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ABSTRACT

This study is one in a series that examines cohorts of American Rhodes scholars in order to determine how changing dynamics of merit, sponsorship, and democratization affect elite membership, socialization, occupational structures, and perceptions of leadership. This segment of the study examines the ways in which elite baccalaureate credentials interact with pre-college cultural capital to shape distinctive career outcomes. The sample (n=220) included two cohorts of Rhodes scholars from the late 1940s and the late 1960s, and the research sought to determine: (1) whether between World War II and the late 1960s Rhodes scholars had become more diverse in terms of social origins; (2) whether an upper-class background increased the likelihood of achieving professional prominence; (3) whether attendance at a "big 3" graduate school had an independent effect on career prominence; (4) whether social class and educational effects on career attainment differed for Rhodes scholars in the 1940s and 1960s; and (5) what interactions of social background, baccalaureate origins, and graduate school prestige affect career prominence. The study concluded that factors outside of formal education and social background account for the majority of the variation in the career pathways of Rhodes scholars chosen for eminence. (Contains 40 references.) (CH)

Pathways to Prominence:
The Effects of Social Origins and Education
on Career Achievements of American Rhodes Scholars

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Direct all comments to Ted I. K. Youn or Karen D. Arnold, School of Education, Boston College, Chestnut Hill, MA 02167. This paper is a fully collaborative effort by the authors. This research extends a paper presented at the annual meeting of the Association for the Study of Higher Education in November 1998. We would like to acknowledge helpful comments made by Patricia McDonough and Janet Z. Giele on our earlier version. This research was partially funded by a 1998 Boston College Faculty Grant.

Introduction

What determines the allocation of status and privilege in contemporary societies? What role do educational institutions play in supplying the society with elites? Little is known about higher education's role in shaping American society through choosing, socializing and legitimating national leaders. Over the past fifty years, the expansion of higher education, the civil rights and women's movements, and American ideology have all moved in the direction of promoting social equality. The impetus for democratization has led to widening participation by women and ethnic minorities among leadership groups (Alba & Moore, 1982; Jamieson, 1995; Zweigenhaft & Domhoff, 1998). The appearance of diversity is paradoxical, however. For example, upper class cultural capital still matters profoundly in elite membership. Nearly all top national leaders continue to be wealthy white Christian males from the upper third of the social ladder (Zweigenhaft & Domhoff, 1998). The diversity forced upon the traditional power elite from external pressures may actually have helped to strengthen it by giving the elite "buffers, ambassadors, tokens, and legitimacy" (Zweigenhaft & Domhoff, 1998, p. 191). Furthermore, a handful of highly prestigious universities in American higher education continue to produce the majority of our nation's leaders (Youn, Arnold, & Salkever, 1998; Useem & Karabel, 1986).

Are American elites from increasingly diverse social and educational backgrounds? Are educational pathways to prominence becoming broader and more numerous? Cultural and historical perspectives are needed to trace the role of higher education in generating social elites. This paper reports findings from the first phase of a project on the higher education and careers of American Rhodes Scholars. Based on

biographical analysis of 2 cohorts of Rhodes Scholars from the 1940s and the 1960s, the paper focuses on the relationship of social origins, baccalaureate origins, and career attainment of elites in different historical eras.

The Role of Higher Education Institutions in Generating Leaders

Social science research in social stratification points to a well-established proposition: educational attainment has a substantial effect on career success (Becker, 1964; Blau & Duncan 1967; Sewell & Hauser 1975). Distinctive college character, family and educationally-conferred cultural capital, and cumulative advantage through prestigious credentials are theorized to account for the relationship between educational background and social stratification.

A series of studies have investigated the relationship between undergraduate institutions and graduates' occupational success. Research has demonstrated the importance of higher education institutions' general organizational character, especially distinctive character, on the development of individuals and their likelihood of exceptional career achievements (Clark, 1970; Fuller, 1986; Knapp & Goodrich, 1952; Knapp & Greenbaum 1953; Tidball, 1986; Tidball & Kistiakowsky, 1976; Wolf-Wendel, 1998). Taken together, these studies support the effectiveness of liberal arts colleges and women's colleges in producing prominent graduates.

Along with distinctive socialization within certain colleges, the advantages conferred by prestigious baccalaureate credentials relate to the role of particular institutions in the greater society. All socializing organizations recognize the importance of the relationship with their social setting. One major effect of educational institutions as socializing organizations is the symbolic redefinition of graduates as possessing

special qualities and skills associated with attendance. Colleges and universities vary in the kinds of individuals they are expected to produce and in the kinds of changes in individuals that they can legitimately expect to affect. This social characterization occurs independently of whether or not actual changes in competency have occurred among students. The redefinition of the products of an organization, a validating process granted by societal constituents, is referred to as organizational "chartering" (Kamens, 1974; Meyer, 1970).

Like the idea of institutional charters, screening theories dispute the existence of direct relationships between schooling, and labor market success (Berg, 1971; Chiswick, 1974; Taubman & Wales, 1972). Screening and credential theories argue that schooling itself is not productive in labor markets but that it simply sorts individuals by family origins, affective behavior, or ability. The main function of schooling is screening, with employers more likely to prefer graduates of highly selective colleges and universities. Given the tenuous connections between educational level, actual skills, and work requirements, "cultural credentials" in the form of prestigious college degrees serve as certification of ability, high educational quality, and "trainability" (Berg, 1971; Collins, 1979, Thurow, 1975). A handful of prestigious institutions preserve their power and privilege in the status hierarchy by maintaining their gatekeeping function (Collins, 1979).

The idea that a few highly visible organizations are chartered to produce elites raises profound implications about social relations among educational organizations. It invites the possibility of cultural gatekeeping organizations (Karen, 1990) in the educational system in which a few schools might monopolize pathways into leadership

roles. When these gatekeeping organizations create an elaborate institutional field to govern cultural markets, other organizations mimic them in search of cultural legitimacy. Postsecondary schooling may construct a variety of organizational rituals in order to dramatize the importance of high selectivity among its members. Such practices include intense intellectual training, highly defined formal curricula, residentiality (Feldman and Newcombe, 1969), and smallness of setting. (See these elements in Kamens (1977) and in Cookson & Persell's (1985) study of elite boarding schools.) These rituals communicate deeper meanings of students as collective elites and validate the charter of an elite-forming institution.

The general thesis that institutional origins affect career success was reinforced by Merton's (1968) well-known "Matthew Effect" in science careers. Merton argued that there is a continuing interplay between the status system, based on honor and esteem, and the academic prestige system, based on different life-chances, which locates scientists in different positions within the opportunity structure of science. Those scientists who work with famous mentors, practice at prestigious institutions, or receive public recognition through grants and awards tend to be rewarded with further advantages. An important point is that, without deliberate intent, the Matthew Effect operates to penalize creative but unknown individuals, thereby reinforcing the already unequal distribution of awards in the status system. Baccalaureate prestige, according to this notion, would result in differential chains of opportunities that would intensify inequality.

Contemporary cultural theorists provide a theoretical understanding of the ways in which schooling reproduces social stratification through ostensibly meritocractic institutions. For example, Bourdieu (1973, 1974, 1977) sees the educational system as

the principal institution governing the allocation of economic and symbolic status and privilege in contemporary societies. Schools, according to Bourdieu, offer the primary institutional setting for the production, transmission, and accumulation of various forms of cultural capital. Even though Western societies have expanded opportunities for education and democracy, glaring inequalities in wealth, income, and status hierarchies persist. The educational system continues the function of reproducing social class relations, reinforcing rather than redistributing the unequal distribution of cultural capital. By consecrating particular cultural heritages, schools and colleges also legitimate the status order among institutions. In spite of formal meritocratic rules, educational institutions actually enhance social inequalities rather than attenuate them. Most importantly, as Bourdieu (1984) elaborates, a form of "the cultural arbitrary" is often manipulated by dominant groups in society and they in turn establish the specific cultural content that defines what it means to be meritorious. An example of this specific cultural content might easily be "primordial" forms of educational credentials or admission processes of highly prestigious institutions that represent the institutional embodiment of elite cultural attributes. The importance of cultural capital is underscored by findings of the importance of upper class social background in many studies of contemporary elites (cf., Bourdieu, 1988; Karen, 1990; McDonough, 1997; Useem & Karabel, 1986; Zweigenhaft & Domhoff, 1998).

The Rhodes Scholar Study

Rhodes Scholars offer an ideal population for the investigation of higher education's role as a screen in producing members of professional elites. This analysis is

part of a larger study of 5 historical cohorts of American Rhodes Scholars involving survey, interview, and archival data. The study traces American elites in the last half of the 20th Century in order to determine how changing dynamics of merit, sponsorship, and democratization affect elite membership, socialization, occupational structures, and perceptions of leadership. Since 1903, 32 American Rhodes Scholars have been chosen annually for a two to three year fellowship for Oxford study and associated travel. Students compete during or soon after their final year of undergraduate study. The criteria for the scholarship are: intellectual and scholastic excellence, exemplary character, potential for leadership in public service, and physical vigor (Aydelotte, 1946; Rhodes Scholarship Trust, 1995; Rotberg, 1998). Recipients of one of the preeminent honors in the United States, the nearly 1700 living Rhodes Scholars are a strong presence among American elites.

The study began with the hypothesis that social democratization since World War II would result in greater diversity among American elites. An important indicator of such democratization would be increased diversity over time in the number, type, and prestige of colleges and universities producing Rhodes Scholars. An earlier analysis, therefore, investigated the numbers of Rhodes Scholars from different institutions since the beginning of the Scholarship (Youn, Arnold, & Salkever, 1998). We then concentrated on patterns of baccalaureate origins in four cohorts of Scholars: immediate post-war (1947-1949), civil rights era (1967-1969), affirmative action era (1977-1979), and Reagan/Bush era (1986-1989).

In our previous paper, we reported that the presumption of increased diversity among Rhodes Scholars since World War II did not hold true for postsecondary

background (Youn, Arnold & Salkever, 1998). Tallies of undergraduate institutions revealed that just three universities have produced nearly 1 in 5 Scholars since 1903. Harvard, Princeton, and Yale have not only granted 513 of the 2,812 Rhodes Scholars undergraduate degrees since the Scholarship began in 1903, the dominance of these three institutions has increased since mid-century. Beginning in the 1960s, the three leading institutions have produced 1 in 3 Rhodes Scholars. The "Big-3" Rhodes schools produced two to four times as many Scholars as the next most prolific institutions.

The Current Study

Having established a pronounced association between three dominant universities and the Rhodes Scholarship, the study now turns to the ways in elite baccalaureate credentials interact with pre-college cultural capital to shape distinctive career outcomes. We seek to understand the joint and independent contributions of social class and educational background on career attainment of American elites since World War II.

If rewards come from participation in prestigious status culture, then upper-class affiliations and credentials from high status colleges should result in tangible career benefits. As many as 1200 applicants compete for the 32 annual American Rhodes Scholarships (Schaeper & Schaeper, 1998). Considering the formidable Rhodes Scholarship selection standards, it is very possible that these two elements -- prestigious education and upperclass origins -- would lead Rhodes Scholars into gateways to leadership roles. On the other hand, American society has undergone a process of democratization since the middle of the 20th Century. We wondered whether Bourdieu's contention that schooling reproduces existing social inequality holds true in post World-War II America. Increased access to higher education, the civil rights movement,

affirmative action, and the women's movement have all been forces for democratization in the United States. If the membership of American elites has indeed become more democratic, we would expect greater diversity among Rhodes Scholars and decreased prominence of social origins in determining career success. The thesis of increasing democratization would also presume that undergraduate institution and the baccalaureate/career relationship would change over time in the direction of greater baccalaureate diversity and less importance of institution in determining professional attainment.

Research Questions

Our specific research questions are as follows:

1. Between World War II and the late 1960s, have Rhodes Scholars become increasingly diverse in terms of social origins? Over time, how have the backgrounds of Rhodes Scholars with Harvard, Princeton, and Yale baccalaureate degrees compared to Rhodes Scholars from other institutions?

2. Does an upper-class background increase the likelihood of achieving professional prominence, regardless of baccalaureate institution?

3. Does attendance at a Big-3 graduate school have an independent effect on career prominence above that of social origins and baccalaureate prestige?

4. Do social class and educational effects on career attainment differ for Rhodes Scholars of the 1940s and the 1960s?

5. What interactions of social background, baccalaureate origins, and graduate school prestige affect career prominence?

We have framed research questions rather than directional hypotheses because models of cultural capital and historical democratization make different assumptions that imply different hypotheses. For instance, a cultural capital view would anticipate upper class individuals as more likely to select and be admitted to top baccalaureate institutions, but also as more likely to achieve prominence regardless of university background. A focus on democratization would expect increasing diversity over time in Rhodes Scholars' social and baccalaureate origins and no particular link between social origins, educational prestige, and career attainment.

Sample

The sample for this study included two cohorts of Rhodes Scholars from the late 1940s and the late 1960s (specifically, the Rhodes Scholar classes of 1947, 1948, 1949 and 1967, 1968, 1969). The immediate post-war class of 1947 and 1948 were increased in size to 48 men each in order to accommodate accepted Scholars who had deferred their Oxford attendance for military service and those who had not been able to apply during the wartime years. All other classes included 32 Scholars. The total sample size of 220 comprised 125 Rhodes Scholars from the 1940s and 95 Rhodes Scholars from the 1960s cohorts. (Three 1940s Scholars and a single 1960s Scholar died soon after studying at Oxford and were not included in the analysis. Missing data on individual variables caused the elimination of 6 to 9 cases from particular analyses. Sample size will be reported for each analysis.)

We chose these two cohorts for several reasons. First, the late 1940s and 1960s were each periods of distinct historical change. Panels of Rhodes Scholars were chosen for this study from key benchmark periods that indicate the post World War II (those selected in 1947 through 1949) and the civil rights and Vietnam era (those selected in 1966 through 1968) that also represents an expansion of democratic institutions and enlargement of social equality. The Civil Rights Movement, anti-war uprisings, and youth culture all pointed to a democratizing effect in society that we hypothesized might differentiate the later cohort from their 1940s predecessors. Second, the men in these two sets of Rhodes Scholar classes have had time to reach the peak of their careers and to achieve public records of success. Finally, the choice of these two cohorts removes the variable of gender from the study, as women were not admitted to the Rhodes Scholar competition until 1977. (We plan in the future to add a male cohort from the 1950s, and mixed-gender cohorts from the 1970s and 1980s.)

Data sources.

This paper is based on documentary analysis of Rhodes Scholar biographies from published sources and electronic media. Chief among these sources are Who's Who and other biographical texts covering general and specific populations and professions. Data also come from major newspapers, scholarly journals, books, and popular media publications by and about Rhodes recipients. Professional directories such as the Martindale-Hubbell directory of U.S. attorneys, company and university internet and print sources, and personal web pages were also searched[1]. We drew extensively from

[1] Consulted sources included: All Who's Who texts; Lexis-Nexis database; Master and Genealogical Index; Britannica On-line; Martindale-Hubbel Lawyer Locator; New York Times Biographies; Washington Post archives online; Occupational Directories, such as Judicial Yellow Book; Contemporary Authors; College and university web sites; Company websites, Internet Search engine Alta Vista for general web searches.

the Register of Rhodes Scholars, 1903-1995, which lists the following basic biographical information for Rhodes Scholars from all participating countries: high school, father's occupation, educational institutions and degrees, professional positions, civic and corporate board membership, major awards/honors, and marital/family status. An important additional source specific to our population is the annual directory of Scholars' current occupational titles and lists of degree granting institutions for each new cohort published in the American Oxonian. In Fall 1997, the American Oxonian published the latest bi-decennial comprehensive directory of living American Rhodes Scholars, including contact information and current job titles. As the alumni publication of American Rhodes Scholars, the American Oxonian includes personal news and information updates submitted by former Rhodes. The directory and alumni notes supplement public biographies and provide basic occupational information for those Scholars whose accomplishments have not entered the public record. Baccalaureate institutions were compiled through annual announcements of winners published in the New York Times each December. Undergraduate information for Scholars of 1903 to 1939 came from the only comprehensive study of Rhodes Scholars to date (Adyelotte, 1946). The following information was collected, entered into a database program, and coded for statistical analysis: father's occupation; high school name and type; family Social Register listing; Rhodes Scholar class (year of entry at Oxford); baccalaureate institution; graduate institution; and appearance in Who's Who.

Independent Variables

Social origins: We used high school background, father's occupation, and appearance in the Social Register as three measures of social origins. These three

variables were available for our sample in public documents and corresponded with social origins variables used in previous studies of elites (cf. Baltzell, 1966; Cookson & Persell, 1985; Useem & Karabel, 1986).

High School. Prestigious preparatory school attendance, according to the literature on elites, reflects inherited cultural capital and builds social capital in the form of useful connections to privileged classmates and their families (Baltzell, 1966; Cookson & Persell, 1985). More recent work argues that certain public high schools, located in wealthy areas, serve as feeders to prestigious universities and national elites by providing exceptional academic and social advantages to the top tier of their student populations (Mathews, 1998). We therefore investigated the relative effect of high school type, including famous preparatory schools, elite public schools, and other private and public secondary schools. Using high school information provided in the Register of Rhodes Scholars, 1903-1995, we classified each Rhodes Scholar as follows: 1) top preparatory school[2]; 2) "elite public" high school (Mathews, 1998)[3]; 3) other private, non-parochial school; 4) military academy; 5) Catholic high school; 6) non-elite public high school. We created a continuous variable for high school rank, corresponding to this list, ranging from preparatory school at the top to unranked public school at the bottom.

The Social Register is an upper class index that lists members of families considered to be at the highest (subjective) echelons of society in 12 major metropolitain

[2] Choate, Deerfield Academy, Episcopal High School, Groton, Hill, Hotchkiss, Kent, Lawrenceville, Middlesex, Milton, Phillips Academy (Andover), Phillips Exeter, Portsmouth Priory, St. George's, St. Mark's, St. Paul's, Taft, Woodberry Forest School. Inclusive list from M. Useem and J. Karabel (1986), "Pathways to Top Corporate Management," and Persell and Cookson (1985), "Power and Privilege in Education: American Boarding Schools Today." Both draw from D. Baltzell.

[3] Rankings from J. Mathews (1998), "Class struggle: What's wrong (and right) with America's best public high schools," based on index measuring number of advanced placement (AP) courses per graduating senior. Only public schools selecting half or less of the student body by examination or other academic criteria were included.

areas (Baltzell, 1966). Professional accomplishments alone are insufficient for Social Register listing; rather, inclusion is determined by peers through the ascribed status of one's family. To determine whether Rhodes Scholars grew up in a family of high subjective social prestige, we searched Social Register volumes for fathers' names in the years and locations corresponding to the Rhodes Scholar's high school period[4]. A dichotomous variable indicated Social Register family appearance (1); or no appearance (0).

Father's occupation is a standard measure of social origins. (We did not have access to family income or parental education information.) Data for this variable came from the listing of fathers' occupations in the Register of Rhodes Scholars, 1903-1995. We ranked the occupations according to the Hollingshead (1957) Two Factor Index of Social Prestige, a measure of vocational level that incorporates education, occupational prestige, and income. The Two-Factor Index ranks occupations on a continuous 7-item scale ranging from major professional to unskilled laborer. We independently ranked the father's occupations and then resolved discrepancies in discussion. When insufficient information was available, for instance to judge whether a businessman was a minor or major executive, we systematically varied conservative and liberal rankings.

Upper Class is a composite variable modeled on Useem and Karabel's (1986) study of corporate elites and using all three social origins variables. Useem and Karabel labeled high-level corporate managers as upper class if they appeared in the Social Register or if they attended one of the top American preparatory schools. For the Rhodes

[4] Beginning in the 1970s, the Social Register began publishing a locator covering all cities in which the Register appears. For the period covered by the 2 study cohorts, an integrated locator was available only for New York City, Boston, and Philadelphia. Searches were therefore conducted in individual metropolitain volumes.

Scholar study, we defined as upper class those men whose families were listed in the Social Register and those whose fathers worked in occupations in the top sub-section of the Hollingshead index (elected and appointed national official; field-rank military officer; judge; college president; chief executive of a major corporation; or full professor at an Ivy League postsecondary institution). We also included as upper class those Rhodes Scholars whose fathers worked as professionals *and* who had themselves attended a top preparatory school or an elite public high school.

Educational Background. Based on the Scholarship dominance of Harvard, Princeton, and Yale we had previously uncovered, we used a dichotomous variable to indicate baccalaureate origins. All Scholars possessed an undergraduate degree as a requirement of the Rhodes Scholarship. We coded Rhodes Scholars as having received an undergraduate degree from Harvard, Princeton or Yale (1); or having received a baccalaureate elsewhere than a Big-3 college (0). We produced the same variable for graduate school: Harvard, Yale or Princeton graduate degree (1); or other/no graduate degree (0). Combining those who attended no graduate school with non-Big-3 post-baccalaureate degrees is justified partly by the large percentage of the sample with graduate degrees (83%). Additionally, the baccalaureate findings and theoretical importance of prestigious institutions led us to code graduate education parallel to baccalaureate origins.

Cohort. Given our central interest in historical effects on elite pathways, we included cohort as a variable in the analyses. Cohort was coded as a dichotomous variable: members of the 1967, 1968, and 1969 classes (1); and members of the 1947, 1948, and 1949 classes (0).

Dependent Variable

Career prominence is the outcome of interest in the current analysis. Prominence is measured by inclusion in Who's Who. Who's Who in America and associated Who's Who texts by field, region, and ethnicity are compilations of biographies based on the reference value of an individual's professional position and/or noteworthy career achievement (Who's Who, 1989, p. viii). Who's Who, according to Baltzell (1966), is a "nationally recognized listing of brief biographies of the leading men and women in contemporary American life" (1966, p. 271). There are many limitations of this index as a full and accurate depiction of career achievement, including the voluntary provision of information by those selected by career achievement criteria rather than automatically included by virtue of official position. Still, as Baltzell states, "whatever its inadequacies, Who's Who is a universally recognized index of an American elite" (1966, p. 271) and has been used extensively in studies of eminence and elites. Who's Who, like most of the other study variables, is coded dichotomously: biographical listing appearing in national, regional, or field-specific Who's Who (1); and no biographical listing appearing (0).

Analysis

Frequencies, chi-squares, and bivariate correlations were used to form an initial picture of the Rhodes Scholars' social origins, educational background, and career prominence. We then conducted logistic regression analysis, using a model in which family background, educational background, and cohort were entered in forced blocks as joint predictors of the likelihood of career prominence. Logistic regression is the appropriate technique to predict the probability of being listed or not listed in Who's Who

(Hosmer & Lemeshow, 1989). Not only the dependent variable, but the independent variables of upper class, BA origins and graduate school origins (top-3 or not) are all dichotomous variables. Assumptions of multivariate normality in ordinary least-squares regression and linear discriminant analysis do not hold for such 2-level variables, nor does ordinary regression result in predicted values that can be interpreted as probabilities. In logistic regression, we can directly estimate the probability of being in Who's Who from the continuous and dichotomous independent variables. The parameters of the model are estimated using the maximum likelihood method. Logistic regression technique enables a test of how well the overall model fits the data, the relative contribution of each variable to predicting the odds ratio of Who's Who listing, and the effects, if any, of interactions between independent variables.

Findings

Social Origins of Rhodes Scholars

Our examination of social origins revealed that American Rhodes Scholars in the 1940s and 1960s came primarily from middle-class and upper-middle class backgrounds. Forty percent of the group had professional or executive fathers; an additional 22% had fathers who were managers, small-business owners, or minor professionals. Only 4% of the Rhodes Scholars grew up in households with fathers who worked as skilled or unskilled laborers. (Table 1)

TABLE 1: FATHER'S OCCUPATION BY COHORT (n=211)

Father's Occupation as indicated by Hollingshead Two-Factor Index of Social Position	1940s cohort %	1960s cohort %	Total sample %
Higher executives, large business owners, major professionals (Top category)	38.5	44.9	41
Business managers, medium-size business owners, lesser professionals (Second category from top)	22	25	23
Skilled, semi-skilled and unskilled manual employees (Lowest categories)	3	6	4

Father's occupation alone is an imperfect gauge of upper class status and cultural capital. Following Useem and Karabel (1986), we examined prestigious high school attendance and Social Register listing as potential indications of privileged social origins and access to elite networks and cultural capital. One in 5 future Rhodes Scholars attended a private secondary school. However, we found that only 17 Rhodes Scholars (7.7%) had attended one of the country's 16 most prestigious prep schools (as identified by Baltzell, 1966). Social Register appearance was equally uncommon; only 15 Scholars appeared in this index of high social standing. It is probable that both elite Northeast prep schools and Social Register membership were minimized in our group by the regional selection process for the Rhodes Scholarship. Social Register listing and high-status father's occupation were modestly related to elite high school attendance for both cohorts of Scholars (Pearson r's =.24–.27, $p \leq .01$).

Chi-square analysis showed no statistically significant differences between the two cohorts in the level of father's occupation, attendance at prestigious high schools, or appearance in the Social Register. Our hypothesis of increasing democratization in American society in the two decades following World War II led us to expect that 1960s Rhodes Scholars would come from less privileged origins than the 1940s group. This was not the case. Although the two groups represent similar social backgrounds, it is notable that neither cohort is dominated by upper-class members.

About 1 in 10 Scholars met the strict definition of upper-class: family appearance in the Social Register; or elite father occupation[5]; or both professional father and attendance at top secondary school[6]. This definition follows Useem and Karabel's (1986) study of corporate elites, allowing comparison of the relative effects of social background and baccalaureate origins between prominent business leaders and Rhodes Scholars. Although this definition might underestimate the number of upper class backgrounds among our students, it does differentiate the backgrounds of men whose fathers were college-educated professionals from those who additionally had demonstrable access to the top of society through family and school connections. Twenty-four Rhodes Scholars, 11% of the sample, had upper class family backgrounds according to this strict definition. (Useem and Karabel found that 16% of top corporate managers had attended a top preparatory school and/or were listed in the Social Register.) Upper-class background

[5] Top occupation in Hollingshead cateogry is as a judge, elected or appointed national official, field-rank military officer, college president, chief executive of major firm, or full professor at an Ivy League university.

[6] Top secondary school is defined as one of the 16 preparatory schools identified by Baltzell (1966) and elite public high schools identified as providing the most college-level courses (operationalized as AP test producers in Mathews, 1998).

related to later professional prominence, as will be described in the logistical regression findings.

Baccalaureate Origins of Rhodes Scholars

A previous paper described changes in baccalaureate origins of Rhodes Scholars since World War II (Youn, Arnold, & Salkever, 1998). Three institutions have come to play a dominant role in the production of Rhodes Scholars. From the first fifty years of the Scholarship to the present, Harvard, Princeton, and Yale have moved from producing one in five Scholars to supplying one in three today. The two cohorts in the current analysis represent this trend. The "Big-3" universities accounted for undergraduate degrees of a quarter of the entire sample (56 of 220 Rhodes Scholars). A closer examination shows that 19% of the 1940s cohort received Big-3 baccalaureates, while 33% of the 1960s Scholars hold Big-3 undergraduate degrees.

The social origins of Rhodes Scholars play a role in baccalaureate credentials. Attending Harvard, Princeton, or Yale is modestly associated with a Social Register family, a high-ranked high school, and a professional father (r's between .22 and .28, $p \leq .001$). For the entire sample, upper-class family background is associated with Big-3 baccalaureates ($r=.23$, $p \leq .001$). Fifty-four percent of the upper class Rhodes Scholars received baccalaureate degrees from Harvard, Princeton, or Yale as contrasted to only 22% of the non-upper-class men. Cohort makes a difference in this relationship: 1940s Rhodes Scholars show a statistically significant correlation between upper class background and Big-3 degree ($r=.30$, $p \leq .001$) while 1960s men show no such relationship. Father's occupation, in contrast, is a more powerful predictor of Big-3

attendance for 1960s than for 1940s Rhodes Scholars ($r=.38$, $p \leq .001$ for 1960s; non-significant for 1940s).

Adult Prominence of Rhodes Scholars

A third of the Rhodes Scholars in the two cohorts earned listings in Who's Who as a result of notable professional achievements. More specifically, 42 of 125 Scholars from the 1940s appear in Who's Who (34%), along with 28 of the 95 Scholars from the 1960s (29%). Former Rhodes Scholars are strongly represented among American leadership groups. For example, the class of 1948 includes a MacArthur Fellow and 3 Guggenheim prize-winning writers; chairmen of the Carnegie Endowment for International Peace and the Ford Foundation; Chancellor of the University of Pittsburgh; 3 corporate CEOs; and the Mayor of Concord, New Hampshire. Rhodes Scholars from 1948 were strongly represented in government, including high level positions in federal agencies, the State Department, Congressional staff, World Affairs Council, and political party organizations. Among the luminaries of the 1947 class were Edgar Shannon, president of the University of Virginia, James Hester, president of New York University, and Admiral Stanisfield Turner, NATO commander and CIA Director. Current and former positions held by the 32 members of the Rhodes Scholars Class of 1968 include: President of the United States; cabinet and subcabinet members; judges; elected state and city officials; professors at Harvard, Cornell, the University of Virginia, and other leading universities; research scientists; high-ranking military officers, corporate executives (including one CEO); a prominent arts administrator; senior partners in influential law firms; the former Washington Bureau chief of Time magazine; the President and General

Manager of the Washington Post, and a prize-winning senior reporter for the Chicago Tribune. Rhodes Scholars are not distributed evenly across national elites. The emphasis on higher education in Rhodes Scholar selection and Oxford study means that Scholarship winners cluster in intellectual professions. Our preliminary analysis indicates that Rhodes Scholars are strongly represented in academia, government, law, the military, and journalism. Medicine, research science, and corporate leadership are reasonably well represented. As members of professional elites, Rhodes Scholars are underrepresented among artists, entertainers, entrepreneurs, labor leaders, and athletes.

Social Origins, Baccalaureate Origins, and Adult Prominence

As we have shown, social origins and especially upper class background is associated with attendance at one of the three top universities producing American Rhodes Scholars. The central question of the Rhodes Scholar study has to do with the conditions that lead to professional attainment and public leadership in adulthood. Appearance in Who's Who serves as the outcome measure for assessing professional prominence. By this measure, social origins do not play an important role in eventual attainment. In bivariate correlations and chi-square tests of significance, only father's occupation shows a significant association with Who's Who listing and then only for Rhodes Scholars from the 1940s ($r=.195$, $p\leq.05$).

In contrast, baccalaureate origins do play a role in adult professional attainment. Forty-three percent of Big-3 graduates appear in Who's Who as compared with 28% of other graduates. (See Table 2)

TABLE 2: WHO'S WHO LISTING BY BACCALAUREATE ORIGINS AND FATHER'S OCCUPATION (n=211)

Baccalaureate Origin	Father professional; Listed in Who's Who	Father not professional; Listed in Who's Who	Total Listed in Who's Who
Top-3 Baccalaureate (Harvard, Yale, Princeton)	41%	52%	45% (n=53)
Not Top-3 Baccalaureate	30%	25%	27% (n=158)

Professional means father's occupation is listed in Hollingshead top category (1)
Note, 64% of men who attended Top-3 Baccalaureate institution had professional fathers as opposed to 33.5% of men who attended other undergraduate institutions.

Chi-Square=13.11, 1 df, p=.001

Initial analyses of the relative contribution of social origins and baccalaureate origins used all three social origins variables entered as a block into a logistical regression equation designed to predict the odds of appearing in Who's Who. Social Register and high school rank did not contribute to the Who's Who odds ratio above and beyond father's occupation. Nor did an interaction effect between the three social origins variables add explanatory power. We therefore simplified the logit equations by entering father's occupation as the single variable representing social origins. Baccalaureate origin was coded as Big-3 (1) or not-Big-3 (0) and entered as a forced second block into the analysis. When social origins and baccalaureate origins were entered in this way into a logistical regression equation, the effects of a Harvard, Yale, or Princeton degree emerged as significant in affecting the probability of adult listing in Who's Who. Graduate degree origins also significantly contributed to the odds ratio of appearing in

Who's Who. Social origins and cohort did not. As the logit model in Table 3 shows, the equation using father's occupation, baccalaureate origins, graduate degree origins, and cohort predicts the odds of appearing in Who's Who significantly different from chance (Model Chi-square=12.91, 4 df, p=.01). Beta coefficients show baccalaureate origin and graduate degree origin are the statistically significant variables contributing to the equation. (Big-3 baccalaureate Wald statistic=5.51, p=.01; Big-3 graduate Wald statistic=5.51, p=.01). In contrast, father's occupation and cohort yielded small and insignificant beta coefficients and corresponding Wald statistics. It is important to note, however, that only 5.9 to 8.3 percent of the change in the Who's Who odds ratio is accounted for by the equation (Cox & Snell, and Nagelkerke statistics, interpretable as R^2), and that only 68.7% of the cases were correctly classified by the equation according to their actual appearance in Who's Who.

TABLE 3: LOGISTICAL REGRESSION ANALYSIS OF FATHER'S OCCUPATION, BACCALAUREATE ORIGIN, GRADUATE ORIGIN, AND COHORT ON WHO'S WHO (n=211)

	Chi-Square	df	Significance
Model	12.913	4	.0117

Cox & Snell R^2 — .059
Nagelkerke R^2 — .083 Percent correctly classified: 68.25%

Variable	β	S.E.	Wald	df	Sign.	R
Father's occ.	.0921	.1378	.4461	1	.5042	.0000
Baccalaureate	.8385	.3571	5.5147	1	.0189	.1182
Graduate	.7527	.3126	5.7995	1	.0160	.1229
Cohort	-.2413	.3151	.5866	1	.4438	.0000
Constant	-2.3488	.8936	6.9082	1	.0086	

We conducted a second logit regression analysis using upper-class as the social origins variable. The overall model was statistically significant (p=.01). The same pattern emerged of statistically significant contributions to the odds ratio of Who's Who listing by both baccalaureate and graduate origins. Again, social origins (here, upper class) and cohort failed to contribute to predicting Who's Who inclusion. A potentially notable finding emerged in an earlier block of the logistical regression using only upper class standing and baccalaureate origins. Although this equation did not yield a model fit that was statistically significant (p=.07), the beta coefficients of upper class status and baccalaureate origins were extremely similar in magnitude. We will follow up this provocative finding by conducting a larger-sample replication with additional cohorts.

Discussion

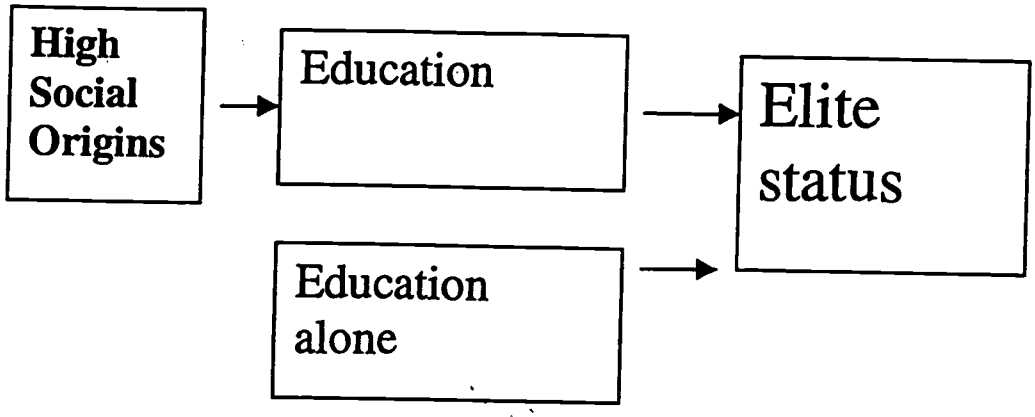
Rhodes Scholars are not primarily from upper class origins, but neither are they from working class families. Our findings are somewhat different from Useem and Karabel's (1986) results with corporate elites. Rhodes Scholars were less well represented than corporate heads in the Social Register and among top Eastern prep schools. This finding could be an artifact of the regional Rhodes Scholar selection process. It could also point to the greater importance of social networks in business as compared to academic, law, and public service careers.

As measured by father's occupation, Social Register listing, and high school rank, the social origins of Rhodes Scholars did not change from the 1940s to the 1960s. A direct interpretation of this finding would indicate that the hypothesis of increased democratization of American elites was not demonstrated in greater socioeconomic

diversity over the 20 years separating these groups of Rhodes Scholars. However, the post-World War II expansion of higher education means that more of the 1960s general age cohort had college educated parents. In this light, it is perhaps remarkable that the 1960s cohort was no more likely to come from professional homes than their predecessors. In addition, attendance at Big-3 universities was tied to Social Register and upper class status for the 1940s Rhodes Scholars but not for those in the 1960s. The later cohort was strongly affected by professional fathers to attend Harvard, Princeton, or Yale; the 1940s association between fathers occupation and college prestige was non-significant. Add to these factors the increased competitiveness of Ivy League admission and it is possible to make an argument that the 1960s Rhodes Scholars were more diverse as compared to their national age cohort than were the 1940s Scholars.

More importantly, social origins did not affect professional prominence directly for Rhodes Scholars above and beyond baccalaureate origins. This finding was in contrast to Useem and Karabel's (1986) results with corporate elites. In that study of 2,100 high-level executives, social origins exerted an independent direct effect on career success beyond that of educational prestige. This was not the case for the 2 cohorts of Rhodes Scholars. Although social origins did not play a direct role in reaching Who's Who, Scholars' family background was associated with attendance at a Big-3 university. And Harvard, Princeton, or Yale degrees were, in turn, predictors of Who's Who. As others have, we found that university prestige was important in later achievement. This picture indicates a model like that in Lerner, Rothman, and Nagai's (1996) study of American elites.

Figure 1. Model of Pathways to Elites (Adapted from Lerner et al., 1998)



Like Lerner et al., our findings suggest that social origins play an indirect role in eventual prominence by determining which college a youth will attend. Family cultural capital, according to this interpretation, leads both to self-selection into Ivy League applicant pools, and to the habitus rewarded through admission, academic achievement, and connections to networks of helpful peers and mentors (Bourdieu, 1977; Karen, 1990; McDonough, 1997). Earning a degree from Harvard, Princeton, or Yale is the ticket that directly affects the likelihood of becoming a Rhodes Scholar and of reaching professional prominence after the Rhodes Scholarship. As Figure 1 shows, the pathway to prominence can begin at a prestigious university even for students without privileged

social origins. In keeping with our general model of social democratization, this route is more common among the 1960s Rhodes Scholars than it was 20 years earlier.

If Harvard, Princeton, and Yale are producing a greater proportion of Rhodes Scholars (1/3) yet family origins are not changing nor playing much role in Who's Who, this indicates that these institutions are becoming increasingly heterogeneous in the social class of the students they enroll. This is good news for the meritocracy in one way: people from different backgrounds can get into a Big-3 institution. Unresolved, however, is the question of whether some sort of cultural capital unmeasured by our variables is associated with admission to the Big-3, as McDonough (1997) and Karen (1990) have argued. The power of a Big-3 degree carries through life. Is this because of the talent they attract (the meritocracy argument); the cultural capital they confer; or the charter they hold from the public to produce elites? Even the explanatory power of baccalaureate origins is very small. Clearly, factors outside of formal education and social background account for the majority of variation in the career pathways of Rhodes Scholars chosen for eminence.

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