GLOBALIZATION OF FOREIGN ACADEMIC CREDENTIAL PLACEMENT RECOMMENDATIONS FOR GRADUATE STUDY IN THE UNITED STATES, 1932-2015

by

George F. Kacenga

Bachelor of Arts, Saint Vincent College, 2002

Master of Science, Saint Vincent College, 2005

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This dissertation was presented

by

George F. Kacenga

It was defended on

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and approved by

Dr. Michael Gunzenhauser, Associate Professor, Department of Administrative and Policy Studies

Dr. Maureen McClure, Associate Professor, Department of Administrative and Policy Studies

Dr. Martin Staniland, Professor, Graduate School of Public and International Affairs

Dissertation Advisor: Dr. John C. Weidman, Professor, Department of Administrative and Policy Studies

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George F. Kacenga, PhD

University of Pittsburgh, 2017

Foreign educational credential assessment is responsive to assessors' social, economic, and cultural stimuli. Academic institutions, industries, and governmental bodies treat placement specialists' recommendations as signals of cross-cultural productive capacity, giving significance to the methodology of foreign education-system analysis. A conceptual framework incorporating globalization, internationalization, massification, and marketization (GLIMM) helps explain how and why paradigms have shifted. GLIMM forces can help explain changes in international higher education and illustrate the fluidity of education in an evolving global society.

This study employs a naturalistic qualitative research design with a two-step analysis of the target resource documents, constructivist typological study and substance analysis. The study then asks (a) what information academic credential placement recommendations offer, (b) if and how those styles have changed, and (c) if the forces of massification and marketization resulting from globalization and internationalization inform those changes. The objective of the analysis was to understand authorial intent for the placement recommendations, use of the placement recommendations, and the consequences of authors changing over time.

This study examines 1932-2015 primary placement recommendation resource materials from all global regions and potential relationships between those materials and the increasing number of international students in the U.S. Also examined in this study are the impact of economics on international student recruitment and the evolving purpose of education through the late-20th and early-21st centuries. In the absence of regulatory oversight, HEI leaders have needed increasingly to understand national trends regarding use of credential evaluation services, in-house credentialing and necessary resources for success, and impact of inconsistent credential evaluation on fairness in enrollment and admission.

The outcomes of this study are relevant to higher education leaders in that they address a common blind spot at many HEIs and challenge accreditation bodies to examine policies and adopt best practices. The researcher cataloged (a) the kinds of information and placement recommendations generally provided, (b) why the information and recommendations were credible or non-credible, (c) changes in this information during the time period under investigation, (d) if and how these changes can be linked to GLIMM, and (e) how in-house credential evaluators have responded.

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LIST OF ACRONYMS

AACRAO – American Association of Collegiate Registrars and Admissions Officers

AACSB - The Association to Advance Collegiate Schools of Business

ABET - Accreditation Board for Engineering and Technology, Inc.

ACE – American Council on Education

AICE - Association of International Credential Evaluators. Inc.

AIRC – American International Recruitment Council

AMIDEAST – American-Mideast Educational and Training Services, Inc.

CHEA – Council for Higher Education Accreditation

ECE - Educational Credential Evaluators, Inc.

ECTS – European Credit Transfer and Accumulation Scheme

ENIC - National Education Information Center

FCES – Foreign Credential Evaluation Service

GLIMM – Globalization, Internationalization, Marketization, Massification

HEI – Higher Education Institution

ICEF - International Consultants for Education and Fairs

IEP – Intensive English program

IERF – International Education Research Foundation, Inc.

IIE - Institute of International Education

JCOW – Joint Commission on Workshops

MOOC – Massive Open Online Courses

MOU – Memorandum of Understanding

NACES – National Association of Credential Evaluation Services

NAFSA – Association of International Educators (formerly, National Association of Foreign Student Affairs)

NARIC – National Academic Recognition Center

OECD - Organisation for Economic Cooperation and Development

OSSS – Office of Student Support Services in the Bureau of Educational and Cultural Affairs of the U.S. Department of State.

PIER – Projects for International Education Research

SEC – Comparative Education Section of the U.S. Office of Education.

SHEEO – State Higher Education Executive Officers

STEM – Science, Technology, Engineering, Mathematics

TAICEP – The Association for International Credential Evaluation Professionals

TOEFL – Test of English as a Foreign Language

UNESCO - United Nations Educational, Scientific and Cultural Organization

USDHEW – U.S. Department of Health, Education, and Welfare

WES – World Education Services

WICHE – Western Interstate Commission for Higher Education

PREFACE

To get to know someone wholly is as much as an adventure as crossing a border, traversing an ocean, or exploring another continent. Together, my personal and professional paths have taken me to five continents, many countries, and into many more lasting relationships. The latter is by the far the most important to me, as I have been beyond fortunate to get to know so many fascinating people throughout my journey to completing this dissertation.

Mentors at Saint Vincent College guided me towards what would become a fulfilling career in international education. As a young professional, I visited Benedictine Monasteries in Italy and Japan, and collaborated with colleagues at the Monastery and Seminary in Latrobe, PA, where my eyes were opened to new ways of knowing. My experiences continued with the University of Pittsburgh and the University of Colorado Denver, which have truly expanded my world view and sensitized me to aspirations and needs beyond my own and my country's. Cultivating this broadening perspective at every turn were the faculty in the University of Pittsburgh's School of Education and Graduate School of Public and International Affairs. This project could not have been completed successfully without the input of my advisor Dr. John Weidman, and my impressive dissertation committee including Dr. Michael Gunzenhauser, Dr. Maureen McClure, and Dr. Martin Staniland. Encouragement from Dr. Maureen Porter was also essential to my success. Thank you all!

I have also been fortunate to serve among inspiring individuals as part of several professional organizations that helped shape my thinking over the course of this endeavor: NAFSA: Association for International Educators, where a nascent passion for international affairs was encouraged; the American Association of Collegiate Registrars and Admissions Officers (AACROA), where I honed skills in enrollment management; World Education Services (WES) workshops on credential evaluation; the American International Recruitment Council (AIRC), filled with similarly motivated professionals with a wide array of perspectives; and The Association for International Credential Evaluation Professionals (TAICEP), a community that recognizes and appreciates the need for this research.

Much appreciated funding that contributed to this research came from the International Education Research Foundation (IERF) in the form of the Sepmeyer Research Grant, as well as the Marjorie Peace Lenn Research Award through the American International Recruitment Council (AIRC). Additional support came from Educational Credential Evaluators (ECE) through the use of their extensive library, consultation with an informed professional staff, the leadership and guidance of Margit Schatzman, and the invaluable counsel of ECE founder Jim Frey. To these individuals and organizations I owe a great debt of gratitude. Emily Tse with IERF and University of Colorado colleague Jason Weiss provided guidance and counsel that also proved to be invaluable.

The patience and encouragement of my husband, Andres Cladera, and the support of my family in the United States and Uruguay made this work possible. Unfortunately, I've been told more than once that the dissertation is just the beginning of what is to come, not the conclusion.

1.0 INTRODUCTION

In 2013/14, international student enrollment in U.S. post-secondary institutions rose 8.1% to 886,052 (Institute of International Education [IIE], 2015). A variety of factors contributes to the continuing influx of international students. Some foreign governments (e.g., Brazil, Kuwait, and Saudi Arabia) sponsor overseas study in the U.S. Moreover, the quality of U.S. STEM education—Science, Technology, Engineering, and Mathematics—has produced a 2013/14 spike of 6% in students from India (IIE, 2015). In fact, international student enrollment at U.S. post-secondary institutions has seen a steady and significant rise over the last half-century (IIE, 2015). The United States has been and remains the dominant destination for international student enrollment in higher education around the world (Goralski & Tootoonchi, 2015). Appendix A draws from Organisation for Economic Cooperation and Development data tracking all tertiary-level education programs. The years reflected in Appendix A support the claim that international student enrollment in the U.S. has increased significantly at post-secondary institutions.

The leading U.S. destinations for international study (e.g., California, New York, and Texas) now derive more than $1 billion each year from international students (Farrugia & Rajika Bhandari, 2014). In total, international students contributed $30.5 billion to the U.S. economy through tuition, living expenses, and dependents' needs in 2014/15 alone (NAFSA: Association of International Educators, 2015). Each year, NAFSA: Association for International Educators produces a detailed regional, state-by-state, and Congressional district analysis of the economic

benefits of spending by international students and their dependents (Appendix B). The state-level data in Appendix B show 2014-15 enrollment statistics, total fiscal contributions, and number of jobs created or supported by international students. And while international students serve a vital economic role, they also inform curriculum development and program offerings for globally conscious campuses. International graduates who remain in the U.S. contribute meaningfully through research innovation, entrepreneurship, cultural exposure, and the impact of their children in primary and secondary school classrooms (Jennings, 2013; Wadhwa, Saxenian, & Siciliano, 2012).

U.S. states and institutions are looking to maximize their share of the market for international students. There are 27 state-level efforts to make their home turf an appealing student destination. StudyColorado, StudyTexas, and StudyIllinois are examples of state-consortium models. These are organized mostly as non-profit entities with close ties to state governments, all designed actively to promote higher education within the state for the benefit of all post-secondary institutions. New York University, the University of Southern California, the University of Illinois Urbana-Champaign, and Columbia University each enrolled more than 10,000 international students in 2013/14. For most states, regional demographic trends inform the actions of the legislators and local leaders supporting these efforts. Declines in state appropriations for higher education, drops in domestic student enrollments, and an increasingly competitive marketplace demand new and creative recruitment strategies. Strategic International Enrollment Management (SIEM) is more than a buzz term as an increasing number of colleges and universities invest in internationalization efforts that recruit international students, encourage study abroad, sponsor overseas faculty exchanges, and generate cross-cultural curricula.

All in all, the impact of global student mobility has been hinted at but not yet fully captured. While the IIE Open Doors Report, NAFSA International Student Economic Value Tool, and the Brookings Institution Geography of Foreign Students in U.S. Higher Education: Origins and Destinations reveal financial parameters, little is known about the lasting impact of overseas experiences on students, academic institutions, and native governments and institutions. From the impact-on-the-student perspective, "one of the greatest challenges in measuring the impact of global student mobility is that much of this movement is individually driven and is the result of students' own aspirations and efforts" (Farrugia & Rajika Bhandari, 2014, p. 34). Knowledge and learning, mutual understanding, impacts beyond the individual, and equity are cited by IIE as common effects of international study on the international student. From the impact-on-the-educational-institution perspective, research shows that the financial well-being of the university (Choudaha & Chang, 2012) as well as growing demand to attract the brightest minds to secure research grants (Goralski & Tootoonchi, 2015) are dominant factors.

Foreign academic credential evaluation serves as a potential rate-limiter for international supply chains of labor, product, and capital (Bryła, 2015). Because of the general lack of transparency in the credential evaluation process, it is often wrongly assumed that there is a consistent way to interpret foreign credentials. This study will address how globalization, internationalization, marketization, and massification (GLIMM) have changed (a) the demand for/nature of an international labor pool, (b) the consequent role of international higher education in training up an international labor pool, and (c) the consequent resources used for the analysis of foreign academic credentials in supplying an international labor pool. Further, and consistent with curriculum alignment efforts across borders outside the U.S., this study will show the value

in having foreign credential evaluation standards, transparency in methodology, and a set of placement recommendations which U.S. higher education institutions (HEIs) could draw upon.

1.1 SCOPE OF THE STUDY

This study will examine (a) 1932-2015 primary resource materials used for placement recommendations from all regions of the world and (b) potential relationships between those materials and the increasing number of international students in the U.S. during that period. Because investigation of balkanized HEI contexts (e.g., public/private, religious/secular, for-profit/not-for-profit, in-house evaluators/third-party evaluators) would detract from the research question foci, discrete consideration of U.S. higher education subsets (e.g., parochial, military, private) is not within the scope of this study.

The study will examine prominent credential evaluation resources across different time frames. Further, the study will review the methodology and placement recommendations for students studying in the U.S. The texts for this survey include Sasnett's Educational Systems of the World: Interpretations for Use in Evaluation of Foreign Credentials (1952), the World Education Series (1957-1989), the IERF Country Index (1971-present), the PIER Country Profiles (1989-2002), and NAFSA's online Country Profile (2002-present).

1.2 RESEARCH QUESTIONS

First paragraph. Four research questions were posed for this study:

1. What kinds of information do placement recommendations generally provide, and what factors lend credibility to that information?
2. What changes did academic credential placement recommendation styles undergo during the period from 1932 to 2015, and what impact did these changes have on the expectations of credential evaluators?
3. To what extent can the 1932-2015 changes in academic credential placement recommendation styles be linked to the factors of globalization, internationalization, massification, and marketization (GLIMM)?
4. In response to potential dilemmas resulting from the 1932-2015 changes in credential evaluation materials, what approaches have credential evaluators employed?

1.3 EVOLUTION OF INTERNATIONAL STUDENT ADMISSION POLICIES/PROCEDURES IN THE U.S.

International cooperation among HEIs requires agreed-upon standards (Chan, 2004). Toward that end, international admissions (i.e., analysis of foreign academic credentials to determine applicant admissibility and placement) began to evolve as a professional field in the U.S. in the late 1940s (J. S. Frey, 2014). The rapidly increasing number of international students seeking academic sanctuary in the United States after World War II made it necessary for U.S. post-secondary institutions to systematize foreign academic-credential analysis for students seeking placement into local degree programs (J. S. Frey, 2014). Between 1955 and 1984 (i.e., from the advent of the Council on the Evaluation of Foreign Student Credentials to the origins of the National Association of Credential Evaluation Services [NASCES]), foreign academic-credential evaluation became a specialized administrative domain by developing the following:

- a knowledge base (i.e., theoretical and applied comparative education, admissions test data, English-proficiency test data, and immigration regulations and procedures);
- a set of unique skills (i.e., a systematic approach to foreign credential analysis for informed placement into academic degree programs);
- governing professional and ethical standards;
- self-imposed professional and ethical standards; and
- an altruism benefiting academic institutions, colleagues, international students, and foreign societies (J. S. Frey, 2014).

The admission process for post-secondary international students has two major elements: (1) foreign academic-credential analysis and (2) the transitions of prospective student to applicant and applicant to admitted/enrolled student. Other countries have a central authority that governs this admission process, creating consistency in interpretation and placement. In contrast, U.S.-based institutions independently evaluate credentials and make placement recommendations, allowing for (a) variable admission practices between institutions and even among programs within the same institution; (b) admission decisions based on unofficial documents; and/or (c) admissions and placement informed by campus enrollment needs rather than the needs of the applicant.

The absence of codified standards and practices in the U.S. yields an increasingly tuition-driven environment in which academic institutions compete for the financial windfall of international student enrollment (Anderson & Douglas-Gabriel, 2016). Students supplied through international recruitment agents, with government or corporate sponsorship or from wealthy families, are often easy pickings for unscrupulous academic institutions (Jaschik, 2016). Consequences for inadequately vetted and unprepared students can be severe, including dismissal from a program, the loss of a significant financial investment, and the failure to achieve a dream (Gollin, 2015).

In short, there is a need to codify standards of foreign credential evaluation in U.S. higher education. And it is not only post-secondary educational institutions that require professional

foreign-credential evaluators—the need also exists at state licensing boards and various government agencies, professional organizations, and independent third-party credentialing services. In March 2016, President Barack Obama launched a new task force to address the lack of uniformity in credential evaluation faced by immigrants and refugees related to their employment and academic credentials:

> The Task Force is seeking to support communities that are focused on finding solutions to this challenge through its National Skills and Credential Institute…The goal of this institute is to help communities understand how policies and practices help or hinder credential attainment and recognition, and to assist in developing strategies for how the public, private and nonprofit sectors can strengthen career pathways for skilled immigrants (U.S. Department of Education, 2016, para. 2).

1.4 FOREIGN ACADEMIC CREDENTIAL PLACEMENT EVALUATION IN PRAXIS

1.4.1 The Day-to-Day Basics of Foreign Academic Credential Placement Evaluation

Foreign credential evaluation can be fun and fulfilling work, but it is not for everybody. An international admissions officer enjoys the uncommon ability to engage with current international students. Learning about their dreams and ambitions, how their family pooled resources to fund their studies, and how they plan to return home to make their part of the work better—all of this is remarkably rewarding. Further, the international admissions officer studies foreign educational systems, seeing the influence of past social, economic, or political phenomena. It is interesting to see hints of the British Empire or Dutch Imperialism in parts of the work you might not expect. The educational systems also reveal how local cultures fended off hegemony to maintain philosophies of importance to them. Finally, the international

admissions officers understand the unique needs of the admitting institution and are entrusted with the authority to make determinations about foreign educational systems and credentials to maximize the chances of student success.

Professional organizations play a critical role in developing foreign credential evaluation skillsets. At higher education institutions where there is no skilled professional to train new staff, NAFSA, AACRAO, AIRC, TAICEP, and many more groups fill the void with conference sessions, workshops, and on-campus training seminars. The skills of foreign credential evaluators are employed in a variety of situations. Most common is application preparation for admission committee, which I will explain in more detail when I review the systematic approach to foreign credential evaluation. Moreover, the credential evaluator is also called upon to draft Memoranda of Understanding (MOU) between the academic institution and partner institutions, governments, and/or other entities. The following are models of such agreements:

- **Undergraduate-to-Graduate Articulation Agreement**

  In this type of MOU, HEIs offer a means to move from an undergraduate degree program in an international partner university to a graduate program at the U.S. institution. These articulation agreements often allow for the student to complete the final year or semester of the international partner university undergraduate degree in the U.S. (with credit transfer to the home institution enabling the undergraduate degree to be awarded by the home institution). Often, the transition year in the U.S. will allow for an early start on the graduate degree, thereby shortening the time required to complete the U.S. graduate degree. These agreements are quite specific to individual disciplines and accreditation requirements.

- **Twinning Agreement**

  This MOU entails delivery of part of a U.S. institution undergraduate or graduate degree program by an international partner institution, leading to the awarding of a degree from the U.S.-based institution.

- **Dual-Degree Program**

  This MOU defines the terms for a student to earn two separate undergraduate or graduate degrees from a U.S. institution and its partner institution.

- **Pathway Program**

  In this MOU, a U.S. institution agrees with a partner institution to offer a preparatory curriculum that leads to admission into an undergraduate- or graduate-degree program.

1.4.2 Applying the Systematic Approach

MOUs can raise the profile of credential evaluators, but the majority of their effort is unseen and directed towards the routine processing of applications for intensive English, undergraduate, and/or graduate degree programs. The credential evaluator is likely to feel pressure related to enrollment goals and the sheer volume of work. In many offices, the credential evaluators have tight deadlines for completing their evaluations, 10 days for example. Furthermore, international recruitment agents can be very demanding partners, both for timely delivery and for favorable admission decisions. Finally, many campus economies are tuition-driven, and the share contributed by international students is increasing. For all of these reasons and more, exigency and convenience may lead a credential evaluator to seek a placement recommendation equivalency table in lieu of reading the full resource text for broader context of the native educational system.

1.4.2.1 Evolution of the Systematic Approach

The absence of a unitary governmental body that monitors and guides international credential evaluation has led professional organizations to create a systematic approach that can be employed by all institutions. A milestone event in this effort was the 1996 Milwaukee Symposium. Facilitated by the National Council on the Evaluation of Foreign Educational Credentials, the Symposium honed the methodology for comparing U.S. and foreign education credentials, which was adopted by several professional organizations, each of which customized it in their own way. The participants and supporters of the Symposium were the American Association of Collegiate Registrars and Admissions Officers (AACRAO), Education Evaluators International, Education International, Educational Credential Evaluators, Inc. (ECE), Graduate Management Admissions Council (GMAC), Graduate Record Examination (GRE), International Education Research Foundation, Inc. (IERF), Josef Silney and Associates, Test of English as a Foreign Language (TOEFL), NAFSA: Association of International Educators, and World Education Services (WES).

Milwaukee Symposium recommendations formed the cornerstone of credential evaluation for many institutions and equipped institutional staff to make reasonable, informed placements of international applicants. Symposium recommendations also equipped academic institutions with the means to provide in-house evaluations when the cost (or need to pass an additional charge onto international applicants for an independent third-party evaluation) was acknowledged as a likely barrier to application completion and enrollment.

1.4.2.2 Elements of the Systematic Approach

Student achievement is the driving consideration behind the systematic approach to evaluating international student applications. A credential evaluator needs published information (in print or online) about the country or educational system under review, useful institutional contacts (e.g., Latin American Center, Asian Studies Center, etc.), colleagues in the field, professional conferences, and individual country files to capture miscellaneous information, case studies, and decisions. Maintenance of these contacts and resources yields a consistent interpretation of similar credentials over time. Establishing a consistent position for the academic institution—across colleges and departments—is imperative for the admissions office and foreign credential evaluator to maintain integrity and to treat students fairly.

1.4.2.3 Application Requirements

An international student's application should include information such as age, birthplace, citizenship status, an 'academic library (including the names of institutions attended/dates of enrollment/locations of institutions),' and any and all diplomas received or in progress. The documentation supporting the student's academic background must be official and in the original language with a certified English translation.

Lists of all courses and grades for each year are required, sometimes referred to as a 'grade report' or 'statement of marks'; use of the term 'transcript' alone can refer to a list of courses with prescribed contact hours but no evidence of performance (e.g., in India).

If letters of recommendation are required in the application process, it is important to specify the source and the nature of the content desired in the letter. It is also important to understand that, for international students, access to an instructor or employer with English language proficiency may be extremely limited or unavailable, so methods to acquire a certified

English language translation may be needed. Test scores required for admission need to be clearly articulated (e.g., TOEFL, GRE, SAT, GMAT), with possible alternatives in the event of limited or unavailable testing. Many countries have national tests used for placement into higher education, which may allow insight into a student's aptitude and potential for success in the U.S. academic setting.

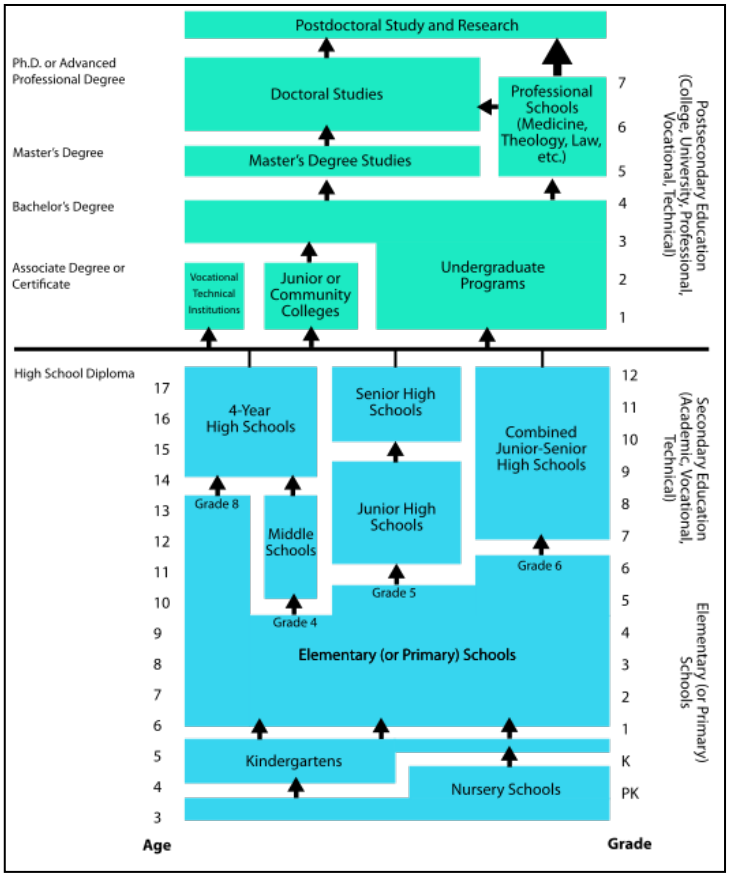
1.4.2.4 Establishing Educational Chronology

The credential evaluator must review the educational systems of the countries in which applicants have obtained credentials. This can be both time-consuming and difficult if published information is scarce, which often is the case for credentials older than a decade. Fortunately, the vast majority of credentials come from familiar systems.

The evaluator must then establish primary, secondary, and tertiary benchmarks and typical ages at entry and departure for each level. The age of an applicant should be identified at each level of schooling and then compared with the standard ages (a) of students at each academic level and (b) at which diplomas should have been awarded (Fletcher & Aldrich-Langen, 1998).

One year in another education system is generally viewed as comparable to one year in the US. This guiding principle is particularly useful when foreign transcripts capture academic performance in terms of hours, outcomes, or a system of credits that varies from the US Carnegie Unit system. Education maps (Figure 1) are a convenient way for evaluators to visualize educational chronology (National Center for Education Statistics, 2015).

Figure 1. Education Map



Source: *Institute of Education Sciences* (IES) within the U.S. Department of Education

Gaps, detours, parallel programs, or failures must be accounted for in the educational chronology. At times, failures may not appear on consolidated transcripts and may not be factored into the final grade point average (GPA). Each institution should determine how to handle this to ensure consistency. Some may accept the highest possible GPA as reported, while others may factor in past failures to better assess a student's likelihood of success. Further, what may appear as a suspiciously extraordinary accomplishment may have been duly achieved through summer school, above-average course enrollment, or a special program; these modalities of finishing a degree should not be discounted (Fletcher & Aldrich-Langen, 1998).

Poor translations can mistakenly convey a wildly different interpretation from what a credential records in the original language, so knowing the educational nomenclature of the home country is important for recognizing such errors. For example, it is not unheard of in the credential evaluation mythos for new credential evaluators to inaccurately translate the French secondary diploma, the *baccalauréat*, as a bachelor's degree and place a student well past her/his current academic achievement (Assefa, 1988). A survey of age, an education map, and original language documents help evaluators avoid such mishaps.

1.4.2.5 Official Academic Records

Official academic records are least likely to have been tampered with by the student or third party, but in many countries a student will receive only one official transcript and diploma, so there is justifiable concern about mailing it overseas at the request of an admission officer. Certified copies can be accepted. They will bear an original seal and signature of the institution or examining body. Notary verifications are not reliable. The institution evaluator may also choose to review unofficial records but require that original records be presented at orientation or during the first semester (this remains a controversial approach). In these instances, a hold is usually applied to the student's account to prevent further registration until official records have been provided. In some instances, the applicant may claim that records are unavailable, but this is rarely the case—more likely, it simply is inconvenient for the applicant to acquire certified copies or official documents, especially when outside the home country and relying on friends or family to assist. If documents genuinely are unavailable, such as may be the case for refugees, after an academic institution is closed, or where there is current geopolitical unrest, an evaluator should pursue documentation of the reason from the student, a Ministry of Education official, or

an EducationUSA representative and convene a special committee to determine next steps on a case-by-case basis.

1.4.2.6 Establishing Types of Education Programs and Grading Scales

Once an official record is submitted, the type of education program (e.g., academic, vocational) must be noted. In addition, the evaluator must determine (a) if the program was actually completed or (b) if not completed, how far it was from completion. At this point, the evaluator should consider what academic program the student would qualify for in the home country and establish the quality of that program. Therefore, the evaluator must possess knowledge of the home country's educational system and its selectivity at the secondary and postsecondary levels.

Knowing the grading scale that is being used is important. For example, the typical grading scale for French documents is 1 to 20, with 20 serving as the high mark. The French grading system is severe and a grade of 19 or 20 is rarely awarded. Marks of 14 to 16 are typical for high achievers (Assefa, 1988). Obtaining a school profile issued by the school with the credential that shows grade distribution and marks of the highest ranked student lends additional perspective. Keeping internal records and consulting colleagues familiar with the education system under review (e.g., EducationUSA offices) helps to identify variations among schools in the country.

1.4.2.7 Making a Placement Recommendation

Armed with a full understanding of the academic history of the applicant, based on an official academic record in the original language together with a certified English translation, the evaluator needs to assess the quantity and quality of the student's achievement and make a placement recommendation. Decisions should maximize the student's chances of success at a

U.S. institution while being consistent with both the treatment of U.S. students and other students from the same country and/or type of educational system.

1.5 EVOLUTION OF FOREIGN CREDENTIAL EVALUATION RESOURCES

For much of the early-20th century, credential evaluation was handled by the Foreign Credential Evaluation Service (FCES). However, FCES provided neither the depth of analysis nor the promptness required by admissions offices seeking to enroll international students, and the post-WWII influx of foreign students to the U.S. further necessitated a new administrative field specializing in international admissions (J. S. Frey, 2014). In response, resources to help professionals decipher international applicants' academic records had to be developed. The first comprehensive (i.e., 838 pages) resource of this kind was *Educational Systems of the World* (Sasnett, 1952). The text described primary, secondary, and tertiary education (systems, schools, academic programs, and grading practices) in every independent country and most colonies of the time. It also included specific recommendations for the academic placement of foreign-educated applicants into undergraduate and graduate degree programs in the United States.

1.5.1 First Wave (1932-1971)

Sasnett's comprehensive publication ushered in the first wave of resource development, during which foreign credential evaluation professionals also relied on smaller publications provided by the Comparative Education Section (SEC) of the U.S. Office of Education. Furthermore, evaluators were assisted by publications, workshops and seminars, and training programs

produced by the American Association of Collegiate Registrars and Admissions Officers (AACRAO) and the NAFSA Association of International Educators (once known as the National Association for Foreign Student Affairs), both funded by the Office of Student Support Services (OSSS) in the Bureau of Educational and Cultural Affairs of the U.S. Department of State. These included AACRAO's *World Education Series* (1955) and IREF's *The Country Index* (1971).

1.5.2 Second Wave (1974-1996)

The second wave of resource development lasted from the 1974 incorporation of World Education Services through the 1996 culmination of *The Milwaukee Symposium*. During this period, the joint AACRAO and NAFSA-sponsored *Projects for International Education Research (PIER)* (1989) was released, and government/non-profit support for these efforts diminished as private companies came onto the scene. With the advent of the second wave, accurate and comprehensive information regarding foreign education systems, institutions, degree programs, grading scales, and placement recommendations have been increasingly difficult to obtain from reliable, professional sources. Many of the materials, either in print or online, come from private credentialing services or professional networks drawing from practitioner experience, not research.

1.5.3 Third Wave (1999-present)

The third and current period of foreign credential-evaluation resource development began in 1999 with NAFSA's introduction of online country profiles, and it continues with the steady introduction of additional online reference materials. Before a U.S. international credential

evaluator can accurately evaluate documents for use by an academic institution, governmental agency, or professional association, the evaluator must acquire and fairly interpret comprehensive information pertaining to both the applicant's education history/achievements and the issuing organization(s). The Internet has resulted in a proliferation of these documents, which are issued in a multitude of languages, making reliance upon translations inevitable. However, translators are not entirely reliable: accuracy, conscientiousness, and proficiency vary widely. Therefore, evaluator *familiarity* with every language becomes an absolute necessity. Fortunately, the Internet has also allowed for easy access to a comprehensive library of foreign dictionaries. Furthermore, the evaluator needs reliable contacts and an ability to seek out and comprehend information in order to authenticate educational institutions, degree programs, and credentials submitted by applicants (Kacenga, 2016). A deeper exploration of this topic can be found in Kacenga's chapter, "The Systematic Approach to Credential Evaluation and Its Challenges," in the 2015 *AACRAO International Guide: A Resource for International Education Professionals* (pp. 255–263).

The second and third waves of foreign credential evaluation resources have offered different strategies for bringing consistency to policies and procedures governing foreign credential evaluation in higher education. However, the autonomy of higher education institutions in the U.S. has prevented any one authority from imposing best practices. This has created an opportunity for different methodologies as well as different outcomes. Where a U.S. academic institution does not conduct internal evaluations of foreign academic credentials, the burden and cost of evaluation are shifted to the student, to be submitted as part of the application process. Thus, students can seek generous evaluations of their academic coursework; Internet communities and word-of-mouth advice quickly yield information on which companies provide

the most favorable interpretation of foreign education system outcomes. Where the institutions of higher education keep the burden of foreign credential evaluation but outsource the activity to a third-party provider, they typically seek a placement recommendation in accordance with the highest likelihood for student success. This means they often look for companies that offer the strictest interpretation of foreign education system outcomes. However, some will seek placement recommendations that are not strict but rather yield the highest potential number of enrollees.

1.5.4 The Coming Wave of Foreign Credential Evaluation Resource Development

Curriculum alignment efforts are becoming more commonplace in many regions of the world. At the core of any curriculum alignment effort is the necessity to establish placement recommendations for education systems and academic credentials across borders and between education systems. This requires a significant amount of transparency, consensus among disparate groups, and consistent application of agreed-upon protocol. A salient example is the Bologna Process, which seeks to align curricula and higher education qualifications throughout Europe and other countries with close economic ties. The European Credit Transfer and Accumulation System (ECTS) is a byproduct of the Bologna Process, a byproduct that helps facilitate the understanding of foreign education systems and placement within a native system in a manner consistent with commonly held best practices. The Bologna Process and the development of ECTS may be the result of economic or globalization pressure, political agendas tied to the aims of government officials and policy formation, or the natural outcome of internationalization.

1.6 STUDY OVERVIEW

Despite the increase in international student enrollment at accredited post-secondary institutions in the United States, there has been very little examination of the foreign credential evaluation practices employed by academic institutions. The increase in international student enrollment in the U.S. appears to be related to changes in the approaches used for the analysis of foreign academic credentials and placements, changes reflected in the three waves of credential evaluation resource development (1932-2015).

I am interested in researching foreign credential evaluation resources made for placement in U.S. post-secondary academic institutions; how changing demands for labor can contribute to better understanding of changes in these resources; and how and why these resources have changed in response to GLIMM. Finally, I will consider schema for standardizing the foreign credential evaluation process, using the Bologna Process as a launch point.

1.6.1 Theoretical Foundation

1.6.1.1 Globalization, internationalization, massification, and marketization (GLIMM).

As the U.S. education market and labor force sought increasingly to leverage the influx of overseas students qua non-native workers, the evaluation of foreign academic credentials took on added importance. Today, foreign academic credentials deserve scrutiny because those credentials are the linchpin of a globalist system of production. Thus, contemporary ideas about foreign academic credential evaluation resources are informed by the trending forces of globalization, internationalization, massification, and marketization (Chen, 2004).

Globalization, internationalization, massification, and marketization have an observable impact on higher education (Chan, 2004), and the increase in international student enrollment in the U.S. is an observable epiphenomenon. Globalization speaks to events that are beyond a single nation-state's control. It recognizes international independence and the need for institutions of higher learning to work across borders to leverage international opportunities. This means both that an increasing number of students and their families are looking for opportunities for self-improvement outside of their native environment and that an increasing number have the economic wherewithal to pursue those opportunities. Evidence of globalization in higher education can be found in the number of countries represented in the credential evaluation resources and the depth to which the exploration of the native education system is explored.

Internationalization in this case is the response to globalization by and within the U.S. The development of professional organizations to tackle the challenges presented by international student enrollment and collaboration across borders, the appearance of a multitude of credential evaluation resources, and the different approaches taken by HEIs to answer the challenge posed by the increasing number of international students from a growing number of origins makes clear that higher education in the U.S has been reacting to global forces.

Massification is the movement towards a more uniform system of education that allows for ease of exchange or transition at critical junctures (i.e., program completion or credentials earned). Advanced economies have recognized that "knowledge" is the primary resource upon which they can grow (Scott, 1998). Observed over time, foreign credential placement recommendation will reveal how well these systems have reacted to each other and if changes in native pedagogy or receiving tolerance have served to facilitate knowledge exchange. Disparities among credential evaluation placement recommendations and the audiences the resources cater

to reveal whether international students are being sought after for (a) the advancement of knowledge or (b) the economic value they bring to the campus economy (Hegarty, 2014).

Finally, the marketization of higher education is the response in HEI's to market-driving forces, on a global scale. This includes the customization of niche or boutique programs and modes of delivery to students of all backgrounds, shifting the market from student-driven (i.e., students pursuing institutions of higher education) to institution-driven (i.e., institutions seeking students to feed tuition-based campus economies) (Loudenback, 2016). The marketization of higher education addresses the new types of institutions that have developed (for-profit, online, etc.), delivery modalities (MOOCs and off-shore delivery), and niche or boutique programs (short-term or specialized topics). The outcome of this study will show where and how these changes in higher education are accommodating a global audience highly motivated to increase its production capacity at home and/or abroad.

1.6.2 Target Audience

The conclusions of this study are relevant to multiple audiences. The primary target audience is foreign academic credential evaluation professionals (e.g., the memberships of the Association for International Credential Evaluation Professionals [TAICEP], the National Association of Credential Evaluation Services [NACES®], and the Association of International Credential Evaluators. Inc. [AICE]). A secondary audience is scholars whose programs of research focus on international trends as they relate to higher education. The outcomes of this study are relevant to higher education leaders in that they (a) address a common blind spot at many HEIs and (b) challenge accreditation bodies to examine international admissions policies and adopt best practices.

1.7 SIGNIFICANCE OF THE PROPOSED STUDY

This is a moment of institutional and individual uncertainty regarding international education in the U.S. The proposed study contributes to an important area of research in that the autonomous nature of U.S. universities permits an uneven foreign credential interpretation system, with no overarching authority to hold institutions accountable for the application of consistent admissions standards (e.g., analysis of foreign academic credentials, placement recommendations, and grade point average [GPA] calculations). Placement recommendations stem from various operational approaches to foreign credential evaluation (internal to campus, third-party providers, and professional organizations), resulting in inconsistencies in international student placement from one university to the next, from one program to another on the same campus, and even from one admission committee session to another within the same academic program. Although international students may have a powerful impact on HEIs' financial bottom lines, international applications often make up only a small fraction of the overall applicant pool. Therefore, most administrators fail either to draft unique policies and procedures or to allocate resources for foreign credential evaluation. Concerns raised by groups like the Council for Higher Education Accreditation (CHEA) can go unheeded (Daniel, 2016). The resulting absence of overarching structure governing international admissions allows for and even encourages inconsistency, with potentially severe consequences for international students. This chaotic educational environment for both international students and HEIs lend significance to the proposed study

1.7.1 Uncertainty for International Students

Many domestic and international students lack confidence that a high-paying job awaits upon graduation, which is a common expectation of parents and students investing in global higher education (Waters, 2009). Many do not feel comfortable pursuing an expensive degree, even when financing opportunities are extended. The debate shifts from an institutional quandary about which degree programs to offer to a student quandary about which degree to pursue. Already, globalization is calling for increased cross-disciplinary business acumen and creativity and decreased trivium and quadrivium.

> Further impacting higher education is the growing trend to define students as clients or customers. In the words of one research university president, his institution is the 'largest export industry,' a phrase that implies that students come to the university from abroad to buy knowledge (Stromquist, 2002, p, 116).

1.7.2 Uncertainty for HEIs

Even as more than 4.5 million students worldwide pursue tertiary education outside their home countries (OECD, 2015), U.S. HEIs lack codified standards for international admission. "The educational systems across nations are changing, becoming less a public good and more the manifestation of an economic sector that happens to be concerned with knowledge" (Stromquist, 2002, p. 37). Over the past decade, many state governments have shifted their funding priorities and cut resources for higher education. Consequently, public institutions have come to rely increasingly upon tuition revenue as they face intense competition and questions from students and parents about the value and affordability of higher education (Burkhardt, 2005). Creating further volatility is the fact that established measures for predicting recruitment, retention, and

graduation of students are quickly becoming obsolete in an age of extraordinary student mobility and ever-growing demands for services and accountability (Carlyl, 2016). What was once an effort by HEIs simply to enroll academically strong, geographically diverse international students has become an all-out effort to drive up out-of-state/international student enrollments, with a mounting emphasis on employment-centered education outcomes.

Campus administrators are basing enrollment projections on the capacity to respond to student choices and preferences in tandem with a growing commitment to seeing students as customers. However, as HEI priorities are changing, "campus personnel are left to rely on their previous experience with local students to guide their interactions with international students" (Arthur, 2004, p. 6). Globalization has driven higher education from a goods focus to a service focus, and the expectation is that the rate of change and level of uncertainty within international higher education will persist for many years to come. Therefore, for higher education to succeed, it may need to shift focus from a passive approach (i.e., wherein students seek out higher education institutions) to active engagement across borders in three domains: global, emergent, and individual campus enterprise.

1.7.2.1 Global Engagement.

Globalization entails geopolitical mindfulness: "International education is in a paradoxical situation because while it is a part of the system of higher education, it is also larger than higher education because it is a part of international and global relations" (Mestenhauser, 2006, p. 67). Whether academic administrators seek to attract students through recruitment agents, education attachés at Washington, D.C. embassies, or foreign government sponsorship programs, none of these efforts is a stand-alone solution to campus internationalization. Beyond instances when governments disagree, each strategy must compromise in its own way, whether to avoid

obstacles tied to conflating intercultural ethics, escape an unintended dominance of one nationality or geographic region on campus, or prevent external interest in only one or two boutique programs rather than those designed for large-scale delivery. Furthermore, brokers can now do expertly and inexpensively what colleges and universities once did for themselves: help higher education institutions break into developing markets (Buckholt et al., 2015). This can be a very lucrative path to follow for those lucky enough to land a legitimate partner, which is where groups like the American International Recruitment Council (AIRC) and ICEF become invaluable. Where it is not the intrepid entrepreneur, it is the Ministry of Education in many countries that is structuring itself to recruit for the nation as a whole, through sophisticated marketing and media-relations strategies, resource allocation, and institution collaboration (Australian Government, 2016; British Council, 2016; Enterprise Ireland, 2016). These national recruitment efforts have no equivalent in the United States. The scale of nationwide recruitment dwarfs that of the study-state consortium initiatives.

Asia's academic infrastructure is rapidly growing—not by U.S. accreditation standards, but growing all the same. The increasing number of Chinese universities recognized throughout Asia is shifting student mobility trends and having a real impact on international higher education. Similar trends are developing in Malaysia and Singapore (Mok, 2012). How should this awareness influence the mission, vision, and values of U.S. institutions? How might it impact students at U.S. institutions? Study-abroad activities are already threatened by market changes that make them affordable only for the financial elite. In addition, some countries stress the study-abroad experience for cross-cultural benefit or as a result of an underdeveloped higher education infrastructure at home; others in recent decades want to keep students within their borders, capitalize on the students' investment, and improve domestic higher education (Welch,

2014). It is conceivable that regional hubs embedded in Asian markets will block out the West through trade agreements and political positioning.

1.7.2.2 Emergent domain engagement.

New and exciting developments in international education are constant. Discerning what is actionable, deliverable, and strategic is where the magic happens. Employers are increasingly demanding that applicants prove their skills rather than flash their degrees. Often, adding online-training 'Specs' or 'Badges' to one's résumé is necessary to remain competitive in marketplaces outside the United States (Bowen & Thomas, 2014). Massive Open Online Courses (MOOCs) are a topic of conversation on many campuses around the world, and not just in large state institutions. It is unclear whether MOOCs represent a new pedagogy or are simply a technology for repackaging existing course content. In either event, MOOCs have demonstrated that they can deliver high-quality content and that there is a pathway for developing low-cost courses that can transfer into full degree programs when the right criteria are met. MOOCs are not part of the response to globalization for every campus, but every academic institution needs to look at the MOOC model and assess how this emergent delivery option may affect its vision, values, and delivery modalities.

Globalization has had the vexing consequence of making entry-level salaries of recent graduates the barometer of institutional success. Academic outcomes such as capstone projects, contributions to society through research, and individual growth/liberation are not chiefly valued. To further complicate matters, debate in the United States about higher education is managed by legislative bodies and proprietary schools with the financial resources to lobby politicians and sway the political agenda. The savvy academic institution engages in alumni activities that support revenue-capturing structures, i.e., alumni outreach, recruitment, scholarships, and

relationships that lead to actionable survey data. Additional associations need to be developed that produce activity through memoranda of understanding (MOUs); international campus partnerships; dual-degree and twinning programs; 1+3 models, 2+2, 3+1+1, etc.; and Intensive English Program (IEP) pathway and pipeline programs that are strategic to campus goals. For many campuses, achieving institutional globalization-related savvy requires accommodating agents and clever budget models that introduce new ideas, self-fund through reinvestment, and inform campus administrators.

1.7.2.3 Individual campus enterprise engagement.

Being world weary and sensitive to emerging models of delivery are of little use without a strategic plan to support and guide new enterprise. In a state like Colorado, where public funding for higher education is ranked 49th in the nation (SHEEO, 2011), marshalling limited resources towards student recruitment, success, and retention efforts is essential. Many U.S. states aim to serve their own residents by placing caps on out-of-state and international student enrollment at public institutions. With demographic projections predicting a geographically uneven rise/fall in the number of high school graduates in the coming years (WICHE, 2012), states are cannibalizing one another's markets in an effort to recruit and enroll as many students as possible. Unfolding economic turmoil has forced many students to work while going to school. How does this change a university's programs and modes of delivery? Successfully recruiting international students requires an investment of time and resources that can yield tremendous outcomes, but it does not happen overnight. Increasingly, institutions are looking toward off-shore models for niche programs and recruiting to those delivery points rather than focusing only on campus-based initiatives.

Straight matriculation into campus-based degree programs serves the significant purpose of getting revenue into the university coffers. However, international education is increasingly more complex than this. Academic departments are beginning to design content for cohorts and specific clientele, content not available in the general course catalog. This content is often delivered outside the physical campus, and the model usually allows for a higher percentage of revenue to stay within the school or college, with only a portion going to the central administration. Understandably, this is attractive to most academic deans. Here, there is an increased interest in student success, and success rates are closely monitored. International students only heighten this scrutiny, as resources go into writing centers, tutoring, ESL, counseling, and similar services. International education, as an outcome of increasing globalization, has put the onus on education administrators to think outside the standard admissions-committee model and create/deliver the educational 'goods' sought after by a complex, cosmopolitan generation of students.

1.7.3 Resolving Uncertainty within the Educational Environment

Judgments vary about whether a campus is obliged to establish a formal position on foreign education systems or the administration can rely solely on the varied perspectives of external evaluators. Furthermore, whether there is a need to maintain campus-wide consistency in interpretation or treatment of foreign credentials can vary from school to school remains an open question. However, it stands to reason that this level of variability should not be present between programs found within the same school on a single campus. The need for professional foreign credential evaluators is considerable, whether serving a small campus with a one-person

international office or a large campus with many staff members serving hundreds or thousands of international students.

Whether institutions are filling admission quotas or improving the academic profile of highly selective programs, many U.S. institutions have come to rely on international student enrollment. An understanding of foreign education systems is critical to establishing successful admissions practices; consistency of interpretation plays a vital role in this process. There are very few aspects of higher education where administrators are so willing not to know how the job gets done as long as there is a useful final result. Foreign credential evaluation should not be the ‘black box’ on campus as it so often is in the U.S., and international educators should champion the value and integrity of international education for students and institutions alike.

2.0 LITERATURE REVIEW

Theoretical comparative education seeks meaning in the transfer of ideas from one cultural context to another (Welch, 2007). Applied comparative education, like its theoretical counterpart, negotiates the relationship of context and transferability. Context includes social, cultural, and economic factors, as well as the status education holds within a society. Transferability of educational theory and practice across national borders can be seen in the proliferation of educational exchange, collaborative research, and international cooperation. After WWII, the need for applied comparative education in the form of foreign education system and academic credential analysis became more exigent, and what started as a melioristic effort to rebuild Europe and partner nations has become a multi-billion dollar industry.

Comparative education in the 21st century demands recognition of globalization and all of its ramifications. In short, it is no longer credible to create education policy without consideration of education overseas. Modern interconnectivity means the world is "smaller." The information age and rapid nature of communication show that (a) the harmonization efforts of Europe through the Bologna Process and (b) the globalization and internationalization experienced throughout Asia/South America are mere vernaculars for the same phenomenon addressed through applied comparative international education in the United States (Cowen, 2006). Higher education needs to facilitate social/cultural exchange across national borders and

transfer educational ideas through the best means possible to achieve student success and economic strength.

In the 1900's, Sir Michael Sadler, Vice-Chancellor of the University of Leeds, when pressed to advance the discourse on education policy, asked the question, "How far can we learn anything of practical value from the study of foreign systems of education?" (Bereday, 1964, p. 307). Comparative educationalists strive to stay ahead of global educational trends, which is a necessary knowledge base for applied comparative educationalists when making cross-border student placement recommendations. Understanding how the determination of recommendations has changed and what information they provide as a result of internationalization is important for understanding higher education in a global context. Transfer and context are as relevant to comparative education today as they ever were. While the practitioner, or foreign credential evaluator, is busy negotiating the mechanics of transfer and context to determine how it can be done, politicians and government officials are often wary about whether or not it should be done. Concerns over "brain drain (i.e., the loss of vital talent from one country to another)," the introduction of foreign ideas that may disrupt the standing social construct, and the inadvertent departure of state secrets weigh heavily on their minds.

2.1 CONCEPTUAL FRAMEWORK

This research study examines primary resources containing academic placement guidelines for international admissions administrators in the period between 1932 and 2015. Also examined in this study will be (a) the impact of economics on international student recruitment and (b) the evolving purpose of education through the late-20th and early-21st centuries.

2.1.1 Education as Economic Leverage

There are more students today studying abroad than at any other point in history. Theodore Schultz (1971) defined human capital as the acquisition "of all useful skills and knowledge…that is part of deliberate investment" (p. 1), and behind the skyrocketing student mobility is the effort to find best practices, to become more knowledgeable, and ultimately, to grow more prosperous. The theoretical underpinning of higher education in the developed world mirrors the international student's justification for studying overseas: success hinges on increased employability/marketability, which presently manifests as feeding the ever-expanding knowledge economy. This is not an across-the-board assertion, but for families investing their fortunes in their children's overseas education, it is frequently the case.

There is evidence that education improves an individual's economic productivity, regardless of national origin or ethnic background (Day & Newburger, 2002). As societies develop from agrarian to industrial and from information to digital, economic health relies heavily upon the expansion of knowledge-driven activities. Information technology is at the very core of the modern world's knowledge and production economies.

Education is the foundation on which productivity is built. Educational philosophy changes as the definition and means of productivity change. Adam Smith's seminal work, An Inquiry into the Nature and Causes of the Wealth of Nations (1776), argues that human productivity is society's true source of wealth. Smith believes that the division of labor in society informs economic agency and mobility. In Smith's text, there is the rare alignment of the lofty goals of education's elite and economic theories, both striving in their own way for the "common good." The systems for awarding academic credentials then become a means for Smith's mobility.

G.S. Becker (2009) called into question the inherent value of credentials awarded by academic institutions. He posited that earning a credential may only signal to economic actors the talents and abilities of the individual rather than offer any real assessment of economic potential (Becker, 2009). He also commented that "persons differing in education also differ in many characteristics that cause their income to differ systematically" (Becker, 2009, p. 171). The credential and the work that earned it are in any case the property of the owner, who may or may not use it for societal benefit. Thus, societal investment in education beyond basic education is a hotly debated topic in many developed nations. Even the definition of "basic education" is changing. In the Colonial U.S., basic education may have been recognized as a few years of primary school—just enough to learn to read and write. Basic education has changed over time to be seen as completion of primary school and eventually secondary school. In the U.S and in many nations, post-secondary education, arguably through the bachelor's degree-level, is becoming the next threshold of "basic education."

When applying neoclassical economics, it is difficult to make the case that formal education leads to increased productivity. Neoclassical economic philosophy rarely informs real-world scenarios (Rothschild, 2002): in trying to make economic behaviors fit economic models, the real-world dimension of the activity being observed is sterilized to the point of being distorted or no longer applicable (Lazear, 2000).

For economic theorist Mark Blaug, the positive impact of formal education on human productivity is difficult to test (Blaug, 1992). Blaug claims leaps of logic are necessary to correlate educational background to productivity, versus other factors. Blaug further asserts that competitive labor market models fail to draw either (a) clear relationships between the earnings of the more-educated over the less-educated or (b) the timeframe in which results should be

perceived. His conclusion is that there has been no evidentiary connection between more education and higher earning.

It can be argued that individuals who earn post-secondary academic credentials are motivated by the desire for a better/more lavish lifestyle. Furthermore, academic institutions and employers across borders and cultures look to academic credentials as a signal of productivity or potential for productivity. But there is a gap in the credential evaluation literature when it comes to correlating student investment in overseas study and subsequent higher income. With the number of students studying abroad expected to rise to nearly eight million by 2025 (i.e., three times the current number), additional study is warranted (Maslen, 2016).

The economic success of a recent graduate appears to depend on any number of variables, of which educational experience is but one. Field of study, geography, labor market demands, charisma, and demographics are other relevant variables. The literature shows higher incomes/lower unemployment rates for graduates of higher-education institutions (Koen, 2006). Investment in education and training results in improved labor productivity and higher wages (Mincer, 1992). The value of the investment in international education appears to be tied to the interpretation offered by different placement recommendation resources. In short, higher education credentials are the start of a causal chain that runs through higher productivity and higher income.

An Egyptian study (Arabsheibani, 1989) employed the Wiles (1974) methodology to examine starting salaries of Egyptian university graduates, including also a test variable to track occupation against area of study. The study results showed a positive correlation for science and medical graduates (i.e., their academic background was useful in employment).

Still, definitive correlations between education and productivity (as measured by income) remain elusive within the neoclassical economic framework. This is no secret, yet Hämäläinen and Uusitalo's 2006 study makes the assumption that higher salaries indicate a higher marginal product of labor. Arabsheibani (1989), Miller and Volker (1984), and Wiles (1974) make similar assumptions. Aside from wages, it is not clear what other measure of productivity could be used. The belief persists in the United States, Australia, Finland, or anywhere else that education improves individual productivity and the chance for a better lifestyle.

The U.S.-based credential evaluator makes an important assessment for both applicant and university when reviewing foreign academic credentials. Do metrics other than salary support the notion that education improves human productive capacity? The applicant is seeking admission to and placement in a foreign education system that most likely has benchmarks of success that are very different from the applicant's native system. Therefore, understanding the rationale underlying placement recommendation methodologies in the U.S. warrants further qualitative analysis. This study contributes to the need for qualitative analysis.

2.1.2 Globalization, Internationalization, Massification, and Marketization

Foreign credential evaluation is informed by the extant literature on international education and economics. Themes in the literature that inform my study include the following:

1. although methodologies for foreign academic credential analysis vary from country to country, the U.S. appears to be among those with the most internal inconsistency;
2. international student enrollment in the U.S. is tied to student-mobility trends;

3. international discourse reflecting on the standardization of higher education, including a corporate perspective, are belied by the inherent variability of credentials and their perceived value by U.S. HEIs; and
4. changes in international higher education and student mobility can be understood through globalization, internationalization, massification, and marketization (GLIMM).

In her 2012 report for the International Education Research Foundation, Inc. (IERF), Emily Tse observed that "very few comparative studies have been conducted in the field" and that "much of the general literature has been in the U.S., primarily focusing on the educational systems of other countries and the corresponding placement recommendations of their credentials" (p. 8). There is a paucity of research comparing large groupings of international education systems to identify shared frameworks, entry junctions, and assessment models. Further, no study has been found that looks at foreign credential evaluation resources used primarily in the U.S. Chan's (2004) conceptual framework of GLIMM helps to fill this research void.

As shown previously, international student mobility trends have been increasing steadily since the mid-20th century. The U.S. is a leading destination. Researchers in Europe uncovered a relationship between international student enrollment and migration flows:

> Annual student flows correspond, on average, to about 9% of annual migration in to the United States from source countries, assuming that students typically study in the United States for four years. In our panel regressions for the United States, a 10% increase in the number of foreign students leads to an increase in immigration of between 0.3% and 0.94%. (Dreher & Poutvaara, 2011, p. 1301)

Where 'brain drain' is a concern for countries investing heavily in their tertiary education infrastructure, so too is 'brain gain' a topic of importance. In the U.S., immigration policies

related to the H1-B visa category limit the volume of international intellect that corporations can recruit each year, even after HEIs invest heavily to attract, retain, and graduate these same individuals. The UK and Australia are dealing with similar challenges. It is apparent that claims regarding the massification of higher education on a global scale must continue to contend with opposing forces (Dale, 2000). Whether the 'Common World Education Culture (CWEC)' Dale observes is the result of parallel processes converging or "becoming homologous is a process, or an outcome, or both" remains to be seen (p. 434).

There is no clear standard or governing authority over credential evaluation methodologies in the U.S., which permits a great degree of variance from one HEI to another. However, while there may be examples of consistency within other countries, the U.S. is not unique in its inconsistency. Tse observes the following about the U.S. approach to foreign credential evaluation:

It is reflective of the need to calculate credits and GPAs, the former of which is tied in to the length of formal instruction provided. As a result, the length of a program can be an important contributing factor for a credentials evaluation. For the British and Australian approaches, individual student achievement and school ranking may serve an influential role. The German approach, on the other hand, makes use of varying levels and degrees of comparability to address the complexity of determining equivalencies. (Tse, 2012, p. 20)

Standards for Recognition: the Lisbon Recognition Convention and Its Subsidiary Texts (Council of Europe, 2005) emerged from the series of councils and conferences now known as the Bologna Process, and this document has illuminated foreign credential evaluation practices within the European Union. As stated above, the principles outlined for foreign credential evaluation allowed for the harmonization of education across the European higher education

area. Nonetheless, there remain unsettled questions regarding the weight learning outcomes should have for each qualification over the necessary admission requirements (Rauhvargers, 2004a, 2004b).

Even with mechanisms internal to each nation-state, the march towards a globalized system of higher education will be, for the time being, thwarted by the values placed on education pedagogy and outcomes as established by each nation's Ministry of Education. Furthermore, "there is no regulatory oversight in the United States of the hundreds of foreign credential evaluation services…even an evaluator's membership in a professional association is sometimes uninformative" (Gollin, 2015, p. 2). This serves only to further obscure (a) the nature of each institution's credentials and (b) the elements giving the credentials unique value, perceived or otherwise, in an increasingly international marketplace (Brown, 2000).

The current study does not seek to advocate for a globalized system of higher education. Such a model could be found at the secondary level in the International Baccalaureate diploma program. On the contrary, this study seeks to identify an area of compromise within U.S. higher education so that standards can be addressed and settled upon. Polster and Newson (1998) posit that a shared set of academic standards would compete with marketization forces but "may allow for the creation of a single global system" that would increase student mobility and the flow of necessary skills into and out of the markets where they are needed (p. 180). This could produce widespread benefit: when the middle class recognizes and exploits opportunities provided by globalization, the middle class quickly becomes a force to be reckoned with (Brown, 2000).

Investment in individuals and their capacity to make economic gains is at the core of much education-related decision-making. Whether that activity occurs locally or globally is for the individual to decide, although prevailing trends indicate engagement at a global level is

increasingly necessary for success. GLIMM forces can help (a) explain why changes in international higher education are taking place and (b) illustrate the changing purpose of education in a complex and rapidly evolving global society:

> The relationship between credentials, the process of credential evaluation and labour market outcomes is an important one, not least given a burgeoning multibillion dollar international education industry that includes the aggressive marketing of overseas degrees and the mobility of millions of students worldwide. (Waters, 2009, p. 126)

International student mobility is not a new phenomenon. Historically, it has been driven by the needs and interests of the students, but in the past few decades, institutions of higher learning have taken a more active role in marketing prestige programs to capitalize on the 'massification' of higher education (Chan, 2004). More than ever, institutions have begun to coordinate with one another on the grounds of collegial camaraderie, shared missions and visions, and student success (Chan, 2004). More than any other factor, institutions are collaborating to remain competitive in an increasingly competitive marketplace for ideas and enrollment (Loudenback, 2016). Chan (2004) identifies the GLIMM forces at the core of understanding international cooperation in higher education: globalization, internationalization, massification, and marketization.

2.1.2.1 Globalization.

Understanding foreign education systems and accurately placing students in non-native curricula is fundamental to the success of international higher education collaboration. In the U.S., there is not a national system or standard for the analysis of foreign academic credentials and student placement. Globalization refers to global trends—social, political, or economical—that cannot easily be challenged by a national government.

2.1.2.2 Internationalization.

Internationalization encompasses the cultural reactions to globalization. It represents the farthest extent to which regional forces can react to external influences. In higher education, this manifests as changes in curricula, international recruitment strategies, and mission statements, and budgets that address rank and accreditation. The formation of the National Council on the Evaluation of Foreign Academic Credentials was a result of internationalization. According to Margit A. Schatzman in her contribution to the 2004 PIER report on Brazil:

> Established in 1955, the Council is an interassociational group of representatives from the following national educational associations: the American Association of Collegiate Registrars and Admissions Officers (AACRAO), the American Association of Community Colleges, the American Council on Education, the College Board, the Council of Graduate Schools, the Institute of International Education, and NAFSA: Association of International Educators (NAFSA).
>
> The Role of the Council is to provide guidelines for interpreting foreign educational credentials for the placements of holders of these credentials in the U.S. educational and other institutions. It is the only body in the United States specifically organized to perform this role. The Council reviews, modifies, and approves so-called placement recommendations drafted by the authors of studies published in the World Education Series (WES) and Projects in International Education Research (PIER), the former published by AACRAO and the latter jointly by AACRAO and NAFSA. (Nunes, 2004, p. 4)

2.1.2.3 Massification.

Massification of higher education speaks to the recognition of the value of higher education for an advanced society and advanced economy. “Rightly or wrongly, politicians believed investment in higher education could be translated into comparative economic advantage, a belief encouraged by theories of post-industrial sociality which suggest that ‘knowledge’ has become the primary resource in advanced economies” (Scott, 1998, p. 110). The modern global economy relies on student and worker mobility, and foreign credential evaluation is a critical dimension of this mobility. UNESCO argues that even beyond education and employment,

"recognition is a key to building inclusive societies, to facilitating empowerment, and to reducing the risk of alienation from the holders of foreign qualifications" (Sawh & Skjerven, 2017).

2.1.2.4 Marketization.

Marketization is the shift to a student-as-customer focus rather than the academic institution holding the position of power. "Universities are now 'market-oriented' organizations and have to develop good relationships not only with students but also with employers and parents because their concerns and needs are regarded as the central reason for the organization's existence" (Gray, 1991, p. 47). Traditional universities no longer hold exclusive access to higher education. "Education has changed from being a public service driven by professionals towards a market-driven service, fueled by purchasers and customers" (Chan, 2004, p. 34). As colleges and universities have become increasingly reliant on tuition to survive, once sustainable recruitment territories have begun to cannibalize contiguous markets. International students represent a potential new revenue stream. The heightened pursuit of international students, along with the absence of both national standards for foreign credential evaluation and an accreditation body that provides quality assurance checks, sets the stage either for students to be taken advantage of or for programs to make admission/placement errors.

2.2 TEXTS TO BE CONSIDERED IN THIS STUDY

The texts for this study include but are not limited to Sasnett's *Educational Systems of the World: Interpretations for Use in Evaluation of Foreign Credentials* (1952), the *World*

Education Series (1957-1989), the *IERF Country Index* (1971-present), the *PIER Country Profiles* (1989-2002), and NAFSA's online *Country Profiles* (2002-present). The researcher anticipates discovering one-time reports or hitherto unknown resources while conducting archival research in the Educational Credential Evaluators library.

The resources adhere to one of two organizational paradigms. The first organizational model is that of a single volume offering information on a large number of countries or territories. These can either be limited to a continent/region or attempt to be comprehensive. The second organizational model is that of a compendium, usually offering a broader and deeper study of the country or region under investigation. The substance of these credential evaluation resources typically includes the following: (1) a preface or introduction to the reader explaining what is to follow and how it came to be; (2) a country-specific education overview; (3) detailed information about primary, secondary, tertiary, and professional education; (4) placement recommendations for the foreign credentials into the U.S. education system; and (5) a bibliography. Document analysis of these elements will be part of the methodology of this study.

2.3 ACCREDITATION, CREDENTIAL EVALUATION, AND INTERNATIONAL ENROLLMENT MANAGEMENT

The United States remains the number one destination in the world for higher education, as has been the case since records started being kept (OECD, 2015). The emergence of the UK and Australia as destinations for international students is now threatening U.S. preeminence. There is no comprehensive system of quality assurance or assessment that can be enforced by the government in the United States to govern higher education:

The U.S. Department of Education does not accredit educational institutions and/or programs. However, the Secretary of Education is required by law to publish a list of nationally recognized accrediting agencies that the Secretary determines to be reliable authorities as to the quality of education or training provided by the institutions of higher education and the higher education programs they accredit. (U.S. Department of Education, 2016b, para. 1)

Accreditation is often misunderstood as filling this role. There are quality assurance measures built into the standards of the regional accrediting bodies of the U.S., as well as the specialized accreditations of programs of international scope such as the Accreditation Board of Engineering and Technology (ABET), the Association to Advance Collegiate Schools of Business (AACSB International), and the Commission on Dental Accreditation (CODA), to name a few. However, each in its own way has a statement like the following:

> We respect the autonomy of each nation's higher education quality assurance organization and do not interfere with existing or future accreditation activities in countries outside the U.S. (Accreditation Board for Engineering and Technology, 2016)

This leaves a margin for interpretation and a necessity on the part of U.S. HEIs to level the same scrutiny at all international credentials to ensure proper recognition and placement.

University and program accreditation in the U.S. is a rigorous process that prompts institutions to conduct detailed self-evaluations of degree program curricula, infrastructure, campus resources, policies and procedures, extracurricular activities, faculty qualifications, and financial solvency, among many other factors (Young, Chambers, & Kells, 1983). The report is reviewed by a committee of peers, and final decisions regarding accreditation are made by the appropriate accrediting body. Accreditation does not result in a rank or elevation of any one institution or degree program above another. Provisional accreditation may be awarded when a deficiency is identified and needs to be remedied, or accreditation may be denied. Denial of

accreditation often leads to the termination of a program or institution. Additional authorization from a state government or regional body may also be a requirement to function in good standing. “Accreditation basically provides certification that an institution or program meets the minimum standards of academic quality and has the minimum resources deemed necessary” (Altbach, 2004, p. 265).

For some institutions, maintaining the financial resources necessary to meet even minimum standards set through accreditation has proven increasingly difficult. Over the past 20 years, many state governments have altered their funding patterns and generally reduced support of higher education (The Pew Charitable Trusts, 2015). Where funding has not been reduced, it is likely to be focused on a particular area of study or research need consistent with government-identified priorities (The Pew Charitable Trusts, 2015).

The system of peer-reviewed accreditation in the U.S. is complex, effective, and well-supported by a heavily invested academic community (Young et al., 1983). The system of accreditation in the U.S. does not assess foreign credential evaluation practices, however, leaving ample opportunity for uneven and unfair treatment of students with international academic records. The U.S. lags significantly behind E.U. systems of educational quality assurance (i.e., the Bologna Process). Simply put, the Bologna Process is an effort to align education systems and allow for easier recognition and economic mobility (Council of Europe, 2005; UNESCO, 2007; UNESCO and Commonwealth Department of Education Science and Training & Australia, 2003). The Bologna Process has led all participating nations, as well as partners and other world leaders, in examining best practices for foreign credential evaluations (Rauhvargers, 2004b). In academic program structure, however, the path in the U.S. is quite simple compared to other countries.

In many ways, the U.S. system can appear the most straight-forward in structure, although the opportunity for variance is vast. In the U.S., there is only one secondary credential and only one first university degree credential—the high school diploma and bachelor's degree, respectively. The substance of each can vary based upon any number of factors, including public/private, parochial, military, home-based, single-gender, and military. These variables are accounted for through the accreditation process. Neither the U.S. Department of Education nor any other government agency administers the accreditation process. Rather, it is coordinated by private education associations which function with both regional and national scope (Young et al., 1983). Special accreditations also exist within academic and professional disciplines. The leading university-accrediting body, recognized by academe and government alike, is the Council on Higher Education Accreditation (CHEA):

> Recognition by CHEA affirms that the standards and processes of the accrediting organization are consistent with the academic quality, improvement and accountability expectations that CHEA has established, including the eligibility standard that the majority of institutions or programs each accredits are degree-granting. (Council for Higher Education Accreditation, 2015)

The 6 regional accreditation organizations are as follows:

- Western Association of Schools and Colleges
- Higher Learning Commission (HLC)
- Middle States Commission on Higher Education (MSCHE)
- New England Association of Schools and Colleges (NEASC-CIHE), Commission on Institutions of Higher Education
- Southern Association of Colleges and Schools, Commission on Colleges (SACSCOC)
- WASC Senior College and University Commission (WSCUC)

The U.S. education system is less complex than the British system, which has three secondary qualifications and three different first university degree credentials (Tse, 2012). In turn, both the placement practices employed by most U.S. higher education institutions and the U.S. credential recognition scheme are also less complex. In Germany, a foreign credential may

not be recognized as comparable at all, and if it is recognized, it is subject to further classification into one of three different categories (Tse, 2012). In the UK and Australia, the academic performance of the student, the rigor of the coursework, and the ranking or recognition of the institution may play a role in qualification recognition (Tse, 2012). For most U.S. institutions, these are not credential recognition considerations although an admission committee may treat them as potent variables in the decision-making process.

Although the AACRAO Edge database is not a universal standard employed by all foreign credential evaluators, it represents a reasonable approximation of the placement recommendations used by many U.S. institutions. Many also employ the U.S. Department of State's EducationUSA offices, found in more than 200 locations (EducationUSA, 2013). AACRAO Edge recognizes the secondary credential of most countries as comparable to a high school diploma in the United States (AACRAO, 2015). This is the case regardless of the number of years necessary to achieve the qualification. Outside of vocational training, which is treated differently, the U.S. is quite generous in this respect. To put a finer point on the example, the Philippines usually awards secondary credentials after only ten years of academic study. This requires twelve years of study in the U.S., but most U.S. credentialers look past the literal assessment of age and years of study and consider what the credential signifies in the home country. Being a "land of opportunity," U.S. admissions offices at the bachelor's level are often acutely aware of the limited resources and paths to advancement available in some parts of the world. At the tertiary level, the equivalency of credits and hours of instruction time plays a significant role. The typical bachelor's degree in the U.S. (in a semester system) requires a minimum of 120 credit hours, the most common pattern for the completion of which spans four years (Vorderstrasse, Cummings, Schuning, Shier, & Watkins, 2001). Three-year degrees in the

UK or Australia are not viewed by most U.S. institutions as comparable to the U.S. bachelor's degree unless they are preceded by recognized mechanisms for advanced placement college credit, like the A-Levels, International Baccalaureate (IB) Diploma, or Advanced Placement (AP) exams (Tse, 2012).

The absence of a governmental body in the U.S. to monitor and guide international higher education has led to several efforts to address the needs of admissions offices across the country, offices challenged by the increase of international applicants not fitting into existing policies and procedures. Professional organizations and entities interested in the international admission project, including AACRAO, have supported the effort to create a systematic evaluation approach for all campuses. A milestone event in this effort was the Milwaukee Symposium in 1996, which sought to establish methodology for comparing U.S. and foreign education credentials (Fletcher & Aldrich-Langen, 1998). For the first time, post-secondary institutions had the opportunity to create a uniform process for consistent interpretation of foreign credentials, but inevitable variations began to appear between individual schools and colleges. While it is held that most in-house foreign credential evaluators are using a methodology that draws from the Milwaukee Symposium, it does not stop the evaluators from coming to different conclusions (Frey, 2014).

2.4 SAME CREDENTIAL, DIFFERENT EVALUATIONS

Reprinted with the permission of NAFSA: Association of International Educators, the table below comes from the October 2009 wRAP-Up Newsletter, a product of the Academic Credential Evaluation (ACE) Subcommittee of the Recruitment, Admissions and Preparation

(RAP) Knowledge Community (NAFSA: Association of International Educators, 2017). Ease of access, permission, and the clear illustration of disparity made this an ideal table (Table 1) to reproduce. However, the entire archive of volunteer-driven newsletters is publically available on the NAFSA website.

The researcher served for a period of time as the newsletter editor and has been a contributor to several editions. The credential evaluation section was always one of the most popular aspects of the newsletter. The editorial team strived to include a credential evaluation section that focused on each newsletter's overall country or region theme. Within the section, examples of several credentials were provided, along with a juxtaposition of several different HEIs' or proprietary companies' interpretations of these credentials. The goal was to provide readers with examples of how different institutions (e.g., public v. private, large v. small, 4-year v. 2-year) might interpret differently the same foreign academic credential.

Table 1. NAFSA wRAP-Up October 2009: Credential Evaluation Section

Reproduced with the permission of NAFSA: Association of International Educators

Credential name in original language:	General Certificate of Education, Advanced Supplementary Level Examinations
Country:	Egypt
Institution:	N/A
Recognition/Accreditation body:	University of Cambridge International Examinations
Prior level of education required:	11 years (General Certificate of Education Ordinary Level)
Official Length of program:	1 year
Time period covered:	1995
Program type:	General Secondary

	Cascadia Community College	**University of Findlay**	**University of Washington Bothell**	**University of Texas at Austin**	**Josef Silney & Associates**
What does this credential best represent? **a. less than a high school diploma**	B	A	A and B; high school level, but need more subjects passed to be	1/2 year of postsecondary study	None

Table 1 (continued)

b. high school diploma; minimal requirements, benchmark credential; gives access to "open door" institutions **c. high school diploma; vocational/technical preparation** **d. high school diploma; college preparatory program**			high school completion		
Would you consider this credential to represent adequate preparation for consideration for freshman admission to your institution? (yes/no) If not, please indicate what credential you typically require from this country.	Yes	No; need complete A-levels	No; need O-levels in addition to any AS level exams	No, not necessarily. We require 5 "O" Level passes in addition to this credential.	No; Egyptian high school or 5 passes on the GCSE or "O" levels
What grading scale conversion would you use (if any) to calculate the GPA for this credential on a 4pt scale?	N/A	4pt scale A-F	4.0 (A); 3.5 (B); 3.0 (C); 2.0 (D); 0.0 (E)	We do not convert grades to a 4pt scale.	A = A+; B=A; C=B; D=B-; E=C; F=Fail
Would your institution consider advanced placement/credit for this credential? (yes/no)	No	No	No	Yes	Yes
If you feel this document should not be accepted as official, please indicate why not.	--	It is official	--	Acceptable as long as it has an official watermark.	Acceptable

The first row of Table 1 makes evident that the same credential will be treated differently by different institutions: the community college recognizes the credential as a diploma appropriate for admission; the University of Findlay views it as less than a high school diploma; the University of Washington Bothell has a customized interpretation; the University of Texas at Austin will award post-secondary credit; and no evaluation was offered by the proprietary institution Josef Silney & Associates. Therefore, students may shop for where their credential has the most value. The subsequent rows in Table 1 reveal differences in interpretation regarding freshman year preparation, grade scale interpretation, advanced standing credit, and the status of the document as official or unofficial for use in the admissions process.

2.5 APPROACHES TO RESOLVING THE PROBLEM OF EVALUATIVE DIFFERENCES: CUSTOMIZATION VERSUS STANDARDIZATION

2.5.1 An Overview of Customization

Customization allows institutions to establish their own rubrics for evaluating foreign academic credentials, independent of any national standards. The challenges faced by credential evaluators on a routine basis are usually unfamiliar and complex. Professionals may get accustomed to seeing the same credentials from feeder countries or institutions, but it is also common for entirely new scenarios to present themselves that may take days to research and understand before an evaluation can even begin. Real-world scenarios that credential evaluators face include the following:

- A student is applying for a Master's in Epidemiology after completing a 3-year Bachelor's degree at Pembroke College, a subsidiary of Oxford University. The student does not have a transcript, only a diploma and a Bologna Diploma Supplement. Admission to university-level studies in the UK requires completion of the GCE A-levels as an entry credential. Is this going to be treated differently from a 3-year bachelor's degree earned in India, Australia, or China? Why?
- Two students both have a credential called a Licenciatura, but one is from Argentina and the other is from Brazil. Can these credentials be treated the same?
- A student from Russia has a Specialist Diplom credential. You know that it is a first degree, but he says that it's a master's degree. His friend and fellow Russian is with him when you are reviewing his credential and wants to know if his Baklavr can also be considered a master's degree.

Customization leads to confusion for U.S. higher education writ large, as evidenced by the recent American Association of Collegiate Registrars and Admissions Officers (AACRAO) and Association of International Credential Evaluators (AICE) survey on institutional practices associated with 3-year degrees and graduate admissions. Much like the NAFSA wRAP table above, this survey typifies the efforts by volunteers within professional organizations to better understand the practice of their peers. Although credential resources exist, foreign academic credential evaluation varies widely among HEIs. Although results for the AACRAO/AICE survey have not yet been compiled, the questions themselves reveal the wide variety of anticipated answers. A few examples are as follows:

1. Does your institution require completed undergraduate programs to be at least 4 years in duration for admissions eligibility into your graduate programs?
    - Yes
    - No
    - On a case-by-case basis
    - I don't know
2. If your institution ever considers 3-year bachelor's programs as eligible for graduate admissions, please select the type of 3-year programs below that you believe to be eligible:
    - We do not accept 3-year programs as eligible for graduate admissions
    - Australian 3-year programs
    - 3-year programs from Canadian Provinces
    - European / Bologna 3-year programs
    - Indian 3-year programs
    - Other 3-year programs not included here

- I don't know

3. Does your institution consider how international undergraduate programs provide access to graduate programs in the home country when determining eligibility for admissions to your graduate programs?
   - Yes
   - No
   - On a case-by-case basis
   - I don't know

Accreditation in the U.S. comes with an expectation of consistent policies and procedures (Higher Learning Commission, 2017), yet the wide range of responses anticipated by the survey items does not comport with institutional consistency. In fact, US HEIs approved by the same accrediting organization can exhibit great variance in credential evaluation. Moreover, the potential for this variance exists even within the same institution, resulting in an uneven treatment of applicants. This endemic inconsistency makes U.S. higher education appear haphazard to the rest of the world and poses challenges to student and HEI partners.

2.5.2 Customization in Practice

How an HEI customizes an interpretation of a foreign academic credential is as varied as the institutions themselves. Common types of customization include (a) interpreting grading scales and (b) campus or program specific positions on three-year degrees. Factors that may influence the customized interpretation include student success initiatives, the amount of institutional support for students with low proficiency in math or English, the competiveness of the program admissions processes, faculty expertise in a given region or discipline, and availability of information to the credential evaluator to make an informed decision.

Grading scales are thought of as being generous or severe. A severe grading scale implies that only in rare circumstances will students achieve a top mark. The French grading scale is

typically 0-20, with 20 as the top mark. “On this scale, the best students usually earn between 14 and 20, with grades of 17 and above rare. A grade of 12 or 13 is quite good, and an average of 10 represents work that merits promotion or the conferral of a diploma” (Wanner, 1975, p. 14). It is not clear what should be treated as comparable to a 4.0/4.0, or what may be deemed comparable to a 3.0/3.0. Institutions come to a determination that should be applied consistently across all programs, but there is no measure to assure this. A generous grading scale is equally as challenging. It is common to find 0-100 grading scales in China, where 80-100 is profiled as being an ‘A’ mark. Students with 81 averages and 85 averages may report that they have 4.0 GPAs on resumes.

Three-year post-secondary degrees are increasingly common. Australia, China, India, Spain, the United Kingdom, Bologna signatories, and many more countries offer their own unique variety. At face value, many evaluators would say that a three-year bachelor’s degree is not equal to a four-year bachelor’s degree. The discussion usually begins with what access the degree grants the awardee in their home country. Further, evaluators will count the number of years of study leading to the completion of the degree as a determining factor on equivalency. Other will investigate the content of the degree and assess for the likelihood of success in the institution evaluating the credential. Others will critique that the three-year degree does not contain electives or Liberal Arts components. It has been this researcher’s experience that a three-year degree from India was reviewed for routine admission into an MBA program after a cohort was admitted and closely monitored. Because these students were successful, all three-year Bachelors of Commerce degrees from India were recognized for admission into the MBA program, although these same students would have been denied admission to all other programs at the institution on the basis of not having a credential comparable to a four-year bachelor’s

degree from an accredited institution in the U.S. It has also been this researcher's experience at a different institution that all three-year degree were recognized for entry into all graduate level programs. These models influence student choice and enrollment counts.

2.5.3 An Overview of Standardization

During the period from 1932-2015, as higher education became increasingly globalized, so too did credential evaluation. With globalization came privatization and a push in many countries to standardize the foreign credential evaluation process through resources governed at a national level. The U.S. lacks standardization comparable to what is held in the Australian Country Education Profiles (CEP) database, the German Recognition & Evaluation of Foreign Educational Qualifications database, or the International Comparisons database in the United Kingdom's UK NARIC: National Recognition Information Centre. A lack of nation-level standardization leaves institution-level customization to fill the credential evaluation vacuum. Faculty may perceive nation-level standards as a threat to their autonomy in admitting students they deem admissible, but standardization does not strip institutional authority at the point of admission. Instead, standardization affects how credentials are evaluated before an individual student reaches an admission committee, ensuring that committee members are comparing applicant credentials in a fair manner. There is also the concern that U.S. foreign credential evaluation standardization would become mired in troubles comparable to the process to establish a common core curriculum in U.S. primary and secondary education.

2.5.4 Standardization in Practice: The Lisbon Recognition Convention

U.S.-based foreign credential evaluators have significant responsibilities. Absent a national system of standards, decisions are made at college and universities with ramifications that may last a lifetime (Gollin, 2015). Credential evaluators that serve academic institutions are most often focused solely on academic recognition for placements and study in a non-native education system for advanced study. The credential evaluation companies that have developed in recent decades, and most notably those with membership in the National Association of Credential Evaluation Services (NACES) founded in 1987, also consider professional qualification for advancements in the labor market.

Europe leads the world in harmonizing education systems across boundaries and establishing placement recommendation standards. In 1997 the Council of Europe/UNESCO Convention on the Recognition of Qualifications concerning Higher Education in the European Region was convened. This lengthy name is often abbreviated to just the Lisbon Recognition Convention (Council of Europe, 2005). The convention outlines the following principles for the recognition of academic qualifications throughout the European higher education area:

- Holders of qualifications issued in one country shall have adequate access to an assessment of these qualifications in another country.
- No discrimination shall be made in this respect on any ground such as the applicant's gender, race, colour, disability, language, religion, political opinion, national, ethnic or social origin.
- The responsibility to demonstrate that an application does not fulfil the relevant requirements lies with the body undertaking the assessment.
- Each country shall recognise qualifications—whether for access to higher education, for periods of study or for higher education degrees—as similar to the corresponding qualifications in its own system unless it can show that there are substantial differences between its own qualifications and the qualifications for which recognition is sought.
- Recognition of a higher education qualification issued in another country shall have one or more of the following consequences:

- access to further higher education studies, including relevant examinations and preparations for the doctorate, on the same conditions as candidates from the country in which recognition is sought;
- the use of an academic title, subject to the laws and regulations of the country in which recognition is sought;
- in addition, recognition may facilitate access to the labour market (Council of Europe, 2005).

No such framework exists in the U.S., and international students are at a significant disadvantage as a result. Although there may not be evidence of a nefarious and systematic effort to exploit international students in the U.S., the autonomous nature of U.S. higher education allows for individual academic institutions to make their own placement recommendations that may be uninformed and/or applied inconsistently (Freeman et al., 2015). Further, a market of applicants to U.S. institutions and a market of academic institutions creates credential evaluation competition, and there is a real temptation to favor one group over another where an economic motive is involved (Hegarty, 2014). In many cases, the international students do not know the correct value of their academic credentials, and the desire to study in the U.S. obviates any misgivings about the process (Waters, 2009). They may also be tempted to go with a credential evaluator with a reputation for generous interpretations rather than a credential evaluator known for accuracy and student success.

Forty-five of 47 member-states of the Council of Europe, and nearly a dozen non-member states, have signed and ratified the Convention (the U.S. signed but did not ratify) stating all countries should:

- develop procedures to assess whether refugees and displaced persons fulfil the relevant requirements for access to higher education or to employment activities, even in cases in which the qualifications cannot be proven through documentary evidence;
- provide information on the institutions and programmes they consider as belonging to their higher education systems;
- appoint a national information centre, one important task of which is to offer advice on the recognition of foreign qualifications to students, graduates, employers, higher education institutions and other interested parties or persons. In a limited number of

countries, the information centre may make recognition decisions, but in most countries, this authority lies with other bodies. For academic recognition, decisions are normally made by higher education institutions; and

- encourage their higher education institutions to issue the Diploma Supplement to their students in order to facilitate recognition. The Diploma Supplement is an instrument developed jointly by the European Commission, the Council of Europe and UNESCO that aims to describe the qualification in an easily understandable way and relating it to the higher education system within which it was issued (Bergan, 2009).

The Lisbon Recognition Convention protects international students who desire to study in the U.S. from the vicissitudes of the ill-conceived foreign credential evaluation process. The European Network of National Information Centers (ENIC Network) provides information to parties seeking an understanding of the comparability of degrees and labor qualifications across borders. The ENIC Network works closely with the Network of National Academic Recognition Centres (NARIC) of the European Commission. In many instances, the staffs of these two bodies overlap (Bergan, 2009).

The increased importance of foreign credential evaluation brought the need for explicit procedures regarding make-up of a qualification or credential. The Lisbon Recognition Convention identified five elements:

- Level—position within an education system's hierarchy
- Workload—like a Carnegie credit, the amount of work necessary to complete a unit of study
- Quality—the work must meet a high enough standard
- Profile—the nature of the issuing institution or the unique characteristics of the qualification or program
- Learning outcomes—an expectation of what the student has learned as a result of earning the qualification (Council of Europe, 2005).

The Lisbon Recognition Convention established a platform from which qualifications with substantial differences could find common ground. It also created a framework that prioritized student success over economic motivations that would not tempt an education

provider simply to enroll students with the expectation of "bringing them up to speed" once the students are in the classroom:

> Recognition is perhaps not an aim in itself, but fair recognition is a key instrument to improve academic mobility as well as the mobility of those who hold qualifications and wish to move for professional reasons. Fair recognition is an important means for society to make best use of its talents, and it is also an important instrument in furthering individual justice. (Bergan, 2009)

2.6 IN SUPPORT OF THE RESEARCH QUESTIONS

Each research question posed in this study (Section 1.2) extends from the literature or addresses a gap in the extant literature. Research question #1 (i.e., "What kinds of information do placement recommendations generally provide, and what lends credibility to that information?") seeks to (a) isolate the fundamental substance of the placement recommendations and (b) assess the validity of the source of the information. The literature does not yet address this topic in any substantial way, especially in a U.S. context. The ENIC and NARIC networks of Europe (cited here for their relation to the U.S. project) address overseas government resources but have nothing to say regarding U.S. foreign credential evaluation resources and placement recommendations.

Research question #2 (i.e., "What changes did academic credential placement recommendation styles undergo during the period from 1932 to 2015, and what impact did these changes have on the expectations of credential evaluators?") explores the changes in the resource texts over time and the impact these changes had on the expectations of credential evaluators. A

thorough study of placement recommendation styles during this period must seek to understand not only the resource texts that were produced but also the reports from the professional organizations heavily involved in securing funding and supplying the manpower to generate these resources. Tse's Approaches to International Degree Recognition: A Comparative Study is the best among very few efforts exploring this topic.

Research question #3 (i.e., "To what extent can the 1932-2015 changes in academic credential placement recommendation styles be linked to the factors of globalization, internationalization, massification, and marketization [GLIMM]?") examines links between globalizing forces and observed changes in placement recommendation materials during the target period. Chan's work on international cooperation in higher education and Dale's work on globalization in education demonstrate (a) how these forces are impacting economies globally and (b) how conflicts can arise when these forces oppose one another.

Finally, research question #4 (i.e., "In response to potential dilemmas resulting from the 1932-2015 changes in credential evaluation materials, what approaches have credential evaluators employed?") examines links between changes in credential evaluation resources and strategies used by credential evaluators. The NASFS wRAP-Up newsletter is cited to show one means by which these trends can be tracked, as well as a survey conducted jointly by AACRAO and AICE. What is evident is that HEIs are using different strategies in accordance with the different information available, thereby making context-contingent decisions regarding the admission of international students. Understanding those strategies and what changes in the resource texts informed them is at the heart of this study.

3.0 METHODOLOGY

The study employs naturalistic qualitative research design with a two-step analysis of the target resource documents: (1) constructivist typological study and (2) substance analysis. Both steps were applied in collecting data to gain a better understanding of (a) the evolution of foreign academic credential resources, (specifically the placement recommendations for entry into graduate studies) and (b) the role of GLIMM factors as influencers of resource evolution. The study is an analysis of text and evaluation style changes over time, not the countries that are the subject of those texts. The conceptual framework for the study analysis is the impact of GLIMM both on U.S. HEI and on foreign academic placement recommendation texts informing admission practices at U.S. HEI. The substantive aspect of the present analysis is that the GLIMM factors best elucidate the development and application of foreign academic credential placement recommendations.

3.1 DATA COLLECTION OVERVIEW

In order to complete this research project, the following tasks were completed:

3.1.1 Sampling:

Evaluating Foreign Educational Credentials in the United States (Frey, 2014) documents five principal credential evaluation resource production efforts between 1932 and 2015. These credential evaluation publications have many volumes addressing nearly every country or territory, while subscribing to a similar publication format and methodology. Starting with the first year of publication, samples were selected at five-year intervals for the duration of series publication. Country updates were not published annually, so the same country could not be used for each time interval. The volume to be used for the analysis was selected at random from the appropriate year. In cases where prominent one-time reports were issued from leading authorities in the field of credential evaluation, the report was included in chronological order to help inform the understanding of changes in practices over time.

3.1.2 Typology Selection:

The researcher's committee assisted in designing the typological analysis. The categories for analysis were selected to help frame critical aspects behind the motivation to create the credential evaluation resources, the approach employed in the study of education systems, and the placement recommendation styles produced.

3.1.3 Substance Analysis:

Through this qualitative research method, the researcher captured the substance of the credential evaluation resource's contents. Once recorded, an analysis sought the significance of the resource at the time of publication in addition to informing an analysis of trends in the changes these publications underwent over time.

3.1.4 Resource Collection and Analysis:

The researcher traveled as needed to the archive held at Educational Credential Evaluators, which contains over 35,000 resource texts. The oldest resources date back to the early 1900s. The library is organized by geographic region, with a system in place to save fraudulent documents from each country for future reference. An effort is underway to digitize as many of these resources as possible. Although they were not all included, over 200 texts were reviewed in the course of this study.

3.1.5 Recording of Results:

In order to analyze the change in placement recommendation styles, the leading credential evaluation resources between the years 1932 and 2015 were collected. A chart (Appendix C) listing the resource names, typological categories, primary characteristics, and placement recommendations was designed. Once the resources were identified and collected by the researcher or at ECE, each volume was read in its entirety. With the typologies and substance areas framed within the tables that would become Appendix C, the researcher began to catalog

key data points, trends, and observations. Layout patterns emerged within series that expedited the review of volumes within a series set. Upon completion of review of a volume, the table was read for thoroughness before advancing to the next volume.

In terms of globalization, internationalization, massification, and marketization (GLIMM), changes were identified that occurred within and among the credential evaluation resources during the established timeframe. Evidence of the effects of GLIMM should be evident where there is tension between texts, such as shifts between generous or severe interpretations of credentials, or where there are student-consumer models versus HEI-consumer models. An analysis of these changes is summarized in Chapter 4.

The research sites for this study are the sites where the documents are housed. They include the following:

1. Educational Credential Evaluators (ECE): Founded in 1980 in Milwaukee, WI, ECE is a leading third-party provider of foreign academic credential evaluators for higher education, industry, and the U.S. Government. The ECE graciously made available its extensive set of resources (i.e., more than 35,000 volumes and 350,000 sample educational credentials in both physical and electronic formats) for this study.
2. University of Pittsburgh: The Office of Admission and Financial Aid made its foreign credential evaluation resource library available for this study. A site visit to access the required volumes was not necessary as ECE's recourses were comprehensive.
3. University of Colorado Denver: The Office of International Affairs made its foreign credential evaluation resource library available for this study. Several texts were used from this library including the *IERF New Country Index* and several volumes from the *AACRAO World Education Series*, although they also existed at ECE.

3.2 DATA COLLECTION APPROACH

An unobtrusive constructivist approach to gathering data through document analysis allowed for the construction and re-construction of present and past realities. The document analysis took a two-pronged approach, a typological study and an analysis of the documents' substance. The objective of the analysis was to understand (a) what the authors intended for the placement recommendations, (b) how the placement recommendations were used, and (c) what happened as a result of authors changing over time will add to the richness of the study. Thorough analysis of these changes best captured the evolving, dynamic field of foreign credential evaluation.

There are different philosophies for analyzing foreign education systems because there is no definitive way to conduct an assessment. Practitioners can argue indefinitely over the risks and benefits of various approaches (counting years of study, volume of subject-specific coursework, application of severe, or generous grading scale interpretations), but there is consensus about the need for best practices, consistent application, and the importance of making a determination centered on student success. The 1996 Milwaukee Symposium was one such effort to establish best practices, and the recent call by UNESCO for a Global Convention on the Recognition of Higher Education Qualifications shows the continued relevance of international dialogue.

Document analysis relies on data that can be gathered unobtrusively. Historical documents appeal to an ontology that acknowledges the multiple, interpretable realities experienced by individuals, and unobtrusive data are said to be "nonreactive in the sense that they are not filtered through the perceptions, interpretations, and biases of research participants" (Webb et al., 1981, p. 116). It is also widely cautioned for researchers to be careful when studying their own context because it is often difficult to pull back from insider perspectives and

see things through the eyes of a researcher. “Documents can provide a behind-the-scenes look at institutional processes and how they came into being” (Patton, 1980, p. 158).

3.2.1 Typology

The researcher’s committee assisted in designing the typological analysis in response to practice and the literature. The categories for analysis were selected to help frame critical aspects behind the motivation to create the credential evaluation resources, the approach employed in the study of education systems, and the placement recommendation styles produced. The typologies were determined by noting the main elements in most resource texts, the qualities Chan (2004) observed as influenced by GLIMM, the factors used by Tse (2012) in her comparative study, and the intellectual interests of the Investigator. It was found that these characteristics underwent changes over time and this study recorded those changes to identify trends and examine how they were impacted by the GLIMM factors.

3.2.2 Document Substance Categorization

Beyond categorizing important aspects of each resource, this study seeks to capture the substance of each text, how it may have changed over time, and if the GLIMM factors can be attributed to the addition or deletion of information. Through this qualitative research method, the researcher will enter the substance of the credential evaluation resource contents into a table. Once recorded, an analysis will show the significance of the resource at the time of publication in addition to informing an analysis of trends in the changes these publication underwent over time.

3.3 DATA ANALYSIS

Data were collected to conduct a typology analysis (Hatch, 2002). The five typologies that informed the review of all credential evaluation resources being studied are as follows:

1. Authorship of the publication (i.e., whether the guide was produced by an individual or by a committee, and what the motive was for producing the guide)
2. Funding of the publication (i.e., whether the resource reports its funding source [a private funding source may indicate a profit motivation])
3. Placement-recommendation paradigm (i.e., whether the guide offers [a] a specific placement recommendation for a credential earned in a foreign education system or [b] only a general background is provided, affording the reader the opportunity to make an 'informed,' independent placement recommendation)
4. Methodology behind the placement recommendation (i.e., whether the methodology to derive the placement recommendations is outlined for the reader to consider)
5. Scope of research (i.e., whether the resource [a] represents a thorough investigation of the education system at the primary, secondary, tertiary, professional, and medical levels or [b] provides only a high-level summary)

Data collection drew upon resources offering placement recommendations. The period from 1932-1971 represents the first wave of foreign credential evaluation and placement recommendation resource development. The second wave lasted from the 1974 incorporation of World Education Services through the 1996 culmination of the Milwaukee Symposium. The third period of foreign credential evaluation resource development examined in this study (1999-2015) began with NAFSA's introduction of online country profiles and continued with a steady introduction of additional online reference materials.

The analysis of the documents was part of a two-tiered scheme. First, the documents were reviewed and entries marked according to each of the established typologies, paying careful attention to the static timeframe to which each artifact belongs. An investigation into each typology distilled the observations found in each document to brief summary statements (e.g., typology 1, authorship, recorded as individual or committee; typology 2, funding, recorded as for-profit or non-profit). The influences of GLIMM factors (Chan, 2004) were considered as lenses for understanding the static and dynamic changes observed in the artifacts in part two of the study, the substance analysis. Summary tables record the main ideas from each typology, and the researcher looked for relationships, patterns, and themes within each typology that corresponded to the major themes found during the substance analysis. The data were then revisited to determine if the patterns were truly supported by the data or if patterns existed that were not supported by the data.

Analysis began once all of the data were collected. It was expected that patterns related to resource authorship would emerge, showing different trends within (static) and across (dynamic) each timeframe. Hatch (2002) suggests that having a basic idea of what the findings will look like—without biasing the outcomes—helps researchers think about what they are doing at each step. Wolcott (1994) identifies three characteristics that shape most qualitative findings: description, analysis, and interpretive. Analysis, "which for Wolcott means transforming data by way of searching for relationships and key factors that can be supported by evidence in the data" (Hatch, 2002, p. 58), will be the primary characteristic of this study's findings. Data excerpts provided the case for accuracy of interpretation. Description and interpretive aspects of the findings were manifest in the clear context that gives each artifact meaning (Hodder, 1994). The forces of GLIMM provided (a) the theoretical framework for understanding the substantive

phenomena contained in each artifact and (b) context for the anticipated changes over time that will be observed and likely bound to human productive capacity and its translation into economic achievement.

4.0 RESEARCH FINDINGS

The purpose of this study is to determine what information academic credential placement recommendations offer, if and how that content and those styles changed, and if the forces of massification and marketization resulting from globalization and internationalization (GLIMM) inform the nature of those changes. The data collected for analysis in this study is available for review in Appendix C. The results of this study are presented below in two sections, following the methodology established for typological study and a substance analysis, each with five sub-sections. Key takeaways are noted with an RQ for 'research question' and a 1, 2, 3, or 4, to easily demonstrate the relationship between outcomes and research questions posed. Each typology and substance area is described, interpreted, and evaluated to facilitate answers to this study's four research questions. The purpose of this summary is to show a relationship among the five typologies, five substance areas, and the role the GLIMM factors may have played in the changes observed in the production, contents, and use of these resources over time.

In the early years of international student admission into U.S. colleges and universities, in-house credential evaluators were surprisingly limited in their resources. Even with the introduction of pamphlets and bulletins through the Office of Education as early as 1932, staff tasked with understanding foreign educational systems had very little to go by compared to the abundance of information available today (both paucity and surfeit of information offer unique challenges).

The present study examined 49 individual volumes across 16 different texts, including one-time publications and selections from different series. The study did not focus on individual countries, but rather the texts themselves (Table 2). The researcher wanted to catalog (a) the kinds of information and placement recommendations generally provided, (b) why the information and recommendations were credible or non-credible, (c) changes in this information during the time period under investigation, (d) if and how these changes can be linked to GLIMM, and (e) how in-house credential evaluators have responded.

Table 2. Primary Resource Texts

Text Designation	Year(s) of Publication	Category	Text
A	1932-1970	Series	US Department of Health, Education, and Welfare – Office of Education, International Education Relations (1932-1970)
B	1952	One-time Publication	Educational Systems of the World: Interpretations for Use in Evaluation of Foreign Credentials
C	1957-1989	Series	The World Education Series (1957-1989)
D	1962	One-Time Publication	A Guide to the Admissions and Placement of Foreign Students (Institute of International Education in cooperation with The American Associate of Collegiate Registrars and Admissions Officers, World Education Series
E	1966	One-Time Publication	Do-It-Yourself Evaluation of Foreign Student Credentials, World Education Series
F	1966	Series	IIE: Guidelines for the Admissions and Placement of Students from Taiwan and Hong Kong
G	1971-Present	Series	The IERF Country Index (1971-Present)
H	1978	One-Time Publication	The Admission and Academic Placement of Students from Selected South American Countries: Brazil, Bolivia, Paraguay, Uruguay
I	1981-2003	Series	AACRAO: Foreign Educational Credentials Required
J	1983	One-Time Publication	AMIDEST: Education in the Middle East (Algeria, Bahrain, Cyprus, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Syria, Tunisia, United Arab Emirates, West Bank and Gaza Strip, Yemen Arab Republic)
K	1983	Series	AMIDEAST: Country Report
L	1986	One-Time Publication	A P.I.E.R. Workshop Report on South Asia: The Admission and Placement of Students from Bangladesh, India, Pakistan, Sri Lanka
M	1989-2004	Series	The P.I.E.R. Country Profiles (1989-2004)
N	1990-Present	Series/ Web Series	NAFSA: Handbook on the Placement of Foreign Graduate Students

Table 2. (Continued)

O	1992-Present	Series	ECE Presents
P	2004-Present	Web Series	AACRAO edge

4.1 TYPOLOGICAL STUDY

The researcher's committee assisted in designing the typological analysis, and this methodology is well supported by the literature (Hatch, 2002; Hodder, 1994). The categories for analysis were selected to help frame critical aspects behind the motivation to create the credential evaluation resources, the approach employed in the study of education systems, and the placement recommendation styles produced.

4.1.1 Authorship

Although credential evaluation resources have taken many shapes and sizes, there are discernable trends with regard to how they have been authored. For most of the earliest volumes, a single author or editor is credited and the product is very brief. Over time, the resources expanded in length, covering a hundred or more pages per country. However, these volumes took years to compile, edit, and get published. With Sasnett as the notable exception, it was not until the 1970s that efforts to create publications with a standardized entry for the majority of countries began. In these cases, dozens of authors or contributors are acknowledged, each accountable for one or several of the county profiles. The trend went from single authors of short volumes, to single authors or small committees creating in-depth volumes on one country, to many contributing authors providing short entries for large volumes intending to address the majority of countries. There are exceptions to this trend.

The earliest credential evaluation resources were authored by impassioned individuals responding to a recognized need for information. The demand for the information would not grow until several decades later after World War II and the massification of international student enrollment at U.S. institutions of higher learning. The internationalization of higher education in the U.S. in response to globalization created a demand for information among those tasked with assessing foreign academic credentials (RQ3). In turn, those same individuals who were active in associations like AACRAO and NAFSA sought funding to cover out-of-pocket expenses to conduct the necessary research to allow credential evaluators to make informed decisions regarding their international applicants. The Funding typology and substantive review of introductions and prefaces cataloged in Appendix C bear this out repeatedly. The National Council on the Evaluation of Foreign Credentials was formed in response to the desire among higher education institutions and related associations to bring quality assurance measures to resources being produced (RQ4). In many cases where an individual author or editor is credited for a publications, NAFSA, AACRAO, PIER, JCOW, or one of several other associations is also credited as a supporting entity.

4.1.2 Funding

The importance of foreign credential evaluation resources is made evident by the sustained funding to produce them over the past seven decades. The earliest resources were funded and produced by the U.S. government, a service that was terminated during the Nixon administration. The U.S. government has been a long-standing supporter of credential evaluation resource production under many different names. These have included the U.S. Department of Health, Education, and Welfare (USDHEW); Office of Education; Institute of International Students;

Agency for International Development; Office of International Training (AID/OIT); Bureau of Educational and Cultural Affairs; and the U.S. Department of State. The primary funders have remained the same throughout most of the past half-century, including AACRAO and NAFSA, sometimes known as JCOW or PIER, IIE, AMIDEAST, and ECE (RQ2). A variety of special interests have served as sponsors for publications focused on particular countries or regions. Only in the 21st century has an online platform allowed for a subscription service to routinely updated online resources.

Arguably the most important source of funding has been the incalculable number of volunteer hours from authors, editors, and contributors. There is no evidence that any of these individuals ever received monetary compensation for their time and energy, aside from those already working for one of the aforementioned organizations. The government officials initially tasked with generating credential evaluation reports, and later with generating the pamphlets and bulletins that served to inform a broader audience, were certainly paid. However, when the onus of responsibility shifted to professional organizations, individual compensation was lost. The 1960s was a period of great interest in credential evaluation and resource production. With increased flow of international students to the U.S., many more U.S. institutions wanted credential evaluation resources. Organizations like AACRAO and NAFSA created a national platform for discussion, and the genesis of the National Council for the Evaluation of Foreign Educational Credentials created a mechanism for identifying potential authors, funding, and quality assurance regarding the research and placement recommendations produced (RQs 2, 4). In 2006, the National Council disbanded for a number of reasons, including lack of funding and declining interest among participating members. The introduction of the Internet has created a space for a lot more individual research and ease of access to overseas partners. Website hosting

for volunteer work and subscription services, in addition to paying for publications produced by the major credential evaluation services, has replaced what once was.

During the period from 1932-2015, the funding of credential evaluation resources shifted from the U.S. Government, to non-profit membership association, and then further diversified into for-profit and non-profit delivery modalities. The marketization of knowledge production has resulted in the segmentation of credential evaluation resource production (RQ2). Private credential evaluation services, mostly for-profit, fill the need that was once filled by ongoing production of credential evaluation resources (RQ2). Where in-house credentialers prevail, online subscription services and the purchase of texts from the credential evaluation services allow for libraries and information banks to be kept current. In-house credentialers are often near-entry-level positions, not positioned to conduct research or engage in the broader community through professional organizations as had been the case in previous decades.

4.1.3 Placement Recommendation Style

It is convenient for an in-house credential evaluator to reach for a resource on a specific country and find a table that provides the U.S. equivalency for the foreign academic credential in front of her/him. It is convenient, but it is uncommon for reasons explored in the following typology, Methodology.

The earliest resources did not offer any placement recommendations. They provided enough context for the evaluator to make an informed decision. If guidance was provided, it was narrative open to interpretation. This model worked while U.S. international enrollment remained low. IIE reports that international enrollment did not break 100,000 until 1966, but subsequently, it exceeded 200,000 in 1976 and 500,000 in 1999. Today, there are over a million

international students studying in the U.S., and reading hundreds of pages to establish context is not practical for most in-house credential evaluators (RQs 2, 3). In many cases, evaluators simply need to establish degree equivalency for professional programs or licensure. If an HEI invests properly in staff and resources, this can be achieved.

Many HEIs do not have a team of dedicated credential evaluators for their international admission operation. At best, more than one person has this responsibility built into a broader task portfolio. Credential evaluation services are a potential solution, but many institutions consider it a competitive edge in recruitment *not* to compel applicants to pay for a third-party evaluation service. Credential equivalency tables appear with more frequency in the 1980s (see texts C, I, and L). They are not true equivalencies, but they are informed alignments of educational achievements at critical junctions between different systems (RQ1). At times, education ladders provide a de facto placement recommendation by showing which credential similar-aged students are typically pursuing. Occasionally, resources have been created to provide a systematic approach for in-house analysis of foreign credentials, amounting to what documents to collect, what excuses not to accept, and some general principles of drawing comparabilities.

An exception to the trend is the Text Series G (Appendix C), first published in 1971. It has always contained placement recommendations or advice and covered a large number of countries and education systems. In contrast, editions of Text Series O (Appendix C), with few exceptions, have never offered placement recommendations but provide rich descriptions of educational systems in single-country volumes.

Massification and marketization of international student enrollment changed many of the credential evaluation resources being produced. While most still provided an in-depth

background for context, the 1980s and 1990s brought an emphasis on equivalency tables to Text Series C (Appendix C) and Text Series M (Appendix C) (RQ1). This tracks with an increase in international student enrollment and practitioners' need for quicker processing time (RQ4). In many of the resource texts analyzed for this study, it was not uncommon to find dog-eared pages, bookmarks, or other placeholders indicating the location of the equivalency tables. Additionally, other authors abandoned the equivalency tables for recommendation embedded in the text, perhaps to encourage the reading of content for context. However, even in these cases, highlighted sections and post-it notes were commonly found in the resource materials, ways to help credentialers and researchers quickly find the most pertinent information.

4.1.4 Methodology for Determining the Placement Recommendation

Credential evaluation is not an exact science. A case can be made today that two bachelor's degrees, one from an Ivy League school and another from a new online provider, are not and could never be equal, but they are both recognized as bachelor's degrees for accredited U.S. institutions. Equivalencies are even more complex across borders and cultures. There are two leading schools of thought when it comes to the evaluation of foreign academic credentials. The first is based on years of study, considering two students with 12 years of academic study each to be roughly equally prepared for undergraduate study. The other school of thought focuses on access rather than years (i.e., what a credential will grant access to in the native educational system). The easiest example for illustrating this access-based approach is that of the three-year bachelor's degree common in many countries. Someone positing that an international student with a three-year bachelor's degree should be granted access to U.S. graduate-level study will be entering a firestorm of debate. Not all three-year bachelor's degrees are created equal.

Most of the earliest credential evaluation resources provided neither a placement recommendation nor a corresponding methodology (RQ1). Text B (see Table 1) was among the more generous, having provided an appendix on 'Building a Foreign Credential Evaluation Desk.' In the 1960s and 1970s, the methodology was not explicitly stated, but it could often be derived whether a year-counting or benchmarking (i.e., access-based) strategy was being employed. A 1977 volume in Text Series C (Appendix C) stated the following:

The General Placement Recommendations that follow are based on *quantity* (number of years) rather than *quality*. The reader is urged to apply these "quantity assessments" in combination with (1) the quality clues described in the General Considerations section above and (2) the information on curricular content outlined in Chapters Three and Four and in Appendix B. (p. 65)

The 1982, 1987, and 1989 volumes of Text Series C (Appendix C) stated the following:

- Recommendations are not directives, apply them flexibly rather than literally.
- In voting on individual recommendations, Council decisions are made by simple majority. Although consistency among volumes is sought, some differences in philosophy and practice may occur from volume to volume. (p. 220, p. 255, p. 63)

In Text D (Appendix C), a combination of year-counting and benchmarking is used, and the reader is advised to base decisions on the likelihood of student success. In the first edition of Text G (Appendix C), readers are cautioned that the text alone should not be the basis for an admission decision. In the 2004 edition, readers are told to be mindful of the distinction between degree equivalence and preparation to do more advanced work. Although a methodology is not explicitly stated, the Text Series M (Appendix C) provides two pages of text to clarify the meaning of the language used in the brief placement recommendations. Text N (Appendix C) indicates that it bases recommendations on those made previously by the Council for the Evaluation of Foreign Educational Credentials.

The 1996 Milwaukee Symposium brought about one of the most significant changes in placement recommendations in the past seventy years, the adoption and publication of best practices through a systematic approach to the evaluation of foreign academic credentials. Each of the GLIMM factors was at play. Globalization contributed to increased international student mobility, and the status of U.S. credential evaluation as a necessary and in-demand skillset resulted from internationalization. The pressure felt by HEIs of increasing international applications and the impact on the campus economy resulted from massification, and marketization manifested in the resources poured into programs of interest for the international student population (RQ3).

4.1.5 Scope

This study explores graduate-level placement recommendations. The typological component of 'Scope' captures the aspects/level(s) of education addressed by the target resource. The majority of resources surveyed provided a comprehensive description of the educational system(s) under review, meaning primary, secondary, tertiary, vocational, professional, and special-skills categories were all covered in-depth (RQ3). There are a few volumes dedicated solely to higher education, but there is no discernable pattern.

4.2 SUBSTANCE ANALYSIS

Through this qualitative research method, the researcher will capture the substance of the credential evaluation resource contents. Once recorded, an analysis will show the significance of the resource at the time of publication in addition to informing an analysis of trends in the changes these publication underwent over time. To capture the substance of each text, five categories were established to reflect common elements of the resource and those likely to have trends influenced by GLIMM. These categories are (1) Graduate Placement Recommendation Examples, (2) Preface/Introduction, (3) Educational Systems Overview, (4) Recognition of the Placement Recommendations, and (5) Bibliography.

4.2.1 Graduate Placement Recommendation Examples

The value placed on foreign credential placement recommendations varies greatly depending on the timeframe and the person being asked. In the 1930s, the pamphlets and bulletins (Text Series A [Appendix C]) through the U.S. Office of Education and the U.S. Department of Health, Education, and Welfare (USDHEW) were far from comprehensive but provided the credential evaluator with a few key pieces of information. Text B (1952) (Appendix C) repeatedly gave the advice to “grant advanced standing credit appropriate to student's objective on proof that successful examinations have been passed” (p, 12, 21, 35, 74, 81, 89, 95, and so on). The 1957 edition from Text Series C (Appendix C) told readers to “accept applicable credits on a year-for-year basis” (p. 36). In time, the resources would become thorough studies of different countries, cultures, and educational systems, with placement recommendations made without much justification as in the 1967 edition from Text Series C (Appendix C), which offered that “the

licenciate (título de licenciado or licenciatura) is the first university degree in Spain and is approximately equivalent in level to a U.S. bachelor's degree" (p. 110). The reports produced by the Joint Committee on Workshops (JCOW) produced some of the earliest versions of equivalency tables. These tables would, in many cases, come to include the credential under investigation, the entrance requirement to that program, length of study required, what it gives access to, and the placement recommendation. There was a legitimate concern that readers would not invest the necessary time to understand the content of the foreign educational system and rely too heavily on the equivalency tables. The authors and editors repeatedly express concerns that the 'recommendations' are precisely that, and they are not a prescription. The number of international students enrolling at U.S. HEIs grew considerably during the 1980s and 1990s. During this period, many in-house foreign credential evaluators wanted quick answers, not 100 pages to read. Text J (1983) (Appendix C) shows how the placement recommendations on equivalency tables were helpful but still lacking in precision: "Undergraduate programs in the universities run at least four years (some five or six), so students holding a Syrian bachelor's degree will most likely qualify for admission into a master's program" (p. 101). Equivalency tables were more readily available in the resources produced during this period but always with a word of caution.

The authors of the resources continued to be practitioners and engaged members of the international education community, as evidenced by their membership in groups like NAFSA and AACRAO and by their professional titles as listed in the various texts. The authors cared deeply about context. The readers of the resources, from my experience, were often near-entry-level employees tasked with credential evaluation (and a lot of it). The demands of the authors and readers of these resources did not align.

Many of the resources produced in the U.S. since the early 2000s have not had equivalency tables akin to those of Text Series C (Appendix C). Text Series G (Appendix C) has remained consistent in format, but it was always intended to be a large index with a brief treatment of as many countries as possible. However, the quantity and quality of the substance evolved. For instance, the 1971 edition of Text Series G (Appendix C) states that "applicants who hold certificates which qualify them for matriculation into University may be considered for admission to freshman standing" (p. 27). In the 2004 edition of Text Series G (Appendix C), a much richer resource is provided for each foreign credential, including confirmation of the credential under review, years of study for completion, entrance requirements to the program, comments, and the IERF Recommendation. The 2008 and 2012 editions of Text Series N (Appendix C) do not offer placement recommendations. Text Series P (Appendix C) is an online resource launched in 2004 and still in production, but the advice it gives on placement recommendations leaves a wide berth for interpretation, much like Text Series N (Appendix C) and the earliest resources. Authors of these resources encourage credential evaluators to read and think for themselves.

4.2.2 Preface/Introduction

Although the expression of this sentiment changed over the decades, this preface from the 1994 edition of Text Series I (Appendix C) summarizes the aspiration of nearly every credential evaluation resource in this study:

> The reader is reminded that there is no unanimity on the handling of all documents listed herein. Some institutions have the capacity to admit a student with deficiencies. Others are unable to extend this consideration. No one person or organization can or should prescribe the absolute admissions standards for another institution. Each of us will bring to bear our own judgmental qualities to factors such as the applicant's age, maturity and

> experience. It is hoped that this publication will assist each institution to find the most equitable way to advance the educational levels of the individual applicant while maintain the integrity of institutional standards. (p. ii)

Beyond this sentiment, authors and editors have routinely used the preface or publication forward as a space for expressing gratitude to the multitudes of volunteers who continued to the publication and to thank sponsors. It was also common to find acknowledgement that a single-country volume may have taken years to research and compile. Noted in the 1986 edition of Text Series G (Appendix C), "Educational changes are seldom introduced radically one year and the old system abandoned then and there." The 1932 edition of Text Series A (Appendix C) is brief and easy to update because its motive was simply to "enable US officers to form fairly accurate judgements of higher training in Sweden." Subsequent publications wanted to "promote American understanding of educational conditions abroad" or "furnish American college registrars, students of comparative education, and those in government or private agencies with data on foreign education" (Text Series A, 1954).

As with many of the resources, the authors developed Text B (1952) (Appendix C) "out of a personal need" (p. 2). It was common to find authors' names recurring in publication after publication; appearing as members of various NAFSA, AACRAO, JCOW, and PIER committees; or participating in the National Council for the Evaluation of Foreign Credentials. The 1957 edition of Text Series C (Appendix C) states that the "intention of the report is to help admissions officers arrive at their own decision on the proper and equitable placement of individual students" (p. 3).

The 1994 edition of Text Series M (Appendix C) uses the preface to remind readers that PIER now represents the merger of two longstanding committees, the World Education Series and AACRAO PIER. Government sponsorship priorities were changing, and efforts to draft and

publish these resources had to be consolidated if they were to persist. A trend that reasserted itself in the late 1990s and forward is well put in the 2008 edition of Text Series N (Appendix C):

> 'Advice for admissions officers' is intentionally not provided. We have attempted to avoid all types of subjective interpretation, relying instead on objective data. Users of these updates should use the information provided in conjunction with other resources to determine their own placement recommendations and possibility of transfer credit. (p. 2)

2008 N goes on to state that "the need for institution support for budgetary resources and training for undergraduate and graduate admissions personnel remains important, regardless of the increased availability of resources on the web." ECE includes an entry in the preface of its publications that the resources they produce are "a response to colleagues requesting information…ECE hopes it provides guidance to those faced with the challenging task of evaluating educational credentials from other countries" (p. vii).

4.2.3 Educational Systems Overview

There are generally two types of educational systems overview—the brief and the long—and both are thoroughly descriptive. Beyond this, there are also longer volumes that include many brief country profiles within them. Credential evaluation resources began as brief pamphlets and bulletins from the Office of Education. Over time, practitioners developed these resources into country profiles and case studies on individual countries. Parallel to this development was the generation of texts with brief treatments of many individual countries. Later, the Joint Committee on Workshops (JCOW) addressed less-investigated regions. Credential evaluation services began to create country books at a slow pace, and online profiles available through

NAFSA and AACRAO Edge filled a need as older credential evaluation resources became out of date and there was an absence of motivated and funded professionals to update them.

Education ladders, or maps, common to all of the resources represent an incredibly valuable resource for all credential evaluators (see Figure 1). Year-counters use them to quickly understand typical education levels for similarly aged student in different systems. Benchmarkers use the education ladders to understand milestone achievements. In addition to sample credentials, the long and descriptive volumes consistently contained glossaries because understanding native nomenclature is essential to understanding the credential under evaluation. Many evaluators require the credential in the native language in addition to a certified English translation. Occasionally, the longer volumes also contain lists of HEIs recognized by the regional Ministry of Education.

Credential evaluations have changed over time. The authors have changed. The motivations to create them have changed. The contents have changed. From tactical briefs created by the Office of Education and other government offices, to lengthy individual country studies, to compendia of country profiles, to resources accessible only online. Different versions of each of these contain or purposefully exclude placement recommendations. These changes can be attributed to GLIMM factors: the rise of the global population and increased cross-border student mobility; the demand for U.S. higher education; the decrease in public funding for U.S. higher education and concomitant importance of international student tuition dollars to support campus economies; the development of academic programs in response to international student markets; and the diversification of delivery modalities (e.g., online, off-shore, and MOOC [Massive Open Online Course]). From 1932-2015, the world changed radically, and higher education had to change with it.

4.2.4 Recognition of the Placement Recommendations

In-house credential evaluators usually do not have personal expertise in the education systems under review. There is a desire to identify external authorities by which decisions can be made and defended. From the 1930s through the 1970s, the Office of Education (under several different names) provided this independent, third-party expertise. This was never a role the Office meant to take on, and it was eventually relieved of that role under the Nixon administration. Professionals within associations like NAFSA and ACCRAO took up the mantle when the Office of Education stopped producing. To establish the consistency in credential evaluation placement recommendations demanded by association membership, the Council of the Evaluation of Foreign Academic credentials was formed.

The Council, like other resource publishers, was clear to state that their recommendations were not prescriptive. The membership of the Council includes representatives from the leading national educational associations, and these individuals respect the sovereignty of HEIs to make autonomous decisions. However, credential evaluators need a resource to assist them. Many—but not all—of the resources produced during the ‘70s, ‘80s, and ‘90s had Council recognition. The Council was disbanded in 2006 for a variety of reasons, which included (a) an increase in Internet research by credential evaluators, (b) the persistence of a few well-established non-Council resources (IERF, ECE, NAFSA Online, AACRAO Edge), and (c) growing lack of engagement by committee membership. Appointees to Council seats did not always have an interest or background in education, decreasing the value of Council participation and recommendations.

Just as admission committees must assess prospective students, so too must they assess prospective placement recommendation resources. Both assessments call for informed decision-making processes and careful consideration of student success.

4.2.5 Bibliography

Credential evaluation resources rely heavily on the personal experience of the editors/authors and an understanding of multiple educational systems. It was rare in this study to come across a true bibliography. More common were reference sections, appendices, and lists of relevant information including, but not limited to, key terminology, enrollment and graduation statistics, university hospital information, and sample documents. Where bibliographies and reference sections were present, the length corresponded to the length of the resources overall. In most cases there were no reference of bibliography sections. The earliest reference sections listed resource titles both in English and in the native language of the country featured in that particular volume. Anthology texts do not usually offer a bibliography or reference list.

5.0 DISCUSSION

> In the past decade, conditions in the world have altered to such an extent that international education exchange programs are accepted as a vital and urgent international activity. Of key importance in this activity are the U.S. college and university registrars and admission officers who are responsible for the selection of thousands of foreign students and who control the admission of these students into the United States.
>
> The academic success of many of the foreign students in this country are a tribute to their excellent work and fine standards of the admitting personnel at U.S. institutions (Sasnett, 1962, p. i).

Martena Sasnett's words are no less true today than they were in 1962, although the stakes are considerably higher. At over one million students, international enrollment today is more than ten-fold what it was in 1962, and the task of assessing foreign academic credentials has fallen upon more evaluators, who have less training, and who have more diverse work portfolios. With over fifteen years of experience as both an in-house credential evaluator and supervisor, I have been familiar almost exclusively with credential evaluation resources that had explicit placement recommendation equivalency tables. They were easier to use for the task at hand and accessible for building an in-house library of resources. With GLIMM factors at work, the volume of international students and the credential evaluation caseload increased. As a career-oriented practitioner in international higher education, I care about global context, the student behind the credential, and the academic institution I serve. Often as entry-level staff, newcomers to higher education have not yet determined if this 'job' is a career, and if they are in small international

affairs divisions or one-person offices, professional development opportunities may be insufficient. A faculty member or career international educator may pick up a one-hundred page text to learn about a country's education system to make a thoroughly informed credential evaluation determination, but everyone else is looking for equivalency tables.

This research study exposed and began to address gaps in the comparative education and foreign credential evaluation academic literature. With a focus on graduate-level placement recommendations, introductory work remains in primary, secondary, and undergraduate-level education research. The GLIMM framework drawn from Chan's work was used for an analysis at the macro level, leaving ample opportunity for additional research within each typology and substantive domain. The research questions for this study were designed to address known gaps in literature. This chapter will address those areas of inquiries, in addition to new questions resulting from this research.

A strength of the U.S. educational system is that the institutions have the liberty to admit whomever they like. The accreditation processes challenges those institutions to demonstrate that they can meet the expectations of the programs they promote and support the students they admit, deficiencies and all. The challenge inheres in making informed, consistent foreign academic credential evaluation decisions. If an admission committee wants to admit a poor academic performer or accept an incomplete credential for admission, this is their prerogative. Absent a national database of recommended foreign credential equivalencies, it is incumbent upon each institution to make sure the admission process is consistent and fair, including the determination of foreign credential evaluations and placement recommendations.

5.1 RESPONSES TO RESEARCH QUESTIONS

5.1.1 Response to Research Question 1 (What kinds of information do placement recommendations generally provide, and what factors lend credibility to that information?)

This research study asked four questions regarding foreign credential evaluation resources. First, the data collected from this study demonstrates the wide variety of information collected by different efforts to produce resources over time. From brief pamphlets offering a high-level overview to extensive, comprehensive descriptions of foreign education systems, information has been provided to U.S.-based credential evaluators by researchers in the field or natives of target countries. A challenge noted by many authors, however, is that the comprehensive volumes often took several years to research and produce, which was a significant commitment for a volunteer. Funding the research was also a massive undertaking, undertaken only by those with a deep passion for the profession. An example from the Sri Lanka Workshop elucidates the challenge:

> Funding for the workshops involves many sources. The PIER project has raised approximately $750,000 over the past twenty years (1986), of which 75% has come from the private sector in the form of foundation, corporate and institutional donations, as well as individual in-kind contributions and exchange-related arrangements. Substantial support frequently has come from host countries. The balance of funds raised has come from U.S. federal government grants (Sweeney & Woolston, 1986, p. viii).

5.1.2 Response to Research Question 2 (What changes did academic credential placement recommendation styles undergo from 1932 to 2015, and what impact did these changes have on the expectations of credential evaluators?)

Second, the evaluation resources underwent several significant changes between 1932 and 2015. The most notable trend is that the earliest resources did not include placement recommendations

because much of the necessary research had not yet been done and there was a firm commitment to the sovereignty of each college or university in making autonomous admission decisions. With the increase of international student enrollment, the need and demand for more information increased. The inter-associational texts had placement recommendations starting as early as 1989. ECE publications maintained the philosophy of educating the reader to make an informed decision. Publications including the IERF *Country Index,* the *World Education Series* and AACRAO's *Foreign Educational Credentials Required Text* included equivalency tables that answered many of the questions faced by credential evaluators in the 1960s, '70s, and '80s, although the reader was cautioned not to treat the placement recommendation alone as a justification for an admission decision. Career professionals in international education recognized that many credential evaluators were relying on equivalency tables rather than doing research. As a result, many of the resources have returned to a model that excludes equivalency tables, requiring greater effort and more holistic understanding in making admission and placement decisions.

5.1.3 Response to Research Question 3 (To what extent can the 1932-2015 changes in academic credential placement recommendation styles be linked to the factors of globalization, internationalization, massification, and marketization [GLIMM]?)

The answer to RQ3 is evident in (a) the way the credential evaluations resources have evolved, (b) the increase in student mobility into the U.S., and (c) changes in the prefaces and introductions written by the various authors and editors of each text. Globalization refers to the trends happening throughout the world that are beyond any single nation's ability to influence. During the period from 1932 to 2015, international students seeking to study in the U.S. grew

from 25,000 (when records were first kept by IIE Open Doors in 1948) to over a million international students in 2015. The trends identified in this study correlate to the demand placed on U.S. higher education by international students and a developing higher education marketplace throughout the world. This can be recognized in the following points of emphasis embedded in academic credential placement recommendation resources: collaboration across borders; overseas promotion of the American educational model; the primacy assigned (in prefaces and forewords) to proper and equitable placement of students; and the contributions of foreign entities to funding the production of credential evaluation resources. The recognized need for and investment in credential evaluation resources illustrates internationalization within U.S. higher education. The varying exercises to catalog foreign education systems in single volume texts or as individual country volumes in a long series further demonstrates internationalization. The level of detail found in many of the more elaborative volumes reveals a growing demand from credential evaluators for this detailed information. The development of the National Council on the Evaluation of Foreign Academic Credentials for placement recommendation recognition also speaks to the way U.S. higher education was changing in response to the pressures of globalization. The massification of higher education is the recognition of the value of higher education for an advanced society and advanced economy. International students wanted to study in the U.S. to improve their economic capacity upon returning home. The research conducted to understand foreign education systems, often with the support of local governments or community associations, is a result of massification. Massification also connotes the special training and research conducted by the authors and editors revealed by this study, membership and participation in professional organizations, and HEI-level support of staff investing time and resources into the production of credential

evaluation resources. Finally, marketization is the shift to a student-as-customer focus rather than the academic institution holding the position of power. The diversity of credential evaluation resources, placement recommendations, and the inconsistency among academic institutions is a direct result of this phenomenon. Each autonomous institution makes admission decisions that best fit their programs and services. Over time, enrollment demands, budgets, and campus economic circumstances shape admission criteria. International admissions is a lesser-known phenomenon on campus and one most subject to interpretation.

5.1.4 Response to Research Question 4 (In response to potential dilemmas resulting from the 1932-2015 changes in credential evaluation materials, what approaches have credential evaluators employed?)

The major issue, as viewed by this researcher, is the capacity for one institution to make different (i.e., program- or evaluator-specific) assessments of the same foreign academic credential. This threatens the integrity of higher education in the U.S., although there is no tangible threat of accreditation audit or fiduciary penalty. Students will recognize tendencies among institutions, and this has the potential to complicate recruiting efforts. The data collected in this study reveal that many well-intentioned evaluators may yet generate many different interpretations, which continues to be a problem for the in-house credential evaluator. A partial solution lies with proper documentation of and adherence to credential interpretation policies and procedures. Credential evaluation services may also play a role in a solution, although this is not straight-forward. The National Association of Credential Evaluation Services (NACES®) and the Association of International Credential Evaluators, Inc. (AICE) represent many credential evaluation services. However, only a commitment to one specific credential evaluation service,

not a select few or any from an umbrella organization, can guarantee consistent interpretation of foreign academic credentials for a college or university.

5.2 IMPLICATIONS

In her 2004 article, “International Cooperation in Higher Education: Theory and Practice,” Chan uses globalization, internationalization, marketization, and massification to describe international cooperation in higher education. By adopting this framework and coining the GLIMM acronym, this same terminology serves to advance a macro approach to research broad trends in international higher education. The product of this research also makes clear the necessity for an HEI to have a full understanding of its own strategic objectives, resources, and educational philosophy to be successful for foreign academic credential evaluation in international student recruitment.

This research focused on graduate-level resource texts and credential evaluations. Additional study is necessary to understand undergraduate-level placement recommendations. An unexpected implication of this study is the confounding factor of graduate school culture: whereas in undergraduate admission there is often a strong emphasis placed on retention, as valued by both ranking and accreditation entities, this is not the case in many graduate programs. The culture at the graduate level emphasizes difficulty in the admission process and the rate at which students drop from the program because of the supposed rigor. This culture variation confounds understanding the efficacy of the credential evaluation process.

The implications for credential evaluators with professional service organizations or as in-house practitioners are many. Credential evaluators interact with the modern consumerism of

higher education by shaping an applicant's alignment to admission criteria, through customer services in all of its forms, and by providing the lens through which high academic standards are perceived and the manner through which students are supported to achieve those ends. Further, more highly ranked institutions have an incentive to off-load credential evaluation to service providers because they may not be worried about the cost barrier to students and an increasing volume of applications makes in-house evaluation less practical or less important in a market of competing priorities. The size and scope of the resource library also informs an HEI's decision to provide in-house credential evaluation or to use a third-party provider; the resources available to an evaluator have a profound impact on the perspective and accuracy of a placement recommendation and the value of professional organizations like TAICEP cannot be understated for creating a network of professionals through which greater access to resource material can be access both in physical form and through the knowledge and experience of colleagues.

Further study is warranted in three additional domains: individual country analysis, national trends, and HEI-specific analysis. The focus of this research was the textual resources themselves. Understanding if and how credential evaluation resources for individual countries or geographic regions changed over time would be interesting in studying student mobility trends over time. Within the U.S., there are very few data on national trend behaviors regarding foreign credential evaluation. Occasional surveys within professional organizations seek to ascertain these trends, but these efforts are rarely scientific and the results are not broadcast widely. It would be useful for HEI leaders to understand national trends regarding (a) the use of credential evaluation services, (b) in-house credentialing and the necessary resources to be successful, and (c) the impact inconsistencies in foreign credential evaluation have on fairness in the enrollment process and admission rates. Finally, surveying the different types of secondary and tertiary

institutions to track all of the aforementioned themes correlated to institution-specific characteristics would further help higher education in the U.S. to better understand itself and its needs. Studies of different types of institutions (e.g., private vs. public vs. parochial; military schools vs. non-military; online or virtual delivery; charter schools; magnet schools) facilitate nuanced understanding of how foreign academic credentials have been treated historically in the U.S., the implications of varying credential treatments, and the benefits of adhering to a common, systematic, national approach to foreign credential evaluation.

5.3 CONCLUSION

My own thinking has evolved as a result of this research. I had long valued the centralized credential evaluation/recognition systems in most countries around the world. I had believed this centralized clearinghouse simplified the process for the academic institutions, allowed for clarity of student expectation, and improved the overall integrity of international higher education. However, I have now come to realize that such an approach would be antithetical to our system, a system that is admired and desired by students in growing numbers the world over. Even if national standards are created, institutions can and should still make their own admissions determinations, for better or worse. It is a characteristic of our system, and many argue that it is a strength.

Furthermore, I was first trained in the era of equivalency tables and increasing numbers of international student applications. I relied on those tables because they simplified my work, but at the time, I never knew I was forgoing the guidance of the compilers of those tables; like many of the colleagues with whom I spoke at conferences and through online discussion forums,

we had never read the texts from cover to cover. Yes, there is a need to establish an institutional consistency regarding foreign credentials and educational systems. And there certainly is a need to treat our students fairly and reliably. But there is no easy solution, one-stop shop, or magic bullet that will yield this consistency and fair treatment. Ultimately, U.S.-based foreign academic credential evaluation is both a science and an art. In this way, it mirrors and is ideally positioned to serve the U.S.-based higher education system to which it is attached.

In the 1957 *World Education Series* publication on Canada, the author says, "Despite excellent service from the United States Office of Education…there is still a disturbing degree of diversity in the evaluation of foreign student credentials (p. iii)." And through all of the effort of the past half-century, the same can still be said today. The work must continue, but we must not over-correct, or we will sacrifice the individuality and creativity that make our educational system, our credential evaluation process, and our culture unique and vibrant.

APPENDIX A

FOREIGN/INTERNATIONAL STUDENT ENROLLMENT

Table 3. OECD Foreign/International Student Enrollment, 2007-2012

Level of education	Total tertiary education					
Programme destination	Total					
Programme orientation	All educational programmes					
Gender	Total males+females					
Country of origin	Total: All countries					
Year	2007	2008	2009	2010	2011	2012
Foreign or international category	Non-resident students of reporting country	Non-resident students of reporting country	Non-resident students of reporting country	Non-resident students of reporting country	Non-resident students of reporting country	Non-resident students of reporting country
Country						
Australia	211,526	230,635	257,637	271,231	262,597	249,588
Austria	32,430	44,142	46,545	53,945	53,036	58,056
Belgium	25,202	29,844	33,991	36,126	37,866	42,926
Canada	68,520	92,881	93,479	95,590	106,284	120,960
Czech Republic	20,175	0	89	0	0	0
Denmark	12,695	6,389	12,582	18,131	20,252	22,363
Finland	0	9,619	10,980	12,406	14,124	15,636
France	0	0	0	0	0	0
Germany	0	177,799	180,135	181,220	176,682	184,594
Greece	0	0	0	0	0	0
Hungary	12,946	13,456	14,518	15,606	16,465	17,520
Iceland	0	720	783	889	1,099	971
Ireland	0	0	12,937	13,639	12,695	11,100
Italy	0	0	0	0	0	0
Japan	115,106	115,283	119,626	129,076	138,563	136,215
Korea	0	0	0	0	0	0
Luxembourg	0	0	0	2,226	0	2,468
Netherlands	27,449	30,052	23,674	27,968	38,367	57,509
New Zealand	33,047	31,565	38,351	37,878	40,854	40,994
Norway	4,808	4,472	5,136	3,463	3,407	3,956
Poland	0	0	16,976	18,356	20,711	23,525
Portugal	0	8,102	9,135	11,034	13,356	18,525
Slovak Republic	1,901	5,197	6,311	7,946	8,748	9,059
Spain	32,281	36,858	48,517	56,018	62,636	55,759
Sweden	22,135	22,653	27,040	31,534	36,522	28,629
Switzerland	0	31,706	34,847	38,195	41,803	44,468
Turkey	0	0	0	0	0	0
United Kingdom	351,470	341,791	368,968	397,741	419,946	427,686
United States	595,874	624,474	660,581	684,807	709,565	740,475

Data extracted on 24 Nov 2016 23:58 UTC (GMT) from https://stats.oecd.org/Index.aspx?DataSetCode=RFOREIGN

APPENDIX B

THE ECONOMIC CONTRIBUTIONS OF INTERNATIONAL STUDENTS

Figure 2. NAFSA: The Economic Contributions of International Students, 2014-2015

State	Enrollment 2014-15	Total Contribution	# of Jobs Created/ Supported
Alabama	7,901	$204.8 million	2,297
Alaska	533	$15.7 million	145
Arizona	20,437	$618.2 million	8,681
Arkansas	5,918	$164.1 million	1,411
California	135,130	$4.6 billion	52,624
Colorado	10,800	$352 million	5,043
Connecticut	11,897	$461 million	4,791
Delaware	4,051	$123.4 million	1,613
District of Columbia	10,556	$407.5 million	4,691
Florida	39,377	$1.2 billion	15,086
Georgia	19,758	$642.9 million	8,405
Hawaii	4,035	$104.5 million	966
Idaho	4,592	$116.0 million	1,156
Illinois	46,574	$1.4 billion	20,881
Indiana	28,104	$919.2 million	11,990
Iowa	12,220	$350.9 million	3,630
Kansas	12,020	$277.6 million	2,755
Kentucky	8,104	$212.8 million	1,876
Louisiana	6,872	$182.2 million	2,349
Maine	1,354	$50.0 million	488
Maryland	16,862	$523.8 million	6,686
Massachusetts	55,447	$2.2 billion	29,009
Michigan	32,015	$1.0 billion	13,533
Minnesota	14,438	$391.0 million	4,045
Mississippi	3,101	$65.4 million	708
Missouri	21,703	$615.1 million	7,200
Montana	2,146	$59.0 million	643
Nebraska	5,774	$143.0 million	1,488
Nevada	2,556	$69.0 million	809
New Hampshire	3,784	$136.9 million	1,710
New Jersey	19,196	$599.2 million	7,578
New Mexico	3,374	$80.7 million	899
New York	106,758	$3.7 billion	43,865
North Carolina	17,319	$458.8 million	6,273
North Dakota	2,677	$56.8 million	579
Ohio	35,761	$1.0 billion	13,518
Oklahoma	9,928	$260.2 million	2,836
Oregon	14,422	$479.3 million	5,515
Pennsylvania	45,704	$1.6 billion	22,565
Rhode Island	5,872	$228.3 million	2,474
South Carolina	5,895	$156.7 million	1,686
South Dakota	1,782	$32.2 million	255
Tennessee	9,507	$288.5 million	3,535
Texas	75,588	$1.7 billion	21,524
Utah	8,622	$202.6 million	2,517
Vermont	1,502	$61.0 million	602
Virginia	18,220	$543.7 million	7,170
Washington	27,051	$789.1 million	7,904
West Virginia	3,215	$85.0 million	886
Wisconsin	12,751	$340.7 million	4,277
Wyoming	1,174	$22.1 million	211

*Sources used in NAFSA's economic analysis for 2014-2015 Academic Year: U.S. Department of Education, U.S. Department of Commerce, and the *Open Doors* Report.

APPENDIX C

SUMMARY OF CREDENTIAL EVALUATION RESOURCE STYLE CHANGES, 1932-2015

Table 4. Summary of Credential Evaluation Resource Style Changes, 1932-2015

Text A	Year: 1932 Sweden	U.S. Department of Health, Education, and Welfare				
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		Individual	U.S. Federal Government Office of Education	None provided	Not provided	Higher education Professional education
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		None provided	The purpose of the pamphlet is to enable US officers to form fairly accurate judgments of higher training in Sweden.	Describes requirements for admission to local universities Education ladders Sample curriculum for secondary and tertiary education	Not applicable	Four Swedish Five English
	Year: 1946 Peru					
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		Individual	U.S. Office of State Interdepartmental Committee on Cultural and Scientific Cooperation	Not applicable	Not applicable	Elementary Secondary Teacher education Vocational education Higher education Other institutions of higher learning Special education services
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		Not applicable	Involves travel by Office of Education specialists	91 pages Mostly narrative with supporting table sand diagrams History of the country, in addition to descriptions of education at every level	Not applicable	38 Spanish Two English

Table 4. (Continued)

			Education ladders		
Year: 1954 Pakistan					
Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
	Individual	U.S. Office of Education	Not applicable	Not applicable	Pakistan and her people Elementary Secondary Teacher education Vocational education Higher education Other institutions of higher learning Special education services
Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
	Not applicable	To promote American understanding of educational conditions abroad Furnish American college registrars, students of comparative education, and those in government or private agencies with data on foreign education	92 pages Mostly dense narrative with supporting tables and diagrams History of the country, in addition to descriptions of education at every level; emphasis on tertiary Education ladders	Not applicable	Extensive (100+)
Year: 1962 Iran					
Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
	Individual author	U.S. Department of Health, Education, and Welfare	Not applicable	Not applicable	Philosophy of education Preschool education Elementary education Secondary

Table 4. (Continued)

						education Examinations vocational Teacher training Higher education
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		Not applicable	Iran strives to become like a modern, Western state.	32 Pages Descriptive texts of each stage and element of education Sample curricula Education ladders	Not applicable	Extensive
	Year: 1969 Mexico					
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		Individual	U.S. Department of Health, Education, and Welfare Office of Education Institute of International Students	Not applicable	Not applicable	Comprehensive Physical and social setting Educational history The school system Kindergarten Elementary education Secondary education Higher education Literacy training and fundamental education Technical education The teaching profession The promotion of culture and education International

Table 4. (Continued)

						cooperation with Mexican education
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		Not applicable	In 1921, education was 5% of the federal budget. In 1966, it is over 25%. One in a series of publications on education in foreign countries	127 pages Inside front cover includes excerpts and highlights Dense descriptive text Enrollment trends and literacy rates Sample curricula Education ladders	Opinions expressed in the report are those of the author and do not necessarily reflect official policy of the U.S. Office of Education.	Extensive Three appendices addressed degree available from Mexican institutions.
	Year: 1973 Thailand					
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		Committee of two	U.S. Department of Health, Education, and Welfare Office of Education Institute of International Studies	Not applicable	Not applicable	General introduction Education in Thai society Teachers: their education and current situation The University: expansion and reform
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		Not applicable	Focus of comparative education by Western scholars has been and continues to be an analysis of educational situations and problems abroad. The failure to reflect full sensitivity to cultural difference in schools and society in other settings	118 pages Inside front cover includes excerpts and highlights Collection of 15 articles Buddhist theories of the learner and teacher University development in Thailand	Not applicable	Not included Selected additional readings The authors' other English works

Table 4. (Continued)

			This publication is for Americans to 'listen in' on Thais speaking to Thais about education philosophy and practice.			
	Year: 1978 U.S.S.R.					
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		Individual author	U.S. Department of Health, Education, and Welfare Office of Education	Not applicable	Not applicable	Education administration Primary-secondary education Higher education Research Innovation, programs for the gifted, vocation and general education, management training
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		Not applicable	A study of the Union of Soviet Socialist Republics A summary of the organization and administration of the education system The author is a specialist since 1960.	37 pages Descriptive text of the many aspects of education in the USSR Education ladder Programs of study	Not applicable	16 selected references
	Year: 1982 Yugoslavia					
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		Individual author	United States Department of Education International Education Programs	Not applicable	Not applicable	The country and the people Preschool education Elementary education

Table 4. (Continued)

						Secondary education New reforms Vocations education Higher education Teacher education Military education trends Glossary
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		Not applicable	None	116 pages Dense descriptive text on every subject Survey of Slovenia and Croatia, Serbia, Montenegro, Kosovo and Bosnia and Herzegovina, Macedonia Available degree types and subjects Enrollment data, graduation rates, and demographic information of students at all levels	Not applicable	Extensive, 100+
Text B	Year: 1952	Educational Systems of the World: Interpretations for Use in Evaluation of Foreign Credentials (1952)				
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		Individual	Not-for-profit MIKRON FUND, University of Southern California	Background information provided Guidance on placement provided, without tables of equivalencies	Guidance provided (could be replicated?) Building a Foreign Credential Evaluation Desk, Appendix I	Pre-primary education Primary education Secondary education Higher education Teacher training Technical and vocational training Adult education

Table 4. (Continued)

	Substance:	Placement Recommendations	Preface/Intro	Education Overview	Recognition	Bibliography
		Simple suggestions for building a foreign credential evaluation desk are offered in Appendix I <u>Examples</u> Grant advanced standing credit appropriate to student's objective on proof that successful examinations have been passed. (Most common entry) Grant graduate status for bachelor's degree; grant 8 units of graduate credit for honors degree (if it covers extra year of study). If student holds a B.Sc. degree and desires study in the field of engineering, require student to fulfill B.Eng. degree. Grant 70 units of blanket credit for B.Sc. degree, showing all necessary engineering requirements in chemistry, physics and mathematics met, and English and L.A. & S. electives. For M.Sc. degree grant 96 units blanket credit. Grant graduate status for ordinary degree if appropriate to student's objective; grant eight units graduate credit for honors degree.	<u>Motive</u> Developed out of a personal need <u>Information Origin</u> The data have been compiled from material supplied by foreign ministries of education, educational commissions, consulates, and administrative officials of institutions of education; and from a wide range of publications—books, periodicals, magazines, and newspaper supplements Necessary to resist the temptation to include some of the more fascinating theoretical aspects of foreign educational philosophies and practices A selected bibliography has been provided for those who wish more comprehensive orientation to foreign educational systems. Discussion of key terminology	Skeletal outline of educational paradigms for each of 87 different countries, regions, and/or additional entries before and after significant geopolitical events	Not stated (Example, The Council on Evaluation of Foreign Student Credentials)	Resources segmented by country

Table 4. (Continued)

		Grant graduate status for diploma if appropriate to student's degree objective.				
Text C	Year: 1957 Canada	The World Education Series (1957-1989)				
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		Individual author	AACRAO: World Education Series	Background information provided Guidance on placement provided, without tables of equivalencies	Not provided A survey of the status quo of education	Sectioned by province Canada overview Elementary Secondary College entrance examination Board trusts Colleges and universities in Canada Honors in Canadian universities
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		Brief statement at the conclusion of each section by province Accept applicable credits on a year-for-year basis. Either pass or honors degree is acceptable as a degree, but the applicant for graduate standing who has the pass or 'general' degree only should be held for a least one semester of upper divisions work in the field of his proposed graduate study.	Intention of the report is to help admissions officers arrive at their own decisions on the proper and equitable placement of individual students.	48 pages Summary sections for each province, each covering similar and differing topics Degree types and majors available are outlines.	Placement recommendations approved by the National Council on the Evaluation of Foreign Educational Credentials	Four entries

Table 4. (Continued)

Year: 1962 Argentina	Argentina				
Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
	Individual author	AACRAO: World Education Series	Background information provided Guidance on placement provided, without tables of equivalencies The effect of Juan Peron (1948-1956) was noted as detrimental to higher education.	Not provided A survey of the status quo of education	Primary Secondary Teacher training Vocation education Higher education
Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
	One page of text summarizing the difficulties of establishing placement recommendations for Argentina	Indicates that the text is an excellent description of education in Argentina Intention of the report is to help admissions officers arrive at their own decision on the proper and equitable placement of individual students	71 pages Detailed paragraph describing all levels of education Education ladders provided Differences among regions are outlined.	Placement recommendations by the Council on Evaluation of Foreign Student Credentials, meeting, March 1958	15 entries
Year: 1967	Spain				
Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
	Individual author	AACRAO World Education Series	Narrative	Year-counting	Comprehensive
Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
	The licenciate (título de licenciado or licenciatura) is the first university degree in Spain and is approximately equivalent in level to a U.S. bachelor's degree.	Not applicable	125 pages	Placement recommendations by the Council on Evaluation of Foreign Student Credentials, November 1966	24 entries

Table 4. (Continued)

Year: 1972 Turkey					
Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
	Individual author	AACRAO: World Education Series	None provided	Not applicable	Geography, history, language History of education in Turkey Survey of the education system, pre-school through university Commercial, technical, and vocational education Recommendations for US admissions officers: English proficiency, objective test scores, interpretations of grading scales Glossary
Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
	None provided	Two years of study to complete text	Extensive details provided in each section Sample credentials Education ladders Sample curricula at all levels Multiple appendices	Placement recommendations by the Council on Evaluation of Foreign Student Credentials	9 entries
Year: 1977	Pakistan				
Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
	Individual author	AACRAO: World Education Series Bureau of Educational and Cultural Affairs, United States Department of	Table of equivalencies	The General Placement Recommendations that follow are based on *quantity* (number of years) rather than *quality*. The reader is urged to	Comprehensive

Table 4. (Continued)

			State		apply these "quantity assessments" in combination with (1) the quality clues described in the General Considerations section above and (2) the information on curricular content outlined in Chapters Three and Four and in Appendix B. Also see Index of Certificates, Diplomas, and Degrees.	
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		Factors include the credential being evaluated, the typical length of that program, awarding authority, and recommended placement level in U.S.A. Bachelor of Engineering results in Graduate admission without advanced standing Master of Education results in Graduate admissions with advanced stranding accorded a U.S. master's degree	Planned as a handbook of relevant data rather than a more general study Extensive expressions of gratitude for those who supported the author	156 pages Thorough description of Pakistani education Education ladder Sample curriculum Elementary, secondary, vocation, and higher education Examinations, possible diplomas Recognized institutions Sample documents 18 tables of relevant statistics and information	Placement recommendations approved by the National Council on the Evaluation of Foreign Educational Credentials	50 entries
	Year: 1982	Mexico				
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		Individual author	Publication of the World Education Series is funded by grants from the Directorate for Educational and Cultural Affairs of the	Equivalency tables	Recommendations are not directives. Apply them flexibly rather than literally. In voting on	Comprehensive

Table 4. (Continued)

			International Communication Agency.		individual recommendations, Council decisions are made by simple majority. Although consistency among volumes is sought, some differences in philosophy and practice may occur from volume to volume.	
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		Factors include the educational background of students from Mexico and the Placement Recommendation for U.S. Admissions Officers Access to Graduate Studies: Completed a graduate levels *curso de actualización* May be considered for graduate transfer credit to be determined through a course-by-course analysis Holds a graduate-level *maestría* May be considered to have a degree comparable to a master's degree in the United States	Extensive expressions of gratitude for those who supported the author	278 pages Thorough description of Mexican education Education ladder Sample curriculum Elementary, secondary, vocation, higher education, medical and professional Examinations, possible diplomas Recognized institutions Sample documents Glossary of useful terminology	Recommendations approved by the National Council on the Evaluation of Foreign Educational Credentials	Five useful references 40 tables of stats and relevant information 19 sample documents

Table 4. (Continued)

Year: 1987	Israel and the Occupied Territories				
Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
	Individual author Unnumbered contributors	Publication of the World Education Series is funded by grants from the Bureau of Educational and Cultural Affairs of the United States Informational Agency.	Equivalency table	Year-counting and deliberation Recommendations are not directives. Apply them flexibly rather than literally. In voting on individual recommendations, Council decisions are made by simple majority. Although consistency among volumes is sought, some differences in philosophy and practice may occur from volume to volume.	Comprehensive
Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
	Factors include the credential under investigation, the entrance requirement to that program, length of study, what it gives access to, and the placement recommendation For access to graduate study: Three-year bachelor's degree May be considered for up to 90 semester hours of undergraduate transfer credit; in some cases, may be comparable to a U.S. bachelor's degree.	Several months of travel and research were necessary to compile this volume. Took two years to write	277 pages Historical chronology Country profile and demographic information Thorough description of Israeli and Occupied Territory education Education ladder Sample curriculum Elementary, secondary, vocation, higher education, medical, and professional Examinations, possible diplomas Recognized institutions	Placement recommendations approved by the National Council on the Evaluation of Foreign Educational Credentials	Thorough, with 50+ segmented by Israel and the Occupied Territories

Table 4. (Continued)

		Four-year Bachelor's degree May be considered for graduate admission Master's degree May be considered for graduate admission with transfer credit determined through a course-by-course analysis		Sample documents Glossary of useful terminology Extensive use of tables and charts		
	Year: 1989	Japan				
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		Individual author A service of the International Education Activities Group of the American Association of Collegiate Registrar's and Admissions Officers	Publication of the World Education Series volume on Japan is funded by a grant from The Japan-United States Friendship Commission.	Equivalency tables	Year-counting and deliberation Recommendations are not directives. Apply them flexibly rather than literally. In voting on individual recommendations, Council decisions are made by simple majority. Although consistency among volumes is sought, some differences in philosophy and practice may occur from volume to volume.	Comprehensive
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		Factors include the credential under review, the entrance requirements, the length of study, what it gives access to in Japan	The publication required a year and a half of research. Expressions of gratitude for supporting colleagues	167 pages Country profile and demographic information Thorough description of Japanese education	Placement recommendations approved by the National Council on the Evaluation of Foreign Educational Credentials	33 entries Nine lengthy appendices

Table 4. (Continued)

		Access to graduate study Daigakko Sotsugyo Shosho / "Grand School" Diploma May be considered for graduate admission Igakushi go / Bachelor of Medicine A first professional degree in medicine; may be considered for graduate admissions		Education ladder Sample curriculum Elementary, secondary, vocation, higher education, medical and professional Examinations, possible diplomas Recognized institutions Sample documents Glossary of useful terminology Extensive use of tables and charts		
	Observations:	The 1962 text explains "in hope of achieving greater uniformity in the evaluation of credentials, and, more important, a placement that will insure the foreign student a greater chance of success… its first act was to arrange meetings which resulted in the organization of a Council on the Evaluation of Foreign Student Credentials. This mission changed over time.				
Text D	Year: 1962	A Guide to the Admissions and Placement of Foreign Students (Institute of International Education in cooperation with The American Associate of Collegiate Registrars and Admissions Officers, World Education Series				
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		One editor 100+ institutions submitted materials and suggestions	Institute of International Education (IIE) in cooperation with The American Association of Collegiate Registrars and Admission Officers (AACRAO) – World Education Series	Not applicable The text provides guidance for institutions to make determinations internally, absent country specific information.	Year-counting and benchmarking Make a decision based on the likelihood of student success.	Higher education
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		Not applicable	International exchange programs are accepted as a vital and urgent international activity. Academic	An update to a 1957 edition (unavailable) International students studying in the US help the US to be better understood in other	IIE	Extensive 100+

Table 4. (Continued)

			success starts with admitting personnel.	nations.		
Text E	Year: 1966	Do-It-Yourself Evaluation of Foreign Student Credentials, World Education Series				
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		One editor	AACRAO: World Education Series	Recommendations laced throughout the narrative	Not specified	Higher education
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		University systems which require a 13th year prerequisite to admission may reasonably warrant junior college credit for that level of work. Some form of intermediate examination is required for admission to virtually all technical and professional curricula in all Indian universities and should be the minimum qualification for admission to U.S. institutions of higher learning.	This guide seeks to be useful to college admissions officers concerned with the evaluation of the credentials of students from other countries.	An update to a 1957 version (unavailable) Council approval does not make the recommendations 'right' but should assure the user that the recommendations have been carefully weighted by professional people of many backgrounds.	Council on Evaluation of Foreign Student Credentials	Not applicable
Text F	Year: 1966	IIE: Guidelines for the Admissions and Placement of Students from Taiwan and Hong Kong				
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		One author	Institute of International Education	Laced within narrative	Not specified	Comprehensive Elementary through higher education
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		Three Advanced-Levels passes on University of Hong Kong Matriculation Examination would probably qualify the applicant for sophomore	This is a report of the work presented at a workshop of college and university admissions officers and foreign-student advisers.	A listing of all previous workshops and how to secure the related materials Taiwan and Hong Kong education system descriptions, elementary through higher education	Not specified	Not provided

Table 4. (Continued)

		standing. Generally speaking, the departments involved should determine the student's placement, through examinations and other means.	The workshop was sponsored by The American Association of Collegiate Registrars and Admissions Officers (AACRAO), the College Entrance Examination Board (CEEB), the Institute of International Education (IIE), and the National Association for Foreign Student Affairs (NAFSA).	Education ladders, sample curricula, recognized academic institutions, grading scales The 'guidelines' amount to questions to ask before admitting a student. Chinese students can contribute greatly to US institutions. In admitting them, US institutions meet an urgent need – the need for higher-study opportunities for students genuinely qualified to pursue studies further but barred from doing so by the extreme shortage of facilities at home.		
Text G	Year: 1971	The IERF Country Index (1971-Present)				
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		Committee of three	Non-profit support through the International Education Research Foundation, Inc.	Secondary education specific Short paragraphs of explanation Diagrammatic presentations	Benchmarking Readers are cautioned that The Country Index alone should not be the basis for an admission decision. Grades and degrees may have approximations, not equivalents.	Secondary education
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		Applicants who hold certificates which qualify them for matriculation into University may be considered for admission to freshman standing.	An extremely abbreviated outline of the educational systems Published for those who need a concise	215 pages 50 countries Does not provide for the evaluation of non-academic factors	Wherever possible, The Country Index is consistent with the World Education Series (WES) and approved by the council on the Evaluation of	Approximately 5-10 references provided for each country, with many repetitions of the same resources

Table 4. (Continued)

			description of major secondary credentials	Grading systems and conversions to US standards Bibliography for each country Intended to be used with caution and careful judgment	Foreign Student Credentials.	
	Year: 1986	Country Index				
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		One editor 34 contributors	Non-profit support through the International Education Research Foundation, Inc.	Statements provided for each significant level of education Diagrammatic presentations / Education ladders	Benchmarking Number of years of study and academic performance may influence the recommendation.	Addresses primary through tertiary education Vocational training Professional education
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		Applicants who have earned the degree or professional title as a first degree may be considered for graduate admission. Holders of a three-year university degree which has not been phased out may be considered for graduate admission. Holders of the degree/title have completed study beyond the master's degree and may be considered for advanced standing credit toward the doctorate.	Educational changes are seldom introduced radically one year and the old system abandoned then and there. The new edition of the Country Index shows these changes. Both university and non-university higher education are in the volume. Questionnaires were issued to collect data to inform their volume.	327 pages 85 countries Charts and diagrammatic presentations Grading scale conversions Placement recommendations References	Wherever possible, The Country Index is consistent with the World Education Series (WES) and approved by the council on the Evaluation of Foreign Student Credentials. For other countries, the compilers and the editors have prepared recommendations based on many years of experience.	Approximately 5-10 references provided for each country, with many repetitions of the same resources. Eight appendices

Table 4. (Continued)

Year: 2004	The New Country Index: Volume 1				
Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
	20 contributing authors	International Education Research Foundation	Equivalency tables	Be mindful of the distinction between degree equivalence and preparation to do more advance work. The New Country Index shows the main patterns leading to university admission and many professionals, occupational, and vocational track credentials. Use with careful judgment; it is not prescriptive.	Secondary and higher education
Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
	Factors include the Credential under review, years of study, entrance requirement, comments, and the IERF Recommendation Access to graduate study: El Salvador *Título de Ingeniero* Represents 5-5.5 years of postsecondary studies; grants access to graduate studies *Título de Maestría* Represents 7-7.5 years of postsecondary studies; grants access to doctoral studies; programs offered in many fields, including	A revised and expanded version of The Country Index, 1971 Expressions of gratitude for contributors Omitted countries will be included in the next edition upon further research.	418 pages How to use the Index Review of the Bologna Process Education ladders Grading scale conversions Placement recommendations References	IERF	Extensive reference list, segmented by country. Typically five entries per country

Table 4. (Continued)

		nursing				
	Year: 2011	The New Country Index – Volume 2				
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		13 contributing authors	International Education Research Foundation	Equivalency tables	Be mindful of the distinction between degree equivalence and preparation to do more advance work. The New Country Index shows the main patterns leading to university admission and many professionals, occupational, and vocational track credentials. Use with careful judgment; it is not prescriptive.	Secondary and higher education
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		Factors include the Credential under review, years of study, entrance requirement, comments, and the IERF Recommendation Access to graduate study: Mozambique *Licenciatura em Medicina* Represents a minimum of six years of postsecondary education; first qualification in medicine and the academic qualification for practicing medicine in Mozambique; comparable to an	82 countries not found in Volume 1 Expressions of gratitude for contributors Appreciation for IERF Board support for this time-consuming project	643 pages 82 countries How to use the Index Review of the Bologna Process and LMD (Licentiate-Master-Doctorate) reforms Education ladders Grading scale conversions Placement recommendations References	IERF	Extensive reference list, segmented by country Multiple entries per country

Table 4. (Continued)

		MD *Licenciatura em Engenharia* Represents five years of postsecondary education; BS in Engineering				
Text H	Year: 1978	The Admission and Academic Placement of Students from Selected South American Countries: Brazil, Bolivia, Paraguay, and Uruguay				
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		Individual author	The Joint Committee on Workshops (JCOW): The National Association for Foreign Student Affairs (NAFSA) The American Association of Collegiate Registrars and Admissions Officers (AACRAO) -- The Tinker Foundation The Ford Foundation ELS Language Centers Graduate Management Admissions Council College Entrance Examination Board International Education Research Foundation Agency for International Development	Equivalency table	Not specified	Comprehensive

Table 4. (Continued)

			Bureau of Educational and Cultural Affairs, Department of State Department of University Affairs, Ministry of Education and Culture, Brazil Consulate of Bolivia Dr. Celso da Rocha Miranda			
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		Factors include the credential under review, the awarding agency, the recommended level for admission and placement, and supplemental comments Bolivia *Experto* or *Maestŕia* Candidate may be considered for admission to graduate level in schools of education and in related fields with possible deficiencies. Uruguay Licenciatura en — Recommendation Graduate Admission	The nature of JCOW is that each workshop is self-supported.	150 pages Four countries Demographic overview Educational system description, primary through higher education Lists of recognized institutions of higher learning Glossary	AACRAO NAFSA	22 useful references, segmented by country
Text I	Year: 1981	AACRAO: Foreign Educational Credentials Required, First Edition				
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		One editor 13 contributors	AACRAO under contract for the Agency for International	Equivalency tables	Format developed and reviewed by professional credential analysis	Undergraduate and graduate study

Table 4. (Continued)

			Development, Office of International Training (AID/OIT)		throughout the United States Credential analysts prepared the lists of documents required for applicants from each country. Placement recommendations were reviewed by independent credential analysts.	
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		Criteria include what level of access the applicant is seeking, the required certificates, diplomas, and degrees; and the required documentation from the applicant. Example: Afghanistan Access to graduate student BA or BSC required Record of courses and marks earned Ecuador Access to graduate study Licenciado, Título en___, Egresado, Doctor en____, required Record of Courses and marks earned (transcript)	Developed to assist AID Overseas Mission staff members for placement at US universities and colleges	84 countries reviewed on 84 pages Each page is a simple table outlining credential equivalencies. All related vocational/technical/ professional programs not listed which culminate in certificates or diplomas should be submitted, as they are essential for consideration of admission.	Assignments made based on the experience with applicants from the countries concerned	Not applicable

Table 4. (Continued)

Year: 1985	AACRAO: Foreign Educational Credentials Required, Third Edition				
Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
	One editor Five contributors	AACRAO in a cooperative agreement with the Agency for International Development The relationship has evolved to augment AACRAO capabilities and activities regarding admission, level of placement, and enrollment of all students.	Equivalency tables	Format developed and reviewed by professional credential analysis throughout the United States Credential analysts prepared the lists of documents required for applicants from each country. Placement recommendations were reviewed by independent credential analyst.	Undergraduate and graduate study
Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
	Criteria include what level of access the applicant is seeking, the required certificates, diplomas, and degrees; and the required documentation from the applicant. Example: Korea, North Access to graduate study Bachelor's Degree Record of courses and marks earned Mauritius Access to graduate study BSc (Hons) Sugar Technology, Agriculture, or a BA in Administration	Developed to assist AID Overseas Mission staff members for placement at US universities and colleges	203 countries reviewed on 180 pages Each page is a simple table outlining credential equivalencies. All related vocational/technical/ professional programs not listed which culminate in certificates or diplomas should be submitted, as they are essential for consideration of admission. The report does not represent official US government positions on the evaluations of foreign credentials nor does it represent agreements between the US and any of the countries listed.	Assignments made based on the experience with applicants from the countries concerned.	Not applicable

Table 4. (Continued)

		Record of courses and marks earned				
	Year: 1983	AACRAO: Foreign Educational Credentials Required, Second Edition				
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		One editor Five contributors	AACRAO under contract for the Agency for International Development, Office of International Training (AID/OIT)	Equivalency tables	Format developed and reviewed by professional credential analysts throughout the United States Credential analysts prepared the lists of documents required for applicants from each country. Placement recommendation were reviewed by independent credential analysts.	Undergraduate and graduate study
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		Criteria include what level of access the applicant is seeking, the required certificates, diplomas, and degrees; and the required documentation from the applicant. Example: Cuba Access to graduate study Doctor/Doctorado earned after 4-5 years of study Record of courses and marks received <u>India</u> Access to	Developed to assist AID Overseas Mission staff members for placement at US universities and colleges	125 countries reviewed on 126 pages Each page is a simple table outlining credential equivalencies All related vocational/technical/ professional programs not listed which culminate in certificates or diplomas should be submitted, as they are essential for consideration of admission. The report does not represent official US government positions on the evaluations of foreign credentials nor does it represent agreements between the US and any of the countries listed.	Assignments made based on the experience with applicants from the countries concerned	Not applicable

Table 4. (Continued)

		graduate study *Professional* bachelor's degree Mark sheets; examinations results				
	Year: 1994	ACCRAO: Foreign Educational Credentials Required, Fourth Edition				
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		One editor	Prepared by AACRAO for the U.S. Agency for International development, Office of International Training	Equivalency tables	Not detailed, but appears to be consistent with previous editions	Undergraduate and graduate study
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		Criteria include what level of access the applicant is seeking, the required certificates, diplomas, and degrees; and the required documentation from the applicant. Example: Central African Republic Access to Graduate Study Licence (earned after a 4-year program), Diplome d'Ingenieur (earned after a 4-year program), Certificate d'Aptitude Professionnelle a l'Enseignement du Second Cycle dans les Lycees (CAPES), or a Doctorate in Medicine	The reader is reminded that there is no unanimity on the handling of all documents listed herein. Some institutions have the capacity to admit a student with deficiencies. Others are unable to extend this consideration. No one person or organization can or should prescribe the absolute admissions standards for another institution. Each of us will bring to bear our own judgmental qualities to factors such as the applicant's age, maturity and experience. It is hoped that this publication will assist each institution to find the most equitable way to advance the educational levels of the	182 countries reviewed on 180 pages Each page is a simple table outlining credential equivalencies All related vocational/technical/ professional programs not listed which culminate in certificates or diplomas should be submitted, as they are essential for consideration of admission. The report does not represent official US government positions on the evaluations of foreign credentials nor does it represent agreements between the US and any of the countries listed.	Assignments made based on the experience with applicants from the countries concerned	Not applicable

Table 4. (Continued)

		Record of courses and marks earned Republic of Yemen Access to graduate study Bachelor's Degree, Post Baccalaureate Diploma Transcript of courses and marks earned	individual applicant while maintaining the integrity of institutional standards.			
	Year: 2003	AACRAO: Foreign Educational Credentials Required, Fifth Edition				
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		One editor Six contributors	AACRAO	Equivalency tables	AACRAO International Education Services	Undergraduate Graduate
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		Factors include establishing the desired level of admission, a listing of the required certificates, diplomas, and degrees, as well as the required documentation for each degree: Algeria Admission to Graduate Studies Licence (Four Years) Diplôme (Four Years) Diplôme d'Études Superieures (DES) Diplôme d'État d'Ingénieur Diplome d'Etat Doctorate du Troisième Cycle Magister Doctorat d'État	It has come to be recognized as a primary resource in the evaluation of foreign educational credentials.	251 pages 236 countries Each page is a table outlining credential equivalencies.	AACRAO	Not provided

Table 4. (Continued)

Text J	Year: 1983	AMIDEAST: Education in the Middle East				
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		One editor	AMIDEAST	Narrative segmented by country	Not specified but it appears to be year-counting	Comprehensive
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		Syria: Undergraduate programs in the universities run at least four years (some five or six), so students holding a Syrian bachelor's degree will most likely qualify for admission into a master's program. United Arab Emirates: Full scholarships are awarded to all UAE nationals studying abroad. No recommendation for graduate studies	Expressions of gratitude for the many American and Middle Eastern contributors	143 pages 18 countries Description of the education system Recognized universities Grading scales	AMIDEAST	Extensive and segmented by country
Text K	Year: 1983	AMIDEAST: Country Report - Oman				
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		Not indicated	American-Mideast Educational & Training Services, Inc.	Narrative	Not applicable	Brief treatment to primary through tertiary
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		Students who received a score of 70 percent or higher on their Secondary Certificate exam are qualified for admission at the freshman level in U.S. universities. The Omani government	Not applicable	Three pages General information on the educational system Primary education Preparatory education Secondary	AMIDEAST	Five entries

Table 4. (Continued)

		awards scholarships for study abroad to students with scores of 75 percent or higher.		education Higher education General guidelines for placement in the U.S.		
	Year: 1993	AMIDEAST: Education in the Arab World. Volume I: Algeria, Bahrain, Egypt, Jordan, Kuwait, Lebanon, Morocco				
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		One editor Eight advisory committee members 'Countless' others thanked	AMIDEAST Printing funded by a grant from the Bureau of Educational and Cultural Affairs of the United States Information Agency Donations received from the Jordan Society, Mr. Mohammad Sharbatly, and the Mobile Foundation, Inc. Founded in 1951, AMIDEAST is a non-profit organization promoting understanding and cooperation between Americans and the people of the Middle East and North Africa through education, informational, and development programs.	Descriptive narrative	Year-counting Developed by AMIDEAST AMIDEAST strongly recommends considering each applicant on an individual basis. Placement decisions must incorporate the educational background of an individual student, the appropriateness of that background for a particular course of study, and the admissions policies of individual institutions.	Seven countries Country overview, education system description, education ladder graphic, primary education, secondary education, higher education, factors affecting study abroad, sample educational credentials, and placement considerations Tables of institutions, enrollment, diploma awarded, duration of study, representative specializations (majors)
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		In general, postsecondary degrees representing four or more years of study can be considered for admission to graduate programs	Three years to produce Research materials had to be mostly translated into English from French or Arabic.	737 pages Rich text thoroughly describes the educational elements of each country. Maps, tables, sample	AMIDEAST	Extensive (100+ segmented by country)

Table 4. (Continued)

		in the United States.	Discrepancies in understanding of educational systems were uncovered through this research. These were resolved as best as possible through discussion among AMIDEAST staff.	credentials, glossaries, and education ladders are printed throughout. A description of academic institutions recognized by the regional Ministry of Education is provided, align with sample curricula and available degree plans.		
Text L	Year: 1986	A P.I.E.R. Workshop Report on South Asia: The Admission and Placement of Students from Bangladesh, India, Pakistan, and Sri Lanka				
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		Co-editors Bangladesh: Three contributors India: Five contributors Pakistan: Eight contributors Sri Lanka: Six contributors	The College Board The Graduate Management Admissions Council International Educational Research Foundation (IERF) TOEFL Policy Council U.S. Agency for International Development United States Informational Agency	Equivalency tables	Year-counting Recommendations are developed through discussion and consensus in the Council. Recommendations are not directives.	Secondary education Higher education
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		Factors include the credential under review, usual entrance requirements, total years of study required, awarding authority, placement recommendation for the credential	A lengthy expression of gratitude to a multitude of contributors and organizations The first printed resource addressing Bangladesh and Sri Lanka for North American	Four countries Approximately 200 pages Education ladders Country profile and demographic information Descriptions of the education systems,	National Council on the Evaluation of Foreign Educational Credentials	Two dozen references, segmented by country

Table 4. (Continued)

		For access to graduate study: India Bachelor's Degree (12+3) May be considered for undergraduate admissions with possible advanced standing up to three years (0-90 semester credits) to be determined through a course by course analysis Sri Lanka M.Sc (16+1 to 2) May be considered comparable to a U.S. master's degree	admissions offices A joint workshop between U.S. and Canadian representatives PIER workshops serve several purposes. (1) They assist with credential evaluation. (2) Intensive Training. (3) Increase international understanding and cooperation. 71,000+ copies of PIER workshop reports have been distributed to AACRAO and NAFSA members and purchased by others.	including examinations and grading scales Lists of recognized universities Sample credentials		
Text M	Year: 1989 Canada	The PIER Country Profiles (1989-2004)				
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		Individual 17 contributors	A Projects for International Education Research (PIER) publication sponsored by the American Association of Collegiate Registrars and Admissions Officers, NAFSA: Association of International Educators, and The College Board Funding for the workshops has been provided by a variety of sources, including governmental agencies,	Equivalency chart	The 17 participants in the workshop drafted recommendations for the admission and placement in academic institutions in the United States of students from educational institutions in Canada. The recommendations were revised and approved by the National Council on the Evaluation of Foreign Student Credentials, an inter-associational group representing the higher education community in the	Comprehensive A thorough analysis of education at every level, segmented by province Primary, secondary, tertiary, community colleges, religious, artistic, military, licensing board

Table 4. (Continued)

			corporations, colleges, and universities.		United States. With two exceptions, the recommendations appear at the end of each provincial sections of the workshop report.	
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		Factors include the credential held by the student, the credential required for admission to that program, and the length of the program. May be considered for admission and placement based on a careful review of entrance requirements, length of study, nature of program, and review of syllabi; transfer credit may be considered for individual courses that are compatible with the receiving institution's degree programs. May be considered for admission and placement in accordance with institutional policies for U.S. religious schools that are not regionally accredited	Not available	Over 400 pages The Canada Workshop was the sixteenth in a series introduced in 1965 by NAFSA and AACRAO. PIER is the name for the joint NAFSA-AACRA initiatives, formerly known as the Joint Committee on Workshops (JCOW). 14 sections, each with its own table of contents	Placement recommendations approved by the National Council on the Evaluation of Foreign Educational Credentials.	Not provided Extensive list of tertiary institutions in Canada
	Year: 1994 Norway					
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		Committee of two	A Projects for International Education Research (PIER) publication sponsored by the American	Table of equivalencies	Two-page clarification on the deeper meaning behind the language used in the abbreviated placement	Comprehensive

Table 4. (Continued)

			Association of Collegiate Registrars and Admissions Officers, NAFSA: Association of International Educators, and The College Board		recommendations	
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		Factors include the name of the credential, entrance requirements, length of study, and what it gives access to in Norway. May be considered for up to one semester of transfer credit determined through a course-by-course analysis May be considered for graduate admission May be considered for admission to a doctoral program May be considered comparable to a U.S. master's degree A first professional degree in architecture; may be considered for graduate admission Primarily a vocational qualification	PIER is a 1990 merger of two committees of longstanding, the World Education Series Committee of AACRAO and the PIER Commit of AACRAO and NAFSA. Four types of publications make up the World Education Series: full country studies, workshop reports, special reports, and working papers. Placement recommendations, when included, are approved by the council.	163 Pages Map of Norway and demographic information Review of all education levels in detail Description of the role played by the National Council on the Evaluation of Foreign Educational Credentials Advice for admission officers Glossary Tables and charts outline degree program structure and statistics Sample documents	Placement recommendations and grade equivalencies approved by the National Council on the Evaluation of Foreign Educational Credentials	Four 'useful references' are provided
	Year: 1997 India					
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		Committee of two Four contributors	A Projects for International Education	Table of equivalencies	Two-page clarification on the deeper meaning	Comprehensive Appendices

Table 4. (Continued)

			Research (PIER) publication sponsored by the American Association of Collegiate Registrars and Admissions Officers, NAFSA: Association of International Educators, and The College Board		behind the language used in the abbreviated placement recommendations Year-counting; the three-year degree from India is contentious. Year-counters recognize it as three years of undergraduate study. Benchmarkers see that it grants access to graduate study in India, so they treat it the same in the U.S. because it is focused on program-specific courses. Year-counters might say this approach disregards the value of the core curriculum of four-year degrees. Benchmarkers counter that requiring a one-year post-graduate diploma does not equal a core curriculum.	address over 25 specialized content areas.
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		Factors include the name of the credential, entrance requirements, length of study, and what it gives access to in India. May be considered for undergraduate transfer credit determined through a course-by-course analysis May be considered for graduate admissions Primarily a vocational	PIER is a 1990 merger of two committees of longstanding, the World Education Series Committee of AACRAO and the PIER Committee of AACRAO and NAFSA. Four types of publications make up the World Education Series: full country studies, workshop reports, special reports, and working papers.	229 pages Rich, descriptive text of the Indian education system at all levels, autonomous colleges, computer and distance education, first degrees, management education, postgraduate diplomas, and professional associations, qualifications, and societies. Extensive figures and diagrams, in	Placement recommendations approved by the National Council on the Evaluation of Foreign Educational Credentials	None provided Over 15 appendices and a glossary of terminology

Table 4. (Continued)

		qualification May be considered comparable to a U.S. master's degree	Placement recommendations, when included, are approved by the council.	addition to over 50 sample documents		
	Year: 2000 Romania					
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		Committee of seven	A Projects for International Education Research (PIER) publication sponsored by the American Association of Collegiate Registrars and Admissions Officers, NAFSA: Association of International Educators, and The College Board	Equivalency table	Same as above	Primary through tertiary, including professional programs
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		Criteria include the name of the credential, entrance requirements, length of study, and what it gives access to in Romania. May be considered for undergraduate admission with up to three years of transfer credit determined through a course-by-course analysis; because of the specialized nature of the program, the syllabus should be reviewed carefully. May be considered for graduate admissions A first-professional	Not available	120 pages Review of history, geography, and demographics Pre-school, primary, and secondary education A history of postsecondary and higher education Contemporary postsecondary and higher education Guidelines for admission officers Over 25 sample documents	Placement recommendations approved by the National Council on the Evaluation of Foreign Educational Credentials	Not provided Three appendices including institution profiles and sample documents

Table 4. (Continued)

		degree in medicine; may be considered for graduate admissions Represents advanced graduate achievement in the field of specialization Represents recognition of published postdoctoral scholarly research				
	Year: 2004 Brazil					
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		Individual author	A Projects for International Education Research (PIER) publication sponsored by the American Association of Collegiate Registrars and Admissions Officers, NAFSA: Association of International Educators, and The College Board	Narrative laced into each chapter	Details not provided	Comprehensive Pre-school through tertiary
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		The Bacharel em____ is comparable to a bachelor's degree from a regionally accredited institution in the United States. Holders of the Bacharel may be considered for graduate admissions in the United States. A Bacharel completed with less than four years of full-time study or the equivalent,	Appreciation expressed for the support it took over several years to research and complete this text	A two-page review of the National Council on the Evaluation of Foreign Educational Credentials. At every level, the text explores accreditation, types of institution, the student body, activities, scholarships, faculty, and funding. A thorough review	Placement recommendations approved by the National Council on the Evaluation of Foreign Educational Credentials	Not provided Eight appendices with details on terminology, enrollment and graduation statistics, university hospital information, and sample documents

Table 4. (Continued)

		with appropriate courses complete in the major, may be considered comparable to a bachelor's degree from a regionally accredited institution in the United States and its holder eligible for consideration for graduate school admission.		of all academic program types, and degrees available to undergraduates, graduate, and professional students.		
Text N	Year: 1990	NAFSA: Handbook on the Placement of Foreign Graduate Students				
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		Committee authorship 80 Contributors One editor	Not-for-profit Volunteers	Bulleted narrative segmented by country	Based on existing recommendations from the Council for the Evaluation of Foreign Educational Credentials	Graduate focus, with secondary and undergraduate information included
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		Argentina: Holders of first degrees in engineering, architecture, medicine, and law may be considered for graduate study in the same field. Sudan: Applicants holding the four-year diploma or the bachelor's degree awarded after four or five years of study may be considered for graduate admission.	Information is drawn from previous PIER reports. The advice provided suggests general guidelines for admission and placement. Expressions of gratitude for contributors	209 pages 131 countries Education ladder Grading system	Not approved by the Council for the Evaluation of Foreign Educational Credentials; used for PIER, WES, and AACRAO monographs They are based on Council recommendations over the past 10 years.	11 entries
	Year: 1999	NAFSA: A Guide to Educational Systems Around the World				
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		One editor	NAFSA funded printing and distribution.	Not applicable	Not applicable A new	Brief summaries of most countries are provided.

Table 4. (Continued)

			Content was generated by volunteers.		methodology was created so in-house credential evaluators could make their own determinations.	Education ladders along with descriptions of the leading credentials for secondary and post-secondary education are provided.
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		Not applicable	An update to the 1990 version New edition to address the breakup of the Soviet Union, Internet access to information, and the ability to make camera-ready copies (forgeries) The National Council met in 1996 (Milwaukee Convention) to develop a new approach to assessing credentials. It is not dependent on the Council but provides a methodology.	The new credential evaluation method Understanding foreign grades Determining credit equivalents across borders An introduction to Internet research for the foreign credential evaluator The research was done by volunteers since ease of access to computers has simplified so many things. Contributors followed a prescribed template. An outline of credentials in each country that can be used for admission Advice for admission officers is intentionally not provided.	'Advice for admissions officers' is intentionally not provided. We have strived to avoid all types of subjective interpretation, relying on objective data. The omission of an advice section goes hand-in-hand with a new methodology for credential evaluation from the National Council on the Evaluation of Foreign Educational Credentials. The new methodology is now in the process of replacing 'placement recommendations.' A full description of the methodology in included in this publication. Viewpoints for interpreting foreign grading and credit systems are provided in separate chapters.	A few resources are provided for each country that can provide additional information.

Table 4. (Continued)

Year: 2008	Online Guide to Education Systems Around the World - Bangladesh				
Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
	Individual author	NAFSA	Not applicable	Not applicable	Higher education
Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
	Not applicable	'Advice for admissions officers' is intentionally not provided. We have attempted to avoid all types of subjective interpretation, relying instead on objective data. Users of these updates should use the information provided in conjunction with other resources to determine their own placement recommendations and possibility of transfer credit. The need for institution support for budgetary resources and training for undergraduate and graduate admissions personnel remains important, regardless of the increased availability of resources on the web.	Eight pages Education ladder Explanation of credentials Foreign terms and words Grading scale information Credentials and documentation Regional accreditation / recognition authorities	NAFSA	Not applicable
Year 2012	Online Guide to Education Systems Around the World - Cuba				
Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
	Individual author	NAFSA	Not applicable	Not applicable	Higher education
Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
	Not applicable	'Advice for admissions officers' is intentionally not	Eight pages Education ladder	NAFSA	Not applicable

Table 4. (Continued)

			provided. We have attempted to avoid all types of subjective interpretation, relying instead on objective data. Users of these updates should use the information provided in conjunction with other resources to determine their own placement recommendations and possibility of transfer credit. The need for institution support for budgetary resources and training for undergraduate and graduate admissions personnel remains important, regardless of the increased availability of resources on the web.	Explanation of credentials Foreign terms and words Grading scale information Credentials and documentation Regional accreditation / recognition authorities		
	Observations:	The NAFSA online guides were begun in 2008 and continue to be updated, the most recent being in 2016. These examples are among 201 similar guides for additional countries and territories.				
Text O	Year: 1992	ECE – The Educational System of Turkey				
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		Individual author	ECE	Not applicable	Not applicable	Comprehensive
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		Not applicable	The second in a series ECE's response to colleagues requesting information ECE hopes it provides guidance to those faced with the challenging task	108 pages History of country and people Pre-school through tertiary, include professional programs (law, military, medicine, etc.) Education	ECE Staff	Not applicable

Table 4. (Continued)

			of evaluating educational credentials from other countries. Began in 1995	ladder/map Rich descriptive text filled with tables, illustrations, and sample credentials Sample curricula are available Four appendices		
	Year: 1997	ECE – The Educational System of Spain				
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		Committee of three	ECE	Not applicable	Not applicable	Comprehensive History of country and people Pre-school through tertiary, include professional programs (law, military, medicine, etc.)
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		Not applicable	The sixth in a series ECE's response to colleagues requesting information ECE hopes it provides guidance to those faced with the challenging task of evaluating educational credentials from other countries. Began in 1995	Education ladder/map Rich descriptive text filled with tables, illustrations, and sample credentials Sample curricula are available	ECE Staff	Five appendices included with profiles of universities, educational authorities, university, a glossary, and selected bibliography
	Year: 2002	ECE – The Educational System of Tunisia				
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		Individual author	ECE	Not applicable	Not applicable	Comprehensive History of country and people

Table 4. (Continued)

						Pre-school through tertiary, include professional programs (law, military, medicine, etc.)
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		Not applicable	The eighth in a series ECE's response to colleagues requesting information ECE hopes it provides guidance to those faced with the challenging task of evaluating educational credentials from other countries. Began in 1995	Education ladder/map Rich descriptive text filled with tables, illustrations, and sample credentials Sample curricula are available	ECE Staff	Three appendices including profiles of higher education institutions, a glossary of terms, and a selected bibliography.
	Year: 2008	ECE – The Educational System of Vietnam				
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		Individual author Five contributors	ECE	Not applicable	Not applicable	Comprehensive How to use this publication and recent developments of the national education system Pre-school through tertiary, and teacher training
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		Not applicable	Part of the ECE Insights Series ECE's response to colleagues requesting information ECE hopes it provides guidance to those	Education ladder/map Rich descriptive text filled with tables, illustrations, and sample credentials Sample curricula are available	ECE Staff	Three appendices included profiles of higher education institutions, a glossary of terms, and a selected bibliography.

Table 4. (Continued)

			faced with the challenging task of evaluating educational credentials from other countries. Began in 1995			
	Year: 2012	ECE - The Kingdom of Saudi Arabia: Its Educational System and Methods of Evaluation				
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		Individual author	ECE	Credential index tables	Tables of equivalencies	Comprehensive
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		Factors include the name of the degree under review in English and Arabic, the admission requirements, program length, and suggested US equivalent. For access to graduate study: Higher diploma Completion of graduate courses Master's degree is comparable to a master's degree	The Kingdom of Saudi Arabia is undergoing significant change. This text describes the educational system as it has been for the past decade. The appendix offers a quick reference for English/Arabic translations verification.	A descriptive text, full of images, tables and chart. Education ladders Grading scales and suggested conversions Sample curricula Sample credentials 26 figures and 29 tables of relevant data and statistics	ECE	Not applicable
Text P	Year: 2015	AACRAO Edge: American Association of Collegiate Registrars and Admissions Officers Electronic Database for Global Education (2004-Present)				
	Typologies:	Authorship	Funding	Placement Recommendation Style	Methodology	Scope
		AACRAO member-volunteers	Subscription service	Descriptive narrative	EDGE placement recommendations are proposed by country profile authors and reviewed by the AACRAO International Education Standards Council (IESC).	Higher education
	Substance:	Placement Recommendations	Preface/Intro	Overview	Recognition	Bibliography
		India	Intended to provide easy to	231 country profiles	AACRAO	Extensive, segmented by

Table 4. (Continued)

		Credential and description Diploma in Engineering Awarded upon completion of three years of study beyond the secondary school certificate (or equivalent)	access, current information of educational systems around the world	Overview of an education system Education ladders Grading systems Sample credentials Recognized institutions Additional resources Glossary		country

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