Rethinking affirmative action in medical school admissions - maintaining diversity in a changing political climate.

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Introduction

The need to suggest alternatives to the existing policies for affirmative action in admissions as the main mechanism for increasing minority admissions is timely. The passage of Proposition 209 in the State of California[1] together with the decision of the Supreme Court to let stand the *Hopwood*[2]decision has in many commentators views sounded the death knell of existing affirmative action programs. The Supreme Court which was so powerful in dismantling the vestiges of racial segregation starting with *Brown v Board of Education*[3] in 1954 seems to be following a pattern in which anti-affirmative action decisions of lower courts are allowed to stand. Together with evidence that public sympathy for minority individuals who have suffered the most from racial exclusion has waned[4], it is crucial that universities address the major problems they will face as result of reduced minority admissions if they do not alter their existing admissions policies. The omens are not good in California or Texas, Louisiana and Mississippi where there is evidence that underrepresented minority admissions to all programs including medicine have fallen precipitously, especially since the passage of Proposition 209 and the *Hopwood* ruling[5]. Recent changes in Washington State following the passage of Initiative 200 suggests that the momentum against affirmative action continues unabated.[6]

Affirmative action and the health professions

Medical schools and the medical profession, like most other institutions in America were until the early 1970's highly segregated and overwhelmingly white institutions. Although Black Americans were able to qualify as doctors, the majority did so in black medical schools. The Flexner Report, published in 1910 specified minimum requirements for the licensure of medical schools with the result that only 2 out of the existing 9 black medical schools were able to meet these standards. Consequently, from the time of the first world war, till 1964, between 2 and 3 percent of students entering American medical schools were black, and the great majority of them attended Howard or Meharry. As recently as 1968, fewer black students entered the total first-year classes of predominantly white medical schools than of Howard and Meharry, despite the far greater resources in faculty, facilities and public funding enjoyed by the mainstream schools[7]. The pattern of racial discrimination that characterized medical education was also widespread in other areas of American medicine. The American Medical Association only prohibited racial discrimination by its member organizations in 1964 (until that time many of its affiliated organizations, particularly in the South, barred black physicians). The hospital system was also segregated and it was not until 1955 that the Veterans Administration ordered full desegregation of its facilities. Federal support for segregation was sanctioned in the Hill-Burton Act which appropriated nearly $1.6 billion between 1946-1964 in order to build 1 million hospital beds. The act specifically permitted the construction of 'separate but equal' facilities for white and black patients[8]. The clause was struck down in 1964 by the Supreme Court but as recently as 1995, Mount Sinai hospital in New York was accused of sanctioning separate but equal facilities for its black patients[9].

Following the Civil Rights Movement of the 1960's and the passage of the Civil Rights Act in 1964, outlawing discrimination in employment and other fields, many areas of American society, including the medical establishment, previously closed to black Americans began to open their doors. Hospitals that received reimbursement from Medicare and Medicaid, were required to integrate patient care both in the hospital as a whole and in individual room assignments. The impact of this legislation was almost immediate. Whereas, in 1966 whites were hospitalized 27 per cent more frequently than blacks, by 1968, this had fallen to 18 per cent and by 1974 to 4 per cent[10].

Many progressive thinkers at the time of the passage of the Civil Rights Act, including Martin Luther King believed that unless something was done, beyond outlawing future discrimination, the evils of the past would continue into the future. Tackling this legacy of unequal opportunity, and of segregation, developed into a policy of 'affirmative action', partly as a compensatory mechanism towards achieving the goal of equal opportunity. Martin Luther King saw the solution of dealing with the legacy of past discrimination much more in terms of class based solutions because he did not believe that the white poor would accept a solution which gave special preference to black Americans. Whilst King believed that some form of compensation for past discrimination was imperative, he in fact did not argue for a Bill of Rights only for the Negro [11]. He also spoke of compensating black America in the context of an ambitious effort to create a Great Society in which there was genuine equal opportunity, color blindness and an integrated future.

Kings assassination in April 1968 and the riots which subsequently erupted in 110 cities, was a

catalytic event for America. For a short time, Americans stared into an abyss of a future which would ensue if they continued policies which systematically excluded a large section of its population from the American dream. In response, America's universities, its business leaders and the federal government instituted a system of explicit racial preferences which rapidly opened up whole sections of American society and its professions to black Americans. This, combined with a huge expansion in higher education, which took place at this time, resulted in a large increase in the number of black students enrolled in medical schools. Between 1968 and 1974, the number of black students enrolled in the first year classes, increased from 266 (2.7 per cent of the total) to 1,106 (7.5 per cent). In the same period, the percentage of all black students enrolled in the two historically black medical schools plummeted from 76 per cent to 18 per cent. The federal government and private foundations played a major role in assisting medical schools in their efforts to support, recruit and retain minority students. The funding from the federal government and private foundations enabled the newly formed offices of minority affairs to work with undergraduate colleges to ensure that students knew about opportunities in medical schools. Schools also helped minority students financially and set up programs that tied their minority students into a system of social and academic support to enable them to graduate.

The period from 1968-1974 can therefore be characterized as a period when 'positive action' was used as a policy objective to increase minority representation in medical schools. Although the goal of 12 per cent of minority enrollment set by the Association of American Medical Colleges (AAMC) in 1970 was never achieved, there can be no doubt that the policy of affirmative action had a major impact in increasing the number of black Americans who qualified as doctors in that period. It is also unlikely that any other policy would have had such a dramatic and rapid effect in increasing minority representation in the medical profession. However, the policy of affirmative action was also helped by the expansion in medical school intake (together with increased funding for all higher education institutions) that coincided with this period. Increased opportunities were being made available to all Americans in higher education through this expansion, and black Americans benefited without the public perception that whites were being denied places at the expense of other minorities.

Looking at this early period of affirmative action, there were two justifications given for its use. One was based on the concept of redistribution or reparation and the other was the use of affirmative action as a means of remedying past and preventing future discrimination. In many instances, this got translated into a system of racial preferences or quotas, and it was this system of preferences that began to be challenged in the courts.

The policies of racial preferences in the allocation of medical school places was first challenged by Allan Bakke, a white working-class applicant who was rejected from the University of California at Davis Medical school, even though his scores were much higher than those of minority applicants who were accepted. In *Regents of the University of California vs. Bakke*[12], the court agreed with his complaint and ordered his admission to the school. The University appealed this decision and the case was ultimately decided by the US Supreme Court in 1978. In a 5:4 majority opinion, the court supported as lawful and constitutional UC Davis's system of racial preferences as a way of 'remedying the effects of past societal discrimination[13]'. However, the policy of setting aside a specific number of places in its first-year class for under-represented minorities was declared unconstitutional. In authoring the controlling opinion in Bakke, Justice Powell argued that preferences in medical school admissions was justified as a way of 'obtaining the educational benefits that flow from an ethnically diverse student body[14]'.

Diversity and affirmative action

Most commentators trace the use of the diversity argument to its espousal by Justice Powell in the Bakke decision, and, over time it has come to replace the compensatory notion of affirmative action articulated by Martin Luther King. In sociological terms, what started of as an attempt to create race-blind policies, became race-conscious policies.

As Kahlenberg[15] states in a well argued book on race class and affirmative action,

"The shift from race-blind class remedy to class-blind racial preferences was associated with a profound shift in the public policy goal. Where first the notion was that poor kids have unequal opportunities and, because of past discrimination, an extraordinary number of poor kids are black, the new notion that every individual black needs a break against every individual white, no matter the class status of either. The goal was transformed from compensation in order to produce genuine equal opportunity to compensation to restore all people of color to the societal rung on the ladder where policy makers speculate they might have been but for historical wrongs."

The diversity argument is now used because strategically it offers several advantages over the compensatory rationale.

Firstly it circumvents the heavy burden placed by the supreme court on justifying racial compensation schemes, and the need for proving past discrimination. Secondly, it is based on a utilitarian rationale. It makes no moral claims about the need for whites to pay for the sins of their fathers but claims instead that preferences are good for the institutions that offer them. First advocated in the university context, it is in education that the diversity justification for affirmative action has its greatest resonance. And it is the diversity argument that is now used by President Clinton and his advisor on affirmative action, Professor Christopher Edley[16], as one of the main justifications for affirmative action policies in education.

With respect to medical schools and health care, there are three strands to the diversity argument, which include the utilitarian position of diversity being good for the university, the viewpoint that minority communities are better served by minority professionals and that in a changing population, minorities in the professions are needed because they reflect the population at large.

Utilitarianism and diversity

The utilitarian position states that the purpose of an educational institution is to teach, not only through its professors but also through its student body. As Neil Rudenstein, the President of Harvard University and one of the chief advocates of affirmative action states:

"Students benefit in countless ways from the opportunity to live and learn among peers whose perspectives and experiences differ from their own. A diverse educational environment challenges them to explore ideas and arguments at a deeper level - to see issues from various sides, to rethink their own premises, to achieve the kind of understanding that comes only from testing their own hypotheses against those of people with other views. Such an environment also creates opportunities for people from different backgrounds, with different life experiences, to come to know one another as more than passing acquaintances, and to develop forms of tolerances and mutual respect on which the health of our civic life depends.[17]*"*

Using the utilitarian viewpoint, universities have the right to admit students who they judge to be more valuable to their educational purpose. A student who achieves high scores on a particular test has no right to attend a university, but the university reserves the right to admit the individuals it deems to have the most value, which may in present day America include considerations of race.

However the use of race as a proxy for diversity, is that it confuses race with both ethnicity and culture and fails to take into account differences within groups. There is no doubt that every ethnic group including European Americans, African Americans and Asian Americans, have distinct cultural attributes which may contribute towards a diverse student body. But to claim that there is a distinct 'minority viewpoint' or an 'black viewpoint' which contributes to diversity is questionable. In the American context, black views are probably no more liberal on issues such as abortion, the environment or the middle east than those of the majority population. Racism, particularly the racism experienced by the black population in America has however been a powerful distinguishing feature of American society and it is likely that it plays a role in shaping the experiences of millions of Americans. Therefore, there may be a justification for asserting that being black in the American context results in black Americans having a different life experience to white Americans. Whether this translates into having a different viewpoint on social and political questions is doubtful.

An additional problem with the utilitarian argument is that over emphasizes the attributes of racial diversity compared to social diversity. Critics of affirmative action, also claim that it has preferentially favored middle and upper class blacks at the expense of poor black Americans. Income differences in African Americans are actually increasing at a faster rate than income differences between whites. In 1968, the poorest quintile of black household income was $10,624 compared to $60,782 for the highest quintile. In 1995, the household income of the poorest quintile of blacks was $10,200 showing a decrease in the income of the poorest black households, compared to $84,744 for the richest quintile. In 1992, the highest fifth of black families secured 49 per cent of the total income among black families, compared to the 44 per cent share of total income received by the highest fifth of white families[18]. Between 1970 and 1990, the percentage of black managers increased 138 per cent, the percentage of black college professors increased by 45 per cent, the percentage of black physicians increased by 64 per cent and the percentage of black lawyers increased by 162 per cent[19]. In *The Truly Disadvantaged*[20], William Julius Wilson argues that affirmative action has benefited advantaged minorities much greater than poor minorities. It is therefore in the interests of advantaged minorities to continue to emphasize race as the most important issue in developing policies to promote black progress.

Even though Harvard makes much of its commitment to diversity, one Harvard study found that most of its African American students will come from middle-class homes and will have attended predominantly white schools. Fully 70 percent of Harvard's black undergraduates have parents who are managers or professionals.[21] At Berkeley, an internal study found that two-thirds of blacks in Berkeley's 1987 freshman class, had families with incomes above the national mean[22]. This is not to state that affirmative action has failed, but to point out that it has had a differential impact in terms of its beneficiaries, because the more advantaged minorities are in the best position to compete with other individuals or groups for higher paying jobs and college admissions. As it operates today, affirmative action favors any black American over an equally qualified white American. Why should the child of a rich black doctor receive preference over the child of a poor white janitor? The more pertinent question to ask is who would bring greater diversity to Harvard - the son of the black doctor or the white janitor.

The arguments for educational diversity are therefore strong but care needs to be taken against racial stereotyping and using preferences to achieve the utilitarian target of diversity. When preferences are used to justify racial diversity, racial stereotyping is being justified - in effect, universities are telling black applicants, that they can look at the color of their skin and have a pretty good idea of how they think , feel or act.

The second strand of the diversity argument states that minority communities are better served by minority professionals. Assuming that it is true that black doctors are better at giving care to black patients, are preferred by black patients and are more likely to practice in undeserved populations as research tends to suggest[23] [24] [25]. The problem is that once we allow the racial views of constituents to dictate the choice of personnel, we are opening a can of worms that is ultimately more dangerous to blacks and minorities than whites. If racial preferences are justified by reason of social utility rather than compensation for past wrongs, there is nothing to stop white people from making the same arguments. What if patient satisfaction surveys in this new managed care era found that white patients preferred to be treated by white doctors because they were more likely to 'relate better'. If Hispanic doctors 'communicate more efficiently' with Hispanic patients, why should we not think that white patients will communicate better with white doctors.

The related problem with using race as a bona fide occupational qualification is that it can pigeonhole people of color in certain slots. Black academics will be told that they should concentrate on researching the problems of minority patients because somehow they understand the problems better. Similar justifications will be used to deny opportunities to black doctors in prestigious positions - for example one doctor told me how she was assigned to work in a community health center from her present academic health center post because it was felt that she would relate to the minority patients that use the service better than a white doctor. This ghettoization will ultimately deny opportunities to minority physicians in the sought after specialties in medicine which will continue to remain predominantly white.

The other side of the same argument is that unless minority physicians who have expressed a desire to work in deprived areas are recruited, then people living in these areas will be denied care because white physicians will not practice in these areas. Whilst it is true that minority groups do receive care from minority physicians and that in many instances, absence of these physicians would result in reduced care, the idea that health care to minorities is dependent on minority physicians is questionable. Health care to minorities is much more dependent on issues such as universal access and cost than on whether a particular group of doctors decide to practice in underprivileged areas.

The third strand of the diversity rationale is that minorities in the profession are needed because they reflect the population at large. The arguments about proportional representation which forms the cornerstone of the Association of American Medical Colleges policy on trying to increase the number of underrepresented minorities in medical schools are presumably based on the supposition that but for past and continuing discrimination, we would expect to see approximate distributions of minorities in the professions comparable to their numbers in the general population. There is however, not a neat link between discrimination and under representation, not least because all underrepresented groups are not racial. The logic of proportionality in the diversity rationale, requires preferences for any underrepresented group that might have something to offer. So, in some universities, political conservatives are underrepresented at both student and faculty level. The logic of the argument dictates that a university can specifically attempt to recruit conservatives because they would bring an important difference to the university. In the racial context, using diversity and proportional representation is already beginning to hurt Asians at some California schools. Because they are over-represented in the higher education system, the diversity rationale calls for their strict representation based on their

numbers in the population. There is already evidence that Asian Americans now need higher scores than whites to be admitted to undergraduate universities in California[26] . Racial stereotypes of Asian Americans are widespread 'They're all premeds' or 'They don't participate in extracurricular activities' are just as pernicious as stereotypes of African Americans as 'lazy' or 'stupid'. Universities, rather than accepting that denying places to Asian Americans is prejudice and some would argue racist, can now justify their policies using the diversity argument that there are just too many Asians.

Today, the majority of minorities are non-black, many are recent immigrants. The policies of affirmative action which were initially used to deal with the legacy of racism against black Americans are now also being used to argue against their overrepresentation in many areas. For example, blacks are over represented in the US postal service and many government jobs at both state and federal level. The theory of diversity is frequently used against them - there are numerous examples in California where Latino groups have argued for more Latino teachers, more city hall jobs and more health care jobs because in all these areas, Hispanics are underrepresented compared to their numbers in the population[27].

In 1965, when affirmative action programs began, less than half of US immigrants were from the Third World and their number was fairly small (115,000). By 1991, nearly 90 per cent of immigrants were coming from the Third World and in the space of twenty years, some thirteen million Third World immigrants have arrived, all of them eligible for affirmative action based on the diversity rules as they exist at present.[28]

Alternatives to diversity based programs.

Societal needs in medical education

Determining the future needs of society in terms of the type of doctors required is critical to the selection of students. In a landmark report on General Professional Education of the Physician titled Physicians for the Twenty-First Century published by the Association of American Medical Colleges in 1984[29] , Steven Muller states

"We believe that every physician should be caring, compassionate, and dedicated to patients - to keeping them well and to helping them when they are ill. Each should be committed to work, to learning, to rationality, to science, and to serving the greater society. Ethical sensitivity and moral integrity, combined with equanimity, humility, and self-knowledge, are quintessential qualities of all physicians. The ability to weigh possibilities and to devise a plan of action responsive to the needs of each patient is vital."

It is difficult to equate these qualities with a single GPA and MCAT score and there is considerable evidence that despite stating that candidates personal qualities are important factors in selection decisions[30], admission committees give lip-service to the importance of personal and social traits. A thirty year study by Johnson[31] and work by Mitchell[32] show that high grades in science courses and high MCAT scores are the selection criteria that really count.

McGaghie[33] suggests that the over-reliance on test scores in America is a reflection of two core values that underlie American culture: individualism and self-reliance and competition. Norm-referenced measurements such as GPA and MCAT establishes a person's standing in competitive relation to peers and the miss-conception that these tests are clear cut and objective technological measures permeates not only the students that take the tests but also the admissions officers and now the judicial system as well.

The changing nature of the organization of health care in America with the growth of managed care, an increasing emphasis on the training of primary care physicians and an increase in the burden of chronic diseases as the population grows older, suggests that one of the most radical changes in medical care is going to be in the doctor-patient relationship. Patients are expecting more from their doctors than ever before. But more importantly, they are seeking a dialogue with their physician as much as a diagnosis. They want to know about their illness and want to be involved in discussions about their care. The non-cognitive attributes of the future doctor which will include character and integrity, breath of knowledge, evidence of leadership, motivation to continuous study, personality and attitude, service orientation and altruism[34] will be far more important in determining the physician of the future than the over-reliance on a test score. If medicine was simply a degree course like any other, there would be little need for an elaborate selection process. However, the medical course is really a vocational training course with applicants not only expected to make medicine their career but are also given an undertaking by the accepting institution that barring any major mishaps, nearly 98% of the intake will end up with a license to practice medicine[35].

Challenging the dictatorship of scores

Part of the problem that many universities have in trying to achieve diversity without relying on a system of preferences is a belief in the concept of meritocracy as defined by achievement in standardized tests. Perhaps more so than almost any other western European democracy, the use of standardized tests as a measure of ones ability either to enter college or graduate school is widespread. One of the most widely used tests for entry into college is the Scholastic Assessment Test or SAT which has been in use since 1926. It gained wide acceptance after the second world war and was initially seen as a more democratic means of assessing students for admission to university than the system of elitist connections and subjective assessments. One of the first beneficiaries of the standardized tests were Jewish students and other academically qualified young people at Ivy league universities who had previously shunned all but a few of these students.

Opponents of the use of SATs and other standardized tests argue that the tests are 'culturally biased' against minorities. This cannot mean that certain racial or ethnic groups do better or worse on a particular test (just because Asian Americans do better on SATs than whites, does not mean that the test is culturally biased against whites) but that the tests do not predict as well for one group as for another. The National Academy of Sciences Research Council has carried out definitive tests on this issue and has concluded that there is no statistical bias in the test in the sense that they under predict black performance[36] . If there was, then such a test would be illegal under Title VI of the Civil Rights Act. The SAT test does test culture in the sense that it is attempting to measure what students must do in order to succeed in universities. The culture of universities in America is at present driven by the culture of achievement in tests. But what SATs cannot do is to measure other attributes such as creativity, character, and leadership.

In fact SATs have only been validated in regards to their ability to predict first year college grades. Similar criticisms can be leveled at the Medical College Admission Tests (MCAT). Like the SAT tests, blacks and Hispanics do much worse than whites and Asians. Even controlling for incomes, black applicants do much worse than whites. In 1995, the mean MCAT score of the 412 black applicants with family incomes of at least $75,000 was 19.7 - substantially lower than the mean score of 25.1 for the 1,513 white applicants from the lowest income group. There is also little overlap between the score distributions of the 611 low incomes black examinees, who have an average score of 17.4 and the low income white applicants[37].

There are several reasons which have been suggested to explain the differences in SAT and MCAT scores between African Americans and whites. African Americans are generally more economically disadvantaged than whites of the same income group; blacks are disadvantaged compared to whites in terms of wealth, family structure and concentration of poverty. It has been estimated that median black income hovers around 60 per cent of white income - in one study it was shown that white households with annual incomes between $7,500 and $15,000 have higher mean net worth and net financial assets than black households making $45,000 to $60,000[38]. Family structures for African Americans also differ from whites to the relative disadvantage of blacks - 78.5 per cent of whites under 18 lived with two parents compared with 35.9 per cent of African American children. 58 per cent of black households were headed by women compared to 17.9 per cent of white households. In 1992, amongst teenage girls between 15-17, blacks had 81.3 live births per 1,000 girls compared to 51.8 live births for white

teenagers. Blacks are also more likely to live in larger families.

It should therefore come as no surprise to find that SAT and MCAT scores which are heavily dependent on coaching (SAT courses can cost $700 or more) disproportionately disadvantage blacks at all income levels. Special SAT preparation is recognized as a necessary ingredient of the educational offerings at many private schools. Similarly, 'MCAT Review' courses are also becoming part of many colleges curricula with the implication that students can be coached in improving their MCAT scores.

College admissions officers are relying more heavily on standardized tests to differentiate between potential applicants to medical school under the false assumption that variations in the perceived qualities of course grades and personal recommendations provided by different colleges are too subjective to be used to justify student entry to medical schools. Scores provide a false sense of security because they seem so scientific and a huge emphasis is placed on minor differences between scores of applicants. For example it is not unusual to exclude applicants whose scores fall below a certain level from consideration for a place. The cut offs used are totally arbitrary and vary from institution to institution. The dictatorship of scores on standardized tests received its greatest support from the federal court for the 5th circuit in *Hopwood v Texas* which cited the lower standardized test score of some minority applicants as evidence of reverse discrimination.

There is therefore a perception by a broad coalition of admissions officers, the public and the courts that somehow equality in standardized scores translate into more meritorious applications and that relying on so called objective measures constitutes a fair race-neutral process. The evidence for this proposition is however exceedingly thin; indeed a substantial body of research exists to refute it.

In an extensive review of the literature that I carried out on the predictive ability of the MCAT score, the evidence clearly points to the fact that the MCAT is useful in identifying students at risk of encountering academic difficulty during the first two years of medical school, but it is of limited value in predicting academic performance for students scoring above a given threshold[39 40 41 42 43 44 45 46 47 48]. A useful summary review of the value of the cognitive criteria of intellectual ability, numerical and verbal/literacy skills is provided by Powis[49]. In Powis' review, the overwhelming majority of studies showed moderate correlation between prior academic achievement and success at medical school or no correlation. In terms of overall academic achievement, several studies suggest that academic achievement is a poor predictor of ultimate effectiveness as a medical practitioner. Of direct relevance to the US, Mitchell, in an extensive review[50] looked at the predictive value of undergraduate grades, the MCAT and related information on performance in the basic sciences and clinical medical school. The studies she reviewed showed a median correlation of 0.49 for a combination of GPA and MCAT scores to predict students performances in the basic sciences in medical schools. Mitchell translates this figure to show that with a correlation coefficient of 0.4, of the top fifth of applicants, only 38% of this group would be in the top fifth of a group as indexed by performance in medical school. So in a class of 100, of the top 20 students selected by the highest GPA and MCAT scores only 8 of these students would be in the top 20 when their performance was judged in medical school. If the correlation coefficient was 0.6, the number would increase to 10. What this shows is that even in studies with the highest correlation coefficient, for nearly 50% of the highest achieving students, their performance in medical school pre-clinical exams was determined by other factors apart from their GPA and MCAT score. When one takes into account the fact that this is a pre-selected group with applicants who fail to score above a certain threshold being excluded, the value of GPA and MCAT is probably over-estimated. When it comes to prediction of clinical performance, the median correlation coefficient drops to 0.38 for paper and pencil based assessments and 0.24 for assessments that include problem-solving ability, subject knowledge, patient relations, professional relations and educational attitudes. In effect, the correlation of a combination of GPA and MCAT is not much better than chance in predicting clinical performance.

Not surprisingly, when it comes to the National Board Of Medical Examiners Examinations (NBME), validity coefficients for GPA and MCATs increase, with median values of 0.58 for Part I, 0.49 for Part II and 0.35 for Part III. However, what is probably happening is that medical school curricula and evaluations approximate the criteria referenced at selection so the argument becomes self-perpetuating. It wasn't so long ago that Harvard Medical School aborted a newly devised curriculum when the NBME scores of their students fell significantly. The fact that most students now have to pass NBME Part I examination for promotion into clinical studies (many schools have forfeited their roles in student assessment by adopting ungraded curricula in which passing scores on the NBME examinations are the sole determinants), ties the admissions officers more heavily into relying on GPA and MCAT scores[51]. One senior admissions officer admitted to me that his school's ranking in the league table of students MCAT and NBME examination scores was like a badge of honor for Dean's of medical schools who seemed to have a perverse pride in their school rankings as though the higher scores by students meant better doctors. Anderson[52] also suggests that when it comes to specialty examinations, collaboration between residents and fellows results in entire qualifying examinations being reconstructed by systematic briefing of examinees to ensure that subsequent candidates from the same academic center will have an edge in attaining high scores that reflect well on them and their mentors.

There are additional problems associated with an over-reliance of test scores. If academic marks, as exemplified by cognitive tests such as the MCAT are used as the main mechanism for student selection, there is evidence that increasing levels of prior academic achievement in students results in a declining trend in many non-cognitive dimensions. Parlow and Rothman[53] showed over a six year period that "there were decreasing levels of flexibility, innovation and tolerance of ambiguity, decreases that seem incompatible with the requirement for doctors to possess these fundamental characteristics which are the basis of competence in many clinical situations". Powis also draws attention to a study by Campbell[54] which shows that the predominant convergent personalities of medical graduates, leads to the diminution in creative and original divergent personalities and to diminishing levels of motivation and vocation. More recently, Pfeiffer and colleagues have described a decline in the ability among medical graduates to gather information about social history, concluding that "the overall culture of medicine may serve to encourage the voice of medicine rather than the voice of the lifeworld"[55]. In addition to the narrowing of personality traits, an increasing emphasis on academic achievement is resulting in a decline in clinical skills among medical students. There is also evidence that there is a continuing decline in clinical skills among medical students[56]. This trend has also been noted in the USA.[57]

Over 10 years ago, commentators[58] were calling for a change in medical school admission practices because "As the applicant pool expanded and it became more difficult to enter medical school, observers in the USA reported on a new condition, 'the pre-med syndrome'. Those displaying pre-med syndrome were characterized by being 'narrow, grade-conscious overachievers, who are less sociable and more interested in money and prestige than are most other students".

If the evidence for the value of standardized tests such as MCATs and GPAs in predicting final outcome at medical school is weak, what is the evidence that other attributes matter. Paradoxically, affirmative action provides some of the evidence. As shown previously, students admitted to medical schools through affirmative action policies, tended to have lower scores for MCATs and GPA than other students. Like their white student colleagues, almost all these students completed their medical studies. As McGaghie has pointed out, the decision to admit individuals is, with a few exceptions , tantamount to a decision to grant them a license[59]. Low attrition for all causes - approximately 2% per year - is the chief reason for the significance of this decision[60].

A well conducted study by Davidson and Lewis[61] at UC Davis also provides some important evidence that undergraduate grade-point average and MCAT test scores are not the only criteria that can predict eventual success in medical school. They compared the performance of 356 students admitted under affirmative action with a matched sample of students admitted under the standard program over a 20 year period. Using criteria that included the race, fluency in multiple languages, economic disadvantage, physical disability, leadership qualities and unique life experiences in addition to academic ability, the UC Davis admissions officers selected a group of students who would not have met the criteria for regular admissions which were heavily weighted in favor of academic grades. Davidson and Lewis were able to show that this affirmative action group despite having a GPA of 3.06 compared to 3.5 for the control group and significantly lower MCAT scores, turned out to be equally qualified physicians with 'remarkably similar' kinds of medical practices. Students admitted under regular criteria were more likely to receive honors or A grades in core basic and clinical science course,

but there was no difference in the failure rates of the two groups in these courses. Ninety seven per cent of the regularly admitted student compared to 94 per cent of the affirmative action students graduated. Following graduation, there was no difference in their performance as residents or in their rates of completing residencies. Ultimately, both groups of doctors specialized in similar areas of medicine (three quarters choosing primary care). Interestingly, both groups had similar types of practice; the physicians in the affirmative action group estimated that 55 per cent of their patients were white, compared to an estimated 59 per cent in the control group.

This study showed what several researchers have already shown - namely that strict numerical standards for admitting students to medical school don't adequately predict students performance as physicians and that other criteria can be equally important in the selection of medical students. The UC Davis researchers were unable to provide any information on the non-cognitive attributes used to select these students but intimated that the admissions officers attempted to select students based on the 'sort of doctors society needs in the future'[62] .

Developing alternatives to the use of test scores in medicine

The reluctance to use non-cognitive assessments on the part of medical admissions officers is partly based on cultural issues outlined above but also on the misconception that measuring non-cognitive attributes is necessarily subjective, is time consuming and that there is little hard evidence to support their use.

The concept that the measurement of non-cognitive variables is subjective, is partly based on a lack of published evidence. As McGaghie[63] states in his review of qualitative variables

"In the United States, we have made no tangible progress in using qualitative variables in medical school admission since at least the 1960s. Research on the topic has been haphazard; references scattered; and folklore, not data, defines the state-of-the-art. Systematic and cumulative research on the issue is conspicuous by its absences, despite widespread acknowledgment that nonacademic characteristics of medical students and physicians are a key feature of professional competence".

However, Powis[64], provides a useful summary of the research evidence in this area and shows not only the widespread evidence that does exist but also that it is possible to measure some of the attributes that have been identified as predicting not only a good student but also attributes of a good doctor. It is beyond the scope of this essay to identify the pros and cons of using psychometric tests except to state that the tools do exist to assess nonacademic attributes of medical school applicants. Of particular relevance to the US is the wide experience that already exists in the assessment of minority applicants who are frequently chosen on their nonacademic attributes - some of the systems in place to identify potential minority applicants are quite sophisticated and it is surprising that they are not used more widely to assess all applicants rather that the 'special consideration' admissions for which they have been developed.

The development of the MCAT 'Writing Sample' is an attempt to identify nonacademic attributes of the candidate as is the use of the interview. In addition, almost all applicants to US medical schools who are considered for admission are interviewed - the aim of the interview usually being to identify the nonacademic attributes of the candidates. Edwards and colleagues[65] provide an excellent review of the literature on the value of the interview and how it can be structured and evaluated. They even compare the various types of interview formats and point out that the panel interview, with several interviewers, which is probably the most reliable method for interviewing is not extensively used in the United States. One on one interviews is used by 74% of US medical schools[66]. As Spooner[67] points out in the same issue of the journal, the assessment of motivation which is a critical and rate-limiting catalyst in medical school, is probably best assessed in the face to face interview but there is little evidence to guide admissions officers as to how this is to be done. Lack of motivation is probably the major factor responsible for faltering along the difficult path of medical school and probably critical for developing long term learning goals which continue beyond medical school. McManus and colleagues who have conducted extensive research into how medical students learn, has identified three types of learning style[68]. A shallow learner adopts rote learning and may perform well in tests of short term recall, but this style does not correlate well with a deep understanding of a problem. A deep learner grasps the underlying concepts and understands the problem rather than memorizing the facts. A strategic learner uses features of both styles and adapts as required by a specific task. It is likely that a deep learner will be better able to cope with the ongoing demands of a subject like medicine.

The medical admission interview can be designed to obtain such information about nonacademic criteria, especially if the admission committees attempt to analyze what makes a successful physician and set up their interviews to capture information about those characteristics and skills.

International experience

Having outlined the selection process, the bias in the US systems towards standardized scores and the manner in which non-cognitive variables can be assessed, it is worth looking briefly at the experience of the UK both in terms of how students are selected and also how minority students are recruited into higher education. Whilst the educational systems are different, particularly in relation to medical school, where the main difference is that medical education in the US is a graduate program, there are

some important principles in the selection process which may be helpful when I come to discuss alternatives to the present policy of affirmative action.

It is worth stating at the outset that the US has probably been far more successful in making higher education available to a much wider selection of its population than in the UK. The network of community colleges and the different pathways into higher education are frequently cited as model examples of how students are prepared so that they can receive the qualifications to enter universities. The numerous examples of outreach programs, particularly those aimed at minorities to encourage under-represented groups to enter science based programs and more importantly, to equip students with the necessary qualifications to enter graduate programs like medicine are probably without equal in the western democracies. The Californian model of combining excellence with equity which has constructed well-trodden pathways for able students from local community colleges to world-class universities like Stanford[69] has received world-wide acclaim.

The UK, in contrast to these well established North American models, has only recently been able to claim wider participation in higher education by its population. Between 1988-1994, there was a huge increase in the participation in higher education, increasing from only seventeen per cent of eligible 18 year olds in 1988 to thirty one per cent in 1994[70]. Within one generation, there are now an equal proportion of women and men in undergraduate education and there is now an over-representation of ethnic minorities. In 1994, twenty per cent of 18-27 year olds in higher education were from ethnic minorities (approximately ten per cent of the population)[71]. Even within medicine, nearly twenty five per cent of all graduates are from ethnic minorities[72]. There has also been more than a doubling of participation in higher education by students from the lower socio-economic groups between 1991-1996. Discrimination still exists, as do concerns about the drop-out rate of certain groups of students and the lack of opportunities for minority faculty, but most commentators point to the revolution in participation as a highly positive development.

The key to this increase in representation has almost certainly been due to the expansion of higher education and the opportunities this opened up for large groups of students who previously would never have considered the option of a university education. Coupled with a positive attempt by universities to look at non-traditional qualifications as a means of entry, there seems to be a greater attempt to dispense with assumptions about a limited pool of ability and notions of an upper limit on the educational potential of the population. Similar changes are taking place in medicine, partly influenced by landmark reports such as the GEPP Report in the US[73] and by the General Medical Council in the UK[74]. In the UK, there is an increasing recognition by medical schools that people with only moderate academic achievement can cope well with most medical courses and often have more to offer in terms of personal skills, attitudes and experience. A much greater emphasis is placed on personality and motivation in selecting students and many schools have low minimum requirements for academic achievement at entry (though in practice most entrants obtain well above the required minimum). The greater emphasis on non academic criteria has given many UK medical schools particular experience in the development of semi-structured medical school admission interviews[75]. Rapidly changing medical curricula together with a shift towards problem based learning is also forcing many medical schools to reassess their methods of assessment. Less emphasis on memorizing facts and more on reflective practice is gradually making its mark. The authority and certainty that doctors once enjoyed is being replaced by a training which teaches doctors to be more questioning and analytical about their own clinical work, more willing to acknowledge the limitations of the care they give, to reflect explicitly about how their past experiences influence their current practice and to assess bad as well as good aspects of a consultation[76].

Within the UK, these trends in education and training are more in keeping with reflecting the priorities of its primary care based system of health care. However, even the US with its highly specialized medical workforce, is not exempt from these trends. The expansion of managed care and a greater demand for primary care physicians is gradually changing the nature of the medical workforce so that many more graduates are now choosing primary care specialties as their first choice for residency courses. Fifty-one per cent of the 1997 graduating class from Harvard Medical School chose primary care specialties in their residency programs compared to fewer than thirty five per cent in 1992.[77] Similar trends have been described at many medical schools throughout the US and the importance of primary care medicine as a central focus of America's health care system is being advocated by several commentators of whom Eric Cassell provides the most compelling arguments[78]. What seems clear to anyone who studies the arguments put forward by writers like Cassell and the much larger number of academics involved in the production of the GEPP report is that the methods of selection of the future physicians will have to change to meet the demands of the changing health care system. This is already happening in those countries where primary care is the main focus of the health care system - for

example the UK, the Netherlands, Canada and Australia†. Although still not the case in the US, some medical schools are changing[79] and it is likely that the same discussions on the ideal type of student to benefit from this new type of education will herald a shift away from the primacy of academic qualifications and standardized tests which are so prevalent at present. This shift towards primary based care and the impact that it is having on medical education will have a profound impact on the selection of medical students and directly impacts on the discussions that need to take place when considering the alternatives to affirmative action.

Developing the alternatives to affirmative action

Having argued that the diversity rationale as a basis of affirmative action is limited, and that selection criteria which rely excessively on standardized test score limit the potential applicant pool for medical school, it is worth considering alternatives to race based preferences in affirmative action. The need to consider alternative is compelling because in the absence of any credible policies, the tendency will be to revert to so called merit based assessments which will have a disproportionate impact not only on minorities but also poor whites. The danger is that not only will medical schools revert to being all white enclaves but also that they will reflect an intake which will draw its members exclusively from more advantaged socio-economic groups. Whether this group of students, chosen exclusively on standardized test scores will be able to deliver the demands of a changing health care system is doubtful.

In trying to find alternatives to affirmative action, there are broadly three schools of thought which in American terms can be defined in terms of the political spectrum as solutions from the right, the center and the liberal left. What primarily distinguishes the right from the center and the left is, is the belief of the former that affirmative action has made huge advances and that racism and discrimination are no longer as prevalent. The right therefore believes that solutions that may have been justified in the sixties are no longer applicable. Many on the right were always opposed to the concept of affirmative action and have used the persistence of black poverty to argue that it was a failure. To cite the persistent poverty of a small group of black Americans, mainly concentrated in the inner cities, (and far outnumbered by poor whites in the inner cities of America), as a failure of affirmative action is to ignore the dramatic economic advances the 33 million African Americans have made since the ending of officially sanctioned segregation in the 1950s and 60's. However, the most recent and in my view coherent, articulated position from the right is that by Abigail and Stephen Thernstrom who argue that racism is no longer a feature of the American system. In *America in Black and White: One Nation Indivisible*[80], a book filled with statistical tables to support their view, the Thernstroms argue firstly that some blacks have made substantial gains during the last 30 years but question the role of affirmative action. They also cite several surveys which claim to show that there has been a steady decline in white prejudice over the past thirty years to the point where, they argue, that it is no longer a significant cause of black disadvantage. This of course ignores the large amount of evidence that is currently collected by testers where matched pairs of individuals, one white, one black are sent to apply for a job that's been advertised or try to rent an apartment that's been advertised. The evidence from these sorts of studies (as opposed to opinion survey of white attitudes) show that in all areas of America, discrimination is still a fact of life. Nearly 25% of black testers experienced some form of employment discrimination and 30-40% found difficulty in trying to rent an apartment[81]. However, the Thernstroms are most critical of the continued use of affirmative action in education, arguing that it amounts to a policy of reverse discrimination and that by admitting blacks with lower qualifications American educators are condoning a situation which encourages blacks to underachieve because they are guaranteed special treatment at colleges and universities. Like many of the opponents of affirmative action they have a large amount of faith in the predictive ability of standardized test scores such as the SAT and believe that such tests should be the sole criteria of selection into higher education institutions.

The centrist position is probably best exemplified by President Clinton and his advisor on affirmative action, Christopher Edley. Edley's position is that whilst there is a moral cost to making decisions about people based on the color of their skin, it's a cost that America should be willing to pay in certain circumstances. Using the utilitarian argument about the value of diversity, Edley maintains that in some institutions, for example the police department and colleges, the value of diversity is so great

† The selection process at the Universities of Manchester, Newcastle, University College in the UK, Maastrict in the Netherlands, McMaster in Canada and New South Wales in Australia are good examples

that society should be willing to pay the moral cost of making decisions based on color or gender in order to get those benefits. Pointing out that there have been some abuses – for example some colleges admit students by numbers just to hit something that has become a de facto quota and the inflexibility of some federal government programs that too rigidly excluded small white-owned businesses from receiving government contracts – Edley's position comes to echo that of the President in 'don't end it, mend it'. The problem with Edley's position is that the challenges to affirmative action are being orchestrated by a well organized coalition of interests which is not interested in mending affirmative action but ending it, because in their view it violates the principle of equal opportunity that is central to their value system.

Orlando Patterson in *The Ordeal of Integration* [82]shows that the overwhelming white opposition to affirmative action, (eight out of ten white Americans oppose affirmative action) does not reflect a sense of being personally damaged by the policy. Quoting a National Opinion research Center poll carried out in 1994 and a Harris Poll from 1995, he states that only 7 per cent of respondents actually claim to have been victims of 'reverse discrimination', and only 16 percent know of someone else who has. Most whites also have no complaints about the affirmative action policies that are in effect at their workplaces. Patterson believes that the reason whites are so overwhelming opposed to affirmative action in the abstract is that they have been manipulated by politicians and the media into believing that affirmative action is unfair to whites because it violates the central tenant of the American value system of fairness and equity. The problem is that whilst academics can reason with the inconsistencies in this position, the courts and politicians are busy dismantling affirmative action and leaving nothing in its place except an inordinate belief in the meritocracy of standardized tests which has had devastating effects on minority recruitment to colleges in the affected states.

Liberals on the left of the American political system, which includes Ralph Kahlenberg, William Julius Wilson and Orlando Patterson, recognize the need to re-think aspects of affirmative action and suggest several policy initiatives. Kahlenberg argues for a more explicit class based affirmative action policy claiming that it will disproportionately help blacks more than whites because poverty is more prevalent amongst the former. Kahlenbergs' main thesis is that race based affirmative action in the form of preferences does a poor job of advancing opportunities for poor black Americans and is unnecessarily divisive. A system of preferences for the disadvantaged, irrespective of their ethnic group, in his view offers a much fairer system of equality of opportunity than race based affirmative action has ever achieved.

Orlando Patterson argues for a phased ending of affirmative action, initially restricting its focus to specific ethnic groups and excluding first generation Africans, Afro-Caribbeans, most Asian groups and first generation immigrants from South America. Eventually he believes that any ethnic group with household incomes above $75,000 (in 1997 dollars), should be excluded from consideration of affirmative action programs and that in about 15 years, only American born persons from poor families should be considered.

William Julius Wilson[83], one of the foremost commentators on poverty in America while generally supportive of affirmative action based on class or need makes some important criticisms for affirmative action based purely on class which are relevant when I come to consider an alternative methods for medical school admissions. Wilson argues that a policy of affirmative action based solely on need would result in the systematic exclusion of many middle-income blacks because the standard conventional measures of performance such as SAT scores are not sensitive to the cumulative effects of race. What Wilson argues is that race has an additional effect on life's choices, regardless of class because of the de facto segregation that exists in Americas schools, because of the effects of living in segregated neighborhoods and because of the effects of nurturing by families whose experiences have been shaped and limited by race. These are the reasons already referred to previously which result in the racial differences in SAT and MCAT scores between blacks and whites even after controlling for income. An affirmative action policy based solely on need or class would create a situation in which African-Americans, who for example, are admitted to Harvard, represent the bottom half of the socio-economic continuum in the black community whilst those who are in the top half would be excluded. Wilson therefore develops the concept of affirmative opportunity firstly because he sees the needs to develop policies, which address the concerns of a wider section of the US population, not just of minorities. Wilson shows that unlike preferential racial policies, opportunity enhancing programs have popular support. The development of the term affirmative 'opportunity' takes away the focus from affirmative 'action' and its guarantee of equality of results to one of equality of opportunity. Retaining the term 'affirmative' keeps the concept that something more formal than legal mechanisms have to be used in order to compensate people for the enduring burdens of segregation, discrimination and bigotry. Crucially, affirmative opportunity programs would enable all Americans, regardless of income,

race or other attributes, to achieve the highest level that their abilities will permit. The key is in the context of higher education is to develop criteria for admission that would not exclude people who have as much potential to succeed as those admitted who have more privileged backgrounds.

Developing affirmative opportunity in medical school admissions

Within the context of medical school admissions what are the alternatives and can concepts such as affirmative opportunity be made to work. Previously in this paper, I have already outlined the problems of the diversity rationale for affirmative action and also the problems associated with an excessive reliance on test scores such as MCAT and grade point averages in making decisions about who gets admitted to medical schools. I have also pointed out the value of using non-quantitative criteria in making assessments as to who can succeed in medical schools and the ways in which these can be measured. Drawing on examples from other countries, I have shown how other admissions committees are attempting to broaden the selection criteria for admission to medical schools.

With over 120 medical schools in the US, there are numerous examples of innovative methods for selection to medical schools, but the overall impression that I have is that there is an undue emphasis on the value of standardized scores in the assessment of applicants. Because African Americans and some other minorities do much worse than whites and Asian Americans on these scores, most medical schools develop two streams in their admission policies - one where applicants who meet the academic criteria of relatively high test scores are usually admitted and another where those who do not meet these criteria are considered under an alternative special admissions program. Most under-represented minorities are considered under these alternative programs where non-academic criteria are more heavily weighted. In these programs, race was considered as a variable and it was this concept that was challenged in the *Hopwood* ruling. There is also a huge effort supported by the American Association of Medical Colleges to increase minority admissions, directed at increasing the applicant pool and helping young people from minorities to develop the academic qualifications to get admitted to medical colleges.[84]

The basic problem with this approach is that it develops separate admission criteria for certain groups of minorities and over the years this policy has been increasingly resented by whites and Asians because they perceived that less qualified (i.e. minorities with lower GPA and MCAT scores) minorities have been given preference when it comes to admission decisions. It is this process that is being challenged in the courts and formed the basis of the campaign by the California Civil Rights Initiative to abolish the use of preferences by race.

Faced with a precipitous drop in admissions by African Americans and Hispanics to state universities in California and the states covered by the *Hopwood* ruling, state legislatures in these areas have been desperately trying to develop alternative mechanisms to race based preferences to boost minority participation. The state legislature in Texas recently passed a ruling which guaranteed a place in the University of Texas system to all students who came in the top 10 per cent of their high school class. California is considering a similar initiative for its schools and colleges.[85] There is of course no evidence that this system will work, not only in boosting minority participation, but more importantly in increasing minority graduation rates. However, there seems to be a recognition that students who excel in schools from deprived areas need to be considered for admission because of the in built disadvantages they face compared to students who come from more privileged backgrounds.

The problem with most of the solutions being proposed whether its the 10 per cent rule of Texas or different tracks for admissions is that there continues to be an excessive reliance on scores. What seems to be the distinguishing feature of US medical school admissions is a concentration on high academic achievement. Under this system, it is estimated that only the top 2 percent of applicants are considered, immediately disqualifying a large pool of suitable candidates who may be suitable but don't achieve the high, and as I have show, unnecessary academic qualifications. There is of course a simplicity to this system and it is perceived that it is cheap to run because it reduces the applicant pool to a more manageable level.

An alternative approach would be to set minimum academic criteria and be explicit about the other criteria that the medical school considers are necessary for students to successfully complete their course and become competent physicians. Minimum criteria may for example consider applicants who score in the top 10 -15 percent of the MCAT score distribution. Candidates who are entering medicine through a different track - for example with an arts background may have alternative minimum

requirements. Having fulfilled the minimum academic criteria, no further attention should be paid to the academic credentials of the candidates. There is considerable disagreement amongst admissions officers as to what can constitute minimum academic requirements. In a 1987 study, Mitchell asked admissions officers what score on a 15-point MCAT they would find acceptable in an applicant to medical school. Eleven was cited as the mean exemplary score, 7 as the mean acceptable score. Some admissions officers found 4 an acceptable score.[86]

Additional criteria could include evidence of working in the health field (either as a volunteer or summer job) so that the student is broadly aware of what it means to work in health care and their chosen discipline. Evidence of taking part in extra-curricular activities at college, of community participation and of other academic and social interests should also be used in setting the minimum criteria. These should all be made explicit in the selection criteria so that students need to know what is expected of them before they apply.

With the use of panel interviews, students can be selected who will conform to the requirements of the medical school curriculum and its overall mission. This will obviously vary since each medical school may have a different mission. For example a curriculum which uses problem based learning techniques and gives a large emphasis to primary care will have different selection criteria to one which is more didactic in its teaching methods. The important principle is that these criteria should be made applicable to all students irrespective of race or gender.

The purpose of the interview would be to identify the non-academic criteria of the students that will help predict their suitability to being a physician. The interviews would be structured, using techniques which are already well developed in the personnel employment field, in order to select candidates who have characteristics such as positive self-concept, ability to focus on long range goals, leadership qualities, a background of community service and demonstrated medical interests.

Because of the negative impact of Proposition 209 in California on African American admissions, one admissions officer told me how the medical school changed its criteria for admissions so that in the following year, the score that students were required to obtain in the MCAT examination was reduced by a few points. He was surprised when this completely changed the applicant pool with the result that more minorities were considered for admission to this Californian school. By his own admission, they were not lowering their standards but realized that it mattered little if a candidate scored 29 or 26 points in the MCAT examination, in terms of whether the student successfully completed the course and qualified to become a physician. The point to be made is that by being more inclusive in the admission criteria, many more minorities can be considered.

There are dangers in such a system in that because admission decisions will be made mainly by admissions officers (who at present are probably mainly white and male since this is still the predominant employment pattern in academic medicine), that they will be biased against women and minorities. Academics probably represent a cross section of society and although there is evidence that racist attitudes are declining, there are still prevalent. For example, David Shipler in *A Country of Strangers* [87] quotes a 1990 National Opinion Research Center survey by the University of Chicago, which asked people to rank various ethnic groups in intelligence, and willingness to be self-supporting instead of living on welfare. In response, 53.2 percent of a cross section of Americans said blacks were less intelligent than whites; 62.2 percent thought they were lazier; 77.7 percent believed they were more likely to prefer welfare to work. Orlando Patterson in *The Ordeal of Integration* describes the problem of 'homophyly' first expounded by the sociologist George Casper Homans. This principle of human behavior describes how people who share common attributes tend to marry each other, tend to play more together, and in general tend to get along better and to form more effective work teams. Therefore, a non-racist white male medical school admissions officer, under no pressure to consider ethnic attributes and attempting to follow a color-blind policy, would always find it more organizationally rational to chose a white American male above a black American candidate.

In terms of admission decisions, the way to deal with this problem is to acknowledge that it exists and develop policies to minimize their effects. Panel interviews which include minorities as members of panels, training to ensure that admissions officers are aware of good personnel practices in relation to gender and racial equality, and, effective monitoring of the outcome of the selection process can all help to minimize the effects of discrimination. The Association of American Medical Colleges already produces a huge range of statistics that shows by each individual medical school, the number of under-represented minorities who apply and are accepted. Development of these tables, controlling for factors such as state applicants will give a much clearer picture of where there are problems - for example a college which consistently shows that minorities do much worse than expected in terms of acceptances

(since everyone will require the same academic criteria) would need to examine its policies to make sure that there was no overt discrimination and may even be challenged in the courts if it was found to be discriminating.

Obviously such a policy would require investment. Being on admissions committees is often seen as a thankless task and is very time consuming. The present system is however extremely time consuming. Under the present system of interviewing, each candidate is interviewed by a two people usually for one hour at a time. Decisions are then reviewed by an admissions committee which can take even longer. Under a panel interview system with a structured interview, candidates can be interviewed in twenty minutes with decisions not having to be referred to admissions committees. A large amount of the task is administrative and could also be delegated. If Deans of medical schools made it a requirement that involvement in admissions by senior faculty was essential, the burden could also be shared more evenly. Admissions decisions need to be seen as important since decisions are being made where students are often investing large sums of their own money and the state, through is support of medical education is also investing billions of dollars. To leave the decision of such a large investment to a group of untrained and sometimes unwilling admissions officers seems to be a poor investment decision.

The policy described above of being inclusive rather than exclusive would inevitably result in a much more diverse student body because the emphasis would shift from a policy of group entitlements based on race to one based on the concept of equal opportunity where medical education would be open to those who were able to show that they had the potential to succeed and become the type of doctors that society needs.

At the turn of the twentieth century, the medical profession was an elite privileged white male minority, defined as much by its class as by its race. Over the last one hundred years, because of several social upheavals, the profession is more representative of society with a much larger number of minorities and women within its ranks. It is still overwhelmingly a profession which draws its members from the privileged classes. The recent challenges to affirmative action potentially could return it to a profession which is narrow in its outlook, composed almost entirely of doctors whose only reason for being doctors is that they got the grades. Society deserves better.

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[2] The US Court of Appeals for the 5th Circuit in Hopwood v Texas (1996) ruled that Cheryl Hopwood a rejected white applicant to the University of Texas Law School had been discriminated against because the Law School had adopted a policy of admissions that gave preference to Blacks and Hispanics. The court ruled that "The law school may not use race as a factor in deciding which applicants to admit".

[3] De jure racial segregation was declared unconstitutional in Brown vs. Board of Education.

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[12] Regents of the University of California vs. Bakke, 438 US 265.

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[14] Justice Brennan, White, Marshall and Blackmum said that they would support the diversity rationale to the extent that it was used to remedy 'the lingering effects of past discrimination'; UC v Bakke, 326 n1.

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[26] Kahlenberg page 77, quoting a New York Times article June 4, 1995 by Applebome 'Gains in Diversity'

and Lubman in the Wall Street Journal May 16 1995 'Campuses Mull Admissions without Affirmative Action'

[27] Kahlenberg page 78 quotes the example of Compton, California where the city is 51 per cent Latino and the school population 59 per cent Hispanic, and yet the teachers and administrators are only 5 per cent Hispanic and 72 per cent black. Hispanic activists argue for more city hall jobs and more Latino teachers who understand not only the language of the children but also their background. The local head of the NAACP is put in the position of complaining that the Latinos want all the business, all the city hall, all the schools and also the post office.

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