Diversity Among American Medical Students by Parental Education: Improving Participation Rates for a Historically Underrepresented Community

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Introduction

Parental education is a powerful determinant of the social, economic, and cultural capital children acquire growing up (Bourdieu, 1986; Vance, 2016; & Hart & Risley, 1995). Parents with college degrees have greater lifetime earnings, are more likely to know higher status people, possess greater amounts of highly valued cultural knowledge, such as having bigger vocabularies and what the well-educated see as proper social skills. College educated parents are better prepared to give their offspring invaluable practical advice about succeeding in higher education. They are well equipped to offer their children insights on a host of relevant topics, such as when to take which classes, how to study, when and how to select an academic major, how to prepare for examinations and standardized tests, as well as providing advice about acquiring financial aid (Bowen, Kurzweil, & Tobin, 2005a; & Lander, 2018). Putnam (2016, 157, 216) referred to these wide disparities in understanding the formal and informal rules leading to college success as the “institutional savvy” gap.

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1 As used hereinafter, references to “parental” includes other adults who assumed nurturing responsibilities, such as relatives or guardians.

2 “Privileged knowledge” is not used here to mean better than other forms of knowing. In his The Mind at Work: Valuing the Intelligence of the American Worker, Rose (2014) presents a highly readable account of the deep knowledge performed by those employed in what are commonly considered lower status jobs. His description of the intellectual, physical, and social skills associated with
A New York Times article titled "As Wealthy Fill Top Colleges, Concerns Grow over Fairness" mentions still other benefits derived from having well-educated parents. College students who grew up in these circumstances have greater freedom to take a summer internship that pays little to nothing, are less likely to have to work at an outside job during school, are more likely to have access to private admissions advisors, and can more easily afford out of country travels (Leonhardt, 2004). Besides these advantages, more highly educated parents are better prepared to help their young children interpret and apply information taken from books. These experiences increase the child’s odds of success in formal schooling (Heath, 1982).

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Ehrenreich’s (2001) Nickel and Dimed: On (Not) Getting by in America (2001) and Isenberg’s (2016) White Trash: The 400-Year Untold History of Class in America detail the cultural prejudices and discrimination visited upon the nation’s poor and working-classes. Bourdieu (1977) argues that imbuing certain forms of culture with greater value than others contributes to the reproduction of social classes. Consider, for instance, word usage to denote social standing. Academics, a higher-class profession, do not “guess.” They “hypothesize.” Academics have a “profession.” Lower status employees have a “job.” People paid for what they do “for a living,” whatever that might be, are “professionals,” versus “amateurs,” from “amore,” doing something for the love of it (see: http://wordinfo.info/unit/95/ip:7).
According to Landers (2018), another hinderance for many first-generation college students is the commonplace belief that it is their responsibility alone to navigate higher learning. This individualism makes them less likely to approach faculty or administrators for needed assistance with classroom assignments and other college related matters, to name just one disadvantage of this assumption.

Hart and Risley’s (1995) study of parenting practices among upper, middle-, and lower- class families offers a meticulous accounting of the many rewards of having better educated parents. For formal learning these advantages include developing greater vocabulary skills, having an enhanced sense of worth, self-assurance, poise, and higher standardized test scores. Speaking about class measured differences in language acquisition, a key determinant of success in life and especially formal education, Bloom summarized Hart and Risley’s (p. x) results this way:

We have long known that children differ greatly in when they begin to learn language and how fast they learn once they begin. The children in this study did indeed differ. Some began to learn words with a learning trajectory that took off like a small rocket. But other children, who may even have begun to say words at about the same age, were much slower to get off the ground, and their trajectories were forever in the shadow of the other children. Why?… In answering the question, Hart and Risley discovered that some things don’t matter. For example, race/ethnicity doesn’t matter; gender doesn’t matter; whether a child is the first in the
family or born later also doesn’t matter. But what does matter, and it matters very much, is relative economic advantage.

Notwithstanding the American myth about education being The Great Leveler, a wealth of evidence suggests it is better to say formal learning is too often The Great Reinforcer (Clotfelter, 2017). Reeves & Venator (2014, p. 1) called this trend the *Inheritance of Education*, explaining that, "[Our] finding echoes research showing large, and possibly growing, gaps in educational attainment by social and economic background." Speaking of these increasing discrepancies, David Autor, an MIT economist remarked, “The concern about inequality is where economic dynamism gives way to dynasticism, and inequality becomes self-reinforcing: If you don’t ‘choose the right parents,’ you’re stuck in the bottom forever” (Schiller (2015), quoting Autor).

Still, others assert that diversity among students concerning social class backgrounds is an asset. Lawrence Summers, former President of Harvard College, believes socioeconomic integration in higher education should be a fundamental part of America’s commitment to equality (Bowen, Kurzweil, & Tobin, 2005a, p. 257). He considered socioeconomic status–based affirmative action one way to offset the growing gaps in opportunities based on class origins. Bowen, Kurzweil, and Tobin (2005b, p. 1) likened the idea of paying closer attention to how far candidates have traveled to qualify for review, as opposed to simply weighing their current standing, the equivalent of "putting a thumb on the admissions scale (maybe even a thumb and a half)” in favor of applicants from disadvantaged backgrounds. For William Fitzsimmons, Harvard's former dean
of admissions, the current situation amounts to squandering human opportunities. As he explained, this failure to enroll more students of modest origins results in “a huge waste of talent” (Leonhardt, 2004, p. 1).

Finally, in *On the Importance of Diversity in Higher Education*, the American Council on Education (2012, p. 1) lists the learning benefits of diversity in postsecondary education as follows:

*Diversity enriches the educational experience.* We learn from those whose experiences, beliefs, and perspectives are different from our own, and these lessons can be taught best in a richly diverse intellectual and social environment.

*It promotes personal growth and a healthy society.* Diversity challenges stereotyped preconceptions; it encourages critical thinking; and it helps students learn to communicate effectively with people of varied backgrounds.

*It strengthens communities and the workplace.* Education within a diverse setting prepares students to become good citizens in an increasingly complex, pluralistic society; it fosters mutual respect and teamwork; and
it helps build communities whose members are judged by the quality of their character and their contributions.3

**Socioeconomic Diversity Among Medical Students**

*Related Literature*

In their *American Journal of Public Health* article, Magnus and Mick (2000) called on researchers to devote more attention to studying the socioeconomic backgrounds of medical students, noting that the distribution of these future physicians has been steadily skewing to favor those of upper-middle and upper-class origins. They propose that university officials act decisively to counteract this trend by granting greater weight to an applicant’s socioeconomic origins for personnel planning and policy purposes. Magnus and Mick (2000, p. 1197) deemed this an ethical obligation. A matter of democratizing higher learning. They reasoned, "[C]onsiderations of individual justice favor a review of medical-school applicants’ SES [socio-economic status]" for admissions purposes.

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3 As employed hereinafter, in most instances "socioeconomic status," "social class, and "diversity" refer to parental educational levels. The terms' precise meaning will be clear in context. This avoids overusing the term "education" and its closely related synonyms. When socioeconomic status, diversity, and like terms are used generically, they include notions of parental education, as this variable is such a strong determinant of a child’s access to social, financial, and cultural capital.
In “Becoming a Physician: Class Counts,” Whitney (2002) detailed how the student selection process at American medical schools favors applicants born of higher socioeconomic circumstances. He explained that this problem persists in part because of America’s unwillingness to confront the taboo subject of social class…the lifelong consequences of one’s socioeconomic origins. It is easier to believe in life’s absolute unfettered possibilities, not the odds for and against them according to where you start.

In his study of the socioeconomic origins of medical students, Jolly (2008, p. 1) observed,

The AAMC [Association of American Medical Colleges] and its member institutions have for many years pursued a common commitment to increase diversity among students attending U.S. medical schools, based on a belief that including students from different backgrounds, experiences, and identities enhances the education of all medical students.

Many [medical] schools seek diversity…by socioeconomic status, generally defined as some combination of family income, parental education, and parental occupation.

Jolly evaluated the success of these efforts by examining socioeconomic diversity among students enrolled in American medical schools for the years
1987-2005, inclusive. He tested representativeness\(^4\) according to the students’ parents’ incomes, concluding,

This Analysis in Brief reviews data on parental income of entering medical students… [and] demonstrates that efforts to improve diversity in this dimension have made little or no progress [during the study years] (p. 1).

[T]he distributions … are remarkably consistent. The percentage of students from the highest quintile has never been less than 48.1 percent or more than 56.9 percent. The fraction of students from the lowest quintile has never been greater than 5.5 percent. In the most recent year for which quintile census data are available, more than three-quarters of medical students came from families in the top two quintiles of family income (p. 1).

A real concern is a possible increase in the systemic skewing toward children of upper-income families…. With debt increasing much more rapidly than physician incomes, a continued increase in the [number of students from the top] fifth quintile percentage would be a warning that medical education is becoming increasingly out of reach for applicants of modest means (emphasis in original, p. 2).

\[^4\text{For more on discussion on representative bureaucracy and why it is one indicator of a democracy’s health, see Kingsley, 1944; Kranz, 1976; Meier & Nigro, 1976; Riccucci & Saidel, 1997; Dolan, 2000; & Dolan, 2002.}\]
In 2010, Grbic, Garrison, and Jolly published findings on the lifelong effects on medical students of having grown up with better educated parents, saying these circumstances have the power to "shape a child’s access to valuable foundational experiences that, in turn, shape long-term educational success" (p. 1). Their results derived from a comparison of parental education levels among medical students versus a weighted sample of men and women drawn from the general population while controlling for age and gender. Education levels among Americans have steadily risen over the years (Census Questionnaire Content Educational Attainment, 1994). This trend necessitates controlling for parental age when measuring the socioeconomic representativeness of medical students. This allows for comparing other parents in the same age range who were raising children when the medical students’ mothers and fathers were. Grbic, Garrison, and Jolly (2010, p. 1) summarized their findings this way:

[m]ost medical students are children of parents with high levels of education…. For example, roughly one-half of medical students’ fathers have a graduate degree compared with 12 percent of the weighted sample of men in the U.S. population (p. 1).

Similarly, roughly one-third of medical students’ mothers have a graduate degree compared with roughly 10 percent of U.S. women (p. 1).
our research demonstrates that parents of medical students are more likely to have graduate levels of education and less likely to have no college education (p. 2).

They further indicated that like Jolly's earlier work on parental income, these educational discrepancies have been growing. Echoing Bowen, Kurzweil, and Tobin’s recommendation about favoring applicants from disadvantaged backgrounds, Grbic, Garrison, and Jolly proposed that medical school admissions committees weigh each applicant’s socioeconomic origins when deciding acceptances. Unfortunately, while they supported the idea of greater socioeconomic diversity among medical students, they did not say how individual programs might achieve this ideal, only that it should be done.

Kahn and Sneed’s (2015, p. 1) more recent writings echoed these same concerns about needing greater socioeconomic diversity among medical students. They claimed that despite a growing awareness by the American Medical Association and the Association of American Medical Colleges about how social class background affects an applicant’s odds of gaining admission, “entering medical students remain a relatively homogeneous group [disproportionately of upper socioeconomic origins]. In the same year, Fellows (2015) expressed support for increasing social class diversity among medical students.

Finally, the evolving shape of the economy makes it increasingly difficult to bring more socioeconomic integration to medical school education. The steady upward redistribution of wealth among Americas that began in the late 1970s
(Clotfelter, 2017; McNichol, Hall, Cooper, & Palacios, 2012; & Noah, 2013) gives context to Jolly’s (2008, p. 2) comment about the "systemic skewing [favoring medical school students from]…upper-income families." The only immediate antidote for this growing problem is in the hands of medical school faculty and administrators. Without publicly available evidence, however, it will be impossible to hold these individuals accountable for their actions, or inactions. Meaning we risk having a nation of future physicians who grow more unlike the people they will serve.

**Present Study**

Given the close association between educational attainment and other traditional elements (income and occupation) of social class, researchers often use years of formal schooling completed as a status indicator proxy (see Engines, 2016, p. 10). Grbic, Garrison, and Jolly (2010) employed this approach in their study of the socioeconomic origins of the nation’s medical students. The present project also uses parental education to gauge medical student diversity. Like Grbic, Garrison, and Jolly (2010), it controls for the age of the students’ mothers and fathers.

The remainder of this paper has five parts. First, it details how and why it expanded on the foundation Grbic, Garrison, and Jolly provided. That is, this updated process involved measuring the social class representativeness of students enrolled in a specific medical school using more categories for parental education levels. Grbic, Garrison, and Jolly (2010) used three: a) “No college
degree,” 2) “Bachelor’s degree,” and 3) “Graduate degree.” This meant parents with an MA were considered the same as those with a doctorate or professional degree. The present analysis added another ranking to distinguish subjects whose mothers and fathers finished an MA from those whose parents held a professional or doctorate degree. This resulted in the following categories: 1) Less than a college degree, 2) BA/BS, 3) MA, 4) Doctorate/Professional. As the evidence will show, distinguishing between Grbic, Garrison, and Jolly’s “Graduate degree” results versus the two highest categories used here can be very helpful in establishing more telling levels of unrepresentativeness among medical students. In turn, this approach will offer even more evidence supporting the argument that medical school faculty and administrators must begin devoting greater attention to reversing the troubling trends noted in the earlier cited literature.

Second, it will be suggested that the methods used in the present study are applicable, with site specific accommodations, to test student diversity by parental education at other medical schools. Site specific concerns include, for example, whether a school measures student representativeness by state, regional, or national population standards. Likewise, as data needs, availability, and measurements evolve, researchers can adopt and adapt these advancements when conducting ongoing diversity audits.

Using the present findings and related research materials, Part Three, A Theory of Change, offers recommendations all medical schools can use in pursuit of diversity based on their students’ educational background.
advantages/disadvantages. One medical school is already employing some of these suggestions and the other recommendations are unique to this project.

Part Four addresses the politics of defining “merit” as well as how the American popular ideology discourages questions relating to social class inequalities, especially how they affect major life outcomes based on one’s circumstances of birth. Social class is a taboo subject in our classless society. The conclusion briefly summarizes the ideas, findings, and reforms offered throughout this paper.

Research Focus and Implementation

The Southern Illinois University School of Medicine (hereinafter SIUSOM) is a publicly supported institution. The SIUSOM MD program lasts four years. In their first year, students are taught basic sciences on the Carbondale, Illinois campus (SIUSOM, 2018). They then move to Springfield for their final three years of instruction. Here they study clinical medicine, medical humanities, and different electives. Except for a small contingent of special students, SIUSOM only admits state residents (Office, n.d.). The school primarily focuses on preparing doctors who will provide quality care to the people of Illinois, particularly those living in the central and southern regions of the state (2006 Performance Report, 2006; & Startclass, n.d.). These areas are predominantly rural and small town. The Southern Illinois University School of Medicine Policy and Plan for Diversity and Inclusion states, "In this context, a diverse student body includes students of…all levels of…educational advantage" (2013, p. 2). In four other instances this diversity plan contains comments and
definitions affirming the importance of student diversity based on parental education, including:

Students - Economically/Educationally Disadvantaged Students. Medical students from economically or educationally disadvantaged backgrounds… (p. 4)

Scholarships for students from…economically/educationally disadvantaged backgrounds (p. 5).

The Medical…Education Preparatory Program…was established in 1972 to assist students from economically/educationally disadvantaged backgrounds… (p. 6).

Selection criteria preference for…economically/educationally disadvantaged backgrounds… (p. 9)

SIUSOM promotes information about other diversity categories, including race and gender (Barzansky & Etzel; 2016; Eight, 2015; & Startclass), but publicizes no statistics on its websites or externally distributed documents about its students' parental educational levels. This lack of transparency limits the public's ability to monitor and hold affirmative action officers and other school administrators accountable for their integrative outcomes according to this demographic. The present study tests the degree to which this program enrolls "economically/educationally disadvantaged" students. It also calls on school officials to annually publicize statistics on the parental education levels of each incoming class of students for accountability purposes.
SIUSOM provided the data used in this study. There were statistics on 719 students in the data set the school supplied. Not everyone had answered the parental education question on the application. These responses were labeled “Unknown” for present purposes. Sixty-one fathers’ and thirty-six mothers were so defined. These responses were omitted from the analysis. Thus, this investigation weighed parental education levels of 658 male and 683 female incoming SIUSOM students enrolled for the years 2006-2015, inclusive, against Illinois’ general population while controlling for parental age and gender.

A program official explained that the average age of entering SIUSOM students was mid-20s. The school did not provide specifics on each incoming student’s birth year citing privacy rights. The program does not solicit data on the parents’ ages when each applicant was born. Therefore, it was assumed the mothers and fathers were approximately equal in age and the women were between 25 and 34 years old, inclusive, when giving birth. These thresholds were used because they corresponded with the most appropriate age bracket in the US Census Bureau tables. It was further assumed the birth year for these students ranged from the early 1980s to 1990 based on the average age of mid-20s mentioned earlier.

Ideally, it would have been possible to combine the 1980 and 1990 Census figures for parental education by sex to gauge the students' representativeness compared to Illinois males and females. Unfortunately, the two Census tables did not use the same education classifications, so it was impossible to merge these
data. For example, the 1990 table offered a more nuanced account of postsecondary schooling. The highest college brackets in the earlier survey were "4 years," "5 years," or "6 or more years." The 1990 tables included: "Bachelor’s," "Master’s," "Professional school," and "Doctorate" degrees. This means if someone finished an undergraduate degree in six years as measured in the first survey, they were indistinguishable from someone who completed an MA during the same interval (Kominski & Siegel, 1993). The newly adopted categories avoid this problem. Due to these disparities and the more precise groupings SIUSOM provided, this project analyzed 1990 Census data alone for comparative purposes (U.S. Bureau of the Census, 1990). Nevertheless, this approach should yield a faithful accounting of student representativeness.

Findings

The raw SIUSOM student and Illinois' population data are listed in Tables 1, 2, 3, and 4.

| TABLE 1: ILLINOIS MALES AGES 25-34, BY EDUCATION, 1990 |
|---------------------------------|---------|------|
| Category                        | N       | %    |
| Less Than College Graduate      | 735,190 | 73.8%|
| College Graduate                | 189,096 | 19.0%|
| MA                              | 45,089  | 4.5% |
| Doctorate                       | 27,476  | 2.8% |
| *Due to Rounding                | 996,851 | 100.1%|

*Due to Rounding
### TABLE 2: ILLINOIS FEMALES AGES 25-34, BY EDUCATION, 1990

<table>
<thead>
<tr>
<th>Category</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less Than College Graduate</td>
<td>753,107</td>
<td>74.8%</td>
</tr>
<tr>
<td>College Graduate</td>
<td>195,826</td>
<td>19.5%</td>
</tr>
<tr>
<td>MA</td>
<td>40,956</td>
<td>4.1%</td>
</tr>
<tr>
<td>Doctorate</td>
<td>16,576</td>
<td>1.6%</td>
</tr>
<tr>
<td></td>
<td>1,006,465</td>
<td>100%</td>
</tr>
</tbody>
</table>

### TABLE 3: SIUSOM APPLICANTS BY FATHER'S EDUCATION, 2006-2015

<table>
<thead>
<tr>
<th>Category</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Observations</td>
<td>719</td>
<td></td>
</tr>
<tr>
<td>Total N/A</td>
<td>61</td>
<td></td>
</tr>
<tr>
<td>Total Valid Observations</td>
<td>658</td>
<td></td>
</tr>
<tr>
<td>Total Less Than College Graduate</td>
<td>213</td>
<td>32.4%</td>
</tr>
<tr>
<td>Total College Grads</td>
<td>163</td>
<td>24.8%</td>
</tr>
<tr>
<td>Total MA</td>
<td>98</td>
<td>14.9%</td>
</tr>
<tr>
<td>Doctorate</td>
<td>184</td>
<td>28.0%</td>
</tr>
<tr>
<td>*Due to Rounding</td>
<td></td>
<td>100.1%*</td>
</tr>
</tbody>
</table>

### TABLE 4: SIUSOM APPLICANTS BY MOTHER'S EDUCATION, 2006-2015

<table>
<thead>
<tr>
<th>Category</th>
<th>N</th>
<th>%</th>
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</table>
The results of matching the 1990 Illinois Census figures against the SIUSOM data while controlling for age and gender appear in Graphs 1 and 2. Graph 1 compares the male students' fathers' education levels against Illinois males ages 25-34, inclusive. The ratios listed above each category are the respective proportional differences between the two groups. These relationships are rounded to the nearest tenth and appear above the categories having the higher values. For example, Graph 1 shows Illinois males are more than twice as likely to lack a college degree versus the students' fathers. At the other extreme SIUSOM fathers were three and one third times more likely to hold an MA and just over 10 times more likely to have earned a doctorate versus Illinois males statewide.
Graph 2 compares SIUSOM mothers' education levels with Illinois females ages 25-34, inclusive. While these differences are less pronounced than those for males, they still skew heavily toward the three highest education categories. The analysis suggests mothers of SIUSOM students are slightly more than twice as likely as the female population of Illinois to hold an undergraduate degree and roughly four times more likely to have earned an MA or Doctorate/Professional credential.
SIUSOM claims it is committed to enrolling more students from “Economically/Educationally Disadvantaged” backgrounds. School leaders contend this demographic is integral to their diversity goals. The evidence suggests program officials have not done very well in this regard. The results reveal, first, the degree of unrepresentativeness among these students. The differences are striking, especially regarding the high percent of parents with degrees beyond the baccalaureate. Given that SIUSOM is not grouped among the nation's elite programs, these results imply that parental education disparities are likely an even greater problem at America's premier medical schools. One study has already demonstrated that deans overseeing these programs are highly
unrepresentative of the U.S. population by socioeconomic origins (Oldfield, 2010).

**A Theory of Change**

In *New State Ice Co. v. Liebmann* (1932), U.S. Supreme Justice Brandeis noted that a major benefit of federalism is that a single state can test a public policy and if the approach proves successful, if only modestly, other states can emulate it after having refined the idea to accommodate local conditions. The same can be said for policies that do not work, or do not work very well. Learning from each other’s mistakes. This is the "little laboratories" interpretation of federalism (Schuck, p. 116). In 1987, New York was the first state to require seat belts in all its school buses. Since then other states have passed similar laws (Starting, n. d.).

Barglow (2017) proposed that to be successful, reformers must begin with a viable plan, a theory of change. The remainder of this section addresses Barglow’s challenge. It offers a blueprint, a *How To*, for any medical school seeking greater socioeconomic diversity among its students, something SIUSOM, researchers, and the field's major organizations say they prize.

The SIUSOM results, discussion, and related literature suggest six reforms all medical programs should adopt to ensure their students are representative by parental education.

First, like SIUSOM’s Pipeline Program, other medical schools should include educational background criteria as part of a premed affirmative action outreach program. Teams of administrators and faculty headed by their
respective affirmative action officers should work with nearby high schools to, first, identify promising freshmen who might be interested in a medical career and whose parents never attempted or completed coursework beyond 12th grade. Second, throughout their remaining high school years program officials should provide these students with the following learning opportunities: A) faculty presentations on their own research and other topics of possible interest; B) instruction and practice in proper physician etiquette; C) observing physicians in direct practice, D) active learning where, for example, students are given medical information and encouraged to work in small groups to diagnose and propose remedies to a problem (an arrangement that will enhance the participants’ social skills and critical thinking abilities); E) introducing students to various laboratory procedures; 6) familiarizing them with the elements of research followed by an opportunity to present the findings in writing; F) helping participants understand the college selection process and the attitudes and actions commonly associated with completing an undergraduate and MD degree; and G) having medical school personnel provide additional (beyond the common high school curriculum) college level STEM (science, technology, engineering and math) instruction along with one-on-one mentoring before, during, and after medical school. (See P4 Physician, n.d.)

Second, lessons derived from the literature review and the data analysis conducted for the present study suggest five additional elements of a plan to enroll, as Jolly (2008, p.1) said, more applicants “from different backgrounds, experiences, and identities,” as this will heighten every medical student’s learning
opportunities (and those of their professors and program administrators). These proposals are unique to this study.

A. The Association of American Medical Colleges should expand the number of responses it allows for parental education levels. There are only eight choices now. These misses as much as they measure. For instance, "less than high school" means applicants whose fathers completed six or fewer years of formal learning are considered the same as those whose fathers finished their junior year of high school. The Association of American Medical Colleges should enlarge this classification to include the fifteen responses currently listed on U.S. Census surveys. This will enable each program to match its student data against Census figures for comparative purposes.

B. The American Medical Association should require every medical school to annually publicize statistics about its students’ educational backgrounds. This means having all programs post these comparisons to their websites and include them in their diversity reports and publications. The ready availability of these data will enable interested parties to monitor current conditions and track diversity trends by program.

C. The American Medical Association should require these statistics be made available to interested parties seeking them for research purposes. Procedures and policies associated with greater student diversity based on educational background should be shared at professional conferences, through publications in professional journals, and in popular media. This will allow other programs to copy some or all the successful approaches, the “little laboratory” idea in practice.
D. The American Medical Association should use individual program audits to recognize schools that significantly improve or sustain student diversity based on parental education. Award winners should be announced with considerable fanfare at national meetings and given certificates or plaques, or both. If possible, winners should receive financial prizes with the monies earmarked for supporting educationally disadvantaged students. Award winners can publicize their accomplishments through various media.

E. Consistent with the spirit of the previously mentioned reforms, the American Medical College Application Service should amend its Socioeconomic Status Disadvantaged Indicator (2016 AMCAS Instruction Manual, p. 83). Currently, this grid incorporates data about both parental education and occupation and is meant to help admission officers "identify applicants who may come from socioeconomically disadvantaged backgrounds" to build representative classes of students. Although parental education closely correlates with occupational status, there are only three categories of disadvantaged: "No," "Yes-Level 1," and "Yes-Level 2." Level One is considered more disadvantaged than Level 2. These categories are too broad. A father with a bachelor's degree is deemed the same as a father with an MD or PhD (or both). Still each of these three possibilities is classified "No." At the other extreme, a mother who never finished fourth grade is ranked the same as one who completed three years of college. Finally, the Indicator lists two occupational subcategories under Level 1 (parents with "less than a bachelor's"). The two groups include "[e]xecutive, managerial, professional position," and "[s]ervice, clerical, skilled, and unskilled labor."
Accordingly, a mother working as an executive is considered the same as a mother doing unskilled labor, a distinct difference. The two levels should be enlarged to seven using, at least for now, the occupational categories mentioned above as well as the 15 education brackets the Census uses. This would allow for 105 (15 educational levels times 7 work classifications) cells, a far more discerning measure of disadvantage/advantage. For one, it will allow committee members to differentiate mothers with a sixth-grade education employed as unskilled laborers from mothers with high school degrees working as managers. Spreadsheets will make this new scoring system easily manageable, while future studies will test whether the number of categories should be amplified or reduced based on their sensitivity to establishing reasonable classifications. Again, the American Medical Association should formally recognize schools that either maintain or register significant improvements in their diversity outcomes.

**The Elephant Among Us**

Medical schools must begin enrolling more individuals from humble backgrounds versus judging applicants by conventional “merit” standards alone (Barr, 2010; & Light, 1994). Affirmation action programs are a formal acknowledgement that traditional selection criteria cannot achieve the desired personnel mix. Despite its reputation for neutrality, “merit” is a political consideration, starting with who defines and operationalizes the term. For Schmidt (2007, p. 64), too often “qualified” amounts to: “How colleges define merit is shaped by the values and self interests of the definers. . . . To borrow from George Orwell’s *Animal Farm*, if pigs were to decide who is fit to rule the
barnyard, their criteria for leadership would almost certainly include a snout, a curly tail, and hooves.”

McNamee and Miller’s (2004) *The Meritocracy Myth* details how merit is affected by countless subtle and not so subtle factors and is constantly open to restructuring, as has happened within medical schools (Barr, 2010; Fellows, 2015; & McGaghie, 2002). All would-be-doctors' merit is affected by the presence or absence of many (and often interrelated) inherited (unearned by the recipient) favorable and unfavorable factors. Speaking of medical school applicants, these plusses include whether the person is or is not a legacy or the child of an MD(s) (Elam & Wagoner, 2012), the status/cost of undergraduate college or university attended, buying expensive science textbooks, paying laboratory fees, and whether the applicant is in-state or out-of-state (if you are not a state resident you might not be considered). Unless medical schools are willing to reinterpret “merit,” personnel selection outcomes are unlikely to change (Light, 1994).

The findings and discussion presented herein in addition to those of other researchers and commentators reinforce the notion that the effects of structural nepotism remain America's elephant in the room, or as bell hooks (2000, p. vii) said, "as a nation we are afraid to have a dialogue about class.” As judged in this case by educational disadvantage (or advantage), the persistence of this fear is remarkable; despite the various pronouncements about the rewards of diversity based on parental education, in practice this demographic and its relationship to merit is seemingly not that important to medical school faculty and
administrators. Perhaps this reluctance to fully acknowledge the profound effects of an applicant's family circumstances growing up derives in part from what Pruitt (2015) calls "The False Choice between Race and Class and Other Affirmative Action Myths." To date this misleading dichotomy has successfully split two groups who should otherwise be natural allies. As the title of her article implies, both race/ethnicity and parental education should be used to democratize medical school education. Until then, the effects of class will never receive their due attention when determining who gets to study for the MD.

As the proposed diversity reform movement proceeds, other researchers, faculty and administrators will devise still other tactics and more refined methods for counteracting the problem Whitney (2002) identified in the subtitle of his article: Class Counts. Every new idea begins with training wheels and proceeds through trial and error. Eventually it becomes institutionalized, meaning most newcomers assume that things are as they should be. It is the right thing to do; the matter has become in Shaw’s (1928, p. 1) words, “A Closed Question.”

The recommended reforms proposed herein confront the inequalities associated with America's elephant in the Emergency Room, if you will. In this case where the pachyderm began its journey…whether it chose well educated parents.

Conclusion

The present findings suggest that notwithstanding its public pronouncements, from 2006-2015, inclusive, SIUSOM enrolled a highly unrepresentative student body per "educationally disadvantaged background.”
Based on these findings and related literature, this paper offered a practical guide any American medical school could use in pursuit of greater diversity among students based on parental education. The focus then turned to the politics of defining “merit” and how American ideology discourages questions about social class, especially disparities in opportunities based on one’s circumstances of birth. Consistent with Light’s (1994) thoughts on diversity, the discussion closes by noting that unless medical schools begin honoring the field’s commitment to enrolling more students from educationally disadvantaged backgrounds, personnel selection outcomes are unlikely to change.

References


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