

## The economic impact of affirmative action in the US

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### Summary

■ Affirmative action refers to a set of policies and programs in the US under which employers, universities, and government agencies take positive steps beyond nondiscrimination to improve the labor market status of minorities and women. In this paper I review the research evidence regarding its effects on employment and university admissions. Overall, affirmative action redistributes jobs and student slots towards minorities and females, though these effects are not very large. Minorities who benefit from affirmative action often have weaker *credentials*, but there is fairly little solid evidence that their labor market *performance* is weaker. While minority students admitted to universities under affirmative action have weaker grades and higher dropout rates than their white counterparts, both their graduation rates and later salaries seem to rise as a result of these policies. Affirmative action clearly generates positive externalities for the minority and low-income communities (in terms of better medical services and labor market contacts), and perhaps for employers and universities as well. But the future of affirmative action in the US will largely depend on political and legal factors that are hard to predict. ■

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In the US, there are two types of policies that explicitly seek to improve the economic status of minorities and women: 1) Antidiscrimination laws; and 2) affirmative action programs.

Antidiscrimination laws explicitly forbid the practice of discrimination by race and gender (as well as age, religion and creed) in employment and housing. The employment laws are generally referred to as Equal Employment Opportunity (or EEO) laws, and first began at the federal level with Title VII of the Civil Rights Act of 1964.<sup>1</sup> The federal law applies to all employers with at least 15 workers, and clearly prohibits “disparate treatment” of workers by race and gender. Other employment practices that have a clear statistical “disparate impact” on minorities, such as educational requirements, can also be challenged as being discriminatory in court; when this occurs, employers must demonstrate that the requirements are a “business necessity” in order to avoid being found guilty.<sup>2</sup> Claims of discrimination are filed with and investigated by the federal Equal Employment Opportunity Commission (EEOC) before going to court. In general, empirical evidence suggests that racial and gender discrimination in labor markets persist somewhat, though they have clearly declined in importance since the 1960’s (Holzer and Neumark, 2006; Blau et al., 2006).

In contrast, affirmative action refers to a set of practices by employers, university admissions offices, and government agencies that

*\* This paper is a revised and shortened version of Holzer and Neumark (2006c). I have chosen to focus exclusively on employment and university admissions, rather than government procurement, in this paper; and I present much less discussion here of general racial and gender disparities in employment and education and their causes than in the original.*

<sup>1</sup> A variety of state laws were enacted before that time, as well as Fair Employment Practices Committees for specific industries. For evidence on the effects of these laws see Heckman and Payner (1989) and Holzer and Neumark (2006a).

<sup>2</sup> The most recent federal legislation that sets judicial standards and remedies for “disparate impact” cases is the Civil Rights Act of 1991.

go beyond nondiscrimination, in order to actively improve the economic and educational status of minorities and women. This additional activity can take the form of special *recruitment* efforts to draw more applicants in these areas from minorities and women, as well as *selection* practices in which these applicants might be considered more favorably than comparably qualified white male counterparts.

Versions of affirmative action (often called “positive action”) can be found in other English-speaking regions or countries (such as Canada and Northern Ireland) and in the European Union (EU) as well. In general, these policies are somewhat newer and have been less extensively analyzed and debated than in the US.<sup>3</sup>

In this paper, I review the research evidence on affirmative action in the US. The paper begins below with a review of the historical origins and legal status of affirmative action in the US. It then considers the arguments that have generally been advanced for and against affirmative action, especially in light of the economist’s concern over potential tradeoffs between equity and efficiency. After that the paper reviews the empirical evidence of the effects (on both equity/distribution and efficiency) of affirmative action in the labor market and in university admissions in the US. Finally, I conclude with an overall assessment of what we learn from the research literature and of the likely future of affirmative action in the US.

## 1. Affirmative action: Its origins and legal status

The roots of affirmative action in employment lie in a set of Executive Orders issued by US Presidents since the 1960’s, but that were never embodied in federal legislation passed by Congress. These orders were based on the belief that even a complete end to discrimination in the US would still leave minorities far behind their white counterparts in education and employment, due to the accumulated effects of past discrimination.<sup>4</sup> They therefore encouraged or required a lim-

<sup>3</sup> For a review of “positive action” for women in the EU and how it has been handled by the European Court of Justice (in comparison to affirmative action in the US) see Krstic (2003). For a more recent report that reviews positive action policies in Canada, Northern Ireland and the Netherlands for racial or religious minorities as well as in the US, and considers the implications of these policies for Great Britain, see Dhami et al. (2006).

<sup>4</sup> President Lyndon B. Johnson famously compared black workers to runners who must compete in a race with shackles on their legs, due to the accumulated disadvantages from past or current discrimination.

ited set of American employers to undertake additional activities to improve the economic status of minorities (and later women).

Thus, Executive Order 10925 (issued in 1961) introduced the phrase “affirmative action,” encouraging employers to take action to ensure nondiscrimination. But these activities were greatly strengthened with Executive Order 11246 (1965), which required federal contractors and subcontractors (currently, with contracts of USD 50,000 or more) to identify underutilized minorities, assess availability of minorities, and set goals and timetables for reducing the underutilization. Executive Order 11375 (1967) extended this to women.

Because it is based on Executive Orders issued by the President directly and not on broader legislation, the reach of affirmative action is thus limited primarily to private businesses and agencies that have contracts with the federal government. But it can also be imposed on non-contractor employers by courts as a remedy for past discrimination, and it can be undertaken voluntarily by employers.

Affirmative action requirements of federal contractors in employment are administered by the Office of Federal Contract Compliance Programs (OFCCP) in the US Department of Labor. All contractors are required to have affirmative action plans that set goals and timetables for the hiring and advancement of minorities and women within their firms. OFCCP regularly reviews data on the race and gender composition of employees at contractor firms, and conducts detailed audits or investigations in cases where there appear to be major employment disparities by race and gender. Contractors may be sued and barred from contracts if they are judged to be discriminating or not pursuing affirmative action, although this outcome is rare (Stephanopoulos and Edley, 1995).

In addition to its role in labor markets, affirmative action also plays an important role in university admissions. While universities may be bound by affirmative action in *employment* in their role as federal contractors (primarily in the form of research grants funded by federal agencies), there are no explicit federal policies regarding affirmative action in *university admissions*. Rather, universities around the country have voluntarily undertaken affirmative action in admissions that give some preference, all else equal, to women and minority applicants.<sup>5</sup>

<sup>5</sup> Throughout, we use the word “minority” to refer to groups that are typically under-represented in universities and in better jobs in the contemporary economy. Most of the existing work considers blacks and sometimes Hispanics, but rarely Asians.

Finally, affirmative action in the area of government contracting and procurement programs has resulted in “set asides” for minority business owners (though these practices are not a primary focus of this paper).<sup>6</sup>

But, as noted above, affirmative action remains highly controversial in the US, especially in terms of what public universities can and cannot do in terms of admissions practices. Affirmative action first came under fire in the case of *Bakke v. University of California Regents* (1978). The US Supreme Court declared, in a 5-4 vote, that setting aside a specific number of places (i.e., a “quota”) for minority students violated the 14th Amendment of the US Constitution, which bars states from depriving citizens of equal protection of the laws. However, while this decision declared strict quotas illegal, another ruling (also by a 5-4 vote, with Justice Lewis Powell as the swing vote) declared that race can be used flexibly as one of many factors in university admissions. Thus some versions of affirmative action in admissions were upheld.

Most recently, the Supreme Court in 2003 struck down the undergraduate admissions practices at the University of Michigan in the case of *Gratz v. Bollinger, et al.*, finding that the point system used by the university in its consideration of race (and other criteria) was too rigid. But, in *Grutter v. Bollinger, et al.*, the University’s law school admissions procedures were upheld. The court, once again in a 5-4 ruling (with Justice Sandra Day O’Connor now providing the swing vote) found that the more flexible treatment of race in this case satisfied the state’s compelling interest in expanding the pool of minority candidates admitted to this prestigious school.

These federal court rulings on education have clearly been influenced by other rulings on the legitimacy of affirmative action in government procurement.<sup>7</sup> Affirmative action in state university admis-

<sup>6</sup> These practices at the federal level have principally taken the form of preferential treatment in bidding for Small/Disadvantaged Businesses (SDBs), and Small Business Administration programs of technical assistance. These contracting and procurement programs focus more on minorities than women (Stephanopoulos and Edley, 1995, Section 9). In addition to the federal level, numerous states and localities have used programs aimed at increasing the share of contracts awarded to minority-owned businesses. The research evidence on the effects of these programs is much smaller and less conclusive than on employment and university admissions. For more discussion see Holzer and Neumark (2006c).

<sup>7</sup> For instance, in *City of Richmond v. J.A. Croson Co.* (1989), the Supreme Court established the legal standard of “strict scrutiny,” in which programs must meet “com-

sions can also be limited by the actions of state courts, such as the ruling of a Texas appeals court in the case of *Hopwood v. State of Texas* in 1996, which eliminated racial preferences in admissions in state universities there. They can also be limited by votes in popular referenda, as occurred under Proposition 209 in California in 1996, which barred the use of racial preferences in admissions in the University of California system (as well as in state employment and contracting). And, at the federal level, there have been repeated threats to pass laws or issue new presidential Executive Orders that would outlaw affirmative action entirely, though these have not yet come to pass.<sup>8</sup> But legal challenges to affirmative action in the courts and elsewhere in the US will no doubt continue.

## 2. Affirmative action: The arguments for and against

What are the arguments that have been made in favor of affirmative action by its proponents and against it by its opponents? And how might economists think about these arguments, in terms of theory as well as empirical evidence?

Arguments in favor of affirmative action generally are based on the claim that, despite the existence of EEO laws at the federal level for over 40 years, minorities and women continue to face systematic barriers in pursuing education and employment opportunities. Discrimination and stereotypes about the abilities of minorities and women have persisted into the present (Fix and Struyk, 1994; Darity and Mason, 1998; Bobo and Massagli, 2001; Loury, 2002), while the cumulative effects of past discrimination also continue to impede the progress of minorities in a variety of ways. For instance, past discrimination has generated lower education and income levels for minority

pelleng state interests” to be legal under the 14th Amendment to the Constitution. In *Adarand Constructors, Inc. v. Peña* (1995), the Supreme Court ruled that strict scrutiny could also apply to federal programs as well, invoking the 5th Amendment (which guarantees that citizens shall not “be deprived of life, liberty, or property, without due process of law”), instead of the 14<sup>th</sup> (which explicitly applies to states).

<sup>8</sup> Federal legislation to outlaw any kind of affirmative action has occasionally been introduced in the US Congress—for example, by Senator Robert Dole and Representative Richard Canady in 1995. But such legislation has never been approved by Congress. Efforts to repeal the presidential Executive Orders that established affirmative action in employment have also been explored (e.g., by the Reagan Administration’s Justice Department in the early 1980’s) but have not been implemented to date.

families, while segregated neighborhoods and schools offer fewer opportunities for advancement (Jencks and Phillips, 1998; Hanushek et al., 2002). Stereotypes and stigmas also affect parental and teacher expectation of student performance and student perceptions of their own abilities, and tend to influence academic achievement as well (Steele, 1997; Loury, *op. cit.*).

In this view, affirmative action tends to *equalize opportunity* in higher education, employment, and procurement of government contracts. Supporters believe that the minorities and women who gain from affirmative action are largely qualified to perform the tasks required of them (as employees, students, and contractors), even if their credentials on paper are somewhat weaker than those of white men whom they replace. Many supporters also believe that affirmative action generates positive “externalities” that benefit a wide range of individuals, both among minorities (through its effects on mentoring, role models, and the like) and whites (through positive effects on business performance, relations across racial groups, etc.). According to this argument, affirmative action is necessary if the rewards of education and employment in the US are to be distributed equitably and fairly (Stephanopoulos and Edley, 1995).

In contrast, the critics of affirmative action generally argue that discrimination—either present or past—now plays a relatively small role in accounting for educational and employment disparities by race and gender. For minorities, they point to weaknesses in early family and school environments that continue to generate low skills, lower representation in highly-paid jobs and university positions, and poorer performance there (Thernstrom and Thernstrom, 1997; Fryer and Levitt, 2004). For women, the critics attribute earnings gaps to individual choices made by women themselves—especially related to fertility and motherhood (Waldfoegel, 1998; Furchtgott-Roth and Stolber, 1999).

As a consequence, the critics argue that affirmative action leads to the acceptance of less-qualified minorities or women who perform less well in schools and on jobs. It thus constitutes *reverse discrimination* against white males, and an attempt to *equalize outcomes* rather than opportunity. Finally, the critics allege that those who are supposed to benefit from affirmative action are themselves hurt, as they ultimately fail in the positions they gain. Affirmative action might also reinforce negative stigmas and stereotypes regarding the abilities of minorities (Sowell, 2005). In this view, affirmative action is grossly unfair—not

only to white males and to employers, but also to the women and minorities whom these policies are supposed to help.

### 2.1. Equity and efficiency effects of affirmative action

The arguments above suggest very different views on the extent to which affirmative action will lead to greater *equity* across race and gender groups, and on *efficiency* effects that may or may not be generated in the process. If affirmative action really generates a tradeoff between these two criteria, policies to promote equity through the *redistribution* of jobs and university positions might be supported if any loss of efficiency is fairly small. In some cases, promoting equity might also lead to greater efficiency, if there are market imperfections (such as discrimination, imperfect information, externalities, and the like) that generate inefficient use of minority and female human resources without corrective action.

Within this framework, the supporters of affirmative action generally regard it as a highly equitable set of practices that generate either modest efficiency losses or even efficiency gains, as minorities and women accumulate more education (or “human capital”) and improve their productivity.<sup>9</sup> In contrast, the critics of affirmative action see it as both inefficient and also inequitable—because it treats individuals with similar credentials unequally in the education and labor markets, and because it hurts its intended beneficiaries.

Theoretical models have been generated by economists based on one or the other set of assumptions. Welch (1976) begins with a perfectly competitive labor market, and evaluates the effects of affirmative action in the hiring or promotion of less-qualified minorities. Not surprisingly, this model predicts that affirmative action is inefficient. In contrast, models by Coate and Loury (1993), Lundberg (1991), and Athey et al. (2000) assume imperfect information, statistical discrimination, or potential externalities (associated with mentoring) respectively. Each of these models concludes that affirmative action can potentially improve labor market efficiency, since the skills and mentoring of minorities or women increase. But determining which of these various assumptions is justified clearly requires empirical evidence.

<sup>9</sup> For example, in the model of Lundberg and Startz (1983) statistical discrimination leads to underinvestment in human capital by women or minorities, and this is alleviated by affirmative action.

Also, we cannot say definitively whether a set of policies is equitable or not—since equity ultimately depends not just on greater equality, but on any person’s value judgments on the fairness of outcomes and the processes generating them.<sup>10</sup> For some supporters of affirmative action, the disadvantages faced by minorities and women without affirmative action are so serious and unfair that these attempts to offset them are clearly necessary; and for some opponents, any “race-consciousness” in educational and employment decisions is inherently discriminatory and even racist.

But empirical answers to an important set of questions related to equity and efficiency can certainly inform judgments about affirmative action—at least among those who see some potential merits in each set of arguments, and whose views will therefore depend partly on its actual effects, rather than *a priori* principles. In terms of equity, we must first determine the magnitude of redistribution of jobs and university positions from white males to minorities and women. In terms of efficiency, we need empirical evidence on the performance of affirmative action beneficiaries in universities, jobs, and as contractors, compared to any white males whom they replace. We may need to distinguish *qualifications* and *credentials*—in which affirmative action beneficiaries will lag behind by definition—from *performance* on the job, in the classroom, or on the contract—which may or may not be strongly affected by the credentials of candidates.

Also, are affirmative action “beneficiaries” perhaps hurt by being “mismatched” into jobs or universities where they cannot perform well? Do they ultimately suffer—through dropping out of school, turnover from jobs, and the like? Such mismatches would point to inefficiencies generated by affirmative action, and suggest that some of the supposed distributional benefits to minorities are not real. But we also need evidence on the extent to which affirmative action generates *externalities* for women and minorities—as well as other students, universities, and employers—beyond those who are directly assisted through employment, university admissions, and contract awards. This provides indirect evidence regarding whether major labor or educational market imperfections exist in the absence of affirmative action, in which case affirmative action could be efficiency-enhancing.

<sup>10</sup> Indeed, economists contend that the value any of us places on equality depends on our own “social welfare functions.”

### 3. Empirical evidence on affirmative action: Labor market effects

Given that various arguments can be made in favor of or against affirmative action in theory, we now turn to the empirical evidence on its effects in the labor market—both in terms of the distribution of employment between white males and minorities/females, and its effects on efficiency through the job performance of those who benefit from it.

Several studies have demonstrated that affirmative action has shifted employment, especially within the contractor sector, from white males to minorities and women. But the magnitudes of these shifts are not very large. For instance, Leonard (1990) analyzed EEO-1 employment data for contractors and non-contractors.<sup>11</sup> In his work, employment of black males grew about 5 percent faster than that of white males at contractor establishments in the critical period of 1974-80 (when affirmative action requirements were seriously enforced for the first time), while for white females and black females the effects were somewhat more modest. This redistribution of employment occurs in many occupations, not just professionals and administrators. Looking at a cross-section of establishments, Holzer and Neumark (1999) found that the share of total employment accounted for by white males was about 15-20 percent lower in establishments using affirmative action in hiring than in those that do not—which is broadly consistent with the findings of Leonard and others.<sup>12</sup>

Since wages and salaries appear higher in the contractor sector (due to the greater size of establishments and the likely lower levels of product market competition there), this redistribution might reduce the relative wages of white males somewhat. But the magnitudes of any such effects appear modest—given the limited sizes of the contracting sectors, the fairly small shifts involved, and the small numbers of minorities relative to whites employed there to begin with.<sup>13</sup>

<sup>11</sup> EEO-1 forms that list the race and gender breakdown of all employees must be filed by virtually all federal contractors, as well as non-contractors with 100 or more employees.

<sup>12</sup> The Holzer and Neumark studies are based on analysis of a cross-sectional survey of roughly 3,000 employers in four large metropolitan areas (Atlanta, Boston, Detroit and Los Angeles) administered by Holzer in 1992-94 (see Holzer, 1996).

<sup>13</sup> Holzer and Neumark (2000b) report that affirmative action in hiring (as opposed to recruitment) is practiced by employers covering 42 percent of the workforce in their sample. So a decline in white male representation at these establishments of 15

Regarding efficiency in labor markets, a variety of methods have been used to study this issue. Some studies have used actual data on production, costs, or stock values across companies or industries as measures of performance, and related them statistically to race/gender workforce composition or companies' use of affirmative action. But these studies are either too aggregate or are otherwise flawed.<sup>14</sup>

Another approach is to look at measures of individual employee credentials or performance, by race and/or sex, to see whether or not major gaps in performance between white males and other groups occurs due to affirmative action. Using the employer data described above, Holzer and Neumark (1999) analyze several measures of employee credentials and performance for different demographic groups of employees. The credentials include educational attainment—both in absolute levels and relative to job requirements; while the performance measures include wage/promotion outcomes as well as performance rankings by supervisors of these workers (on a scale of 0 to 100).<sup>15</sup>

The study compared gaps in credentials and performance between white males and females or minorities in establishments that practice affirmative action versus those that do not.<sup>16</sup> The results showed little evidence of weaker credentials or performance among females in the affirmative action sector, relative to males. Comparing minorities to whites, there was clear evidence of weaker educational credentials among the former group, but much less evidence of weaker performance.

percent amounts to  $0.42 \times 0.15$ , or a 6 percent overall redistribution of white male employment between the affirmative action and non-affirmative action sectors.

<sup>14</sup> See the review of this work in our earlier paper (Holzer and Neumark, 2000a). The studies reviewed include papers by Leonard (1984), Griffin (1992), and Wright et al. (1995).

<sup>15</sup> The more objective indicators of worker productivity, such as wages and promotions, are themselves affected by affirmative action and therefore are not independent indicators of worker performance. The subjective rankings used were measured in absolute terms, and also relative to the "typical employee" in that job. These may be measured with some statistical error, but errors in the dependent variable of the regression equations should not bias estimated effects.

<sup>16</sup> These estimates are measured as "difference-in-differences," in which any gaps between minorities and whites in the affirmative action sector are compared to those in the non-affirmative action sector. In this manner, any differences that exist in the absence of affirmative action are eliminated from these estimates.

How could affirmative action generate employees with weaker credentials but not weaker job performance, if educational credentials at all predict performance? In a separate paper, Holzer and Neumark (2000b) considered various mechanisms by which firms using affirmative action might offset productivity shortfalls among those hired. The study finds that firms using affirmative action: 1) recruit more extensively (by using a larger number of recruitment methods per worker hired); 2) screen differently, paying less attention to characteristics (such as welfare reciprocity or limited work experience) that usually stigmatize candidates; 3) provide more training; and 4) evaluate worker performance more carefully.

Thus, these firms cast a wider net when attracting job applicants, gathering more information on candidates whose productivity may not be fully predicted by their educational credentials, and then invests more in their productivity. A variety of firm-level case studies suggest this as well (Hyer, 1985; Vernon-Gerstenfeld and Burke, 1985; and Badgett, 1995), as does the literature on employee selection in the field of human resource management (Silva and Jacob, 1993; Campbell, 1996). Affirmative action works best if employers use a broad range of recruitment techniques and predictors of performance when hiring, and when they make a variety of efforts to enhance performance of those hired.

Thus, affirmative action need not just “lower the bar” on expected performance of minority employees, and generally does not do so (though sometimes it might). Of course, the greater recruitment and training efforts spurred by affirmative action likely entail some increased costs to employers. Indeed, affirmative action encourages substitution away from cheap human resource practices towards more expensive ones, though the latter may have more predictive power (in addition to being more equitable).

Other studies have been done within specific sectors of the workforce, where it is easier to define and measure employee performance. These sectors include police forces, university faculties, and physicians. The results of these studies generally again show no evidence of weaker performance among women, and limited evidence of weaker performance among minorities.

Regarding police, Lovrich and Steel (1983) show that crime rates have not worsened in localities whose police departments increased hiring of minority and female officers over time (relative to those that did not), while Carter and Sapp (1991) show that educational attain-

ment of minority and female officers generally exceed those of males (perhaps because they are younger).<sup>17</sup> Regarding academics, Kolpin and Singell (1996) find positive correlations between *changes* in female hiring over time in economics departments and the quality of faculty publications there. Elmore and Blackburn (1983) find no major racial or gender differences in publication quantities, although they incorporate no information on publication quality. On the other hand, Barbezat (1989) finds higher salaries for minority faculty, and especially black females, after controlling for publication records—consistent with some publication shortfall among the latter.

The medical evidence is presented in Keith, et al. (1987), Cantor, et al. (1996), and Davidson and Lewis (1997). In these studies, minority physicians had more difficulty passing board exams for certification and were more likely to be in primary care rather than specialty practices; but there was little evidence of weaker actual performance after certification. Importantly, these studies point to potential social benefits from affirmative action in the medical sector—since minority doctors are more likely to locate in poor neighborhoods and treat minority/low-income patients. Thus, affirmative action appears to generate positive externalities in this sector.

Overall, the existing research finds clear evidence of weaker credentials but much less evidence of weaker labor market performance among the beneficiaries of affirmative action, and evidence (at least in one important sector) consistent with positive externalities.

#### **4. Empirical evidence on affirmative action: University admissions**

Having reviewed the research evidence on the distributional and efficiency effects of affirmative action in the labor market, we now turn to evidence on its effects in university admissions—again, in terms of

<sup>17</sup> One study of police departments (Lott, 2000) claimed to show evidence of higher homicide rates because of affirmative action in police hiring, but we found the study to be seriously flawed. Lott uses the presence of a black mayor or a Consent Decree as an instrumental variable (IV) for hiring of minority police, to estimate the effects of affirmative action. But the list of metropolitan areas included in his study seems quite arbitrary, and the exogeneity of his IV's are quite questionable. Lott also mistakenly includes crime rates as independent variables in his first-stage equation when they are the dependent variables in his second-stage equation. When he reports one specification that does not include these crime rates in the first stage, his results dramatically weaken.

the numbers of university slots redistributed between whites and minorities, and the implications of this redistribution for efficiency and student performance. Our focus will be almost exclusively on race and not on gender, as women now attend universities in higher numbers than men in the US.

How much redistribution of university admissions from white males to minorities or women is generated by affirmative action? Clearly, test scores of those admitted are considerably higher among whites than minorities at all colleges and institutions. For example, Datcher Loury and Garman (1995) report that the average gap in median SAT scores *between* colleges attended by whites and blacks is just 83 points, while the average gap between individual white and black students is 243 points; this implies large racial gaps in test scores *within* these institutions.

But part of these differences could be generated even with a common test score cutoff for blacks and whites, rather than a lower bar for blacks, given the racial gaps in test scores that exist in the population. And, if test scores are worse predictors of subsequent performance among blacks than whites, as suggested by some empirical evidence, then it might be sensible for schools to put less weight on them when considering black applicants (Dickens and Kane, 1999).

The best papers on how affirmative action redistributes university admissions are by Kane (1998) and Long (2004). Both analyze the probabilities of student admissions to colleges and universities, controlling somewhat for differences in student applications by race.<sup>18</sup> Both find that the impacts of affirmative action—as measured by positive effects on the likelihood of admission for blacks and Hispanics, controlling for scholastic performance in high school and family background—are quite small at most colleges and universities. But they rise with the quality of the school. Kane finds no significant effect of affirmative action on admissions anywhere below the top quintile of schools. Long finds some positive effects on admissions in

<sup>18</sup> The former paper uses data from the High School and Beyond dataset on the high school class of 1980; the latter uses data from the National Educational Longitudinal Survey (NELS) of 8<sup>th</sup> graders in 1988. Each study estimates racial and ethnic differences in admissions to measure the effects of affirmative action on admissions. Each uses extensive controls for individual characteristics and scholastic performance in high school (such as grade points averages and SAT scores), as well as university rankings (by average test scores), and estimates effects in each quintile of the university rankings.

the lower quintiles, but they are small—the shares of underrepresented minorities among those admitted in these schools rises by roughly a percentage point or less in absolute terms, and by 10 percent or less in percentage terms.

But both studies find substantial effects of affirmative action on admissions of minorities at elite schools. Long, in particular, finds that affirmative action raises the share of minorities at schools in the top quintile by over 2 percentage points—or over 25 percent from a base share of 8 percent—and by over 3 percentage points (from 7.3 percent to 10.5 percent), or over 40 percent, in the top decile of schools. Bowen and Bok (1998) also find that the fractions of minorities admitted to elite schools (which they define as being among the top thirty or so in the US) would fall dramatically in the absence of affirmative action. Similarly large effects of affirmative action on admissions have also been found by Attiyeh and Attiyeh (1997) for Ph.D. programs, by Davidson and Lewis (1997) for medical schools, and by Sander for law schools (2004).

Thus, while the aggregate effect of affirmative action in university admissions seems quite small, its effects on blacks and Hispanics at elite colleges/universities and graduate programs are quite substantial. But these findings also suggest that the displacement of white applicants by minorities, even at the elite schools, is not very large—since blacks and Hispanics still account for only 10-15 percent of all students at these schools, even with affirmative action. And eliminating affirmative action would not dramatically change average student quality, since the academic preparation of the marginal white students would be only moderately better, and their numbers relative to the entire student body would be low (Bowen and Bok, 1998).

#### **4.1. Non-racial approaches**

Given the controversies surrounding affirmative action policies in university admissions based on race, are there other approaches that are not explicitly based on race but that might tend to accomplish some of the same redistributive goals? For instance, might affirmative action based on parental income (or social class) be a practical alternative to policies based on race?

Carnevale and Rose (2003) as well as Bowen et al. (2005) show that individuals from poorer backgrounds are less likely to attend college, and especially more elite schools, than individuals from higher-income families with similar grades and test scores. This seems mostly

due to whether and where students apply to college (perhaps due to informational limits, lack of social supports, financial concerns, etc.), rather than lower college acceptance rates for lower-income students.

Should affirmative action be based on family income, rather than race and gender? Kane (1998), Cancian (1998), and Carnevale and Rose (2003) have simulated the effects of affirmative action by income and/or parental background instead of race. All find that relying only on parental income instead of race would substantially reduce the presence of minorities in elite schools. This is because the presence of minorities among all low-income students in the US, especially among those graduating from high school and going to college, would be much smaller than the current level of minorities generated by affirmative action.<sup>19</sup>

But Carnevale and Rose also consider a number of scenarios in which affirmative action is based on both family income and race; they find that the representation of both groups can be raised by such approaches (at the expense of middle- and upper-income whites). Indeed, both they and Bowen et al. argue for some version of this approach. The admission and graduation rates of both minorities and lower-income whites might also improve with a greater use of need-based scholarships in higher education, as opposed to loans or merit-based aid. But the extent to which need-based aid alone would improve attendance and retention among minorities and low-income students may not be large (Kane, 1994; Dynarski, 2004).

Other approaches have also been developed for maintaining racial diversity. After the *Hopwood* decision eliminated affirmative action in admissions for Texas state universities during the 1990's, the state sought officially race-neutral practices that might still disproportionately benefit minority (and lower-income) students. In the late 1990's it began admitting to state colleges all students who had graduated in the top 10 percent of their high school classes. Similar approaches have now been adopted by California and Florida, whose voters have eliminated affirmative action in popular referenda.

Interestingly, the greater the extent of racial segregation in high schools, the greater the potential benefits in college admissions to mi-

<sup>19</sup> This is because, while poverty rates among minorities are considerably higher than those observed among whites, whites nonetheless make up a sizable fraction of the poor. For instance, there are roughly twice as many poor whites in the US as poor blacks (US Bureau of the Census, 2004). Including Hispanics raises the minority fraction of the poor to just over half.

norities that the 10 percent plans might provide—since minorities are more likely to finish among the top 10 percent of students at segregated schools (Tienda and Niu, 2006). Thus, 10 percent-type plans may create incentives for potentially mobile minority (or white) parents to keep their families in weaker districts instead of moving to better ones.

Tienda and Niu (2006) and Bucks (2005) have also analyzed the empirical effects of the Texas 10 percent plan on admissions to the state university system. Both studies find that, while the 10 percent plan is associated with somewhat higher attendance of minorities in the Texas system relative to the immediate post-Hopwood years, the share of minorities at the elite schools (such as the University of Texas and Texas A&M) lags behind what affirmative action would currently generate.<sup>20</sup> Long (2004) comes to a similar conclusion, using simulations based on national data from the NELS. And the presence of blacks and Hispanics at the elite schools in the University of California system have also not yet recovered from their decline since the passage of Proposition 209.<sup>21</sup>

Overall, then, the various alternatives to affirmative action based on race that have been proposed or implemented in a few states do not generate similar redistributive outcomes that benefit racial minorities in universities to nearly the same extent, especially at the most elite schools.

#### **4.2. University efficiency: The “mismatch” hypothesis**

As was the case with labor markets, the critics of affirmative action claim that any redistribution of university positions towards minorities with weaker qualifications or credentials will generate inefficiency—in this case, represented by a “mismatch” between the skills demanded of university students for success and those held by minority students who are now admitted in larger numbers. What does the

<sup>20</sup> This is especially true since the presence of minorities in the population of Texas has grown over time, and thus minority representation would presumably have increased by more than it did in the presence of pre-Hopwood policies. See also Kain and O’Brien (2003). Some post-Hopwood improvements in minority representation may reflect university outreach in reaction to declining minority presence, or recovery in student applications (Card and Krueger, 2004).

<sup>21</sup> See Conrad and Sharpe (1996) and Card and Krueger (2004) for evidence and discussion of these issues.

research evidence show on the issue of university efficiency and “mismatches” of this type?

Before proceeding, it is important to note that analyzing the effects of affirmative action on the efficiency of university admissions is not a simple matter. Significant market imperfections are likely to lower admissions for some groups. For example, information among university officials about individual candidates (or vice versa) might be quite imperfect; and capital market problems might well limit the access of lower-income groups to financing. Furthermore, important externalities might exist in the education process. Students might learn more from one another in more diverse settings; and race-specific or gender-specific role models might be important for some individuals in the learning process.

Indeed, university admissions have *never* operated as simple meritocracies, based on grades and test scores alone. The preferences of university officials across students are complex and multi-dimensional, as are the preferences of student applicants across colleges and universities. Many elite schools have long favored a diverse student body in terms of geographic backgrounds and student talents; and the children of alumni (i.e., “legacies”), athletes, and other specific groups have been granted preferences in admissions for decades.<sup>22</sup> Given these complex preferences, we cannot infer “inefficiency” in the matching process, and attribute it to affirmative action in admissions, based on gaps between whites and minorities in grades or test scores.

Inefficiency due to affirmative action might be inferred if the minority students fail to graduate in large numbers, and fail to be certified in their chosen professions. In this case, affirmative action might actually hurt at least some minority students. Kane (1998) and Datcher Loury and Garman (1995) present analyses of educational “mismatch”. Both papers analyze the impact of race and college selectivity (as measured by average SAT scores) on college GPA, the probability of graduating, and earnings some time after leaving college.

The overall findings of the two papers differ quite a bit from one another. Both studies find modest negative effects of college selectivity on grade point averages among both blacks and whites. But Datcher Loury and Garman find fairly strong overall negative effects

<sup>22</sup> Wall Street Journal reporter Daniel Golden has written a Pulitzer Prize-winning series of articles on college admissions policies for largely white and wealthy “legacies” (see, for instance, Golden, 2003).

of college selectivity on graduation rates and few effects on the earnings of blacks; the former effect is driven primarily by the poor performance of those with low SAT scores at selective schools. In contrast, Kane finds zero or positive effects of college selectivity on the graduation rates of blacks (close to zero overall, but positive outside of the historically black colleges and universities, or HBCU's). He also finds clear evidence of positive effects of college selectivity on later earnings for black students.

But Datcher-Loury and Garman merely compare schools with average SAT scores above and below 1000; and, in the simulations they report, they only compare schools having median scores of 900 and 1000. Instead, Kane and Long have showed quite convincingly that the primary effects of affirmative action are in admission to the top quintile of schools, which are above these categories in quality. Thus, the analysis in Darman-Loury and Garman seems to miss the most relevant part of the college quality spectrum with regards to affirmative action.

In addition, the limited replication results that Datcher Loury and Garman report using the more recent High School and Beyond data are much closer to those of Kane (who also uses these data) than the results based on the National Longitudinal Data from the Class of 1972.<sup>23</sup> And Kane's more positive findings on college selectivity are consistent with those of Bowen and Bok (who find much higher graduation rates for blacks at elite colleges and universities than elsewhere), and also with Alon and Tienda (2005) in their analysis of state universities in Texas.

Overall, then, the studies suggest that affirmative action in university admissions generates little harm, and probably some gains, in graduation rates and later earnings for minorities who attend more elite colleges and universities. This conclusion, though, might hold for the average black student admitted under these policies, but perhaps not for all such students. For instance, Kane's study doesn't estimate separate effects for those attending elite schools by individual SAT level; nor does he analyze earnings results for those who graduate and those who do not. Do those who drop out have higher earnings than

<sup>23</sup> Specifically, they find considerably more positive overall effects of college selectivity on graduation rates in the HSB data, and smaller negative effects for blacks with lower SAT scores. Presumably, the net effects of higher admissions to elite schools for blacks in these data would be less negative (or more positive), as Kane found.

they would have had they not attended these more selective schools? We also don't know whether the dropouts eventually re-enroll in other colleges.

Thus, questions remain about whether the degree of affirmative action in university admissions in the US today is optimal, given some potentially negative effects of "mismatch" on the least qualified minority admittees. Still, Kane's results strongly suggest that, as a group, minorities benefit substantially from affirmative action in college admissions, contrary to the predictions of the "mismatch" hypothesis.

Some evidence in favor of the "mismatch" hypothesis for minorities at law schools was recently presented by Sander (2004). Using administrative and survey data from law schools and law students nationally, he studies a number of outcomes such as first-year grade point average, likelihood of graduation, likelihood of passing the bar exam, and earnings of those who become lawyers at private firms. Overall, Sander finds that blacks have lower grades in law schools than whites, primarily due to their lower college grades and LSAT scores; and then that law school grades have strong effects on who graduates from law school and passes the bar, as well as on future earnings. He claims that the racial gap in grades associated with affirmative action reduces the probabilities of finishing law school and passing the bar among blacks, which outweigh the positive effects of school "eliteness" (or selectivity) on these outcomes. Thus, he concludes that the net impact of affirmative action on these outcomes for minority law students is negative—since they would be more likely to graduate and pass the bar if they attended less selective law schools.

But Sander never runs regressions with bar passage or graduation as the dependent variable, and with college grades, LSAT scores, and law school quality as the independent variables. This would directly test the notion that attending higher quality law schools, conditional on qualifications, lowers graduation and bar passage rates for blacks.<sup>24</sup> Ayres and Brooks (2005) effectively run these regressions and find that law school quality conditional on college grades and LSAT scores *increases* rather than decreases bar passage and graduation rates. And the evidence clearly indicates that those blacks who do graduate and pass the bar have higher earnings from attending law schools, and especially more elite schools.

<sup>24</sup> Note that this regression parallels what is done in the Datcher-Loury and Garman's paper as well as Kane's, in studying mismatch at the undergraduate level.

It would be useful to know more about the educational trajectories and earnings of law school dropouts and of those failing the bar exam. But, in the meantime, the empirical case for the mismatch hypothesis in law schools remains weak. Clearly, more work needs to be done to better understand the impact of affirmative action on minority law students and graduate students more generally.

#### **4.3. Externalities and efficiency: The educational benefits of diversity**

If having more minority students on campus generates positive externalities in learning for either white or minority students (or both), a stronger case could be made that affirmative action has some positive effects on university efficiency. Positive effects could also occur through mentoring or role model effects on future minority students. What does the evidence show on these topics?

Gurin (2004) reviews a large body of work that she and various colleagues at the University of Michigan have generated, at both that university and nationally, over many years.<sup>25</sup> These studies measure “diversity” at the level of the university, the classroom, and self-reported informal interactions among students. They measure both “learning” and “democracy” outcomes.<sup>26</sup> As the data are longitudinal, the studies mostly report changes over time in the two sets of outcomes, rather than levels, and how these changes are related to the experience of diversity as defined above.

In these studies, changes in the various learning and democracy outcomes are positively associated with diversity in colleges and universities, and generally can be found among all major race or ethnic groups. These studies were apparently quite influential in the thinking of Justice Sandra Day O’Connor as she voted to uphold the use of race in university admissions in the Grutter case (United States Supreme Court, 2003).

<sup>25</sup> The national data are from the Cooperative Institutional Research Program and the UCLA Higher Education Research Institute, and cover over 11,000 students at 1,894 colleges and universities between 1984 and 1989. The Michigan study covered over 1,500 students between 1990 and 1994.

<sup>26</sup> The former include “active thinking processes, self-reported growth in intellectual engagement and motivation, and growth in subjectively assessed intellectual and academic skills” (p. 119), and the latter include attitudes toward civic engagement and pluralistic political participation as well as self-reported motivation to understand those of other ethnicities and backgrounds.

But some questions remain, especially about the direction of causality between changes in outcomes and experience of diversity. Those who choose (or “self-select”) into diverse informal experiences, classrooms, and even universities might be those already growing the most intellectually. Classroom diversity might well be correlated with course content and curricula. Observed correlations between diversity and outcome changes could reflect either student self-selection into certain courses or causal changes induced by the curricula rather than diversity per se.

But Antonio et al. (2004) use experimental data from over 350 undergraduates at 3 universities to study diversity. They analyze the impact of both racial- and opinion-minority presence in groups on the “integrative complexity” of group discussions and individual participation. By and large, they find positive effects of both kinds of diversity on these outcomes—especially in small groups. Given its experimental design, the study is more convincing on the causal effects of diversity, and supports the conclusions reached by Gurin and her colleagues.

As for the effects of minority or female faculty “mentoring” and “role models”, the evidence is mixed. For instance, Rothstein (1995) finds that female faculty members in college raises the likelihood that women become graduate students; and Neumark and Gardecki (1998) find that female dissertation chairs quicken the time needed to complete a Ph.D. among female graduate students. But these and a few other studies (Canes and Rosen, 1995; Dynan and Rouse, 1997) find little evidence that having female faculty or mentors leads to more majors in a particular field or better job placements. There is also little research on the effects of minority faculty mentoring within universities.

Overall, there is some evidence of positive externalities in classrooms, even if much of it to date is not terribly rigorous; while the evidence on the broader externalities to minority students and faculty that might occur because of role modeling and mentoring generated by affirmative action remains weaker.

## **5. Summary and implications for future**

Overall, what does the empirical evidence on affirmative action show? Regarding equity, these programs clearly shift employment and university admissions away from white males towards minorities and fe-

males. But the magnitudes of these shifts are generally not very large. In elite colleges and universities, as well as many graduate programs, affirmative action does have large relative effects on the presence of minorities, even if the overall numbers of positions affected is modest.

Replacing race-based affirmative action in university admissions with other practices—either based on family income or class rank within high schools—reduces the presence of minorities on selective college campuses, in some cases quite substantially. But they do little to improve the overall numbers of positions for whites, or the average quality of students.

Regarding efficiency, the evidence paints a more complex picture. In the labor market, the qualifications or performance of females does not lag behind those of males. The *credentials* of minorities do lag behind those of their white counterparts—in part because they lag behind in the population, and in part because of the preferential admissions and hiring policies generated by affirmative action. But there is relatively little evidence of weaker *performance* in the labor market by minorities who benefit from affirmative action. Companies can and often do offset most of the expected performance shortfalls of those whom they hire through improved recruitment and screening, greater training efforts, and better evaluation activity on the job. And there is clear evidence of positive “externalities” from affirmative action in certain sectors—especially medical care, where minority physicians are more likely to provide care to minorities and the poor than are white physicians.

In the classroom, the performance of minorities clearly lags behind that of whites, and their dropout rates are substantially higher—but again only partly because of affirmative action. Minority students still seem to benefit overall, in terms of higher subsequent earnings, from their higher rates of admission to better schools - though we know little about what happens to dropouts. The quality of the evidence on the positive educational benefits of diversity can be challenged; recent experimental evidence seems supportive of these notions, but more research remains to be done. The evidence of positive effects from mentoring and role models in universities is also mixed.

Overall, the evidence suggests that affirmative action does directly benefit minority students and employees. In addition, it generates positive external benefits to others—such as minority and poor communities more broadly, and even perhaps white students. The

costs borne by white males (in terms of lost jobs at contractor establishments or positions at elite colleges and universities) have not been high, while those borne by employers in the form of lower productivity also appear very limited.

### 5.1. The future of affirmative action in the US

While EEO laws and activity are widely accepted in the US, affirmative action programs (particularly in college and university admissions) remain under challenge. The Grutter case appears to have protected certain types of university admissions programs for a while, but popular referenda at the state level will likely continue for years to come, and other court challenges may well arise—especially as the predicted 25-year limit for affirmative action by Justice O'Connor in her *Grutter* opinion draws near.<sup>27</sup> And the replacement of O'Connor by Justice Samuel Alito on the Supreme Court will likely encourage new legal challenges to affirmative action much sooner, and perhaps the end of Constitutional protections for affirmative action in public higher education.

But whether or in what form affirmative action survives will depend on whether Americans think it is *fair* to give some preferences to minorities or women, to overcome the barriers they continue to face from current or past discrimination. Views on fairness are very subjective, and sometimes impervious to empirical evidence. Political forces and the relative political power of different groups will also play some role in resolving these controversies. The political power of the growing Hispanic community in the US, viewed by both major political parties as a key to future electoral success, may matter importantly here. And the needs of employers to find skilled labor, in the face of Baby Boomer retirements and increasingly diverse pools of workers and customers, may have some impact as well—if employers believe that affirmative action policies now help them recruit minority talent that they need, instead of being a burden imposed on them by the federal government.<sup>28</sup>

<sup>27</sup> O'Connor predicted that there would be no need for affirmative action 25 years later, but her conclusion is strongly disputed by Krueger et al. (2004), who project that minority education and earnings will continue to lag substantially behind that of whites even a full generation into the future.

<sup>28</sup> The challenges that employers will face in finding skilled workers to replace retiring Baby Boomers are highlighted in an Aspen Institute report (2002). Of course, if trends in foreign outsourcing of jobs accelerate over time, these difficulties in many

Given these factors, it seems that affirmative action in employment based on presidential Executive Orders is more likely to survive than that in public higher education, and is less vulnerable to legislative or executive changes than at various times in the past. Affirmative action in private college and university admissions also seems less vulnerable than in public ones, since most of the legal challenges to affirmative action have focused on the latter—though some constitutional bases exist to challenge the former as well.<sup>29</sup> In public higher education, it is increasingly likely that universities will look for new and more flexible ways of taking race into account indirectly and informally, perhaps by considering neighborhood of residence and school characteristics as well as family income and background in making their admissions decisions.

Of course, even if affirmative action in the US survives, it is also clear that these policies alone will not be sufficient to eliminate major racial disparities in education and employment. Immigration will continue to limit the relative skills and earnings of Hispanics; and the continuing gaps in achievement and employment plaguing even native-born minorities and especially blacks require a range of other policy responses. Pre-kindergarten programs and reforms in the K-12 grades that improve student achievement, and that better link them to jobs, should be viewed as important complements to, and not necessarily substitutes for, affirmative action policies. Reducing the dropout rates of blacks in colleges and universities—through financial aid, academic remediation and tutoring, and various personal and social supports—should remain a priority. And broader efforts to improve

sectors will be offset. Furthermore, one might argue that firms are free to choose affirmative action policies if they find them useful, as opposed to having them imposed on them by the federal government (unless affirmative action requirements help them deter charges of reverse discrimination). On the other hand, given imperfect information and institutional inertia, it is unlikely that many firms would have chosen to implement these policies on their own, even though many now claim to find them helpful. It is also noteworthy that many large companies filed amicus briefs on behalf of the University of Michigan during court deliberations on the Gratz and Grutter cases, claiming that they benefit from affirmative action admissions policies which help generate minority job applicants with strong university credentials.

<sup>29</sup> While the 14<sup>th</sup> Amendment to the US Constitution has been the primary legal vehicle by which affirmative action in state colleges and universities have been challenged, strict race-neutral readings of the federal civil rights laws can be used to challenge private activities also.

the employment of lower-income minority groups—such as African-American men—are urgently needed as well (Holzer, et al., 2005).

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