somewhat more recently-arrived group, Hispanics. Together, the four studies generated 625 face-to-face tests for Blacks and 584 face-to-face tests for Hispanics, spread among three urban areas: Washington, Chicago, and San Diego.

The ILO (Bovenkerk, 1992, p. 32) prescribes a procedure for calculating the rate at which discrimination is encountered in face-to-face tests. Using that procedure, **the best estimate of the rate of discrimination faced by Black job applicants in these studies is 19.4 per cent, while that for Hispanic applicants is 33.2 per cent.** Using alternative computational procedures, the estimated rate of discrimination for Blacks averages 15.6 per cent, while that for Hispanics averages 21.0 per cent. All these estimates are significantly different from zero.

The rates presented in the previous paragraph are based on entry-level positions and in-person tests. The ILO calls for employment vacancies with higher qualifications to be tested using applications presented by mail. One study by the Fair Employment Council included correspondence tests for Hispanic job seekers, primarily for positions with higher qualifications. An exact rate of discrimination from this study cannot be computed using the computational procedure specified by the ILO research design. However, according to computations by the authors of the study, 12.4 per cent of these tests displayed clear discrimination against the Hispanic applicant, with possible discrimination in an additional 61.6 per cent of tests.

The four studies consistently found discrimination at a substantial rate in every segment of the labour market where the number of tests conducted was sufficient to permit statistical analysis. Table 4 of this report examines 30 such segments, and among them, the lowest estimated rate of discrimination is 12.2 per cent. The four studies documented discrimination:

- C against both male and female testers;
- C in both central-city and suburban locations;
- C affecting positions requiring a university degree and those with lower educational prerequisites;
- C affecting positions in large firms with professional personnel departments and in small, owner-managed enterprises;
- C in firms advertising themselves as an "equal opportunity employer" and in those not doing so; and
- C in job classifications ranging from manual occupations, through non-supervisory office, clerical, retail, and service occupations, to higher-level supervisory and managerial occupations.

For the majority of these segments of the labour market, the studies provided little consensus concerning where discrimination was particularly likely. Thus, for example, the FEC's study of Hispanics found a higher rate of discrimination against minority men than against minority women, while the same organizations's study of Blacks found the reverse; and while the FEC's study of

Blacks found a higher rate of discrimination in suburbs than in the central city, The Urban Institute's study for the same group found no statistically-significant pattern.

Some consistent empirical support was found, however, for two general patterns:

- C **Employment opportunities for which applicants were sought without public advertising were particularly prone to discrimination.** Thus, in tests by the FEC in which the estimated rate of discrimination averaged 22 to 24 per cent for all vacancies, vacancies that were not advertised in widely-circulated newspapers and those that were filled through private employment placement agencies exhibited rates of discrimination of between 33 and 67 per cent.
- C **Employment opportunities which involve public contact** (such as sales occupations) **were somewhat more prone to discrimination than those that did not** (such as manual or office occupations).

6.2 Implications for public policy in the United States

Broad societal consensus in the United States holds that employment discrimination based on race and ethnicity is socially and morally wrong, as well as harmful to the productivity of the economy. However, little consensus prevails concerning appropriate public and private responses to discrimination. The empirical testing evidence presented in this paper suggests policy implications on three important topics on which this lack of consensus prevails.

The first topic is directly related to the fundamental empirical question that the testing studies were designed to address: the extent to which racial/ethnic discrimination continues to operate in the United States labour market. Some commentators argue that, in the 1990s, race is of declining significance as a category in United States society; that racial/ethnic discrimination in employment now occurs only in rare or isolated instances; and that therefore the country's public policy agenda should no longer accord to the issues of race and ethnicity the same level of attention that it has been accorded over recent decades. Other commentators argue that discrimination remains pervasive and deeply-ingrained; that it would be naive to premise public policies on the assumption that race and ethnicity no longer importantly affect an individual's employment opportunities; and that therefore issues of race and ethnicity must continue to occupy a central place in public policy debates (Assembly Committee on the Judiciary, 1995; Wilson, 1980; D'Souza, 1995). By reporting the net rate of discrimination against minorities at one employment application in five for Blacks and one in three for Hispanics, the empirical testing evidence presented in this paper is more supportive of the latter view than of the former.

A second topic on which little consensus prevails in the United States concerns the prevalence of "reverse discrimination." This term refers to circumstances in which white persons suffer diminished opportunities in the labour market when minorities are hired, promoted, or otherwise advanced more than their qualifications would justify. Some commentators argue that anti-discrimination activities in the United States over the past several decades have "over-tipped" the balance in favour of minorities so that instances of reverse discrimination are now more common than are cases of discrimination against minorities; others argue that instances of reverse discrimination are relatively rare. By reporting that reverse discrimination constitute only one-fifth of all cases in which Whites and minorities are treated differently, the empirical testing evidence presented in this paper is more consistent with the latter position than with the former.

A third topic on which lack of consensus prevails in the United States is the appropriateness of "affirmative action" against discrimination. Affirmative action refers to "...any measure, beyond

simple termination of a discriminatory practice, adopted to correct or compensate for past discrimination or prevent discrimination from recurring in the future" (U.S. Commission on Civil Rights, 1977, p. 1). Over the past several decades, a wide range of such activities have been implemented in the United States. Some have been relatively mild and non-controversial, such as advertising job vacancies in newspapers circulated in minority communities, sending recruiters to conduct interviews at schools where large numbers of minority students are enrolled, or providing "mentors" for newly-hired minority employees. Other affirmative action approaches are more dramatic and have sparked sharp controversy. For example, some employers have calculated individuals' scores on employment screening tests using numerical norms that were different for majority and minority test takers; other employers have established race-specific numerical goals for hiring or promotion (for example, seeking to hire one minority job candidate for each majority candidate hired) (Clark, 1989; Hartigan and Wigdor, 1989). Some commentators argue that discrimination such as testing has documented should be addressed with such affirmative actions. Other commentators argue that the appropriate remedy is only vigorous enforcement of prohibitions on discrimination. The testing findings presented in this paper are more consistent with the former position than with the latter.

These findings indicate that in the United States labour market in the 1990s, racial and ethnic discrimination is often subtle and woven into apparently-neutral processes, so that it is difficult to isolate, document, and attack through conventional anti-discrimination enforcement alone. In particular, it often reflects stereotyped beliefs and biased attitudes held, consciously or unconsciously, by majority employment decision-makers. These beliefs and attitudes can often be changed most effectively by the experience of working as peers with racial and ethnic minorities (Zahn-Waxler and Radke-Yarrow, 1990; Latane and Darley, 1970; Freedman and Fraser, 1966). In the absence of affirmative action, these beliefs and attitudes continue to exclude minorities and thereby prevent that experience from accumulating. Affirmative action may therefore serve as a way to break a stalemate.

Bibliography

- Aigner, D.; G. Cain. 1977. "Statistical theories of discrimination in labour markets", in *Industrial and Labour Relations Review*, 30 (2), pp. 175-87.
- Arvey, R.; J. Campion. 1982. "The employment interview: Survey and review of recent research", in *Personnel Psychology*, 35 (2), pp. 281-322.
- Assembly Committee on the Judiciary. 1995. *Discrimination and affirmative action: Are there any facts out there?* California State Legislature, Sacramento.
- Ayres, I. 1991. "Fair driving: Gender and race discrimination in retail car negotiations", in *Harvard Law Review*, 104 (4), pp. 817-72.
- Becker, G. 1971. *The economics of discrimination*, University of Chicago Press, Chicago.
- Bendick, Jr., M. 1989a. *Auditing race discrimination in hiring: A research design*, Bendick and Egan Economic Consultants, Inc., Washington.
- Bendick, Jr., M. 1990. "The Croson decision mandates that set-aside programs be tools of business development", in *George Mason University Civil Rights Law Journal*, 1 (1), pp. 87-104.
- Bendick, Jr. M. 1989b. "Matching workers and job opportunities", in D. Bawden and F. Skidmore (eds.) *Rethinking employment policy*, Urban Institute Press, Washington, pp. 81-108.
- Bendick, Jr. M. 1995. "Research evidence on racial/ethnic discrimination and affirmative action in employment", in Assembly Committee on the Judiciary, op. cit.; pp. 58-78.

- ; M. Egan. 1988. *Jobs: Employment Opportunities in the Washington Metropolitan Area for Persons with Limited Employment Qualifications*, Greater Washington Research Center, Washington.
- ; C. Jackson; V. Reinoso. 1994. "Measuring employment discrimination through controlled experiments", in *Review of Black Political Economy*, 23 (1), pp. 25-48.
- ; –; L. Hodges. 1991. "Discrimination against Latino job applicants: A controlled experiment", in *Human Resource Management*, 30 (4), pp. 469-84.
- ; –; J.H. Romero. Forthcoming, 1996. "Employment discrimination against older workers: An experimental study of hiring practices", in *Journal of Aging and Social Policy*.
- Blumrosen, A. 1995. *How the courts are handling reverse discrimination claims*, Office of Contract Compliance Programs, U.S. Department of Labour, Washington.
- Boggs, R.; J. Sellers; M. Bendick, Jr. 1993. "Use of testing in civil rights enforcement", in M. Fix and R. Struyk (eds.) *Clear and convincing evidence: measurement of discrimination in America*, Urban Institute Press, Washington, pp. 345-76.
- Borjas, G. 1994a. "The economics of immigration", in *Journal of Economic Literature*, 22 (4), pp. 1667-717.
- . 1994b. "Long-run convergence of ethnic skill differentials: Children and grandchildren of the great migration", in *Industrial and Labour Relations Review*, 47 (4), pp. 553-73.
- ; R. Freeman. 1992. *Immigration and the work force, consequences for the United States and source areas*, University of Chicago Press, Chicago.
- Bortnick, S.; M. Ports. 1991. "Job search methods and results: Tracking the unemployed", in *Monthly Labour Review*, 115 (12), pp. 29-35.
- Bovenkerk, F. 1992. *A manual for international comparative research on discrimination on the grounds of "race" and ethnic origin*, International Labour Office, Geneva.
- Bowman, P. 1991. "Work life", in J. Jackson (ed.) *Life in black America*, Sage Publications, Newberry Park, Ca., pp. 124-55.
- Braddock, J.; J. McPartland. 1987. "How minorities continue to be excluded from equal employment opportunities: Research on labour market and institutional barriers", in *Journal of Social Issues*, 43 (1), pp. 5-39.
- Brief, A. et al. 1994. *Releasing the beast: A study of compliance with orders to use race as a selection criterion*, Tulane University, New Orleans.
- Cain, G. 1986. "The economic analysis of labour market discrimination", in O. Aschenfelter; R. Layard (eds.): *Handbook of Labour Economics*, Elsevier Science Publishers, New York, pp. 693-785.
- Chiswick, B. 1988. *Illegal aliens, their employment and employers*, Upjohn Institute for Employment Research, Kalamazoo, Mi.
- Clark, L. 1989. "Insuring equal opportunity in employment through law", in D. Bawden; F. Skidmore (eds.), *Rethinking employment policy*, Urban Institute Press, Washington, pp. 173-204.
- Cose, E. 1993. *The rage of a privileged class*, Harper Collins, New York.
- Cross, H. et al. 1990. *Employer hiring practices: Differential treatment of Hispanic and Anglo job seekers*, The Urban Institute, Washington.

- Culp, J.; B. Dunson. 1986. "Brothers of a different color: A preliminary look at employer treatment of black and white youth", in R. Freeman; H. Holzer (eds.), *The black youth employment crisis*, University of Chicago Press, Chicago, pp. 233-59.
- Darley, J; P. Gross. 1983. "A hypothesis-conforming bias in labelling effects", in *Journal of Personality and Social Psychology*, 44 (1), pp. 20-33.
- Davis, P. 1989. "Law as microaggression", in *Yale Law Journal*, 98 (4), pp. 1559-77.
- DeFreitas, G. 1985. "Ethnic differentials in unemployment among Hispanic Americans", in G. Borjas; M. Tienda (eds.), *Hispanics in the U.S. economy*, Academic Press, New York, pp. 127-57.
- . 1991. *Inequality at work, Hispanics in the U.S. labour force*, Oxford University Press, New York.
- D'Souza, D. 1995. *The end of racism*, Free Press, New York.
- Egan, M.; M. Bendick, Jr. 1991. *Managing Greater Washington's changing work force*, Greater Washington Research Center, Washington.
- Ehrenberg, R.; R. Smith. 1994. *Modern Labour Economics*, Harper Collins College Publishers, New York.
- Fair Employment Council. 1993. *EEO testing manual*, Fair Employment Council of Greater Washington, Washington.
- Feagin, J.; M. Sykes, M. 1994. *Living with racism, the black middle class experience*, Beacon Press, Boston.
- Fix, M. ; F. Bean. 1990. "The findings and policy implications of the GAO report and the Urban Institute hiring audit", in *International Migration Review*, 24 (1), pp. 817-27.
- , R. Struyk (eds.) 1993. *Clear and convincing evidence: Measurement of discrimination in America*, The Urban Institute Press, Washington.
- Frankel, H. 1994. "Opportunity denied! New York State's study of racial and sexual discrimination related to government contracting", in *The Urban Lawyer*, 26 (3), pp. 413-470.
- Freeman, R.; H. Holzer (eds.) 1986. *The black youth employment crisis*, University of Chicago Press, Chicago.
- Freedman, J.; S. Fraser. 1966. "Compliance without pressure, the foot-in-the-door technique", in *Journal of Personality and Social Psychology*, 4 (2), pp. 195-202.
- Galster, G. et al. 1994. *Sandwich hiring audit pilot program*, The Urban Institute, Washington.
- Gill, A. 1989. "The role of discrimination in determining occupational structure", in *Industrial and Labour Relations Review*, 42 (4), pp. 610-23.
- Grenier, G. 1984. "The effect of language characteristics on the wages of Hispanic-American males", in *Journal of Human Resources*, 19 (1), pp. 35-52.
- Guion, R. 1966. "Employment test and discrimination hiring", in *Industrial Relations*, 5 (1), pp. 20-37.
- Hanson, S.; G. Pratt. 1994. "Dynamic dependencies: A geographic investigation of local labour markets", in *Economic Geography*, 68 (4), pp. 610-23.
- Harris, L. 1989. *The unfinished agenda on race in America*, NAACP Legal Defense Fund, New York.
- Hartigan, J.; A. Wigdor. 1989. *Fairness in employment testing*, National Academy Press, Washington.
- Holzer, H. 1987. "Informal job search and black youth unemployment", in *American Economic Review*, 77 (3), 446- 52.

- Jackson, S. and Associates. 1992. *Diversity in the workplace*, Guilford Press, New York.
- James, F.; S. Del Castillo. 1992. *We may be making progress toward equal access to jobs: Evidence from recent audits*, University of Colorado at Denver, Denver.
- Jaynes, G.; R. Williams (eds.) 1989. *A common destiny, blacks and American society*, National Academy of Sciences Press, Washington.
- Kenney, G.; D. Wissoker. 1994. "An analysis of the correlates of discrimination facing young Hispanic job-seekers", in *American Economic Review*, 84 (3), pp. 674-83.
- Kleugel, J.; E. Smith. 1986. *Beliefs about equality, Americans' views of what is and what ought to be*, Aldine de Gruyter, Hawthorne, N.Y.
- Konrad, A.; F. Linnehan. 1995. "Formalized HRM structures: Coordinating equal employment opportunity or concealing organizational practices?", in *Academy of Management Journal*, 38 (3), pp. 787-820.
- Krueger, J.; M. Rothbart. 1988. "Use of categorical and individuating information in making inferences about personality", in *Journal of Personality and Social Psychology*, 55 (1), pp. 187-95.
- Latane, B.; J. Darley. 1970. *The unresponsive bystander, why doesn't he help?*, Appleton-Century-Crofts, New York.
- Leonard, J. 1990. "The impact of affirmative action regulations and equal employment laws on black employment", in *Journal of Economic Perspectives*, 4 (4), pp. 47-63.
- Lord, C.; D. Saentz. 1985. "Memory deficits and memory surfeits: Differential cognitive consequences of tokenism for tokens and observers", in *Journal of Personality and Social Psychology*, 49 (4), pp. 918-26.
- McIntosh, N.; D. Smith. 1974 *The extent of racial discrimination*, Political and Economic Planning, London.
- McIntyre, S. et al. 1980. "Preferential treatment of preselection decisions according to race and sex", in *Academy of Management Journal*, 23 (3), pp. 738-49.
- Massey, D.; N. Denton. 1993. *American apartheid and the making of the underclass*, Harvard University Press, Cambridge, Ma.
- Molloy, J. 1988. *Dress For Success*, Warner Books, New York.
- Myrdal, G. 1944. *An American dilemma, the Negro problem and modern democracy*, Harper and Brothers Publishers, New York.
- Neckerman, K.; J. Kirschenman. 1991a. "Hiring strategies, racial bias, and inner-city workers", in *Social Problems*, 38 (4), pp. 433-47.
- ; –. 1991b. "'We'd love to hire them, but...': The meaning of race for employers", in C. Jencks ; P. Peterson (eds.), *The urban underclass*, Brookings Institution, Washington, pp. 203-34.
- Neumark, D.; R. Blank; K. Van Nort. 1995. *Sex discrimination in restaurant hiring: An audit study*, National Bureau for Economic Research, Cambridge, MA.
- Newman, J. 1978. "Discrimination in recruitment: An empirical analysis", in *Industrial and Labour Relations Review*, 32 (1), pp. 15-23.
- Portes, A.; R. Bach. 1985. *Latin journey, Cuban and Mexican immigrants in the United States*, University of California Press, Berkeley.

- Powell, W.; L. Smith-Doerr. 1994. "Networks and economic life", in N. Smelser; R. Swedberg (eds.), *The handbook of economic sociology*, Princeton University Press, Princeton, pp. 368-402.
- Reimers, C. 1985. "A comparative analysis of the wages of Hispanics, blacks, and non-Hispanic whites", in G. Borjas; M. Tienda (eds.), *Hispanics in the U.S. economy*, Academic Press, New York, pp. 27-75.
- Rutherglen, G. 1994. *Protecting aliens, immigrants, and ethnic minorities from discrimination in employment: The experience of the United States*, World Employment Programme working paper, International Labour Office, Geneva.
- Scanlon, J.; M. Bendick, Jr. 1993. *Racial and ethnic discrimination in restaurant franchising*, Committee on Small Business, U.S. House of Representatives, Washington.
- Smith, J.; F. Welch. 1989. "Black economic progress after Myrdal", in *Journal of Economic Literature*, 27 (2), pp. 519-564.
- Smith, T. 1990. *Ethnic images*, National Opinion Research Center, Chicago.
- Squires, G. (ed.) 1992. *From redlining to reinvestment*, Temple University Press, Philadelphia.
- Swanson, D. 1991. *The resume solution, how to write and use a resume that gets results*, JIST Works, Indianapolis.
- Thomas, R. 1991. *Beyond race and gender*, American Management Association, New York.
- Tilly, C.; C. Tilly. 1994. "Capitalist work and labour markets", in N. Smelser; R. Swedberg (eds.), *The handbook of economic sociology*, Princeton University Press, Princeton, pp. 283-312.
- Towers Perrin. 1990. *Workforce 2000: Competing in a seller's market*, Towers Perrin, Valhalla, N.Y.
- Turner, M.; M. Fix; R. Struyk. 1991. *Opportunities diminished, opportunities denied*, The Urban Institute, Washington.
- U.S. Bureau of the Census. 1994. *Statistical abstract of the United States*, U.S. Department of Commerce, Washington.
- U.S. Bureau of Labor Statistics. 1992. *Employment and earnings*, U.S. Department of Labour, Washington.
- U.S. Commission on Civil Rights. 1977. *Statement on affirmative action*, U.S. Commission on Civil Rights, Washington.
- U.S. Department of Labor. 1990. *Occupational outlook handbook*, VGM Career Horizons, Lincolnwood, IL.
- . 1991. *Dictionary of occupational titles*, U.S. Department of Labor, Washington.
- Welmer, J.; D. Sudbury. 1992. "Employment discrimination 'testers' – Will your hiring practices 'pass'?", in *Employee Relations Law Journal*, 17(4), pp. 623-633.
- Wilson, W. 1980. *The declining significance of race*, University of Chicago Press, Chicago.
- Wolpin, K. 1992. "The determinants of black-white differences in early employment careers: Search, layoffs, quits, and endogenous wage growth", in *Journal of Political Economy*, 100 (3), pp. 535-60.
- Word, C.; M. Zanna; J. Cooper. 1974. "The nonverbal mediation of self-fulfilling prophecies in interracial interaction", in *Journal of Experimental Social Psychology*, 10 (1), pp. 109-120.
- Yate, M. 1988. *Resumes that knock 'em dead*, Bob Adams, Inc., Holbrook, MA.

- Yelnosky, M. 1993. "Filling an enforcement void: Using testers to uncover and remedy discrimination in hiring for lower-skilled, entry level jobs", in *University of Michigan Journal of Law Reform*, 26 (2), pp. 404-59.
- Zahn-Waxler, C.; M. Radke-Yarrow. 1990. "The origins of empathic concern", in *Motivation and Emotion*, 13 (2), pp. 107-130.
- Zimmerman, W. 1993. "Summary of the Urban Institute's and the University of Colorado's hiring audits", in Fix and Struyk (eds.), op. cit., pp. 407-14.
- Zwerling, C.; H. Silver. 1992. "Race and job dismissal in a federal bureaucracy", in *American Sociological Review*, 57 (5), pp. 651-60.

Appendix: Additional employment studies in the United States using situation testing

In addition to the four studies discussed throughout this report, several additional research studies applying situation testing to employment have been conducted in the United States.

- C *Race/ethnicity testing studies in earlier period.* Prior to the testing activity discussed in this report, four small-scale studies had been completed (Culp and Dunson, 1986; Guion, 1966; McIntyre, et al., 1980; Newman, 1978). These efforts are not analysed in this paper because they were based on too small samples, implemented testing too unsystematically, or are too old to compare directly to data collected under the ILO design. However, in concluding that discrimination did exist, their findings are generally consistent with the findings from the four studies examined in this paper.
- C *The University of Colorado testing study of race/ethnicity discrimination.* In 1991, a research team at the University of Colorado, Denver, conducted a face-to-face testing study in the Denver labour market, completing 145 tests involving Black-White pairs and 140 involving Hispanic-White pairs (James and DelCastillo, 1992). They estimated a two per cent net rate of discrimination against Blacks compared to Whites and a 10 per cent rate in favour of Hispanics over Whites. Their study procedures generally paralleled those of the Urban Institute and Fair Employment Council discussed in this report. However, their work appears to be contaminated by methodological flaws, including inappropriate pairing of testers, inadequate supervision of field work, and compensation arrangements giving minority testers greater incentives to pursue job openings than White testers. These flaws led to differences in the level of effort expended by paired testers (e.g. different numbers of follow-up calls) and also raised general concerns about data validity and reliability (Zimmerman, 1993, pp. 409-410). Accordingly, this study was not included for discussion in chapters 2 and 3 of this report.
- C *Race/ethnicity testing using a "sandwich" approach.* To examine the methodological feasibility of "sandwich testing" (assigning three testers to apply for the same position, one White between an earlier and a later minority applicant), the Urban Institute has conducted a small scale pilot study in Los Angeles (Galster *et al.*, 1994). Since only half a dozen tests were completed, extensive analysis of the findings was not appropriate.
- C *Race/ethnicity tests conducted for litigation.* The Fair Employment Council of Greater Washington and several other governmental or private organizations have conducted employment tests with the primary purpose of bringing civil suits enforcing anti-discrimination laws against individual firms (Boggs, Seller and Bendick, 1993). In addition to the FEC, the organizations involved include the Massachusetts Commission Against Discrimination (a government agency), the Chicago Legal Assistance Foundation, and the Miami Branch of the NAACP (National Association for the Advancement of Colored People). These testing efforts did not involve random sampling of firms, so it would be inappropriate to generalize from the rate of discrimination encountered in these tests to the general population of employers. Instead, testing was targeted to industries or firms where discrimination was believed to be prevalent. In addition, the results of these tests have not been reported in the social science research literature. However, they found discrimination in a number of firms, a finding that is consistent with the rates of discrimination estimated in the four studies reviewed in this paper. Furthermore, these activities extend the geographic coverage of testing to additional labour markets, including Boston and Miami.
- C *Testing studies of age discrimination.* The Fair Employment Council of Greater Washington has completed one study of age discrimination using correspondence testing. Pairs of resumes – one for a 32 year old and one for a 57 year old – were mailed to approximately 2,000 of the largest private employers and employment placement agencies in the nation, applying for positions as executive secretary, management information specialist, or writer/editor. The older applicant was responded to by employers less favourably than the equally-qualified younger applicant at a net rate of 26.5 per cent of completed tests in which a job appeared to be vacant (Bendick, Jackson and Romero, in press).
- C *Testing studies of sex discrimination.* One recent study tested for and documented discrimination on the basis of gender in hiring decisions at restaurants in Philadelphia (Neumark, Blank and Van Nort, 1995; see also Scanlon and Bendick, 1993).

