



3-24-2014

What Might We Learn From Research About Traditional Colleges And Universities

Laura W. Perna

University of Pennsylvania, lperna@gse.upenn.edu

Follow this and additional works at: http://repository.upenn.edu/gse_pubs

 Part of the [Curriculum and Social Inquiry Commons](#), [Educational Assessment, Evaluation, and Research Commons](#), [Educational Methods Commons](#), and the [Higher Education Commons](#)

Recommended Citation

Perna, L. W. (2014). What Might We Learn From Research About Traditional Colleges And Universities. *Developing a Research Agenda: Tax-Paying Colleges and Universities/For-Profit Higher Education*, 1-17. Retrieved from http://repository.upenn.edu/gse_pubs/327

What Might We Learn From Research About Traditional Colleges And Universities

Abstract

This conference seeks to establish the foundations of a research agenda for determining the performance of tax-paying colleges and universities and the contributions of these institutions to societal goals. This paper advances this agenda by considering lessons learned from research on “traditional” (that is, public and private not-for-profit) colleges and universities. The paper first identifies the societal purposes of higher education and then considers what we know from research about how well traditional higher education institutions achieve these societal purposes. The paper concludes with recommendations drawn from research on traditional colleges and universities that may help guide the establishment of a research agenda on the performance and accomplishments of tax-paying colleges and universities.

Disciplines

Curriculum and Social Inquiry | Education | Educational Assessment, Evaluation, and Research | Educational Methods | Higher Education

DRAFT

*What Might We Learn From Research About
Traditional Colleges And Universities*

Laura W. Perna

Professor

Executive Director, Penn AHEAD

Higher Education Division

Graduate School of Education

University of Pennsylvania

**Developing a Research Agenda: Tax-Paying Colleges and
Universities/For-profit higher education**

April 28-29, 2014

University of Southern California

Davidson Conference Center

Hosted by: USC Pullias Center for Higher Education and the

DeVry Education Group

What Might We Learn From Research About Traditional Colleges And Universities

Laura W. Perna
March 24, 2014

This conference seeks to establish the foundations of a research agenda for determining the performance of tax-paying colleges and universities and the contributions of these institutions to societal goals. This paper advances this agenda by considering lessons learned from research on “traditional” (that is, public and private not-for-profit) colleges and universities. The paper first identifies the societal purposes of higher education and then considers what we know from research about how well traditional higher education institutions achieve these societal purposes. The paper concludes with recommendations drawn from research on traditional colleges and universities that may help guide the establishment of a research agenda on the performance and accomplishments of tax-paying colleges and universities.

What Are the Societal Purposes of Higher Education?

Higher education has many societal benefits. The most commonly articulated societal outcomes pertain to the contributions of higher education to the economic prosperity of individuals and communities. The economic benefits that accrue to individual participants are numerous and well-documented. For instance, compared with those who have lower levels of education, individuals who enter and complete college have higher earnings and rates of employment, lower rates of unemployment and poverty, greater job satisfaction, better health, longer life, and numerous other advantages (Baum,

Ma, and Payea, 2013). The earnings premium associated with higher education is especially noteworthy. Over the past 15 years, earnings have increased only for those who have earned at least a bachelor's degree, whereas incomes of those who have completed lower levels of education have remained flat or even declined (Baum et al., 2013; Carnevale, Smith and Strohl, 2010).

Although often framed as benefits to individual participants, these outcomes have critical inter-related benefits to society (Perna & Finney, 2014). For instance, higher earnings create a larger tax base and thus result in higher tax payments. Lower unemployment and better health translate into less reliance on social welfare programs like unemployment insurance, food stamps, and Medicaid (Baum et al., 2013).

The societal benefits of higher education also include the advancement of economic productivity. According to human capital theory, individuals who have attained greater education receive higher earnings because they are more productive workers. By building the human capital (and thus the productivity) of individual workers, higher education increases the productivity of businesses, communities, states, and nations. Through its research functions, higher education also advances productivity and produces other outcomes that promote societal well-being through the creation of new knowledge and technologies (McMahon, 2012).

Beyond the economic benefits, higher education produces numerous other benefits that are central to an economically prosperous democratic society. With higher levels of education also come greater civic engagement and community involvement, as demonstrated by the positive correlation between educational attainment and measures of voting and volunteering (Baum et al., 2013). At a more macro level, greater educational

attainment fosters the development of civic institutions, social cohesion, democratic processes (including the rule of law), and political stability (McMahon, 2012).

A final fundamental public purpose of higher education is the promotion of social mobility. Higher education has become increasingly important to accessing “the middle class” (Carnevale et al., 2010). Nearly half (47%) of individuals who came from families with incomes in the lowest quintile and who did not attain a bachelor’s degree were in the lowest income quintile themselves (Baum et al., 2013). By comparison, just 10% of those who grew up in the lowest family income quintile but earned a bachelor’s degree remained in the lowest income quintile. Higher education also helps to maintain high social status. Of those who grew up in the highest income quintile, half (51%) of those who earned a bachelor’s degree, but only 25% of those who did not earn a bachelor’s degree, were themselves in the highest income quintile (Baum et al., 2013).

Some research has examined the extent to which the individual benefits of higher education attainment (typically measured by earnings) vary based on the selectivity of the four-year college or university attended. Most reporting on the individual and societal benefits, however, focuses only on the degree level attained, without considering the extent to which attending different types of colleges and universities produces differential benefits. In particular, few studies have disaggregated the benefits based on the tax-paying status of a higher education institution.

How Well Is Higher Education Advancing Societal Purposes?

Although documenting the many societal contributions of higher education, available data and research also raise important questions about the extent to which

higher education institutions are achieving these purposes.

Preparing Workers for Employment

A primary challenge facing higher education in the U.S. is to ensure the readiness of both younger and older adults for available jobs (McMahon, 2012). Because “workforce readiness” is not clearly or consistently defined, educational attainment is a common proxy for whether an individual has the required knowledge and skills (Perna, 2012).

Available data suggest that the educational attainment of the U.S. population is insufficient to meet projected workforce needs. Based on their projections of the educational requirements of available jobs, Carnevale and colleagues (2010) conclude that, at current rates of production, the demand for workers with at least an associate’s degree will exceed the supply by 3 million by 2018; eliminating this deficit will require increasing degree production by 10% each year. Currently about 60% of all jobs nationwide require some education beyond high school, compared with just 28% of all jobs in 1973. Reflecting the nature of our global, technology-driven economy, the share of jobs requiring some postsecondary education is projected to continue to increase over the coming years (Carnevale et al., 2010).

These data suggest the importance of improving the performance of higher education, so as to raise the educational attainment of the nation’s population. Research demonstrates that raising educational attainment requires attention to multiple outcomes along the pathway to attainment, including improving academic readiness to enroll and succeed in higher education, ensuring the affordability of higher education, increasing the

rate of completion for those who enter, and ensuring that students may move/transfer from one college or university to another without loss of academic credit (Perna & Finney, 2014). A substantial body of research focuses on identifying the effects of particular policies and practices on these intermediary outcomes for students attending traditional colleges and universities. Attention to the policies and practices that promote academic readiness for college, ability to pay college cost, completion of college, and transfer among colleges at tax-paying colleges and universities will produce additional useful insights for how to raise the nation's educational attainment to the level required for international competitiveness and workforce readiness.

Promoting Student Learning

Data from the Organization of Economic Cooperation and Development (OECD)'s Survey of Adult Skills (released fall 2013) illustrate the limitations of relying only on educational attainment for understanding the alignment between the skills of workers and the knowledge requirements of available jobs. The OECD data show that relatively small shares of adults in the U.S. have strong literacy and numeracy skills and that higher shares of adults in the U.S. than in many other nations have weak literacy and numeracy skills (Soares & Perna, 2014). On measures of problem solving, the performance of U.S. adults more closely mirrors the average of adults in other participating nations. Although generally rising with educational attainment, proficiency in literacy, numeracy and problem solving with information tools varies within education levels. About 80% of U.S. workers who are "under-qualified" or "over-qualified" for their jobs as measured by their educational attainment are actually well-matched in terms

of their actual literacy skills. Many of those who are “under-qualified” for their jobs in terms of formal education actually have higher literacy proficiency scores than their well-matched peers, whereas many of those who are “over-qualified” have lower literacy proficiency (Soares & Perna, 2014).

The OCED and other data suggest the need to understand the learning outcomes and competencies produced by various educational providers. There have been some efforts to assess the learning produced by higher education institutions after taking into account the knowledge and skills possessed by entering college students (e.g., the Collegiate Learning Assessment). More research considers the effects of particular pedagogical practices. For instance, the components of the National Survey of Student Engagement (NSSE) reflects the conclusion by George Kuh and his colleagues (2006) that use of educationally-effective learning practices will promote student engagement in academic material. The five educationally-effective practices that are operationalized in the NSSE are: academic challenge; active and collaborative learning; student-faculty interaction; enriching educational experiences; and supportive campus environment. In short, Kuh (2001) urges attention to how students are spending their time, as well as how an institution is structuring experiences and providing opportunities for all students to become academically engaged.

The challenges associated with measuring learning outcomes for students attending traditional colleges and universities have important implications for accountability and oversight. In short, accountability systems tend to emphasize outcomes that are currently measured, including program/degree completion, employment rates, and employment compensation.

Providing Equal Opportunity to Participate in and Benefit From Higher Education

Although higher education attainment is associated with many economic and non-economic benefits for individuals and society, research on traditional colleges and universities shows that the opportunity to realize these benefits varies based on an individual's demographic characteristics (including gender, race/ethnicity, family income, and age), characteristics of the high school an individual attended, and the community and state in which an individual resides (Perna & Finney, 2014). As manifest across a host of college-related outcomes, these differences persist despite the considerable investment of the federal government, state governments, colleges and universities, philanthropic and nonprofit organizations, and other entities in policies and programs designed to reduce the gaps. For instance, rates of college preparation, enrollment, and completion are higher, on average, for women than for men, Whites and Asians than for Blacks, Hispanics, and American Indians, and students from lower- than higher-income families (National Center for Education Statistics, 2013a). Because of these gaps, the many benefits of higher education accrue differentially across various groups (Perna & Finney, 2014).

Most available research on students' college-related outcomes continues to be based on a "traditional" pattern of college enrollment, in which students graduate from high school, enroll full-time in a non-for-profit college or university, stay enrolled continuously, and graduate within four to six years (Perna, 2006). Less is known about the forces that contribute to college entry, persistence, and reentry for adult and "non-traditional" learners. About two-thirds of undergraduates enrolled in fall 2011 were

attending full-time. More than three-fourths (78%) of undergraduates who were attending full-time were age 24 or younger, compared with only half (49%) of undergraduates age 25 and older (National Center for Education Statistics, 2013a).

Available research suggests that the primary predictors of traditional patterns of college enrollment and completion fall into the following four categories: academic readiness for college; financial resources to pay the costs of attending; and knowledge and information about college- and financial-aid related processes (Perna & Jones, 2013). Research also demonstrates that limitations in academic readiness, financial resources, and information limit college-related outcomes for many students. As an example, the absence of sufficient academic readiness for college-level coursework is indicated by the high rates of participation in developmental or remedial coursework (National Center for Education Statistics, 2013b).

Research on traditional patterns of college enrollment also demonstrates that students do not make decisions to enroll or persist in college in a vacuum. Instead, these decisions are influenced by the multiple contexts in which students are embedded, including characteristics of their families, the high schools and colleges they attend, the states in which they live, and other aspects of the economic, social, and political context (Perna, 2006). For instance, entrance into college-level coursework without the need for remedial or developmental education depends in part on the availability of and participation in rigorous academic coursework during high school. Academic readiness for college-level coursework is also influenced by the extent to which the K-12 and higher education institutions in the state in which a student lives have aligned their curricular assessments and expectations. The sufficiency of financial resources to pay

college costs depends on a student's (and perhaps the student's family) income and other financial resources, the tuition and fees charged by the higher education institution, and the availability of financial aid by federal and state governments, the college/university attended, and other entities. Having the required knowledge and information about college-related requirements and procedures depends in part on whether the student's family has prior experience with higher education, the availability of sufficient counselors at the high school and college attended, and the simplicity of required procedures. Whether a student who enters one higher education institution can transfer to another institution without the loss of academic credit depends in part on the presence of articulated transfer curricula and knowledge of transfer requirements (Perna, 2006; Perna & Finney, 2014).

The characteristics of the high school context are likely less relevant for understanding college-related outcomes for students attending tax-paying higher education institutions, as many of these students are on a non-traditional path. Other contextual forces, including the availability of federal, state, and institutional financial aid for students attending tax-paying institutions, are likely quite relevant for this population.

Providing Affordable Higher Education

In addition to providing high-quality and accessible higher education, many public and private not-for-profit colleges and universities are being called to deliver higher education at a more affordable cost to students. Over the past three decades, tuition and fees have increased considerably, rising, on average, by 231% at public four-year institutions, 164% at public two-year institutions, and 153% at private not-for-profit

four-year institutions after controlling for inflation (College Board, 2013). One reason that tuition and fees have been increasing is that state appropriations per FTE have declined in most states over the past 25 years (SHEEO, 2013).

Available research considers a number of the implications of the rising costs of attendance on a range of college-related outcomes. Some research points to the problematic effects of the increasing need for students to borrow to pay college costs (given differences in willingness to borrow, for example, Perna, 2008) and/or through high numbers of hours of paid employment while enrolled (Perna, 2010b). Other research demonstrates the positive effects on student enrollment, persistence, and other outcomes of grant aid, especially grant aid that is awarded based on financial need rather than non-need criteria (for one review of the effects of financial aid see Perna, 2010a).

Research on traditional colleges and universities also examines the forces that contribute to rising higher education costs. These forces include the declines in state appropriations per FTE, as well as the tendency of traditional higher education institutions to spend all the revenue that they have (that is, Bowen's revenue theory of cost), the heavy reliance of the higher education production function on people (faculty) to produce higher education, and the quest of many traditional colleges and universities to maximize prestige (see for example, Ehrenberg, 2002). These forces likely play less of a role in driving costs at tax-paying institutions than at traditional colleges and universities. Nonetheless, determining how to provide high-quality higher education at an affordable cost to students is one of the most pressing issues facing all types of higher education institutions in the U.S. and across the globe.

Recommendations for a Research Agenda on Tax-Paying Colleges and Universities

A considerable amount of research has utilized student- and institution-level to examine various aspects of the societal contributions and public purposes of higher education institutions. This research provides many useful insights into the forces that promote and limit institutional contributions and student outcomes. Most available research on these issues focuses on traditional colleges and universities, raising questions about the transferability of findings to tax-paying colleges and universities. Greater attention to the applicability of these findings to tax-paying colleges and universities is needed, given the differences between tax-paying and non-tax-paying institutions in governance structures, faculty roles, financial models, and other dimensions.

In addition to considering the ways that tax-paying colleges and universities may advance the public purposes of higher education and address the challenges identified above, I offer five additional recommendations to guide a research agenda on tax-paying colleges and universities.

1) Recognize the heterogeneity of higher education institutions

Research on the performance and contributions of traditional higher education demonstrates the need to explicitly take into account the great diversity within the nation's system of higher education. Student and institutional outcomes vary based on countless characteristics of traditional colleges and universities, including mission, level (two-year or four-year), control (public or private), size, costs of attendance, wealth, credentials awarded, and more.

Institutional diversity is one of the greatest strengths of higher education in the

U.S., as it (hypothetically) ensures that there is a postsecondary educational opportunity for all students. But diversity within both the tax-paying and non-tax-paying segments of higher education also complicates efforts to identify appropriate measures of performance for particular institutions. The contributions of both traditional and tax-paying colleges and universities to individuals and society should be considered in light of the mission and other characteristics of the institutions being examined.

2) Recognize the heterogeneity of enrollment in institutions

Understanding the contributions and performance of tax-paying colleges and universities also requires explicit attention to the demographic and academic characteristics of the students attending particular institutions. Available data documents that student characteristics vary based on institutional characteristics. For instance, compared with students attending four-year colleges and universities, students attending tax-paying higher education institutions and community colleges are typically older, from lower-income families, attending part-time rather than full-time, and employed while also taking college courses.

Taking into account the characteristics of the students attending particular institutions (both tax-paying and non-tax-paying) is important because outcomes vary based on these characteristics. For instance, completion rates at traditional colleges and universities are higher for students who enter with higher rather than lower SAT/ACT scores and are from higher- rather than lower-income families (National Center for Education Statistics, 2013a). To understand the “value-added” of attending a particular higher education institution, research must take into account characteristics of the

institution and the student body. Understanding the value-added is especially important when the students served are disproportionately from groups that are at-risk of not completing and when institutional completion rates are low.

3) Recognize the role of the national and state context

The contributions and performance of traditional colleges and universities cannot be understood without explicit attention to the contexts in which these institutions are embedded (Perna, 2006). The performance of higher education institutions in the U.S. is influenced by many national characteristics, including the absence of a national university; the absence of a single national test that determines college admission and placement; and the tremendous number of postsecondary educational options available to students.

Higher education in the U.S. is also influenced by the considerable role that state governments play in determining the educational attainment of their populations (Perna & Finney, 2014). The 50 U.S. states vary greatly in terms of the current educational attainment of their populations and the projected educational needs of employers, the racial/ethnic and other demographic characteristics of their populations, their historical, economic, and political contexts, and the array of policies that a state uses to promote educational attainment. Relevant state policies include the extent to which states: promote the alignment of K12 and higher education curricular requirements and expectations, use available fiscal levers (e.g., appropriations, tuition-setting, and financial aid) to encourage the affordability of higher education, and align available higher education options with the educational needs of state residents (Perna & Finney, 2014).

A research agenda for tax-paying colleges and universities should include attention to the national and state contexts in which institutions are embedded. For instance, although all states have some mechanism for licensing and regulating tax-paying colleges and universities, some evidence suggests that few states consider tax-paying colleges and universities in their higher education master plans (Perna & Finney, 2014). An examination of different state policy contexts may produce insights into the types of policies that are productive, efficient, and effective for regulating tax-paying colleges and universities and maximizing the individual and societal contributions of these institutions.

4) Identify and ensure availability of measures of valued outcomes

Colleges and universities are increasingly being called to be accountable for their performance. Common measures of performance focus on outcomes for which data are now readily available, including completion rates, employment rates, starting salaries, borrowing rates and amounts, and default rates. The emphasis on such measures is seen in state performance funding programs and the federal government's efforts to enact gainful employment legislation. To demonstrate accountability, institutions must have, and must be able to demonstrate performance on, the full set of outcomes that are valued by institutions and society.

5) Recognize the contributions of multiple research methods

Current understandings of the contributions and performance of traditional colleges and universities are the result of a large and comprehensive array of research

studies that utilize a range of theoretical perspectives, drawing from such disciplines as economics (e.g., human capital theory), sociology (e.g., social capital theory, cultural capital theory), psychology (e.g., self-efficacy), public policy, education, and more.

Available research also employs quantitative and qualitative methodological perspectives to incorporate a range of research methodologies and data sources. Clearly no one study, theoretical perspective, or methodological approach is sufficient to understand a large and complex issue like the contributions and performance of higher education. A research agenda for understanding the contributions of tax-paying colleges and universities should recognize the merits of multiple and multi-faceted approaches.

References

- Baum, S., Ma, J., & Payea, K. (2013). *Education pays 2013*. Washington, DC: College Board.
- Carnevale, A., Smith, N., & Strohl, J. (2010). *Help wanted*. Washington, DC: Georgetown Center for Workforce and the Economy.
- College Board (2013). *Trends in college pricing 2013*. Washington, DC: Author.
- Ehrenberg, R. G. (2002). *Tuition rising: Why college costs so much*. Boston, MA: Harvard University Press.
- Kuh, G. D. (2001). Assessing what really matters to student learning: Inside the National Survey of Student Engagement. *Change*, 33(3), 10-17, 66.
- Kuh, G., Kinzie, J., Bridges, B.K., Hayek, J. C. (2006). *What matters to student success: A review of the literature*. Washington, DC: National Postsecondary Education Cooperative.
- McMahon, Walter W. (2012). *Higher learning, greater good: The private and social benefits of higher education*. Baltimore, MD: Johns Hopkins University Press.
- National Center for Education Statistics (2013a). *Digest of education statistics 2012*. Washington, DC: Author.
- National Center for Education Statistics (2013b, January). *First-year undergraduate remedial coursetaking*. Statistics in brief. Washington, DC: Author.
- Perna, L. W. (2006). Studying college choice: A proposed conceptual model. In J. C. Smart (Ed.), *Higher Education: Handbook of theory and research, Vol. XXI* (pp. 99-157). Springer.
- Perna, L. W. (2008). Understanding high school students' willingness to borrow to pay

- college prices. *Research in Higher Education*, 49, 589-606.
- Perna, L. W. (2010a). Toward a more complete understanding of the role of financial aid in promoting college enrollment: The importance of context. In J. C. Smart (Ed.), *Higher Education: Handbook of theory and research, Volume XXV* (pp. 129-180). New York, NY: Springer.
- Perna, L.W. (Ed., 2010b). *Understanding the working college student: New research and its implications for policy and practice*. Herndon, VA: Stylus Publishing, LLC.
- Perna, L. W. (Ed., 2012). *Preparing today's students for tomorrow's jobs in Metropolitan America: The policy, practice, and research issues*. Philadelphia, PA: University of Pennsylvania Press.
- Perna, L.W., & Finney, J. (2014). *The attainment agenda: State policy leadership in higher education*. Baltimore, MD: Johns Hopkins University Press.
- Perna, L.W., & Jones, A. (Eds., 2013). *The state of college access and completion: Improving college success for students from underrepresented groups*. New York, NY: Routledge.
- Soares, L., & Perna, L.W. (2014, February). *Readiness for the learning economy: Insights from the OECD's survey of adult skills on workforce readiness and preparation*. Washington, DC: American Council on Education.
- Stat Higher Education Executive Officers (2013). *State Higher Education Finance FY 2012*. Boulder, CO: Author.