

Quality Assurance in Higher Education: The U.S. Experience

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Abstract

This four-part series of brief communications provides an overview of quality assurance in higher education in the United States. First, the U.S. post-secondary education is introduced, its historical evolution, reporting structure, overseeing responsibilities, and financing mechanisms for both its public and private institutions. The admission process and the criteria used for accurate assessment of a student's capabilities for best placement and to maximize chances of success are then discussed. The communication then presents quality assurance in the U.S. system in which the primary focus of the federal government and its agencies is to ensure whether an institution or program is of sufficient quality to qualify for federal funds. Quality assurance itself relies on professional, non-governmental accrediting organizations specialized in various fields of higher education. Finally, the essential elements of the accreditation process, its methods of assessment, and implementation are presented.

Part -1

Overview of the U.S. System of Higher Education

The United States has a decentralized education system which reserves power over education to the states and local authorities, as well as to individual higher education institutions. In primary and secondary education, state and local governments have the authority to regulate and license local public pre-school, primary and secondary education; and they also license or otherwise regulate home schooling. In many cases, they establish and oversee curricula, standards, and procedures. Most state governance occurs via state departments and local boards of education, which are locally elected bodies [1].

In higher education, public and private institutions enjoy more autonomy and are more internally self-governing compared to elementary and secondary schools. Nevertheless, state governments exercise oversight and coordinating authority over higher education within their jurisdictions, issue corporate charters to institutions, regulate standards and quality to varying degrees, and may have regulatory authority over various aspects of the operation of public institutions. Public colleges and universities specifically, are in various ways affiliated with state governments, and occasionally municipal governments, through agreements, charters, budget allocations, state-appointed boards of trustees etc. [2].

[Structure of U.S. Education: Public versus Private](#)

The U.S. system of higher education relies on various public and private institutions with distinct missions and acceptance standards. This is reflective of the need to provide quality education and prepare graduates for decent job prospects and

outstanding career options, As will be illustrated by data from representative examples, the key difference between public and private universities is how they are funded, which in turn affects tuition prices and the cost of education. Most public universities and colleges were founded by state governments to make college education more easily accessible to state residents and local communities. Today, state governments contribute significantly toward the cost of operating public universities, and they also oversee these institutions through appointed boards and trustees. In other words, the real cost of attendance at these universities is subsidized by public money. By contrast, private colleges do not receive funds from state legislatures and rely heavily on self-generated revenues. It has been reported that private institutions rely heavily on tuition and private contributions, and this was cited as a reason for higher tuition rates compared to public institutions [3]. However this perception may not be fully accurate and does not capture the complexity of the funding structure of private institutions as will be discussed in this chapter.

Figure 1 shows the evolution of U.S. Higher Education institutions based on historical data for post-secondary education from the National Center for Education Statistics (NCES) [4]. As shown by the figure, the system overall, has seen steady and significant growth over a 30-year period at about 42% in terms of total number of institutions for higher education. It should also be noted that within this growth, the number of private institutions has seen significantly higher growth at about a 64% compared to only 18% for the number of public institutions.

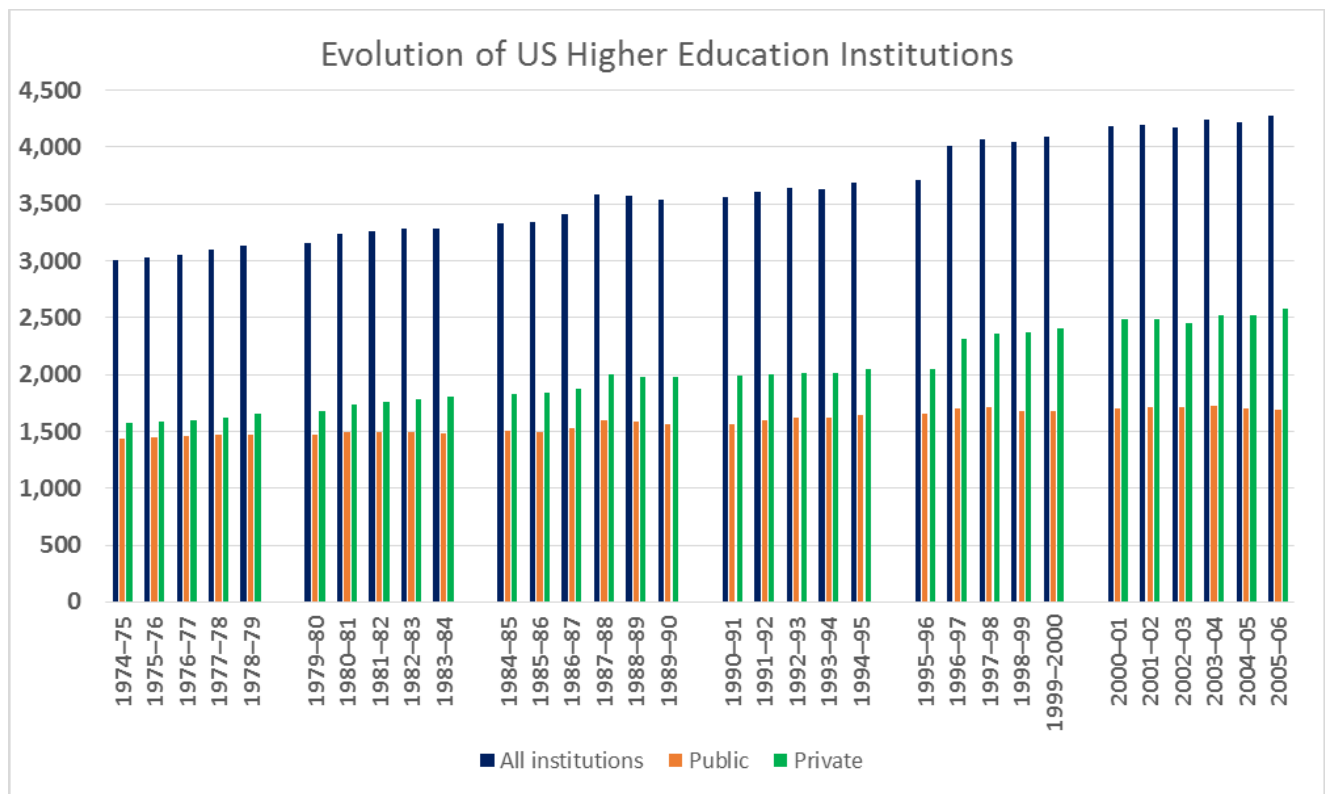


Figure 1: Historical evolution of US Higher Education Institutions

Number of Public versus Private Institutions, including branch campuses (extracted from NCES Table 248 [4])

Over the last twenty years, the historical growth appears to have peaked, and actually shows a declining trend especially over the last five years, but also a trend reversal, with the public institutions taking a 14-20% lead over the private sector as shown in Figure 2.

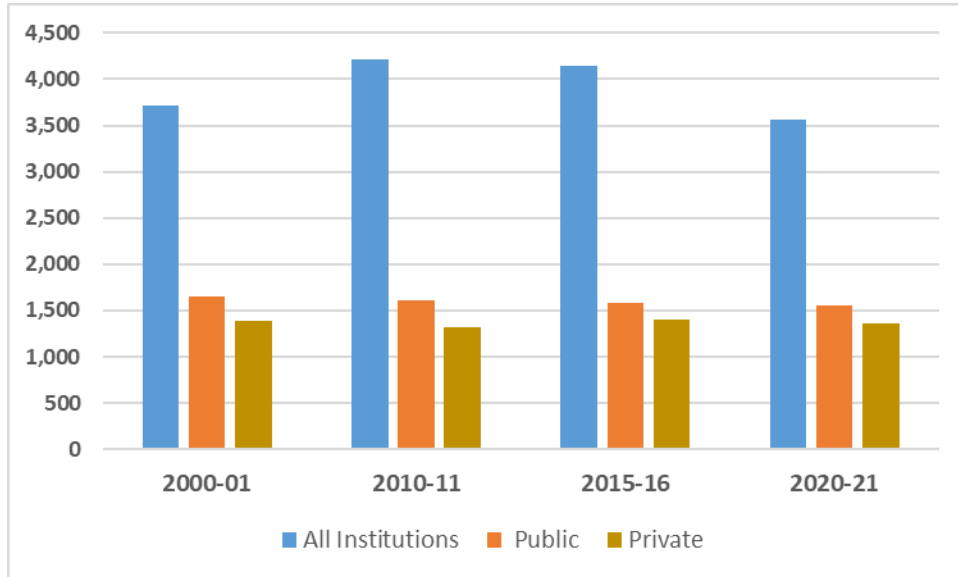


Figure 2: Evolution of US Higher Education Institutions: Changes Over the Past 20 years [5]

Higher education in the U.S. is based on two-year and four-year colleges at the undergraduate level, both private and public. As shown in Figure 3 (data extracted from NCES Table 305.30) [5], the number of private four-year colleges is significantly higher than public colleges. However, it is the opposite for the number of two-year public colleges, also known as Community Colleges, which are designed to provide affordable education to residents of local townships. In many cases students who chose to attend community colleges go on to transfer to four-year institutions to earn a bachelor’s degree and beyond. Although the data presented in this Part 1 shows a significant presence of the private education sector in terms of number of institutions, but one should also look at student enrollment. In 2014, for example 42% of all undergraduate students attended public community colleges [6]. This will be addressed in more details in Part 2 of this series.

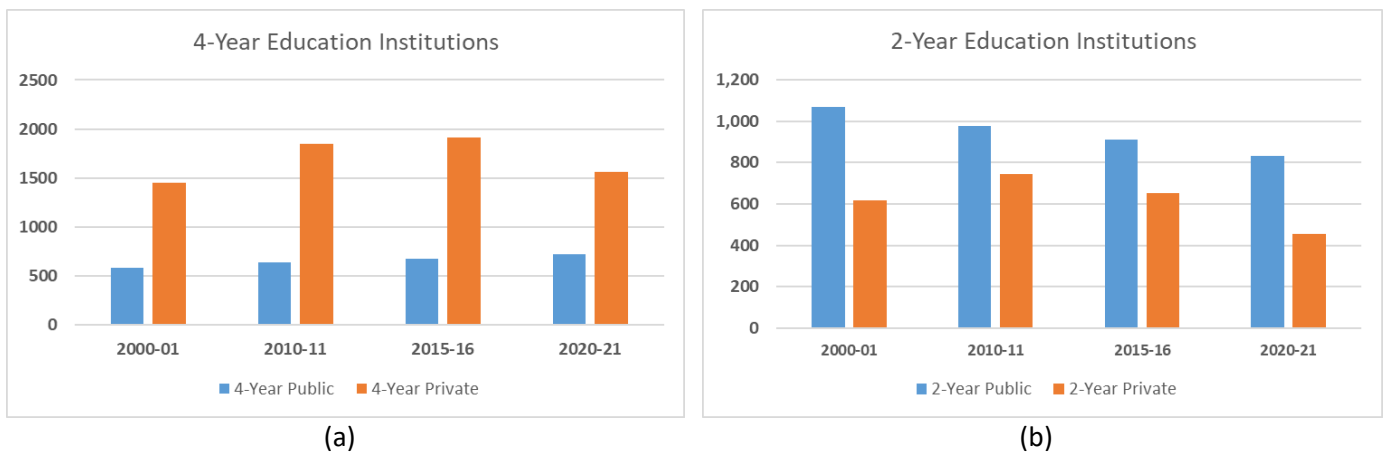


Figure 3: Evolution of US Higher Education Institutions 2000-2021 [5]
Public versus Private Institutions, (a) Four-year institutions, (b) Two-year institutions

Studies have also shown that in general, once a student obtains their bachelor’s degree it makes little difference which path the student has taken to complete their post-secondary education and obtain their degree as far as earnings potential and job prospects are concerned. However, the likelihood of earning a bachelor’s degree is significantly reduced if a

student starts their post-secondary education at a two-year community college compared to starting at four-year colleges or universities. In addition, there are repercussions in terms of earnings potential for those individuals who start at community colleges and don't transfer to four-year institutions. The average annual median income for adults who have associate degrees (from two-year colleges) is nearly 39% less than adults who have bachelor's degrees [7].

Conclusion

This series of short communications seeks to provide an overview of the U.S. system of Higher Education and the policies and procedures in place for quality assurance.

First, the series discusses the various options available to students in both the public and the private sectors. Public institutions are designed to offer quality education targeting primarily State and locality residents and the cost of education in these institutions is subsidized by local and state governments. Private institutions are self-supported and carry a higher price tag. However qualified students who succeed in getting admitted to these institutions do receive financial support via various scholarships, and a financial situation is not a condition for access. Admission requirements for four-year colleges are generally similar in nature, but the criteria set by individual institutions as well as colleges within a given institution vary significantly in requirements, and thus acceptance rates are very different. It should be noted, that unlike many other countries, college admission in the U.S. is not linked to a single national test but is based on multiple requirements for full measurement of the applicant's capabilities.

Second, the series discusses quality assurance in the U.S. system of higher education, in which the federal government, via the U.S. Department of Higher Education and its agencies have established recognition standards, but their primary focus is on whether an institution or program is of sufficient quality to qualify for federal funds. Quality assurance itself relies on professional, non-governmental accrediting organizations specialized in various fields of higher education. Finally, the series concludes with a brief overview of the essential elements of the accreditation process, its methods of assessment, and implementation.

References

1. State Role I - Primary & Secondary Education, U.S. Department of Education; <https://www2.ed.gov/about/offices/list/ous/international/usnei/us/elsec.doc>
2. State Role II - Tertiary Education, U.S. Department of Education; <https://www2.ed.gov/about/offices/list/ous/international/usnei/us/postsec.doc>
3. Public University vs. Private College, Peterson, September, 2015 <https://www.petersons.com/college-search/public-university-vs-private.aspx>
4. https://nces.ed.gov/programs/digest/d06/tables/dt06_248.asp?referrer=list
5. https://nces.ed.gov/programs/digest/d21/tables/dt21_305.30.asp
6. J. Ma and S. Baum; Trends in Community Colleges: Enrollment, Prices, Student Debt, and Completion; College Board Research Brief, April 2016. <https://trends.collegeboard.org/sites/default/files/trends-in-community-colleges-research-brief.pdf>
7. <https://www.breakthroughcollaborative.org/sites/default/files/BTRResearch-4yr vs 2yr colleges.pdf>

About the Author



Dr. Mohamed Esseghir is a Principal Research Scientist with The Dow Chemical Company and has more than 30 years of experience in polymer research, including blends, reactive modification, rheology, compound formulation and new process development. He is currently responsible for new material research for the Telecommunications segment in Dow's Wire & Cable R&D. Dr. Esseghir has served on the board of the Polymer Processing Institute (PPI) and is currently on the Committee of the International Cable & Connectivity Symposium (IWCS). He holds a Bachelor of Science in Chemical Engineering from the Algerian Petroleum Institute and Master of Science and Doctorate in Mechanical & Aerospace Engineering from Rutgers University. Following post-doctoral work at the Polymer Processing Institute at Stevens Institute of Technology, Dr. Esseghir began his career with Union Carbides' Polyolefin Research in 1997, then joined Dow Wire & Cable R&D in 2007. Dr. Esseghir holds 55 granted patents, he authored over 40 publications and two book chapters, and his research work over the years has accumulated over 540 citations. Dr. Esseghir is past President and current Board member of Noor-UI-Iman School, a PreK - 12th Grade accredited, private Islamic School in the US State of New Jersey, he is also a founding Board member of the [International Network of Algerian Scientists \(INAS\)](http://www.inasnetwork.org).