

## AN ABSTRACT OF THE DISSERTATION OF

Deborah M. Sipe for the degree of Doctor of Philosophy in Education presented on April 14, 2014.

Title: Internationalization in Oregon and Washington Community Colleges

Abstract Approved: \_\_\_\_\_  
Darlene F. Russ-Eft

### Abstract

Research on higher education during the period 1990 to 2013 has suggested that U.S. higher education institutions were significantly impacted by a number of global forces, including an increase in the movement of goods, information, and people across borders. During the same period, a measurable increase occurred in the number of higher education institutions across the United States that experienced a movement toward an international focus in organizational structures, behaviors, and activities. Existing research on this topic has largely focused on the experience of four-year institutions and has been primarily national in scope. This study examined (a) the level of an international focus in Oregon and Washington community colleges along two dimensions, and (b) the relationship between three environmental factors and the college's level of internationalization. Quantitative research was conducted for this study and the study design employed both survey and archival research methods to collect the data. Study results indicated that (a) the internationalization level at most Oregon and Washington community colleges was relatively low, (b) there was a

greater tendency for colleges classified as “rural” to have lower levels of internationalization, and (c) in Washington, community colleges with services as the primary industry in their service area were more likely to have a higher level of internationalization.

© Copyright by Deborah M. Sipe  
April 14, 2014  
All Rights Reserved

Internationalization in  
Oregon and Washington Community Colleges

by  
Deborah M. Sipe

A DISSERTATION

submitted to

Oregon State University

in partial fulfillment of  
the requirements for the  
degree of

Doctor of Philosophy

Presented April 14, 2014  
Commencement June 2014

Doctor of Philosophy dissertation of Deborah M. Sipe presented on  
April 14, 2014

APPROVED:

---

Major Professor, representing Education

---

Dean of the College of Education

---

Dean of the Graduate School

I understand that my dissertation will become part of the permanent collection of Oregon State University libraries. My signature below authorizes release of my dissertation to any reader upon request.

---

Deborah M. Sipe, Author

## ACKNOWLEDGEMENTS

I am grateful to many people for their support in the completion of this dissertation. They include my major professor, Dr. Darlene Russ-Eft, who set the bar high; my doctoral committee, who challenged me to explore new areas; my siblings, friends, and colleagues, who supported and cheered me on; and my children Elena and Ryan, who never questioned the educational aspirations of their mother. Most of all, I am grateful for the support of my husband Robert, whose unquestioning confidence in my ability to complete the work was only exceeded by his daily support, demonstrated in so many ways. I dedicate this dissertation to my parents, who, through their values and work as educators, inspired me to be a lifelong learner.

## CONTRIBUTION OF AUTHORS

Ms. Sheeny Behmard and Ms. Katherine Eng assisted with the inferential statistical analysis of the data.

## TABLE OF CONTENTS

	<u>Page</u>
1 Introduction: Focus and Significance .....	1
1.1 Purpose of Study.....	2
1.2 Research Questions.....	3
1.3 Significance.....	5
1.4 Delimitations.....	6
2 First Manuscript: Review of Literature.....	10
2.1 Purpose and Research Questions.....	11
2.2 Approach to the Literature Review.....	12
2.1.1 Global Forces - Impact and the Need for Response.....	14
2.1.2 Internationalization – A Response to Global Forces.....	17
2.1.3 Trends and Patterns in Internationalization.....	20
2.3 Summary.....	25
3 Second Manuscript: Internationalization in Oregon and Washington Community Colleges.....	34
3.1 Method.....	39
3.2 Results.....	47
3.3 Conclusion.....	52
4 Third Manuscript: Internationalization and the Influence of Environmental Factors.....	71



## TABLE OF CONTENTS (Continued)

	<u>Page</u>
4.1 Method.....	73
4.2 Results.....	79
4.3 Conclusion.....	82
5 General Conclusion.....	97
Bibliography.....	104
Appendices.....	111
Appendix A Epistemology of the Reader.....	112
Appendix B Choice of Research Approach.....	115
Appendix C Survey Design Rationale.....	121
Appendix D Validity of Research Instrument.....	124
Appendix E Internationalization Survey.....	126
Appendix F Rationale - Choice of Dimensions.....	128

## LIST OF FIGURES

<u>Figure</u>	<u>Page</u>
1. Percent Demographic Diversity versus Score.....	88
2. Comparison of Mean Internationalization Scores.....	89

## LIST OF TABLES

<u>Table</u>	<u>Page</u>
2.1 Factors Supporting Internationalization and Expected Outcomes.....	33
3.1 Indicators of Internationalization.....	60
3.2 Definitions of Ordinal Variables.....	61
3.3 Data Dictionary.....	62
3.4 Descriptive Statistics on Internationalization Scores.....	64
3.5 Two-Way Contingency Tables – Computing Significance Levels.....	65
3.6 Question and Response Percentages – Questions 1-3, IR, IP.....	69
3.7 Questions and Response Percentages – 4a-5c.....	70
4.1 Environmental Factors – Research Summary.....	90
4.2 Primary Industry Categorization.....	91
4.3 Internationalization Scores and Settings.....	92
4.4 Internationalization Scores and Primary Industry.....	93
4.5 Model 1 – With Indicator for Each Type.....	94
4.6 Model 2 – Not Including Indicator Variable for Every Type.....	95
4.7 Model 3 – Indicator for Service; Interaction Between Service and Washington.....	96

## Internationalization in Oregon and Washington Community Colleges

### Chapter 1 – General Introduction: Focus and Significance

Based on his extensive research, John Levin contended in 2001 that U.S. community colleges had significantly changed their focus since the 1990s because of the impact of changing global economics, demographic patterns, information technologies, and political forces. He maintained that these forces resulted in changes in organizational structures and behaviors, such as *internationalization*. In the current study, this author examined internationalization specifically in Oregon and Washington community colleges because of the significant impact of international trade and increased student diversity on their region's economies, societies, and educational systems (Institute for International Education, 2013; Portland Business Alliance, 2010; U.S. Census Bureau, 2013).

Historically, community colleges have been charged with responding to the needs of their communities (Cohen & Brawer, 2003; Levin, 2001). Research studies as well as reports from national higher education associations have suggested that U.S. colleges and universities must respond to changing market and civic needs by enacting fundamental changes to better prepare college students to be global citizens and globally competent (Hart Research Associates, 2010; Kedia & Daniel, 2003). Evidence from national surveys as well as case studies (Harder, 2010; Hudzik, 2011) has suggested that these changes have been happening in some U.S. colleges and universities, yet relatively little research exists on such changes at community colleges.

**Purpose of the Study**

The purpose of this study was to examine administrative behaviors in Oregon and Washington community colleges related to internationalization. It was anticipated that the research will (a) contribute to a larger picture of the changes that U.S. community colleges have experienced in recent history due to global forces and (b) suggest how they might continue to evolve in the near future in response to those forces. The premise of this study was that there is a relationship between global forces that impacted Oregon and Washington community colleges between 1990 and 2013 and specific institutional changes and organizational behaviors in response to these forces.

If community colleges have changed significantly in response to global forces and community and individual student needs (Deardorff, 2004), it is important from a historical perspective to identify these changes and determine if they resemble efforts referred to as “internationalization.” Such information could (a) provide significant guidance to those colleges still contemplating such changes, (b) suggest areas for investment by the public and private sector (Harder, 2010), and (c) indicate whether the changes undertaken resemble those suggested by research (de Wit, 2002) as necessary for community colleges to best serve their communities. Further research could also suggest gaps in college responses to community and student needs regarding internationalization.

A systems theory perspective informed this research study, in that higher education institutions were seen as forms of systems. According to systems theory (Capra, 1996), systems are patterns of organization that are affected by their

environments. Living systems must, in fact, continually take in information from the environment and adapt to that information in order to survive. They may change their structures, but retain their essential purposes and identities. This perspective informed the research questions listed below.

### **Definitions**

*Administrative leadership behaviors:* “expressed commitment by senior leaders...articulated rationale and goals for internationalization” (de Wit, 2002, p. 125), and/or an institutional task force or committee whose primary function is to encourage internationalization at the institution.

*International education:* the international dimensions of U.S. higher education.

*Internationalization:* “the process of integrating an international/intercultural dimension into the teaching, research, and service functions of the institution” (Knight, 1999, p. 13).

*Internationally-related student services:* Those student services that are focused on assisting international students or U.S. students intending to study abroad.

*Primary industry:* Type of public or private sector business employing the largest number of people in a defined geographic area.

### **Research Questions**

The first research question for this study was:

- 1) To what extent do administrative actions and behaviors within community colleges reflect increasing attention to issues in internationalization?

This question was addressed by examining two organizational dimensions of Oregon and Washington community colleges to determine levels of an international

orientation (referred to as internationalization): administrative leadership behaviors and student support services. These dimensions were chosen because (a) research studies suggest that certain administrative behaviors in these dimensions (i.e., policy statements) can encourage significant changes in the direction and orientation of the institution (Knight & de Wit, 1995), (b) these behaviors can be noted through empirical data such as policy statements, rationales, and charges to committees and task forces (Hudzik, 2011), and (c) various student services that support international students or students studying abroad can be measured. Evidence from several national studies suggested that there was a trend between 1990-2013 toward incorporating aspects of internationalization into the governance structure and the student services of community colleges (Green & Siaya, 2005; Levin, 1999). However, as yet there is no existing research on this topic regarding Oregon and Washington community colleges.

The second research question for this study was:

- 2) To what extent are certain environmental factors related to a community college's level of internationalization?

Research (Harder, 2010) has suggested that the population density of the geographic location of the college (urban versus non-urban) has a significant influence on a college's level of internationalization. The present research focused on Oregon and Washington community colleges to confirm or disprove whether a relationship existed between internationalization and (a) the population density of the college's service area, (b) the primary industry in the college's service area, and (c) the level of diversity in its student population. No quantitative research currently exists regarding Oregon and Washington community colleges on this topic.

## **Significance**

The study has **scholarly significance** for three reasons: it (a) identified administrative leadership behaviors and student services specific to Oregon and Washington community colleges that may indicate a movement toward internationalization, (b) provided research as to the relationship between environmental forces and administrative behaviors in Oregon and Washington community colleges, and (c) identified areas in which further research can be conducted. The study thus added to the research on institutional change in Oregon and Washington community colleges.

The **practical significance** of this research is that it provided information to state educational policymakers and governing bodies as to (a) whether Oregon and Washington community colleges are responding to employer needs regarding important workforce skills and abilities in the global marketplace (Hart Research Associates, 2010; National Leadership Council, 2008), and (b) whether funding needs to be added or reallocated to address and promote these skills through community college programs, or be contingent on success of such programs. The study may also be of practical significance to college administrators as to whether (a) their institutions are responding to changes in their environments, and (b) students are satisfied with institutional services or need additional services. The findings should be of interest to those colleges planning to recruit an increasing number of international students. Finally, the study is of personal significance to this author's work experiences.



## **Delimitations and Limitations**

Research (Green & Siaya, 2005; Hudzik, 2011; Siaya & Hayward, 2003) has indicated that community colleges may experience change along several dimensions with regard to internationalization. The scholarly significance of this study was limited, as it examined only two aspects of institutional functions: administrative leadership behaviors and student services, and three environmental factors. This study focused on what occurred in Oregon and Washington community colleges but not why specific changes occurred. Yet the study adds to the research regarding internationalization because of its (a) specific geographic focus, (b) focus on specific dimensions of community college operations and specific environmental factors, and (c) quantitative research approach.

## **Overview of the Dissertation**

Manuscript 1 provides a literature review and theoretical context for the study. Manuscripts 2 and 3 present the descriptive survey methods used and descriptive and inferential statistical analyses of the results. They are followed by the general conclusions of the study.

## **Summary**

This study examined administrative changes relative to internationalization in Oregon and Washington community colleges between 1990 and 2013, addressing a gap in the existing research. The study addressed the following research questions:

- 1) To what extent do administrative actions and behaviors within community colleges reflect increasing attention to issues in internationalization?

- 2) To what extent are environmental factors related to a community college's level of internationalization?

By addressing these questions through the collection and analysis of survey data, this study contributed to the research on organizational changes in Oregon and Washington community colleges between 1990 and 2013. Specifically, it explored whether these colleges are responding to community and business needs regarding skills and abilities necessary for individual and community success in the 21<sup>st</sup> century.

## References

- Capra, F. (1996). *The web of life: A new scientific understanding of living systems*. New York, NY: Anchor Books.
- Cohen, A.M., & Brawer, F.G. (2003). *The American community college* (4<sup>th</sup> ed.). San Francisco, CA: Jossey-Bass.
- Deardorff, D. (2004). In search of intercultural competence. *International Educator*, 13(3), 13-17. Retrieved from [www.highbeam.com/doc/1P3-772375861.html](http://www.highbeam.com/doc/1P3-772375861.html)
- de Wit, H. (2002). *Internationalization of higher education in the United States of America and Europe: A historical, comparative, and conceptual analysis*. Westport, CT: Greenwood Press.
- Green, M., & Siaya, L. (2005). *Measuring internationalization at U.S. community colleges*. Washington, DC: American Council on Education.
- Harder, N. (2010). Internationalization efforts in United States community colleges: A comparative analysis of urban, suburban, and rural institutions. *Community College Journal of Research and Practice*, 35 (1-2), 152-164. doi:10.1080/10668926.2011.525186
- Hart Research Associates. (2010). *Raising the bar: Employers' views on college learning in the wake of the economic downturn*. Washington, DC: Author.
- Hudzik, J. (2011). *Comprehensive internationalization: From concept to action*. Washington, DC: NAFSA: National Association of Foreign Student Advisors.
- Institute for International Education (2011). *Open doors 2011: Report on International Educational Exchange*. Washington, DC: U.S. Department of Education Bureau of Educational and Cultural Affairs.
- Institute for International Education (2013). *Open doors 2013: Report on International Educational Exchange*. Washington, DC: U.S. Department of Education Bureau of Educational and Cultural Affairs.
- Kedia, B. L., & Daniel, S. (2003, January). *U.S. business needs for employees with international expertise*. Paper presented at the Needs for Global Challenges Conference, Duke University, Chapel Hill, NC. Retrieved from [http://www.ducis.jhfc.duke.edu/archives/globalchallenges/pdf/kedia\\_daniel.pdf](http://www.ducis.jhfc.duke.edu/archives/globalchallenges/pdf/kedia_daniel.pdf)
- Knight, J. (1999). Internationalization of higher education. In J. Knight & H. de Wit (Eds.), *Quality and internationalization in higher education* (pp. 13-28). Paris, France: OECD.

- Knight, J., & de Wit, H. (1995). Strategies for internationalization of higher education: Historical and comparative perspectives. In H. de Wit (Ed.), *Strategies for internationalization of higher education: A comparative study of Australia, Canada, Europe, and the United States of America*. Amsterdam, the Netherlands: European Association for International Education.
- Levin, J. (1999). *Mission and structure: The community college in a global context*. Tucson, AZ: Center for the Study of Higher Education, The University of Arizona.
- Levin, J. (2001). *Globalizing the community college: Strategies for changes in the twenty-first century*. New York, NY: Palgrave.
- Lewin, T. (2012, February 4). Taking more seats on campus, foreigners also pay the freight. *The New York Times*. Retrieved from <http://www.nytimes.com/2012/02/05/education/international-students>
- National Leadership Council. (2008). *College learning for the new global century*. Retrieved from [www.aacu.org/leap/documents/GlobalCentury\\_final.pdf](http://www.aacu.org/leap/documents/GlobalCentury_final.pdf)
- Portland Business Alliance. (2010). *International trade summary*. Retrieved from [http://www.portlandalliance.com/public\\_policy/reports\\_studies.html](http://www.portlandalliance.com/public_policy/reports_studies.html)
- Siaya, L., & Hayward, F. (2003). *Mapping internationalization on U.S. campuses*. Washington, DC: American Council on Education.
- U.S. Census Bureau. (2013). *Quick facts*. Retrieved from <http://www.immigrationpolicy.org/just-facts/new-americans-oregon>
- Washington Department of Commerce. (2011). The quick rundown. *Commerce Quarterly Trade Bulletin*, 2(4). Retrieved from [www.chosewashington.com/Pages/CommerceQuarterlyTradeBulletin.aspx](http://www.chosewashington.com/Pages/CommerceQuarterlyTradeBulletin.aspx)
- Washington State Board for Community and Technical Colleges. (2009). Student data introduction: Academic year 2004-05 to 2008-09. Retrieved from [www.sbctc.ctc.edu/college/it/2008-09ayr/3enroll0809.pdf](http://www.sbctc.ctc.edu/college/it/2008-09ayr/3enroll0809.pdf)

## Chapter 2 - First Manuscript: Review of Literature

In *Globalizing the Community College: Strategies for Change in the Twenty-first Century* (2001), John Levin contended that U.S. community colleges had undergone significant changes since the 1990s due to the powerful impact of global economics, demographic patterns, information technologies, and political forces. He argued that, in response to these forces, community colleges had enacted many changes in organizational structures and behaviors, including that of *internationalization*, in order to better prepare their students for succeeding in this transformed landscape. This review examines the literature regarding internationalization in U.S. community colleges, exploring its meaning and its manifestations between 1990 and 2013.

Although the concepts of international education and international studies have existed in higher education for many years, internationalization in U.S. higher education is a more recent phenomenon. It has been defined in many ways but usually refers to an increasing outward-looking orientation in several aspects of an institution. Internationalization has been much discussed at the national level (American Council on Education, 1995; Hudzik, 2011) as an essential tool in higher education's adaptation to a changing world.

Community colleges are historically charged with responding to the needs of their communities. Research on a national scale has suggested that U.S. colleges and universities need to respond to changing market and civic needs by enacting serious and fundamental changes that would better prepare college students to be global citizens and to be globally competent (Hart Research Associates, 2010; Kedia &

Daniel, 2003). Evidence from several research studies (Harder, 2010; Hudzik, 2011; Siaya & Hayward, 2003) has indicated that these changes have been happening in colleges and universities across the country, yet relatively little research exists on the impact of global forces on and subsequent changes in community colleges. This review summarizes the existing research and suggests directions for future research efforts.

### **Purpose and Research Questions**

This literature review examined the research regarding internationalization and community colleges. The research questions were: (a) What were the global forces impacting community colleges between 1990-2013? (b) What is internationalization and how was it a response to these forces? (c) What was the experience of U.S. community colleges regarding internationalization as a response to those forces?

The American Association of Community Colleges (AACC) (2013) estimated that community colleges serve close to half of the undergraduate students in the U.S. Yet, the relatively limited research that exists regarding both the impact of global forces on community colleges and the nature and level of their response to these forces to prepare their students for a changing world is largely comprised of a few national surveys (Green & Siaya, 2005) and individual case studies (Fields, 2010; Levin, 2001). When viewed holistically, however, this research (a) provides a historical perspective on significant changes in the environment in which community colleges operate, (b) clarifies the meaning of internationalization as a response to those changes, and (c) provides an overview of the status of internationalization in U.S.

community colleges. The research also identifies gaps in the information specific to community colleges, and suggests areas for future study.

### **Approach to Literature Review**

The following sections describe the approach taken for the literature review. Databases and key words are described, definitions are presented, and the criteria for inclusion and exclusion are provided, as suggested by Boote and Beile (2005).

#### **Databases and Key Words Used**

Several sources were used in searching for relevant data for this research topic, including the Oregon State University and Portland Community College libraries and the Summit and WorldCat systems. Other sources included the archives of the book series: *The Review of Research in Education* and the journal *Review of Educational Research*, and several related articles from online higher education journals. Google Advanced Search, Google Scholar, and Dogpile.com were used as search tools. A review of peer-reviewed journals and full text studies in higher education literature was the primary research strategy. Key phrases used to locate the data included: (a) internationalization in community colleges, (b) internationalization in higher education, (c) internationalizing higher education, (d) globalization in higher education, (e) globalization in community colleges, (f) international students in the United States, (g) and demographic trends in community colleges.

## **Definitions**

*International education*: the international dimensions of higher education in the U.S.

*Internationalization*: “the process of integrating an international/intercultural dimension into the teaching, research, and service functions of the institution” (Knight, 1999, p. 13).

## **Criteria for Inclusion and Exclusion**

The literature review included full text works, journal articles, reports, dissertations, and scholarly works 13 or fewer years old; a few slightly older full-text works and journal articles to provide historical context. Also included were quantitative and qualitative research studies, reports, and data that focused on: (a) the impact of global forces on U.S. higher education in general and community colleges in particular between the mid-1990s and 2013; (b) internationalization as a response to these forces; (c) and the experiences of individual colleges and universities with regard to internationalization. This time period was selected after an initial review indicated that the onset of significant impact of global forces began in the early 1990s. Most research studies were excluded if they: (a) focused primarily or totally on the experiences of universities, or (b) were not strongly supported with data.

## **Organization of the Literature Review**

In order to reflect the three research questions, this review is organized into the following three sections:

- Global forces - impact and the need for response
- Internationalization - a response to global forces
- Higher education and internationalization.



Using a systems perspective (Capra, 1996), this review considers forces and elements in the outside environment between 1990-2013 that had a significant impact on higher education systems, with particular attention to community colleges. The examination of (a) internationalization as an organizational response, and (b) the internationalization experiences of colleges and universities, particularly community colleges, will aid in identifying similar experiences and promising practices in specific community colleges or college groups.

### **Global Forces – Impact and the Need for Response**

Beginning in the 1990s, researchers (de Wit, 2002; Levin, 2001; Raby, 1996), commissions (International Commission on Education, 1996; National Leadership Council, 2008; Panel on Global Engagement, 2011) and national organizations (Cornwall & Stoddard, 1999; Fischer, 2007; Lindner, Dooley, & Wingenbach, 2003; Vande Berg, 2003) suggested that U.S. colleges and universities needed to respond to a major change occurring in their environment: the increasing movement of people, goods, and information across borders. An American Council on Education report (Siaya & Hayward, 2003) noted the impact of these global forces and the need for both two and four-year institutions to respond. State government reports also highlighted the impact of global forces at the state and local levels (e.g., Portland Business Alliance, 2010; WSU Social and Economic Services Research Center, 2007). The National Leadership Council report (2008) indicated that, in response to these forces, colleges and universities should consider knowledge of other cultures and communication competence across cultures as essential skills for students for the 21st century. The report recommended that intercultural competence and civic knowledge

and engagement (local and global) be considered essential learning outcomes for college students in order to enhance democracy within the United States, to contribute to the economy, and to develop the individual. This report was based on a multi-year dialogue with hundreds of colleges and universities and reports from private sector employers.

What were the implications for community colleges regarding these forces? Numerous research studies (Brint & Karabel, 1989; Cohen & Brawer, 2003; Levin, 2001; Raby, 1996) have discussed the importance of the community college in addressing the needs of the local community. These studies usually noted changing community needs and subsequent college adaptations and restructuring in order to address those needs. In 1979 “the President’s Commission on Foreign Languages and International Studies urged a special effort in community colleges to increase the international/intercultural dimension” (Raby, 1996, p. xvi) because of the increasingly pluralistic nature of U.S. societies and the interdependent world in which community colleges existed. A 1994 report from the American Council on International Intercultural Education stated, “to ensure the survival and wellbeing of our communities, it is imperative that community colleges develop a globally and multi-culturally competent citizenry” (p. 1). Yet few studies specifically focused on the impact of global forces on community colleges in their efforts to serve their constituencies. The following section summarizes this research.

Since the 1990s, a few authors (Hudzik, 2011; Levin, 2001; Siaya & Hayward, 2003) have contended that U.S. community colleges have been strongly impacted by forces in their outside environment. Levin (2001), Olson, Green, and Hill (2005), and

Turner (2008) all suggested that community colleges were impacted in the 1990s by major global forces, primarily economics, demographics, information technologies, and politics. Bevis and Lucas noted in 2007 that during the 1960s and 1970s community and junior colleges began to enroll expanding numbers of foreign students and experienced a significant growth in international students between 1993 and 1997. Indeed, they concluded that the percentage increase of foreign students was greatest among community colleges as compared with other higher education institutions.

The work of Bevis and Lucas was significant for its use of multiple sources to document the increase in numbers of international students. In discussing the impact of this increase, Bevis and Lucas noted that the original mission of community colleges had been to serve their local communities, but with the advance of technology and the resulting ability to interact globally, the concept of “community” needed to be redefined. The Bevis and Lucas study (2007) documented reports and findings of various national commissions and organizations on the importance of developing the global competence of community college students and vehicles for potential collaborative efforts between community colleges and governmental agencies to encourage this competence.

In 2012, an American Association of Community Colleges (AACC) report called for a major overhaul of the community college system in order to better meet U.S. education and training needs and noted that it was important that “college graduates, whatever their location, be not just globally competitive but also globally competent, understanding their roles as citizens and workers in an international context” (p. viii). An emerging focus on these skills can be seen, for example, in the

2008 Oregon University System draft framework of desired student outcomes for general education transfer of lower division college courses to the university system. These outcomes included (a) the ability to respond to the needs of diverse audiences and contexts, and (b) critical analysis skills to engage more fully in global issues and understand the complex world of today (Joint Boards of Education, 2009).

Another possible rationale for change to reflect a more international orientation may have been financial. Higher education institutions nationwide experienced a significant reduction in state financial support between 2005 and 2010 (AAC & U State Relations and Policy Analysis Research Team, 2010). Recent reports (Jaschik, 2013) have found that state funding has stabilized, but increases will likely remain modest for the near future. Universities and colleges in several states (Bevis & Lucas, 2007; Lewin, 2012) have turned to increased international student enrollment as one means of increasing revenues, as international students often pay considerably more tuition than U.S. students. Bevis and Lucas noted increased recruiting of international students by U.S. community colleges in the 1990s and the establishment of organizations such as Community Colleges for International Development (CCID) to recruit these students.

### **Internationalization – A Response to Global Forces**

Between 2000 and 2011 the American Council on Education (ACE) initiated several studies that examined internationalization experiences at colleges and universities across the United States. The first report (Hayward, 2000) served as a foundation for a number of subsequent research studies. Since 2000, a number of national surveys (AAC & U, 2010; Hudzik, 2011; Siaya & Hayward, 2003) have

focused on changes that occurred in U.S. colleges and universities to respond to these global forces and develop essential skills in U.S. college students for succeeding in the new landscape. These changes could occur in several aspects of the institution (de Wit, 2002), including its governance, operations, support services, and human resource development. The measurement of these changes in national surveys was the foundation for the definition of internationalization. Cornwall and Stoddard (1999) noted that what “internationalizing” meant was not widely agreed upon in the early part of the 21<sup>st</sup> century; Zolfaghari, Sabran, and Zolfaghari (2009) came to a similar conclusion, commenting on the role of stakeholders in determine the meaning and definition. In the first conceptualizations of internationalization, study abroad, language study, international students on campus, and internationalizing the curriculum were its specific manifestations (Cornwall & Stoddard, 1999). More recently, internationalization has often been seen as a process that involved all major functions of the institution, including its teaching, research, and service functions (de Wit, 2002; Hudzik, 2011; Knight, 1999). This definition reflects the context in which it was developed: the four-year university.

In a 2003 ACE report, Siaya and Hayward summarized the results of three major national surveys of U.S. colleges and universities to present an overview of the state of internationalization in U.S. undergraduate education. Survey questions focused on areas that initial research suggested were indicators of an institution’s internationalization “level.” These areas were stated institutional commitment, financial support, faculty attitudes about international requirements, and students’ reports of their foreign language fluency. Results revealed that only 25% of the

responding U.S. community colleges had mission statements that specifically referred to international education. Only about one-third of those colleges earmarked funds to support various types of international activity at the college, such as funding faculty international experiences. Report results also revealed that 80% of the responding community colleges had an international student population of 5% or less. These data provided useful benchmark information for comparison of results from later studies.

The results of the most recent (as of this writing) ACE national survey of the status of internationalization at U.S. colleges and universities (Center for Internationalization and Global Engagement, 2012) were analyzed by McGill-Peterson and Helms (2013), who noted that overall, U.S. colleges and universities had made some progress in internationalization since 2003. However, they also noted that “many still lack the ‘connective tissue’ that shapes internationalization efforts into a coherent strategy” (p. 33) that is necessary for a deep and long-lasting impact. Noteworthy regarding the survey results was that community colleges reporting campus-wide internationalization initiatives had increased from 16 to 21% since the 2003 survey.

Institutional changes toward internationalization have been noted in individual case studies of colleges (Fields, 2010; Levin, 2001) across the country. Hudzik (2011) noted that internationalization is becoming more important to all institutions. To date, however, no quantitative methods study has been completed that focused on these changes in community colleges from a regional or state perspective. There is also as yet no quantitative research on community colleges from a regional perspective that investigates whether a relationship exists between the level of community college

internationalization within a region that occurred between 1990 and 2013 and aspects of a college's internal or external environment. These aspects might include, such factors as the population density of the college's service area, the international experience of the chief administrator, major industries in the college's area, and student demographics.

### **Trends and Patterns in Internationalization**

In order to better discern any patterns and trends in internationalization efforts in U.S. community colleges, it is useful to first consider the research as a whole on internationalization in higher education. Often, the findings regarding community colleges are located within large reports on this topic or the conducted research has relevance to the community college situation. The following paragraphs describe internationalization research pertinent to U.S. community colleges.

The national scope of the ACE surveys provided the basis for some degree of generalization about evidence of internationalization. Most research conducted on internationalization in higher education in the United States, however, utilized a case study approach, limiting the generalizability of the conclusions. However, research sources such as NAFSA: Association of International Educators (2011) collectively provided valuable clues as to (a) the evolving definition of internationalization, (b) characteristics that were becoming accepted as evidence of successful internationalization efforts, and (c) colleges and universities that demonstrated those characteristics in their internationalization efforts. These resources suggested that understanding and implementing internationalization effectively required a conceptual framework. The work of de Wit (2002) explored this idea.

De Wit (2002) examined the historical development of internationalization in higher education and the rationales for its implementation. De Wit saw internationalization activities as falling into two main categories: (a) program strategies, which tend to focus on the development and implementation of specific programs, and (b) organizational strategies, which focus more on the governance, operations, support services, and human resource development of organizations. For the integration to take place and endure, organizational strategies to encourage internationalization must be in place in the governance, operations, support services, and human resource development of the institution; if internationalization was not thoroughly integrated into organizational culture and processes, it was at risk of being marginalized or considered a fad. Hudzik (2011) echoed this perspective in describing stages of institutional internationalization.

Knight and de Wit (1995) detailed specific indicators for the four categories of organizational strategies they contended lead to successful internationalization efforts: governance, operations, support services, and human resource development. Within the category of governance, they listed four indicators: (a) expressed commitment by senior leaders, (b) active involvement of faculty and staff, (c) articulated rationale and goals for internationalization, and (d) recognition of an international dimension in the mission statement and other policy documents. For the category of support services, Knight and de Wit listed three indicators: (a) support from institution-wide service units (for example, student housing, registration, counseling, fundraising, etc.), (b) involvement of academic support units (for example, language training, curriculum development, library), and (c) services for international students studying on campus



and domestic students going abroad (for example, orientation programs, counseling, cross-cultural training, student advisors, etc.). Results from several studies have indicated that specific organizational actions within these categories of governance and support services are indicators of internationalization (Hudzik, 2011; Siaya & Hayward, 2003). ACE expanded upon Knight and de Wit's findings, concluding that organizational actions toward internationalization needed to be strategic and carried out in a coordinated process that included an alignment of policies, actions (programs) and indicators of achievement (McGill-Peterson & Helms, 2013). De Wit's individual research and his collaborative research with Knight are fundamental to understanding the concept of integrating an internationalized orientation into structures and administrative behaviors in order for internationalization to endure in an institution. The breadth of this research on historical developments is key to understanding the evolution of the concept and rationales for internationalization.

A number of studies in the last 10 years further explored the concept of internationalization or were handbooks or guides to internationalization efforts in postsecondary institutions. Turner's (2008) extensive research identified multiple themes in internationalization, including (a) international engagement, (b) mobility, (c) revenues, (d) international professionals, (e) communication systems, (f) knowledge sharing, (g) language, (h) programming and curriculum, (i) academic practices, and (j) philosophical orientation. The complete list provided a set of boundaries for a discussion about what is implied by internationalization. Turner described internationalization as a complex process experienced as a continuum, from the formation of a minimalist view to a transformative experience for the institution.

It should be noted that her research focused on U.S. universities and their experiences with the internationalization process. However, one additional study (Hudzik, 2011) arrived at a similar conclusion.

A NAFSA-sponsored national study (Hudzik, 2011) analyzed and synthesized numerous quantitative and qualitative analyses of the history and experiences of internationalization at U.S. colleges and universities. The work presented an overview of what internationalization looked like, specific examples of internationalization, promising practices, and guiding principles for colleges and universities in various stages of the internationalization process. This work provided a comprehensive examination of the process of internationalization through many references and examples of the experiences of various colleges. Several other published works (Community Colleges for International Development, 2012; Olson, Green, & Hill, 2005, 2006) focused on guiding principles of internationalization. In a soon-to-be-published essay, de Wit (2014) noted that the concept of internationalization had evolved dramatically in the last 20 years and might need reconceptualization, given major changes in the field and the world during that period. In a companion essay, Knight (2014) commented that the term “internationalization” had become a “catch-all” phrase.

By the mid-1990s, a few research studies had appeared that specifically reviewed the experiences of community colleges regarding internationalization and summarized the components that seemed essential for its successful implementation. Raby (1996) analyzed the experiences of a number of U.S. and particularly California community colleges. Her work discussed several dimensions of internationalization,

including various types of exchange programs, partnerships, and services. She concluded that components essential to successful internationalization included support from top college administrators, a specific coordinator, and a committed faculty.

An ACE-initiated report (Green & Siaya, 2005), focused specifically on the responses of 233 community colleges to the ACE 2003 institutional survey. The report sought to determine whether common internationalization strategies existed. The survey scored colleges along the same six dimensions of internationalization as the 2003 study. Study results showed that one fourth or fewer institutions included internationalization goals in their mission statements or strategic plans. This report was valuable for its focus on U.S. community colleges and its suggestion of indicators that could be used to examine internationalization at specific community colleges.

Levin (2001) postulated that the impact of global forces on the community colleges he studied resulted in changes in organizational structures, policies, and behaviors in U.S. community colleges, one of those changes being “internationalization.” He saw internationalization as a set of behaviors that included an increased international student enrollment and the participation of college administrators and faculty in various kinds of international work. Levin concluded that although each college faced a unique mixture of powerful global forces and reacted in its own unique way, in all cases, college missions as well as organizational behaviors had been altered in these colleges in response to these global forces. He made a strong case through his extensive and in-depth research, but his research was not generalizable, as it was qualitative, involving several case studies. His work is

important for its extensive description of global forces impacting a collection of community colleges. It also provided a detailed description of their responses.

Using the 2006 ACE study results, Harder (2010) investigated whether a relationship existed between the location of the college (urban, suburban, rural) and its level of internationalization. Her study measured internationalization along four dimensions: (a) institutional support, (b) academic requirements, programs, and extra-curricular activities, (c) faculty policies and opportunities, and (d) international students. Her findings indicated that there were significant differences between location categories of community colleges in terms of overall internationalization efforts as well as each of the four dimensions. Harder's research was significant in that it focused specifically on four frequently mentioned dimensions of internationalization and that it indicated that the geographic location influences the level of internationalization effort.

### **Summary**

Some overarching findings emerged from this literature review. Based on those findings, suggestions for future research are presented.

**Findings.** This literature review examined research regarding the impact of global forces on higher education and community colleges in particular. It explored the concept of internationalization as an institutional response and the experiences of U.S. colleges regarding it. The following paragraphs summarize these research findings.

The review noted that since the 1990s, global forces have impacted U.S. higher education institutions, including community colleges. Research studies describing the

need for organizational responses to these forces were reviewed. Also reviewed were studies that described (a) the concept of internationalization as a form of organizational response to global forces, and (b) internationalization efforts that had taken place in many U.S. community colleges, as well as other higher education institutions, in response to these forces. Some of these studies suggested commonalities in the internationalization experience, such as institutional commitment, a change in organizational mission and services to students to reflect a greater international focus, and the revision of the curriculum to enhance the understanding and skills of students as they leave college to enter the “outside world.” These studies have primarily been national in scope and have used both quantitative as well as quantitative methods.

Analytical studies completed within the last 10 years yielded an increasingly more sophisticated definition of internationalization, as well as descriptions of the organizational structures and behaviors necessary for internationalization to be both comprehensive and enduring. One factor leading to successful internationalization efforts that was frequently noted in these studies was an institution-wide commitment to an internationalization orientation. This commitment was manifested in several ways, including (a) a commitment at the highest levels of the organization (manifested in the governance structure) to internationalization as a part of institutional mission fulfillment, (b) organizational strategies to carry out this commitment at the operational level. Collectively, the research provides a rich historical context for examining the internationalization experiences of individual community colleges and suggests several commonly accepted indicators for successful internationalization.

Table 2.1 presents a summary of factors involved in internationalization. The table lists some of the factors that various studies have indicated may influence a move to internationalization and some of the factors supporting internationalization. It also provides some of the expected outcomes of internationalization.

**Future directions for research.** Although numerous research studies have been completed on internationalization in higher education, they have primarily been national in scope and have focused on the experiences of four-year institutions, or they have been in-depth case studies concerning a particular institution. The foregoing literature review suggests that there is as yet relatively limited research, particularly quantitative research, regarding the experience of internationalization at U.S. community colleges. Research studies similar to Levin's (2001) regarding internationalization efforts between or among community colleges in a particular region or with a similar student composition would be useful to determine if there are commonalities in internationalization approaches and strategies. A second area for research is a comparison between expressed institutional commitments to internationalization and actual organizational efforts to carry out those commitments. Such research would be useful in highlighting both opportunities and challenges community colleges have experienced in "operationalizing" an internationalization commitment. A third area for future research would be the exploration of a possible relationship between a college's level of internationalization and the population density of its location, the primary industry in its service area, or other environmental factors. Such research could suggest which factors in the college environment most strongly motivate it to move toward internationalization. A fourth area for future

research, based on the experiences of community colleges to date, is the identification of common best practices in the process of internationalization. Such research could serve as useful guidance for internationalization efforts at other community colleges. A final area for research is an examination of the impacts of internationalization efforts on community colleges in terms of finances, curriculum offerings, and student outcomes.

The foregoing literature review has indicated that internationalization is necessary for U.S. community colleges to adequately prepare their students for succeeding in the 21<sup>st</sup> Century. Yet the process asks community colleges to re-examine their missions and most likely enact fundamental and far-reaching operational changes as to how those missions are carried out. Additional research in the areas described above could serve as a rich resource for those efforts.

## References

- AAC & U State Relations and Policy Analysis Research Team. (2010). *Top 10 higher education state policy issues for 2010*. Washington, DC: Association of American Colleges and Universities.
- American Association of Community Colleges. (2012). *Reclaiming the American dream: A report from the 21<sup>st</sup> Century Commission on the Future of American Community Colleges*. Washington, DC: Author.
- American Association of Community Colleges. (2013). *Who we are*. Retrieved from <http://www.aacc.nche.edu/About/Who/Pages/default.aspx>
- American Council on Education. (1995). *Educating Americans for a world in flux: Ten ground rules for internationalizing higher education*. Washington, DC: Author.
- American Council on International Intercultural Education. (1994). Building the global community: The next step. *Conference Proceedings*. Retrieved from <http://www.stanleyfoundation.org/publications/archive/CC1.pdf>
- Bevis, T., & Lucas, C. (2007). *International students in American colleges and universities: A history*. New York, NY: Palgrave MacMillan.
- Boote, D. N., & Beile, P. (2005, August/September). Scholars before researchers: On the centrality of the dissertation literature review in research preparation. *Educational Researcher*, 34(6), 3-15.
- Brint, S. G., & Karabel, J. (1989). *The diverted dream: Community colleges and the promise of educational opportunity in America 1900-1985*. New York, NY: Oxford University Press.
- Capra, F. (1996). *The web of life: A new scientific understanding of living systems*. New York, NY: Anchor Books.
- Center for Internationalization and Global Engagement. (2012). *Mapping internationalization on U.S. campuses: 2012 edition*. Washington, DC: American Council on Education. Retrieved from <http://www.higher-ed.org/HEUS/Bibliog/A.htm>
- Cohen, A.M., & Brawer, F.G. (2003). *The American community college* (4<sup>th</sup> ed.). San Francisco, CA: Jossey-Bass.



- Community Colleges for International Development, Inc. (2012). *CCID system for comprehensive internationalization*. Retrieved from [https://programs.ccid.cc/cci/.../CCID-SCIdoc-10-29-2012-150dpi\\_0.pdf](https://programs.ccid.cc/cci/.../CCID-SCIdoc-10-29-2012-150dpi_0.pdf)
- Cornwall, G., & Stoddard, E. (1999). *Globalizing knowledge: Connecting international and intercultural studies*. Washington, DC: Association of American Colleges and Universities.
- de Wit, H. (2002). *Internationalization of higher education in the United States of America and Europe: A historical, comparative, and conceptual analysis*. Westport, CT: Greenwood Press.
- de Wit, H. (2014). The different faces and phases of internationalization of higher education. In The forefront of international higher education: A festschrift in honor of Philip G. Altbach [Special issue], *Higher Education Dynamics*, 42, 95-105.
- Fields, D. (2010). *Faculty internationalization: Experiences, attitudes, and perceptions of full-time academics across Vermont* (Doctoral dissertation). Retrieved from <http://hdl.handle.net/2345/1733>.
- Fischer, K. (2007). 'Flat world' lessons for real-world students. *Chronicle of Higher Education*, 54(10), 45.
- Green, M. & Siaya, L. (2005). *Measuring internationalization at U.S. community colleges*. Washington, DC: American Council on Education.
- Harder, N. (2010). Internationalization efforts in United States community colleges: A comparative analysis of urban, suburban, and rural institutions. *Community College Journal of Research and Practice*, 35(1-2), 152-164.
- Hart Research Associates. (2010). *Raising the bar: Employers' views on college learning in the wake of the economic downturn*. Washington, DC: Author.
- Hayward, F. (2000). *Internationalization of higher education: Preliminary status report*. Washington, DC: American Council on Education.
- Hudzik, J. (2011). *Comprehensive internationalization: From concept to action*. Washington, DC: NAFSA: National Association of Foreign Student Advisors.
- International Commission on Education for the 21<sup>st</sup> Century. (1996) *Learning: The treasure within*. Paris, France: United Nations Educational, Scientific and Cultural Organization. Retrieved from [http://www.unesco.org/education/pdf/15\\_62.pd](http://www.unesco.org/education/pdf/15_62.pd)

- Jaschik, S. (2013). Outlook for community colleges. *Inside Higher Education*. Retrieved from <http://www.insidehighered.com/news/2013/11/08/survey-finds-mixed-outlook-community-colleges>
- Joint Boards of Education. (2009). *General education outcomes and criteria draft statements*. Retrieved from [www.ode.state.or.us/.../2009-jan-7-jt-bd-general-education-outcomes-criteria](http://www.ode.state.or.us/.../2009-jan-7-jt-bd-general-education-outcomes-criteria)
- Kedia, B. L., & Daniel, S. (2003, January). *U.S. business needs for employees with international expertise*. Paper presented at the Needs for Global Challenges Conference, Duke University, Chapel Hill, NC. Retrieved from [http://www.ducis.jhfc.duke.edu/archives/globalchallenges/pdf/kedia\\_daniel.pdf](http://www.ducis.jhfc.duke.edu/archives/globalchallenges/pdf/kedia_daniel.pdf)
- Knight, J. (1999). Internationalization of higher education. In J. Knight & H. de Wit (Eds.), *Quality and internationalization in higher education* (pp. 13-28). Paris, France: OECD.
- Knight, J. (2014). *Is internationalization of higher education having an identity crisis?* In The forefront of international higher education: A festschrift in honor of Philip G. Altbach, [Special issue]. *Higher Education Dynamics*, 42, 95-105.
- Knight, J., & de Wit, H. (1995). Strategies for internationalization of higher education: Historical and comparative perspectives. In H. de Wit (Ed.), *Strategies for internationalization of higher education: A comparative study of Australia, Canada, Europe, and the United States of America*. Amsterdam, the Netherlands: European Association for International Education.
- Levin, J. (2001). *Globalizing the community college: Strategies for changes in the twenty-first century*. New York, NY: Palgrave.
- Lewin, T. (2012). Taking more seats on campus, foreigners also pay the freight. *The New York Times*. Retrieved from <http://www.nytimes.com/2012/02/05/education/international-students>
- Lindner, J. R., Dooley, K. E., & Wingenbach, G. J. (2003). A cross-national study of agricultural and extension education competencies. *Journal of International Agricultural and Extension Education*, 10(1), 51-59. Retrieved from [http://www.aiaee.org/attachments/226\\_Lindner-Vol-10.1-7.pdf](http://www.aiaee.org/attachments/226_Lindner-Vol-10.1-7.pdf)
- McGill-Peterson, P., & Helms, R. (2013). Internationalization revisited. *Change*, 45(2), 28-32.
- NAFSA: Association of International Educators. (2011). *NAFSA's contribution to internationalization of higher education*. Retrieved from [http://www.nafsa.org/\\_/File/\\_/2011\\_izn\\_contributions.pdf](http://www.nafsa.org/_/File/_/2011_izn_contributions.pdf)

- National Leadership Council. (2008). *College learning for the new global century*. Retrieved from [www.aacu.org/leap/documents/GlobalCentury\\_final.pdf](http://www.aacu.org/leap/documents/GlobalCentury_final.pdf)
- Olson, C., Green, M., & Hill, B. (2005). *Building a strategic framework for internationalization*. Washington, DC: American Council on Education.
- Olson, C., Green, M., & Hill, B. (2006). *A handbook for advancing comprehensive internationalization: What institutions can do and what students should learn*. Washington, DC: American Council on Education.
- Panel on Global Engagement. (2011). *Strength through global leadership and engagement: US higher education in the 21<sup>st</sup> century*. Washington, DC: American Council on Education.
- Portland Business Alliance. (2010). *International trade summary*. Retrieved from [http://www.portlandalliance.com/public\\_policy/reports\\_studies.html](http://www.portlandalliance.com/public_policy/reports_studies.html)
- Raby, R. (1996). International, intercultural, and multicultural dimensions of community colleges in the United States. In R. Raby & N. Tarrow (Eds.), *Dimensions of the community college*, (pp. 9-36). Washington, DC: Garland Studies in Higher Education.
- Siaya, L., & Hayward, F. (2003). *Mapping internationalization on U.S. campuses*. Washington, DC: American Council on Education.
- Turner, Y. (2008). *Internationalizing the university*. New York, NY: Continuum International.
- Vande Berg, M. (2003). *Study and learning abroad: Integration with the support for internationalizing curriculum and learning*. Retrieved from <http://ducis.jhfc.duke.edu/archives/globalchallenges/pdf/vandeberg-rapp.pdf>
- WSU Social and Economic Services Research Center. (2007). *Washington state college enrollment study*. Olympia, WA: Office of the State Superintendent of Public Instruction.
- Zolfaghari, A., Sabran, M., & Zolfaghari, A. (2009). Internationalization of higher education: Challenges, strategies, policies and programs. *US-China Education Review*, 6(5), 1-9.

Table 2.1

*Factors Supporting Internationalization and Expected Outcomes*

Factors Leading to Internationalization	Factors Supporting Internationalization	Expected Outcomes of Internationalization
<p>Increased movement of information, people across borders</p> <p>Impact of global economics</p> <p>Community college mission to respond to community needs</p>	<p>Program strategies</p> <p>Organizational strategies</p> <ul style="list-style-type: none"> <li>• Governance <ul style="list-style-type: none"> <li>• Senior leader commitment</li> <li>• Faculty &amp; staff involvement</li> <li>• Rationale &amp; goals</li> <li>• Mission statement &amp; other policies</li> </ul> </li> <li>• Support services <ul style="list-style-type: none"> <li>• Service unit support</li> <li>• Academic unit support</li> <li>• Services for international, study abroad students</li> </ul> </li> </ul>	<p>Globally/interculturally competent students</p> <p>International engagement</p> <p>Increased revenues</p> <p>Increased global community and knowledge sharing</p> <p>Changes in academic programs and practices</p>

### Chapter 3 – Second Manuscript:

#### Internationalization in Oregon and Washington Community Colleges

John Levin (2001) contended that U.S. community colleges have significantly changed their focus since the 1990s because of the powerful impact of changes in global economics, demographic patterns, information technologies, and political forces. He further argued that these forces resulted in changes in organizational structures and behaviors. One of the changes he described is that of *internationalization*. This study focuses on specific aspects of internationalization in Oregon and Washington community colleges.

These states were selected because economic and demographic trends in Oregon and Washington between 1990 and 2013 indicated that two types of global forces impacted those states and their higher education institutions: the movement of goods (Portland Business Alliance, 2010; Washington Department of Commerce, 2011) and the movement of people across borders (Institute for International Education, 2013; New America Foundation, 2013). Both international trade and increased student diversity (through immigration and international exchange) had a significant impact on the region's economies, societies, and educational systems. The economies of these two states were significantly influenced by increases in international trade between 1990-2011 (Portland Business Alliance, 2010; Washington Department of Commerce, 2011). International trade supports over 470,000 Oregon jobs (Portland Business Alliance, 2010), and the dollar value of international trade merchandise in Washington more than doubled between 2005 and 2012, increasing from \$33 billion to \$75 billion (U.S. Census Bureau, 2013).

A review of population figures for Oregon and Washington since 1990 reveals the increase in the movement of people across borders. In 1990 4.9% of Oregon residents and 6.6% of Washington residents were foreign-born (U.S. Census Bureau, 2000). For the period 2008-2012, 9.8% of Oregon residents and 13% of Washington residents were foreign-born persons (Immigration Policy Center, 2013; U.S. Census Bureau, 2013).

Similarly, increases in international student enrollment in Oregon and Washington colleges occurred between 1990-2013 (Institute for International Education, 2013; Office of Institutional Research, 2010; Study Washington, 2008; WSU Social and Economic Services Research Center, 2007). The Institute of International Education estimated that in 2011 international students contributed \$463 million to the Washington State economy and \$304 million to Oregon's economy; in 2013 the estimated economic impact of international students in Washington had grown to \$643 million in Washington and \$374.9 million in Oregon (Institute for International Education, 2011, 2013). These facts affirm the impact of increased international trade, increased immigration, and increased numbers of students from other countries on Oregon and Washington's economies and educational systems.

Community colleges are historically charged with responding to the needs of their communities. Research on a national scale has suggested that U.S. colleges and universities need to respond to changing market and civic needs by enacting serious and fundamental changes that would better prepare college students to be global citizens and to be globally competent (Hart Research Associates, 2010; Kedia & Daniel, 2003). Evidence from several research studies (Harder, 2010; Hudzik, 2011)

has indicated that these changes have been happening in colleges and universities across the country, yet relatively little research specifically focuses on such changes at community colleges. The existing research is largely comprised of national surveys (Green & Siaya, 2005) or individual case studies (Fields, 2010; Levin, 2001); no quantitative research currently exists from a state or regional perspective about the impact of global forces on community colleges and corresponding changes in their directions and offerings.

The purpose of this study was to examine internationalization at Oregon and Washington community colleges. The research question for this study was:

To what extent do administrative behaviors and actions within community colleges reflect increasing attention to issues in internationalization?

This question was addressed by examining two organizational dimensions of Oregon and Washington community colleges - governance and student support services - to determine levels of an international orientation (often referred to as internationalization) at these colleges.

Evidence from several national studies (Green & Siaya, 2005; McGill-Peterson & Helms, 2013) suggested that there was a trend in community colleges between 1990-2013 toward incorporating aspects of internationalization into the governance, teaching, and services of these colleges. However, the author could not identify any existing research specific to Oregon and Washington community colleges concerning the above research question. A primary purpose of this study was to develop research findings concerning internationalization that was specific to these states.

The research for this study was conducted using a systems theory perspective (Capra, 1996). Higher education institutions were viewed as forms of systems, in that they were comprised of organizational patterns that were sensitive to changes in their external and internal environments. Systems theory also postulates that systems will change and adapt to information from their environments in order to survive.

### **Literature Review**

A common theme in historical research studies on community colleges (Brint & Karabel, 1989; Cohen & Brawer, 2003; Levin, 2001; Raby, 1996) has been the importance of the community college in (a) providing access to education for all individuals and (b) addressing the needs of the local community. These studies usually included analyses of the influence of outside factors over time on college functions and subsequent organizational responses to those factors.

Levin (2001), Olson, Green, and Hill (2005), and Turner (2008) all postulated that community colleges were impacted in the 1990s by major global forces, primarily economics, demographics, information technologies, and politics. Beginning in the 1990s, researchers (de Wit, 2002; Levin, 2001; Raby, 1996) and organizations (International Commission on Education for the 21<sup>st</sup> Century, 1996; National Leadership Council, 2008) suggested that U.S. colleges and universities needed to respond to the changes occurring in their environment brought on by the impact of global forces. In 2000 the American Association of Community Colleges (AACC) Trustees issued a statement calling for community colleges to develop strategic plans to build global awareness and competence. Since 2000, a number of national surveys (AAC & U State Relations and Policy Analysis Research Team, 2010; Hudzik, 2011;



Siaya & Hayward, 2003) have focused on changes that occurred in U.S. colleges and universities (often referred to as *internationalization* in these studies) to respond to these global forces and develop these essential skills in U.S. college students. These changes could occur in several aspects of the institution (de Wit, 2002), including its governance, operations, support services, and human resource development. Levin (2001) maintained that the impacts of these forces resulted in changes in organizational structures and policies and behaviors in U.S. community colleges, one of those changes being “internationalization.” Levin concluded that although each college faced a unique mixture of powerful global forces and reacted in its own unique way, in all cases, college missions as well as organizational behaviors had been altered in response to these forces. Despite several national surveys and individual case studies, no quantitative research appears to exist regarding organizational changes between 1990 and 2013 specifically focused on Oregon and Washington community colleges in response to the impact of these forces. Given the increased emphasis of global markets in these Northwestern states, the present study was designed to address that research gap.

De Wit (2002) saw internationalization as a process that “integrates an international dimension or perspective into the major functions of the institution” (p. 118). Within this approach, de Wit saw the activities carried out in the name of internationalization as falling into two main categories: (a) program strategies, which tend to focus on the development and implementation of specific programs, and (b) organizational strategies, which focus more on the governance, operations, support services, and human resource development of organizations. Knight and de Wit

(1995) detailed specific indicators in four categories of organizational strategies (governance, operations, support services, and human development) that they contended led to successful internationalization efforts. The present study focused on two of these categories – governance and support services – in assessing internationalization efforts at Oregon and Washington community colleges. Results from several studies have indicated that specific organizational actions within these categories are indicators of internationalization (Hudzik, 2011; Siaya & Hayward, 2003).

### **Method**

The focus of this study was to describe internationalization in Oregon and Washington community colleges along two dimensions of college operations. The study used quantitative research methods to detect trends and patterns in the research data (Creswell, 2012).

#### **Study Design**

This study used a non-experimental design; the more specific method used was descriptive survey research (Creswell, 2012). The design was used to describe and document indicators of internationalization along two dimensions in Oregon and Washington community colleges: administrative leadership behaviors in governance and in student support services.

#### **Study Participants and Unit of Analysis**

The population for this study included the presidents, academic vice presidents or deans of instruction, and the international programs or education officers (or their designated alternates) of the 17 community colleges in Oregon and the 34 community

colleges in Washington. The aforementioned population totals 153 possible participants. The combination of data obtained from each institution is described in a later section of this study. Given that the population for this study was relatively small, the entire population rather than a sample was surveyed. As noted by Creswell (2012), it is important to specify the level of analysis to be used in a study. Since this researcher examined several aspects of an institution's operation, the unit of analysis for this study was the institution itself, specifically, the community colleges in Oregon and Washington.

### **Data Needed**

In order to address the research question, data collected in the survey research involved two dimensions of organizational operations: governance and college support services to students in Oregon and Washington community colleges. Specific aspects of these dimensions were used as indicators regarding levels of internationalization. Administrative behaviors in these two dimensions and specific indicators within them have frequently been studied and measured in research on internationalization in higher education (de Wit, 2002; Knight, 1999).

The outcome, or dependent variable, for the study was the total internationalization score for the survey compiled for each college. Within the total outcome score were numerical results regarding several indicators of the two dimensions of governance and student support services at each institution. The three specific indicators within the category of governance and the four specific indicators regarding student support services are described in Table 3.1. The data needed regarding these indicators of internationalization were obtained through the survey

research. Data were also sought regarding two additional indicators for the study under the category of governance: (a) whether the college had an established relationship with a higher education institution in another country, and (b) whether the college had an established partnership with a community organization with an international focus. These data were obtained through archival research. These two indicators were selected to explore possible additional administrative actions that suggested a commitment to internationalization.

### **Data Collection**

This section describes the overall data collection process, the design and contents of the survey instrument, the rationale for its design, the data collection methods, and the rationale for those methods. Data were collected for this study using (a) archives and college and government databases, and (b) a survey instrument.

**Archival data.** Data were collected concerning evidence of institutional relationships with higher education institutions in other countries and institutional partnerships with organizations in the colleges' service area that had a primarily international focus. This information was collected from college websites and state and national databases, using the search terms "study abroad" and "business partnerships."

**Instrument design.** In addition to the above archival information, the study collected data regarding internationalization from the results of a survey questionnaire disseminated to three key administrators at each institution: the college president, the academic vice president or deans of instruction, and the principle contact for international education (sometimes this was the international education director) of

each institution. The survey questionnaire contained close-ended questions relating to the two categories of governance and student support services. This study used as a model the survey questionnaire disseminated in 2001-2002 by the Center for Survey Research and Analysis at the University of Connecticut, as commissioned by the American Council on Education (Siaya & Hayward, 2003); this questionnaire was sent to a stratified sample of college and university leaders across the U.S. Survey questions included:

- 1) Does your institution's mission statement specifically refer to international education?
- 2) Is international education specifically stated as one of the top five priorities in your current strategic plan?
- 3) Does your institution offer any of the following extracurricular activities to undergraduate students? (These included various opportunities for international and domestic students to interact).

The questionnaire for the present study used a variation of these questions, which were forced-choice. The questionnaire is found in Appendix E. As described in the section below, the survey yielded both nominal and ordinal data.

**Reliability and validity.** When selecting or developing an instrument for use in research, it is essential that attention be given to its reliability and validity. For this study, one version of the instrument was administered once, and each participant was asked to complete the same survey instrument (Creswell, 2012).

Another method for increasing reliability is to use triangulation. As noted by Creswell (2012, p. 121), "triangulation is the process of corroborating evidence from

different individuals, type of data, or methods of data collection...” to determine if there is an underlying theme or commonality in the evidence. This process of drawing information from multiple sources helps to increase the accuracy of the information. A triangulation rather than inter-rater reliability method was used for this study to increase reliability of results, because the survey conditions did not fulfill the requirements for the use of an inter-rater reliability method. That method includes the training of raters and the necessity for the raters to reconcile any differences they might have in their observations (Creswell, 2012). This study used the triangulation method by sending the survey to three individuals at each institution to examine the level of reliability regarding the response for each institution. If all three responses were received from an institution, the response assigned to the institution was an average of the three responses. If two responses were received, a third response was developed based on archival data and an average was determined for that institution.

**Ordinal definitions.** The first three questions of the survey used a nominal scale. Questions 4a through 5c used both a nominal and an ordinal scale. As illustrated in in Tables 3.2, the first three questions required a yes/no response. Table 3.3 contains the definitions for this study for each of the ordinal levels. It also provides an explanation for the coding of the responses to the survey.

**Data collection methods.** The archival data were collected over a one-month period during the summer of 2013. The survey data were collected over a two-month period (Summer and Fall 2013) using electronic mail as well as mailed survey questionnaires containing the above questions. Prior to the dissemination of the survey, phone calls and printed individual college information were used to identify

the president, vice president (or chief academic officer), and the international education director or his/her equivalent at each of the Oregon and Washington community colleges. This information was then collated and summarized.

The following dissemination method for the survey was based on the research of Dillman, Smyth, and Christian (2000) and Scott (1961) regarding the most effective techniques for assuring a high rate of survey return. Two weeks prior to the dissemination of the actual survey by electronic mail, the three selected administrative leaders in each Oregon and Washington community college were sent regular mail pre-notification of the survey in the form of an introductory letter. The letter explained the survey and its purpose and requested that they participate in the survey. This hybrid approach regarding forms of survey notification and delivery was used because of the disadvantages posed by either method used individually. For example, Sills and Song (2002) examined various methodological issues regarding the use of electronic mail, such as technology problems and security issues. On the other hand, the process of mailing out surveys and waiting for completed returns can take a great deal of time. Sills and Song concluded that a hybrid approach tended to promote a high response rate.

It was anticipated by this author that the total number of respondents would be 80-100 of the 153 possible respondents. To increase the response rate, several electronic mail follow-up efforts were used to reach the maximum number of respondents.

## **Data Analysis**

Answers to the questions from the survey and archival research in each indicator category (governance and student support services) were combined in preparation for analysis. This combined scoring comprised each college's total internationalization "score" or the level of internationalization of each college in the indicators of the two dimensions of governance and student services. The highest possible internationalization score for an institution for this research was 17.

Institutions could achieve this score if they indicated that (a) they mentioned internationalization in their mission statement and in a policy document, (b) had a college-wide group that primarily focused on internationalization at the college, (c) regularly provided services to international and study abroad students in the areas listed in the survey, (d) had a relationship with an international higher education institution, and (e) had a partnership with a community organization with a primarily international focus.

**Descriptive statistical analysis.** The total internationalization scores for the colleges were examined overall and by state. Several measures of central tendency and of variability - the median, mode, range, and interquartile range - were determined overall and by state, as is appropriate for categorical data analysis (Instructional Assessment Resources, 2011). Responses to the individual questions were also analyzed as to frequency distributions (Marion, 2004).

Statistical analyses (in the form of tests of independence) were also conducted on the frequency distributions for each question to determine if significant differences existed between scores from Oregon colleges and those from Washington colleges.



The null hypothesis for these tests was that the scores were independent of the location. To conduct the analysis, the data needed to be cross-classified according to the answer variable (x) and the location variable (y). Thus, the data obtained from the frequency distributions were placed into 2 x 2 or 2 x 3 contingency tables (depending upon the number of response choices or answers for each question), and the expected frequency values were calculated.

Because of the nature of the data, it was necessary to use three different tests of independence. For all three tests, a significance level of .05 was assumed with one degree of freedom. For the scores from the first and third questions from the survey and the two questions regarding international partnerships and international relationships, the significance level was computed using the Fisher exact probability test because the response frequencies in at least one of the cells of the table was below 5 (Lowry, 1998). A Chi square test of association was used to compute the significance level of the score frequencies obtained regarding the second survey question. Because the data was distributed in 2 x 3 contingency tables and for each of these questions at least one cell in the table had response frequencies below 5, the significance levels for the remaining survey questions were computed using the Freeman-Halton extension of the Fisher exact test (Lowry, 1998).

### **Protection of Human Subjects**

An Institutional Review Board (IRB) application was completed and IRB approval for the study was obtained. In reporting the data collection results, all subjects remained anonymous, as a coding system was used that eliminated the need for individual names.

## Results

A total of 49 surveys were completed and returned over the data collection period. In several cases, multiple survey responses were received from a single college. Two individuals submitted survey responses at three different Oregon colleges; in Washington, three responses were received from one college and two responses each were received from four different colleges. Overall, responses were received from over 75% of the total institutions. Responses were received from 13 of the 17 Oregon community colleges (76%), and 27 of the 34 Washington community colleges (79%). From anecdotal comments that accompanied several completed surveys, it appeared that the task of completing the survey was frequently given to a single person on behalf of the entire institution; thus, only one completed survey was received from most institutions. The attempt to achieve through triangulation a higher level of consistency of perception by top administrators regarding internationalization at their institution was successful in only a few cases. However, the larger goal of obtaining a completed survey from most institutions was achieved. Although completed surveys were not received from the entire population of Oregon and Washington community colleges, this response rate constitutes a representative sample of the population surveyed (Instructional Assessment Resources, 2011).

When two conflicting responses were received from an institution, this researcher conducted archival research regarding that question and derived a third response based on the results. The mean of the three responses was then determined; the result was entered into cell for the college's response on that question.

The results from the use of several forms of statistical analysis provided specific information regarding patterns and tendencies within the data set. The combination of analyses resulted in a clearer, more detailed picture regarding these patterns than could be achieved with a single test.

**Measures of central tendency.** Table 3.4 presents the descriptive statistics, indicating a median internationalization score for all institutions of 5, with the median for Oregon of 2 and the median for Washington of 7.5. It is interesting to note these findings in the light of recent findings on a national level regarding internationalization. The 2011 ACE national survey on internationalization (Center for Internationalization and Global Engagement, 2012) queried higher education institutions, including two-year (offering associate degrees) colleges, as to the presence or absence of several of the same aspects of internationalization at their institutions as did the present study. Results of the present survey cannot be directly compared with those from the national survey because of differences in the number and types of questions asked on the two surveys. However, it is interesting to note that, of the 233 two-year colleges that responded to the national survey, 38% indicated that their institutions either mentioned internationalization or some aspect of it in the college mission statement. Regarding a campus-wide group focused on internationalization, 37% of the two-year colleges indicated the existence of such an entity at their institutions. However, the 2012 report on the 2011 ACE national survey (Center for Internationalization and Global Engagement) and McGill-Peterson and Helms (2013) concluded from analyses of the overall findings from the national survey that many institutions do not have a focused, comprehensive strategy

concerning internationalization that is necessary for a deep and long-lasting impact.

The results of the present study suggest a similar conclusion.

**Tests of significance.** Various tests of significance were conducted on the response frequencies for each of the survey and archival data questions to investigate whether there was an association between the state and the score distribution. The results of these tests are found in Table 3.5. Test results regarding the responses to the governance questions on the survey pointed to a strong association between state and responses only on Question #2 – the existence of a college policy statement regarding internationalization. Those test results indicated that Washington colleges more frequently answered “yes” regarding this question. Regarding support services for international students, there was evidence of an association between state and responses only concerning targeted counseling services. However, tests results indicated such an association for all three of the survey questions regarding services for study abroad students. In each of the cases where evidence of an association existed, the Washington colleges more frequently provided the services described in the survey. There was no evidence of an association between location and score frequencies for the questions concerning relationships with international higher education institutions. There was also no strong evidence of an association between location and score frequencies regarding partnerships with internationally-focused organizations.

**Frequency analysis.** Frequency analyses were conducted on results for each of the survey questions from the present study. Specific results concerning responses to each question are found in Tables 3.6 and 3.7. The results of the analysis of

responses regarding various manifestations of internationalization in governance showed a consistently higher percentage of Washington versus Oregon community colleges reporting college policy statements that addressed internationalization. These results corroborate the findings from the tests of significance. However, less than half of the Washington colleges indicated that internationalization was referred to in their mission or policy statements or they had internationalization committees. Fifteen percent or fewer of Oregon community colleges indicated that internationalization was mentioned in their mission or policy statements or that they had internationalization-focused committees. These findings can be compared with the 2011 ACE national study (Center for Internationalization and Global Engagement, 2012), which reported that, at responding community colleges, campus-wide internationalization initiatives had increased from 16% to 21% since the 2003 survey.

The second half of the survey queried respondents about their services to international and study abroad students. A consistently higher percentage of the Washington colleges indicated that they offered orientation programs for international students and did so on a regular basis than did the Oregon colleges. These findings corroborate the results of the tests of significance. It should be noted that orientation programs were the most frequently mentioned services to international students in either Oregon or Washington. These findings are similar to those of the 2011 ACE national survey (Center for Internationalization and Global Engagement, 2012), which noted that the most common service to international students was orientation to the college and American culture.

As to other services for international students, 63% of Washington colleges reported that they offered cross-cultural training services, but less than half of those offering the services did so on a regular basis. Although over half of the responding Oregon colleges offered cross-cultural training services, only 15% did so on a regular basis. About half (48%) of Washington colleges offered targeted counseling services for international students, but only 33% did so on a regular basis. A similar (46%) number of Oregon colleges offered these services, with about one-third (31%) doing so on a regular basis. It is interesting to compare these findings with national findings related to this area; the 2011 ACE national survey reported a decrease since 2003 in services at responding associate institutions for international students (Center for Internationalization and Global Engagement, 2012).

The last part of the survey focused on services to study abroad students. A consistently higher percentage of Washington colleges offered various services to study abroad students than did Oregon colleges, again corroborating the results of the tests of significance. However, overall, far fewer Oregon and Washington colleges offered services other than orientation programs to study abroad students.

The data collected through archival research focused on the presence or absence of (a) a relationship between the college and a higher education institution in another country, and (b) a partnership between the college and an organization in the community that had a primarily international focus. Results from that research indicated that 33% of Washington community colleges and 15% of Oregon community colleges had a relationship with a higher education institution in another country. In contrast, only 4% of the responding associates (two-year) institutions in

the 2011 ACE national survey (Center for Internationalization and Global Engagement, 2012) indicated they had such relationships. Results from the present study further indicated that 67% of the responding Washington colleges and 62% of the responding Oregon colleges had partnerships with organizations in their communities that had a primarily international focus. These results thus indicate that many more Oregon and Washington community colleges had partnerships with internationally-focused organizations than with higher education institutions in other countries.

### **Conclusion**

The research of Hudzik (2011), de Wit (2002), and Knight and de Wit indicated that internationalization efforts are most effective and long lasting when they were integrated into the major functions of the institution and the institution had adopted an international perspective. Results from the present study suggest that as yet there are relatively few Oregon and Washington community colleges that have embraced a comprehensive approach to internationalization, as defined by Hudzik (2011) and de Wit (2002).

**Findings.** Tests of significance indicated that more Washington institutions (a) showed manifestations of internationalization commitments through the governance area of policy statements, and (b) delivered services to international and study abroad students than did Oregon institutions. However, the median total internationalization score in both states was less than half of the possible internationalization score of 17. This finding supports recent national studies, which indicated that internationalization was not a priority at most colleges and universities (Center for Internationalization and Global Engagement, 2012; Harder, 2010).

A finding from the present study regarding student support services was that regular orientation for international students was the most frequently offered service by Oregon and Washington community colleges. This finding mirrors findings at the national level (Center for Internationalization and Global Engagement, 2012).

However, few colleges in both states offered other services to international students on a regular basis. As to study abroad services, the most frequently offered service in both states again was that of orientation, although only about half the colleges offered this service. The number of colleges offering other services to study abroad students was lower and when services were offered, it was often on an irregular basis. Yet research (Koworski, 2010) has suggested that debriefings help students make sense of their experiences and articulate them to potential employers as positive attributes.

Archival research indicated that a small percentage of Washington and Oregon community colleges had a relationship with institutions of higher education abroad. In contrast, the archival research also indicated that approximately two-thirds of Oregon and Washington community colleges maintained partnerships with organizations in their community that had a primarily international focus.

**Practical implications of the research.** The findings from this study presented specific information for administrators regarding internationalization at their institutions; this information should allow them to identify institutional elements that they might wish to strengthen or better support. The findings also allow administrators and policy makers to compare the internationalization efforts of their institutions with others in the region and across the U.S. When coupled with the national survey findings, the findings from the present study should assist top



administrators in identifying gaps in their internationalization efforts. They may also be useful in developing governance and operational strategies for enacting comprehensive internationalization.

**Study limitations.** The present study was not designed to determine the reasons for the results displayed in the data, only the results themselves. One limitation of the study may have been in the use of the term “internationalization” in the questionnaire. The research for this study indicated that the term has had many interpretations and is still evolving. A second limitation of the study was that questions in the survey were given equal weight, yet there were more questions that addressed student services than governance. This limitation was addressed by separately examining the cumulative scores for the governance dimension of the questionnaire. A third limitation of the study was that it is observational in nature; information was learned about those institutions that returned the survey, but it is not known why some did not, and therefore whether they are different or similar to those that did reply. A fourth limitation of the study was that inter-rater reliability could not be used as a method to check for reliability because the respondents were not trained as raters, received no rating guidelines, and were not expected to reconcile any differences in their responses that may have arisen. Finally, no comparisons can be made with community colleges outside the surveyed region since there are no publications that use the identical survey and scoring system.

**Areas for future research.** The current study was quantitative in nature; it sought patterns and trends regarding the current state of internationalization in the community colleges of two states in the Pacific Northwest. Qualitative research

regarding internationalization at individual colleges might yield useful information on motivators and drivers of internationalization. Other areas for future research include (a) explorations of other dimensions of internationalization, such as the international experience of top administrators and faculty attitudes, (b) the state of internationalization at community colleges in other regions, and (c) the interplay of internationalization with other community college priorities. Finally, the influence of environmental factors on the process of internationalization at an institution is a rich area for future research.

## References

- AAC & U State Relations and Policy Analysis Research Team. (2010). *Top 10 higher education state policy issues for 2010*. Washington, DC: Association of American Colleges and Universities.
- American Association of Community Colleges and Association of Community College Trustees. (2000). *The knowledge net: A report of the New Expeditions Initiative*. Washington, DC: Author.
- Brint, S. G., & Karabel, J. (1989). *The diverted dream: Community colleges and the promise of educational opportunity in America 1900-1985*. New York, NY: Oxford University Press.
- Capra, F. (1996). *The web of life: A new scientific understanding of living systems*. New York, NY: Anchor Books.
- Center for Internationalization and Global Engagement. (2012). *Mapping internationalization on U.S. campuses: 2012 edition*. Washington, DC: American Council on Education.
- Cohen, A.M., & Brawer, F.G. (2003). *The American community college* (4<sup>th</sup> ed.). San Francisco, CA: Jossey-Bass.
- Creswell, J. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4<sup>th</sup> ed.). Boston, MA: Pearson.
- de Wit, H. (2002). *Internationalization of higher education in the United States of America and Europe: A historical, comparative, and conceptual analysis*. Westport, CT: Greenwood Press.
- Dillman, D., Smyth, J., & Christian, L. (2000). *Internet, mail, and mixed-mode surveys: The tailored design method*. New York, NY: Wiley.
- Fields, D. (2010). *Faculty internationalization: Experiences, attitudes, and perceptions of full-time academics across Vermont* (Doctoral dissertation). Retrieved from <http://hdl.handle.net/2345/1733>.
- Green, M., & Siaya, L. (2005). *Measuring internationalization at U.S. community colleges*. Washington, DC: American Council on Education.

- Harder, N. (2010). Internationalization efforts in United States community colleges: A comparative analysis of urban, suburban, and rural institutions. *Community College Journal of Research and Practice*, 35 (1-2), 152-164.
- Hart Research Associates. (2010). *Raising the bar: Employers' views on college learning in the wake of the economic downturn*. Washington, DC: Author.
- Hudzik, J. (2011). *Comprehensive internationalization: From concept to action*. Washington, DC: NAFSA: National Association of Foreign Student Advisors.
- Immigration Policy Center. (2013). *New Americans in Oregon*. Retrieved from <http://www.immigrationpolicy.org/just-facts/new-americans-oregon>
- Instructional Assessment Resources. (2011). Conduct research: Analyzing survey data. <http://www.utexas.edu/academic/ctl/assessment/iar/research/report/survey-analyze.php>
- Institute for International Education. (2011). *Open doors 2011: Report on International Educational Exchange*. Washington, DC: U.S. Department of Education Bureau of Educational and Cultural Affairs.
- Institute for International Education. (2013). *Open doors 2013: Report on International Educational Exchange*. Washington, DC: U.S. Department of Education Bureau of Educational and Cultural Affairs.
- International Commission on Education for the 21<sup>st</sup> Century. (1996). *Learning: The treasure within*. Paris, France: United Nations Educational, Scientific and Cultural Organization. Retrieved from [http://www.unesco.org/education/pdf/15\\_62.pdf](http://www.unesco.org/education/pdf/15_62.pdf)
- Kedia, B. L., & Daniel, S. (2003, January). *U.S. business needs for employees with international expertise*. Paper presented at the Needs for Global Challenges Conference, Duke University, Chapel Hill, NC. Retrieved from [http://www.ducis.jhfc.duke.edu/archives/globalchallenges/pdf/kedia\\_daniel.pdf](http://www.ducis.jhfc.duke.edu/archives/globalchallenges/pdf/kedia_daniel.pdf)
- Knight, J. (1999). Internationalization of higher education. In J. Knight & H. de Wit (Eds.), *Quality and internationalization in higher education* (pp. 13-28). Paris, France: OECD.
- Knight, J., & de Wit, H. (1995). Strategies for internationalization of higher education: Historical and comparative perspectives. In H. de Wit (Ed.), *Strategies for internationalization of higher education: A comparative study of Australia, Canada, Europe, and the United States of America*. Amsterdam, The Netherlands: European Association for International Education.

- Koworski, I. (2010). Colleges help student to translate the benefits of study abroad. Retrieved from [www.chronicle.com/article/Colleges-Help-Students-to/123653/](http://www.chronicle.com/article/Colleges-Help-Students-to/123653/)
- Levin, J. (2001). *Globalizing the community college: Strategies for changes in the twenty-first century*. New York, NY: Palgrave.
- Lowry, R. (1998). *VassarStats: Website for statistical computation*. Retrieved from <http://vassarstats.net>
- Marion, R. (2004). *The whole art of deduction: Research skills for new scientists*. Retrieved from [http://www.sahs.utmb.edu/pellinore/intro\\_to\\_research/wad/wad\\_home.htm#contents](http://www.sahs.utmb.edu/pellinore/intro_to_research/wad/wad_home.htm#contents)
- McGill-Peterson, P. & Helms, R. M. (2013). Internationalization revisited. *Change*, 45(2), 28-34. doi: 10.1080/00091383.2013.764261
- National Leadership Council. (2008). *College learning for the new global century*. Retrieved from [www.aacu.org/leap/documents/GlobalCentury\\_final.pdf](http://www.aacu.org/leap/documents/GlobalCentury_final.pdf)
- New America Foundation. (2013). Federal education budget project. Retrieved from [febp.newamerica.net/](http://febp.newamerica.net/)
- Office of Institutional Research. (2010). *OUS fact book*. Eugene, OR: Oregon University System. Retrieved from [www.ous.edu/factreport/factbook/2010](http://www.ous.edu/factreport/factbook/2010)
- Olson, C., Green, M., & Hill, B. (2005). *Building a strategic framework for internationalization*. Washington, DC: American Council on Education.
- Portland Business Alliance. (2010). *International trade summary*. Retrieved from [http://www.portlandalliance.com/public\\_policy/reports\\_studies.html](http://www.portlandalliance.com/public_policy/reports_studies.html)
- Raby, R. (1996). International, intercultural, and multicultural dimensions of community colleges in the United States. In R. Raby & N. Tarrow (Eds.), *Dimensions of the community college*, (pp. 9-36). Washington, DC: Garland Studies in Higher Education.
- Scott, C. (1961). Research on mail surveys. *Journal of the Royal Statistical Society, Series A (General)*, 124(2), 143-205.
- Siaya, L., & Hayward, F. (2003). *Mapping internationalization on U.S. campuses*. Washington, DC: American Council on Education.
- Sills, J., & Song, C. (2002). Innovations in survey research: An application of Web-based surveys. *Social Science Computer Review*, 20(1), 22-30.

- Study Washington. (2008). *Study Washington takes road trip to DC*. Retrieved from <http://www.studywashington.org/news.php>
- Turner, Y. (2008). *Internationalizing the university*. New York, NY: Continuum International.
- U.S. Census Bureau. (2000). *Foreign-born population by citizenship status for the United States regions, states, and for Puerto Rico: 1990 and 2000*. Washington, DC: Author.
- U.S. Census Bureau. (2013). *Quick facts*. Retrieved from <http://www.immigrationpolicy.org/just-facts/new-americans-oregon>
- Washington Department of Commerce. (2011). The quick rundown. *Commerce Quarterly Trade Bulletin 2011*, 2(4). Retrieved from [www.chosewashington.com/Pages/CommerceQuarterlyTradeBulletin.aspx](http://www.chosewashington.com/Pages/CommerceQuarterlyTradeBulletin.aspx)
- WSU Social and Economic Services Research Center. (2007). *Washington state college enrollment study*. Olympia, WA: Office of the State Superintendent of Public Instruction.

Table 3.1

*Indicators of Internationalization*

Dimension/Category/Definition	Indicator
<p>Internationalization/Governance/Evidence of a commitment to internationalization through an articulated rationale, a set of goals, and/or an organizational structure</p> <p>Additional Evidence of Institutional Commitment</p>	<p>Expressed commitment by senior leaders to internationalization through:</p> <ul style="list-style-type: none"> <li>• The institutional mission statement or strategic plan</li> <li>• A policy statement that articulates a goal and/or rationale for internationalization</li> <li>• A campus-wide committee charged with advancing internationalization at the college</li> <li>• Established relationship with a higher education institution in another country</li> <li>• Established partnership between the college and a community organization with an international focus</li> </ul>
<p>Internationalization/Student Services/"Support services for international students studying on campus and domestic students going abroad" (de Wit, p. 125)</p>	<p>Student support services</p> <ul style="list-style-type: none"> <li>• Orientation training</li> <li>• Cross-cultural training</li> <li>• Counseling support</li> <li>• Debriefing sessions</li> </ul>

Table 3.2

*Definitions of Ordinal Variables*

Ordinal Variable	Definition
Student Services Indicator #1-orientation program for international students	<u>No evidence</u> : No program exists. <u>Some evidence</u> : Irregular orientation program <u>Strong evidence</u> : Regular orientation program
Student Services Indicator #2-cross-cultural training for international students	<u>No evidence</u> : No training is conducted. <u>Some evidence</u> : Irregular or infrequent training <u>Strong evidence</u> : Regular training
Student Services Indicator #3-targeted counseling for international students	<u>No evidence</u> : No targeted counseling available <u>Some evidence</u> : Counseling available on irregular basis <u>Strong evidence</u> : Counseling available on regular basis
Student Services Indicator #4-orientation program for study abroad students	<u>No evidence</u> : No orientation program is offered <u>Some evidence</u> : Orientation is not regularly offered <u>Strong evidence</u> : Orientation is regularly offered
Student Services Indicator #5-cross-cultural training for study abroad students	<u>No evidence</u> : No cross-cultural training offered <u>Some evidence</u> : training is not regularly offered <u>Strong evidence</u> : training is regularly offered
Student Services Indicator #6-targeted follow up/debriefing sessions for study abroad students	<u>No evidence</u> : no follow up is offered <u>Some evidence</u> : follow up is not regularly offered <u>Strong evidence</u> : follow up is regularly offered



Table 3.3

*Data Dictionary*

Question Definition	Question Type	Response
Governance Indicator 1: Internationalization in mission statement	Dichotomous	No=No evidence=0 Yes=Some evidence=1
Governance Indicator 2: Internationalization in policy statement	Dichotomous	No=No evidence=0 Yes=Some evidence=1
Governance Indicator 3: Internationalization committee	Dichotomous	No=No evidence=0 Yes=Some evidence=1
Student Services Indicator 1: Orientation program for International students	Ordinal	No=No evidence=0 Irregular=Some evidence= 1 Regular=strong evidence= 2
Student Services Indicator 2: Cross-cultural training for international students	Ordinal	No=No evidence=0 Irregular=Some evidence= 1 Regular=Strong evidence= 2
Student Services Indicator 3: Targeted counseling services	Ordinal	No=No evidence=0 Irregular=Some evidence= 1 Regular=Strong evidence= 2

(continued)

Question Definition	Question Type	Response
Student Services Indicator 4: Orientation for study abroad students	Ordinal	No=No evidence=0 Irregular=Some evidence=1 Regular=Strong evidence=2
Student Services Indicator 5: Cross-cultural training for study abroad students	Ordinal	No=No evidence=0 Irregular=Some evidence=1 Regular=Some evidence=2
Student Services Indicator 6: Follow-up/debriefing sessions	Ordinal	No=No evidence=0 Irregular=Some evidence=1 Regular=Strong evidence=2
Relationship Indicator: Relationship w/an international higher education institution	Dichotomous	No=No evidence=0 Yes=Some evidence=1
Partnership Indicator: Partnership with a community Organization w/an international focus	Dichotomous	No=No evidence=0 Yes=Some evidence=1

Table 3.4

*Descriptive Statistics on Internationalization Scores*

Location	Median	Interquartile Range	Mean	SD
Total	5			
Oregon	2	6	4.25	3.78
Washington	7.5	11	7.25	3.5

Table 3.5

*Two-way Contingency Tables-Computing Significance Levels*

**Question 1:** Does your institution's mission statement specifically refer to internationalization?

State	Yes	No	Total
Oregon	1	12	13
Washington	10	17	27

*Note:* Fisher exact probability test P value = .053, critical P value = .05, test P value > .05. Accept the null hypothesis.

**Question 2:** Does your institution have a policy statement that articulates a goal and/or rationale for internationalization?

State	Yes	No	Total
Oregon	1	12	13
Washington	16	11	27

*Note.* Pearson Chi square test statistic=9.55, P value = .006, Chi square critical value = 3.841, df=1, confidence level of .05. Chi square test value > critical value. Reject the null hypothesis.

**Question 3:** Does your institution have a college-wide committee or task force whose primary focus is working to advance internationalization at the college?

State	Yes	No	Total
Oregon	2	11	13
Washington	12	15	27

*Note.* Fisher exact probability test: P value = .070, P Test value > P critical value of .05. Accept the null hypothesis.

(continued)

**Question 4a:** Do your student support services include the following services for international students: orientation programs?

State	None	Irregular	Regular	Total
Oregon	5	4	4	13
Washington	3	5	19	27

*Note.* Freeman-Halton extension of Fisher exact probability test P value = .046, critical P value = .05, test value < critical value. Reject the null hypothesis.

**Question 4b:** Do your student support services include the following services for international students: cross-cultural training?

State	None	Irregular	Regular	Total
Oregon	10	1	2	13
Washington	10	8	9	27

Freeman-Halton extension of Fisher exact probability test P value = .083, critical P value = .05, test value > critical value. Accept null hypothesis.

**Question 4c:** Do your student support services include the following services for international students: targeted counseling services?

State	None	Irregular	Regular	Total
Oregon	7	3	3	13
Washington	11	4	12	27

*Note.* Freeman-Halton extension of Fisher exact probability test P value = .045, critical P value = .05, test value < critical value. Reject null hypothesis.

(continued)

**Question 5a:** Do your student support services include the following services for study abroad students: orientation programs?

State	None	Irregular	Regular	Total
Oregon	7	3	3	13
Washington	13	2	12	27

*Note.* Freeman-Halton extension of Fisher exact probability test P value =.023, critical P value = .05, test value < critical value. Reject null hypothesis.

**Question 5b:** Do your student support services include the following services for study abroad students: cross-cultural training?

State	None	Irregular	Regular	Total
Oregon	12	0	1	13
Washington	18	2	7	27

*Note.* Freeman-Halton extension of Fisher exact probability test P value =.023, critical P value = .05, test value < critical value. Reject null hypothesis.

**Question 5c:** Do your student support services include the following services for study abroad students: follow-up or debriefing sessions?

State	None	Irregular	Regular	Total
Oregon	9	3	1	13
Washington	14	5	8	27

*Note.* Freeman-Halton extension of Fisher exact probability test P value =.023, critical P value = .05, test value < critical value. Reject null hypothesis.

(continued)

**Question IR:** Relationship between college and higher education institution in another country.

State	Yes	No	Total
Oregon	2	11	13
Washington	9	18	27

*Note.* Fisher exact probability test P value = .211, critical P value = .05, test P value > critical P value. Accept null hypothesis.

**Question IP:** Partnership between college and a primarily internationally-focused organization in the community.

State	Yes	No	Total
Oregon	5	8	13
Washington	9	18	27

*Note.* Fisher exact probability test P value = .508, critical P value = .05, test P value > critical P value. Accept null hypothesis.

Table 3.6

*Questions and Response Percentages – Questions 1-3, IR, IP*

Question	Oregon (n = 13)		Washington (n = 27)		Total (n = 27)	
	% Yes	% No	% Yes	% No	% Yes	% No
1) Does your institution's mission statement specifically refer to internationalization?	8	92	37	63	27	73
2) Does your institution have a policy statement that articulates a goal and/or rationale for internationalization?	8	92	41	59	35	65
3) Does your institution have a college-wide committee or task force whose primary focus is working to advance internationalization at the college?	8	92	48	52	37	63
IR) Relationship with an international higher education institution	15	85	33	67	27	73
IP) Partnership with community organization with a primarily international focus	62	38	67	33	65	35



Table 3.7

*Questions and Response Percentages – 4a-5c*

Question	Oregon (n=13)			Washington (n=27)			Total (n=40)		
	% N	% I	% R	% N	% I	% R	% N	% I	% R
4a) Orientation for international students	38	23	39	15	15	70	23	18	59
4b) Cross-cultural training	77	8	15	39	30	33	50	23	27
4c) Targeted counseling services	54	23	23	37	19	33	43	18	33
5a) Orientation for study abroad students	70	15	15	55	0	45	45	15	40
5b) Cross-cultural training	92	0	8	67	8	26	75	5	20
5c) Follow-up or debriefing	69	24	7	48	22	30	55	23	12

*Note.* N = Never, I = Irregularly, R = Regular

#### Chapter Four - Third Manuscript:

##### Internationalization and the Influence of Environmental Factors

Quantitative as well as qualitative research since the 1990s (Levin, 2001; Panel on Global Engagement, 2011; Siaya & Hayward, 2003) has suggested that U.S. community colleges have undergone organizational and behavioral changes due to the impact of powerful global forces. These forces include the increased movement of goods, people, and information across borders and the resulting global implications of political actions. Resulting organizational responses in higher education have frequently been referred to as *internationalization*.

The present study is part of a larger research effort that explored two dimensions of organizational behavior that research has suggested can be strong indicators of internationalization: governance and student support services. This study explored these specific dimensions of internationalization in Oregon and Washington community colleges within the context in which those institutions operate. Colleges in these states were selected because of the significant impact of two global forces - international trade and increased student diversity - on the region's economies, societies, and educational systems (Institute for International Education, 2011; Portland Business Alliance, 2010; U.S. Census Bureau, 2013; Washington Department of Commerce, 2011; WSU Social and Economic Services Research Center, 2007).

An ex post facto study of community colleges (Harder, 2010) based on data from an American Council on Education (ACE) survey (Green & Siaya, 2005) of internationalization efforts suggested that the setting of the college (urban versus non-urban) had a significant influence on the level of internationalization the college had

achieved. The purpose of the present study was to continue research efforts in this area and examine the possibility of a relationship between the level of internationalization in Oregon and Washington community colleges and three environmental factors. This study used data collected through survey and archival research regarding specific aspects of internationalization in Oregon and Washington community colleges to examine the level of internationalization of each of these colleges against three environmental factors. This researcher expected that there was a relationship between the environmental factors and the level of internationalization.

This study employed a systems theory perspective in developing the research question. According to systems theory (Capra, 1996), a system is influenced by changes in its environment and will accordingly change and adapt, sometimes through reorganization, in order to survive.

The research question for this study was:

To what extent are environmental factors related to a community college's level of internationalization?

The research question suggests a possible relationship between variables. The author proposed three independent variables for this study: (a) the setting, or population density in the college's service area (expressed as urban/non-urban), (b) the type of primary industry in the college's service area, and (c) the level of ethnic demographic diversity in the college's student population.

As indicated earlier, Harder's (2010) research on a national scale suggested that there is a relationship between population density in a community college's service area and its level of internationalization. This study explored that possibility

for Oregon and Washington community colleges. The Carnegie Classification system (Carnegie Foundation for the Advancement of Teaching, 2010) was used to distinguish colleges in urban versus rural areas. Additionally, type of primary industry in the college's service area and student demographic diversity were chosen as variables because they represent two forces that research (Levin, 2001; Turner, 2008) has suggested have strongly impacted community colleges: global economics and the increased movement of people across borders.

### **Definitions**

*Urban* – “Urban-serving and suburban-serving institutions are physically located within Primary Metropolitan Statistical Areas (PMSAs) or Metropolitan Statistical Areas (MSAs), respectively, with populations exceeding 500,000 people according to the 2000 Census. Institutions in PMSAs or MSAs with a lower total population, or not in a PMSA or MSA, were classified as rural-serving” (Carnegie Foundation for the Advancement of Teaching, 2010).

*Primary industry* - that type of industry employing the largest number of people in the college's service area, as indicated by U.S. Census data.

*Student demographic diversity* – Level of ethnic diversity based on total reported percentage of enrolled non-Caucasian students (New America Foundation, 2011).

### **Method**

This study used quantitative research methods to explore possible relationships between internationalization efforts in Oregon and Washington community colleges and three environmental factors. Heppner, Wampold, and Kivighan (2008) have noted

that quantitative research presents mathematical or verbal descriptions of quantitative results. The goals of such research are to explain, predict, and extend knowledge.

### **Study Design**

The overall study used a non-experimental design, and the specific methods used were descriptive survey research and archival research. The design was used to describe and document indicators of internationalization along two dimensions in Oregon and Washington community colleges: administrative leadership behaviors in governance and in student support services. De Wit (2002), Turner (2008), and Hudzik, 2011) have shown that these dimensions can be a strong indicator of comprehensive and enduring internationalization. The current study used a correlational explanatory design (Creswell, 2012) to test if three independent variables (all of which were factors in the environment) were related to the dependent variable (internationalization score).

### **Data Needed**

The data needed for the current study was guided by the following research question:

To what extent are environmental factors related to a community college's level of internationalization?

In order to address this question, data was used that was collected for a larger study regarding internationalization efforts in Oregon and Washington community colleges. The data was the set of internationalization scores assigned to these colleges based on (a) survey research regarding two dimensions of organizational operations: governance and college support services to students in Oregon and Washington

community colleges, and (b) archival research. This research focused on the presence or absence of a partnership or relationship between the college and a higher education institution in another country or an organization in the college's service area that had a primarily international focus.

**Survey data.** Data collected in the author's survey research involved two dimensions of organizational operations: administrative behaviors in governance and in college support services to international students and study abroad students in Oregon and Washington community colleges. Specific aspects of these dimensions were used as indicators regarding levels of internationalization; the survey queried community college administrators regarding these indicators. Each question in the survey was given equal weight.

**Archival data.** Archival research was conducted regarding (a) the presence or absence of a college partnership with an international higher education institution and (b) the presence or absence of a relationship between the college and a company in the community with an international focus. Response values were also assigned to each college based on the findings from this research. The combined scores from the answers to the questions from the survey and the archival research provided each college's total internationalization "score." For this study, this score was considered the level of internationalization of each college. Thus, the outcome, or dependent variable for the study was the total internationalization score compiled for each college.

Archival data for this study was also gathered regarding three environmental variables. Carnegie classification descriptions (Carnegie Foundation for the

Advancement of Teaching, 2010) and U.S. Census Bureau statistical data, as well as state and local government and college web sites were used to determine college setting designations (regarding population) and the primary industry, or type of industry employing the largest number of people in the college's service area. Student demographic data obtained from the Federal Education Budget Project – a central database of demographic and financial aid data for thousands of colleges and universities across the country – was used to determine student demographic diversity levels for each college (New America Foundation, 2011). The results of the archival research concerning the three environmental factors are presented in Table 4.1.

In the archival research regarding primary industry in the colleges' service areas, ten primary industries emerged. In order to allow for easier data analysis later, these industries were classified into one of four categories, as indicated in Table 4.2.

The research on population density yielded information from the U.S. Office of Management and Budget as to the definition of a metropolitan statistical area (see Definitions above) in order to determine the definition for "urban." The research also yielded Carnegie classifications (which are based on U.S. Census data) for urban or rural when applied to higher education institutions. This author matched these lists with the locations of the Oregon and Washington community colleges to determine which colleges could be classified as "urban."

### **Survey Procedures**

The survey questionnaire was distributed by electronic mail during Summer 2013 to three administrators at each of the Oregon and Washington community colleges. The administrators were the president, the dean of instruction or chief

academic officer, and the international education director or equivalent representative. Two weeks prior to the electronic mail distribution, a letter was sent by regular mail to each administrator, asking for his/her participation in the survey. To elicit as many responses as possible, two follow-up e mails containing the survey were also sent to those administrators who had not yet responded to the initial electronic mailing.

### **Data Analysis**

In the current study, the dependent variable was the cumulative international “score” (in the form of a number) assigned to each institution, based upon responses to the survey questions and the archival research on international partnerships and international relationships. There were three independent variables for the present study: (a) the primary industry in a college’s service area, (b) the level of student ethnic demographic diversity at the college, and (c) the population density of the college’s service area. These variables were chosen because earlier research has suggested that (a) economic and demographic forces have impacted community colleges (Levin, 2001), and that (b) there is a relationship between community college response to these forces and the population density of their service area (Harder, 2010). These variables are operationally defined in the above section labeled “Definitions.” In order to explore a possible relationship between the colleges’ internationalization scores and each of the environmental factors, a specific research question was posed for each factor. The three specific subset research questions related to these three variables are:

- 1) To what extent is population density related to a community college’s level of internationalization?



- 2) To what extent is primary industry related to a community college's level of internationalization?
- 3) To what extent is student demographic diversity (as to ethnicity) related to a community college's level of internationalization?

The first analysis effort consisted of a series of simple regression analyses comparing each independent variable with the dependent variable to determine if any relationship existed. The second analysis effort consisted of a multiple regression analysis to explore the following subset research question:

What is the effect of the interaction of the three environmental variables of primary industry, student demographic diversity, and setting?

The general goal of the multiple regression analysis was to determine the relationship or interaction amongst the three independent variables and the dependent variable (the internationalization score); in other words, how did each variable contribute to the internationalization score for each college. The more specific goal was to determine which independent variable was the strongest predictor of the score.

**Urban versus non-urban.** According to the Carnegie Classification system (2010), all of the colleges were classified as either rural (rural=1) or urban (urban=2). A scatterplot was used to illustrate the results of the simple regression analysis and a correlational coefficient was determined, using Pearson's  $r$  as the analysis method.

**Demographic diversity.** A simple regression analysis was conducted that contrasted the percentage of student demographic diversity of each college against its internationalization score from the larger study.

**Primary industry.** Primary industries in the colleges' service areas were assigned to one of four categories: Agriculture, government, manufacturing, and services. The range of internationalization scores for each category was then calculated and displayed in a table.

## **Results**

Forty-nine responses to the survey were received, including multiple responses from several colleges. Overall, 79% (or 27 of 34) of Washington colleges and 76% (or 13 of 17) of Oregon colleges responded to the survey. Of the 13 Oregon colleges that responded to the survey, 11 can be classified as “rural”. Of the 27 responding Washington colleges, 12 can be classified as “urban” and 15 as “rural.” In the case of five institutions that fell into the category of two-year colleges also offering baccalaureate degrees, the setting was not given in the Carnegie Classification system. However, each of these colleges is located in a densely populated area, so was considered “urban” for this study. Thus, 16 Washington colleges were classified as “urban” and 11 were classified as “rural.” Figure 4.1 illustrates the distribution of the scores by demographic diversity percentage; Table 4.3 illustrates the range of scores by primary industry.

### **Linear Regression Analysis**

The results of the analysis regarding a possible relationship between internationalization scores and setting (urban versus non-urban) showed a correlation coefficient (or strength of association) between scores and settings of Pearson's  $r = +0.469$ ,  $p = .00012$ . The results thus indicated a positive correlation; that is, there was a greater tendency for colleges classified as “rural” to have lower scores. In contrast,

the scores for colleges classified as “urban” were somewhat evenly distributed across the range of scores (2 to 17). The results of the analysis regarding a possible relationship between internationalization score and student demographic diversity indicated no consistent correlation. The correlation coefficient was  $-0.005$ .

Table 4.4 illustrates that services was the primary industry in the largest number of colleges. A simple linear regression analysis indicated that there was not enough evidence of an association between the type of industry in the college’s service area and the college’s internationalization score to reject the null hypothesis (the correlation coefficient was  $+0.205$ ,  $p = .102$ ).

### **Multiple Regression Analysis**

Three models were constructed to investigate the interaction amongst the three independent variables and the dependent variable (see Tables 4.5, 4.6, and 4.7). In Model 1, all interactions were considered and the indicator variables for all four primary industry categories (agriculture, government, manufacturing, and services) were included so that the effects could be quantified. Only a few colleges had agriculture as the primary industry and were only in rural areas, thus an effect of agriculture as an industry was difficult to determine. This situation was also the case for government as the primary industry in urban areas. The results from this analysis indicated that the only significant predictor was the interaction of services and Washington; the effect on internationalization scores for colleges with services as the primary industry differed, depending whether they were in Oregon or Washington.

In Model 2, the primary industry indicator variables were either services or non-services to allow for greater numbers in each category. This approach assisted

with the accuracy of the analysis of predictability), but the same interactions were considered. The results of the analysis again indicated that the most significant predictor variable of effect on internationalization score was services and Washington.

In Model 3, in order to focus on more specific interactions, the primary industry of services was the only indicator included and the interaction between services and Washington was considered. The results of this model again showed services and Washington as a significant predictor variable, but more significant was the association between score and setting for Washington colleges with services as the primary industry. These results indicated that there was evidence that rural colleges had lower internationalization scores than urban colleges. However, one cannot conclude that there was a direct variation between score and setting; rather the interaction of the setting (rural) and the services and Washington interaction resulted in the lower scores.

In Washington there was no evidence of a relationship between setting and manufacturing as a primary industry; there were not sufficient instances in Oregon of manufacturing as a primary industry to determine an effect. The most significant predictor variable across all the data was that of the interaction between services and Washington; Washington colleges with services as the primary industry were more likely to have higher internationalization scores. Figure 4.2 illustrates this interaction. Thus, the interaction of services and Washington had an influence on the internationalization score; the probability was low that the internationalization score of a Washington community college was due to chance.

## Conclusion

This study explored possible relationships between the level of the internationalization at Oregon and Washington community colleges and three environmental factors: setting (related to the population density in a college's service area), primary industry, and level of student demographic diversity. To address each of these possible relationships, three specific subset research questions were posed:

- 1) To what extent is population density related to a community college's level of internationalization?
- 2) To what extent is primary industry related to a community college's level of internationalization?
- 3) To what extent is student demographic diversity (as to ethnicity) related to a community college's level of internationalization?

To address possible relationships amongst the environmental factors, the following question was posed:

What is the effect of the interaction of the three environmental variables of primary industry, student demographic diversity, and setting?

The results of the analysis to answer the research questions indicate that some environmental factors may be related to a community college's internationalization level. The findings from this study regarding a possible relationship between a community college's setting and its internationalization level confirmed Harder's (2010) finding that rural community colleges usually have lower levels of internationalization than do urban community colleges. The findings indicated that there was not a consistent strong relationship between an Oregon or Washington

community college's internationalization level (as measured by this research) and the environmental factor of student demographic diversity. Finally, the findings from the present study yielded evidence of an association between a specific type of primary industry (services) in a Washington community college's service area and the college's level of internationalization. When considered as a whole, the research from this study showed that, when the three environmental factors were considered separately, the setting of the college (as in urban versus rural) tended to have the strongest influence on the level of internationalization at an Oregon or Washington community college. When the interaction of environmental variables was considered, the strongest predictor variable of a higher internationalization score in Washington colleges was services as the primary industry in the college's service area.

**Limitations of the study.** The present study examined possible relationships between various environmental factors and a community college's level of internationalization. The term "internationalization" is an evolving one and the respondents to the survey (which provided most of this study's data) may have had various interpretations of that term when responding to the survey. Similarly, the environmental factors could have been defined differently and may not have been completely precise. For example, an area's primary industry may only employ 40% of the available workforce and the remaining 60% may be employed in three other industries. Regarding setting designation, many areas of the Pacific Northwest do not clearly fall into an "urban" or "rural" designation but have population sizes somewhere between those two designations. Finally, the student demographic data did not distinguish among international students, students who are first-generation

Americans, and those students who are several generations removed from immigrant status. Future research could make those distinctions in exploring environmental influences.

**Practical implications of the research.** The results of the present study can be used to suggest other factors in the institutional environment that could be researched regarding their influence on an institution's internationalization effort, such as limited human and financial resources or other priorities. The results can also be used by top administrators at Oregon and Washington community colleges (a) for comparison of their institutions to others in the region regarding internationalization efforts and (b) to increase their awareness of environmental factors that may influence the internationalization efforts at their institutions. Given that rural community colleges in Oregon and Washington were more likely to have lower internationalization scores, administrators at rural institutions focused on achieving greater internationalization might seek to pool their more limited resources in collaborative efforts. Rural college administrators might also wish to connect with urban institutions to learn about low-cost ways in which internationalization efforts can be furthered.

**Future areas for research.** There are many possible areas for research regarding the interplay of internationalization levels and factors in the environment. These include (a) the exploration of several other environmental factors (i.e., international experience of the president, college size) and their possible relationship with a community college's level of internationalization; (b) a similar study, but one focused on four-year public institutions in the Pacific Northwest, (c) a similar study

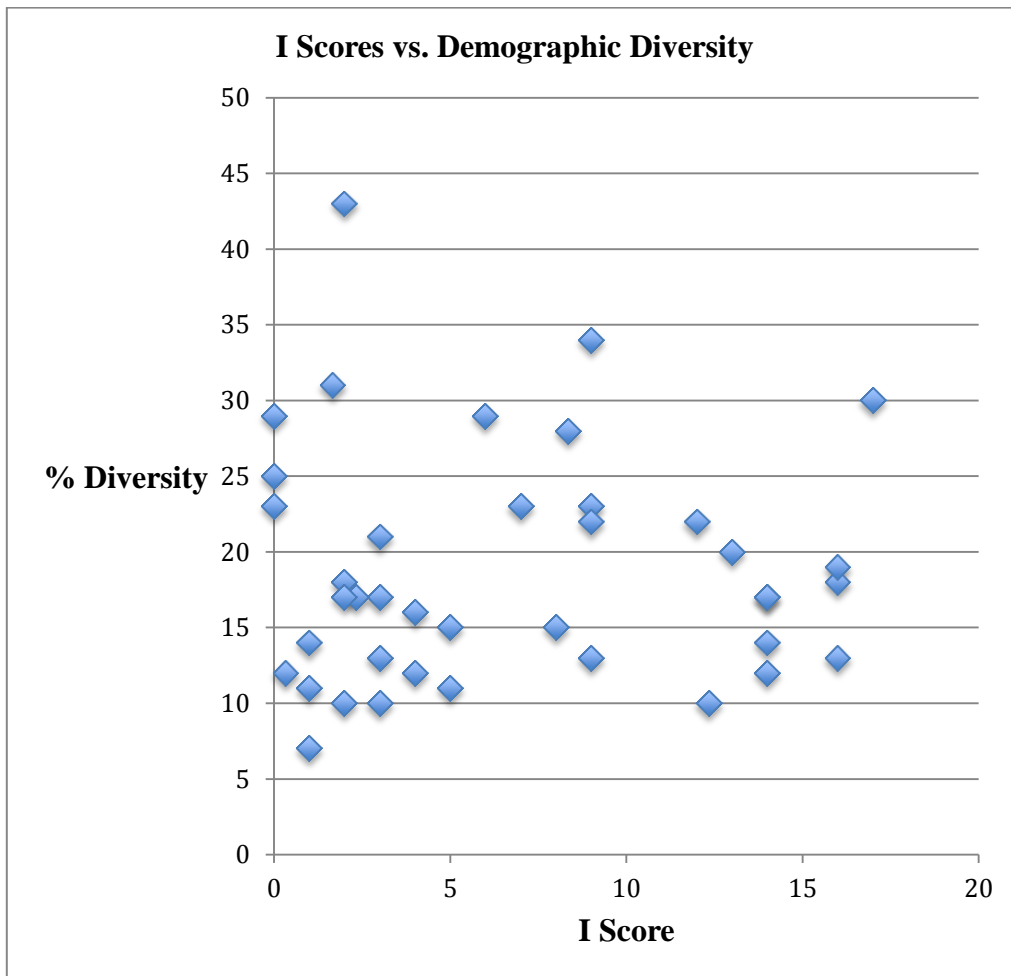
focused on another region in the U.S. In addition to these quantitative studies, qualitative studies may provide needed clarification. For example, case studies could be conducted on the attitudes and perspectives of Washington leaders of service-related organizations regarding international trade and/or global competence, since this study identified that the interaction of services and Washington influenced college internationalization scores. One might also conduct case studies of those institutions with high internationalization scores to determine what administrators, faculty, staff, and employers might view as the rationale for the international focus. A third possibility is a group of case studies to explore administrator attitudes and perspectives regarding the need for and importance of internationalization for their institutions in rural institutions with low internationalization scores.



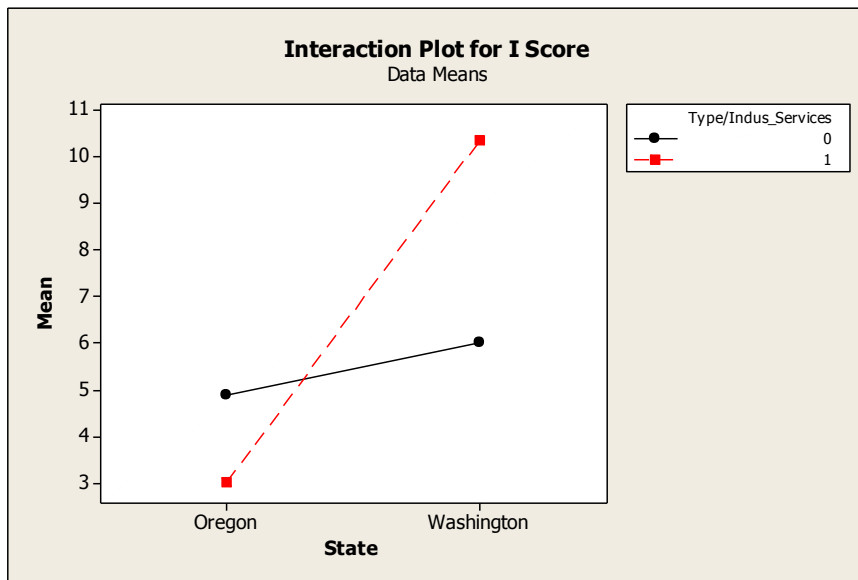
## References

- Capra, F. (1996). *The web of life: A new scientific understanding of living systems*. New York, NY: Anchor Books.
- Carnegie Foundation for the Advancement of Teaching. (2010). *The Carnegie classification of institutions of higher learning*. Retrieved from <http://classifications.carnegiefoundation.org/>
- Creswell, J. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4<sup>th</sup> ed.). Boston, MA: Pearson Publishing.
- de Wit, H. (2002). *Internationalization of higher education in the United States of America and Europe: A historical, comparative, and conceptual analysis*. Westport, CT: Greenwood Press.
- Green, M., & Siaya, L. (2005). *Measuring internationalization at U.S. community colleges*. Washington, DC: American Council on Education.
- Harder, N. (2010). Internationalization efforts in United States community colleges: A comparative analysis of urban, suburban, and rural institutions. *Community College Journal of Research and Practice*, 35 (1-2), 152-164.
- Heppner, P., Wampold, B., & Kivighan, Jr., D. (2008). *Research design in counseling* (3<sup>rd</sup> ed.). Belmont, CA: Thomson Brooks/Cole.
- Hudzik, J. (2011). *Comprehensive internationalization: From concept to action*. Washington, DC: NAFSA: National Association of Foreign Student Advisors.
- Institute for International Education (2011). *Open doors 2011: Report on International Educational Exchange*. Washington, DC: U.S. Department of Education Bureau of Educational and Cultural Affairs.
- Levin, J. (2001). *Globalizing the community college: Strategies for changes in the twenty-first century*. New York, NY: Palgrave.
- New America Foundation. (2011). *Federal education budget project*. Retrieved from [febp.newamerica.net/](http://febp.newamerica.net/)
- Panel on Global Engagement. (2011). *Strength through global leadership and engagement: US higher education in the 21<sup>st</sup> century*. Washington, DC: American Council on Education.

- Portland Business Alliance. (2010). *International trade summary*. Retrieved from [http://www.portlandalliance.com/public\\_policy/reports\\_studies.html](http://www.portlandalliance.com/public_policy/reports_studies.html)
- Siaya, L., & Hayward, F. (2003). *Mapping internationalization on U.S. campuses*. Washington, DC: American Council on Education.
- Turner, Y. (2008). *Internationalizing the university*. New York, NY: Continuum International.
- U.S. Census Bureau. (2013). *Quick facts*. Retrieved from <http://www.immigrationpolicy.org/just-facts/new-americans-oregon>
- Washington Department of Commerce. (2011). The quick rundown. *Commerce Quarterly Trade Bulletin 2011*, 2(4). Retrieved from [www.chosewashington.com/Pages/CommerceQuarterlyTradeBulletin.aspx](http://www.chosewashington.com/Pages/CommerceQuarterlyTradeBulletin.aspx)
- WSU Social and Economic Services Research Center. (2007). *Washington state college enrollment study*. Olympia, WA: Office of the State Superintendent of Public Instruction.



*Figure 4.1:* Percent Demographic Diversity versus Internationalization Score



*Figure 4.2.* Comparison of Mean Internationalization Scores - colleges with services as the primary industry versus colleges with other primary industries. Dashed line = colleges with services as primary industry. Solid line = colleges with other categories as primary industry.

Table 4.1

*Environmental Factors-Research Summary*

Environmental Factor	Findings
Primary Industry	The primary industry of each college's service area fell into one of four major categories: agriculture, manufacturing, services, and government.
Population Density classified	Two Oregon community colleges were located in population areas that are as "urban" according to the U.S. Census Bureau. Sixteen Washington community colleges were located in such areas.
Student Demographics	The level of student ethnic diversity in Oregon and Washington community colleges varied between 7 and 43%.

Table 4.2

*Primary Industry Categorization*

Industry Category	Primary Industry
Agriculture	Agriculture Food processing
Manufacturing	Manufacturing Wood products Aerospace
Government	Government services Health care services Education services
Trade	Retail services Port services Financial services, banking

Table 4.3

*Internationalization Scores and Settings*

Internationalization Score Range	Urban	Rural
0-5	2	19
6-10	7	1
11-17	6	5

Table 4.4

*Internationalization Scores and Primary Industry*

	Agriculture	Government	Manufacturing	Services
Internationalization Score Range				
0-5	4	3	4	9
6-10	1	1	2	5
11-17	0	2	3	6



Table 4.5

*Model 1: With Indicator for Each Industry Type*

Term	Coeff (Effect Size)	P Value	95% Confidence Interval
Constant	9.78400	0.096	(-1.8541, 21.4221)
Diverse	-0.04090	0.856	(-0.4975, 0.4157)
State (Wash.)	-0.93647	0.727	(-6.3679, 4.4950)
Setting (Rural)	-3.13678	0.571	(-14.3153, 8.0437)
Industry (Services)	-3.07360	0.320	(-9.2822, 3.1350)
Industry (Govt)	1.79044	0.540	(-4.1064, 7.6873)
Industry (Manufac.)	0.98278	0.751	(-5.2782, 7.2438)
Service*Wash.	7.72637	0.027	(0.9168, 14.5360)
Diverse*Rural	-0.11179	0.661	(-0.6264, 0.4028)

Table 4.6

*Model 2: Not Including Indicator Variable for Every Indicator Type*

Term	Coeff (Effect Size)	P-Value	95% Confidence Interval
Constant	10.661	0.055	(-0.251, 21.572)
Diverse	-0.046	0.834	(-0.487, 0.396)
State (Wash.)	-0.579	0.811	(-5.457, 4.299)
Setting (Rural)	-3.063	0.569	(-13.906, 7.780)
Industry (Service)	-3.882	0.140	(-9.110, 1.345)
Service*Wash.	7.388	0.022	(1.110, 13.666)
Diverse* Rural	-0.119	0.626	(-0.608, 0.371)

Table 4.7

*Model 3: Indicator for Service; Interaction between Service and Washington*

Term	Coeff (Effect Size)	P-Value	95% Confidence Level
Constant	12.693	0.0001	(5.8054, 19.580)
Diverse	-0.136	0.242	(-0.3684, 0.096)
State (Wash.)	-0.628	0.792	(-5.441, 4.185)
Setting (Rural)	-5.559	0.002	(-8.881, -2.236)
Industry (Service)	-3.857	0.138	(-9.019, 1.305)
Service*Wash.	7.427	0.020	(1.229, 13.626)

## Chapter Five - General Conclusion

The purpose of this study was to examine administrative behaviors in Oregon and Washington community colleges relative to internationalization. These colleges were chosen because of the significant impact of international trade and increased student diversity on their region's economies, societies, and educational systems. It was anticipated that the research will contribute to a larger picture of the changes that U.S. community colleges have experienced in recent history due to global forces and suggest how they might continue to evolve in the near future in response to those forces.

The first research question for this study was:

- 1) To what extent do administrative actions and behaviors within community colleges reflect increasing attention to issues in internationalization?

This question was addressed by examining two organizational dimensions of Oregon and Washington community colleges to determine levels of an international orientation (referred to as internationalization): administrative leadership behaviors and student support services.

The second research question for this study was:

- 2) To what extent are certain environmental factors related to a community college's level of internationalization?

Harder (2010) has suggested that the population density of the geographic location of the college (urban versus non-urban) has a significant influence on a college's level of internationalization. The present research focused on Oregon and Washington community colleges to confirm or disprove whether a relationship existed between

internationalization and (a) the population density of the college's service area, (b) the primary industry in the college's service area, and (c) the level of diversity in its student population.

### **Data Collection and Analysis**

The current study collected data through archival research and through a survey questionnaire distributed in Summer 2013 to three administrators at each of the Oregon and Washington community colleges. Data analysis consisted of determinations of frequency and percentage distributions regarding the survey responses (comprising, with the archival data, total internationalization scores) and the use of descriptive statistics regarding the relation of the three independent variables to the dependent variable (internationalization score).

### **Findings**

Results from the present study indicated that the internationalization level at most Oregon and Washington community colleges is low. The median score for Washington colleges was higher than for Oregon colleges, and a high number of colleges classified as "rural" had low internationalization scores. The examination of three environmental factors relative to the internationalization scores suggested (a) a relationship between the setting and the score (confirming Harder's [2010] work) and (b) a relationship between the type of primary industry in the college's service area and the college's internationalization score.

**Implications for Practice**

The results of this study indicate that, although the concept of internationalization has received national attention for several years as a means of better preparing students to be globally competent, the level of internationalization at Oregon and Washington community colleges is generally low. The results further suggest that institutional commitment to internationalization, for whatever reasons, is generally low or absent. Administrators in Oregon and Washington community colleges could compare these findings with data regarding the impact of international trade and increased flow of people and information on their service areas. With such an analysis, they might consider a review and revision of policies and student services to better meet a core value in higher education today: student success.

In an era of flat or diminishing financial resources, colleges committed to internationalization efforts might seek creative solutions for their internationalization efforts through (a) collaboration with other colleges and international companies with local sites, both of whom would have a stake in student global competence, or (b) the use of technology. Technological developments have resulted in the increased flow of information across borders; they can also be used to help develop the global competence needed by today's students.

**Implications for Future Research**

This study examined the state of internationalization in Oregon and Washington community colleges; it did not explore the causes of that state. The investigation of why the current state of internationalization exists in these colleges is a rich topic for future qualitative and quantitative research studies. An area for future

research is the possible influence of environmental factors on internationalization efforts. Statistical analysis of the data from this study indicated that the presence or absence of services as the primary industry in a college's service area had a significant bearing on the college's internationalization score. Future research might explore why this relationship exists. Research could be conducted on variety of additional environmental factors, such as the internationalization experience of top administrators, or the presence or absence of a relationship between a community college and a nearby university or four-year college and the community college's internationalization efforts. The current study found that the services available to international and study abroad students at Washington community colleges were usually more extensive and frequent than at Oregon community colleges. It should be noted that many Washington community colleges are located in proximity to large four-year institutions.

The present study did not explore why colleges choose to internationalize or why they have not done so. Quantitative or qualitative research could be conducted on this topic. Some colleges might see their internationalization role as part of a longer, broader strategy in partnership with a four-year institution. A few rural colleges had high internationalization scores relative to other rural colleges. An intriguing area for research is whether these colleges see their internationalization efforts as important to their roles as leaders in their communities.

Future research could also explore more extensively the nature of a college's internationalization effort, i.e., whether the effort is largely student-focused or also involves the more indirect functions of the institution. Research in this area could also

explore what Oregon and Washington community colleges might be doing to educate businesses in their communities about the importance of developing global competencies in their workers. For example, research could explore whether college community education courses are offered on this topic.

Another topic for future research is determining the barriers to internationalization so that these barriers can, when possible, be overcome. Research could be conducted, for example, on current priorities and constraints of Oregon and Washington community colleges relative to internationalization. Colleges with low internationalization scores may have found internationalization to be prohibitive financially (i.e., the cost of a J-1 visa program to attract international students, personnel costs to serve them). Should cost/financing be one of those barriers, Harder (2010) has described a number of low or no-cost methods for promoting internationalization efforts at community colleges, including partnering with other institutions. If one barrier to internationalization is competition with other priorities, an awareness of the impact of international trade on the Pacific Northwest, as outlined in this study, might help to raise the importance of student global competence to a priority level for administrators and funding sources, particularly with the current emphasis on student success.

Other research studies could document many other factors that could influence the internationalization process. What is needed is more research regarding specific geographic areas or types and institutions as well as individual case studies. In considering the future of internationalization in community colleges as a response to global forces, the words of Capra (1996), when discussing systems theory and



bifurcation points, seems appropriate. He noted that structures “may either break down or break through to one of several new states of order. What exactly happens at this critical point depends on the system’s previous history” (p. 191).

## References

- Capra, F. (1996). *The web of life: A new scientific understanding of living systems*. New York, NY: Anchor Books.
- Harder, N. (2010). Internationalization efforts in United States community colleges: A comparative analysis of urban, suburban, and rural institutions. *Community College Journal of Research and Practice*, 35(1-2), 152-164.

## Bibliography

- AAC & U State Relations and Policy Analysis Research Team. (2010). *Top 10 higher education state policy issues for 2010*. Washington, DC: Association of American Colleges and Universities.
- American Association of Community Colleges and Association of Community College Trustees. (2000). *The knowledge net: A report of the New Expeditions Initiative*. Washington, DC: Author.
- American Association of Community Colleges. (2012). *Reclaiming the American dream: A report from the 21<sup>st</sup> Century Commission on the Future of American Community Colleges*. Washington, DC: Author.
- American Association of Community Colleges. (2013). *Who we are*. Retrieved from <http://www.aacc.nche.edu/About/Who/Pages/default.aspx>
- American Council on Education. (1995). *Educating Americans for a world in flux: Ten ground rules for internationalizing higher education*. Washington, DC: Author.
- American Council on International Intercultural Education. (1994). Building the global community: The next step. *Conference Proceedings*. Retrieved from <http://www.stanleyfoundation.org/publications/archive/CCI.pdf>
- Bevis, T., & Lucas, C. (2007). *International students in American colleges and universities: A history*. New York, NY: Palgrave MacMillan.
- Boote, D. N., & Beile, P. (2005, August/September). Scholars before researchers: On the centrality of the dissertation literature review in research preparation. *Educational Researcher*, 34(6), 3-15.
- Brint, S. G., & Karabel, J. (1989). *The diverted dream: Community colleges and the promise of educational opportunity in America 1900-1985*. New York, NY: Oxford University Press.
- Capra, F. (1996). *The web of life: A new scientific understanding of living systems*. New York, NY: Anchor Books.
- Carnegie Foundation for the Advancement of Teaching. (2010). The Carnegie classification of institutions of higher learning. Retrieved from <http://classifications.carnegiefoundation.org/>

- Center for Internationalization and Global Engagement. (2012). *Mapping internationalization on U.S. campuses: 2012 edition*. Washington, DC: American Council on Education. Retrieved from <http://www.higher-ed.org/HEUS/Bibliog/A.htm>
- Cohen, A.M., & Brawer, F.G. (2003). *The American community college* (4<sup>th</sup> ed.). San Francisco, CA: Jossey-Bass.
- Community Colleges for International Development, Inc. (2012). *CCID system for comprehensive internationalization*. Retrieved from [https://programs.ccid.cc/cci/.../CCID-SCIdoc-10-29-2012-150dpi\\_0.pdf](https://programs.ccid.cc/cci/.../CCID-SCIdoc-10-29-2012-150dpi_0.pdf)
- Cornwall, G., & Stoddard, E. (1999). *Globalizing knowledge: Connecting international and intercultural studies*. Washington, DC: Association of American Colleges and Universities.
- Creswell, J. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4<sup>th</sup> ed.). Boston, MA: Pearson.
- Deardorff, D. (2004). In search of intercultural competence. *International Educator*, 13(3), 13-17. Retrieved from [www.highbeam.com/doc/1P3-772375861.html](http://www.highbeam.com/doc/1P3-772375861.html)
- Denzin, N. K., & Lincoln, Y. S. (2000). *Handbook of qualitative research* (2nd ed.). Thousand Oaks, CA: Sage.
- de Wit, H. (2002). *Internationalization of higher education in the United States of America and Europe: A historical, comparative, and conceptual analysis*. Westport, CT: Greenwood Press.
- de Wit, H. (2014). The different faces and phases of internationalization of higher education. In The forefront of international higher education: A festschrift in honor of Philip G. Altbach [Special issue], *Higher Education Dynamics*, 42, 95-105.
- Dillman, D. (1991). The design and administration of mail surveys. *Annual Review of Sociology*, 17, 225-249.
- Dillman, D. (2000). *Mail and internet surveys: The tailored design method* (2<sup>nd</sup> ed.). New York, NY: Wiley.
- Dillman, D., Smyth, J., & Christian, L. (2000). *Internet, mail, and mixed-mode surveys: The tailored design method*. New York: Wiley.

- Fields, D. (2010). *Faculty internationalization: Experiences, attitudes, and perceptions of full-time academics across Vermont* (Doctoral dissertation). Retrieved from <http://hdl.handle.net/2345/1733>.
- Fischer, F. (1998). Policy inquiry in postpositivist perspective. *Policy Studies Journal*, 26 (1), 129-146.
- Fischer, K. (2007). 'Flat world' lessons for real-world students. *Chronicle of Higher Education*, 54(10), 45.
- Geisenger, K. (Ed. in Chief), & Bracken, B., Carlson, J., Hansen, J., Kuncel, N., Reise, S., & Rodriguez, M. (Eds.). (2013). *APA handbook of testing and assessment in psychology* (Vols. 1-3). Washington, DC: American Psychological Association.
- Green, M., & Siaya, L. (2005). *Measuring internationalization at U.S. community colleges*. Washington, DC: American Council on Education.
- Harder, N. (2010). Internationalization efforts in United States community colleges: A comparative analysis of urban, suburban, and rural institutions. *Community College Journal of Research and Practice*, 35 (1-2), 152-164. doi:10.1080/10668926.2011.525186
- Hart Research Associates. (2010). *Raising the bar: Employers' views on college learning in the wake of the economic downturn*. Washington, DC: Author.
- Hayward, F. (2000). *Internationalization of higher education: Preliminary status report*. Washington, DC: American Council on Education.
- Heppner, P., Wampold, B., & Kivighan, Jr., D. (2008). *Research design in counseling* (3<sup>rd</sup> ed.). Belmont, CA: Thomson Brooks/Cole.
- Hudzik, J. (2011). *Comprehensive internationalization: From concept to action*. Washington, DC: NAFSA: National Association of Foreign Student Advisors.
- Institute for International Education. (2012). *Open doors 2012: Report on International Educational Exchange*. Washington, DC: U.S. Department of Education Bureau of Educational and Cultural Affairs.
- Institute for International Education. (2013). *Open doors 2013: Report on International Educational Exchange*. Washington, DC: U.S. Department of Education Bureau of Educational and Cultural Affairs.

- Instructional Assessment Resources. (2011). Conduct research: Analyzing survey data. <http://www.utexas.edu/academic/ctl/assessment/iar/research/report/survey-analyze.php>
- International Commission on Education for the 21<sup>st</sup> Century. (1996). *Learning: The treasure within*. Paris, France: United Nations Educational, Scientific and Cultural Organization. Retrieved from [http://www.unesco.org/education/pdf/15\\_62.pdf](http://www.unesco.org/education/pdf/15_62.pdf)
- Jaschik, S. (2013). Outlook for community colleges. *Inside Higher Education*. Retrieved from <http://www.insidehighered.com/news/2013/11/08/survey-finds-mixed-outlook-community-colleges>
- Joint Boards of Education. (2009). *General education outcomes and criteria draft statements*. Retrieved from [www.ode.state.or.us/.../2009-jan-7-jt-bd-general-education-outcomes-criteria](http://www.ode.state.or.us/.../2009-jan-7-jt-bd-general-education-outcomes-criteria)
- Kedia, B. L., & Daniel, S. (2003, January). *U.S. business needs for employees with international expertise*. Paper presented at the Needs for Global Challenges Conference, Duke University, Chapel Hill, NC. Retrieved from [http://www.ducis.jhfc.duke.edu/archives/globalchallenges/pdf/kedia\\_daniel.pdf](http://www.ducis.jhfc.duke.edu/archives/globalchallenges/pdf/kedia_daniel.pdf)
- Knight, J. (1999). Internationalization of higher education. In J. Knight & H. de Wit (Eds.), *Quality and internationalization in higher education* (pp. 13-28). Paris, France: OECD.
- Knight, J. (2014). *Is internationalization of higher education having an identity crisis?* In The forefront of international higher education: A festschrift in honor of Philip G. Altbach, [Special issue]. *Higher Education Dynamics*, 42, 95-105.
- Knight, J. & de Wit, H. (1995). Strategies for internationalization of higher education: Historical and comparative perspectives. In H. de Wit (Ed.), *Strategies for internationalization of higher education: A comparative study of Australia, Canada, Europe, and the United States of America*. Amsterdam, the Netherlands: European Association for International Education.
- Koworski, I. (2010). Colleges help student to translate the benefits of study abroad. Retrieved from [www.chronicle.com/article/Colleges-Help-Students-to/123653/](http://www.chronicle.com/article/Colleges-Help-Students-to/123653/)
- Levin, J. (1999). *Mission and structure: The community college in a global context*. Tucson, AZ: Center for the Study of Higher Education, The University of Arizona.
- Levin, J. (2001). *Globalizing the community college: Strategies for changes in the twenty-first century*. New York, NY: Palgrave.

- Lewin, T. (2012). Taking more seats on campus, foreigners also pay the freight. *The New York Times*. Retrieved from <http://www.nytimes.com/2012/02/05/education/international-students>
- Lindner, J. R., Dooley, K. E., & Wingenbach, G. J. (2003). A cross-national study of agricultural and extension education competencies. *Journal of International Agricultural and Extension Education*, 10(1), 51-59. Retrieved from [http://www.aiaee.org/attachments/226\\_Lindner-Vol-10.1-7.pdf](http://www.aiaee.org/attachments/226_Lindner-Vol-10.1-7.pdf)
- Lowry, R. (1998). *VassarStats: Website for statistical computation*. Retrieved from <http://vassarstats.net>
- Marion, R. (2004). *The whole art of deduction: Research skills for new scientists*. Retrieved from [http://www.sahs.utmb.edu/pellinore/intro\\_to\\_research/wad/wad\\_home.htm#contents](http://www.sahs.utmb.edu/pellinore/intro_to_research/wad/wad_home.htm#contents)
- McGill-Peterson, P., & Helms, R. (2013). Internationalization revisited. *Change*, 45(2), 28-32.
- NAFSA: Association of International Educators. (2011). *NAFSA's contribution to internationalization of higher education*. Retrieved from [http://www.nafsa.org/\\_/File/\\_/2011\\_izn\\_contributions.pdf](http://www.nafsa.org/_/File/_/2011_izn_contributions.pdf)
- National Leadership Council. (2008). *College learning for the new global century*. Retrieved from [www.aacu.org/leap/documents/GlobalCentury\\_final.pdf](http://www.aacu.org/leap/documents/GlobalCentury_final.pdf)
- Neuman, W.L. (2003). *Social research methods: Qualitative and quantitative approaches* (5th ed.). Boston, MA: Allyn and Bacon.
- New America Foundation. (2011). Federal education budget project. Retrieved from [febp.newamerica.net/](http://febp.newamerica.net/)
- Office of Institutional Research. (2010). *OUS fact book*. Eugene, OR: Oregon University System. Retrieved from [www.ous.edu/factreport/factbook/2010](http://www.ous.edu/factreport/factbook/2010)
- Olson, C., Green, M., & Hill, B. (2005). *Building a strategic framework for internationalization*. Washington, DC: American Council on Education.
- Olson, C., Green, M., & Hill, B. (2006). *A handbook for advancing comprehensive internationalization: What institutions can do and what students should learn*. Washington, DC: American Council on Education.

- Panel on Global Engagement. (2011). *Strength through global leadership and engagement: US higher education in the 21<sup>st</sup> century*. Washington, DC: American Council on Education.
- Portland Business Alliance. (2010). *International trade summary*. Retrieved from [http://www.portlandalliance.com/public\\_policy/reports\\_studies.html](http://www.portlandalliance.com/public_policy/reports_studies.html)
- Raby, R. (1996). International, intercultural, and multicultural dimensions of community colleges in the United States. In R. Raby & N. Tarrow (Eds.), *Dimensions of the community college*, (pp. 9-36). Washington, DC: Garland Studies in Higher Education.
- Sanders, K. (2009). *The relationship of selected academic factors to the persistence of general academic development (GED) recipients enrolled in community colleges: An Oregon study*. (Doctoral dissertation). Retrieved from [www.osulibrary.oregonstate.edu/](http://www.osulibrary.oregonstate.edu/)
- Schutt, R. (2006). *Investigating the social world* (5<sup>th</sup> ed.). Thousand Oaks, CA: Sage.
- Scott, C. (1961). Research on mail surveys. *Journal of the Royal Statistical Society, Series A (General)*, 124(2), 143-205.
- Siaya, L., & Hayward, F. (2003). *Mapping internationalization on U.S. campuses*. Washington, DC: American Council on Education.
- Sills, J., & Song, C. (2002). Innovations in survey research: An application of Web-based surveys. *Social Science Computer Review*, 20(1), 22-30.
- Study Washington. (2008). *Study Washington takes road trip to DC*. Retrieved from <http://www.studywashington.org/news.php>
- Trochim, W. M. (2006). *Positivism and post-positivism*. Retrieved from <http://www.socialresearchmethods.net/kb/positvsm.htm>
- Turner, Y. (2008). *Internationalizing the university*. New York, NY: Continuum International.
- U.S. Census Bureau. (2000). *Foreign-born population by citizenship status for the United States regions, states, and for Puerto Rico: 1990 and 2000*. Washington, DC: Author.
- U.S. Census Bureau. (2013). *Quick facts*. Retrieved from <http://www.immigrationpolicy.org/just-facts/new-americans-oregon>



- Vande Berg, M. (2003). *Study and learning abroad: Integration with the support for internationalizing curriculum and learning*. Retrieved from <http://ducis.jhfc.duke.edu/archives/globalchallenges/pdf/vandeberg-rapp.pdf>
- Washington Department of Commerce. (2011). The quick rundown. *Commerce Quarterly Trade Bulletin*, 2(4). Retrieved from [www.chosewashington.com/Pages/CommerceQuarterlyTradeBulletin.aspx](http://www.chosewashington.com/Pages/CommerceQuarterlyTradeBulletin.aspx)
- Washington State Board for Community and Technical Colleges. (2009). Student data introduction: Academic year 2004-05 to 2008-09. Retrieved from [www.sbctc.ctc.edu/college/it/2008-09ayr/3enroll0809.pdf](http://www.sbctc.ctc.edu/college/it/2008-09ayr/3enroll0809.pdf)
- WSU Social and Economic Services Research Center. (2007). *Washington state college enrollment study*. Olympia, WA: Office of the State Superintendent of Public Instruction.
- Zolfaghari, A., Sabran, M., & Zolfaghari, A. (2009). Internationalization of higher education: Challenges, strategies, policies and programs. *US-China Education Review*, 6(5), 1-9.

## APPENDICES

## Appendix A: The Epistemology of the Researcher

This appendix describes this author's worldview and personal philosophy as well as the chosen approach for the study and the rationale for that choice. The section also discusses the differences between positivism and post-positivism as they relate to the purpose of this study.

It is important for scholars to acknowledge their personal philosophies and biases when conducting scholarly work. After considering the goals of this research, this researcher has chosen to use a post-positivist approach in collecting, examining, and analyzing the research for this study. This approach was chosen because it seems most appropriate for achieving the objectives of the study. The post-positivist approach also closely reflects the author's personal philosophy. To paraphrase Neuman (2003), this researcher believes that a reality exists "out there" and is waiting to be discovered, but it is not fixed, rather it is constantly changing. This researcher believes that we cannot ever know objective reality; it is too complex for a group of individuals, much less one individual, to see the world as it truly is. This researcher also believes (a) there are patterns that can be learned by an examination of data; (b) this information can be used for prediction purposes; and (c) individuals and organizations can act in generally rational ways and in response to external forces. All of these beliefs fit within the post-positivist framework.

While this researcher honors the value of qualitative research in that it explores a subject or topic, this researcher's personal orientation is to be able to analyze discrete data and develop an explanation for the patterns that emerge, or use the data

to assist in making predictions; such explanations and predictions can advance knowledge. This researcher prefers research that can help to inform decision makers and policy makers through quantitative research and the critical analysis and review of results. It is this researcher's belief that, in the social sciences, research results from analysis of past behaviors and activities cannot predict, but only suggest, future patterns. Social behaviors take place within an environment that is influenced by a number of factors, including norms, circumstances, and values. These factors in turn may experience changes over time. Therefore, research results from past events can provide only one source of information in determining what may occur in the future.

This research topic was chosen because of this researcher's personal experience and interest in it. Much of this researcher's career has been involved with various aspects of international education, through direct work experience and two graduate degrees that have focused directly or indirectly on international education. For the last five years, this researcher has been involved in the efforts at the researcher's college to introduce internationalization into various aspects of the college's operations; these efforts include assistance in drafting a college strategic plan for internationalization.

## References

- Neuman, W.L. (2003). *Social research methods: Qualitative and quantitative approaches* (5th ed.). Boston, MA: Allyn and Bacon.

## Appendix B: Choice of Research Approach

This author chose to use a post-positivist approach for this study. It is important to draw a distinction between positivism and post-positivism and the implications for the research to be done for this study. Positivists believe in causal laws – that there is a high probability that large groups will respond in a certain way, given a certain situation. This probability is derived from an examination of a large amount of data and the resulting analysis. Given the methodology, another researcher can replicate or reproduce the study. Positivists also see reality as fixed and following general laws. These natural laws, embedded in this fixed reality, will reveal themselves. The researcher thus acquires knowledge of these laws through experimental manipulation and observation. Further, it is necessary, in order to discover these laws, for researchers to work for complete objectivity and control of personal biases. Positivists maintain that the use of manipulative research methods and techniques makes objective research possible, although difficult to achieve (Denzin & Lincoln, 2000; Neuman, 2003).

A signal feature of positivism is quantitative data collection and its measurement. As noted by Neuman (2003), “positivism sees social science as an organized method for combining deductive logic with precise empirical observations...” (p. 71). This method can be used “to discover and confirm a set of causal laws that can be used to predict general patterns of human behavior” (p. 71). Neuman also noted, “the ultimate purpose of research is scientific explanation” (p. 71); the information can thus be used to help determine cause and predict future events. For the purposes of this study, this author was more interested in examining

what has happened as to internationalization in Oregon community colleges, rather than exploring how it came about; the latter is a goal best pursued through qualitative research. Quantitative research methods thus are more appropriate methods for this present research.

There have been a number of case studies on internationalization in higher education. However, the case study approach does not lend itself to a detection of patterns and trends after the examination of observable facts, which is the goal of this study. A positivist approach also involves rational thinking, systematic observation, and objective analysis – characteristics that this researcher believes are appropriate for the examination of large amounts of data. The research questions this researcher has posed can be best answered by examining data from a number of sources and noting resulting trends. Thus, methods that are used in the positivist approach seem appropriate for this research study.

Summarily, this researcher finds many aspects of positivism to be appealing philosophically, and research methods used by positivists, such as quantitative data analysis, to be applicable to the study. However, as noted by Fischer (1998), the goal of knowledge accumulation in the positivist worldview is “to generate a body of empirical generalizations capable of explaining behavior across social and historical contexts...empirical research is to proceed independent of normative context or implications” (pp. 2-3). An objection this researcher has to positivism is that it does not recognize that there are theoretical presuppositions that form the context in which those generalizations occur. A primary presupposition is that knowledge can be objective, rather than an interpretation of what is observed or experienced. Another

presupposition is that empirical generalizations are objective and not influenced by the background of those who make the generalizations. These concepts are explained below.

Fischer (1998) noted, “beyond seeking to explain a ‘given’ reality, social science must also attempt to explain how social groups construct their own understandings of that reality” (p. 6). With this perspective in mind, this researcher believes that it is important to note the historical context in which positivism developed; it arose during a period of time following tremendous social and religious upheaval in Europe and the collapse of pillars of stability. During this subsequent period, Descartes and his followers sought alternative anchors of stability through the pursuit of truth through empirical experience, which was neutral and value-free. The resulting approach was positivism, which does not recognize the influence of context and social and political influences on the research process.

The post-positivist worldview more closely reflects the worldview of this researcher in part because of its broader perspective. Post-positivists believe that reality is not fixed, but constantly changing. In this sense, post-positivists reflect the worldview of Heraclitus, a pre-Socratic Greek philosopher who noted that one never steps twice into the same river. Post-positivists also believe that there is a reality independent of our thinking, but it cannot be fully understood or explained; it is not possible for one person to discover true reality, because it is so complex and it is influenced by so many factors. The job of researchers is to discover, as best they can, natural laws. However, the best that researchers can achieve, because of this complexity as well as their own biases and limitations and the fallibility of



measurement, is their own conclusions and perspectives. As noted by Fischer (1998), “time and time again, sociological research has documented the extent to which science is as much a socio-cultural activity as a technical enterprise” (p. 4). Given that, the challenge is to situate empirical methods “within the context of normative concerns that give their findings meaning” (Fischer, 1998, p. 2); this is what the post-positivist worldview attempts to do. Rather than trying to learn an absolute reality, post-positivists try to reach the best approximation of reality through an examination of multiple perspectives and agreement of the commonalities among those perspectives (Sanders, 2009). Knowledge results from the use of this approach. Although any study is biased by one’s own values, as noted by Trochim (2006), “the best way for us to improve the objectivity of what we do is to do it within the context of a broader contentious community of truth-seekers (including other scientists) who criticize each other’s work” (p. 1). It is in this spirit that this researcher conducted this study.

**Post-positivist research guidelines.** Schutt (2006) argued that post-positivists must follow certain guidelines in order for their research to be as objective as possible. This author will employ the following process outlined by Schutt. One of the guidelines Schutt described is that ideas must be tested against empirical reality; such efforts offset the effect of the researcher’s possible bias toward a particular outcome and create conditions for examining as many outcomes as possible. Another guideline is that all steps in the research should be documented and be available for public disclosure so that the research can be replicated and other researchers can examine the conclusions. Adherence to this guideline is critical, since post-positivism is centered

on the concept that the closest approximation of reality is reached through the conclusions derived through multiple perspectives on the research problem. This author examined the concept of internationalization in Oregon community colleges using quantitative data collection and analysis methods that were specifically detailed. All steps in this research study were documented and available for public disclosure so that the study can be replicated.

Schutt (2006) also argued for the importance of researchers to clarify and disclose their assumptions. By doing so, researchers assist those who evaluate the research conclusions by providing them with additional contextual information. This researcher's assumption was the following: research evidence discussed in Section Two of this study suggested that there is a relationship between the geographic location of community colleges and their level of internationalization. This author assumed that such a relationship may exist between the location of Oregon and Washington community colleges and their level of internationalization.

## References

- Denzin, N. K., & Lincoln, Y. S. (2000). *Handbook of qualitative research* (2nd ed.). Thousand Oaks, CA: Sage.
- Fischer, F. (1998). Policy inquiry in postpositivist perspective. *Policy Studies Journal*, 26 (1), 129-146.
- Neuman, W.L. (2003). *Social research methods: Qualitative and quantitative approaches* (5th ed.). Boston, MA: Allyn and Bacon.
- Sanders, K. (2009). *The relationship of selected academic factors to the persistence of general academic development (GED) recipients enrolled in community colleges: An Oregon study*. (Doctoral dissertation). Retrieved from [www.osulibrary.oregonstate.edu/](http://www.osulibrary.oregonstate.edu/)
- Schutt, R. (2006). *Investigating the social world* (5<sup>th</sup> ed.). Thousand Oaks, CA: Sage.
- Trochim, W. M. (2006). *Positivism and post-positivism*. Retrieved from <http://www.socialresearchmethods.net/kb/positvsm.htm>

### Appendix C: Survey Design Rationale

**Rationale for the design.** According to Creswell (2012), survey research designs are used to “describe the attitudes, opinions, behaviors, and characteristics of a population...you use survey research to describe trends...” (p. 376). The goal of this study was to describe, primarily through survey research, particular characteristics of Oregon and Washington community colleges with regard to internationalization.

The key characteristics of a survey design include sampling from a population, collecting data through questionnaires or interviews, designing instruments for data collection, and obtaining a high response rate. The population for this type of study was clearly defined, and the type of data to be collected was relatively specific and could be collected through questionnaires or interviews. Since the population was defined and the data to be collected were relatively specific, this study and its data collection methods will be replicable. Given the type and specific nature of the data, this author anticipated that, with the appropriate data collection method, a high response rate could be achieved. This was in fact, the case. Since the population is fairly limited, the entire population was surveyed, rather than a sampling of that population.

**Advantages of a survey design.** An advantage of this research design was that the data collection methods for this study are commonly used in research studies, and several previous studies exist that could be used as models. Data for survey research designs can also be collected from a relatively large population using a type of instrument (questionnaire) that is quite common and familiar to the intended audience. This researcher expected that the questionnaire for this survey research

design would require a short amount of time for the recipients to complete it, thus increasing the likelihood of a high percentage of completed questionnaires (Dillman, 1991). The analysis of the results from the questionnaire included descriptive statistics, such as measures of central tendencies and variability. Inferential statistical methods were also used for such comparisons as colleges with low versus high levels of student ethnic diversity.

**Disadvantages of a survey design.** Survey research examines trends; it cannot determine cause and effect. Because there was no manipulation of variables, causal relationships cannot be determined, although survey results can indicate trends and patterns and suggest relationships between variables. Another limitation of a survey design is the inability to ask in-depth and open-ended questions of respondents. So, for example, the survey could not ask about reasons for a certain pattern of results. However, this study's results could describe what has occurred in these colleges.

## References

- Creswell, J. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4<sup>th</sup> ed.). Boston, MA: Pearson.
- Dillman, D. (1991). The design and administration of mail surveys. *Annual Review of Sociology*, 17, 225-249.
- Dillman, D. (2000). *Mail and internet surveys: The tailored design method* (2<sup>nd</sup> ed.). New York, NY: Wiley.

#### Appendix D: Validity of Research Instrument

Creswell (2012) also noted that validity essentially means that the measurement tool measures what it is supposed to measure and described various types of validity, including internal, external, construct, and content validity. However, recently revised standards concerning testing and assessment provide a more comprehensive perspective on the meaning of validity (Geisinger, Bracken, Carlson, Hansen, Kuncel, Reise, & Rodriguez, 2013). The concept of validity is applied not just to the test or instrument itself, but also the consequences associated with it; in short, to the entire testing process. The new standards outline five sources of validity evidence: “(a) test content, (b) relations to other variables, (c) internal structure, (d) response processes, and (e) consequences of testing” (Geisinger et al, 2013, p. 65). Under the new standards, an argument for the validity of a test instrument is considered more compelling if multiple sources of evidence are presented.

This author argues that the present survey questionnaire met several of the above sources of evidence of validity. The survey questionnaire contained questions that are very similar to those used in a national survey on internationalization in U.S. colleges and universities that was sponsored by the American Council on Education (Siaya & Hayward, 2003). Additionally, the internationalization indicators about which respondents were queried have been described as valid indicators by several researchers (Hudzik, 2011; Levin, 2001; Siaya & Hayward, 2003). Several researchers, including Dillman, Smyth, and Christian (2000) have validated the survey research method used in the study.

## References

- Creswell, J. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4<sup>th</sup> ed.). Boston, MA: Pearson.
- Dillman, D. Smyth, J., & Christian, L. (2000). *Internet, mail, and mixed-mode surveys: The tailored design method*. New York, NY: Wiley.
- Geisenger, K. (Ed. in Chief), & Bracken, B., Carlson, J., Hansen, J., Kuncel, N., Reise, S., & Rodriguez, M. (Eds.). (2013). *APA handbook of testing and assessment in psychology* (Vols. 1-3). Washington, DC: American Psychological Association.
- Hudzik, J. (2011). *Comprehensive internationalization: From concept to action*. Washington, DC: NAFSA: National Association of Foreign Student Advisors.
- Levin, J. (2001). *Globalizing the community college: Strategies for changes in the twenty-first century*. New York, NY: Palgrave.
- Siaya, L., & Hayward, F. (2003). *Mapping internationalization on U.S. campuses*. Washington, DC: American Council on Education.



## Appendix E: Internationalization Survey

1) Does your institution's mission statement specifically refer to internationalization?

\_\_\_\_ Yes \_\_\_\_ No

2) Does your institution have a policy statement that articulates a goal and/or rationale for internationalization?

\_\_\_\_ Yes \_\_\_\_ No

3) Does your institution have a college-wide committee or task force whose primary focus is working to advance internationalization at the college?

\_\_\_\_ Yes \_\_\_\_ No

4) Do your student support services include the following services for international students:

a. Orientation programs

\_\_\_\_ Yes \_\_\_\_ No

If yes, are they offered: i. \_\_\_\_ irregularly ii. \_\_\_\_ regularly?

b. Cross-cultural training

\_\_\_\_ Yes \_\_\_\_ No

If yes, is it offered: i. \_\_\_\_ irregularly ii. \_\_\_\_ regularly?

c. Targeted counseling services?

\_\_\_\_ Yes \_\_\_\_ No

If yes, are they offered: i. \_\_\_\_ irregularly ii. \_\_\_\_ regularly?

5) Do your student support services include the following services for study abroad students:

a. Orientation programs

\_\_\_\_ Yes \_\_\_\_ No

If yes, is it offered: i. \_\_\_\_ irregularly ii. \_\_\_\_ regularly?

b. Cross-cultural training

\_\_\_\_ Yes \_\_\_\_ No

If yes, is it offered: i. \_\_\_\_ irregularly ii. \_\_\_\_ regularly?

c. Follow up or debriefing sessions

\_\_\_\_ Yes \_\_\_\_ No

If yes, are they offered: i. \_\_\_\_ irregularly ii. \_\_\_\_ regularly?

## Appendix F:

### Rationale - Choice of Dimensions

De Wit (2002) examined the historical development of internationalization in higher education and the rationales for its implementation. After considering various approaches to conceptualizing internationalization, he described it as a process that “integrates an international dimension or perspective into the major functions of the institution” (p. 118) – teaching, research, and service. De Wit saw activities carried out in the name of internationalization as falling into two main categories: (a) program strategies, which tend to focus on the development and implementation of specific programs, and (b) organizational strategies, which focus more on the governance, operations, support services, and human resource development of organizations. For the integration that de Wit (2002) described to take place and endure, organizational strategies to encourage internationalization must be in place in the governance, operations, support services, and human resource development of the institution; “internationalization needs to be entrenched into the culture, policy, planning, and organization processes of the institution so that it is not marginalized or treated as a passing fad” (p. 124). Hudzik (2011) echoed this perspective in describing stages of institutional internationalization.

Knight and de Wit (1995) detailed specific indicators in the four categories of organizational strategies (governance, operations, support services, and human resource development) that they contended lead to successful internationalization efforts. Within the category of governance, they listed the following four elements: (a) expressed commitment by senior leaders, (b) active involvement of faculty and

staff, (c) articulated rationale and goals for internationalization, and (d) recognition of an international dimension in the mission statement and other policy documents (p. 124). Within the category of support services, Knight and de Wit listed the following three indicators: (a) support from institution-wide service units (for example, student housing, registration, counseling, fundraising, etc.); (b) involvement of academic support units (for example, language training, curriculum development, library); and (c) services for international students studying on campus and domestic students going abroad (for example, orientation programs, counseling, cross-cultural training, student advisors, etc.).

Results from several studies have also suggested that specific organizational actions within the categories of governance and support services are indicators of internationalization (Green & Siaya, 2005; Hudzik, 2011; Siaya & Hayward, 2003). The importance of these categories is suggested in the way that ACE has defined internationalization – “a strategic, coordinated process that aligns and integrates international policies, programs, and indicators...” (McGill-Peterson & Helms, 2013, p. 28).

## References

- de Wit, H. (2002). *Internationalization of higher education in the United States of America and Europe: A historical, comparative, and conceptual analysis*. Westport, CT: Greenwood Press.
- Green, M., & Siaya, L. (2005). *Measuring internationalization at U.S. community colleges*. Washington, DC: American Council on Education
- Hudzik, J. (2011). *Comprehensive internationalization: From concept to action*. Washington, DC: NAFSA: National Association of Foreign Student Advisors.
- Knight, J., & de Wit, H. (1995). Strategies for internationalization of higher education: Historical and comparative perspectives. In H. de Wit (Ed.), *Strategies for internationalization of higher education: A comparative study of Australia, Canada, Europe, and the United States of America*. Amsterdam, the Netherlands: European Association for International Education.
- McGill-Peterson, P., & Helms, R. (2013). Internationalization revisited. *Change*, 45(2), 28-32.
- Siaya, L., & Hayward, F. (2003). *Mapping internationalization on U.S. campuses*. Washington, DC: American Council on Education.

