

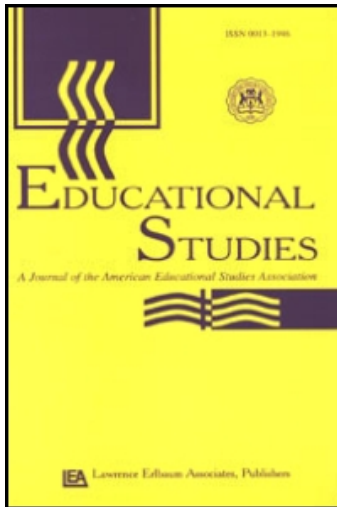
This article was downloaded by: [Beach, J. M.]

On: 2 February 2009

Access details: Access Details: [subscription number 908387592]

Publisher Routledge

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



## Educational Studies

Publication details, including instructions for authors and subscription information:

<http://www.informaworld.com/smpp/title-content=t775653643>

### A Critique of Human Capital Formation in the U.S. and The Economic Returns to Sub-Baccalaureate Credentials

Josh M. Beach<sup>a</sup>

<sup>a</sup> University of California,

Online Publication Date: 01 January 2009

**To cite this Article** Beach, Josh M.(2009)'A Critique of Human Capital Formation in the U.S. and The Economic Returns to Sub-Baccalaureate Credentials',Educational Studies,45:1,24 — 38

**To link to this Article:** DOI: 10.1080/00131940802562313

**URL:** <http://dx.doi.org/10.1080/00131940802562313>

PLEASE SCROLL DOWN FOR ARTICLE

Full terms and conditions of use: <http://www.informaworld.com/terms-and-conditions-of-access.pdf>

This article may be used for research, teaching and private study purposes. Any substantial or systematic reproduction, re-distribution, re-selling, loan or sub-licensing, systematic supply or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instructions, formulae and drug doses should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

# A Critique of Human Capital Formation in the U.S. and The Economic Returns to Sub-Baccalaureate Credentials

Josh M. Beach  
*University of California*

This article explores the history of human capital in the United States in relation to scholarly study of the private economic returns to higher education. The focus of this study is the private economic returns to subbaccalaureate education in two-year community and technical colleges. This article argues that although there are some beneficial private rates of return to a subbaccalaureate credential in relation to having no higher education, the benefits are small and often insignificant, especially in relation to the rates of return to a baccalaureate degree. Thus, subbaccalaureate credentials are devalued economic commodities that perpetuate the inequality of U.S. society and the labor market and, therefore, subbaccalaureate education should not be seen as a means to democratize higher educational access, but more as an advanced type of secondary schooling.

Prior to the 20th century, higher education was centered on moral and civic inculcation, with a specific focus on training elites for socio-political leadership (Lucas 1994; Thelin 2004). These traditional purposes were gradually replaced during the 20th century with a new end: training all Americans for work. This trend has been labeled the “vocalization” of American education. Higher education in the United States is now closely linked to the nation’s capitalist economy and its labor market has become the arbiter of both occupational and professional careers (Aronowitz 2000; Brint and Karabel 1989; Grubb 1985; Grubb and Lazerson 2004; Kantor 1988; Kliebard 1999; Thelin, 2004). Americans view education, particularly postsecondary education and its system of credentials, as a *ladder of opportunity* that will yield financial returns and upward social mobility (Aronowitz 2000; Grubb 1985; Grubb and Lazerson 2004; Lucas 1994; Thelin 2004).

Although human capital theory has allowed economists, capitalists, and government officials to enhance the perceived value of human labor, this economic paradigm has created a skewed faith in the *education gospel* (Grubb and Lazerson 2004), which basically argues that higher levels of education brings higher levels of economic earnings for all workers. This mantra is false. Although completing a bachelors degree in the United States has marked economic benefits, these benefits are always calculated “on the average” (Grubb and Lazerson 2004, 162) and, thus, mask real inequalities of earnings based on race, class, and gender in what continues to be a socially stratified society (Grubb and Lazerson 2004; Hertz 2006; Mishel *et al.* 2007). Because it cannot adequately perceive or factor in social inequalities, human capital theory is not only “overly simplistic,” but also “naïve” (Grubb and Lazerson 2004, 164). In fact, increased levels of educational attainment in the United States over the past quarter century have also been accompanied by increased levels of economic and social inequality (Grubb and Lazerson 2004, 164; Jacobs and Skocpol 2005). Nowhere is this issue more concretely demonstrated than in the estimated economic returns to subbaccalaureate education, especially in community colleges, where increased levels of students are enrolling to attain a higher education, but very few of these students ever attain more than a few years of college without any degree completion (Dougherty 2001).

## A HISTORY OF HUMAN CAPITAL

From the mid-nineteenth until the twenty-first century, the net national product of the United States has grown, on average, by 3.4% per year. Although the development of land and the investment of capital have been significant contributing factors in this significant rate of growth, the primary factor behind the economic growth of the United States has been human labor. Economists estimate that between 41–49% of the growth of the net national product from 1840 to 1990 was due to the development of human labor supplies and laborer skills (Atack and Passell 1994).

But for much of the 19th century, a significant portion of the labor force was enslaved or in a state of debt peonage. Labor markets institutionally discriminated against laborers in the form of wage discrimination based on race, ethnicity, and gender, and also based on race- and gender-segmented occupations (Atack and Passell 1994, 533; Goldin 1990; Roediger 2003). In 1860, Black slaves constituted about 21% of the labor force (Atack and Passell 1994; 522), and most of these enslaved men and women, once they were officially freed, still continued to be economically enslaved by debt peonage in the agricultural economy of the South (Ransom and Sutch 2001). In fact, both White and non-White agricultural workers in the South were not free, because their cash crops were determined by the wealthy merchants in charge of regional markets (Ransom and Sutch 2001, 165). Much the same could be said about agricultural and industrial laborers in

the North and West (Atack and Passell 1994, 539; Edwards 1979; Painter 1987). Women were also active, yet invisible, participants in labor force for centuries in the hidden market of the home, but this contribution to the net national product has long been neglected by male economists (Boydston 1990; Goldin 1990). Despite being overtly discriminatory, labor markets were also regionally segregated, which limited the mobility of laborers to find less discriminatory markets (Atack and Passell 1994, 529, 543).

Despite the foundational economic value of labor, laborers were largely (but never completely) neglected by economists and politicians for centuries, as they were often classified as mere “commodities” to be bought and sold by capitalists in labor markets. When employed, a laborer became another form of “raw material” to be “controlled” by managers (Edwards 1979, 26; Kliebard 1999, 52). However, skilled workers were able to retain some control over their labor and working conditions due to their relative scarcity in some labor markets and to the collective power of guilds and craft unions (Edwards 1979, 31).

But in the United States, the full economic value of labor was not realized by economists and politicians until the early- to mid-20th century, with the widespread development of three important social institutions: labor unions, secondary and post-secondary public schooling, and formal legal equality. Labor unions allowed for a growing body of legal rights for laborers, better working conditions, and some measure of free time to develop nonoccupational pursuits, like education (Dawley 1991; Edwards 1979; Lichtenstein 2002). The development of free public secondary schooling and growing access to postsecondary schooling allowed unskilled and skilled laborers alike to increasingly send their children to school and to learn skills that would increase their value as laborers, although the opportunity costs of schooling were still prohibitive to many because of the dependence of families on adolescent labor (Brint and Karabel 1989; Kliebard 1999; Lucas 1994; Peterson 1985; Thelin 2004; Tyack 1974). And finally, the development of formal legal equality for all American citizens allowed non-White and immigrant laborers to more freely unionize, educate themselves and their children, and negotiate their labor in less discriminatory labor markets—although formal legal equality has not translated into full social or economic equality for many Americans (Gerstle 2001; Jillson 2004; Patterson 2001).

It was in 1960 that Theodore W. Schultz (1961), then the president of the American Economic Association, broke with classical economic theory and repositioned the laborer as the foundational element of modern economies and economic growth. Schultz argued that laborers in the U.S. were becoming more educated and, thus, more valuable. He claimed that human skills and knowledge were a “form of capital”: human capital. He went on to say, “The productive capacity of human beings is now vastly larger than all other forms of wealth taken together” (2). He tried to position his theory away from classical accounts of laborers as “something akin to property,” and he explained that human capital

was actually a form of human freedom and choice, which helped both the welfare of the individual and also the economic welfare of society (2–3). He argued that racial discrimination interfered with economic development and, thereby, was a nationally self-defeating policy (he did not mention gender discrimination). He even went so far as to claim that “laborers have become capitalist” because their knowledge and skills now have quantifiable “economic value,” which is greater than nonhuman capital (3, 5).

By the 1970s, the idea of education as a form of human capital investment had taken hold and was fast becoming the reigning theoretical paradigm for justifying the social and economic value of education, especially higher education. In 1976, Kern Alexander (1996) explained how the idea of human capital represented an advancement of Western society. Human “resources” were now understood to be “the true basis for the wealth of nations” (85–86). But with this new economic celebration of labor came an economically reconceptualized notion of education, which Alexander defined as

anything which (a) increases production through income in the capacity of the labor force, (b) increases efficiency by reducing unnecessary costs, thereby reserving resources for the enhancement of human productivity . . . and (c) increases the social consciousness of the community so that living conditions are enhanced (86).

The problem with this new instrumentalist conception of education was that it seemed to reduce a complex human activity to a mere productivity equation, whereby, increased capacity and efficiency led to increased production and an enhanced society. Alexander admitted that many educators, not to mention laborers, would find this definition unappealing or insulting. Human beings did not always educate themselves to “maximize income” (Alexander 1996, 88). And, lest people forget about the historical institutionalization of labor markets in the United States, Alexander also pointed out that education did not simply translate into increased income, nor were the benefits of human capital equally distributed to all types of laborers in all labor markets. Alexander explained, “The economic value of education is distorted by factors such as intelligence, parent’s education, race, sex, urban versus rural, north versus south, health, education quality, and others too numerous to explore” (89; see also Paulsen 2001, 60, 74). So although the paradigm of human capital did bring increased respect for laborers, it reduced the value of education to a simple economic investment, and it masked the larger social segmentation, segregation, and discrimination that still resided in labor markets.

Although some economists have used human capital theory *expansively*, to theoretically and empirically explore how increased education and economic development bring increased freedom and socio-political development (Alexander 1996, Grubb and Lazerson 2004, Sen 1999), many economists use this theory rather *narrowly* to empirically explain the correlation between education and increased

economic production capacity (Breneman 2001, Dale and Krueger 1999, Leslie and Brinkman 1988, Paulsen 2001). David Breneman, like many economists of higher education, routinely refers to the “outputs” of higher education in terms of “individual rates of return,” and less frequently, if at all, narrowly concerned economists might talk about the “social rate of return,” but this expansive conception is very hard to quantify, therefore, it becomes almost invisible (Leslie and Brinkman 1988). Thus, when it comes to the ultimate value of higher education, invariably, scholars, policy makers, and politicians defer to the reigning paradigm of human capital theory and, thereby, reduce education to an individualistic economic investment, which has now become a scholarly cottage industry.

### THE ECONOMIC RETURNS TO HIGHER EDUCATION: BACCALAUREATE CREDENTIALS

There has been much economic study of the private returns to “investment” in a baccalaureate degree (Grubb 1992; Grubb and Lazerson 2004; Paulsen 2001; Rosenbaum 2001). Paulsen (2001) summarized much of this literature. He demonstrated that the long-term earnings differential between high school educated worker and college educated workers (baccalaureate degree holders) has been substantial and has also been increasing since the 1980s (Figure 1). Paulsen (2001) also reported that the average private rate of return for a baccalaureate degree was somewhere between 9% and 15%. Grubb and Lazerson (2004) estimate the average rate of return in 1980 to be 16.5%. The average private rates of return, however, substantially vary due to a host of personal factors, like academic ability, socioeconomic status, family background, quality of schooling, gender, and race/ethnicity (Paulsen 2001, 74–76; see also Grubb 1992; Grubb and Lazerson 2004). Grubb (1992, 1999) has also documented that private rates of return vary depending on the professional area of the degree. Degrees from fields like business, allied health, and technical/engineering have shown strong economic returns, yet fields like agriculture and education have shown marginal economic returns.

Various groups of workers still face discrimination in the labor market as well, which causes “inequalities in the marginal benefits accruing to individuals who invest in higher education” (Paulsen 2001, 76). There is also some evidence that what economists assume to be the value of higher education is in fact mostly

<b>47%</b>	<b>48%</b>	<b>67%</b>	<b>69%</b>	<b>75%</b>	<b>73%</b>	<b>77%</b>
<b>1963</b>	<b>1970s</b>	<b>1980s</b>	<b>1985</b>	<b>1990</b>	<b>1995</b>	<b>1997</b>

FIGURE 1 Earnings differential between workers with high school and college diplomas. Percentage is amount college graduate earnings exceed high school graduates. From Paulsen (2001, 64–65).

the skills, abilities, and/or social privileges of talented (and largely White, male) individuals (Breneman 2001; Dale and Krueger 1999; Dey and Hill 2007; Grubb 1992; Grubb and Lazerson 2004; Mishel *et al.* 2007; Rosenbaum 2001). The public and private benefits of schooling reflect the continuing inequality in American society and the labor market: In 2000 the average earnings of a Black male with a professional degree was more than \$8,000 less than a White male with a bachelors degree, and a Latina woman with a doctorate degree earned only \$3,000 more than a White male with a high school diploma (Grubb and Lazerson 2004).

### THE ECONOMIC RETURNS TO HIGHER EDUCATION: SUBBACCALAUREATE CREDENTIALS

Reviewing twenty years of research from the 1970s and 80s, Ernest T. Pascarella and Patrick T. Terenzini (1991) revealed that not much was known about this issue. In the 1980s W. Norton Grubb (1985) noted that based on the available research, subbaccalaureate education vocational programs “do not confer on students the labor market advantage that is their principle reason for being,” although “there is some evidence of successful programs” (529-30, 34). He also noted that secondary-level vocational programs are “uniformly negative” in their effects, but the outcomes of community colleges, based on the very limited available evidence, are decidedly “mixed” (532). Grubb also pointed out that vocational guidance in secondary and postsecondary schooling is also “not particularly effective” in helping students train for and transition into mid-skilled jobs because vocational guidance involves the impossible feat of “occupational forecasting” (536–37). Grubb’s conclusion was that vocational programs are highly overrated and ideologically motivated, they have “few positive effects,” and they are “successful only under special circumstances” Despite the lack of efficiency or success, vocational education programs and vocationalism has gained enormous influence due to the institutional and political power of its defenders (530, 543, 548).

By the 1990s, Pascarella and Terenzini (2005) reported an increase on the research on the economic returns to subbaccalaureate education. There were several important research papers and literature reviews in the mid 1990s that were more optimistic than Grubb (1985), but certainly revealed decidedly mixed results for economic returns to subbaccalaureate education. Kevin J. Dougherty (2001/1994) reviewed the limited research on subbaccalaureate degrees and credentials and found the evidence troubling. He argued that the evidence on whether a community college education delivers increased earnings compared to a high school diploma was “quite mixed” and, “at best,” subbaccalaureate education gave a “very slight edge,” and in some studies there was evidence that community college students did worse economically than workers with only a high school diploma (66, 75–82). Whitaker and Pascarella (1994) found that subbaccalaureate

education led to a “significantly lower occupational status” and lower earnings than earning a bachelor’s degree, and these authors’ recommended community colleges only as a stepping stone to a four-year baccalaureate granting institution (207). Stern et al. (1995) found some evidence of increased earnings for associate’s degree earners, but the earnings seemed to decline over the course of a worker’s lifetime. The value of the associate’s degree might be more of a reflection of personal characteristics than the degree itself, because associate’s degree earners tended to come from “more educated or affluent families than those who completed high school only” (98). Overall, the results were “divergent,” and Stern *et al.* warned that one could not make any generalizations about the monetary effects of subbaccalaureate education (103), but, based on the evidence and controlling for personal characteristics, Stern *et al.* estimated that the value of an associate’s degree was between \$1,000 and \$2,000 a year more than a high school diploma, if one is between ages 24 to 32, and that the earnings differential was greatest for women with a vocational degree, and almost nil for males.

Grubb (1996a) conducted the first comprehensive scholarly attempt to bring solid evidence on the midskilled or subbaccalaureate labor market to evaluate the claims about education’s economic returns, especially in terms of midskilled workers that, in the early 1990s, constituted the majority of the work force: 60% of all employed workers. Grubb researched specific occupations in four midskilled labor markets at the local levels. He found that the subbaccalaureate labor market is mostly a “local phenomenon,” with the parameters of the market determined by the vagaries of the business cycle (12, 14). A subbaccalaureate worker is not very mobile in job searching, most likely tied to a specific locality, and any vocational credentials earned will have their highest currency in the local labor market where the community college or technical school is known.

There are a few important characteristics of the subbaccalaureate labor market that effect student transitions from school to work. One important characteristic is the large number of small businesses and firms in this market (Grubb 1996a). These firms hire few workers and offer smaller salaries and less opportunity for advancement than do larger firms. These small firms are not well informed about educated labor supplies; they are not often tied to or communicate with local educational institutions; and they usually have informal hiring practices, which make it difficult to prepare students for interviews or specific job related skills. Smaller firms also tend to be more dependent on flexible and multiskilled employees, because short-handed firms often blur occupational boundaries to get the job done cheaply and with fewer resources. Another characteristic of the midskilled labor market is the highly cyclical nature of market demand. This creates unstable employment opportunities, which, in turn, increases informal hiring policies, which then makes it difficult for both job seekers and vocational

programs to determine exactly what local employers want and when they want it. Because of the inefficiency of the subbaccalaureate market, it is very difficult for educational institutions to know, let alone teach, the “skills employers want” (Grubb 1996a, 20, 45–47). And further, Grubb pointed out that, because of the blurring of occupational boundaries and flexible nature of smaller firms, “most of the competencies required by employers in the sub-baccalaureate labor market *cannot* readily be taught in schools and colleges” (21–28).

Based on the available evidence, Grubb (1996a) was very clear to point out that community colleges can, “*under the right conditions*, provide students with substantial benefits,” and under suboptimal conditions, community colleges “may benefit not at all [author’s emphasis]” (86, 93). Specifically Grubb pointed out that the benefits of a community college are maximized if students can enroll in economically viable occupations, and find related employment within the local labor market, but this is rarely the case because community colleges tend to be isolated “islands” that are disconnected from other educational institutions and the labor market (93–108, 169, 212).<sup>1</sup>

Grubb (1996b) also investigated the value of short-term job training programs. Since the 1960s, short-term job training programs have increased in size and purpose. Grubb sought to evaluate the outcomes of these programs to determine if they were successes or failures in terms of their own program goals of employment gains, increased annual earnings, and reduction of welfare payments. Overall, Grubb found that these programs lead to “small but statistically significant increases in employment and earnings and (for welfare recipients) small decreases in welfare payments” Grubb pointed out that “the social benefits usually (but not always) outweigh the costs” (meaning that programs make financial sense in terms of cost-benefit analysis); however, he argued that the personal benefits to individuals is “quite small from a practical standpoint” and any gains are not only “insufficient to move individuals out of poverty or off welfare,” but gains also disappear over time. Grubb argues that the “modest” and “trivial” gains of job training are not impressive and, further, there are populations of enrollees like youths and welfare recipients who see negative results, which call the overall effectiveness of job training programs for everyone into question (6, 35, 38, 42–3, 45, 48–9, 90). Grubb also criticized these programs as “too short, too focused on immediate employment rather than on the enhancement of skills, unaware of pedagogical issues, and independent of related efforts” (7, 73). Grubb argued that short-term job programs disconnected from main stream educational institutions and programs seem to be “push[ing] individuals into the labor force without increasing their skills substantially,” which can hurt individuals over the long run in terms of access to future education or in finding good careers with the possibility of advancement. He argued that more “*sustained* interventions are necessary to improve the life chances of low-income individuals” [emphasis his] (73). Here was Grubb’s conclusion:

The results from nearly thirty years of evaluating job training programs are remarkably consistent—surprisingly so, given the variation in the programs supported and the differences in the methods used to evaluate them. Many job training programs lead to increased earnings, and the benefits to society generally outweigh the costs. However, the increases in earnings, moderate by almost any standards, are insufficient to lift those enrolled in such programs out of poverty. Welfare-to-work programs also increase employment and reduce the amount of welfare payments received, but they rarely allow individuals to leave welfare. Furthermore, any benefits probably fade after four or five years: job training programs do not seem to put many individuals on career trajectories with continued earnings increases, as formal schooling does. (91)

Grubb's (1996b) recommendation was not to abandon second chance job training programs, but to better coordinate and integrate these programs with mainstream educational institutions and degree programs (105–22).

A couple of publications from 1998 to 2001 demonstrated some positive conclusions about the economic returns to subbaccalaureate education. Sanchez and Laanan (1998) and Grubb (1999) revealed some evidence of significant returns to the associate's degree and vocational certificates, although several studies in Sanchez and Laanan seemed to overstate these returns by not properly filtering out several key variables: the personal characteristics of students (which can skew actual worth of the credential) and using students' last year in college as the base line for income comparisons (which can skew actual earnings data because many students are not working full-time while in college). Also, the positive earnings data presented in Sanchez and Laanan seems to be highly dependent on different regional and state economies, which makes national generalizations on earnings potential for subbaccalaureate credentials problematic (Grubb 1996a), but this issue is not adequately discussed.

Paulsen (2001) reviewed the literature on the returns to investment in subbaccalaureate credentials, and he found that the student populations of subbaccalaureate institutions,<sup>2</sup> largely community colleges and two-year technical institutes, skewed the labor market value of this type of education and make estimates very "problematic" (67). According to Paulsen, the average community college student who has never attended a four-year institution and who doesn't even earn a degree sees earnings of about 9% to 13% greater than a high school graduate with similar background characteristics and no college. One year of community college credit, independent of earning a degree, can lead to average increased earnings between 5% and 8%, and two years of credit can lead to 10% to 16% increased earnings. The effect of a subbaccalaureate credential, either a credential or an associate's degree, can lead to earnings increases between 15% and 27%. The average earning potential is greatest for women and low-income students, but there is evidence to suggest that the average earnings increases for

subbaccalaureate credentials may be greatly skewed by the significant earning potentials from an associate's degree in nursing.

Other recent analyses of subbaccalaureate credentials are less optimistic than Paulsen (2001). Kienzl (2004) echoed Grubb's conclusions and found that "the economic benefits to a sub-baccalaureate education are unclear or ambiguous" and that a bachelor's degree "remains the most economically beneficial" educational credential (pg. 19). Recent economic data (Mishel *et al.* 2007) further corroborate these general, more pessimistic findings. From 1973 to 2005, in constant 2005 dollars, the real hourly wage for an average worker with only a high school education has decreased from \$14.39 to \$14.14 an hour, yet the real hourly wage for an average worker with some college, but less than a bachelors degree increased slightly (less than 0.1%) from \$15.50 to \$15.89 an hour. Mishel *et al* argued that the policy of educating low skilled workers and making them midskilled workers "does not make sense" because "we have too many middle-skilled workers already" (201). Further, they argue, "Given that the wages of entry-level college workers and those of all college graduates have declined or been flat over this business cycle, a strategy of vastly increasing the number of college graduates seems certain to drive down the wages of current and future college graduates. The possibility of increased off-shoring of white-collar work may make such a strategy even more untenable in the future" (Mishel *et al.* 2007, 202; Barton 2008). Altogether, this provides a bleak economic outlook to the current and future value of subbaccalaureate credentials.

## CONCLUSIONS

In spite of a rhetoric of optimism, many scholars seem to hold a bleak consensus on the positive outcomes of vocational education. Student preparation for and placement in careers has been lauded by all as a noble idea, but there is little evidence over the past century that American schools, especially subbaccalaureate institutions such as community colleges, are particularly successful with this task (Grubb 1985, 1996a, 1996b; Grubb and Lazerson 2004; Kantor 1988; Kliebard 1999; Rosenbaum 2001; Stern *et al.* 1995). Indeed, few community colleges have clear and well-developed connections to the labor market, nor do they have a formal understanding of what skills students need, how these skills are measured, and how they should be communicated to future employers (Grubb 1996b; Grubb and Lazerson 2004; Grubb *et al.* 1999; Rosenbaum 2001; Stern *et al.* 1995). As a result, many subbaccalaureate job training programs, such as welfare-to-work initiatives, have shown little success in increasing students' employment or earnings, and some scholars have even argued that short-term job training programs can be harmful to certain types of students, decreasing their earnings and/or welfare support (Grubb 1985, 1996a, 1996b; Grubb and Lazerson 2004). In sum, there

is little evidence to show how well occupational programs prepare students for employment and place them in careers, primarily because few community colleges are able to reliably track students' job placements or occupational advancements. Furthermore, colleges do not yet have a good way of assessing whether vocational programs are teaching students the skills employers want, let alone the lifetime learning skills that students need to navigate a rapidly changing American economy (Bragg and Hamm 1996; Grubb 1985, 1996a, 1996b, 1999b; Grubb and Lazerson 2004; Hughes and Karp 2006; Kantor 1988; Kliebard 1999; Milne 1998; Rosenbaum 2001; Stern et al. 1995).

The subbaccalaureate labor market poses several challenges to developing vocational education and career pathway programs. Employers in this market are frequently small businesses that hire few workers and offer lower salaries and fewer opportunities for advancement than larger organizations (Grubb 1996b). Furthermore, these small businesses are often not well informed about the supply of educated labor; few are in continuous communication with local community colleges or other educational institutions, and they usually have informal hiring practices, which make it difficult to prepare students for interviews or specific job related skills (Grubb 1996b). Smaller businesses also tend to be more dependent on flexible and multiskilled employees that can cross occupational boundaries to accomplish a job cheaply and with fewer resources. As such, many "of the competencies required by employers in the sub-baccalaureate labor market cannot readily be taught in schools and colleges" (Grubb 1996b, 21).

In addition, the subbaccalaureate labor market is dependent upon the highly cyclical nature of market demand. This creates unstable employment opportunities, which in turn increases informal hiring policies, which then makes it difficult for both job seekers and vocational programs to determine exactly what local employers want and when they want it. These features of the subbaccalaureate labor market make it difficult for community colleges to determine—let alone teach—the skills employers want and need (Grubb 1996b).

Available data are mixed on how well students transition into well-paying jobs in the subbaccalaureate labor market. The benefits of vocational education can be maximized if students can enroll in economically viable occupations related to their credentialing, but even then the benefits of vocational credentials are mediated by socioeconomic status, race, gender, and even academic markers such as grades and test scores (Grubb 1996b; Grubb and Lazerson 2004; Hertz 2006; Mishel et al. 2007; Rosenbaum 2001; Stern et al. 1995; U.S. Department of Education 1995). And the economic benefits of a vocational degree or certificate decrease the more disconnected community colleges are from regional labor markets and job placement agencies (Bragg and Hamm 1996; Grubb 1985, 1996a, 1996b, 1999b; Grubb and Lazerson 2004; Rosenbaum 2001; Stern et al. 1995). Overall, the benefits of some college, a vocational certificate, or an associate's degree continue to be unpromising in the United States, and the economic value of these credentials

may further decrease in value as the number of bachelor's degree holders continues to increase. In light of the historical devaluation of human capital in the United States and the growing economic inequality of the last thirty years (Jacobs and Skocpol 2005), the credentialing purpose of the community college becomes just another form of commodity production in the American knowledge economy (Labaree 1997) and, thereby, a means to perpetuate inequality under the guise of democratically expanding higher education (Brint and Karabel 1989).

The institutional accountability movement that recently hit community colleges hard in 2004 will help clarify, in more detail, exactly what community colleges could and should promise students and the larger society in terms of subbaccalaureate certificates and degrees. That is, if the institutional accountability movement can find cost-effective and quantifiable ways of linking subbaccalaureate awards to regional and local labor markets and the earnings of students. Based on an absolute neglect of gathering this type of data for the past 100 years, this will be a very complex endeavor, not least in terms of getting the approval and buy-in of all of the local, regional, state, and federal governmental bodies that would conceivable gather and control this data. For those scholars concerned with the socio-cultural foundations of education in the United States, the predicament of community college credentials and the growing institutional accountability movement should be seen as cases for concern, sustained scrutiny, and more forthright scholarship to inform a more just public policy. To that end, there is much work to do to critique the community college and community college policy, and to inform community college practitioners. Given the foundational importance of the low-cost, open-door community college in broadening access to higher education, our duty is paramount and immediate.

## NOTES

1. Grubb (1999) revisited many of the same conclusions of Grubb (1996a), and he demonstrated the general economic viability of the associate's degree, but he stressed that the full economic potential of this credential could only be realized if individuals enroll in certain occupational/technical oriented programs, complete a degree, and find employment related to their field of study. There is little evidence that many community college students can complete all three of these steps.
2. Paulsen (2001) reiterates the standard characterization of the nontraditional student populations enrolled in community colleges: work while enrolled, low socioeconomic status, high percentage from non-White minority groups, locally bound, part-time students, typically older than 18–22, and often academically unprepared. See also Bryant (2001), Goldrick-Rab (2007), and Levin (2007).

## REFERENCES

- Alexander, Kern. 1996. The Value of an Education. In *ASHE Reader on Finance in Higher Education*, ed. D. W. Breneman, L. L. Leslie, and R. E. Anderson, 85–111. Needham Heights, MA: Simon & Schuster. Originally published 1976.

- Aronowitz, Stanley. 2000. *The Knowledge Factory: Dismantling the Corporate University and Creating True Higher Learning*. Boston: Beacon Press.
- Atack, Jeremy, and Peter Passell. 1994. *A New Economic View of American History from Colonial Times to 1940*, 2nd ed. New York: W.W. Norton.
- Barton, Paul E. 2008. "How Many College Graduates Does the U.S. Labor Force Really Need?" *Change*. <http://www.carnegiefoundation.org/change> (accessed June 12, 2008).
- Boydston, Jeanne. 1990. *Home & Work: Housework, Wages, and the Ideology of Labor in the Early Republic*. Oxford, UK: Oxford University Press.
- Bragg, Debra D., and Russell E. Hamm. 1996. *Linking College and Work: Exemplary Policies and Practices of Two-Year College Work-Based Learning Programs*. Berkeley, CA: National Center for Research in Vocational Education. ERIC Document Reproduction Service No. ED 396 115.
- Breneman, David. 2001. "The Outputs of Higher Education." In *Ford Policy Forum 2001*. Cambridge, MA: Forum for the Future of Higher Education, Massachusetts Institute of Technology.
- Brint, Steven, and Jerome Karabel. 1989. *The Diverted Dream: Community Colleges and the Promise of Educational Opportunity in America, 1900–1985*. Oxford, UK: Oxford University Press.
- Bryant, Alyssa N. 2001. Community College Students: Recent Findings and Trends. *Community College Review*. 29: 77–93.
- Dale, Stacy Berg, and Alan B. Krueger. 1999. *Estimating the Payoff to Attending a More Selective College: An Application of Selection on Observables and Unobservables*. Working Paper 7322. Cambridge, MA: National Bureau of Economic Research.
- Dawley, Alan. 1991. *Struggles for Justice: Social Responsibility and the Liberal State*. Cambridge, MA: Harvard University Press.
- Dey, Judy Goldberg, and Catherine Hill. 2007. *Behind the Pay Gap*. American Association of University Women Educational Foundation. Washington, DC: Author.
- Dougherty, Kevin J. 2001. *The Contradictory College: The Conflicting Origins, Impacts, and Futures of the Community College*. Albany, NY: State University of New York Press. Originally published 1994.
- Edwards, Richard. 1979. *Contested Terrain: The Transformation of the Workplace in the Twentieth Century*. New York: Basic Books.
- Gerstle, Gary. 2001. *American Crucible: Race and Nation in the Twentieth Century*. Princeton, NJ: Princeton University Press.
- Goldin, Claudia. 1990. *Understanding the Gender Gap: An Economic History of American Women*. Oxford, UK: Oxford University Press.
- Goldrick-Rab, Sara. 2007. *Promoting Academic Momentum at Community Colleges: Challenges and Opportunities*. Community College Research Center. CCRC Working Paper, No. 5. New York: Teachers College, Columbia University.
- Grubb, W. Norton. 1985. The Convergence of Educational Systems and the Role of Vocationalism. *Comparative Education Review*. 29: 526–548.
- . 1992. The Economic Returns to Baccalaureate Degrees: New Evidence from the Class of 1972. *Review of Higher Education*. 15: 213–231.
- . 1996a. *Working in the Middle: Strengthening Education and Training for the Mid-Skilled Labor Force*. San Francisco: Jossey-Bass.
- . 1996b. *Learning to Work: The Case for Reintegrating Job Training and Education*. New York: Russell Sage Foundation.
- . 1999. *Learning and Earning in the Middle: The Economic Benefits of Sub-Baccalaureate Education*. Community College Research Center, Teachers College, Columbia University. New York: Author.
- Grubb, W. Norton, and Marvin Lazerson. 2004. *The Education Gospel: The Economic Power of Schooling*. Cambridge, MA: Harvard University Press.

- Grubb, W. Norton, Norena Badway, Denise Bell, et al. 1999. *Toward Order from Chaos: State Efforts to Reform Workforce Development Systems*. Berkeley, CA: National Center for Research in Vocational Education. ERIC Document Reproduction Service No. ED 427 172.
- Hertz, Tom. 2006. *Understanding Mobility in America*. Washington, DC: Center for American Progress. <http://www.americanprogress.org> (accessed March 20, 2007).
- Hughes, Katherine L., and Melinda Mechur Karp. 2006. Strengthening Transitions by Encouraging Career Pathways: A Look at State Policies and Practices. *Community College Research Brief* 30: 1–4.
- Jacobs, Lawrence R., and Theda Skocpol, Eds. 2005. *Inequality and American Democracy: What We Know and What We Need to Learn*. New York: Russell Sage Foundation.
- Jillson, Cal. 2004. *Pursuing the American Dream: Opportunity and Exclusion Over Four Centuries*. Lawrence: University Press of Kansas.
- Kantor, Harvey A. 1988. *Learning to Earn: School, Work, and Vocational Reform in California, 1880–1930*. Madison: University of Wisconsin Press.
- Kienzl, Gregory S. 2004. The Triple Helix of Education and Earnings: The Effect of Schooling, Work, and Pathways on the Economic Outcomes of Community College Students. PdD diss., Columbia University, New York: NY.
- Kliebard, Herbert M. 1999. *Schooled to Work: Vocationalism and the American Curriculum, 1876–1946*. New York: Teachers College Press.
- Labaree, David F. 1997. *How to Succeed in School Without Really Learning: The Credentials Race in American Education*. New Haven, CT: Yale University Press.
- Leslie, Larry L., and Paul T. Brinkman. 1988. *The Economic Value of Higher Education*. New York: American Council on Education.
- Levin, John S. 2007. *Nontraditional Students and Community Colleges: The Conflict of Justice and Neoliberalism*. New York: Palgrave Macmillan.
- Lichtenstein, Nelson. 2002. *State of the Union: A Century of American Labor*. Princeton, NJ: Princeton University Press.
- Lucas, Christopher J. 1994. *American Higher Education: A History*. New York: St. Martin's Griffin.
- Milne, Ann M., Ed. 1998. *National Assessment of Vocational Education: Educational Reform and Vocational Education*. Report no. PLLI-98-8060. Washington, DC: U.S. Department of Education, National Institute on Postsecondary Education. ERIC Document Reproduction Service No. ED 421 659.
- Mishel, Lawrence, Jared Bernstein, and Sylvia Allegretto. 2007. *The State of Working America 2006/2007*. Ithaca, NY: ILR Press.
- Painter, Nell Irvin. 1987. *Standing at Armageddon: The United States, 1877–1919*. New York: W.W. Norton.
- Pascarella, Ernest T., and Patrick T. Terenzini. 1991. *How College Affects Students: Findings and Insights from Twenty Years of Research*. San Francisco, CA: Jossey-Bass.
- . 2005. *How College Affects Students: A Third Decade of Research*. San Francisco, CA: Jossey-Bass.
- Patterson, James T. 2001. *Brown v. Board of Education: A Civil Rights Milestone and Its Troubled Legacy*. Oxford, UK: Oxford University Press.
- Paulsen, Michael B. 2001. The Economics of Human Capital and Investment in Higher Education. In *The Finance of Higher Education: Theory, Research, Policy, and Practice*, ed. M. B. Paulsen and J. C. Smart, 55–94. New York: Agathon Press.
- Peterson, Paul E. 1985. *The Politics of School Reform, 1870 – 1940*. Chicago: University of Chicago Press.
- Ransom, Roger L., and Richard Sutch. 2001. *One Kind of Freedom: The Economic Consequences of Emancipation*, 2nd ed. Cambridge, UK: Cambridge University Press.

- Roediger, David R. 2003. *The Wages of Whiteness: Race and the Making of the American Working Class*, rev. ed. London: Verso.
- Rosenbaum, James. 2001. *Beyond College for All: Career Paths for the Forgotten Half*. New York: Russell Sage Foundation.
- Sanchez, Jorge R., and Frankie Santos Laanan, eds. 1998. *Determining the Economic Benefits of Attending Community College*. *New Directions for Community Colleges*, 104. San Francisco, CA: Jossey Bass.
- Schultz, Theodore. W. 1961. Investment in Human Capital. *The American Economic Review*. 51: 1–17.
- Sen, Amartya. 1999. *Development as Freedom*. New York: Anchor Books.
- Stern, David, Neal Finkelstein, James R. Stone, et al. 1995. *School to Work: Research on Programs in the United States*. The Stanford Series on Education & Public Policy, no. 17. London, England: Falmer Press.
- Thelin, John R. 2004. *A History of American Higher Education*. Baltimore, MD: Johns Hopkins University Press.
- Tyack, David B. 1974. *The One Best System: A History of American Urban Education*. Cambridge, MA: Harvard University Press.
- U.S. Department of Education, National Center for Educational Statistics. 1995. *Vocational Education in the United States: The Early 1990s*. Washington, DC: Author.
- Whitaker, David G., and Ernest T. Pascarella. 1994. Two-Year College Attendance and Socioeconomic Attainment: Some Additional Evidence. *Journal of Higher Education*. 65: 194–210.