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INTERNATIONALIZATION EFFORTS IN UNITED STATES

COMMUNITY COLLEGES:

A COMPARATIVE ANALYSIS OF URBAN, SUBURBAN, AND RURAL

INSTITUTIONS

by

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A Dissertation Submitted to the Faculty of
Old Dominion University in Partial Fulfillment of the
Requirement for the Degree of

DOCTOR OF PHILOSOPHY

COMMUNITY COLLEGE LEADERSHIP

OLD DOMINION UNIVERSITY

May 2010

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ABSTRACT

INTERNATIONALIZATION EFFORTS IN UNITED STATES COMMUNITY COLLEGES: A COMPARATIVE ANALYSIS OF URBAN, SUBURBAN, AND RURAL INSTITUTIONS

Natalie Jean Harder
Old Dominion University, 2010
Director: Dr. Mitchell R. Williams

Research demonstrates employers value international experiences when hiring employees. Community college students who do not have global or international experience risk being less valuable to employers than students who have such experience. With community colleges educating up to one-half of all U.S. undergraduates, more focus on internationalization is warranted in order to ensure student competitiveness in today's global labor pool. This ex post facto study of 2006 survey data from the American Council on Education (ACE) found a low level of internationalization occurring at most community colleges. Delineating community colleges according to their urban, suburban, or rural Carnegie classification found classification to impact overall institutional internationalization with rural community colleges experiencing significantly less internationalization than their urban and suburban counterparts. Of the four dimensions of internationalization examined, (a) institutional support, (b) academic requirements, programs, and extracurricular activities, (c) faculty policies and opportunities, and (d) international students, institutional support was the most important indicator of internationalization. As college presidents, boards of directors, and high-level administrators dictate areas of administrative importance, particularly setting the vision

and mission for the institution, increasing their support for internationalization would have the largest impact on community college internationalization.

This dissertation is dedicated to my husband, Cian Robinson, and sons Tucker and Rory. Without your constant support and patience, my life and dissertation would be incomplete.

ACKNOWLEDGMENTS

There are many people who have contributed to the successful completion of this dissertation. I extend many thanks to my committee members for their patience and hours of guidance on my research and editing of this manuscript. My committee chair, Dr. Mitchell Williams was a constant source of support, guidance, and encouragement. The untiring efforts of my methodologist Dr. Taiwo Ande were especially appreciated during the analysis phase, and Dr. Dennis Gregory's overall knowledge of higher education was very valuable to the process. My husband, Cian, and friend Dr. Anita Kaplan set me on this path and I am so grateful. My first mentor, Patricia O. Rehak demonstrated how to have grace under pressure – I miss you Pat! I sincerely appreciated the support of Cohort 5 of the Community College Leadership program at Old Dominion, the library staff at Patrick Henry Community College, Dr. Wingett, and the numerous family and friends who offered me encouragement. Finally, my sincerest gratitude to the American Council on Education for the use of its 2006 higher education internationalization survey data.

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CHAPTER 1: PROBLEM STATEMENT

Internationalization activity in higher education is not a new phenomenon. Scholars contend the American university system was originally modeled after European higher education, a clear international connection, with study abroad dating back to the early 20th century (Altbach, 1998; Stearns, 2009). However, a growing movement toward a global knowledge economy (Wilson, 2003) and demand for employees with international experience (Kedia & Daniel, 2003) has resulted in unprecedented internationalization efforts in higher education. Internationalization is perceived as a mainstream element of higher education across many countries (Altbach, 2004), and Stearns stated “It is hard to find an American community college, college or university that has not devoted serious new thought, in recent years, to some aspect – often, to many aspects – of global education” (p. 1). These statements occur as colleges recognize they must provide students with skills to succeed in globally integrated economies, culturally diverse societies, and multinational organizations (Hayward, 2000; Knight, 2007).

The labor market is increasingly global, not local, regardless of where one lives (Karoly & Panis, 2004). In 2006, approximately 13 million United States (U.S.) jobs were supported by manufactured exports alone (International Trade Administration, 2009). Not all of these jobs were in the United States; neither were all of the employees American citizens. In 2005, the average compensation at foreign-owned firms in the United States was more than 30% higher than at private sector firms in the remainder of the U.S. economy (U.S. Department of Commerce, 2007, p. 2). Despite employer calls for employees with international experiences, efforts to offer these experiences to students vary greatly.

In 2006, ACE surveyed 2,746 higher education institutions regarding policies and practices for furthering international education. ACE reported finding a “mixed picture” of higher education internationalization (Green, Luu, & Burris, 2008). For example, while curricular requirements were not reported to play a central role in internationalization, 91% of college respondents offered study abroad opportunities. With less than three percent of study abroad students emanating from community colleges (Institute of International Education, 2008b), 97% of community college students may be competitively disadvantaged in securing a job where international experience or exposure is valued. As the most accessible higher education option for individuals to attain skills and education credentials, community colleges must ensure their students can compete effectively for jobs with direct and indirect international connections. The disadvantage for community college students who do not have global or international experiences lies in being less valuable to an employer than a student with these experiences (Kedia & Daniel, 2003).

Administrative recognition of the need for more global exposure for students at community colleges is occurring. Levin (2000) observed that during the 1990s, forces of globalization compelled community colleges to try to better meet the needs of business and industry, including increasing international experiences for students. Mission statements transitioned from a focus on facilitating individual and community development to a focus on economic development and workforce training. Similarly, Ayers (2002) documented workforce training as a clear theme of contemporary community college mission statements. Regardless, community college implementation of additional and/or more diverse international experiences for students, and empirical

comparisons between groups of community colleges, are neither heavily documented nor clearly evidenced (Levin, 2001; Raby & Valeau, 2007).

Background of the Study

Global Labor Demands

With the use of technology and as companies gain experience with offshore operations and contracting (Sharma, 2003), more and more firms will be accessing resources from different parts of the globe to reduce costs and improve productivity (Karoly & Panis, 2004). As these resources include employees, more work is expected to be outsourced on a global basis. Studies support businesses' expectation or desire for employees with increased international exposure (Moxon, O'Shea, Brown, & Escher, 1997; Webb, Mayer, Pioche, & Allen, 1999).

Klarh and Ratti (2000) noted how engineering programs are aggressively trying to expand international experiences for their students as the engineering profession increasingly involves international bids and projects, demands international interaction among colleagues, and "requires engineers to gain awareness in world events and the global economy as well as acquire intercultural understanding" (p. 79). Kedia and Daniel's (2003) survey of 111 companies revealed strong demand for employee international experience, regardless of a company's size. Specifically, 80% of respondent companies believed overall business would increase if more international expertise were available on their staffs. These same respondents expected to place a greater emphasis on employees' international competence, during the hiring phase, over the next ten years.

Higher Education and Internationalization

Universities have always participated in the global environment and thus been affected by circumstances beyond the campus and across national borders (Altbach, 1998; Levin, 2001; Pickert, 1992). American commitment to educate international students from countries such as China dates back to the early 20th century, with Americans participating in study abroad for many decades (Altbach, 1998; Stearns, 2009). The term internationalization, as it relates to colleges and universities, is being used more frequently; however, there is confusion about what the term entails. Knight (2004) summarized internationalization's different meanings:

For some people it means a series of international activities such as academic mobility for students and teachers; international linkages, partnerships, and projects; and new, international academic programs and research initiatives. For others, it means the delivery of education to other countries through new types of arrangements such as branch campuses or franchises using a variety of face-to-face and distance techniques. To many, it means the inclusion of an international, intercultural, and/or global dimension into the curriculum and teaching learning process. Still others see international development projects and, alternatively, the increasing emphasis on trade in higher education as internationalization. (p. 6)

Internationalization research suggests four dimensions comprising internationalization at higher education institutions (Boggs & Irwin, 2007; Hser, 2005;

Korbel, 2007). These same dimensions were utilized by the American Council on Education (ACE) in its 2006 survey of 2,746 colleges and universities. These dimensions are (a) institutional support, (b) academic requirements, programs, and extracurricular activities, (c) faculty policies and opportunities, and (d) international students (Green, Luu, & Burris, 2008). Institutional support is considered key to advancing and maintaining internationalization efforts at colleges (Green, 2007; Korbel, 2007), while academic requirements and programs can impact a large number of students (Dellow, 2007). Faculty are seen as critical participants in successful internationalization efforts, and sufficient development opportunities support their participation in internationalization activities (Boggs & Irwin, 2007; Raby, 2007). Finally, international students play an important role in internationalizing campuses by interacting with other students and with faculty and staff (Boggs & Irwin) and as a dimension, is a strong indicator of an institution's level of internationalization (Hser, 2005).

Appeals for greater attention to global education, or at least more internationally-oriented programs among American colleges and universities, dot the landscape of contemporary history from the 1960s onward (Green, 2002; Siaya & Hayward, 2003), with the U.S. government sporadically pushing programs decades earlier. Researchers agree the U.S. government has played a role in internationalization of higher education mainly by funding programs, agencies, and initiatives. Primary activities occurred in the twentieth-century through three waves of early interest in international activities at colleges and universities. The first wave followed World War I, the second accompanied World War II, and the third was associated with the Cold War (deWit, 2002; Doane, 2003). Interest during these time periods was marked by specific federal programs

launched to encourage college student enrollment in programs and courses with international content as a means to increase international expertise for defense purposes.

Higher education associations' recognition of the importance of internationalization was rarely evident prior to U.S. government support. Strong statements of commitment to internationalization and changes to mission statements by these associations did not occur until much later. For example, while the Institute of International Education (IIE) has existed since 1919 (Institute of International Education, 2009a), it was not until 1995 that ACE established an agenda for internationalizing higher education. The agenda included (a) requiring all graduates to demonstrate competence in at least one foreign language, (b) encouraging understanding of at least one other culture, (c) increasing understanding of global systems and revamping curriculum, (d) expanding study abroad and internship opportunities, (e) focusing on faculty development, (f) examining the organizational needs for international education, and (g) building consortiums to increase opportunities (Dean, 2003).

Support of internationalization of higher education by related associations is no longer sporadic. Many other stakeholders in the U.S. higher education arena agree that global competence is a worthwhile goal and that further internationalization of colleges and universities is required if significant numbers of U.S. students are to attain global competency (American Association of Community Colleges, 2009c; American Council on Education, 2009a; International Association of Universities, 2009). Going one step further, The American Assembly of Collegiate Schools of Business International (AACSB) has long emphasized internationalization and its related activities as a prime accreditation factor (The Association to Advance Collegiate Schools of Business

International, 2009). The need to develop a global workforce is specifically echoed by some educational associations. NAFSA: Association of International Educators added “global workforce development” to its mission statement soon after the turn of the twenty-first century (Tillman, 2005). The Association of American Colleges and Universities (AACU) endorses global education to prepare students for the global world of work (Association of American Colleges and Universities, 2009; Stromquist, 2007).

Regardless of government support, institutional interest, or trade association recommendations, significant implementation, and the broad conducting of internationalization activities have occurred only in the last fifteen years (Stearns, 2009). Studies during this time period demonstrate an overall increase in the internationalization movement in higher education; however, efforts, activities, and overall levels have been inconsistent. A 2006 survey by ACE found nearly 60% of doctorate-granting universities had internationalization as one of their top priorities (Green, Luu, & Burris, 2008). Master’s colleges, while not highly internationalized, have made some of the most significant strides in internationalization since an ACE 2001 survey of higher education internationalization activities. The 2006 ACE survey also found that while baccalaureate colleges excel in certain areas of internationalization, overall levels of activity and opportunity are low. Green et al. summarized associate’s degree college efforts lagging behind internationalization efforts at four-year institutions in general.

Community colleges

From their inception, community colleges have been a critical point of entry to higher education for many Americans (Cohen & Brawer, 2008; Vaughn, 2006). These institutions enroll a disproportionate share of low income, minority, and academically

unprepared students (Abelman & Dalessandro, 2008). For many students whose education ends with their community college experience, the institution is likely to constitute the only formal academic opportunity to learn about other countries, cultures, and global trends (Green, 2007; Stearns, 2009). Therefore, for many community college students, the institution provides their main chance to acquire skills to be competitive for a job in which an employer values international exposure. These employers include federal agencies struggling to find employees who have cross-cultural and foreign language capabilities to effectively meet the nation's security and diplomatic needs. Corporations are looking for employees who can function effectively across cultures and gain an international perspective on their jobs in order to survive. Also, careers in health care, education and welfare, even within the U.S. domestic context, increasingly require a wider range of linguistic and cross-cultural skills (Institute of International Education, 2008b) .

Levin (2000) surmised globalization as the reason community college missions have changed to meet the needs of business and industry. More recently, a survey of businesses identified specific cross-cultural skills and international expertise that colleges must promote in workforce development programs to help ensure student competitiveness (Kedia & Daniel, 2003). These skills and expertise are in international competence, including international skills and /or knowledge of foreign languages and world areas. In a report for IIE, the German Academic Exchange Service, and the Australian Education Office, wherein Tillman (2005) described Thompson Education's (2004) effort to determine employer acceptability and market value of an international degree for U.S. students and employers. One finding reported was employer indication of

the most important employee selection criteria being interpersonal skills and employer beliefs that these skills are likely to be strong in a candidate with overseas education experience.

With more research-based information on peer activities, best practices, and relevant case studies, community colleges can gauge their internationalization efforts and work toward better positioning their students for career success. Clearly, community colleges have already been involved in international activities for many decades. For example, community colleges have offered education abroad programs since 1967 (Raby, 2007). In 1996, after recognizing international education as being on its agenda for at least thirty years and growing in importance, The American Association of Community Colleges (AACC) created the Commission on International/Intercultural Services. In announcing the commission's creation, then AACC president David R. Pierce wrote

...local colleges have come to realize that the "community" identified in their mission statements no longer is confined to the limited geographical area they are charged to serve....the evolving structure of the workplace demands that teams of workers from different national and ethnic backgrounds perform harmoniously to achieve a high level in order to be competitive. (Chase & Mahoney, 1996, p. v)

Also in 1996, the American Council for International Intercultural Education (ACIIE) collaborated with the Stanley Foundation in formulating a set of Global Education competencies for the community college student. Global competency was defined through student understanding of the interconnectedness of people and systems, along with a general knowledge of history and world events, and the ability to accept and celebrate different cultural values (Dean, 2003).

Despite these calls for more internationalization activities for students, and general gains in related activities seen in associate's degree colleges, internationalization efforts in two-year institutions lag behind four-year counterparts. For example, according to the IIE (2008a), 86,683 international students were enrolled in community colleges in the academic year 2007 – 2008, a 3.1% increase over 2006-2007, while four-year degree granting institutions hosted 512,943 international students, an increase of more than 8%. With overall undergraduate enrollment ranging from 45% to 52% at community colleges, these institutions, no less than their four-year counterparts, should internationalize to prepare students for an increasingly globalized, multicultural, and interdependent world (Green, 2007; McJunkin, 2005).

Community College Internationalization Research

Research of internationalization of community colleges is a limited field. Valeau and Raby (2007) contended that while literature on community college internationalization efforts can be found, it is not nearly as prolific as information on four-year colleges. Reflective of this gap is an analysis of doctoral dissertations completed over a five-year period to determine how many were related to international education (Chen, 2008). Chen determined less than .0008% of dissertations published between 2002 and 2007 were related to community college internationalization. ACE has provided the only longitudinal study and empirical foundation on multiple internationalization indicators of community colleges (Engberg & Green, 2002; Green, 2007; Green, Luu, & Burris, 2008). In a compilation of articles on community college internationalization, Valeau and Raby further claimed, "It is apparent that a current and comprehensive examination of international education reform in the community college

is sorely needed.” (p. 2) One area completely unstudied in community college internationalization lies in the area of internationalization levels of community colleges with different setting classifications. Comparison by setting classification is an important area of study if peer institution levels are to be used to gauge or improve an institution’s internationalization efforts. Understanding how the four dimensions of internationalization may relate within each classification will provide additional insight into the role of the dimensions for urban, suburban, and rural community colleges.

Purpose Statement

The purpose of this ex post facto study was to explore the level of community college internationalization in the U.S. The study examined the impact of community college setting classified as urban, suburban, and rural, on internationalization levels and if relationships existed between dimensions of internationalization within each classification. Data were extracted from the 2006 ACE college survey of internationalization wherein 318 public community colleges responded to questions regarding campus internationalization efforts and activities. The 2006 ACE survey currently includes the largest number of community college responses to a questionnaire regarding higher education internationalization activities and efforts. The independent variable for this study was community college classification of urban, suburban, or rural. The dependent variable was the level of internationalization of urban, suburban, or rural community colleges. Internationalization was measured with four internationalization dimensions: (a) institutional support (b) academic requirements, programs, and extracurricular activities, (c) faculty policies and opportunities, and (d) international students. Measuring dimensions of internationalization in conjunction with community

college classification was the general conceptual framework for this project and has helped shape its research questions. With the new Carnegie classification system, this study took advantage of the urban, suburban, or rural setting identifier through which two-year colleges may now be examined (Hardy & Katsinas, 2006).

Research Questions

This study seeks to understand the overall level of internationalization at community colleges, the context in which community college setting impacts internationalization, and any relationships between the dimensions of internationalization within each setting classification, and will be guided by the following questions:

1. What is the overall level of internationalization for U.S. community colleges?
2. Are there significant differences in the overall scores of internationalization between urban, suburban, and rural community colleges?
3. Are there relationships between the four dimensions of internationalization within the community colleges classified as urban?
4. Are there relationships between the four dimensions of internationalization within the community colleges classified as suburban?
5. Are there relationships between the four dimensions of internationalization within the community colleges classified as rural?

Hypotheses

There is one null hypothesis and there are three directional hypotheses for this study:

H₀: There are no significant differences in the overall internationalization scores of urban, suburban, and rural community colleges.

H₁: There is a direct relationship between the dimension of institutional support and the dimension of academic requirements, programs, and extracurricular activities for urban community colleges.

H₂: There is a direct relationship between the dimension of institutional support and the dimension of academic requirements, programs, and extracurricular activities for suburban community colleges.

H₃: There is a direct relationship between dimension of institutional support and the dimension of international students for rural community colleges.

Professional Significance

In order for colleges and universities to educate a substantial number of individuals who can demonstrate global competence, internationalization efforts will need to both expand and take new forms (Green, 2002; Hayward, 2000). The expansion of community college internationalization efforts can clearly be encouraged by providing evidence of what institutions are and are not doing to enhance international activities and efforts (Green, Luu, & Burris, 2008). However, as noted above, additional studies regarding community college internationalization are necessary in order to provide more breadth and depth to the subject area. By analyzing community college internationalization efforts using institutional setting as a basis for comparison, along with an analysis of the internationalization dimensions within each setting classification, this study is currently the only one of its kind.

Three audiences are expected to value the results of this study. The first set of audiences consists of college presidents, boards of directors, and high-level administrators of higher education institutions. These three groups will benefit from

learning about their institution's relative level of internationalization. These individuals are most often charged with setting the vision and mission for the institution and can, therefore, place "internationalization" in such settings as require action by the institution. These individuals are mostly likely able to affect the dimension of institutional support. High-level administrators may also be part of the second audience, which includes administrators charged with curriculum development, workforce development and continuing education, management of student affairs, and faculty development. These individuals are important to cultivating a campus-wide commitment to internationalization as well as encouraging internationalization throughout the curriculum. These individuals are most likely involved with the dimensions of academic programs, requirements, and extracurricular activities and international students. The final audience is comprised of private and government organizations that fund internationalization activities on college campuses. This study aids in identifying those classifications of community colleges along with the specific dimensions that would benefit from additional resources devoted to increasing internationalization activities.

Overview of Methodology

This study's methodology was similar to analysis performed with the 2003 ACE survey responses regarding internationalization of higher education institutions in the United States. Green & Siaya (2005) analyzed data collected from the responding community colleges to create an "internationalization index" by quantitatively defining the survey responses to measure institutional levels of internationalization. This quantitative study utilized data collected from the community colleges whose representatives responded to ACE's 2006 higher education internationalization survey.

The current study's analysis required extraction of relevant information from the ACE data to create an index similar to Green & Siaya's. The current study's index was created for the urban, suburban, and rural setting classification groups defined by the Carnegie classification system for community colleges. Finally, analysis of the four dimensions within each classification occurred. As noted by Kumar (2005), a quantitative structured methodology is appropriate in determining the extent and variation of a phenomenon, such as internationalization.

Delimitations

1. The data used in the study were limited to 2006 data and are short of an investment in new data collection.
2. Utilizing four dimensions of internationalization could exclude other dimensions as yet defined by research.
3. Private institutions are not included in the analysis as their missions and funding structures are often clearly different than those of public institutions.
4. Specialty colleges and four-year affiliated colleges are not included in the analysis as their missions and funding structures are often different than those of other public two-year institutions.

Definitions of Key Terms

To better understand internationalization in regard to higher education and community colleges, clarification of related terms is important. While terms were developed through different fields of study, some were used interchangeably. As such, several of the definitions of terms that are used throughout the document are presented here.

Academic requirements and programs consist of foreign language requirements, either for admission to or graduation from an institution, the number of foreign languages offered by an institution, international or global course requirements for graduation at an institution, institutional international or global course offerings, education abroad opportunities, courses offered in collaboration with institutions from other countries, guest lecturers using video-conferencing, and video or web-based research conferences (Green, Luu, & Burris, 2008).

Associate's colleges as defined by ACE in its 2006 survey results are “colleges in which all degrees awarded are at the associate level, or where bachelor's degrees account for less than 10 percent of all undergraduate degrees awarded” (Green, Luu, & Burris, 2008, p. 65). For purposes of this study, associate's colleges and community colleges were used interchangeably.

Carnegie classification system is a recognized higher education classification system originally created in 1970 by The Carnegie Foundation for the Advancement of Teaching (CFAT) (The Carnegie Foundation for the Advancement of Teaching, 2007). In 2005, for the first time in the CFAT's classification history, two-year colleges were split into subcategories including institutional control, setting, size, and governance. Setting classifications include suburban, urban, and rural delineations.

Community college is defined by the American Association of Community Colleges (AACC) as an institution that is credited, or undergoing accreditation, by one of the six regional accrediting bodies and primarily offers the associate degree as its highest degree (American Association of Community Colleges, 2009a). For purposes of this study, community colleges and associate's colleges were used interchangeably.

Extracurricular activities include institutional festivals or events, provision of a meeting place for students interested in international topics, buddy programs which pair U.S. and international students, language partner programs which pair U.S. and international students, international residence halls, programs which link study abroad returned or international students with K-12 schools, and language-designated residence halls (Green, Luu, & Burris, 2008).

Faculty policies and opportunities, as an indicator of institutional internationalization, entails institutional investments in faculty travel to teach, conduct research, lead students on education abroad programs, and for participation in professional development activities related to internationalization. Also included are institutional considerations of faculty international experiences and interests in a college's criteria for hiring, promotion, tenure, and recognition (Green, Luu, & Burris, 2008).

Globalization in this context is described as world-wide economic, technological and scientific trends (Altbach, 2004), including politics and culture, which affect higher education.

Institutional support, as a measure of internationalization, ranges from a link from the institution's home page to international programs, internationalization highlighted in recruitment literature, institutionally-developed global student learning outcomes, a campus-wide task force or campus-wide committee focused on internationalization, a separate written plan for institutional internationalization, internationalization reference included in the institution's mission statement and in its top five strategic priorities, and if

the institution formally assesses progress on its internationalization (Green, Luu, & Burris, 2008).

International and global education are often used interchangeably and defined by ACE as "...learning opportunities that are designed to help students understand other cultures and nations; communicate across borders; and acquire an understanding of the cultural, social, and political systems of other countries and regions, and the global forces that are shaping the world" (Green, Luu, & Burris, 2008, p. 7).

International students are defined as those who are enrolled at an institution of higher education in the United States who is not an immigrant (permanent resident), a U.S. citizen, or a refugee. International students may include holders of F (student) visas, J (exchange visitor) visas, and M (vocational training) visas (Institute of International Education, 2008c).

International students as a dimension of higher education internationalization, encompasses international student enrollment figures, recruitment efforts, supportive programs and services, and scholarship support (Green, Luu, & Burris, 2008).

Internationalization is a common word in higher education, although its definition is not always agreed upon. ACE, in reporting its results from the 2006 survey of higher education internationalization, defined the word to mean "...institutional efforts to integrate an international, global, and/or intercultural dimension into the teaching, research, or service functions of an institution" (Green, Luu, & Burris, 2008, p. 7).

Level of internationalization will be presented on a four point scale of "low" (0.0 to 1.0), "medium" (>1.0 to 2.0), "medium-high" (>2.0 to 3.0) and "high" (>3.0 to 4.0) (Green & Siaya, 2005).

Public two-year colleges exist under provisions of statutory enabling law and are somewhat funded via annual or biennial legislative appropriations and are legally recognized political subdivisions of the states that created them (Katsinas, 2003).

Private two-year colleges are independently operated (Hardy & Katsinas, 2006) and not legally recognized subdivisions of the states in which they are founded or operate (Katsinas, 2003).

Study abroad is described by Sindt (2007) as “programs that are developed to offer students opportunities to participate in academic courses, volunteer, work, or intern positions that are located in a country that is not the student’s country of origin or permanent residence” (p.11).

Conclusions

Business has a growing expectation that new employees have international experience. As such, students who are not exposed to aspects of a global economy may not be as valuable to an employer as a student with these experiences. To ensure student competitiveness in a global labor pool, international experiences are becoming more common in higher education institutions, including community college campuses. Empirical research on levels of internationalization is limited, however, and with the growing recognition of the importance of exposing students to international experiences, community college leaders looking to increase international offerings and activities so that opportunities are equal to or greater than the overall level for their classification are disadvantaged.

The next chapter broadens the foundation of this study through research related to (a) the historical and current state of higher education internationalization, (b)

government efforts and business interest in higher education internationalization, (c) factors/dimensions providing evidence of campus internationalization, and (d) rural, suburban, and urban community college comparisons, in order to provide substantial evidence for the need for additional examination of community college internationalization.

CHAPTER 2: REVIEW OF THE LITERATURE

Introduction

In this chapter the following four fields of literature are reviewed (a) history and current state of higher education of internationalization with a focus on community colleges, (b) government efforts and business interest in higher education internationalization, (c) current research on factors/dimensions providing evidence of internationalization, and (d) rural, suburban, and urban community college comparisons. Reviewing and summarizing the current status of higher education internationalization is imperative to understanding the amount of change that has occurred on college campuses over the last few decades in recognition of the topic's importance. Literature regarding government efforts to support internationalization activities provides evidence of the recognition of the importance for these activities to occur at colleges and universities, while businesses' interest in higher education internationalization demonstrates the connection of international experiences and employability. Research surrounding the dimensions of internationalization documents their validity as measures of internationalization. Finally, an appraisal of research on rural, urban, and suburban college comparisons supports the premise of college classification as a tool for group study and exposure to group differences.

This literature review demonstrates that although discussion about the urgency of global learning has been abundant in the past quarter of a century, little data about actual institutional practices were available (Green, 2007). King and Fersh (1983) offered insight into the growth of foreign student enrollment at community colleges from 1930 to 1983. Otherwise, empirical studies on internationalization often focused on best practices

for four-year institutions or were limited to case studies (Kelleher, 1996; Pickert & Turlington, 1992). Indeed, after two initial studies in 1988 and 1989, America's largest education membership association, the American Council on Education (ACE), did not survey higher education institutions regarding internationalization efforts again for eleven years (Siaya & Hayward, 2003). In 2001, ACE conducted a series of studies, surveying two and four-year institutions, faculty, and students (Siaya & Hayward, 2003), creating an essential empirical foundation for a national dialogue on internationalization (Green, 2007).

Despite reported increases in the internationalization of higher education, research on the topic continues to be limited, particularly as it relates to community colleges. Reflective of this gap is an analysis of doctoral dissertations completed over a five-year period to determine the proportion of those related to internationalization efforts (Chen, 2008). Chen determined less than .0008% of dissertations published between 2002 and 2007 were related to community college internationalization. Recently, Richards and Franco (2007) published a case study of one community college's efforts in internationalization. A qualitative study, the researchers attempted to explain how a specific institution incorporated certain activities in order to become more internationalized. Despite the efforts of ACE and other research projects, Cummings (2001) noted that international education is not a primary concern of most scholars; hence, research is somewhat sporadic and non-cumulative. Raby and Valeu (2007) and Levin (2001) concurred research regarding internationalization of higher education is lacking with Raby and Valeu citing the specific need for community college studies.

The emerging body of literature on community college internationalization was the basis for the present study. Most existing research focuses on a single aspect of higher education internationalization, whether it is study abroad, leadership, coordination, or curriculum (Doane, 2003; Stearns, 2009). This chapter examines theoretical and empirical research in the field. It also provides a foundation for the current study comparing internationalization in community colleges through the lens of rural, suburban, and urban classifications.

Potential frameworks

A clear framework related to internationalization or internationalization of community colleges does not appear in the literature; however, the lack of theory does not diminish the need for, or the importance of, additional research examining community college internationalization (Cummings, 2001; Levin, 2001; Raby & Valeau, 2007). Thompson (2002), first editor of the *Journal of Research in International Education* (JRIE), remarked in the publication's inaugural editorial that one of the primary reasons for the publication's creation was a lack of agreement on the theoretical basis of international education, despite the phenomenon being extensively practiced. This study adds to the research regarding internationalization in general and community colleges in particular. Certain theories may be of value when examining higher education internationalization for this study. Internationalization occurs through a series of changes. The manner in which an organization copes with and manages change may affect its ability to internationalize. Therefore, approaching higher education internationalization through leadership theory or a framework of cultural change in an organization may be

appropriate. In addition, these approaches may provide different insights when viewed from different vantage points of urbanization.

Leadership, according to McShane and Glinow (2005), is complex. It is therefore broken into five different perspectives: competency, behavioral, contingency, transformational, and implicit. These perspectives result in research focused on transactional, transformational, charismatic and contingent leadership styles (Gregory-Mina, 2009). House, Javidan, and Dorfman (2001) contended leadership styles themselves are changing as increased globalization and increased interdependencies among nations require better understanding of cultural influences on leadership and organizational practices.

Based on studies comparing leadership in two rural community colleges undergoing change and examining the management of change, a model for managing organizational change was suggested by Watwood, Frank, and Rocks (1997). The model included the following four components: conceptualization, or recognizing the different parts of a system as a whole, which may best be accomplished through cross-college representation on committees; active, two-way communication; commitment by leaders to organizational goals to gain the commitment of stakeholders; and the creation of management systems and support services dedicated to managing change and monitoring progress in the change process.

The level of urbanization can affect institutional and program success. Fluharty and Scaggs (2007) noted major funding deficiencies faced by rural community colleges. In a recent study of 2005 Integrated Post-Secondary Education Data System (IPEDS) data of public community college students, suburban institutions posted the highest full-

time student retention rates followed by urban institutions. Rural institutions trailed behind the other institutions at retaining full-time students from semester to semester and posted lower part-time retention rates than city and suburban institutions (Copeland, Tietjen-Smith, Waller, & Waller, 2008). Todaro's (Todaro & Smith, 2003) model of urbanization indicated more challenges for rural institutions as urban expansion of educational opportunities leads to more urban migration.

Higher Education Internationalization

Internationalization is a phenomenon that is evolving on many fronts, both as an instigator and reactor in the new realities facing education (Knight, 2004). In recent years, internationalization of higher education in the U.S. has involved many initiatives and undergone clear acceleration (Stearns, 2009). The Association of American Colleges and Universities (2009), notes on its main web page it “supports colleges and universities in their efforts to create settings that foster students' understanding of the intersection between their lives and global issues and their sense of responsibility as local and global citizens” A variety of other stakeholders in the U.S. higher education arena agree global competence is a worthwhile goal, and further internationalization of colleges and universities is required if significant numbers of U.S. students are to attain global competency (American Association of Community Colleges, 2009c; American Council on Education, 2009a; Institute of International Education, 2009a; International Association of Universities, 2009).

While internationalization has traditionally been nurtured at four-year universities, internationalization at community colleges has a key role in creating and offering international experiences for undergraduates. For those students whose education

ends with their community college experience, community colleges are likely to constitute the only formal academic opportunity to learn about other countries, cultures, and global trends (Green, 2007). The increased employer demand for students sensitive to globalization compels community colleges to internationalize their campus to better provide relevant opportunities to students (Ng, 2007).

Internationalization of community college campuses occurs primarily through four dimensions: (a) institutional support, (b) academic requirements, programs, and extracurricular activities, (c) faculty policies and opportunities, and (d) international students. Institutional support is considered key to advancing and maintaining internationalization efforts at colleges (Green, 2007; Korbel, 2007), while academic requirements and programs can impact a large number of students (Dellow, 2007). Faculty are seen as critical participants in successful internationalization efforts, and sufficient development opportunities support their participation (Boggs & Irwin, 2007; Raby, 2007). Finally, international students play an important role in internationalizing campuses by interacting with other students and faculty and staff (Boggs & Irwin). The presence of international students is also a strong indicator of an institution's level of internationalization (Hser, 2005).

Historical development

Universities have always participated in the global environment and, thus, been affected by circumstances beyond the campus and across national borders (Altbach, 1998; Levin, 2001; Pickert, 1992). The American university was derived from the English collegiate model, with later influence from German educators/researchers. Real growth for American Universities began in the second half of the 19th century (Altbach,

2004; Stearns, 2009; Veysey, 1965). The first community college was founded in 1901, but rapid growth soon followed. The Truman Commission of 1947 called for the establishment of a network of community colleges and became the foundation of great investment in creating community colleges (Cohen & Brawer, 2008). The growth in the number of community colleges reached a peak during the 1960s when over 530 new community colleges opened, an average of one new college per week for the entire decade. American four-year and two-year institutional commitment to educate “international students” from countries such as China, dates back to the early 20th century (Altbach, 1998; King & Fresh, 1983; Stearns, 2009) with Americans participating in study abroad for many decades (Altbach, 1998; Stearns, 2009).

Appeals for greater attention to global education, or at least more internationally-oriented programs among American colleges and universities, dot the landscape of contemporary history from the 1960s onward (Green, 2002; Siaya & Hayward, 2003). Since 1967, community colleges have offered education abroad programs (Raby, 2007). In the 1970s, increased support for international education programs resulted in new federal funding for diverse area studies programs, but with significant results occurring only in the last fifteen years (Stearns, 2009). In 1996, the American Council for International Intercultural Education (ACIIE) collaborated with the Stanley Foundation to formulate a set of global education competencies for the community college student:

Global competency exists when a learner is able to understand the interconnectedness of peoples and systems, to have a general knowledge of history and world events, to accept and cope with the existence of different

cultural values and attitudes and, indeed, to celebrate the richness and benefits of this diversity.(p. 4)(p. 4)(p. 4)

In AACC's (1996) global education study of 624 community colleges, 64% offered at least one foreign language, and 63% offered English as a Second Language curriculum. Forty percent were involved in efforts to internationalize the curriculum; however, the degree of involvement was undocumented. Roughly one-third of the respondents offered international study tours, with less than 20% providing student exchanges, faculty study abroad programs, and participation in international meetings (Chase & Mahoney, 1996).

Many community colleges, even if interested in internationalization, struggle with implementation. In 1995, Peralta Community College District (PCCD) worked over many months to create a blueprint for an international education program which was presented to the district chancellor. Unfortunately, the chancellor's policy advisory council did not see the need for internationalization efforts such as recruiting international students. PCCD waited two years to present the idea to a new district chancellor who ultimately approved the program (Ng, 2007).

Emerson and Newsom (1995), who echoed support for international education in community colleges, found reasons to be concerned about its advancement. The researchers documented seven barriers to international education efforts in community colleges, including persistent isolationism in U.S. American culture and the inability to relate international education programs to measurable economic and cultural outcomes. Their survey of 46 Texas community colleges found the majority lacked international education policies in mission statements, had no international education committees, and were not members of an international education association at either local, state or

national levels. In addition, faculty development, internationalized curriculum, and out-of-country education were minimal in the majority of reporting colleges. Only six of the college respondents required foreign language study for a degree.

It is interesting to note both the Raby and Tarrow (1996) and Emerson and Newsom (1995) studies conveyed the impression community colleges in 1995 were lagging in internationalization activities. Interestingly, the international student population at community colleges experienced a 57.9% increase in growth starting in 1993 (Koh, 2004). Also, during the 1990s, many community colleges incorporated an awareness of globalization into their education programs and mission statements (Levin, 2000; McJunkin, 2005). Levin's (2000) study of institutional change at seven U.S. and Canadian community colleges from 1989 to 1998 revealed a general increase in both international and multicultural foci at these institutions. Levin found colleges began recruiting international students and extending their institutional services abroad as a means of supplementing shrinking institutional budgets. The colleges subsequently aligned curriculum and programming to fit these students' needs. Despite contradictory reports regarding overall increases in internationalization during the 1990s, Floyd, Walker and Farnsworth (2003) supported Raby and Tarrow's (1996) argument that global education was an appropriate focus for community colleges. The researchers suggested this focus was appropriate for community colleges due to their ability to serve a global and intercultural clientele, provide employable skills that were valid globally, and provide a community labor pool based on an understanding of and sensitivity to local, national, and global issues (Floyd, Walker, & Farnsworth, 2003).

A 2001 ACE survey, of which 233 respondents were community colleges, found these institutions to be less active within individual dimensions and in overall comparison to four-year institutions (Green, 2007). ACE looked at seven dimensions of internationalization: (a) stated institutional commitment, (b) academic requirements, (c) organizational structure, (d) funding, (e) communication structure, (f) faculty opportunities, and (g) student opportunities. ACE determined community colleges were less active than their four-year counterparts in all but one area (Green, 2007). For example, 23% of community colleges had an internationally focused course as part of the general education requirement, compared to more than half of four-year institutions (Green, 2007). Twenty-five percent of community colleges mentioned internationalization or international education in their mission statement(s); 16% listed internationalization as one of their top five strategic plan priorities; 44% had a campus-wide taskforce that worked to advance internationalization on their campus; and 38% actively sought external funding to support internationalization. Additionally, 33% of the colleges earmarked funds to recruit international students; 12% had at least one office dedicated exclusively to administering international education activities; 38% administered study abroad programs; and 36% offered workshops to faculty on internationalizing the curriculum (Green, 2007). Faculty workshops regarding internationalizing the curriculum provided the only example of community colleges having more internationalization activity than four-year colleges.

Current status of higher education internationalization

According to Siaya, Porcelli, & Green (2002), “September 11 raised important questions about how colleges and universities educate students for global citizenship,

their role in producing experts in languages and area studies essential to national security, and how their tradition of welcoming students from other countries might evolve” (p. 1). In 2002, community colleges were reported to be moving forward with increased international programming and emphasis on enhancing global understanding (Floyd, Walker, & Farnsworth, 2003). These efforts are reflected in the latest ACE survey of higher education internationalization. Using the four indicators proposed for this study, in 2006, ACE surveyed 2,746 higher education institutions regarding policies and practices in furthering international education. ACE reported finding a “mixed picture” of higher education internationalization. For example, while curricular requirements were not reported to play a central role in internationalization, 91% of respondents did offer study abroad opportunities. ACE reported that of the 409 associate degree granting institutions (public and private) that responded, 85% offered study abroad, a significant increase over the 38% reported in 2001. Associate colleges were also the most likely of all types of institutions to invest in professional development opportunities for faculty. Particularly prevalent was offering workshops on internationalizing the curriculum (Green, Luu, & Burris, 2008). This finding confirmed ACE’s previous survey finding that community colleges offered more professional opportunities for faculty than did their four-year counterparts.

Despite gains reported in the 2006 ACE survey, research indicates internationalization at community colleges continues to lag behind efforts of four-year institutions. Community college study abroad participation accounted for less than three percent of the U.S. total in 2005-2006 (Institute of International Education, 2008b). More than two-thirds of the 76 community colleges which comprise the California Colleges for

International Education (CCIE) lack an office, full-time staff, or a college budget to support education abroad (Raby & Rhodes, 2004). While four-year institutions either increased or maintained one or more offices to oversee internationalization between 2001 and 2006, the percentage of associate degree colleges with these offices decreased from 61 to 57 (Green, Luu, & Burris, 2008). Despite reporting support for current faculty, nearly 97% of associate colleges do not consider international experience when making or promoting tenure decisions (Green, Luu, & Burris, 2008).

Government

Consensus exists about the nature of higher education in the U.S. always having international components. Scholars contend the American university system was originally modeled after European higher education with study abroad dating back to the early 20th century (Altbach, 1998; deWit, 2002; Stearns, 2009). However, the role of government encouraging internationalization in higher education is also a prominent point of discussion for researchers examining changes in college and university international activities.

Federal Support for Internationalization

Researchers agree the U.S. government has played a role in internationalization of higher education mainly by funding programs, agencies, and initiatives (deWit, 2002; Hines, 1998; Pickert, 1992). Primary activities occurred in the twentieth century through three waves of early interest in international activities at colleges and universities. The first wave followed World War I; the second accompanied World War II; and the third was associated with the Cold War (deWit, 2002; Doane, 2003). Interest during these time periods was marked by specific federal programs launched to encourage college student

enrollment in programs and courses with international content as a means to increase international expertise for defense purposes.

The United States' first attempt at supporting international education was its support of the private, not-for-profit Institute of International Education created in 1919 (deWit, 2002; Institute of International Education, 2009b). In 1958, the National Defense Act (NDEA), which was created in response to the Soviet Union's launch of Sputnik, resulted in government funding higher education initiatives as a critical component in increasing international expertise. NDEA's Title VI invested in the development of area studies programs, international studies, and language experts and was included in the bill's 1980 reauthorization as the Higher Education Act (O'Meara, Mehlinger, & Newman, 2001). NDEA was soon followed by the Fulbright-Hayes Act, formally known as the Mutual Educational and Educational Cultural Exchange Act of 1961, which provided funding for visits and study in foreign countries by American teachers and prospective teachers (Hines, 1998). Not all federal proposals were supported, however, as the 1979 President's Commission report on language training, while hailed as being the first initiative to call for significant increases in foreign language competency among college and university students, was never funded (O'Meara, Mehlinger, & Newman, 2001).

The current wave of government interest in internationalization seems to have begun in the mid-1980s due to concerns about the declining global competitiveness of the U.S. (Pickert, 1992; Vestal, 1994). A few federal initiatives in the international field were added in 1991 in the National Security Education Program, supporting study abroad by undergraduates and other programs (Altbach, 1998; Vestal, 1994). The events of

September 11, 2001 renewed discussion about the importance of increased global citizenship and specific educational needs of U.S. citizens (Green, 2002; Siaya, Porcelli, & Green, 2002). Soon after September 11, the U.S. General Accounting Office (GAO) initiated an audit of seventeen federal agencies to determine areas of strengths and weaknesses in programs and personnel. The GAO reported shortages of translators, interpreters, and other qualified staff available in relation to the changing security environment and globalization (Green, 2002).

By 2002, federal spending on international education from departments of State, Education, and Defense, was almost \$280 million, less than one percent of all discretionary expenditures for higher education (Green, 2002). President Clinton's 1999 "Memorandum on International Education," which supposedly committed the federal government to supporting more efforts in areas such as study abroad and faculty exchanges (Stearns, 2009), was never funded. In 2001, the Board of Directors of NAFSA: Association of International Educators called for the development of a federal international education policy in which the contributions of international education to national interests would be articulated (NAFSA 2001.) In 2002, ACE called for a comprehensive national policy on international education (Doane, 2003), but no such national policy was fully developed or implemented.

No consensus exists on the success or impact of federal initiatives. Critics of government initiatives cite a few exceptions to the government's failure to strongly support international education. The Foreign Language and Area Studies (FLAS) scholarship program, the Centers for International Business Education (CIBERS), the Department of Education's university based "National Research Centers" (NRCs), and

the Fulbright programs (Doane, 2003; Wiley, 2001) are generally thought to be more successful than other initiatives. The Fulbright programs have sponsored thousands of students and faculty to study or teach abroad and have brought many international students to the United States. Some supporters of internationalization offer mixed reviews as to the significance of the Fulbright programs, identifying them as “small” with little impact (Altbach, 1998; Stearns, 2009). NRCs exist from the federal government’s periodic selection of seven or eight universities to focus on each of the world’s major areas. The centers are intended to channel support for graduate students, programming, and infrastructure. However, this effort has been criticized because awards tend to be granted to the same leading research universities (Stearns, 2009).

State Support for Internationalization

States rarely legislate or fund colleges and universities to do more than they are currently attempting in the global arena. For example, New Jersey put forth a mandate to increase international activities in higher education in the early 1990s, but no support programs were ever funded (Stearns, 2009). States are under close scrutiny with respect to spending on internationally related activities. In studying the governing operations of the State University of New York’s community colleges, Abue (2002) noted the challenge associated with a state’s funding of international student programs when constituents believe more pressing issues exist. Despite lackluster efforts, Doane (2003) believed states can provide significant leadership with regard to the internationalization of their post-secondary institutions. State leaders and education officials can work with the broad range of stakeholders in higher education to develop a vision for international

education and strategies to promote internationalization and then work to develop the political support needed to increase state funding for international activities.

One indicator of the growing importance of global education to states is the number of state associations actively promoting global education activities in community colleges. Korbel (2007) noted North Carolina was gaining national attention for courting international firms and training a multilingual and multicultural workforce with the help of community colleges. In 2006, the Maryland Community College International Education Consortium was created to provide study abroad and other international trip opportunities (Korbel, 2007; Maryland Community College International Education Consortium, 2009).

Summary

Government remains challenged in creating a united effort for the internationalization of higher education. While one sector of the federal government may try to encourage efforts on the basis of needed expertise or to bridge public opinion in other regions, another sector may establish new restrictions and barriers (Stearns, 2009) or does not provide funding for the new effort. Collaboration does occur, however, and in 2006, the U.S. Departments of State and Education joined forces to host a U.S. University Presidents' Summit on International Education. Of the 113 attendees, 14 were community college presidents and chancellors (Boggs & Irwin, 2007).

Globalization and Employer Labor Demands

Studies demonstrating business executives' belief of the importance of international skills for employees are not new. In presenting results of surveying U.S. companies to determine demand for employees with international competence, Kedia and

Daniel (2003) noted Nehrt's 1977 study. Nehrt's work suggested every manager, not just those with international responsibilities, should have some formal education and training in international business. Later studies supported businesses' expectation or desire for employees with increased international exposure (Moxon, et al., 1997; Webb, et al., 1999). Klarh and Ratti (2000) noted the engineering profession increasingly involves international bids and projects, demands international interaction among colleagues, and "requires engineers to gain awareness in world events and the global economy as well as acquire intercultural understanding" (p. 79). Kedia and Daniel's (2003) survey of 111 companies revealed strong demand for employee international experience, regardless of a company's size. Specifically, 80% of the responding companies believed overall business would increase if more international expertise were available on their staff. These same respondents expected to place a greater emphasis on employees' international competence, during the hiring phase, over the next ten years. Support for hiring employees with international experience is not demonstrated in all studies, however, with some evidence indicating managerial belief that employees can or will learn international expertise or aspects on the job (Ball & McCulloch, 1993).

In a report for the IIE, the German Academic Exchange Service and the Australian Education Office, Tillman (2005) described Thompson Education's (2004) effort to determine employer acceptability and market value of an international degree for U.S. students and employers. Employers considered interpersonal skills to be the most important employee selection criteria and believed these skills were likely to be strong in a candidate with overseas education experience. These findings were supported in February 2007, as the National Association of Manufacturers joined with academic

organizations such as the National Association for State Universities and Land Grant Colleges, to sponsor a forum on study abroad and economic competitiveness. Stearns (2009) summarized the event at the National Press Club as including speakers from many vantage points being unanimous in their endorsement of study abroad as the cornerstone for global competency of students. In addition, there was recognition that too many Americans are uninformed about the world around them, despite claims by employers of their increasing awareness of the benefits of hiring graduates who have study abroad experience.

Global changes relate to workplace opportunities (Stearns, 2009) for employers and employees. International labor mobility may be one reason the international dimension of postsecondary education is becoming increasingly important (Knight, 2004). The growing internationalization of the workforce and multinationalization of business mean workers will cross national boundaries in greater numbers and more routinely. U.S. workers will learn they function and compete in a global context that increasingly values cultural flexibility, multilingual proficiency, and the ability to work with individuals and groups who are quite diverse (Oliva, 1997). Rosenfeld (2000) echoed Oliva's comments while addressing the issues facing rural community colleges of the twenty-first century. He argued that, due to globalization, community colleges should prepare students "with an understanding of cultures, economic systems and business environments in other parts of the world" (p. 3). Many adults believe knowledge of international issues is relevant to individual careers (Green, 2007). In a 2002 survey, 90% of respondents agreed knowledge of international issues was important to the careers of younger generations (Siaya, Porcelli, & Green, 2002). The telephone survey of more than

1,000 respondents, ages 18 and older, confirmed very strong agreement on this point regardless of age, income, level of education, and gender.

In his review of the governing operations of SUNY community colleges, Abue (2002) noted a consequence of globalization reflected in community college enrollments. The goals of new enrollees demonstrated an increased interest by working adults and their employers in skill certification and upgrading. The need to develop a global workforce is echoed by educational associations. NAFSA added “global workforce development” to its mission statement soon after the turn of the twenty-first century (Tillman, 2005), and The (AACU) endorsed global education to prepare students for the global world of work (Stromquist, 2007). The American Assembly of Collegiate Schools of Business International (AACSB) has long emphasized internationalization as a prime accreditation factor and publicly added the word “international” to its name in 2001 (The Association to Advance Collegiate Schools of Business International, 2009).

One example of global recruitment pitting U.S. college students against individuals from around the globe is multinational corporation L’Oreal’s “E-Strat Challenge.” E-Strat is a global on-line employee recruitment effort in which students make decisions regarding everything from multinational retail strategies to research and development spending. As students play online, a computer tracks their decisions and awards points for moves that increase their simulated company’s market value. After winning local contests, finalists travel to Paris, giving L’Oreal executives a firsthand chance to see how they perform under pressure. In 2005, the best teams were from Europe, Brazil, Indonesia, and Turkey with members of the winning team from Rio de Janeiro hired by L’Oreal (Matlack, 2008).

Summary

The labor market is increasingly global, not local, regardless of where one lives (Karoly & Panis, 2004). Improvements in technology allow a growing sector of contractors and free lance workers to compete for jobs around the globe (Autor, 2001). Competition then allows community college students and graduates to compete for jobs outside of their communities, but also affords non-local individuals an opportunity to compete for jobs inside a student's/graduate's community. Hence, no locality where community college students and graduates live is immune to global job competition as part of a worldwide labor pool. During the 1990s, Levin (2000) observed forces of globalization compelled community colleges to try to better meet the needs of business and industry, including increasing international experiences for students. Given industry's desire for more employees with international experience, community college students who are not exposed to aspects of a global economy may not be as valuable to employers as students with these experiences (Kedia & Daniel, 2003).

Dimensions of Internationalization

Four dimensions, or indicators of internationalization, in this study were primarily selected from the framework of various studies by Ellingboe (1998), Hayward (2000), Horn, Hendel, and Fry (2007), Siaya and Howard (2003), and Green, Luu, and Burris (2008). Ellingboe focused on internal aspects of internationalization, such as leadership, faculty involvement, curriculum, study abroad, and aspects of international student experiences. Hayward reported on the long standing use of language study, study abroad, and area studies as representative of internationalization, adding outside funding as important. In their study analyzing internationalization at 77 research universities in the

United States, Horn et al. included the following dimensions for non-research activities: (a) student characteristics (e.g. percentage of international students on campus), (b) curricular content, and (c) organizational support. Similar indicators were used in a recent study that examined the relationship between internationalization and quality of higher education. The variables utilized to study non-research related internationalization were (a) international students, (b) U.S. study abroad, (c) internationalized faculty and scholars, (d) internationalized curriculum, and (e) organizational support (Jang, 2009). Finally, the ACE has used (a) international support, (b) faculty policies and opportunities, (c) academic requirements, programs, and extracurricular activities, and (d) international students, as factors demonstrating internationalization in its last two national surveys of higher education institutions. ACE further used these indicators to analyze levels of internationalization at colleges, including an analysis of community college internationalization (Green, Luu, & Burris, 2008; Green & Siaya, 2005; Hayward, 2000).

Institutional Support

Institutional support is considered key to advancing and maintaining internationalization efforts at colleges (Green, 2007; Korbel, 2007). The organizational value of internationalization is reflected in an institution's mission statement (Doane, 2003; Morphew & Hartley, 2006), incentive structures, and the accessibility of relevant program information for prospective students (Siaya & Hayward, 2003). In Morphew and Hartley's (2006) review of 300 randomly selected college and university mission statements, an examination of the first few sentences, assumed to have greater institutional emphasis, found "prepare for world" appeared in 46 mission statements.

Stated institutional commitment

Institutional policies, which can be a defining factor in a program's success or failure, have largely been ignored in the literature (Ng, 2007). Morphew and Hartley's (2003) analysis of mission statements of 142 public institutions found the construct "prepare for world" ranked eighth among the most frequent constructs in the mission statements of public institutions. Global contexts are being included more often, however. Levin (2000) observed that during the 1990s, forces of globalization compelled community colleges to try to better meet the needs of business and industry, including increasing international experiences for students. Mission statements transitioned from a focus on facilitating individual and community development to a focus on economic development and workforce training. Similarly, Ayers (2002) documented workforce training as a clear theme in contemporary community college mission statements. In his review of mission statements of (SUNY) community colleges, Abue (2002) noted that globalization is affecting SUNY community college missions and values as they work to be responsive to educational needs for global communities. Northern Virginia Community College developed a new mission statement after 2005, vowing to leverage its existing role in serving over 9,000 students from around the world "to create learning experiences that build greater global awareness across the college" (American Council on Education, 2009b).

Organizational structure and staffing

As evidenced by a study of 25 international programs, adequate staffing and funding of an institution's international studies office and related positions across the institution lead to a more successful internationalization program (Kelleher, 1996). This

position is supported by two later studies. First, of 233 community colleges studied, analysis determined institutions with higher levels of internationalization were much more likely to have an office that oversees international education programs than colleges with lower levels of internationalization (Green & Siaya, 2005). A more recent study of higher education internationalization indicated higher levels of internationalization occurred when an institution had an office overseeing internationalization (Green, Luu, & Burris, 2008). The above conclusions suggest having an office not only legitimizes an institution's educational efforts, but also encourages participation as faculty, staff, and students do not have to travel from one office to another when needing assistance.

It is now being suggested that many campuses, including community colleges, have a physical space and staff dedicated to coordinating global efforts and answering questions.. A recent study of higher education internationalization indicated higher levels of internationalization occurred when an institution had a full-time administrator coordinating internationalization efforts (Green, Luu, & Burris, 2008). In 2005, Northern Virginia Community College created an Office of Global Studies and Programs to coordinate and sustain activities and efforts. Pera Alta Community College District works to ensure that a centralized office maintains a degree of balance with four campuses while being ultimately responsible for all of the program's components (Ng, 2007).

Experts suggest future international education should involve a more obvious effort, such as creating an international office with official direction, often at a vice presidential level, if such an office is absent (Green, 2003; Stearns, 2009). The location of the international studies office relative to the college's hierarchy impacts the capacity of the institution to support internationalization efforts (Doane, 2003) and be viewed as

legitimate. SUNY at Binghamton advanced a new commitment to global education with a broadly based International Education Advisory Committee, complementing the Director of International Programs position which reports to a Vice Provost (Stearns, 2009).

Another model can be seen in Tidewater Community College's faculty International Education Committee which oversees internationalization initiatives and provides academic leadership in conjunction with a Chief International Education Officer (American Council on Education, 2009c).

External funding

International education relies on outside funding, beyond normal tuition revenues; use of state monies for public institutions is frequently constrained in the global arena, and the trend for support is downward for higher education as a whole (Abue, 2002; Stearns, 2009). For example, proposals generated two years ago by the U.S. Department of Education for curricular efforts in the global arena were turned back due to budget limits and expenditures on noncompetitive earmarks (Stearns, 2009). In this context, schools are employing fundraisers specifically dedicated to international education efforts. However, given higher education's relatively new expedition into internationalization, a program not always understood by the public as relevant to the community college mission, fundraising must often appeal to (a) diverse and lesser known foundations, (b) federal offerings that are sporadic and widely scattered, and (c) private donors whose international ties and interests are not always easy to uncover (Stearns, 2009). Given these challenges, using institutional resources to raise external funds is an indicator of a college or university's commitment to internationalization (Green, Luu, & Burris, 2008). Some colleges, particularly large ones, can organize

international alumni for fundraising. Kalamazoo College and Stanford University, despite their differing endowment size, have tapped into these funds for global studies and study abroad support (Kelleher, 1996; Stearns, 2009). Tidewater Community College has been successful in acquiring Virginia state and federal government funds, such as funding from the National Security Education Program, for faculty study abroad and curriculum development (American Council on Education, 2009c).

In a study of community colleges, Green & Siaya (2005) found community colleges considered highly active in internationalization more likely than less active colleges to seek external funds for international education. Yet, at least one study demonstrated receiving funds does not always equate to increases in appropriate activity. Despite more than a dozen of the 76 community colleges which make up CCIE receiving federal grants to internationalize curriculum, none has internationalized general education requirements (Raby, 2007).

Academic Requirements, Programs, and Extracurricular Activities

The basic structure for any program in international education involves courses and programs available to, or required of, undergraduates (Kelleher, 1996; Stearns, 2009). In its latest higher education survey to determine internationalization, ACE considered several indicators to measure internationalization of the curriculum in order to reflect an institution's commitment to internationalization (Green, Luu, & Burris, 2008). Similar to Kelleher (1996) and Pickert (1992), ACE recognized course requirements (e.g. foreign language), study abroad, and extracurricular activities as primarily representing institutional efforts to increase student international experiences. ACE also included the use of technology in its measurement of internationalization (Green, Luu, & Burris,

2008). Technology provides low-cost opportunities for interactions between diverse students and links among academic institutions worldwide through electronically shared course segments and projects (Altbach, 1998; Ngai, 2003; Stearns, 2009).

Courses/Curriculum

The literature on the importance of internationalizing the curriculum as a factor in overall institutional internationalization is extensive. Early contributors include Burn (1980) and Pickert and Turlington (1992) with more recent confirmation by Knight (2004) and Stohl (2007) and a focus on community college curriculum by King and Fresh (1983), Ng (2007), and Raby (2007). Sylvester (2005) noted Mestenhauser (1998) as the first to provide a list of disciplines and courses needed for the basis of international education. This list included international affairs, area studies, history, sociology, literature, geography, languages, cultural anthropology, cross-cultural communication, political science, cognitive psychology, anthropology, and social psychology. Although there has been some progress, for many institutions, curricular changes remain undeveloped or occur only in programs with obvious international connections (Altbach, 1998; Stearns, 2009).

An example of curricular change in obvious study areas can be seen through course infusion with CCIE. In 2006, CCIE colleges infused international content in 90% of cultural anthropology courses, 85% of cultural geography courses, 80% of ethnic studies courses, and 50% of intercultural communications courses (Raby, 2007). In support of the contention new curriculum development is lacking, Raby further explained the introduction of specific international courses lagged behind course infusion at CCIE. Indeed, despite its name, only four percent of CCIE colleges offered a certificate or

associate degree in international or global studies (Raby, 2007). As education providers rely on a multicultural or international curriculum to help students develop international competencies or literacy for effective participation in the diverse global job market (Ngai, 2003; Raby, 2007), more effort seems to be warranted.

Green (2007) noted the majority of community college students have significant obligations that preclude them from engaging in non-classroom activities; hence, internationalization of the curriculum is critical. A report on global education at the community college level indicates course work and co-curricular efforts that highlight cultural diversity, plus comparison and communications issues, are much more advanced than programs which encourage understanding of global systems. Global affairs majors capture these latter elements deliberately, but general education and across the curriculum efforts thus far lag behind (Zeszotarski, 2001). Additionally, very few community colleges offer degrees in global affairs. An example of an “across the curriculum” approach for internationalization can be found at Butte College. The President of Butte College, a community college in California, provided additional resources to support the college’s international commitment, including persuading the institution’s curriculum committee not to approve any new course, in any unit, without a global component (Stearns, 2009).

Foreign language requirements and offerings

Language experience is a vital component of global education, if not for all students at least for a greater number than now encounter it in any meaningful way (Pickert & Turlington, 1992; Stearns, 2009; The Committee for Economic Development, 2009; U.S. Government, 2006). By the early twenty-first century, only eight percent of

higher education enrollments were in enrolled in foreign language courses, down from 16% in the 1960s. Sixty-eight percent of all colleges have some language requirements for graduation, which is down from 89% in 1965 (Stearns, 2009).

Regardless, foreign language remains an important aspect of internationalization, with revived discussion following September 11, 2001. In ACE's 2002 opinion poll, 74% of respondents supported a college foreign language requirement (Siaya, Porcelli, & Green, 2002). The Committee for Economic Development, an independent, not-for-profit, non-partisan research and policy organization of over 200 business leaders and educators, called for a dramatic increase in the number of Americans learning critical languages such as Arabic, Chinese, and Hindi (Committee for Economic Development, 2006). In 2006, President Bush launched the National Security Language Initiative (NSLI), a plan to further strengthen national security and prosperity in the twenty-first century through education, especially in developing foreign language skills (U.S. Government, 2006). One year later, of the 76 community college members which make up CCIE, none had yet linked foreign language acquisition to graduation requirements (Raby, 2007).

International and global course requirements and offerings

New majors in global affairs have been a crucial expression of the growing interest in issues of global education and the need for innovation in higher education. Large universities such as the University of California at Santa Barbara and George Mason University count hundreds of students in these new globally-focused majors (Stearns, 2009). Over 25 institutions established some kind of global proficiency, citizenship, or leadership certificate program between the mid 1990s and the present

(Stearns, 2009). In her review of successful undergraduate international education innovations, Kelleher (1996) presented the University of Southern California as a leader in the movement of offering international degrees and certificates. The university offered more than a dozen international majors in areas such as anthropology and ethnic studies, as well as numerous international minors and certificates in programs such as environmental social sciences, and peace and conflict studies. Experts suggest new thinking about what languages now deserve emphasis, how to fold international relations into a broader interdisciplinary umbrella, and how to involve a wider variety of majors and professional programs in serious engagement with global issues (Kelleher, 1996; Pickert, 1992; Stearns, 2009). Examples at the community college level are less clear, but do exist. A recent requirement at Bellevue Community College, near Seattle, incorporates intercultural communication courses into its nursing program to assist future nurses in dealing with patients from diverse international origins (Stearns, 2009).

Study abroad

Numerous educators and researchers maintain that study abroad is an effective way to develop skills valuable to employers such as multicultural competence, global competence, and cross-cultural sensitivities is through immersion in a foreign culture (Bakalis & Joiner, 2004; Doane, 2003). Study abroad covers a multitude of engagements from a cursory week or two to deeply involved semesters for years of academic work. They range from operations conducted exclusively by American faculty, which differ from the home institution only in location and a field trip or two, to real immersion in an international setting (Sindt, 2007; Stearns, 2009).

A recent study used a pretest and posttest to measure changes in intercultural adaptability and intercultural sensitivity between study abroad students and students who stay on campus during the course of a semester. Results demonstrated that students who study abroad exhibited a greater change in intercultural communication skills after their semester abroad than students who stayed on campus. In addition, results indicated exposure to various cultures was the greatest predictor of intercultural communication skills (Williams, 2005). Short term study abroad also provides a valid international experience for students. These experiences are usually less than four weeks in length, and the short-term option is often the most widely available and preferred by students at community colleges. One study demonstrated self-reported increases in students' questioning assumptions, interest in gathering and interpreting data, using information to inform and impact personal growth, and the understanding of one's civic role in a globalized world (Lewis & Niesenbaum, 2005). Indeed, while business/management programs have long recognized and encouraged study abroad to aid the portfolios of students (Stearns, 2009), other programs are now doing so. Higher education engineering faculty and researchers have actively studied how to increase the number of study abroad programs and student participants (Klarh & Ratti, 2000) because international experiences are so important to the careers of their students (Kelleher, 1996).

A rapid increase in study abroad programs is obvious. In 2000, 65% of American campuses had programs, but by 2006 the figure increased to 91% (IIE, 2008). From 2001-2006, the percentage of community colleges offering study abroad opportunities grew from 38 to 85 (Green, Luu, & Burris, 2008). Unfortunately, a 2006 survey from the IIE found only 0.01% of community college students had studied abroad in 2005-2006

(Institute of International Education, 2008b). In a study of community colleges, Green and Siaya (2005) found community colleges considered highly active in internationalization were much more likely than less active institutions to administer study abroad programs for undergraduate credit and have policies enabling students to study abroad without delaying graduation.

Institutional study abroad support. Only a few American institutions cover many of the expenses of study abroad operations from the regular operating budget; most depend heavily, and some entirely, on program earnings (Stearns, 2009). Other primary options include allowing students to use institutionally awarded financial aid, assessing student fees which are eligible for federal/state financial aid (Green, Luu, & Burris, 2008), and having fundraising events. Institutional support also reflects college integration of study abroad into education goals so students do not postpone graduation due to study abroad participation. Sometimes, staff coordinating study abroad must negotiate for each program with relevant departments, seeking some academic credit. For new activities, this imposes a considerable burden on the administrator and places his or her efforts entirely at the pleasure of individual academic units (Stearns, 2009). Coordination remains an issue, particularly in helping to address issues such as imbalances in access, interest, and the need to persuade larger faculty groups to build study abroad options into their curricular planning and advising (Klarh & Ratti, 2000; Stearns, 2009).

Extracurricular activities

While discussed less frequently, co-curricular activities and events receive attention in the literature about higher education internationalization in so far as they help

internationalization of an institution (Ellingboe, 1998; Green, 2002; Green, Luu, & Burris, 2008). In a study of community colleges, Green and Siaya (2005) found highly internationalized community colleges to be much more likely to earmark funds for regular, ongoing international activities on campus than less active colleges. Researchers agree that since most U.S. students will not study abroad, activities such as interacting with a foreign faculty member and attending culturally themed events could provide exposure to international themes (Doane, 2003; Jang, 2009). In its 2006 survey of higher education internationalize, ACE found the most common extracurricular activities to be (a) regular and ongoing international festivals or events on campus, (b) creating a meeting place for students interested in international topics, and (c) offering programs that pair international students with native students (Green, Luu, & Burris, 2008). Additional studies supported the idea of interacting with international students as an extracurricular activity. A study of the 76 community colleges which comprise CCIE found 60% used international students as guest speakers (Raby, 2007).

Use of technology to advance internationalization

For the past quarter of a century, the proliferation of microcomputers, networks, the Internet, and the miniaturization and mobility of electronic devices has prompted a transformation of educational format and content with most educational materials having a web component (Miltenoff, 2008; Vestal, 1994). Of the 994 higher education institutions responding to an online survey, 81 percent of all institutions of higher education offered at least one fully online or blended course ,with public institutions' percentage rising to 97 (Allen & Seaman, 2003). While not a substitute for study abroad or hosting international students on campus, technology provides low-cost opportunities

for interactions between diverse students and links among academic institutions worldwide through electronically shared course segments and projects (Altbach, 1998; Ngai, 2003; Stearns, 2009). As most community college students are challenged to participate in study abroad or extracurricular activities due to work and/or family demands, technology may offer classroom-based international experiences.

While technology can provide opportunities for diverse cultural interaction, it is not without flaws. One study, designed to evaluate the use of asynchronous discussion in distance education in terms of student perceptions of its value for learning and for effective support, found students perceived characteristics of the online aspects of the program as having considerable value. The small group discussions were seen as most important for all aspects of communication, but students reported non-participation by some members as a significant problem (Anderson & Simpson, 2004), an issue that could seriously affect international idea exchanges. Another study, in exploring how a culturally diverse cohort of students engaged with the organizational, technological, and pedagogical aspects of online learning, found indications that cultural differences impact participant satisfaction with organizational and technological issues. Specifically, local respondents indicated significantly more positive perceptions than international respondents. Significant also was a reported lack of peer engagement and intercultural communication (Hannon & D'Netto, 2007), which have serious implications if a student's only exposure to international diversity occurs online.

Summary

As co-curricular developments suggest, standard coursework is only part of institutional internationalization. International education must embrace other facets,

including study abroad and extracurricular exposure to international diversity and issues. Study abroad continues to evolve and is an important contributor to global education but must be part of a richer mix of global education efforts (Stearns, 2009). This is particularly true as student ability to participate in study abroad and extracurricular activities can be limited, especially for community college students. Technology can be a tool for providing international experience, but assessments indicate it is not a panacea for a lack of any other international experience.

Faculty Policies and Opportunities

Any discussion of extending a global education curriculum must address faculty preparation and engagement (Brustein, 2007; Green, 2007), as opportunities for U.S. faculty to travel, teach, and conduct research overseas are significant components of internationalization (Boggs & Irwin, 2007; Doane, 2003; Raby, 2007). Faculty drive the components of international education, either with initial administrative encouragement or on their own (Horn, Hendel, & Fry, 2007; Stearns, 2009). At the same time, a number of internationally comparative studies have indicated that American faculty are collectively less interested in global education and research than their counterparts abroad (Altbach, 1998; Stearns, 2009). Of the 14 nation Carnegie Foundation study of the academic profession, American faculty were found to be largely uncommitted to internationalization (Altbach & Peterson, 1998). Specifically, only 45% of American faculty agreed further steps should be taken to internationalize the curriculum, with the large majority reporting no foreign trips for study or research in the last three years. Faculty members may consider international learning irrelevant, doubting “their” students would ever need global competence or believing in the superiority of the English

language and America as a whole (Altbach, 1998; Green, 2007; Stearns, 2009). Faculty issues relating to internationalization include funding activities and the hiring and evaluation processes. Funding activities range from faculty travel to support for curriculum development. Personnel issues surrounding faculty and internationalization relate to preferring faculty hires with international experience or acquiring those experiences as part of the evaluation process.

Funding for faculty opportunities

Many schools have developed methods that improve faculty motivation and preparation for internationalization efforts simultaneously. Subsidizing faculty travel abroad, particularly for people with little prior international experience, rouses enthusiasm and expands expertise (Kelleher, 1996; Stearns, 2009). ACE reported an increase in funding for higher education faculty initiatives from 46% in 2001 to 58% in 2006 (Green, Luu, & Burris, 2008). Examples of funding faculty support include Bronx Community College's \$50,000 fund to support international activities by faculty (Stearns, 2009) and the University of Richmond's Faculty Seminars Abroad program wherein eight to twelve faculty spend three weeks each summer traveling to various sites in a chosen region of the world (Kelleher, 1996).

Criteria for hiring, promotion, tenure, and recognition

Faculty with global competence or a willingness to gain competence continue to be viewed as an important component of a global education program for institutions holding internationalization as a high priority (Blodgett, 1995; Green, Luu, & Burris, 2008; Stohl, 2007). A recent cross-sectional, quantitative analysis of the relationship between internationalization and quality of higher education found the presence of

internationalized faculty and scholars having statistically significant effects on advanced training competitiveness and programmatic financial stability (Jang, 2009). Despite these benefits, ACE found 92% of institutions had no guidelines for considering international work or experience for some or all faculty as considerations in promotion and tenure decisions (Green, Luu, & Burris, 2008). Many institutions are beginning to discuss including global efforts in the criteria formally considered for promotion or salary enhancement. These efforts would not be required amid the faculty's many other demands, but giving serious credit when it is applicable (Childress, 2007). As demonstrated in a qualitative study exploring faculty involvement in international scholarship, Viers (2003) noted institutional support for international experiences encouraged faculty involvement in international activities and enhanced their teaching portfolios (Altbach & Peterson, 1998).

Summary

Overall, faculty participation is critical to internationalization efforts, but would be more effective and/or forthcoming with additional institutional support encouraging faculty competence and participation. Knight (2004) noted the complexity involved in working in the field of internationalization, as it requires an additional set of knowledge, attitudes, skills, and understanding about the international/intercultural/global dimension of higher education. Faculty, Knight indicated, are part of the gap in developing and recognizing these competencies. Community colleges face a special challenge in working with faculty to internationalize the curriculum due to their high proportion of part-time faculty (Green, 2007).

International students

International students play an important role in internationalizing campuses by interacting with other students and with faculty and staff (Boggs & Irwin, 2007; Burn, 1980; Hayward, 2000), and as a dimension of internationalization, is a strong indicator of an institution's level of internationalization (Hser, 2005). A recent study of higher education institutions demonstrated the presence of international students as having a statistically significant and positive effect on faculty competitiveness, undergraduate competitiveness, advanced training competitiveness, financial stability, constituents' satisfaction, and institutional reputation (Jang, 2009). Disagreement exists, however, about the importance of recruiting and enrolling international students. The cost-benefit calculation is complicated and some of the clearest benefits accrue not to the institution, but to the nation as whole (Stearns, 2009). Altbach (1998) argued there is an international cost associated with having international students study in the U.S. which is not understood. In Altbach's opinion, for the fairly substantial segment of the foreign student population that does not return home, there is a benefit to the "host" country whether it is economic or the long-term gain of increasing productivity by the student. However, the "sending" country not only loses any short-term expenses (e.g. tuition) but also potential gain in productivity that would have occurred had the native student returned to their home country.

Enrollment

From an institutional standpoint, a visible percentage of international students might be a badge of prestige (Stearns, 2009). Many institutions committed to enrolling international students as undergraduates and graduates cite international enrollments as a

direct contribution to the larger mission of global education for all students (Doane, 2003; Stearns, 2009). Northern Virginia Community College with over 9,000 international students from over 150 countries has not only created a multi-level English language program, but also an international studies degree with specializations in several regions from where its international students originate. These developments, in turn, sparked a more coherent effort to define a comprehensive global education program, including regional student groups, individual curricular and festival activities, and a major internationalization planning process (American Council on Education, 2009b).

American higher education began to attract foreign students by the early 20th century. By the early 1950s, over 48,000 international students studied on American campuses each year, amounting to 1.4% of total student population (Stearns, 2009). In 2006-2007, the number of international students increased to 583,000 individuals (Bhandari & Chow, 2007). A substantial number of undergraduate students during this period enrolled at two-year colleges, often seeking this venue as a means of gaining English language training or taking advantage of lower costs and greater accessibility with hopes of moving on to four-year institutions later on (Stearns, 2009). Lane (2001) observed that community colleges became internationally popular due to “cost, flexibility, and an ability to generate the educated workforce demanded by the information economy” (p. 6). Regardless, among community colleges only a small majority are registering gains at this point, with a large minority either remaining constant or with decreasing levels (Institute of International Education, 2008d).

Some critics charge higher education with enrolling international students for revenue gains, as the earnings that result from the spending by international students and

their families is significant (Doane, 2003; Stearns, 2009). The students normally pay out-of-state rates at public institutions, and in the 2005-6 academic year, international students and their dependents contributed \$13.5B to the U.S. economy (Institute of International Education, 2006). Of the \$13.5B spent in the U.S. by international students and their dependents, 16.6% or \$2,241,000,000 was the result of international enrollment at community colleges.

Recruiting

The past five years have been marked by heightened competition for international students (Stearns, 2009). Recruitment efforts vary widely with some institutions leaving it to normal processes of advertising and word of mouth. Some institutions have sufficient alumni in key areas, resulting in local networks assisting in the recruitment process. Many admissions offices have long scheduled periodic recruitment trips, and many schools find that faculty traveling abroad on research trips can be given admissions material and act as school ambassadors.

The IIE's 2007 survey of colleges and universities revealed a host of recruitment enhancements from the majority of respondents who remained committed to enrolling international students. Over 20% of the colleges involved had designated new funding for marketing and promotion; 22% had sponsored further international recruitment trips; over 25% had added staff or provided for additional staff time; 33% had ventured new international programs and collaborations; and many had done all of the above (Bhandari & Chow, 2007).

Scholarship support

Financial aid expenditures for international students are low or nonexistent at the undergraduate level. Some universities, even highly prestigious ones, have long had a blanket policy denying international undergraduates any institutional financial assistance (Stearns, 2009). Correspondingly, over 60% of all international students in the United States currently cover their costs from personal and family resources, with an additional four percent sponsored by a foreign government, business, or university (U.S. Immigration and Customs Enforcement, 2009). Only 26% of international students receive any assistance from their American institution, and most beneficiaries are graduate students. Opportunities for employment are extremely limited due to the restrictions of student visa requirements; only four percent of all international students report current employment outside assistantship resources. Overall, only two percent of international students receive financial assistance from the U.S. government or from an American private sponsor (U.S. Immigration and Customs Enforcement, 2009).

Programs and support services

International students, no different from native ones, require supporting services (Green, Luu, & Burris, 2008). Not all colleges provide services in the same way or with the same depth and breadth (Knight, 2004). A study of 640 international students, conducted at a large university, reported undergraduate international students had more problems and a higher need for support services than international graduate students (Hanassab & Tidwell, 2002). At Kapi'olani Community College, a college wide effort to support international students resulted in the college building a new student center with

focused programming to support international undergraduate students (Richards & Franco, 2007).

Summary

Despite uneven support for international students, supportive initiatives can be important resources for colleges and universities working to enhance opportunities for student interactions (Raby, 2007). If international student enrollment is going to continue to be an important part of international education efforts, it is important to track best practices and the growing number of recent success stories (Stearns, 2009), in order to share them with other institutions. Reporting best practices is particularly important for community colleges as their international student numbers should grow. Such growth is likely to be spurred on by the affordability and guaranteed admission practices being marketed to international students (Koh, 2003).

Urban, Suburban, and Rural Community Colleges

Classification

The Carnegie Foundation for the Advancement of Teaching (CFAT) higher education classification system was originally created in 1970 when approximately 2,800 U.S. colleges and universities existed (The Carnegie Foundation for the Advancement of Teaching, 2007). Today, CFAT recognizes 4,391 higher education institutions (The Carnegie Foundation for the Advancement of Teaching, 2009a). CFAT (2007) describes itself as an independent policy and research center with a primary mission to encourage and support the profession of the teacher and higher education in general. Until recently, a shortcoming of the classification had been its failure to capture variation in the two-year

sector of higher education. All two-year institutions were consistently lumped together in a single category (McCormick & Cox, 2003).

In 2005, for the first time in the CFAT's classification history, two-year colleges were split into subcategories. The categories are based on the work of Katsinas, Lacey, and Hardy (Hardy, 2005), and include size and setting classifications to differentiate two-year colleges. The disaggregation is on the basis of factors that include institutional control, geography, size, and governance. This disaggregation provides a stable and consistent system of mutually exclusive classes and subclasses for two-year institutions (Hardy & Katsinas, 2006). This new classification system allows for a more substantial understanding of differences between community colleges. As noted by Eddy and Murray (2007), the reconfiguration of the Carnegie classification system creates distinctions between community colleges based on location and size allowing scholars and researchers to empirically examine what has been believed for many years: community colleges vary tremendously by geographic setting and size. This differentiation may extend to internationalization, but as yet, no study on this topic had been conducted.

Comparisons

Katsinas (1996, 2003) noted community college scholars and practitioners are acutely aware of the diversity of urban, suburban, and rural community colleges. Rural-serving institutions are located in Primary Metropolitan Statistical Areas (PMSAs) or Metropolitan Statistical Areas (MSAs) with a total population less than 500,000, or not in a PMSA or MSA (The Carnegie Foundation for the Advancement of Teaching, 2009b). Rural community colleges, despite being located in areas with low population, constitute 60% of all two-year institutions and educate one-third of all community college students,

or more than 3 million students (Eddy & Murray, 2007). Urban-serving and suburban-serving institutions are physically located within PMSAs with populations exceeding 500,000 according to the 2000 Census (The Carnegie Foundation for the Advancement of Teaching, 2009b).

The urban setting of Peralta Community College District's International Education program allowed for multiple layers of governance to complicate its international efforts. In its four-college district, debate over centralized versus decentralized control resulted in challenges to authority, a lack of support personnel, and a breakdown in professional relationships (Ng, 2007). Although fewer layers of governance may exist rural community colleges, with approximately 70% of community college presidents retiring (Eddy & Murray, 2007), leadership for international education efforts may be unpredictable.

City and suburban institutions have statistically higher percentages of part-time enrollees than their rural counterparts (Copeland, et al., 2008). Therefore, regardless of leadership, as part-time students are less likely to engage in study abroad and extracurricular activities, these institutions are challenged to engage a larger percentage of students in internationalization experiences (Green, 2007). Recent research also demonstrates part-time students are less engaged in classroom activities than their full-time peers (McClenney, 2007), potentially limiting the impact of internationalizing the curriculum by exposing more urban and suburban students to international experiences.

As seen through an assessment of the Rural Community College Initiative (RCCI), rural community colleges can overcome barriers to new program efforts such as those encountered in attempting to institute internationalization components. RCCI was

originally conceived in 1988 in conversations between the Ford Foundation, MDC, Inc., a nonprofit community development organization, and AACC with 24 rural community colleges part of RCCI in 1997. Utilizing a mixed-method approach to study 16 of the 24 RCCI colleges, the assessment revealed participating colleges as being much more proactive in pursuing external funding and initiating new programs and projects because of the RCCI relationships formed (Jensen, 2003). The RCCI study corroborates findings of Williams and Pennington (2002) wherein collaborative efforts were beneficial for rural higher education institutions in relation to faculty development. As internationalization efforts often need additional funding, are gradually built through new programs and projects, and rely on faculty involvement, rural community colleges may be successful in their creation and maintenance by combining efforts.

Conclusions

The labor market is increasingly global, not local, regardless of where one lives (Karoly & Panis, 2004). Improvements in technology allow a growing sector of contractors and free lance workers to compete for jobs around the globe (Autor, 2001). Competition then allows community college students and graduates to compete for jobs outside of their communities, but also affords non-local individuals to compete for jobs inside a student's/graduate's community. Hence, no locality is immune to global job competition as part of a worldwide labor pool. Studies show that business has a growing expectation of new employees to have global competency and a growing appreciation by employers of the strong correlation between study abroad and global competency. As such, community college students who are not exposed to aspects of a global economy may not be as valuable to employers as students with these experiences.

Internationalization research suggests four dimensions comprising internationalization at higher education institutions: (a) institutional support, (b) academic requirements, programs, and extracurricular activities, (c) faculty policies and opportunities, and (d) international students (Green, Luu, & Burris, 2008). Institutional support is considered key to advancing and maintaining internationalization efforts at colleges (Green, 2007; Korbel, 2007), while academic, requirements and programs can impact a large number of students (Dellow, 2007). Faculty are seen as critical participants in successful internationalization efforts, and sufficient development opportunities support their participation (Boggs & Irwin, 2007; Raby, 2007). Finally, international students play an important role in internationalizing campuses by interacting with other students and with faculty and staff (Boggs & Irwin), and their presence is a strong indicator of an institution's level of internationalization (Hser, 2005).

Comparisons of international activities, events, and programming such as study abroad are very limited for community colleges with little comprehensive and quantitative peer examination and analyses completed to date. Indeed, after two initial studies in 1988 and 1989, ACE did not survey higher education institutions regarding internationalization efforts for eleven years (Siaya & Hayward, 2003). Despite the efforts of ACE and other research projects, Cummings (2001) noted that international education is not a primary concern of most scholars; hence, research is somewhat sporadic and non-cumulative. With growing recognition of the importance of exposing students to international experiences, community college leaders looking to increase international offerings and activities so that their offerings are equal to or greater than the overall level for their classification are disadvantaged.

Due to the limited amount of quantitative research on community college internationalization, there are few empirical studies which allow institutions to determine how their overall institutional efforts compare to their peers. In a compilation of articles on community college internationalization, Valeau and Raby (2007) further claimed “It is apparent that a current and comprehensive examination of international education reform in the community college is ‘sorely’ needed.” A specific gap in knowledge exists for audiences wishing to compare internationalization levels among urban, suburban, or rural community colleges. Indeed, it appears this study is unique in having examined community college internationalization through the lens of community colleges with different classifications.

As expansion of community college internationalization efforts can clearly be encouraged through peer review of other institutions and their activities, additional studies are needed. The lack of empirical research on community college levels of internationalization can be partly addressed through this study. In quantitatively analyzing community college internationalization efforts, with setting classification as a basis for comparison, this study is currently the only one of its kind.

CHAPTER 3: METHODOLOGY

Introduction

The purpose of this ex post facto study was to explore the level of community college internationalization in the U.S. The study examined the impact of community college setting, classified as urban, suburban, and rural, on internationalization scores, and determined whether relationships exist between the dimensions of internationalization within each classification. In examining this phenomenon through a quantitative methodology, the study was guided by the following research questions:

1. What is the overall level of internationalization for U.S. community colleges?
2. Are there significant differences in the overall scores of internationalization between urban, suburban, and rural community colleges?
3. What are the relationships between the four dimensions of internationalization within the community colleges classified as urban?
4. What are the relationships between the four dimensions of internationalization within the community colleges classified as suburban?
5. What are the relationships between the four dimensions of internationalization within the community colleges classified as rural?

Hypotheses

There is one null hypothesis and three directional hypotheses for this study:

H₀: There are no significant differences in the overall internationalization scores of urban, suburban and rural community colleges.

H₁: There is a direct relationship between the dimension of institutional support and the dimension of academic requirements, programs, and extracurricular activities for urban community colleges.

H₂: There is a direct relationship between the dimension of institutional support and the dimension of academic requirements, programs, and extracurricular activities for suburban community colleges.

H₃: There is a direct relationship between the dimension of institutional support and the dimension of international students for rural community colleges.

The chapter presents the study's research design and approach, including justification for the methodology used to calculate levels and compare scores of internationalization. The chapter also explains the context of acquiring the data along with describing the population from which the sample was drawn. It explains the sampling method including the sampling frame used, the sample size, eligibility criteria for study participants, and the characteristics of the selected sample. The chapter goes on to describe the data collection tools including (a) name of instrument, (b) type of instrument, (c) score calculations and meaning, (d) processes for assessment of reliability and validity of the instrument, and (e) locations of raw data. The chapter also provides a detailed explanation of the data coding procedures utilized as well as the data analysis used in the study.

Research Design

Ex post facto research is a non-experimental effort to investigate the possible cause-and-effect relationship between the independent variable(s) and the dependent variable(s) (Creswell, 2003; Kumar, 2005). This view concurs with that of Cohen,

Manion, and Morrison (2007) who explained ex post facto research as searching back in time for the possible factors seemingly associated with certain occurrences. This study examined the independent variable, categorized as institutional classification type of urban, suburban, or rural, to determine its independent effect on the dependent variable, defined as the internationalization score. An examination of dimensions occurred to determine if relationships exist between them within each college setting classification. This study's methodology was similar to the work of Green and Siaya (2005) who calculated levels of internationalization at community colleges. Comparable to Green and Siaya, this study's analysis of internationalization levels required extracting relevant information from survey responses to an American Council on Education (ACE) inquiry regarding higher education internationalization activities and efforts.

Setting and Sample

Institutional setting has long been considered an important variable that impacts decision making at community colleges. Vineyard (1978) contended institutional setting was a key variable in institutional decision making and that rural institutions face different challenges compared to urban and suburban counterparts. Rural community colleges, unlike their urban and suburban counterparts, are located in areas with low population, yet constitute 60% of all two-year institutions and educate one-third of all community college students (Eddy & Murray, 2007), or more than 3 million students (American Association of Community Colleges, 2009b). While urban institutions may delay the development or expansion of programs due to their many layers of administration (Ng, 2007), rural community colleges are likely to have fewer resources and faculty performing multiple functions, ultimately inhibiting program development (Hardy & Katsinas, 2007).

In 2006, ACE sent surveys to the presidents of all regionally-accredited institutions in the United States that grant associate's or higher degrees, a population of 2,746 institutions. The population consisted of 257 doctorate-granting universities, 587 master's colleges and universities, 526 baccalaureate colleges, and 1,376 associate's colleges. These presidents were asked to either complete the survey or forward the survey to the appropriate individual within the institution so that he/she could complete the survey and return it to ACE. ACE received a total of 1,074 completed surveys, with an overall response rate of 39%. For associate degree granting colleges, the overall response rate was 30% with 409 responses (Green, Luu, & Burris, 2008). ACE reported the category of public associate colleges participating in the survey appeared to be fairly representative of the community college population (Irwin, 2009). Respondent community colleges included 19% with enrollment less than 2,000 students, 61% with enrollment between 2,000 and 9,999 students, and 20% with enrollment over 10,000. These response rates closely correspond to the population percentages of 25%, 57%, and 17% for community colleges overall. This study analyzed data related to the 318 public community colleges, which responded to ACE's 2006 internationalization survey. Private and specialized associate degree granting institutions were not included in the analysis as their mission statements are often distinctly different than those of public institutions (Outcalt & Schirmer, 2003) or non-specialized community colleges.

Instrumentation and Materials

According to ACE, it published its first study of internationalization in 1988 in order to provide empirical evidence regarding internationalization policies and practices at colleges and universities (Green, Luu, & Burris, 2008). In 1989, ACE published a

second study which included information from the 1988 study, other national studies, and information gleaned from campus visits and transcripts (Green, Luu, & Burris, 2008). After a lapse of ten years, ACE updated its earlier work to include a synthesis of existing research and developed and conducted three of its own surveys. The first survey sought responses to questions regarding internationalization from a stratified sample of 752 U.S. colleges and universities chosen to reflect a range of institutional types. The second survey collected data regarding faculty issues related to internationalization from over 1,000 undergraduate faculty chosen from colleges and universities, which responded to the first survey. Finally, the third survey collected information from more than 1,200 undergraduate students who attended the institutions which responded to the first survey (Green, Luu, & Burris, 2008). Building on these studies, ACE created published reports, each describing the level of internationalization for one of the four main institutional types of associate's colleges, baccalaureate colleges, master's colleges and universities, and doctorate-granting institutions. Similar to this study, internationalization levels were represented by an "internationalization index."

The 2006 ACE survey on internationalization of higher education was an instrument redesigned from the three national surveys conducted by ACE in 2001 (Green, Luu, & Burris, 2008). The 2001 surveys measured (a) institutional internationalization, (b) the faculty's international experiences and attitudes about internationalization, and (c) undergraduates' international experiences and attitudes about internationalization. In its final report of the 2001 surveys, ACE described its process in creating and validating the three surveys. To create the three instruments, ACE commissioned the Center for Survey Research and Analysis (CSRA) of the University of Connecticut to conduct a series of

ten focus groups at four higher education institutions, each with a different Carnegie classification. Separate focus groups of students and faculty were conducted at each institution. At one institution, CSRA convened two additional focus groups to ensure inclusion of students and faculty who were not actively involved in international education. At each focus group, information was collected about participants' international experiences along with their perceptions of the value and condition of international education at their respective institution. Moderators used a pre-written guide to ensure consistency in topics covered, but discussions were not limited so participants could introduce new topics concerning internationalization. The focus groups' information shaped ACE's initial survey drafts (Siaya & Hayward, 2003).

In July 2001, ACE convened an advisory board meeting composed of leaders, experts, and scholars in international education to review and comment on the initial drafts of the surveys. Revised surveys were constructed as a result of this meeting. ACE then piloted the second version of each survey with 60 randomly chosen institutions. ACE also sent the surveys to eight additional institutions: two of each institutional type, and conducted telephone interviews with the institutional person ACE felt was most likely to complete the institutional survey. During the interviews, administrators were asked to identify questions that were confusing or seemed irrelevant. These comments were used to revise and create a third version of the institutional survey.

Given challenges related to privacy issues and obtaining information from students and faculty, ACE focused the 2006 survey on acquiring institutional responses and information regarding internationalization. ACE convened an advisory group of seven international experts who reviewed and refined the 2001 survey to meet this new

focus. The revised survey instrument was then pre-tested with four administrators at postsecondary institutions. Pre-test feedback was incorporated into the final survey instrument to ensure content validity. Kumar (2005) supports comparing one survey's responses with a set of responses to a similar survey to verify an instrument's predictive and concurrent validity and reliability. ACE appears to have followed this procedure by comparing the 2006 survey responses with the 2001 survey wherein similar questions were asked in order to verify the 2006 instrument's predictive and concurrent validity and reliability.

The 2006 survey consisted of 44 questions with 11 yes/no answers and 33 with multiple choice answers. The questions were designed to measure four indicators of institutional internationalization: (a) institutional support, (b) academic requirements, programs, and extracurricular activities, (c) faculty policies and opportunities, and (d) international students. Institutional support was measured with questions related to stated institutional commitment, organizational structure and staffing, and external funding. Academic requirements, programs, and extra-curricular activities were measured by responses to questions dealing with foreign language requirements and offerings, international/global course requirements, education abroad, use of technology for internationalization, joint degrees, and campus activities. Faculty policies and opportunities were calculated from questions concerning faculty opportunities and criteria for promotion, tenure, and hiring. International student concepts were measured via responses related to questions addressing enrollments, recruiting targets and strategies, financial support for international students, and programs and support service (Green, Luu, & Burris, 2008).

Data Collection and Coding

For this study, community college response data from the ACE 2006 survey of colleges and universities on the policies and practices of their respective internationalization efforts was the basis for analysis. ACE received a total of 1,074 completed surveys for an overall response rate of 39%. Out of 1,376 associate's colleges surveyed, 409 responded demonstrating a 30% response rate. Raw data for all institutions that responded to the survey is available through ACE. This study excluded data from privately controlled and specialized associate's institutions, and only included those colleges categorized as urban, suburban, or rural through the Carnegie Classification System, resulting in an analysis of 318 responding publicly-controlled associate's colleges.

ACE included several different types of questions on the 2006 survey. Some questions required a yes or no response; some offered a range of response choices (i.e., which programs or support services does your institution offer to international students) and others were open-ended (e.g., the number of students studying abroad). All responses are measured through a nominal or ratio scale. Pursuant to ACE's data coding, which utilizes the Carnegie Foundation for the Advancement of Teaching (CFAT) classification system, urban community colleges were classified as urban serving institutions with a single campus, or urban serving institutions with multi-campus. Suburban community colleges were classified as suburban serving institutions with either a single campus or suburban serving institutions with multi-campus. Rural community colleges were classified into rural serving, small institution, rural serving, mid-sized college, and rural serving, large institution.

A fundamental dilemma in developing an index is to determine the relative significance of each indicator in the construction of the overall assessment (Horn, Hendel, & Fry, 2007). In the context of this research, a key question concerned the weight that should be allocated to each dimension and its indicators. This study calculated the internationalization index without bias; hence, similar to Green & Siaya's (2005) study, all responses were recoded so the possible valid range was zero to one with each response having the same relative weight in the index. Dichotomous questions were coded as zeroes and ones. Questions with more than two responses, in which responses reflected increasing levels of internationalization, were recoded so each response was worth a progressively higher increment, and all increments were of equal value. For example, if a question has three possible responses, valid values would be 0.0, 0.5, and 1.0. Continuous variables, such as the number of students who studied abroad or the number of foreign languages offered, were coded as follows: 0.0 for none; 0.5 for those with a response value equal to or less than the average for all community colleges with the grouping of urban, suburban, or rural depending on which category an individual college belongs; or 1.0 for those with a response above the average for all community colleges within an institution's respective grouping.

Data Analysis

This section provides details related to calculating dimension scores, internationalization scores, and overall levels of internationalization for each classification of community college. This section also provides the results of analyzing potential relationships of the dimensions within each classification.

Classification

Data were analyzed by utilizing the statistical software program SPSS.

Descriptive statistics for the sample included the number of urban, suburban, and rural institutions as defined by the Carnegie setting classification system. Scores for each of the four dimensions were derived by summing the response values for each question included in one of the four dimensions of (a) institutional support, (b) academic requirements, programs, and extracurricular activities, (c) faculty policies and opportunities, and (d) international students. The ratio scale of measurement was used for each dimension as this type of scale's zero position indicates the absence of the quantity being measured. For example, if an institution's dimension of "international students" calculated to zero, the interpretation is that any and all individual measure of international students is truly zero.

The scores for each dimension ranged between zero and one, so although one dimension may have contained more questions than another, no one dimension was weighted more than another (Green & Salkind, 2004). Summing the four dimension scores for each institution calculated its overall internationalization score. Summing and averaging these scores provided the overall score of internationalization for the community college sample. The overall dimension score was then adjusted to reflect a zero-to-four point scale. Similar to ACE's 2005 publication regarding community college internationalization levels, this study's levels of internationalization for each classification were presented on a four point scale of "low" (score of 0.0 to 1.0), "medium" (score >1.0 to 2.0), "medium-high" (score >2.0 to 3.0), and "high" (score >3.0 to 4.0) (Green & Siaya, 2005). Data were then sorted by classification into urban,

suburban, and rural groups as defined by CFAT. Urban institutions are defined as being located within primary metropolitan statistical areas (PMSAs) or metropolitan statistical areas (MSAs), respectively, with populations exceeding 500,000 as recorded by the 2000 Census. Institutions in PMSAs or MSAs with a total population lower than 500,000, or not in a PMSA or MSA, are classified as rural-serving (The Carnegie Foundation for the Advancement of Teaching, 2009b). The mean internationalization level for each group was calculated by summing and averaging the individual institutional internationalization levels of the groups' members. Next, the mean internationalization score for each classification was calculated by summing and averaging the individual institutional internationalization scores of the groups' members

To examine the effects of classification on the internationalization score, an analysis of variance (ANOVA) was used. ANOVA is a statistical test used to determine whether the means of several groups are all equal. The three independent variables were community college classification of urban, suburban, or rural. The dependent variable was the internationalization score of each group

Meyers, et al. (2006) discussed the three major assumptions made when using an ANOVA: normality, homogeneity of variance, and the independence of observations. Despite normality, homogeneity of variance, and independent observations, the groups' mean scores can still be different. If the groups' mean scores are far apart relative to the pooled variance, a null hypothesis of not having significant different internationalization scores can be rejected. The incorrect rejection has as equal a chance to occur as the alpha level chosen for the analysis as the alpha level indicates how often such large values occur by chance (Meyers, Gamst, & Guarino, 2006). For this study, the traditional alpha

value of .05 (Meyers, Gamst, & Guarino, 2006) was used. The Scheffe post hoc test for complex comparisons was used to further analyze the ANOVA results. The Scheffe post hoc test is the most conservative post hoc comparison procedure and can be useful when working with unequal group sizes and examining relatively unstudied phenomenon (Meyers, Gamst, & Guarino, 2006).

Analysis of internationalization dimensions within each classification

To determine relationships between the four dimensions of internationalization within each group, multiple correlation analysis was conducted. Furthermore, an ANOVA was conducted to determine if significant differences existed between the four dimensions of internationalization for each classification of community colleges. To determine the source(s) of differences that may be observed, Tukey's Honestly Significant Difference (HSD) tests were conducted. A multiple regression was also conducted to evaluate how well the four dimensions predicted each classification of community college internationalization scores. Next, a stepwise regression analysis was conducted to further understand the individual importance of the dimensions in predicting the variance in each category of community college internationalization scores. Finally, a bivariate correlation analysis was conducted to determine the relationships of the four dimensions of internationalization for urban community colleges.

This chapter presented the study's research design and approach, including justification for the methodology used to compare community college internationalization scores. It explained the context of utilizing the 2006 survey data from ACE representing responses from 318 community colleges. The chapter also provided a detailed

explanation of the data analysis conducted for the study in anticipation of explaining the results of analyses in the following chapter.

CHAPTER 4: FINDINGS

The purpose of this ex post facto study was to explore the level of community college internationalization in the U.S. The study sought to understand the overall level of internationalization at community colleges, the context in which community college setting impacts internationalization scores, and any differences between the dimensions of internationalization within each setting classification. The study was guided by the following questions:

1. What is the overall level of internationalization for U.S. community colleges?
2. Are there significant differences in the overall internationalization scores between urban, suburban, and rural community colleges?
3. Are there differences between the four dimensions of internationalization within the community colleges classified as urban?
4. Are there differences between the four dimensions of internationalization within the community colleges classified as suburban?
5. Are there differences between the four dimensions of internationalization within the community colleges classified as rural?

This chapter presents the analysis of data extracted from the 2006 American Council on Education (ACE) college survey of internationalization. The data summarized 318 public community colleges' responses to questions regarding campus internationalization efforts and activities.

Introduction

The 2006 ACE survey results provided for the study reflected 318 responses from seven classifications of urban, suburban, and rural community colleges. Based on the

Carnegie Classification System, the current study categorized community colleges as urban, suburban, or rural groups. The Carnegie Classification Systems is a recognized higher education classification system originally created in 1970 by CFAT (The Carnegie Foundation for the Advancement of Teaching, 2007). Of the 318 community colleges involved in this study, 62 were classified as urban, of which eleven were single campus, and 51 multiple campuses. There were 69 suburban community colleges in the study, of which thirty –seven were single campus, and 32 were multiple campuses. A total of 187 rural community colleges involved in this study included thirty-three that were rural with a small service area, 105 that were rural with a medium sized service area, and 49 classified as rural with a large service area. A summary of community college respondents classified by Carnegie descriptions are shown in Table 1.

Table 1

Summary Count of Respondent Public Community Colleges by Carnegie Classification

Classification	Frequency	Percentage	Cumulative Percentage
Urban	62	.19	.19
Suburban	69	.22	.41
Rural	187	.59	1.00

To standardize the analysis of the data, each survey question answer was coded with a score between zero and one. Questions were then grouped into the four dimensions

used to measure internationalization. Institutional question scores for each dimension were summed, and then divided by the total number of questions answered for the respective dimension. No dimension score could total more than one. Then, the institution's overall internationalization score, which ranged between zero and four, was calculated by totaling the scores for the four dimensions. The internationalization level score for each community college was coded into a four point scale of "low" (0.0 to 1.0), "medium" (>1.0 to 2.0), "medium-high" (>2.0 to 3.0), and "high" (>3.0 to 4.0) based on ACE's 2005 publication on community college internationalization (Green & Siaya, 2005).

Results

Overall Internationalization Levels

The overall internationalization level of the 318 community colleges in this study was low ($M = .68$). Two hundred and thirty-seven (75%) community colleges scored low on the internationalization index while only 74 (23%) and seven (2%) ranked in the medium and medium-high levels, respectively. The internationalization levels also varied with the classification of the community colleges. Eighty-one percent of rural community colleges had a low index in comparison to 57% percent of urban colleges, and 54% of suburban colleges. Eighteen percent of rural community colleges had a medium index in comparison to 42% of urban colleges and 44% of suburban colleges. A description of the internationalization levels for each category of community colleges in this study is shown in Table 2.

Table 2

Percent of Community Colleges By Levels of Internationalization

Classification	N	Internationalization Level			
		Low	Medium	Medium-High	High
Urban	62	57.2% (35)	41.7% (26)	1.1% (1)	0.0%
Suburban	69	54.1% (37)	43.8% (30)	2.1% (2)	0.0%
Rural	187	81.4% (153)	18.6% (34)	0.0%	0.0%

Effect of Community College Classification on Internationalization Scores

Mean internationalization scores for each classification are less than one. Urban community colleges had the largest standard deviation ($SD = .59$), range of scores (.00 to 2.76) and score (2.76) of the groups. Rural community colleges exhibited the smallest standard deviation ($SD = .39$), range of scores (.00 to 1.86), and overall score (1.86) of the groups. A description of the mean internationalization levels for each category of community colleges in this study is shown in Table 3.

Table 3

Mean Scores of Internationalization for Community Colleges by Carnegie Classification

Classification	<i>M</i>	<i>SD</i>	N	Range ¹
Urban	.93	.59	62	.00 to 2.76
Suburban	.90	.49	69	.07 to 2.26
Rural	.52	.39	187	.00 to 1.86

¹Possible range was 0.0 to 4.0

Using the community college classification as the independent variable and internationalization scores for each college as the dependent variable, a one-way analysis of variance (ANOVA) was conducted to determine if there was a significant difference in the internationalization scores across the three classifications of community colleges. The analysis revealed a significant difference in mean scores of internationalization for each group ($F(2, 315) = 5.29, p < .01$). The calculated effect size indicated that up to 15% of the difference in internationalization scores can be attributed to different classifications (see Table 4).

Table 4

ANOVA Results for Community College Classification and Internationalization Score

Source	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>Effect Size (η^2)</i>
Between groups	10.59	2	5.29	27.31**	.15
Within groups	61.06	315	.19		
Total	71.65	317			

**p < .01

A Scheffé' post hoc test conducted to determine the direction of the difference (Meyers, Gamst, & Guarino, 2006), indicated that the significant difference in mean internationalization scores was accounted for by the difference between urban and rural community college scores and suburban and rural community college scores as shown in Table 5.

Table 5

Scheffe' Multiple Comparisons for Classification

Classifications Compared	Mean		95% CI	
	Difference	Std. Error	Lower	Upper
Urban/Suburban	.02	.08	-.17	.20
Urban/Rural	.39*	.06	.22	.58
Suburban/Rural	.36*	.06	.21	.51

* The mean difference is significant at $p < .05$

Internationalization Dimensions

Four dimensions were used in this study to measure overall internationalization scores of the community colleges. These dimensions were (a) institutional support, (b) academic requirements, programs, and extracurricular activities (academic requirements), (c) faculty policies and opportunities (faculty policies), and (d) international students. Institutional support encompassed marketing strategies, student learning, a campus-wide task force on internationalization, written documents, and internationalization assessment (Green, Luu, & Burris, 2008). Academic requirements consisted of foreign language requirements, course offerings, education abroad opportunities, and the use of technology for international experiences (Green, Luu, & Burris, 2008). Faculty policies as an indicator of institutional internationalization entailed institutional investments in faculty travel, research, education abroad, professional development, and a college's criteria for advancement (Green, Luu, & Burris, 2008). International students as a dimension of

higher education internationalization encompasses enrollment figures, recruitment efforts, supportive programs and services, and scholarship support (Green, Luu, & Burris, 2008).

Internationalization dimensions in urban community colleges

The differences in the four dimensions of internationalization were examined within urban community colleges. Mean scores for the dimension of institutional support ($M = .35$) and international students ($M = .29$) were higher than the mean scores for both academic requirements ($M = .16$) and faculty policies ($M = .16$) (see Table 6). The dimension of institutional support had the largest standard deviation ($SD = .21$) of the four dimensions as well as the largest range (.00 to .78). The dimension of academic requirements had the smallest standard deviation ($SD = .23$) of the four dimensions. Faculty policies had the smallest range (.00 to .53).

Table 6

Descriptive Statistics for Urban Dimensions

Dimension	<i>M</i>	<i>SD</i>	Range ¹	
			Lower	Upper
Institutional Support	.35	.21	.00	.78
Academic Requirements	.16	.13	.00	.54
Faculty Policies	.16	.16	.00	.53
International Students	.29	.17	.00	.72

¹Possible range is 0.0 to 1.0

A one-way ANOVA was conducted to determine if significant differences existed between the four dimensions of internationalization for urban community colleges. The results indicated there was a significant difference between the dimensions ($F(3, 244) = 18.97, p < .01$). To determine which specific combinations of dimensions were significantly different, the Tukey's HSD test conducted indicated that the mean score of the dimension of institutional support was significantly different from the mean score of the dimensions of academic requirements and faculty policies. Institutional support's mean value is higher than the mean values of both dimensions of academic requirements and faculty policies. The dimension of academic requirements was also significantly different than the dimension of international students, with international students having a higher mean value than academic requirements. The dimension of faculty policies was

also significantly different from the dimension of international students with faculty policies having a lower mean value than international students (see Table 7).

Table 7

Pairwise Mean Differences of Urban Community College Dimensions

	Institutional Support	Academic Requirements	Faculty Policies	International Students
Institutional Support		.19*	.19*	.06
Academic Requirements			.00	-.13*
Faculty Policies				-.13*
International Students				

* The mean difference is significant at $p < .05$

A multiple regression was conducted to evaluate how well the four dimensions predicted urban community college internationalization scores. The linear combination of institutional support, academic requirements, faculty policies, and international students was significantly related to internationalization score ($R^2 = .98$, $F(4,56) = 568.81$, $p < .01$). Approximately 98% of the variance of internationalization scores for urban community colleges was accounted for by the linear combination of the four dimensions of internationalization.

To further understand the individual importance of the dimensions, a stepwise regression analysis was conducted. In the first step of the model, institutional support

accounted for the largest variance in internationalization scores (87%). The second step of the model recognized institutional support and faculty policies as accounting for 91% of the variance. The third step of the model identified institutional support, faculty policies, and international students accounting for 96% of the variance. The fourth step of the model demonstrated institutional support, faculty policies, international students, and academic requirements in order of importance (see Table 8).

Table 8

Stepwise Regression Model Results for Dimensions of Urban Community Colleges

Step	Coefficient of Determination	R square Change	<i>F</i> Change
1 - Institutional Support	.87	.87	378.92
2 - Institutional Support and Faculty Policies	.91	.04	27.47
3 - Institutional Support, Faculty Policies, and International Students	.96	.05	64.12
4 - Institutional Support, Faculty Policies, International Students, and Academic Requirements	.98	.02	44.30

A bivariate correlation analysis between the four dimensions within urban community colleges further confirmed significant positive relationships between the four dimensions (see Table 9).

Table 9

The Bivariate Correlations of the Dimensions of Urban Internationalization Scores

	Internationalization Scores	Institutional Support	Academic Requirements	Faculty Policies	International Students
Internationalization Scores	1.00	.93**	.73**	.78**	.78**
Institutional Support		1.00	.73**	.60**	.67**
Academic Requirements			1.00	.49**	.45**
Faculty Policies				1.00	.37**
International Students					1.00

**Significant at $p < .01$

Internationalization dimensions in suburban community colleges

Suburban community college mean scores for the dimension of institutional support ($M = .27$) and international students ($M = .27$) were higher than the mean scores for both academic requirements ($M = .15$) and faculty policies ($M = .15$) (see Table 10). The dimension of institutional support had the largest standard deviation ($SD = .19$), while academic requirements had the smallest ($SD = .12$). The dimensions of institutional support and faculty policies had the largest range of scores (.00 to .73).

Table 10

Descriptive Statistics for Suburban Dimensions

Dimension	<i>M</i>	<i>SD</i>	Range ¹	
			Lower	Upper
Institutional Support	.27	.19	.00	.73
Academic Requirements	.15	.12	.00	.57
Faculty Policies	.15	.16	.00	.73
International Students	.27	.17	.06	.64

¹Possible range is 0.0 to 1.0

A one-way NOVA conducted to determine if significant differences existed between the four dimensions of internationalization for suburban community colleges showed there were significant differences between the dimensions ($F(3, 254) = 11.92, p < .01$). To determine which specific dimension comparisons were significantly different, the Tukey's HSD test conducted showed the mean dimension score of institutional support was significantly different from the mean scores of the dimensions of academic requirements and faculty policies (see Table 11). Institutional support's mean value was higher than the mean values of both dimensions of academic requirements and faculty policies. The dimension of academic requirements was also significantly different than the dimension of international students with international students having a higher mean value than academic requirements. The mean score of the dimension of faculty policies

was also significantly different from the dimension of international students, with faculty policies having a lower mean value than international students.

Table 11

Pairwise Mean Differences of Suburban Community College Dimensions

	Institutional Support	Academic Requirements	Faculty Policies	International Students
Institutional Support		.12*	.12*	.00
Academic Requirements			.00	-.12*
Faculty Policies				-.12*
International Students				

* The mean difference is significant at $p < .05$

A multiple regression was conducted to evaluate how well the four dimensions predicted suburban community college internationalization scores. The linear combination of (a) institutional support, (b) academic requirements, (c) faculty policies, and (d) international students was found to be significantly related to internationalization score ($R^2 = .96$, $F(4,64) = 421.83$, $p < .01$). Approximately 96% of the variance of internationalization scores for suburban community colleges was accounted for by the linear combination of the four dimensions of internationalization.

To further understand the individual importance of the dimensions, a stepwise regression analysis was conducted. In the first step of the model, institutional support accounted for the largest variance in internationalization scores (84%). The second step of the model recognized institutional support and faculty policies as accounting for 87%

of the variance. The third step of the model identified institutional support, faculty policies, and international students as accounting for 92% of the variance. The fourth step of the model demonstrated institutional support, faculty policies, international students, and academic requirements in order of importance (see Table 12).

Table 12

Stepwise Regression Model Results for Dimensions of Suburban Community Colleges

Step	Coefficient of Determination	R square Change	F Change
1 - Institutional Support	.84	.84	343.05
2 - Institutional Support and Faculty Policies	.87	.03	18.32
3 - Institutional Support, Faculty Policies, and International Students	.92	.04	34.74
4 - Institutional Support, Faculty Policies, International Students, and Academic Requirements	.96	.05	81.97

To verify the observed relationships between the dimensions, a bivariate correlation analysis between the four dimensions within suburban community colleges showed positive relationships with two relationships (academic requirements and international students; faculty policies and international students) not significant (see Table 13).

Table 13

The Bivariate Correlations of the Dimensions of Suburban Internationalization Scores

	Internationalization Score	Institutional Support	Academic Requirements	Faculty Policies	International Students
Internationalization Score	1.00	.92**	.66**	.62**	.65**
Institutional Support		1.00	.58**	.55**	.54**
Academic Requirements			1.00	.32**	.13
Faculty Policies				1.00	.09
International Students					1.00

**Significant at $p < 0.01$

Internationalization dimensions in rural community colleges

Rural community college mean scores for the dimension of institutional support ($M = .16$) and international students ($M = .16$) were higher than the mean scores for both academic requirements ($M = .09$) and faculty policies ($M = .07$) (see Table 14). The dimensions of institutional support and international students had the largest standard deviations ($SD = .16$) of the four dimensions, while faculty policies had the smallest ($SD = .07$). The dimension of institutional support had the largest range of scores (.00 to .61).

Table 14

Descriptive Statistics for Rural Dimensions

Dimension	<i>M</i>	<i>SD</i>	Range ¹	
			Lower	Upper
Institutional Support	.16	.15	.00	.61
Academic Requirements	.09	.10	.00	.38
Faculty Policies	.07	.10	.00	.47
International Students	.16	.13	.00	.60

¹Possible range is 0.0 to 1.0

A one-way ANOVA was conducted to determine if significant differences existed between the four dimensions of internationalization for rural community colleges. The analysis showed a significant difference between the mean scores of the dimensions ($F(3, 740) = 23.31, p < .01$) To determine which specific dimension comparisons were significantly different, the Tukey's HSD test conducted revealed that the mean score of the dimension of institutional support was significantly different from the dimensions of academic requirements and faculty policies. Institutional support's mean value was higher than the mean values of both dimensions of academic requirements and faculty policies. The dimension of academic requirements was also significantly different than the dimension of international students, with international students having a higher mean value than academic requirements. The dimension of faculty policies was also

significantly different from the dimension of international students, with faculty policies having a lower mean value than international students.

Table 15

Pairwise Mean Differences of Rural Community College Dimensions

	Institutional Support	Academic Requirements	Faculty Policies	International Students
Institutional Support		.07*	.09*	.00
Academic Requirements			.02	-.06*
Faculty Policies				-.09*
International Students				

* The mean difference is significant at $p < .05$

A multiple regression was conducted to evaluate how well the four dimensions predicted rural community college internationalization scores. The analysis revealed that the linear combination of (a) institutional support, (b) academic requirements, (c) faculty policies, and (d) international students was significantly related to internationalization score ($R^2 = .95$, $F(4,177) = 877.61$, $p < .01$). Approximately 95% of the variance of internationalization scores for rural community colleges was accounted for by the linear combination of the four dimensions of internationalization.

To further understand the individual importance of the dimensions, a stepwise regression analysis was conducted. In the first step of the model, institutional support

accounted for the largest variance in internationalization scores (72%). The second step of the model recognized institutional support and academic requirements as accounting for 83% of the variance. The third step of the model identified institutional support, academic requirements, and faculty policies as accounting for 90% of the variance. The fourth step of the model demonstrated institutional support, academic requirements, faculty policies, and international students in order of importance (see Table 16).

Table 16

Stepwise Regression Model Results for Dimensions of Rural Community Colleges

Step	Coefficient of Determination	R square Change	<i>F</i> Change
1 - Institutional Support	.72	.72	468.92
2 - Institutional Support and Academic Requirements	.83	.11	122.19
3 - Institutional Support, Academic Requirements, and Faculty Policies	.90	.07	115.46
4 - Institutional Support, Academic Requirements, Faculty Policies, and International Students	.95	.05	191.72

A bivariate correlations analysis between the four dimensions within rural community colleges also showed significant positive relationships between the four dimensions (see Table 17).

Table 17

The Bivariate Correlations of the Dimensions of Rural Internationalization Scores

	Internationalization Score	Institutional Support	Academic Requirements	Faculty Policies	International Students
Internationalization Score	1.00	.85**	.74**	.72**	.75**
Institutional Support		1.00	.54**	.55**	.61**
Academic Requirements			1.00	.39**	.43**
Faculty Policies				1.00	.38**
International Students					1.00

**Significant at $p < .01$

Summary

Community college responses to the 2006 ACE survey on higher education internationalization activities and efforts were used to determine levels of internationalization. Internationalization scores, and the scores of four dimensions of internationalization, were further analyzed using college classification as a basis, to determine significant differences and possible relationships. The overall internationalization level for community colleges is low. When colleges are classified as

urban, suburban, or rural, each classification also has a low level of internationalization. A higher proportion of rural community colleges had low internationalization levels than either suburban or urban community colleges. The lowest overall mean score for internationalization was measured at rural community colleges ($M = .48$), with urban ($M = .86$) and suburban ($M = .84$) community college internationalization mean scores relatively equal. The mean rural internationalization score was significantly different than both the urban internationalization score and the suburban internationalization score.

Four dimensions of internationalization were examined within each setting of classification. The dimension of institutional support had the highest mean score of all four dimensions within the classification of urban community colleges. The second highest mean score was in the dimension of international students, followed by the mean scores of the dimensions academic requirements and faculty policies. The linear combination of all four dimensions was a good predictor of internationalization scores at urban community colleges, accounting for almost 98% of the variance. The dimension of institutional support accounted for the largest variance in internationalization scores at 87%.

Analysis of the mean scores of the dimensions for urban community colleges suggested differences. The mean score of the dimension of institutional support was significantly different from the dimensions of academic requirements and faculty policies for urban community colleges. The mean score of the dimension of academic requirements was significantly different than the dimension of international students. The mean score of the dimension faculty policies was also significantly different from the dimension of international students. The relationships for urban community college

dimensions were all significant and positive when the correlations of any two dimensions are examined.

Among suburban community colleges, the mean scores for the dimensions of institutional support and international students were equal and were also greater than the mean scores of the dimensions of academic requirements and faculty policies. The linear combination of all four dimensions was a good predictor of internationalization scores at suburban community colleges, accounting for almost 96% of the variance in scores. The dimension of institutional support accounted for the largest variance in internationalization scores at 84%.

Analysis of the mean scores of the dimensions of suburban community colleges suggested differences. Similar to urban community colleges, the mean score of the dimension of institutional support was significantly different from the dimensions of academic requirements and faculty policies for suburban community colleges. The dimension of academic requirements was also significantly different than the dimension of international students. The dimension of faculty policies was significantly different from the dimension of international students. The relationships between the four dimensions within suburban community colleges were all positive; however, two of the relationships were not significant.

For rural community colleges, the mean scores for the dimensions of institutional support and international students were equal and were also greater than the dimensions of academic requirements and faculty policies. The linear combination of all four dimensions was a good predictor of internationalization scores at rural community colleges, accounting for almost 95% of the variance in scores. The dimension of

institutional support accounted for the largest variance in internationalization scores at 72%.

Analysis of the mean scores of the dimensions of suburban community colleges suggested differences. Similar to urban and suburban community colleges, the dimension of institutional support was significantly different from the dimensions of academic requirements and faculty policies. The mean scores of the dimension of academic requirements were also significantly different than the dimension of international students. The dimension of faculty policies was also significantly different from the dimension of international students. The relationships for rural community college dimensions are all positive and significant when the correlations of any two dimensions were examined.

The following chapter presents a discussion of the findings regarding community college internationalization level, scores, and internationalization dimensions of urban, suburban, and rural institutions. The chapter contains conclusions, implications for community college leaders, and recommendations related to community college internationalization. This discussion includes references to the body of research currently available regarding community college internationalization, and also posits potential rationale when sufficient comparisons are unavailable. The chapter five concludes with suggestions for future research implications and the researcher's overall observations of the study results.

CHAPTER 5: CONCLUSIONS AND DISCUSSION

Introduction

Despite calls for more internationalization activities for students, and general gains in related activities seen in community colleges, internationalization efforts in two-year institutions lag behind four-year counterparts. With enrollment at community colleges ranging from 45% to 52% of overall United States' undergraduate population, these institutions, no less than their four-year counterparts, should internationalize to prepare students for an increasingly globalized, multicultural, and interdependent world (Green, 2007; McJunkin, 2005). To better understand the level of community college internationalization and the role of dimensions impacting internationalization, this *ex post facto* study explored the overall level of community college internationalization in the U.S. The study also examined the impact of community college settings classified as urban, suburban, and rural on internationalization levels, and examined whether relationships existed between dimensions of internationalization within each classification.

Internationalization activity in higher education is not a new phenomenon. There is, however, a growing movement toward a global knowledge economy (Wilson, 2003), and higher demand for employees with international experience (Kedia & Daniel, 2003) has resulted in unprecedented internationalization efforts in higher education. Stearns (2009) stated, "It is hard to find an American community college, college or university that has not devoted serious new thought, in recent years, to some aspect – often, to many aspects – of global education" (p. 1). Colleges recognize they must provide students with

skills to succeed in globally integrated economies, culturally diverse societies, and multinational organizations (Hayward, 2000; Knight, 2007).

The labor market is increasingly global, not local, regardless of where one lives (Karoly & Panis, 2004). Despite employer calls for employees with international experiences, efforts to offer these experiences to students vary greatly. The 2006, ACE survey of higher education institutions regarding policies and practices in furthering international education reported a “mixed picture” of higher education internationalization (Green, Luu, & Burris, 2008) with community colleges generally providing fewer international experiences for their students than four-year institutions. Offering fewer international experiences on campus leads to a disadvantage for community college students, as they will not have global or international experiences and may be less valuable to an employer than students with these experiences (Kedia & Daniel, 2003).

As the most accessible higher education option for individuals to attain skills and education credentials, community colleges must ensure their students can compete effectively for jobs with international connections. Administrative recognition of the need for more global exposure for students at community colleges is occurring, and Levin (2000) observed that during the 1990s, increasing international experiences for students garnered more interest by higher education. Regardless, community college implementation of additional and/or more diverse international experiences for students, and empirical comparisons between groups of community colleges, are neither heavily documented nor clearly evidenced (Levin, 2001; Raby & Valeau, 2007). This study contributes to the understanding of community college internationalization overall, but

also offers specific insights into areas of related importance for urban, suburban, and rural institutions.

Summary of the Study

Overview of the problem

Studies support businesses' expectation or desire for employees with increased international exposure (Kedia & Daniel, 2003; Moxon, et al., 1997; Webb, et al., 1999). Community colleges have been a critical point of entry to higher education for current and future employees. For many students whose education ends with their community college experience, the institution is likely to constitute the only formal academic opportunity to learn about other countries, cultures, and global trends (Green, 2007; Stearns, 2009). For many community college students, including a disproportionate share of low income, minority, and academically unprepared students (Abelman & Dalessandro, 2008), the institution might be their only opportunity to acquire skills to be competitive for a job in which an employer values international exposure. With more research-based information on peer activities, best practices, and relevant case studies, community colleges can gauge their internationalization efforts and work toward offering students more international experiences. These experiences will position their students for increased career success.

Different institutions are at quite different stages in their global efforts. While some are building on elaborate existing commitment, others are just starting to discuss internationalization of their institution. This is, therefore, a time when best practices that are widely shared and discussed can be particularly helpful (Stearns, 2009). While community colleges have been involved in international activities for many decades,

research on internationalization of community colleges is a limited field. Valeau and Raby (2007) contended while literature on community college internationalization efforts can be found, it is not nearly as prolific as information on four-year colleges. ACE has provided the only longitudinal study and empirical foundation on multiple internationalization indicators of community colleges (Engberg & Green, 2002; Green, 2007; Green, Luu, & Burris, 2008). While building on ACE's research, this study provides needed analysis for community colleges based upon CFAT classification. It also delineates tactical approaches to the components of increasing internationalization for urban, suburban, and rural community colleges.

Purpose statement and research questions

The purpose of this ex post facto study was to explore the level of community college internationalization in the United States. The study examined the impact of community college settings classified as urban, suburban, and rural, on internationalization and determined if relationships existed between dimensions of internationalization within each classification. Data were extracted from the 2006 ACE college survey of internationalization, wherein 318 public community colleges responded to questions regarding campus internationalization efforts and activities. The 2006 ACE survey currently includes the largest number of community college responses to a questionnaire regarding higher education internationalization activities and efforts. The independent variable for this study was community college classification of urban, suburban, or rural. The dependent variable was the internationalization scores of urban, suburban, or rural community colleges.

Internationalization was measured using four dimensions: (a) institutional support, (b) academic requirements, programs, and extracurricular activities, (c) faculty policies and opportunities, and (d) international students. Measuring dimensions of internationalization in conjunction with community college classification is the general conceptual framework for this project and this helped shape the research questions. With the new Carnegie classification system (2009a), this study utilized the urban, suburban, or rural setting identifier through which two-year colleges may now be examined.

The study sought to understand the overall level of internationalization at community colleges, the context in which community college setting impacts internationalization, and any relationships between the dimensions of internationalization within each setting classification. The study was guided by the following questions:

1. What is the overall level of internationalization for U.S. community colleges?
2. Are there significant differences in the overall scores of internationalization between urban, suburban, and rural community colleges?
3. Are there relationships between the four dimensions of internationalization within the community colleges classified as urban?
4. Are there relationships between the four dimensions of internationalization within the community colleges classified as suburban?
5. Are there relationships between the four dimensions of internationalization within the community colleges classified as rural?

There was one null hypothesis and three directional hypotheses for this study:

H_0 : There are no significant differences in the overall internationalization scores of urban, suburban and rural community colleges.

H₁: There is a direct relationship between the dimension of institutional support and the dimension of academic requirements, programs, and extracurricular activities for urban community colleges.

H₂: There is a direct relationship between the dimension of institutional support and the dimension of academic requirements, programs, and extracurricular activities for suburban community colleges.

H₃: There is a direct relationship between the dimension of institutional support and the dimension of international students for rural community colleges.

Review of the methodology

This study utilized data from the ACE 2006 survey of colleges and universities regarding the policies and practices of their internationalization efforts. Out of 1,376 community colleges surveyed, 409 institutions responded demonstrating a 30% response rate. This study excluded data from privately-controlled or specialty associate's institutions, resulting in an analysis of the 318 responding publicly controlled community colleges.

Scores for each of the four dimensions were derived by summing the response values for each question included in one of the four dimensions of (a) institutional support, (b) academic requirements, programs, and extracurricular activities, (c) faculty policies and opportunities, and (d) international students, with each dimension having a maximum potential score of one. Summing the four dimension scores for each institution calculated its overall internationalization score. The internationalization scores were then adjusted to reflect a zero-to-four point scale and produced a standardized score. This study's levels of internationalization for the sample were on a four point scale of "low"

(0.0 to 1.0), “medium” (>1.0 to 2.0), “medium-high” (>2.0 to 3.0), and “high” (>3.0 to 4.0).

Data were then sorted into urban, suburban, and rural groups as defined by CFAT (2009a). Urban and suburban institutions were defined as being located within primary metropolitan statistical areas (PMSAs) or metropolitan statistical areas (MSAs), respectively, with populations exceeding 500,000 as recorded by the 2000 Census. Institutions in PMSAs or MSAs with a total population lower than 500,000, or not in a PMSA or MSA, were classified as rural-serving. Analyses were conducted to determine if statistically significant differences existed for internationalization scores with delineation by community college classification. Further analysis was conducted to determine if relationships existed between the dimensions of internationalization for each classification.

Summary of major findings

The overall internationalization level for community colleges is low. When colleges are classified as urban, suburban, or rural, each classification also has a low level of internationalization. A higher proportion of rural community colleges had low internationalization levels than either suburban or urban community colleges. The lowest overall mean score for internationalization was measured for rural community colleges ($M = .48$), with urban ($M = .86$) and suburban ($M = .84$) community college internationalization mean scores relatively equal. The mean rural community college internationalization score was significantly different from both the urban internationalization score and the suburban internationalization score.

Four dimensions of internationalization were examined for the urban, suburban, and rural community college classifications. The dimension of institutional support had the highest mean score of all four dimensions within the classification of urban community colleges. The second highest mean score was in the dimension of international students followed by the mean scores of the dimensions of academic requirements and faculty policies. The linear combination of all four dimensions was a good predictor of internationalization scores at urban community colleges accounting for almost 98% of the variance. The dimension of institutional support accounted for 87% of the variance in internationalization scores at urban community colleges.

Analysis of the mean scores of the dimensions for urban community colleges suggested differences. The mean score of the dimension of institutional support was significantly different from the dimensions of academic requirements and faculty policies for urban community colleges. The mean score of the dimension of academic requirements was significantly different than the dimension of international students. The mean score of the dimension faculty policies was also significantly different from the dimension of international students. For urban community colleges, relationships between the dimensions were all positive and significant with the highest correlation existing between institutional support and academic requirements.

Among suburban community colleges, the mean scores for the dimensions of institutional support and international students were equal and were also greater than the mean scores of the dimensions of academic requirements and faculty policies. The linear combination of the four dimensions accounted for almost 96% of the variance in

internationalization scores at suburban community colleges with the dimension of institutional support accounting for about 84%.

Analysis of the mean scores of the dimensions of suburban community colleges suggested differences. Similar to urban community colleges, the mean score of the dimension of institutional support was significantly different from the dimensions of academic requirements and faculty policies for suburban community colleges. The dimension of academic requirements was also significantly different than the dimension of international students. The dimension of faculty policies was significantly different from the dimension of international students. Positive relationships exist between the four dimensions within suburban community colleges; however, two of the relationships were not significant. The dimensions of institutional support and academic requirements showed a stronger relationship compared to others.

For rural community colleges, the mean scores for the dimensions of institutional support and international students were equal and also greater than the dimension scores for both academic requirements and faculty policies. The linear combination of all four dimensions predicted 95% of the variance in internationalization scores at rural community colleges with the institutional support dimension accounting for the largest variance of 72%.

Analysis of the mean scores of the dimensions of rural community colleges suggested differences. Similar to urban and suburban community colleges, the dimension of institutional support was significantly different from the dimensions of academic requirements and faculty policies. The mean scores of the dimension of academic requirements were also significantly different than the dimension of international

students. The dimension of faculty policies was also significantly different from the dimension of international students. Positive relationships existed between the four dimensions for rural community college with the dimensions of institutional support and international students showing a stronger relationship.

Findings related to the literature

Internationalization levels. Using the study's four point scale of "low" (0.0 to 1.0), "medium" (>1.0 to 2.0), "medium-high" (>2.0 to 3.0), and "high" (>3.0 to 4.0), the overall internationalization index for community colleges was low for 70% of respondents with a mean internationalization level of .68. These results are similar to Green & Siaya's (2005) analysis of the internationalization level of 233 community college respondents of the ACE survey in 2001. These researchers reported low levels of internationalization for 61% of community colleges. Similarly, in reporting results of a 1995 survey of 46 Texas community colleges, Emerson & Newsome (1995) found lackluster international efforts. The majority of colleges lacked international education policies in mission statements and had no international education committees. Most colleges were not members of an international education association at either local, state or national levels. In addition, faculty development, internationalized curriculum, and out-of-country education were minimal in the bulk of responding colleges.

Eighty-one percent of rural community colleges had a low internationalization level in comparison to 57% percent of urban colleges and 54% of suburban colleges. Eighteen percent of rural community colleges had medium levels of internationalization compared to 42% of urban colleges and 44% of suburban colleges. As no other research

has been conducted on internationalization levels of community colleges delineated by classification, it is unreasonable to compare these delineated results against other studies.

Classification impact on internationalization

Study results indicated classification setting (urban, suburban, or rural) affected internationalization levels experienced at community colleges. Student population size may affect the overall internationalization level for community colleges. Urban and suburban campuses are quite large compared to rural institutions; the smallest mean campus enrollment in the suburban and urban college categories (7,591 at campuses in suburban multi-campus districts) is larger than the mean enrollment at large rural community colleges (7,233 students) (Hardy & Katsinas, 2007). With fewer students, rural colleges are more likely to be challenged to recruit enough students to participate in activities like study abroad, enroll in internationally related courses, or attend optional lectures with international themes. Hence, because of low participation rates, advocating for additional or continued resources to conduct internationalization activities at rural community colleges may not be successful for faculty and staff.

Population demographics differ for urban, suburban, and rural community colleges and may play a role in the student interest of supporting internationally related activities. Urban areas tend to have more diverse populations which may, in turn, affect demand and/or support of community college internationalization activities. Non-minority students account for 45 percent of all urban, 54 percent of all suburban, and 74 percent of all rural community college enrollments (Hardy & Katsinas, 2007). As urban community college students live in a more diverse region, they may be more comfortable with a diverse student body and, hence, be more open to internationalization activities

and programs. In a survey of 3,000 undergraduates from across the nation who completed the *College Student Experiences Questionnaire (CSEQ)*, Fourth Edition, Pike and Kuh (2005) found first-generation minority students who planned to pursue an advanced degree generally more engaged in their college than first-generation non-minority students. As rural community colleges serve predominately non-minority students, they may be challenged to engage these students in activities such as those related to internationalization as these activities are mostly voluntary.

Urban and suburban community colleges also serve a smaller proportion of first-generation, full-time students than rural institutions. First-generation students are traditionally at higher risk of not having a successful college experience. Students first in their family to attend college are often less experienced in regards to potential college experiences and opportunities than students who are not first-generation. Research indicated first-generation students reported significantly lower levels of academic and social engagement than students who had at least one parent or guardian with an earned baccalaureate degree (Pike & Kuh, 2005). As many internationalization activities at community colleges are not mandatory, internationalization offerings may be beyond the comfort level of many students or be seen as secondary in importance to the mainstream academic courses they are looking to complete. Therefore, rural community colleges, in serving more first generation students, may find many of their students less prepared for, expecting, or valuing internationalization experiences than urban or suburban institutions.

In contrast, as part-time students are less likely to engage in study abroad and extracurricular activities, urban and suburban institutions should be challenged to expose a larger percentage of students to internationalization experiences (Green, 2007), because

they enroll a higher percentage of part-time students than rural institutions. Recent research also indicated part-time students are less engaged in classroom activities than their full-time peers (McClenney, 2007). This suggests potential limits to the impact of internationalizing the curriculum in hopes of exposing more urban and suburban students to international experiences.

One must also consider the economic climate of the communities served by rural community colleges. Technology intensive and social analytic jobs have concentrated in cities rather than the rural areas, and low skill jobs have moved outside the country as a whole (McGranahan, 1994). This dispersion of jobs has resulted in smaller tax bases and scarcer resources for rural governing bodies with negative effects on financial support for public institutions. As a result of this loss of support, community colleges are experiencing major funding deficiencies (Fluharty & Scaggs, 2007). Internationalization is not often seen as imperative in many college communities and using scarce resources to promote international activities may not be appreciated. These sentiments, along with a lack of understanding regarding internationalization at other community colleges, can lead to lower levels of internationalization at community colleges serving rural areas.

As Hardy and Katsinas (2007) noted, particularly at small rural institutions, staff and faculty are likely to perform many different administrative functions. With a large number of responsibilities, faculty and staff may have less interest in instituting additional programming such as internationalization. Rural community colleges with smaller budgets, are probably less likely than their urban and suburban counterparts to be able to reallocate funds to supply additional resources to focus on internationalization activities. For example, funds are not available to hire additional staff, provide release

time to faculty or stipends for current staff in order to provide dedicated time and personnel to internationalization efforts. As a result, faculty and staff view internationalization as just one more activity administration is looking to implement.

Internationalization dimensions. Research on internationalization suggests four dimensions of internationalization at higher education institutions (Boggs & Irwin, 2007; Hser, 2005; Korbel, 2007). These dimensions include (a) institutional support, (b) academic requirements, programs, and extracurricular activities, (c) faculty policies and opportunities, and (d) international students (Green, Luu, & Burris, 2008). Institutional support is considered key to advancing and maintaining internationalization efforts at colleges (Green, 2007; Korbel, 2007), while academic requirements and programs can impact a large number of students (Dellow, 2007). Faculty are seen as critical participants to successful internationalization efforts, and sufficient development opportunities support their participation in internationalization activities (Boggs & Irwin, 2007; Raby, 2007). Finally, international students play an important role in internationalizing campuses by interacting with other students and with faculty and staff (Boggs & Irwin), and their presence is a strong indicator of an institution's level of internationalization (Hser, 2005). Overall, these dimensions capture the arena in which community college operations and activities can support the culture of campus internationalization or international experiences themselves.

Differences in dimensions. Examining the four dimensions of internationalization through the lens of urban, suburban, and rural community colleges provided additional insight into the role of the dimensions within each classification. For all three classifications, institutional support played the largest role in community college

internationalization scores. Results of this study supported previous work (Green, 2007; Korbel, 2007) regarding the importance of institutional support in community college internationalization efforts. High-level administration and board of director efforts in increasing institutional support for internationalization is the key factor in encouraging global education. However, internationalization efforts need staff follow-up from various campus divisions with opportunities for initiatives directly promoted from faculty and staff. The complexity of global education issues increasingly impinge on the work of those offices not seemingly involved such as financial services, the business office, and facilities (Stearns, 2009).

Other research has indicated the dimension of academic requirements as being equally, if not more, important than institutional support (Kelleher, 1996; Stearns, 2009) for higher education internationalization. The results of this study suggested academic requirements as being less responsible for community college internationalization than institutional support. Previous research, however, focused on using academic requirements as a way to reach the most students with internationalization experience or as an indication of campus commitment to internationalization. One study demonstrated self-reported increases in students' questioning assumptions, interest in gathering and interpreting data, using information to inform and impact personal growth, and the understanding of one's civic role in a globalized world (Lewis & Niesenbaum, 2005). The current study does not measure internationalization outcomes in terms of student exposure. Nor does the current study attempt to quantify "commitment" to internationalization by an institution. Finally, research on academic requirements in relation to campus internationalization has been centered on four-year institutions. These

institutions have broader missions and programs which lend themselves to internationalization, such as graduate degree offerings. Thus, four-year institutions are much more likely to offer global/international programming than community colleges.

Further analysis indicated urban and suburban community colleges having academic requirements as the dimension most highly impacted from additional investments in institutional support. For rural community colleges, the dimension of international students was the dimension most impacted by an increase in institutional support. It is not surprising the study findings indicated the dimension of faculty policies as being less important to overall internationalization than other dimensions. A number of internationally comparative studies have indicated American faculty are collectively less interested in global education and research than their counterparts abroad (Altbach, 1998; Altbach & Peterson, 1998; Stearns, 2009).

Urban community colleges. The hypothesis suggesting a direct relationship between the dimension of institutional support, and the dimension of academic requirements, programs, and extracurricular activities was not rejected. While the mean score for the dimension of institutional support was higher than the mean score of the dimensions of academic requirements, faculty policies and international students, it also had a direct relationship with the other three dimensions. As such, for urban institutions, an increase in institutional support will result in an increase in the other three dimensions. However, faculty policies and international students will be less impacted from additional investment in institutional support than academic requirements.

For urban institutions, there would be comprehensive benefits from investing in institutional support for internationalization efforts. Increases in institutional support for

internationalization efforts can result in increases in campus based international activities. These could include foreign language requirements either for admission or graduation to an institution along with increasing the number of foreign languages offered. Likewise, international or global course requirements for graduation requirements could result in increased international or global course offerings and education abroad opportunities. Also, courses offered in collaboration with institutions from other countries, guest lecturers using video-conferencing, and video or web-based research conferences can be enhanced.

Urban community college institutional support can manifest itself through a myriad of activities including internationalization highlighted in recruitment literature. Institutionally developed global student learning outcomes and a campus-wide task force or campus-wide committee focused on internationalization could be developed. In addition, a separate written plan for institutional internationalization and internationalization references included in the institution's mission statement along with continually monitoring progress on internationalization are ways to enhance institutional support.

Based upon the results of this study, it is suggested an increase in institutional support by urban community colleges will have the least impact on faculty policies. The dimension of faculty policies includes areas related to a college's criteria for hiring, promotion, tenure, and recognition. Urban community college faculty do not appear to participate in internationalization activities as one way to delineate themselves from a large pool of peers. It would not be surprising if attempts by urban community colleges to increase internationalization activities which require faculty input, such as developing

global student learning outcomes or creating a campus-wide task force focused on internationalization are not deemed as priorities for participation by faculty.

Suburban community colleges. The hypothesis suggesting a direct relationship between the dimension of institutional support and the dimension of academic requirements was not rejected. The mean scores for the dimensions of institutional support and international students were equal, and they were also greater than the mean scores for the dimensions of academic requirements and faculty policies. For suburban community colleges, institutional support had a direct relationship with the other three dimensions. As such, for suburban institutions, an increase in institutional support will result in an increase in the other three dimensions, and there would be comprehensive positive benefits from investing in institutional support for internationalization efforts at suburban community colleges.

Similar to urban institutions, suburban institutions which increase institutional support for internationalization will most largely impact academic requirements. As 60% of students at suburban institutions are enrolled part-time (Copeland, et al., 2008), suburban institutions may recognize academic requirements' ability to affect a larger percentage of students than optional programming. Similar to urban community colleges increases in institutional support for internationalization efforts at suburban community colleges can result in increases in foreign language requirements. These requirements can be seen in admission or graduation requirements, or the number of foreign languages offered. International or global course requirements for graduation and international or global course offerings may expand. Also, education abroad opportunities and courses offered in collaboration with institutions from other countries may grow. Technological

based initiatives such as international guest lecturers using video-conferencing, and video or web-based research conferences may also be enhanced. Suburban community college institutional support can manifest itself through a myriad of activities including a campus-wide task force or committee focused on internationalization including creation of a separate written plan for institutional internationalization. Institutionally developed global student learning outcomes along with internationalization references included in the institution's mission statement and in its top five strategic priorities are important institutional support strategies. Likewise, formally assessing progress on internationalization can result in more integration of internationalization activities into the campus culture.

The current study's analysis indicated an increase in institutional support would have the least impact on the dimension of international students at suburban community colleges. Hence, should institutional support increase, suburban community colleges may still not experience an increase in international student enrollment. This may occur as recruitment efforts, supportive programs and services, and scholarship support will not be significantly enhanced through the institutional support measures noted earlier.

Rural community colleges. The hypothesis suggesting a direct relationship between the dimensions of institutional support and international students for rural community colleges was not rejected. The mean scores for the dimensions of institutional support and international students were equal to each other and higher than the mean scores of the dimensions of academic requirements and faculty policies. For rural community colleges, institutional support had a direct positive relationship with the other three dimensions. Therefore, rural institutions which increase institutional support for

internationalization should experience an increase in the other three dimensions and enjoy overall positive benefits from investing in institutional support for internationalization efforts.

An investment in institutional support for internationalization at rural community colleges would most significantly impact the dimension of international students. Similar to urban and suburban efforts, institutional support could occur by creating a link from the institution's home page to international programs and highlighting internationalization in recruitment literature. Creating a campus-wide task force focused on internationalization with the goals of writing a separate plan for institutional internationalization and developing global student learning outcomes can also be steps toward increasing institutional support. Additionally, referencing internationalization in the institution's mission statement and in its top five strategic priorities, and assessing progress on these priorities provide opportunities for increased institutional support for internationalization. With these efforts, a rural community college could expect increases in recruitment efforts and supportive programs and services for international students. Likewise, international student enrollment figures and scholarship support may also see growth. Benefits from increasing the number of international students can be seen in a recent study of higher education institutions, demonstrating international students as having a statistically significant and positive effect on faculty competitiveness and undergraduate competitiveness. Significant positive improvements were also seen through advanced training competitiveness, financial stability, constituents' satisfaction, and institutional reputation (Jang, 2009).

One potential explanation of the dimension of institutional support impacting the dimension of international students at rural community colleges more than the dimensions of faculty policies and academic requirements is greater variability of institutional types existing among rural colleges compared to their urban and suburban counterparts (Hardy & Katsinas, 2007). In 2007, small rural campuses had an average annual unduplicated headcount enrollment of 1,155 students, with 2,819 students at medium rural and 7,233 at large rural colleges respectively. With fewer students available to participate in internationalization efforts, it may make more sense for a rural institution with an administration supportive of internationalization activities, to bring foreign students to campus rather than focus multiple efforts on a small number of faculty and staff.

As this study indicates, for rural community colleges, an increase in institutional support will have the least impact on the dimension of academic requirements. Rural colleges, in systematically striving to meet community needs in areas of smaller populations, generally provide fewer academic options than their urban and suburban counterparts. The community college's role in local economic development and community outreach is of heightened importance in rural areas because of declines in a community's overall economic situation. With such a local focus coupled with community economic development challenges, it is not surprising that rural colleges provide limited support for specific academically based internationalization activities such as study abroad and distance learning options.

Discussion

Implications for action

Given the importance of community colleges to their communities and the large number of students they prepare for the workforce or for transfer to four-year institutions, it is unfortunate that so many institutions have such low levels of internationalization activities. A lack of international activities at community colleges is ultimately depriving students the opportunity to be equally competitive in a global labor pool. In order for community colleges to educate more individuals who can demonstrate global competence as required by employers, results of this study can be used to encourage new investment, attention, and resources in internationalization efforts. This encouragement can be broadly based for all community colleges or focused on a specific community college classification. For example, college presidents, boards of directors, and high-level administrators of all community colleges can assess how their institution's internationalization efforts compare to the overall and peer results of this study. Institutions can adjust their support of internationalization activities accordingly. For rural community colleges, given the overall average low internationalization score, and the study's analysis showing their scores to be significantly lower than urban and suburban institutions, this assessment may not be necessary. Increases in institutional support for all rural community colleges would be beneficial.

Clearly, institutional support is the most important factor for community college internationalization and should be the focus of any institution seeking to increase internationalization efforts and activities. Institutional support is responsible for the

largest variance of internationalization, but also has the highest correlation with other dimensions regardless of classification. Therefore, rural community college presidents, boards of directors, and high-level administrators charged with setting the vision and mission for the institution, should increase their institutional support for internationalization to boost their institution's internationalization efforts and activities. As noted earlier, institutional support can easily be demonstrated in a number of ways. Examples include linking the institution's home page to international programs and highlighting internationalization in recruitment literature. Writing a separate plan for institutional internationalization, referencing internationalization in the institution's mission statement, and developing global student learning outcomes are also ways in which institutional support can be manifested. Increasing institutional support will tend to improve academic efforts, faculty support, and international student activities at rural community colleges.

As institutional support for internationalization efforts increases, high-level administrators charged with cultivating a campus-wide commitment to internationalization will find curriculum development, student affairs, and faculty development personnel more open to incorporating internationalization into course work and activities. For administrators and faculty with multiple responsibilities, particularly at rural community colleges, encouraging internationalization throughout the institution may be less burdensome than initially anticipated, if additional institutional support is forthcoming. Additional high level administrative support will allow mid-level administrators to articulate to faculty and staff institutional expectations of internationalization. Employee search committees can clearly express the importance of

participating in or fostering internationalization experiences for students to potential job candidates. Importantly, rural community colleges can thoughtfully collaborate with one another and share personnel to minimize the cost of internationalization support. Success and integration of internationalization activities may occur more quickly if an institution's employees are exposed to the efforts of peer institutions. These collaborations may provide a framework for rural institutions attempting to develop leaders for internationalization activities.

The results of this study should also encourage private and government funding of internationalization activities on community college campuses. International education relies on outside funding, beyond normal tuition revenues; use of state monies, for public institutions, is frequently constrained in the global arena, and overall support has been decreasing for higher education as a whole. However, results of this study clearly indicate current internationalization efforts at community colleges is lacking. To meet the growing need of employers looking for employees with internationalization experiences and recognizing the large percentage of students enrolled at community colleges, additional resources devoted to increasing internationalization activities on community college campuses are necessary. This is particularly true for rural community colleges which have the least number of internationalization activities occurring, yet educate approximately one-third of all community college students. Fortunately, many of the activities surrounding institutional support for internationalization are not costly. For example, website content encouraging students to study abroad, or to recruit international students, requires no more resources than other college web page updates. Likewise,

updating an institution's strategic plan with internationalization language does not require a financial expense.

Engaged and committed institutional leadership is the key to internationalization if changes are to be substantive and permeate the campus culture. Therefore, funders of internationalization efforts would be wise to invest in activities focused on leaders and governing boards of community colleges. For example, presentations to presidents and governing boards regarding the importance of internationalization, and offering resources to support internationalization planning, implementation, and marketing efforts would be important and effective in encouraging leaders to be more proactive in supporting campus internationalization. For many campuses, including community colleges, a physical space dedicated to coordinating global efforts, with staff available to answer questions and address suggestions, provides important support to internationalization efforts.

Also, technology can provide low-cost opportunities for interactions between diverse students and links among academic institutions worldwide, through electronically shared courses, lectures, programs, and projects. For example, technology can be used for faculty development, such as on-line tutorials related to internationalization of the curriculum or to connect classes from different disciplines or institutions to perform project work with an international counterpart. Social networking easily offers opportunities for students to connect with international peers and professors. Social networking sites provide instant updates on international activities and events available on-line along with on-line links to learn about other internationally related topics.

Institutions and individuals which financially support internationalization activities might consider investments in a community college's technology. Investments

of this type might also be palatable to businesses which are looking for more internationally experienced employees, but are reluctant to fund generic international activities at community colleges. Likewise, as organizations such as the National Association of Manufacturers endorse study abroad as a primary means to global competence of students (Stearns, 2009), supporting education abroad programs might be attractive to businesses.

The internationalization efforts and activities mentioned earlier will help internationalization permeate community college campuses. This permeation is important to create student recognition of the importance of internationalization so that students may be more receptive to internationally related requirements put forth by their colleges. For example, a foreign language requirement could encourage students to learn more about the cultures which speak the language they are learning. They might be more comfortable approaching international students which speak the language they are studying. Likewise, international students may be more inclined to attend community colleges which teach their native language because they feel the campus values their culture more than a college which does not teach their native language, thus adding to the international breadth of the campus. Ultimately, academic requirements may lead students to being open to voluntary international experiences or to encourage a college to offer more opportunities such as study abroad.

The recommendations noted earlier are most important to rural community colleges, which have significantly lower internationalization activities than their urban and suburban counterparts. Administrators of these institutions who do not encourage a campus culture which values international experiences, risk graduating students who will

be challenged to thrive in a global environment. As most rural communities are suffering economically, these students will be less likely to successfully compete for worldwide employment opportunities. This is additionally unfortunate as many of these positions would allow rural community college students to remain living in their communities. Therefore, rural community colleges administrators should increase internationalization efforts with haste.

As noted previously, initial activities are not resource intensive. Changes to website content and strategic plans can be done with little investment. Fact finding trips to other community colleges engaged in internationalization activities are also not costly. Reserving time to discuss internationalization at cabinet level meetings or board retreats can offer opportunities to talk about recent research on college internationalization. Creating a committee charged with recommending pathways to address internationalization through academics, faculty policies, and encouraging international student programming may require personnel, but not initial funding. Through these administrative efforts it can become clear to the campus community that internationalization is now a priority for the institution.

Recommendations for future research

This study indicates several areas worthy of additional review. While the study identified the actual levels of internationalization at community colleges, an understanding of why internationalization levels are low for so many colleges would be helpful in determining the barriers to encouraging and realizing additional internationalization efforts. Once a better understanding of the impediments to community college internationalization occurs, internal and external resources can be

directed in more precise ways. This is especially true for rural community colleges, which have significantly fewer internationalization activities occurring in comparison to their suburban and urban counterparts. Additional studies regarding community college internationalization need to be conducted in order to provide more breadth and depth to the subject area. Additional delineations of community college demographics would help institutions identify supplementary peers for comparison based on data such as enrollment, and full-time equivalents. Community college classification research can be further delineated in to large, medium, and small for rural colleges and single or multi-campus for suburban and urban colleges.

Conclusions

For community college students to be more competitive for jobs in which employers value international experience, community colleges must offer more international experiences. Very few community colleges are offering a robust group of international experiences that are being utilized by their students. Whether students are less inclined to participate in international activities due to balancing personal and professional activities, or because of a lack of international offerings at their respective institution, a potential employability penalty on the student occurs just the same. This is especially true for students attending rural community colleges, which enroll one-third of all community college students, but have the lowest level of internationalization in comparison to their urban and suburban peers. Rural institutions often provide the only post-secondary option for many individuals in their communities and so provide an excellent opportunity to expose residents to internationalization. This exposure contributes to the employability of the students, hence residents of the community, and

potentially leads to higher levels of employment for rural areas. These higher levels are due to the increasing numbers of employees working for businesses outside of the community where the individual resides, but with the individual not having to relocate.

Administrative and governing leaders of community colleges must make institutional support of internationalization activities a priority, and this study indicates their efforts will have the greatest impact on internationalization of an institution. Through their efforts, internationalization will be recognized as important by college faculty and staff, and activities will be implemented more quickly and through a variety of venues. Some indicators of institutional support by administration are easily implemented. For example, incorporating a link from the institution's home page to international programs and highlighting internationalization in recruitment literature would be relatively easy. Symbolic gestures, which are inexpensive but demonstrate embracing internationalization, include hanging flags from other countries or displaying clocks with times from international capital cities on campus. Colleges can also designate each month in honor of a country from which its international students originate or the heritage of faculty and staff. These designations can follow with signs or webpage greetings featuring languages native to these cultures or countries and potluck dinners offering native foods can be organized. Even campus wide celebrations of well known events can provide opportunities for international exposure. Cultural celebration examples could include a focus on Caribbean culture during Mardi Gras and a spotlight on Mexican culture during Cinco De Mayo. These simple tasks can be followed by more complex, but still cost effective measures. Activities such as organizing and funding a campus-wide task force focused on internationalization and writing a plan for

implementing facets of institutional internationalization are important efforts in planning for internationalization but are still relative inexpensive. Faculty, staff, and administrative visits to other community colleges to learn about their internationalization activities can facilitate learning best practices as well as foster collaborative internationalization efforts which minimize expenses.

Community colleges should also consider working with business to increase awareness of the importance of internationalization experiences for students. The use of program advisory committees can be helpful in encouraging faculty to support internationalization activities. Advisory committees contribute to curriculum and program development at community colleges. By stressing their relationships to a global economy, businesses on advisory committees may help move a program toward becoming more internationalized. Members of these program advisory committees often hire graduates from these programs, and meeting with students to explain how international experiences are taken into account in hiring practices can increase student interest in participating in college internationalization activities. Administrators of community colleges can also inform students intending to transfer to four-year degree institutions about foreign language requirements at the intended college or university. Planning for longer term initiatives can come from referencing internationalization in the institution's mission statement and creating a formal assessment tool for internationalization progress. With an understanding of the importance of increasing community college internationalization, community college leaders can use such techniques to ensure their students' competitive abilities in today's global job market.

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