# DISCRIMINATION

# AND ECONOMIC MOBILITY

MELISSA FAVREAULT, THE URBAN INSTITUTE

#### **KEY FINDINGS:**

- Measuring discrimination is extremely challenging. Analysts must disentangle the effects of disparate treatment from those of differences in characteristics that can contribute to group-level differences in outcomes.
- Although levels of discrimination have clearly declined in recent decades, results from a wide range of audit and field experiments suggest that African-Americans and Hispanics continue to experience some discrimination in labor and housing markets (for example, Bertrand and Mullainathan 2004, Turner, Ross, Galster, and Yinger 2003).
- The implications for mobility have not been well-examined because of data limitations and the complexity of the disentangling multiple factors, but the cumulative nature of discrimination's effects suggests effects could be significant.
- In one recent study (Pew Research Center 2007), most African Americans reported that discrimination, while a regular and important presence in their lives, may be secondary to individual effort when it comes to "getting ahead." While public opinion data have limited value for making causal inferences, they do provide useful insight into perceptions that reflect life experiences.

Discrimination—defined here as less favorable treatment in an important institution, like the education or criminal justice system, or market, like a labor, financial, or housing market, solely on the basis of an ascribed characteristic, like age, race, or gender—undermines relative economic mobility, both within and across generations. Our society's meritocratic ideals are based on the assumption that competitions are fair, and that hard work and natural talents, rather than one's skin color, birth year, or gender, determine one's outcomes. Competitions that are not fair and open can cause serious harm to individuals and further undermine the legitimacy of the entire system.



We focus this review on discrimination primarily on the basis of race. Many of the concepts and measurement issues that we discuss are applicable or similar for understanding other forms of discrimination, for example, those on the basis of age, gender, disability status, or sexual orientation. In a few places, we cite the literature on age and gender discrimination in addition to literature on race to provide additional context for findings.

Our goal is not to catalogue disparities or progress in reducing disparities in social and economic outcomes by race.<sup>2</sup> Likewise, we touch only lightly on why people might discriminate and the different <u>types of discrimination</u>. Rather, our goal is to try to understand to what extent discrimination by race persists and could contribute to relative immobility for racial and ethnic minorities, particularly African Americans.

The United States clearly has had a troubled history of discrimination and exploitation on the basis of race, with an important legacy that persists to the current day. Discrimination can help to explain, at least partially, the important linkages between <a href="race and economic mobility">race and economic mobility</a>. Many studies suggest that both inter- and intragenerational upward mobility is lower for blacks than non-blacks (see, for example, Corcoran 1995; Hertz 2005, 2006; Isaacs 2007; Kearney 2006; Bhattacharya and Mazumder forthcoming; McBrier and Wilson 2004). <a href="Segregation">Segregation</a>, whether of neighborhoods, schools, workplaces, juries, clubs, or other important social institutions, may also help to explain these disparities in mobility by race within and across generations. Segregation can arise and persist because of both voluntary arrangements and choices and active prejudice and discrimination, ranging, for example, in the residential case from overt intimidation and restrictive covenants to more subtle "steering" by real estate professionals.<sup>3</sup>

Measurement of discrimination is extremely challenging (and indeed controversial). Disparities in outcomes across racial or ethnic groups cannot necessarily be attributed to discrimination and its legacy or to segregation. An analyst needs to disentangle discrimination from the effects of differences in characteristics that can contribute to differences in employment, income, health, housing, or financial wealth outcomes across groups. These cover a wide spectrum, like quality of education, household composition, and family stability, and behaviors, ranging from things like diet, exercise, and smoking, to parenting style and quality, all the way to levels of entrepreneurship. Analysts also need to take into account selection issues, for example choices individuals freely make with respect to occupation and the number of hours they work, which may lead to different lifetime earnings prospects.

This "disentangling" is an extraordinarily complex problem, given that educational, employment, and family outcomes may themselves react to and/or result from perceived or historical discrimination. The idea that markets can have a number of equilibria is useful here. One can imagine, for example, that differences in marital outcomes by race might be reduced if there were less reluctance to marry across racial lines (Loury 2007). Likewise, educational investments could vary based on perceived return to education, with perception of a lesser return among those

<sup>&</sup>lt;sup>1</sup> We use the term "race" to designate a subjective social category under which "observed or ascribed characteristics…have acquired socially significant meaning" (Blank et al., 2004). The National Academy study (Blank et al., 2004) uses the following definition of racial discrimination: differential treatment on the basis of race that disadvantages a racial group and treatment on the basis of inadequately justified factors other than race that disadvantages a racial group (differential effect).

<sup>&</sup>lt;sup>2</sup> Some useful resources for these types of comparisons include Smelser et al. (2001) and DeNavas-Walt, Proctor, and Smith (2007).

<sup>&</sup>lt;sup>3</sup> For a review of literature on causes of segregation, see, for example, Charles (2003).

<sup>&</sup>lt;sup>4</sup> In 2005, about 7 percent of married couples were in interracial marriages. This is an enormous increase from earlier decades, but certain groups still remain very unlikely to intermarry.

that have previously experienced reduced opportunities leading to reduced investment in education.

Methods used to determine the presence and extent of discrimination have included experimental studies, observational studies, public opinion surveys, and field based studies, including audit (or paired tester) studies (Blank, Dabady, and Citro, eds. 2004, see also Darrity and Mason 1998). Estimates of the prevalence of discrimination vary substantially by method and research protocol. Evidence from these studies suggests that the prevalence of racial discrimination has declined markedly in recent decades, but that discrimination persists in various key markets, perhaps differentially across the United States. (See, for example, Turner, Ross, Galster, and Yinger 2003).

The majority of studies of discrimination rely on the statistical analysis of observational data. Researchers who try to determine statistically whether discrimination is present in observational studies can reach widely diverging results. One reason for the great variation in estimates is that the effectiveness of the controls that researchers use for skills or qualification differ widely. This may result in "omitted variable bias," where the effect of the discrimination parameter may be poorly estimated (and this can lead to overestimates or underestimates of discrimination's level) because the variable serving to reflect it may be correlated with a missing variable. For example, using education to proxy for labor market skills and productivity has serious limits, as people who have attained the same degree may have been prepared very differently given that public school quality varies substantially across the United States and even within cities. When using education, one needs to differentiate high school degrees from General Equivalency Diplomas (see, for example, Heckman 1998). Likewise, using job tenure or some other experience measure can be important. A second frequent complication is sample selection bias (for example, because of missing populations). A difficulty that literature in this area confronts is that while it is relatively straightforward to compare wage rates to try to determine whether there is disparate treatment within jobs, this is more difficult across jobs. Researchers have advanced the notion of comparable worth to try to tease out instances in which salaries may differ more based on the characteristics of those who hold the job, compared to the job demands or difficulty of recruiting individuals to take the job.

**Audit studies**, which rely on paired testers with identical credentials who differ only on the basis of the test characteristic such as race, age, or gender, are an alternative approach for detecting the presence and effect of discrimination in key markets (for an overview, see for example Fix and Struyk 1993). Similar field studies use virtually identical résumés that include "clues" about the age, race, or gender of the applicant. One goal of these testing methods is to directly measure the process—and to specifically identify whether there are differences in various steps along the process, such as call-backs, how many units one is shown, whether one is invited to complete an application. Recent studies have shown modest but significant differences in net treatment in labor and housing markets by age, race, ethnicity, and gender in many American cities (see, for example, Turner et al. 2003). While intuitively appealing, audit tests are expensive to conduct well on a national scale and raise ethical issues, in part because of the costs that they impose on firms. Further, some analysts question the validity or generalizability of their findings, with a concern that average discrimination in a city may not well reflect levels at the margin, where economic transactions take place (see, for example, Heckman and Siegelman 1993, Heckman 1998). Even their greatest critics do acknowledge that results of audit studies can be quite powerful because they are comparatively easy to understand and so frequently reveal apparent unfairness. The replication of their findings in field studies (for example, Bertrand and Mullainathan 2004) serves to reinforce the message.

While discrimination is ultimately about behaviors that limit opportunities, attitudinal surveys can also provide useful information about the prevalence of prejudice and discrimination.<sup>5</sup> The General Social Survey includes a number of questions about attitudes toward people that may be used to detect discrimination or integration and monitor changes over time. A recent study by the Pew Research Center (2007) explored racial issues and attitudes. Among its key findings is a disparity by race in perceptions of the prevalence of discrimination, with whites less likely than blacks to view discrimination as a problem. About two thirds of blacks report frequent discrimination when applying for jobs and housing, and substantial fractions report discrimination in settings like restaurants. No doubt these reports are based in experience. A second interesting finding from the study is that most African Americans believe that discrimination, while widespread and important to outcomes, may be secondary to individual effort when it comes to "getting ahead." Just over half of blacks report responsibility for own condition as hampering African American progress, compared to 30 percent who classify discrimination as primary. (Comparable figures for whites are 71 and 15 percent, respectively. Hispanics fall in between the non-Hispanic blacks and whites, with 24 percent citing discrimination and 59 percent citing personal responsibility.) Of course, one concern with these types of surveys is that individuals may not accurately report attitudes that are considered socially undesirable. They may also prefer to see their successes as the result of internal qualities or effort, like hard work and talent, rather than supported by a system of racial privilege, or they may rationalize their failures by attributing them to an external force. Such results thus need to be interpreted conservatively. Nonetheless, the consistency of the findings from self-reported data with the field evidence suggests that this source of data should be taken into account in a larger evaluation of these questions.

While the prevalence of discrimination may be comparatively modest, and may have fallen over recent decades, its lifetime effects can still be quite significant. For example, the 2000 housing audit studies suggested a gross probability of diminished treatment for African Americans seeking rental spaces of about 21 percent and of about 16 for those seeking to purchase a home; Even if the probability of discrimination in any given transaction is under some bound, like a quarter, as in the housing example, when this probability is applied to the number of transactions of substantial economic significance a person undertakes in the course of a year or even a lifetime, the total effect will certainly be greater. Cumulative effects of discrimination sometimes thought of in tandem with notions of cumulative advantage/disadvantage, which encompasses a broader spectrum of forms of favorable/unfavorable treatment, could be particularly important when considering mobility, and perhaps especially *intergenerational mobility*. While a paucity of data limits multigenerational study, it is certainly not difficult to imagine that if a person pays a little bit more for an apartment and gets a slightly lower-paying job, she cannot save as much, so

<sup>&</sup>lt;sup>5</sup> Much of the social science literature suggests that prejudices may be the result rather than the cause of discrimination (see, for example, Allport 1958). The theory is that inconsistency between democratic ideals and unfair treatment of subgroups requires rationalization of one's privilege, rationalization that can take the form of assumed superiority of one's own group. This implies that targeting behavior may be more effective at reducing discrimination than targeting attitudes.

<sup>&</sup>lt;sup>6</sup> These include such questions about the following: whether the government is doing enough to "improve the condition of blacks"; whether a person with racist attitudes should be allowed to speak, teach; whether blacks should "push themselves where they are not wanted"; whether whites have the right to keep blacks out of their neighborhoods, etc.; social distance measures (whether the respondent socializes with people of other races); attitudes toward affirmative action; whether differences across groups are mainly due to discrimination, educational opportunities, innate abilities, motivation, relative wealth/intelligence/propensity for violence, of the different groups; whether the respondent would want to live in a neighborhood of various racial compositions, whether the respondent would accept a relative marrying someone of a given race, perceptions of levels of discrimination in labor and housing markets (just some years), among others.

has fewer resources for an expensive, higher-quality education, and perhaps will take longer to get a promotion. Even if the apartment does not cost more, but it simply takes longer to complete the transaction, the process is more expensive since valuable time that could have been spent on labor or leisure is lost. "Street level" indignities can further affect quality of life (Feagin 1991). Little differences compound rapidly.

Some analysts use the term **social exclusion** to refer to extremes of disadvantage (e.g., de Haan 1999), often characterized by extremely high levels of segregation ("hypersegregation") and low opportunity in highly distressed communities. Social exclusion remains among the largest problems in our wealthy society, and one of the most troubling with respect to economic mobility. (See the Grawe section on **child achievement and neighborhood attributes.**)

### TYPES OF DISCRIMINATION

Economists make a distinction between <u>taste-based discrimination</u> and <u>statistical discrimination</u>. The former concept refers to acting upon an unjustified preference, on the part of employers, employees, or their clients, for individuals in a given group. The latter refers to using average group characteristics to make a determination about an individual, such as a job applicant. To determine an applicant's key attributes, like industriousness, the decision-maker may use his or her perception or knowledge of "average" characteristics of people in a group of which an applicant is a member as a criterion rather than undertake testing or extensive checking of the actual applicant, which could be costly. The latter form of discrimination is thus believed to be potentially economically "efficient," in the sense that it is a "rational" form of maximizing behavior in a situation when knowledge is limited (Arrow 1972), while the former is not (Becker 1971).

There is increasing thought that there may be a third form of *implicit discrimination* (see, for example, Betrand et al. 2005), in which differential treatment of members of other groups may not actually result from conscious choices. Understanding how and why discrimination persists thus may also require examining subtle psychological processes and cues. The social psychological literature in this area is vast, so we highlight just a few findings. The theory of status characteristics and expectation states (see, for example, Berger, Cohen, and Zelditch 1972) identifies one mechanism though which discrimination may persist. The research on implicit associations tries to measure the extent to which individuals have negative associations with members of different groups (Greenwald et al. 1998), and how these might affect their behavior in various setting (see, for example, Green et al. 2007 for a test of effects in a medical setting). Closely related research on stereotype threat suggests that individuals' performance can be hindered when stereotypes about group performance are activated (Steele and Aaronson 1995).

The study of discrimination does not need to be confined solely to instances in which race, age, or gender was the sole objective criterion for differential treatment. According to the definition in the National Academy Report (Blank et al. 2004), it can also include disparate impact based on "inadequately justified factors." In employment, this can take the form of a requirement of a degree or education level that is beyond that necessary to perform a job. Many argue that such requirements can serve to disadvantage applicants on the basis of age, for example, given the secular rise in educational attainment. Other examples, from the criminal justice system, are sentencing disparities for various offenses (e.g., between powder cocaine and crack cocaine in the case of narcotics possession) that have been demonstrated to have disparate effects by race (U.S. Sentencing Commission 2004).

<sup>&</sup>lt;sup>7</sup> Blalock (1967) argues that in fields in which measurement of performance is less ambiguous (for example, sports or entertainment), integration/reduction of discrimination can occur more quickly.

<sup>&</sup>lt;sup>8</sup> Delving further into these psychological effects, the role of the mass media in perpetuating racial stereotypes could be important. The Pew Research Center study (2007) mentioned earlier revealed significant concerns about portrayals of blacks by the media, for example.

<sup>&</sup>lt;sup>9</sup> While some argue that crack cocaine's effects on communities are so much more devastating than those of powder cocaine that vast differences are justified, the U.S. Sentencing Commission recently revisited the disproportionality of sentences for highly similar offenses and finalized changes that became effective as of November 1, 2007.

### RACE AND ECONOMIC MOBILITY

Research suggests that race plays a role in shaping both <u>intragenerational</u> and <u>intergenerational</u> and <u>mobility</u>. Isaacs (2007) presents a comprehensive analysis of these issues. Here we summarize a few points.

Isaacs (2007) finds that overall mobility patterns as reflected in the Panel Study of Income Dynamics (PSID) appear relatively similar for blacks and whites before controlling for income. Once one takes income into account, however, differences by race are quite striking. A first noteworthy finding on the intergenerational front is that for children of parents in the middle income quintile, whites are a bit more likely to have higher relative incomes than their parents: just over a third rise from the middle quintile, compared to a third that fall. Blacks, in contrast, are more likely to see their incomes fall relative to their parents, with over three fifths falling from the middle, compared to just 17 percent who see a rise to a higher quintile. Findings about children in the bottom income quintile are also worrisome, with blacks more than two and a half times more likely to be downwardly mobile than whites.

This work is broadly consistent with Hertz (2005), who finds that black families have a 14 percent higher rate of intergenerational persistence in the bottom income quartile, even after controlling for family size, parents' income and education. Hertz further finds that for white families, extreme upward mobility is much more likely than extreme downward mobility (14 percent vs. 9 percent), whereas for black families, the opposite is true (4 vs. 35 percent). In later work, Hertz finds differences in mobility for blacks and whites persists even after controlling for parental background factors, children's education and health, and whether the household head was female or receiving welfare (2006).

Bhattacharya and Mazumder (forthcoming) confirm that the intergenerational mobility for whites exceeds levels for blacks using data from the National Longitudinal Survey of Youth. Bjorklund et al. (2002) estimate the correlation among brothers' earnings in the United States, and find that it falls from 0.43 to 0.32 when sample is restricted to whites, backing up the finding of relative lack of mobility for blacks.

One caveat to these analyses is that work in this area is frequently hampered by relatively small sample sizes for blacks in key longitudinal sources like the PSID, and concern about their representativeness.

## **AUDIT (PAIRED TESTING) AND OTHER FIELD STUDIES**

Paired testing methods have been used extensively in employment and housing markets to try to identify discriminatory treatment and, in some cases, to enforce laws against discrimination (for example, the Fair Housing Act). The housing market studies have arguably been more extensive than employment studies, and thus may be better for making inferences about the prevalence of discrimination. Audit methods have additionally been applied to other markets, such as those for new automobile purchases (Ayres and Siegelman 1995) and taxicab rides (Ayres et al. 2005). Researchers have even monitored baseball card transactions to try to better understand discrimination in a domain where performance is relatively easy to measure because of the enormous amount of statistical data available on players (Nardinelli and Simon 1999, Gabriel et al. 1995, List 2004).<sup>10</sup>

Designers of these field tests try to randomize components of the experimental process to the extent possible; for example, they determine randomly which sites are visited and which tester arrives first. The quality of the experiment depends to a large extent on the quality of the match between testers. An effective test requires that testers are extremely similar on characteristics other than the one being tested that may influence the decisions of hiring persons or rental agents (e.g., testers must be similar in height, weight, style of dress, speech pattern/accent, presence of facial hair, and so forth so that researchers can rule out discrimination on the basis of one of these characteristics rather than the characteristic of interest). A quality test also requires unbiased testers. As a result, studies that have offered incentives for finding discrimination, for example, or that have had extensive training on the history of discrimination have drawn skepticism.

Because of the difficulties associated with getting close matches and unbiased testers, some researchers have, in the labor market context, used resumés (linked to answering machines and electronic mail accounts) rather than actual people to test labor market barriers (Bertrand and Mullainathan 2004, Lahey 2008). The resumés include randomly generated clues to age, race, or gender but otherwise identical work histories. This approach allows analysts to consider the results from a large number of applications, important for insuring accuracy in estimates of prevalence of discrimination. A main limit to these studies is that the outcome variable is a "callback" from the résumé, rather than optimal measures like employment and salary offers. However, the linkage between callbacks and eventual offers is logical, and this adds to the persuasiveness of the findings.

In interpreting the results from audits and similar field studies, many analysts recommend the use of net rather than gross measures of differential treatment. Audits typically find that in some fraction of transactions, the minority group member receives better treatment, while in others the majority group member is treated better or there is no difference. The net is simply the difference between occasions of favorable treatment for the majority and favorable treatment for the minority tester. This reduces the chance that random error (for example, from catching an agent at a bad time of day) is misinterpreted as discrimination. Some, however, argue that the net measure may understate discrimination, and so interpret the net measure as the lower bound of discriminatory treatment.

The table summarizes some of the key findings from paired tests, both audits and field studies that use résumés.

 $<sup>^{10}</sup>$  Analogous tests have included "blind" auditions for orchestras (for analysis and discussion, see Goldin and Rouse 2000).

Selected Efforts to Measure Discrimination Using Audit and Other Pair Methods		
Study	Market / Location	Comparison Groups, Methods/Sample sizes, Key
-		Results
Turner and Ross (2003); Turner, Ross, Galster, and Yinger (2003); Turner, Bednarz, Herbig, and Lee (2003)	Housing (rental and purchase), 2000: 23 metro-politan areas with significant minority populations (16 for blacks, 10 for Hispanics, 4 for Native Americans, 11 for Asian and Pacific Islanders)	Conducted 4,600 paired tests. Finds gross diminished opportunities for testers on the order of 21 and 24 percent for African Americans and Hispanics, respectively, for rentals and 16 and 20 percent in purchases for the two groups. For African Americans, this represents a significant reduction since last major test 1989 (when rates were closer to 26 and 29 percent for rentals and purchases, respectively). Reduced opportunities for Native Americans in Minnesota, Montana, New Mexico primarily occur through denial of information. Asian discrimination lower bound may
		not differ from zero because of a mixed pattern across
Bertrand and Mullainathan (2004)	Labor markets, Boston and Chicago	regions.  Sent out 5,000 résumés. Finds evidence of differential treatment by race (as presented with stereotypical names) in call-backs. The differential differs by applicant quality. Finds "white sounding" name can be approximately equivalent to eight years of experience. Living in a "better" neighborhood helps, and does not affect blacks and whites differently. Finds no difference across occupations in the racial preference. Further tests for average economic background of people with names to account for differentials in naming by class suggest that class (rather than race) is not the main explanation.
Lahey (2008)	Greater Boston, Fort Lauderdale labor markets	Sampled 3,996 firms. Used résumés for women of various ages. Younger workers are about 40 percent more likely to receive interviews.
Neumark, Bank, Van Nort (1996)	Labor market (higher-price restaurants)	About 130 tests (65 pairs). Finds women at a disadvantage, receiving fewer interviews and offers (probabilities reduced by 0.32 and 0.4, respectively) at higher priced restaurants. Suggests that customer taste may partially account for difference.
Cross et al. (1990); Turner et al. (1991)	Entry-level employment (Chicago and San Diego), (Chicago and DC)	Approximately 740 tests. Looked at various phases of the process (application, interview, including length, offer). Finds fewer opportunities for blacks and Hispanics. Black applicants were less likely to receive an interview than white counterparts. For blacks, interviews were likely to be shorter and contain more negative remarks. Blacks were more likely to be denied a job and to be steered to less desirable jobs. Also finds variation across cities. Blacks experienced poorer treatment in D.C. than in Chicago. Hispanic auditors were treated worse in Chicago relative to San Diego.
Turner et al. (2002)	Mortgage lending (Chicago and Los	Approximately 250 tests. African Americans and Hispanics experience statistically significant

Angeles)	probability of unequal treatment (e.g., less coaching, told about fewer products, denial of price or loan amount information) in both cities. Used pre-tests in Orange County and New Orleans to develop/ refine protocols. Pre-tests suggested that pre-application
	estimates of home price and loan amounts were an important source of discrimination.

The table includes information about several large national tests of the housing market, the most recent of which was fielded in 2000 (previous tests were fielded in 1977 and 1989; for information on earlier studies, see Yinger 1986). The Department of Housing and Urban Development (HUD)-funded tests suggest significant but declining levels of disparate treatment for African Americans over time, and disparate treatment for Hispanics, with no decline since 1989. Pilot tests (not shown in the table) suggest diminished opportunities for people with disabilities to obtain housing (Turner et al. 2005). A mortgage lending test, also sponsored by HUD, found that the loan acquisition stage in the homebuying process can be a further point of discriminatory treatment (Turner et al. 2002; for a review of prior work on lending, see Turner and Skidmore 1999).

On the employment side, the résumé tests suggest substantial employment discrimination against blacks (Bertrand and Mullainathan 2004) and older women (Lahey 2008). Paired tests reveal further bias against blacks and Hispanics (Cross et al. 1990; Turner et al. 1991) and women in high-priced restaurants (Neumark et al. 1996).

Heckman (1998) and Heckman and Siegelman (1993) have presented some of the most serious criticisms of the audit studies. At the highest level, they argue that the results of audit studies must be interpreted carefully. Key economic transactions take place at the margin. An average measure of discrimination, as in an audit based, for example, on a random sample of entry-level transactions, may not well reflect the marginal effect in firms where members of different racial and ethnic groups do business. Further, employment audits have focused on entry-level positions, thereby neglecting such processes as promotion. Similarly housing tests have focused on early stages in the rental and purchase processes, including number and quality of units shown. This focus on a small subset of market transactions limits generalizability and could lead to misstatement of levels of discrimination in broader markets. Likewise, a focus on advertised jobs or housing units may not yield a representative sample of positions/units, neglecting the effects of social networks on employment and housing. (Some speculate that the bias against minority groups found in most audits may actually be greater, given that network connections are more likely to benefit majority group members.) On the level of implementation, Heckman and others have also expressed concern about the training of testers, who may be biased toward finding discrimination as a result of training and objectives of the study. (Résumé studies are likely less subject to these latter criticisms, though generalizability arguments would still remain to the extent that targeted positions are highly select.)

# SEGREGATION AND SOCIAL EXCLUSION

Because many public institutions and services assumed to have close links to life chances and thus income mobility, such as public schools, are so tied to place of residence, we briefly focus here on some of the trends in residential segregation and theories about its broader effects. We acknowledge that other forms of segregation, for example workplace segregation, are also important (for a review, see, for example, Reskin et al. 1999), and indeed are frequently closely related to residential segregation. However, the limits of this forum prevent us from fully exploring the rich literature in this area.

**Levels of Segregation.** Despite recent progress, the United States remains deeply segregated on the basis of race. <sup>12</sup> The U.S. Census Bureau produced an analysis of levels of residential segregation by race and ethnicity over the 1980 to 2000 period (Iceland and Weinberg 2002). The report revealed a modest decline in the segregation of blacks over the period, coupled with increases in segregation of Hispanics and Asian Americans. Nonetheless, segregation of African Americans remains higher than segregation for other groups. Levels of residential segregation tend to be higher in areas with older housing stocks, and lower in newer areas (for example in the West), consistent with other findings (e.g., Farley and Frey 1994, Logan, Stults, and Farley 2004).

Wilkes and Iceland (2004) use 2000 Census data and focus on the most extreme cases of segregation (labeled "hypersegregation"), cases where groups are segregated on many different dimensions. <sup>13</sup> They find that blacks are hypersegregated in 29 metropolitan areas of the United States, and Hispanics are hypersegregated in 2. This again represents a modest decline from 1990, but is nonetheless troubling.

**Consequences of Segregation.** Among the compelling arguments that attorneys used in the landmark *Brown vs. Board of Education* decision was the contention that segregation was itself damaging to children. For example, tests conducted by social psychologists Kenneth and Mamie Clark, asking children about dolls of different races, suggested that segregation of schools had detrimental psychological effects on children that affected their ability to learn (for a discussion of the Clark study, see Garfinkel 1959).

Since that time, a large number of studies have tried to advance understanding of whether and how segregation affects important social and economic outcomes. Cutler and Glaeser (1997), for example, look at the city level and find that blacks in more racially segregated U.S. cities have significantly worse outcomes on a range of measures than blacks living in more integrated environments. They attempt to identify the mechanisms through which segregation operates, and test hypotheses about the relative importance of economic versus racial segregation, the extent to which lack of role models is a factor, and the extent to which physical distance from jobs is a factor (the "spatial mismatch" hypothesis). They find evidence that all of these factors play roles, and find continuing effects of segregation after accounting for these types of factors.

<sup>&</sup>lt;sup>11</sup> Addressing these questions poses extremely difficult methodological challenges (i.e., it is difficult for researchers to establish causality in these analyses, given sample selection).

<sup>&</sup>lt;sup>12</sup> There are a number of widely used measures of levels of residential segregation. These include the dissimilarity index and the isolation index. For one discussion of the relative merits of various measures of segregation, see James and Taeuber (1985).

<sup>&</sup>lt;sup>13</sup> Conceptual dimensions of segregation include evenness, exposure, concentration, clustering, and centralization (Massey and Denton 1988).

Analyses like Cutler and Glaeser's draw from a rich theoretical and empirical base. Massey and Denton (1993) point to residential segregation by race, which they attribute largely to discrimination in the housing market, as playing an important causal role in the development and perpetuation of ghettos. They argue that isolation serves to increase economic vulnerability in times of recession, which in turn plays into a host of other social problems. Wilson, in earlier work, highlighted many of these concerns and additionally highlighted the role of male joblessness (1987). Wilson argues further that outmigration from central cities by higher-income blacks also played an important role in concentrating poverty. Kasarda (1989) did other early descriptive work on spatial mismatch between jobs and inner-city residents.

Cashin (2004) argues that integration is still an important social goal, and that both whites and non-whites pay steep costs for segregation. This work, more of a synthesis piece than traditional social science study, highlights the enormous differences in housing costs, school quality, and amenities between communities with different racial compositions. These differences persist even when the communities have similar incomes (and Cashin uses communities surrounding Washington, DC as one prominent example).

### **GLOSSARY**

- Comparable worth, a term equivalent to pay equity, refers to the principal that workers should be compensated similarly for work that requires comparable responsibilities, training, skills, and effort.
- Intragenerational mobility measures the change in one's economic situation over a period of years within a single generation, or one lifetime. By measuring the evolution of an individual's or family's income over time, one can determine intragenerational mobility in absolute or relative terms.
- Intergenerational mobility refers to mobility from one generation to the next and captures the extent to which a child's economic success is independent from that of his or her parents. A society will have greater intergenerational mobility when there is a weaker correlation between a child's income and his or her parents' income.
- Racial discrimination refers to differential treatment on the basis of race that disadvantages a racial group and treatment on the basis of inadequately justified factors other than race that disadvantages a racial group (differential effect) (Blank et al. 2004).
- *Taste-based discrimination* refers to conscious discrimination based on either employee or customer preferences for individuals from a certain group (Becker 1971).
- Statistical discrimination refers to conscious discrimination that attempts to use group-level characteristics to estimate individual characteristics (Becker 1971).
- *Implicit discrimination* refers to discrimination that is unintentional and outside of the discriminator's awareness (Betrand et al. 2005).

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# DISCRIMINATION

#### AND ECONOMIC MOBILITY

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#### **PROJECT PRINCIPALS**

Marvin Kosters, Ph.D., American Enterprise Institute
Isabel Sawhill, Ph.D., Center on Children and Families, The Brookings Institution
Ron Haskins, Ph.D., Center on Children and Families, The Brookings Institution
Stuart Butler, Ph.D., Domestic and Economic Policy Studies, The Heritage Foundation
William Beach, Center for Data Analysis, The Heritage Foundation
Eugene Steuerle, Ph.D., Urban-Brookings Tax Policy Center, The Urban Institute
Sheila Zedlewski, Income and Benefits Policy Center, The Urban Institute

#### **PROJECT ADVISORS**

David Ellwood, Ph.D., John F. Kennedy School of Government, Harvard University
 Christopher Jencks, M. Ed., John F. Kennedy School of Government, Harvard University
 Sara McLanahan, Ph.D., Princeton University
 Bhashkar Mazumder, Ph.D., The Federal Reserve Bank of Chicago
 Ronald Mincy, Ph.D., Columbia University School of Social Work
 Timothy M. Smeeding, Ph.D., Maxwell School, Syracuse University
 Gary Solon, Ph.D., Michigan State University
 Eric Wanner, Ph.D., The Russell Sage Foundation

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